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ATMOSPHERIC PATTERN STUDIES FROM A SURFACE IMAGER DURING 2005 JANUARY AT INPE SOUTHERN REGIONAL CENTER, SÃO MARTINHO DA SERRA RS BRAZIL

Sylvio Luiz Mantelli Neto, Enio Bueno Pereira, José Celso Thomaz Júnior, Aldo von Wangenheim, Luís Gustavo Lorgus Decker, Leandro Coser

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"Humans are remarkably sensitive to the statistical regularities of their environment".

Steyvers, Griffiths and Dennis (2006, pag. 333).

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ESTUDO DOS PADRÕES ATMOSFÉRICOS A PARTIR DE UM IMAGEADOR NA SUPERFÍCIE DURANTE JANEIRO DE 2005, NO CENTRO REGIONAL SUL DO INPE EM SÃO MARTINHO DA SERRA RS BRASIL

RESUMO

Neste trabalho é descrita a análise de um conjunto de imagens de superfície para a estação de São Martinho da Serra RS Brasil. As imagens foram obtidas a partir de um imageador de nuvens e serão utilizadas para estabelecer um critério para definir o céu claro e a cobertura de nuvens para a validação de imagens de satélite. O método a ser utilizado é o BAYESIANO em duas fases: treinamento supervisionado e análise. O treinamento supervisionado será realizado utilizando ferramentas estatísticas e análise exploratória de dados ou AED. A análise será realizada através de prioridade hierarquica e discriminante estatístico multivariado. Desta maneira, os valores dos pixels presentes nas imagens serão mapeados em padrões atmosféricos. Somente os padrões definidos pela óptica e física atmosférica do espectro visível serão analisados. Dois outros métodos também foram implementados a título de comparação de dados. Adicionalmente foram obtidos dados de radiação solar global direta e difusa de uma estação BSRN co-alocada ao imageador de nuvens. A partir destes dados também foram calculadas as estimativas de cobertura de nuvens. Para reduzir a complexidade de lidar com um grande volume de dados, os relatórios de análise foram separados mensalmente. Este é o primeiro relatório e descreve com mais detalhes os métodos utilizados para tratar os dados nos relatórios subsequentes. Os dados referente ao mês de Janeiro de 2005, com a análise de 1659 imagens encontram-se nos anexos.

ABSTRACT

In this work it is described the analysis of a surface image set obtained at SÃ£o Martinho da Serra RS, Brazil. The images taken from a surface imager, will be used to establish a criteria to define clear sky and clouds for validation of satellite images. The method used for that purpose is the BAYESIAN in two steps: supervised learning and analysis. Supervised learning will be done by statistics tools and multivariate exploratory data analysis or EDA. Analysis is based on hierarchic priority and multivariate statistics discrimination. By this way, pixel values present on images will be mapped into atmospheric patterns. Only patterns identifiable in visible spectrum and defined by optical and atmospheric physics will be analyzed. Two other methods were also implemented to be compared with the presented method. Complementary to surface images it was obtained solar data of global direct and diffuse radiation from a co-allocated BSRN station. From these sensors it was calculated cloud coverage estimates from surface. To reduce the massive amount of data, they will be split in monthly reports. The current report describes the methods used to calculate data and describes the results relative to January of 2005 with 1659 images.

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LIST OF ABBREVIATIONS

BSRN	–	Baseline Surface Radiation Network
CCST	–	Earth Terrestrial Systems Center
CF	–	Cloud Force
CH	–	Celestial Hemisphere
$\cos\theta_z$	–	Cosine of zenith angle
DENS	–	difusion of non selective scattering
df	–	Diffuse fraction
dirH	–	Direct shortwave radiation horizontal
diff	–	Diffuse Shortwave Radiation horizontal
DRAY	–	difusion of rayleigh scattering
EDA	–	exploratory data analysis
EGD	–	Euclidean geometric distance
ENS	–	non selective scattering
glo	–	Global Shortwave Radiation horizontal
GT	–	Ground Truth a reference image
HSL	–	Hue, Saturation and Luminance color space
INPE	–	Brazilian Institute of Space Research
kt	–	Clearness index.
MIE	–	MIE scattering.
min	–	Minute of the day (UTC)
NC	–	non classified
op	–	Opacity
RGB	–	Red, Green and Blue color space
RAYL	–	Rayleigh scattering
SB	–	point of saturation of blue dimension on RGB color space
SEPY	–	yellow selective scattering
SEPR	–	red selective scattering
SG	–	point of saturation of green dimension on RGB color space
SO	–	Surface synoptic Observer
SMS	–	Sao Martinho da Serra station
SONDA	–	Braziliam National System for Environmental Data
SOS	–	Synoptic Observation System
SAT	–	point of full saturation during clear skyes
ST	–	point of full saturation during cloudy skyes
toa	–	Estimated top of atmosphere radiation
TSI	–	Total Sky Imager
WMO	–	World Meteorological Organization

LIST OF SYMBOLS

AND : logical operator.
α : is the level of confidence established for the evaluation test.
B : pixel blue dimension of RGB color space.
C_{KC} : KARSTEN and CZEPLAK cloud cover index.
diff : is the diffuse Radiation SW data.
D^2 : is the pixel's squared Mahalanobis distance from the GT (or population) pattern being classif
d : is the Sun-Earth distance.
df : is the diffuse fraction index.
e_r : standard error of GT red dimension.
e_g : standard error of GT green dimension.
e_b : standard error of GT blue dimension.
EGD : Euclidean Geometric Distance.
F : F-distribution.
G : pixel green dimension of RGB color space.
glo : is the Global Radiation SW data.
h : pixel hue dimension of of HSL color space.
kt : is the Clearness Index.
n_{ENS} : number of pixels of ENS GT pattern.
n_{RAYL} : number of pixels of RAYL GT pattern.
n : is the number of pixels and also the number of degrees of freedom used to determine the GT sampled population.
μ : is the average GT (or population) vector.
op : is the opacity index.
p : is the degrees of freedom correspondent to the number of color space dimensions (p = 3).
R : pixel red dimension of RGB color space.
s_r : standard deviation of red dimension
s_g : standard deviation of GT? green dimension.
s_b : standard deviation of GT? blue dimension.
Σ : is the GT covariance matrix.
S_0 : is the average solar constant.
T : is the transpose matrix operation.
toa : is the top of atmosphere radiation.
θ_z : is the Sun zenith angle.
x : is the pixel vector to be classified, represented by its color dimensions (r,g,b).
$_{-1}$: is the inversion matrix operation.
∞ : infinite is when the number of the degrees of freedom is ≥ 120 .

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1 INTRODUCTION

Clouds are one of the most important *phenomena* present on atmosphere. They influence the climate Hu e Stamnes (2000) and are a major modulator of solar energy that reaches the surface with heating Harrisson et al. (1993) or cooling Yamanouchi (1993) effects. By this reason, it is important their proper evaluation to reduce uncertainties of physical models, assessments, forecasting, etc. considering them. Clouds evaluation could be done in two perspectives: from surface and/or satellite. Each point of view have its own positive and negative aspects. The current work will focus on surface cloud observation by images.

Surface assessment of clouds are being performed for years by synoptic observers (SO). Observation reports performed by SO are normalized by World Meteorological Organization WMO (2008, sec.15.1.1), WMO (1975), WMO (1987), WMO (1995). SO basically evaluates cloud amount, base and type at synoptic observations intervals. It is a highly subjective evaluation on qualitative (type) and quantitative (base and amount) features of cloud conditions. Synoptic Observation Systems (SOS) are being used to reduce SO subjective analysis, uncertainty of cloud estimation, shifts of human observations, etc.

Most SOS using camera images, evaluates now casting conditions based on a dichotomy classification approach Long et al. (2001), Long et al. (2006), Souza-Echer et al. (2006), Cazorla et al. (2008), Kalisch e Macke (2008), Mantelli et al. (2010). These systems commonly present their results in terms of clouds and sky results only. But clouds are not the unique *phenomena* observable from surface. According to atmospheric and optics physics there are other *phenomena* that could be observed by naked eye Naylor (2002), Mantelli (2010). Dichotomy approach in that case is a restriction of the task observation domain Newell e Simon (1972). If cloud assessment done by a human operator is intended to be replaced by an intelligent agent Russell e Norvig (1995), a more refined approach should be used to avoid automatic misclassification.

Another limitation existent on above mentioned methods used for clouds identification, is the reduction of independent variable dimension, leading to information losses Jain et al. (2000). Color pixels are characterized usually by three dimension values. For example Red Green and Blue dimensions on RGB color space or Hue Intensity and Lightness on HSL color space, and so on. Souza-Echer et al. (2006) used

supervised thresholding Gonzalez e Woods (2002) on the Saturation (S) channel of HSL color space, i.e. one dimension only (1D), to discriminate clouds/sky patterns on the images. Long et al. (2001), Long et al. (2006) used a relation of $0.6R/B$ and Kalisch e Macke (2008) $0.8R/B$ of RGB color space, i.e. two dimensions only (2D),to discriminate clouds and sky patterns. Although Kalisch e Macke (2008) did not considered the green color component for cloud detection, it was used latter on the same work to detect direct sunshine. Kalisch e Macke (2008) also discarded images on low solar elevations, due to reported errors up to 50 % on that condition. The TSI imager embedded program used in the present analysis also avoid imagens at solar elevation bellow 5 degrees. But TSI program was modified in the present work to include then and have a broader analysis of images. Cazorla et al. (2008) used more sophisticated methods involving genetic algorithms to select parameters and neural networks (NN) to classify patterns, but still kept the domain of independent variable on two dimensions only of RGB color space. Mantelli et al. (2010) used a 3D independent variable to analyze patterns but maintained the dichotomy of the outcome analysis.

On Mantelli (2010) investigation, the dichotomy of atmosphere analysis was put aside in favor of a more appropriate approach. Instead of clouds and sky patterns only, the domain was mapped into several classes based on atmospheric physics and limitations of camera systems. Mantelli (2010)'s approach will be used in the present work to make the proposed investigation. It is believed that misclassification problems due to dichotomy approach and errors due to dimensioning reduction will be avoided.

The current research intends to use Mantelli (2010) methods on the images obtained in São Martinho da Serra Station to map the pixels values present on surface images onto atmospheric patterns in order to validate satellite images on visible region of spectrum. Validation will be done with surface data and implementing two other methods to compare the results.

Current research report is divided in the following parts.

Chapter 1 Presents an introduction and a brief literature review to this research.

Chapter 2 Will summarize the materials and methods used on the present research.

Chapter 3 Conclusions.

Appendix A Presents the surface images of January 20056, obtained from the sky imager and the results of three methods implemented.

Appendix B Presents daily graphic results for 3 methods during 2005 January.

Appendix C Presents the surface radiation measured and the derived quantities obtained from it, using tables and graphics.

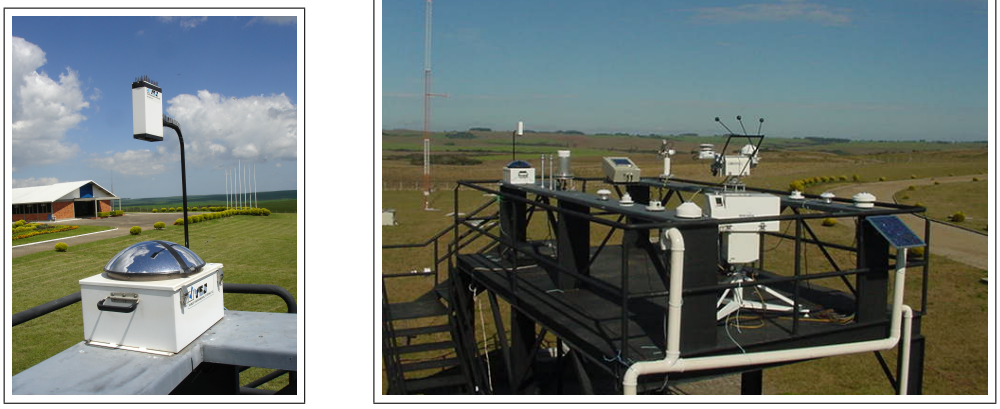
2 Materials and methods

Most of this work was based on the methodology developed by Mantelli (2010). Original research was described in Portuguese on a MSc dissertation Mantelli (2001), PhD thesis Mantelli (2010) and scientific publications showing intermediate results on the following papers Mantelli et al. (2005), Mantelli et al. (2009), Mantelli et al. (2010), Mantelli et al. (2010). Current research report will made a short description of the methods used, and reproduce them on a new observation site with a larger data set. This chapter will have the following sections.

- Section 1: describes the experimental site and the equipments used to obtain the images.
- Section 2: describes the scientific methodology used on the present research.
- Section 3: describes the methods used to determine cloud coverage using radiometers.
- Section 4: conclusions.

2.1 Experimental site and apparatus

Experiment was deployed at INPE Southern Observatory station located in São Martinho da Serra (SMS) City in Rio Grande do Sul State, Brazil $LAT.: 29°26'34"S(-29,4428°), LONG.: 53°49'23"W(-53,8231°), ALT.: 489m$. More details about the observatory could be found on link: http://www.inpe.br/crs/. The imager belongs to SONDA project, established to make assessment of solar and wind renewable energies. More details about SONDA project could be found on link: http://sonda.ccst.inpe.br/. The imager site is also co-located with a solar BSRN-compatible station, and a sun photometer compatible to AERONET program. More details about BSRN stations network could be found on link: http://www.bsrn.awi.de/ and for AERONET program http://aeronet.gsfc.nasa.gov/. A figure showing station platform and equipments is illustrated on figure 2.1.
The equipment used to obtain the images was the TSI-440A manufactured by YANKEE environmental. TSI uses an image obtained from a reflector with an observation angle of 160°. The resident software system allows images to be obtained automatically at selected intervals, only when the Sun above 5° of elevation. But



(a) Sky imager TSI 440A

(b) General view of platform and co allocated sensors.

Figure 2.1 - Pictures of SONDA station at São Martino da Serra RS, Brazil.

resident program was changed to obtain images at lower elevation angles too. A more detailed information about TSI could be obtained from Long et al. (2001), Long et al. (2006) or on manufacturer data sheet available at the following link: `http://www.yesinc.com/products/cloud.html`.

2.2 Scientific methodology used on present research

This section describes the scientific methodology used in the present research. The main method used is the Bayesian NIST (2009), Pardo e Sberveglieri (2002) in two steps: supervised learning Heisele (2003) and analysis. A general figure illustrating the applied method could be observed on figure 2.2. The description bellow about these two steps, could also be checked in that figure.

During supervised learning step, a human analysis will be performed defining the patterns identifiable on images. These patterns were established according to optical atmospheric physics theory on visible spectrum Iqbal (1983), Lenoble (1993), Lillesand e Kiefer (1994), Naylor (2002). These patterns have also a typical occurrence on color space Mantelli et al. (2010) and a set of images representing each one were selected. During this step also, all undesirable or interference patterns like poles, obstructions, shading band, equipment self image etc., were removed by masking. A different set of images was selected, to optimize masks build-up. This evaluation is specific for each observation site and have to be repeated if it is noticed any change in the surrounding obstructions on the horizon. Image analysis and

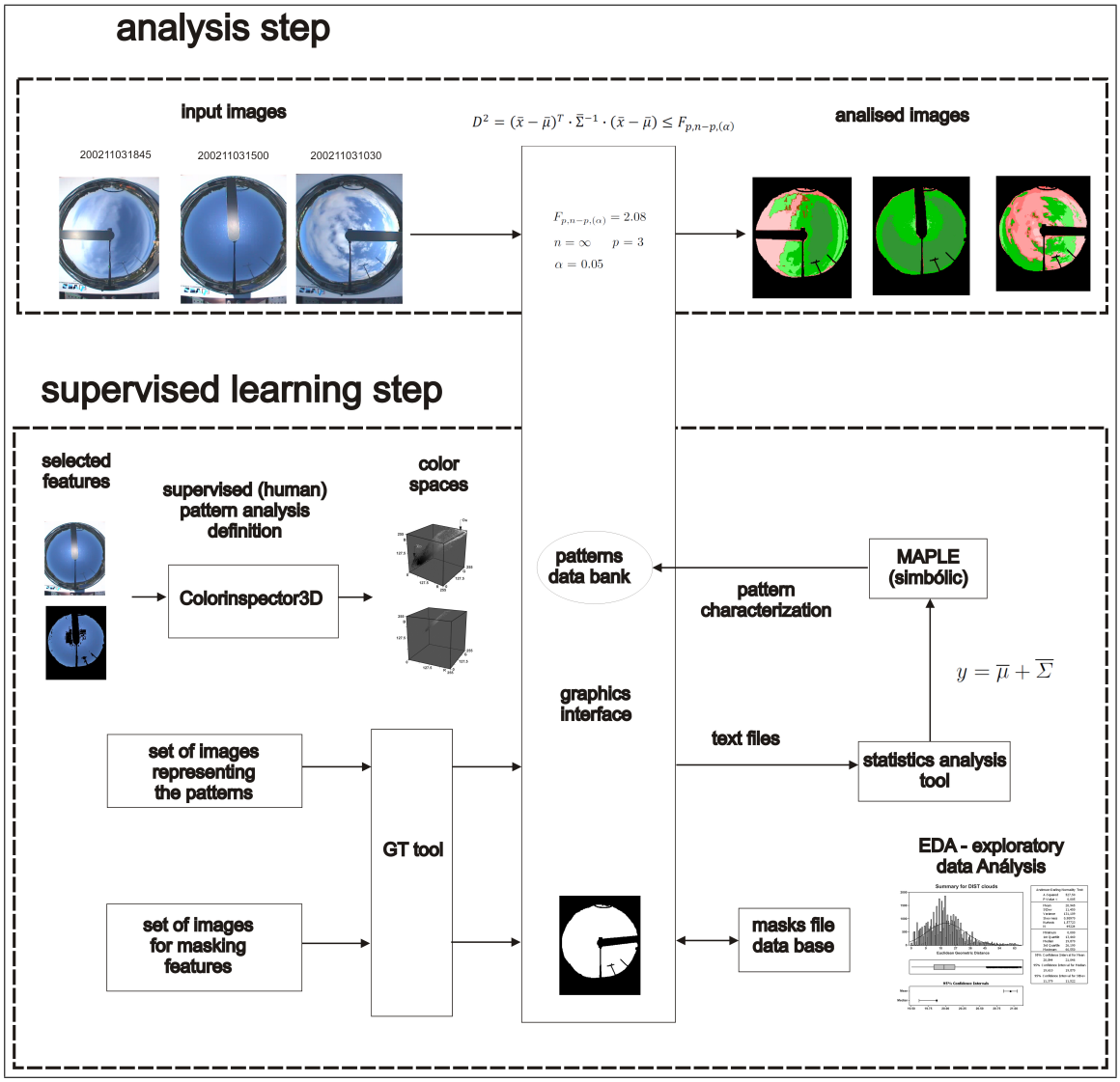


Figure 2.2 - Illustration of the Bayesian method in two steps used on current research. Figure adapted from Mantelli (2010, fig. 3.1)

pixel occurrence on color space regions was checked using the COLOR INSPECTOR 3D visualization tool developed by Barthel (2004) and available at `http://www.f4.fhtw-berlin.de/~barthel/ImageJ/ColorInspector//help.htm`. Red, Green, Blue (RGB) and Hue, Saturation and Lightness (HSL) color spaces were used on the analysis of patterns.

Patterns where removed from selected images using a o GT tool, developed at LAPIX `http://www.lapix.ufsc.br`. The patterns were removed in the following sequence:

exploratory data analysis or EDA NIST (2009), Wilks (2005, Chap. 3) and a statistics multivariate characterization using software statistics tools. An average color point vector and a covariance matrix was used to characterize each pattern Johnson e Wichern (2007). A data bank of patterns were implemented on interface graphics. In that phase it was also defined the statistical discrimination functions based on F-distribution according to $(3, \infty)$ degrees of freedom and 95% level of confidence Montgomery (2005), to classify every pattern Duda et al. (2001). Pixel values distribution for every pattern were considered with normal or near normal distribution due to massive amount of data when defined Johnson e Wichern (2007, sect. 4.6). MAPLE software symbolic manipulation feature was also used to simplify the implementation of matrix calculation on a graphics interface. More information about MAPLE could be found at `http://www.maplesoft.com/`. A graphics user interface (GUI) was developed support all those operations in C^{++} language using WXWIDGETS cross-platform GUI free open source library. More information about WXWIDGETS could be found at `http://www.wxwidgets.org/`.

During analysis step, images were loaded on graphics interface and every pixel-triple from image, was checked against established patterns. Multivariate Mahalanobis (or statistical) distance Mahalanobis (1936), Johnson e Wichern (2007) was used in the classification to map pixel-triple values from input images into patterns. More informations about EDA and the statistical parameters used in this work could be found on Mantelli (2010).

2.3 Masking of nuisance factors

Masking is a necessary step on image analysis to remove nuisance factors affecting the results Montgomery (2005, chap. 1.4 p. 15) like: equipment self image, shading band, poles, surrounding buildings, etc. Masking also avoids unnecessary treatment of data that have no influence on output analysis. The procedure used to generate the masks were done in three steps. The first one performed on a generic mask representing the surrounding background. The second one performed on dynamic shading band for each position. The last step was the concatenation of images for each image acquisition time.

2.4 Determination of Observation and Task Domain

Embedded in the method used in the present research, was the concept of Intelligent Agents Russell e Norvig (2010), whether defining environments and domain tasks Newell e Simon (1972). *"An agent is anything that can be viewed as perceiving its environment through sensors and acting upon that environment through actuators"* Russell e Norvig (2010, sec. 2.1). The environment is the Celestial Hemisphere or (CH), where SO look at to make observations of now casting conditions. It is desired to use an intelligent agent or a SOS to replace SO. Actually the most common used SOS is based on cameras sensors, computer vision algorithm classification and response methods to evaluate now casting conditions. But it is important to notice that this SOS configuration is limited by sensor features and actuation. Cameras have limited capability, specially when monitoring natural scenes that usually presents higher magnitude scale of illumination. Actuation is limited when SOS are use to reproduce human qualitative analysis. Those facts limits the overall SOS capability analysis to a subset of environment named domain task Russell e Norvig (2010, sec. 8.2.1). SOS agents will percepts pixels values in that domain task of varying color and intensity (independent variables) and map or categorize them by a method to a set of patterns (dependent variables) Russell e Norvig (2010, sec. 2.1) and Cresswell (1994). It is important to evaluate what could be categorized in the domain task due to sensor limitations. In the next paragraphs it will be proposed a set of patterns that could be perceived by data pixel values existent on images, according to atmospheric optical physics theory.

The independent variables analyzed by SOS using cameras in the domain task are the pixel values on images in JPG (Joint Photograph Group) formats, RGB color space Gonzalez e Woods (2002). Every pixel is represented by a 3-D data unit of 24 bits/pixel with 8 bits or 255 values for every color dimension, performing a total of 16,777,216 different colors. The luminance values scale correspondent to main diagonal of RGB cube is limited to 441.653 [1] Mantelli et al. (2010). Image resolution is $352x288$ in a total of 101376 pixels per image. Nearly 50 % of image pixels generated by the sky imager are not useful, because they record horizon obstructions (poles, buildings, etc), equipment self image and mirror shading band. Cameras and displays are not able to obtain and reproduce the illumination scale existent on natural scenes Koslof (2006), Inanici e Navvab (2006), reducing even more the amount of

[1] This is a non-dimensional value obtained from RGB color space

useful data. Reduction was due to pixel saturation, patterns distribution distortions with consequent difficulties on applying digital image processing algorithms, Intelligent Agent methods (i.e. neural networks, fuzzy logic, genetic algorithms, etc.) or statistical analysis. These restrictions also applies to file structures registering the information representing the images. Table 2.1 illustrates some light conditions existent in natural scenes. As could be observed in that table natural scenes spans from nearly 10^{-3} to 10^{5} cd/m^2. Images obtained and reproduced by SOS camera equipments on nearly 10^{2} cd/m^2 scale causing saturation indicated by ST, SG and SB points and pattern distortions as illustrated on figures 2.3, 2.4, 2.5 and 2.6.

Table 2.1 - Levels of luminance found in some external environment. Source: Reinhard et al. (2006, chap. 1 tab. 1.1).

Condition	**luminance** cd/m^2
Starlight	10^{-3}
Moonlight	10^{-1}
Internal Illumination	10^{2}
Sunlight	10^{5}
Maximum intensity of CRT monitors	10^{2}

All the technology available to obtain, store, reproduce and process images was built under 10^{2} cd/m^2 camera limitations. That problem is being overcome by a method called High Dynamic Range Imaging (HDRI) Debevec e Malik (1997), Reinhard et al. (2006), Inanci (2005), Moeck e Anaokar (2006) in the following steps:

- calibration of the camera by adjust of exposure time and opening shutter Mitsunaga e Nayar (1999) and
- taking multiple pictures at known exposure and opening of the same scene,
- using special file structures to store data Reinhard et al. (2006).

But that technology (adjust of exposure time and opening shutter) is not available by TSI-440A imager used in the current research, and was left as a suggestion for future research work.

2.5 Definition of Observation of Patterns According to Optical Atmospheric Physics

The restrictions described in previous section affected the current research and caused impact on the methods used for automatic analysis and patterns recognition, because a significant amount of pixels have their dimension values partly or totally saturated by the end of scale. It is important to notice the difference between Saturation dimension of HSL color space (with first letter uppercased or simply S) from the saturation of pixel value on image due to high illuminated scenes. In the presence of higher order illuminated scenes, it could be noticed the distortions of patterns by saturation of pixel values, degenerating the original colors in some cases and increasing the classification errors according to illustrated on figures 2.3 and 2.4. On figure 2.3 it could be noticed the occurrence of pixel distributions related to pattern observed on RGB and HSL color spaces for a clear sky image. In that figure a typical blue sky or RAYLEIGH SCATTERING PATTERN Lillesand e Kiefer (1994), Naylor (2002, sec. 1.2) is indicated as **RAYL**. In figure 2.3 it could be noticed too, the first saturation point of blue dimension pixel indicated as **SB**; and second saturation point of green dimension pixel value indicated as **SG**. In the present research that saturation was noticed on several images causing negative impacts on the performance of any method used on digital image processing. The pixels with values between **SB** and **SG**, could still be classified as RAYLEIGH SCATTERING PATTERN but were defined as DIFFUSION of RAYLEIGH SCATTERING PATTERN **DRAY**. It is speculated that one possible physical meaning that exacerbates that saturation is explained by MIE scattering caused by aerosols or water vapor, with higher optical density near the solar disk or at low solar elevation angles (near the surface). The last pattern noticed in that figure is the full saturation values of pixels indicated in the figure as **SAT**. A different discrimination *criteria* was used to classify **SAT** and **DRAY** pixels, due to the difficulty to classify their near saturation values. Their classification were done before the multivariate analysis by defining a hierarchical classification order, according to described in table 2.2.

Typical occurrence of patterns could also be noticed on partially covered sky as illustrated on figure 2.4. White clouds or NON SELECTIVE SCATTERING PATTERN **ENS** Lillesand e Kiefer (1994) also have a typical distribution on color space. Heavy gray clouds occurs continuously to white clouds patterns on color space due to cloud thickening, but with smaller values of luminance Mantelli et al. (2010). In the pres-

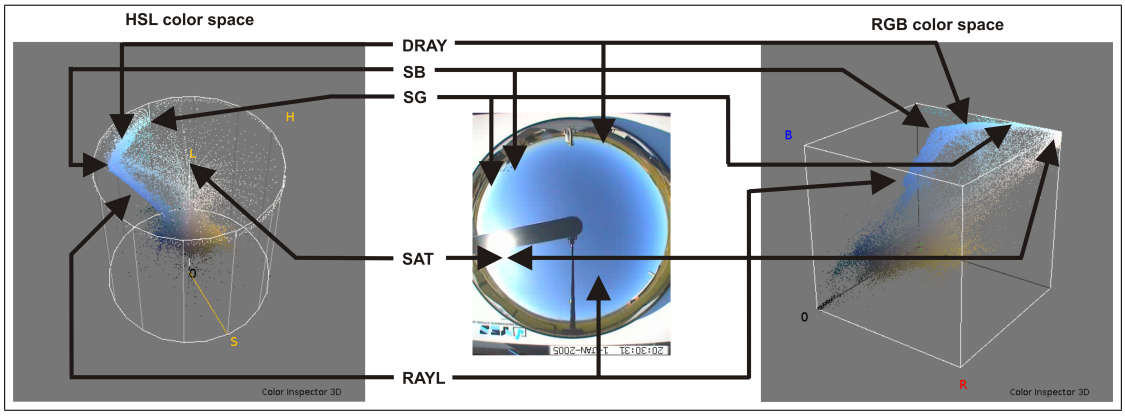


Figure 2.3 - Approximate indication of patterns distribution and distortion points on HSL and RGB color spaces for a clear sky. Image was taken at SMS on January 1^{st}, 2005 20:30 GMT.

ence of higher order illuminated scenes during cloudy skies, **ENS** pixels values also saturates, near end of scale. The pixel saturation also starts with the blue dimension and is indicated in the figure 2.4 as **ST** on RGB and HSL color spaces. The saturation of **ENS** pattern was also noticed on several images and was defined in the present research as DIFFUSION of NON SELECTIVE SCATTERING PATTERN or **DENS**.

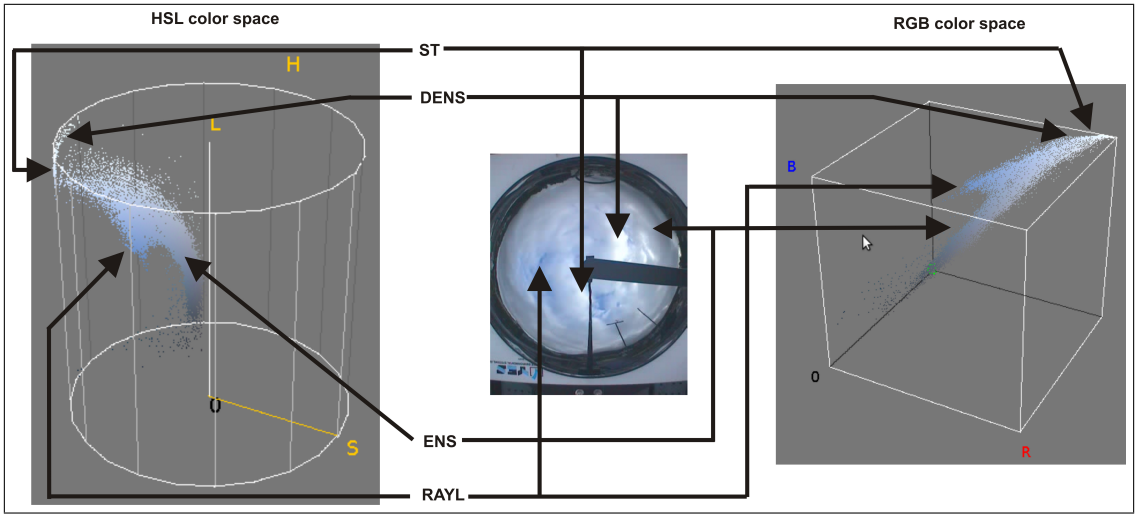


Figure 2.4 - Approximate indication of patterns distribution and their distortion points on HSL and RGB color spaces for a cloudy sky. Image was taken at SMS on January 3^{rd}, 2005 20:30 GMT.

By sunset and sunrise, two other different color patterns in yellow and red could be noticed on sky scenes sometimes simultaneously to white and gray clouds. Those patterns occurs when the hues of Sun light after sunset is reflected by clouds Naylor (2002), Richards (1995, sec. 4.3). Those two patterns occurs at different locus in color space but both of them meaning clouds, thats why they are defined as distinct patterns. Yellow pattern is noticed when the sun is a bit higher above horizon indicating a SELECTIVE SCATTERING PATTERN in yellow Naylor (2002, sec. 1.2), in the present research indicated as **SEPY**. The figure 2.5 illustrates *Locus* occurrence of **SEPY** patterns on HSL and RGB color space.

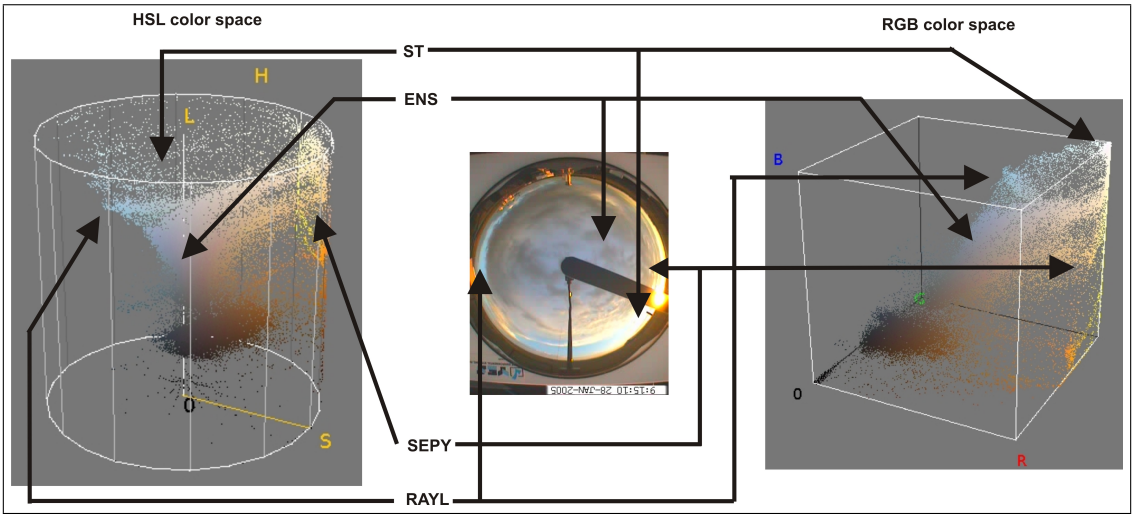


Figure 2.5 - Approximate indication of patterns distribution on HSL and RGB color spaces showing a partly cloudy sky yellow colors. Image was taken at SMS on January 28^{th}, 2005 09:15 GMT.

Red is noticed when the sun is a bit lower when compared to yellow pattern, indicating a SELECTIVE SCATTERING PATTERN in red, in the present research indicated as **SEPR**. The figure 2.6 illustrates *Locus* occurrence of **SEPR** pattern on HSL and RGB color space. Saturation was also noticed on **SEPY** and **SEPR** pattern pixel values. But the discriminating method used based on Hue angle, allowed a precise separation even in the presence of saturated values. Hue angle discrimination was not used to separate **RAYL** and **ENS** patterns, because they occur in coincident angles and could not be discriminated.

All the patterns presented in current section were defined as dependent variables

to be identified in a limited domain. SOS perform a mapping or classification from independent to dependent variables Cresswell (1994). A summary of these pattern and a meaning to represent a clear or cloudy sky for sky coverage evaluation is presented in table 2.2. An hierarchic order should be used on classification, otherwise the algorithm will not work properly.

Table 2.2 - Patterns on dependent variables proposed in the present research and hierarchic classification order used.

Order	Symbol	Pattern	Meaning
01	DENS	diffusion of non selective scattering	cover
02	DRAY	diffusion of Rayleigh scattering	clear
03	SEPY	yellow selective scattering	cover
04	SEPR	red selective scattering	cover
05	ENS	non selective scattering	cover
06	RAYL	Rayleigh scattering	clear
07	NC	non classified	undetermined

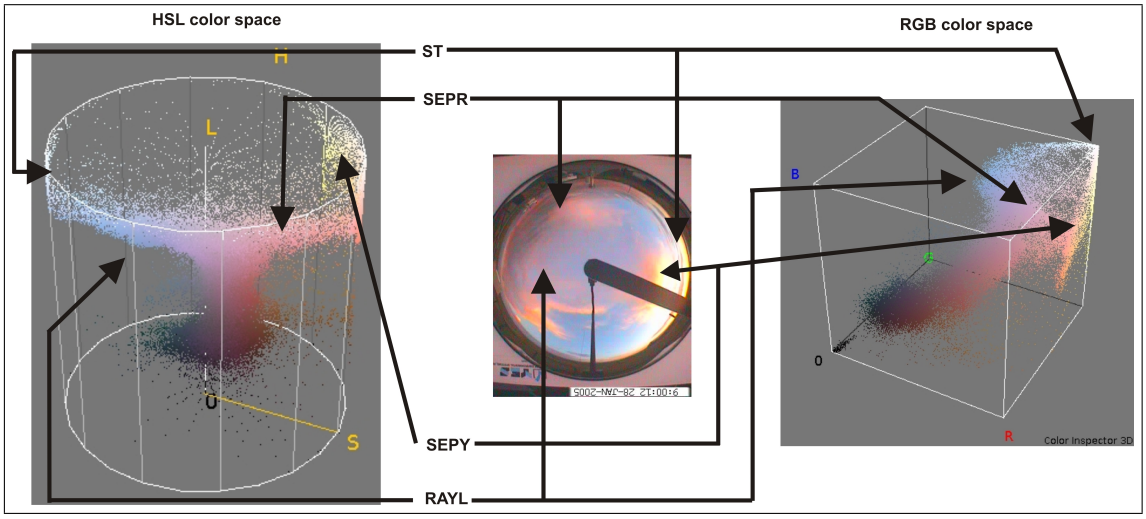


Figure 2.6 - Approximate indication of patterns distribution on HSL and RGB color spaces showing a partly cloudy sky red colors. Image was taken at SMS on January 28^{th}, 2005 09:00 GMT.

2.6 Parametric analysis and modeling of target patterns

The patterns defined in the previous section, will be characterized by supervision, analyzed by an Exploratory Data Analysis EDA NIST (2009), Wilks (2005, Chap. 3) and classified according to proposed criteria on domain. It will be used a visualization tool called Colorinpector3D[2] Barthel (2004) to inspect the images, patterns and generate figures on RGB and HSL color spaces. A graphic user interface GUI based on C^{++} language using wxWidgets[3] cross-platform library was developed to manipulate the patterns and save image files. An statistical software will be used to characterize patterns. The symbolic manipulation matrix algebra equations will be performed with MAPLE[4] to rationalize the equations to be implemented on GUI. ENS and RAYL patterns will also be separated by EGD method Mantelli et al. (2010) developed by the research group. All images will be analyzed after masking to remove uncontrolled factors Montgomery (2005).

2.6.1 Definition of DENS pattern (diffusion of non selective scattering)

For the definition of **DENS** pattern, a typical image was selected with a clear evidence of its presence as illustrated on figure 2.7. Figure illustrates the image taken from SOS on the first row, its masked version on the second row, the **DENS** pattern on the third row as well as their respective distribution on RGB and HSL color spaces on the first and third columns. **DENS** pattern occurs in a *locus* that spans from the end of **ENS** pattern, marked by the pixel saturation of blue dimension to the RGB cube vertices's. Their typical values were extracted from image samples and defined by the logic and arithmetic equation 2.1.

$$\textbf{DENS} = (B \geq 255) \ \textbf{AND} \ (EGD \leq 52.5) \tag{2.1}$$

where:

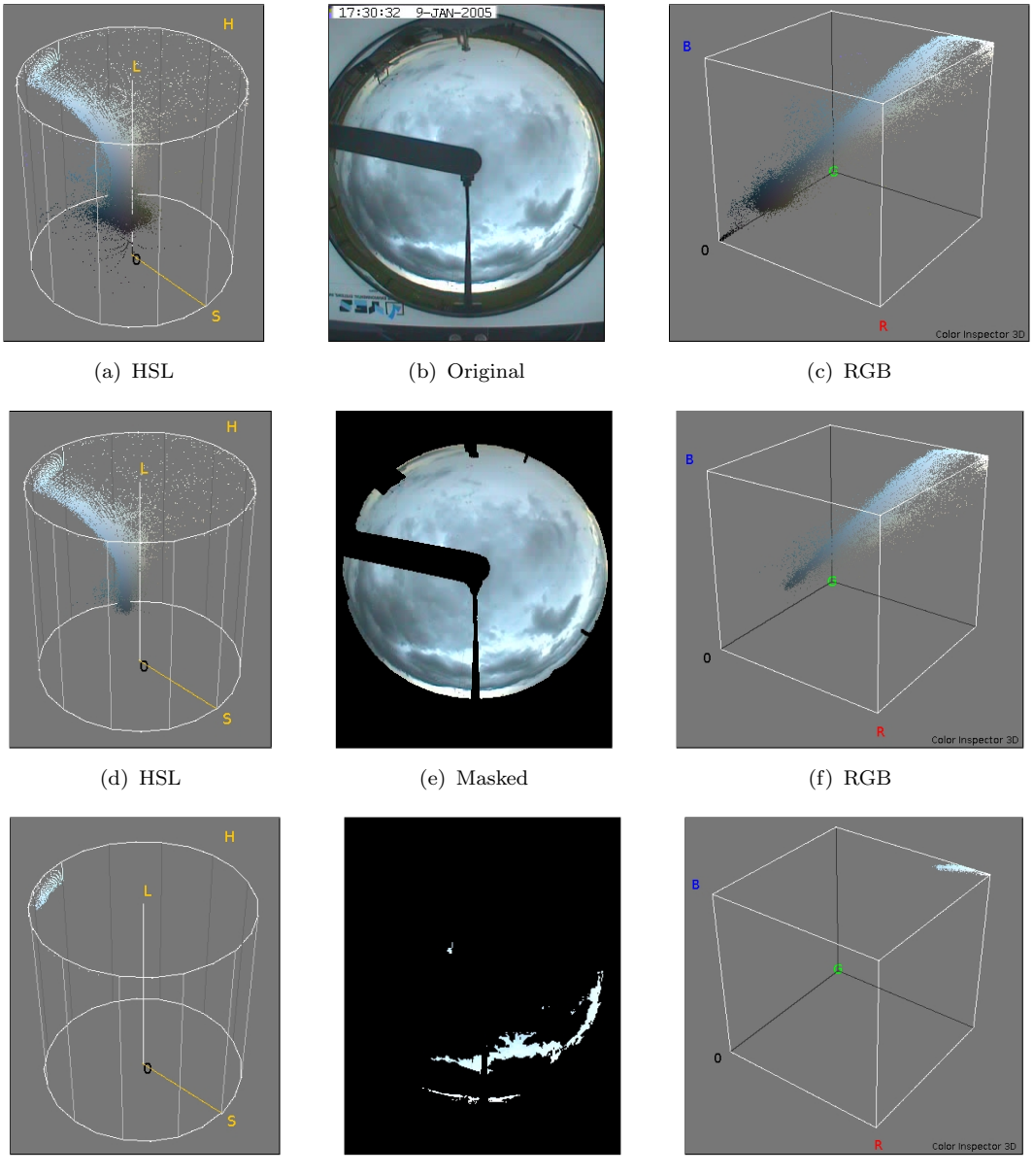
- R: pixel red dimension
- G: pixel green dimension

[2] colorinpector3D is available at http://rsb.info.nih.gov/ij/plugins/color-inspector.html

[3] wxWidgets is available at http://www.wxwidgets.org/

[4] http://www.maplesoft.com/

- B: pixel blue dimension
- AND: logical operator
- EGD: Euclidean Geometric Distance Mantelli et al. (2010)



(a) HSL (b) Original (c) RGB

(d) HSL (e) Masked (f) RGB

(g) HSL (h) DENS (i) RGB

Figure 2.7 - **DENS** patterns classification evolution for January 09^{th} 2005 1730 GMT.

2.6.2 Definition of DRAY pattern (diffusion of Rayleigh scattering)

For the definition of **DRAY** pattern, a typical image was selected with a clear evidence of its presence as illustrated on figure 2.8. Figure illustrates the image taken from SOS on the first row, its masked version on the second row, the **DRAY** pattern on the third row as well as their respective distribution on RGB and HSL color spaces on the first and third columns. **DRAY** pattern occurs in a *locus* that spans from the end of **RAYL** pattern, marked by the pixel saturation of blue dimension to the RGB cube vertices's. Typical values were extracted from image samples and defined by the logic and arithmetic equation 2.2.

$$\mathbf{DRAY} = [(B \geq 255)\mathbf{AND}(EGD \geq 52.5)] \tag{2.2}$$

It is important to notice the large amount of saturated pixels present on clear sky images showed on figure 2.8(h) correspondent to DRAYL pattern according to illustrated on HSL 2.8(g) and RGB 2.8(i) color spaces.

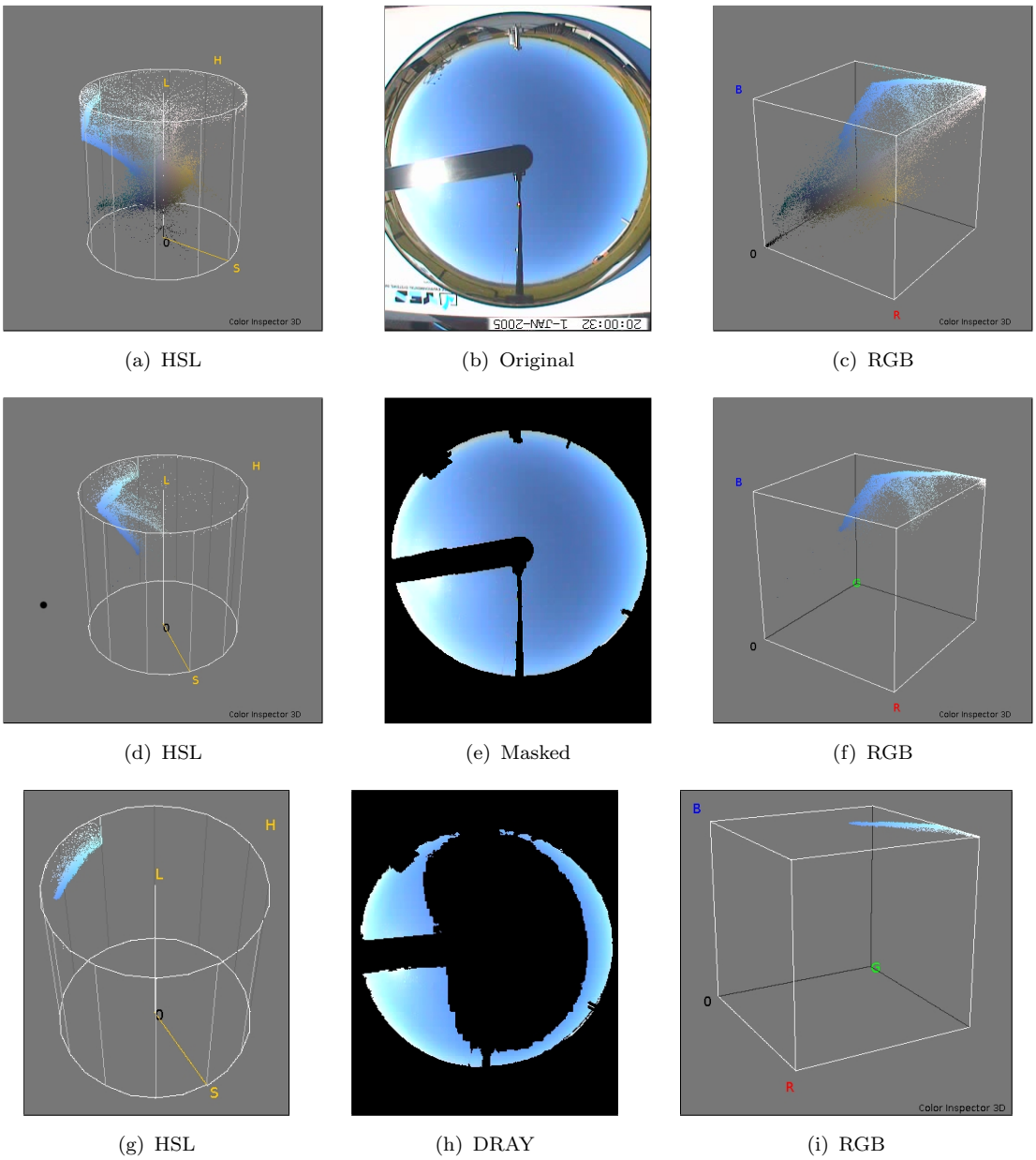
2.6.3 Definition of SEPY pattern (yellow selective scattering)

For the definition of **SEPY** pattern, a typical image was selected with a clear evidence of its presence as illustrated on figure 2.9. All the other patterns where cleared out by masking them from image. Only **SEPY** was left as illustrated on figure 2.9(h). After analyzing the image and the pattern occurrence it was noticed that the best way to classify **SEPY** was by pixel hue value discrimination of HSL color space. **SEPY** *locus* is very distinct from the other patterns and by this way could be easily discriminated according to details illustrated on figure 2.11(a). Typical values were extracted and refined from image samples and defined by the logic and arithmetic equation 2.3.

$$SEPY = \{\forall h \in [0,1] \mid (h > 0.0833) \wedge (h <= 0.1667)\} \tag{2.3}$$

2.6.4 Definition of SEPR pattern (red selective scattering)

The same procedure was used to discriminate the **SEPR** pattern. For the definition of **SEPR** pattern, a typical image was selected with a clear evidence of its presence as illustrated on figure 2.10. All the other patterns where cleared out by masking



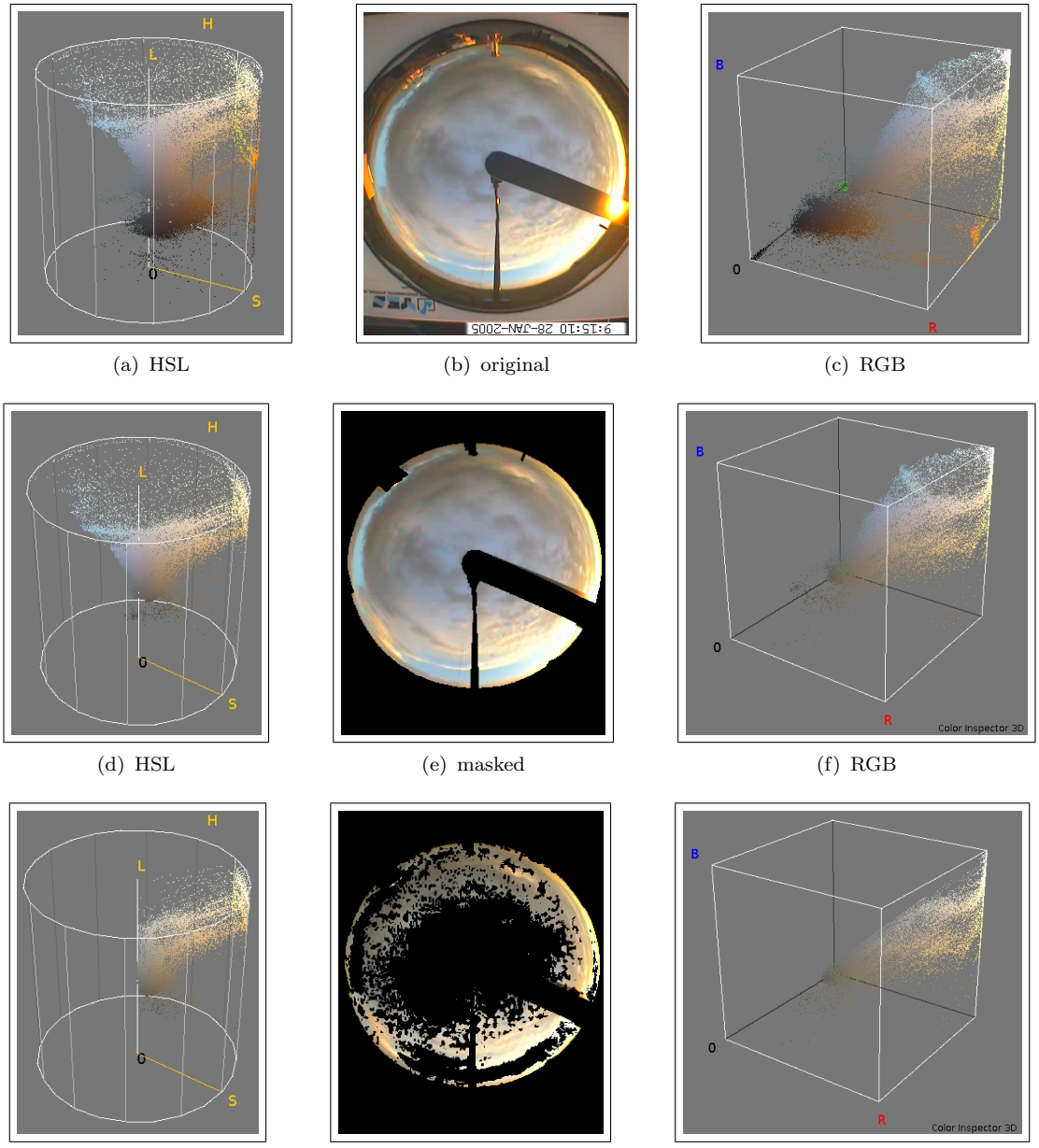
(a) HSL (b) Original (c) RGB

(d) HSL (e) Masked (f) RGB

(g) HSL (h) DRAY (i) RGB

Figure 2.8 - DRAY patterns classification evolution for January 1^{st} 2005 2000 GMT.

from image. Only **SEPR** was left as illustrated on figure 2.10(h). After analyzing the image and the pattern occurrence it was noticed that the best way to classify **SEPR** was by hue pixel value discrimination of HSL color space. **SEPR** *locus* is very distinct from the other patterns and by this way could be easily discriminated according to details illustrated on figure 2.11(b). Typical values were extracted and



(a) HSL (b) original (c) RGB

(d) HSL (e) masked (f) RGB

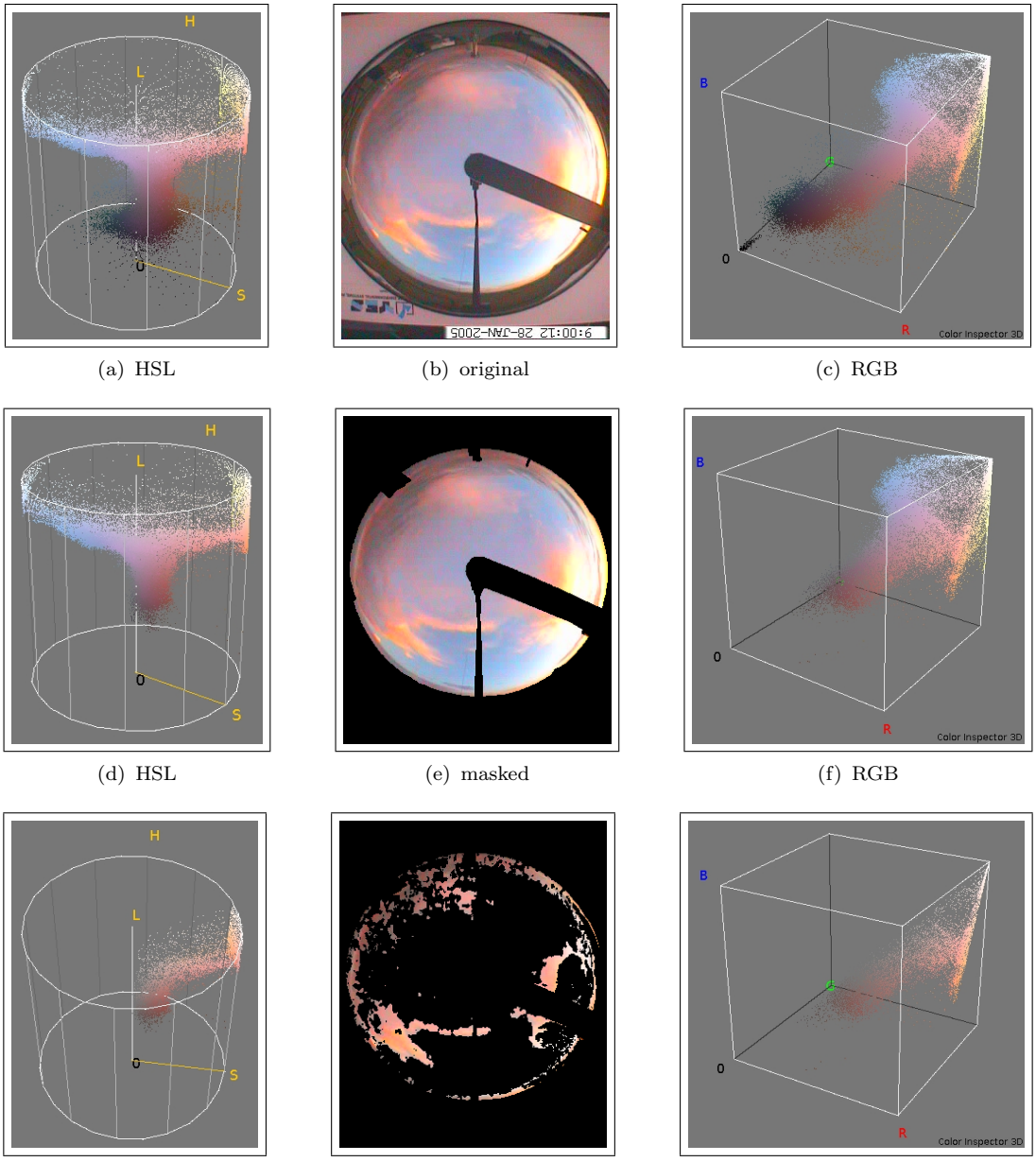
(g) HSL (h) SEPY (i) RGB

Figure 2.9 - SEPY patterns classification evolution for January 28^{th} 2005 0915 GMT.

refined from image samples and defined by the logic and arithmetic equation 2.4.

$$SEPR = \{\forall h \in [0,1] \mid (h <= 0.0833)\} \tag{2.4}$$

It is important to notice that **SEPY** pattern occurs at higher solar elevations than



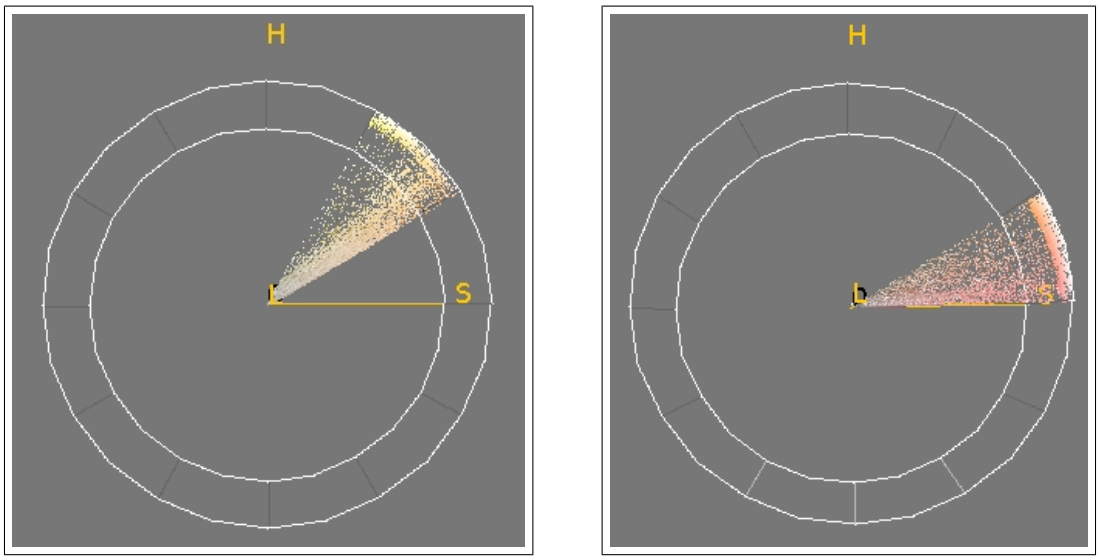
(a) HSL (b) original (c) RGB

(d) HSL (e) masked (f) RGB

(g) HSL (h) SEPY (i) RGB

Figure 2.10 - SEPR patterns classification evolution for January 28^{th} 2005 0900 GMT.

SEPR pattern.



(a) H dimension for SEPY on January 28^{th} 2005 0915 GMT image

(b) H dimension for SEPR on January 28^{th} 2005 0900 GMT image

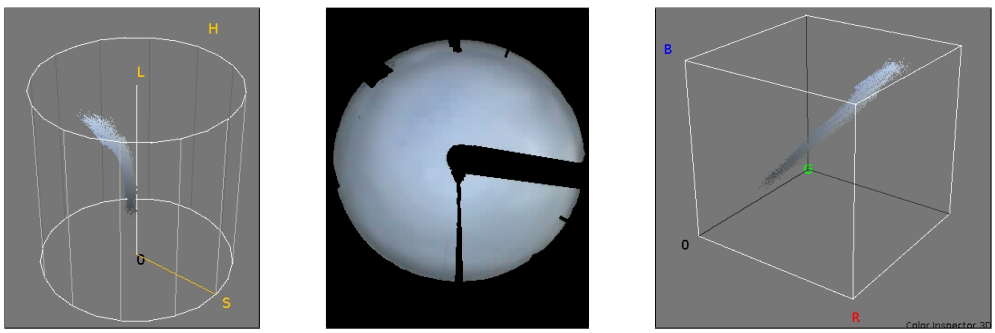
Figure 2.11 - Differences between SEPY and SEPR classification function results on H dimension of HSL color space.

2.6.5 Definition of ENS pattern (non selective scattering)

For the definition of ENS pattern, three distinct cloudy sky images were selected. To take into account the variability of luminance images during the day at least on three different times and also at different days. Images used are illustrated on figures 2.12, 2.13 and 2.14. One important fact to notice is that saturated pixels correspondent to **DENS** pattern where removed from image before the statistical analysis, as illustrated on figures 2.13(e) and 2.14(b). DENS pattern pixels were considered a nuisance factor for ENS pattern and masked from image, to avoid errors on pattern definition.



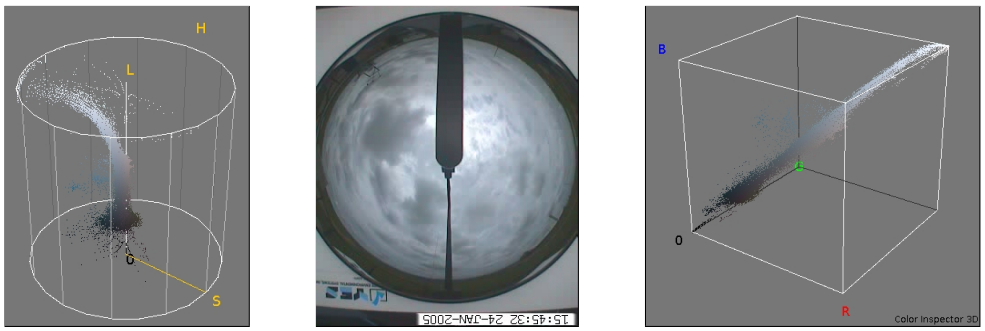
(a) HSL (b) Original (c) RGB



(d) HSL (e) Masked (f) RGB

Figure 2.12 - First image used for ENS pattern GT for January 10^{th} 2005 1145 GMT.

Images were obtained after processing on graphics interface that also generates data files from image patterns. These data were loaded into a statistical package to generate characterization of patterns by Exploratory Data Analysis (EDA). Graphical results obtained by EDA analysis are illustrated on figure 2.15.



(a) HSL (b) Original (c) RGB

(d) HSL (e) Masked without **DENS** (f) RGB

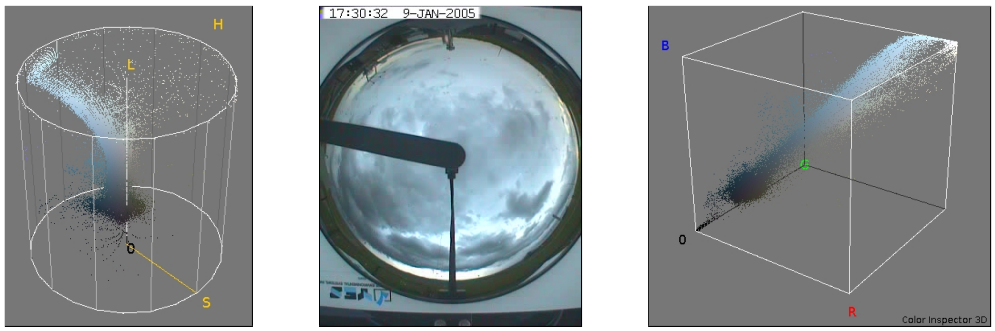
Figure 2.13 - Second image used for ENS pattern GT for January 24^{th} 2005 1545 GMT.

After EDA the standard error determined for each dimension is illustrated on equation 2.5. The number of pixels used on image is very large, so the standard error is very low and will not be considered. The covariant matrix was also generated during multivariate analysis. The final pattern equation considered as a ground truth (GT) for the ENS pattern was determined by the equation 2.6.

$$\begin{aligned} e_r &= \frac{s_r}{\sqrt{n_{ENS}}} = \frac{29.82}{\sqrt{151920}} = 0.076 \\ e_g &= \frac{s_g}{\sqrt{n_{ENS}}} = \frac{33.06}{\sqrt{151920}} = 0.085 \\ e_b &= \frac{s_b}{\sqrt{n_{ENS}}} = \frac{37.30}{\sqrt{151920}} = 0.096 \end{aligned} \tag{2.5}$$

where:

- e_r: standard error for red color dimension
- e_g: standard error for green color dimension



(a) HSL (b) Original (c) RGB



(d) HSL (e) Masked without **DENS** (f) RGB

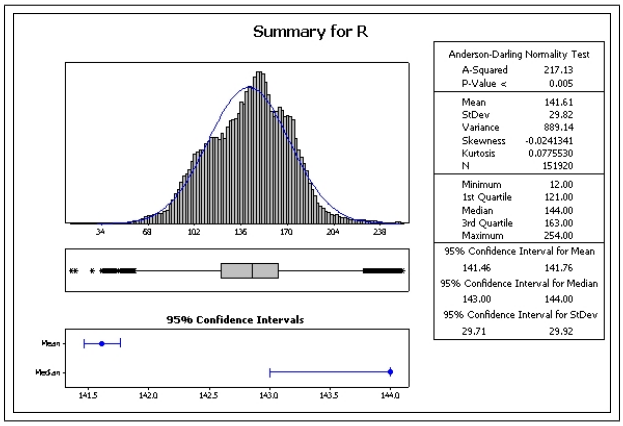
Figure 2.14 - Third image used for ENS pattern GT for January 09^{th} 2005 1730 GMT.

- e_b: standard error for blue color dimension
- s_r: standard deviation of red color dimension
- s_g: standard deviation of green color dimension
- s_b: standard deviation of blue color dimension
- n_{ENS}: number of pixels used for ENS pattern definition

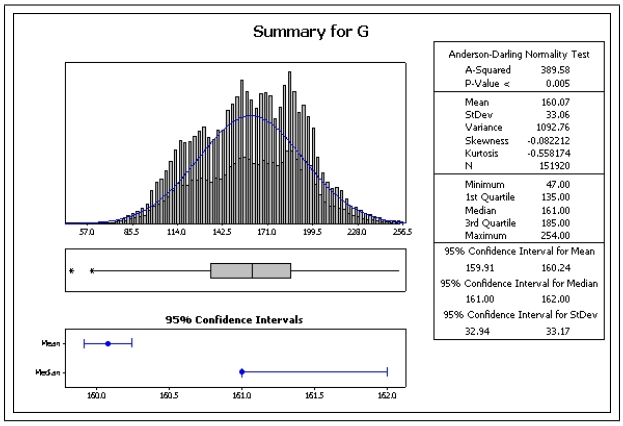
$$ENS = \begin{vmatrix} 141.61 \\ 160.07 \\ 174.01 \end{vmatrix} + \begin{vmatrix} 889.144 & 944.645 & 1039.041 \\ 944.645 & 1092.758 & 1214.737 \\ 1039.041 & 1214.737 & 1390.940 \end{vmatrix} + \begin{vmatrix} 0.076 \\ 0.085 \\ 0.096 \end{vmatrix} \quad (2.6)$$

2.6.6 Definition of RAYL pattern (rayleigh scattering)

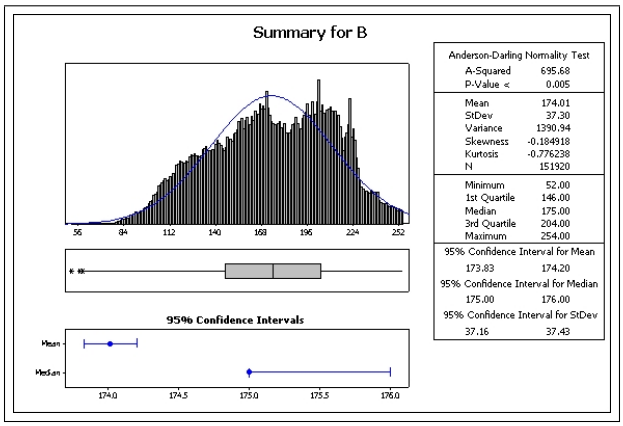
For the definition of RAYL pattern, three distinct clear sky images were selected. To take into account the variability of luminance images during the day at least on three



(a) RED dimension EDA for ENS



(b) GREEN dimension EDA for ENS

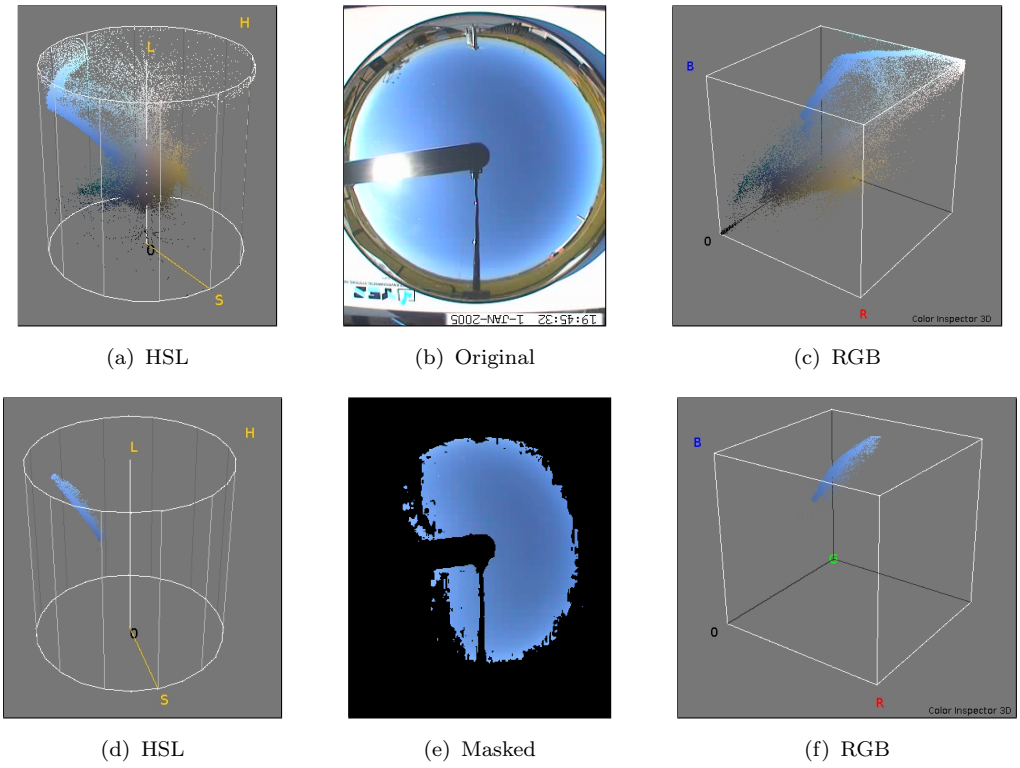


(c) BLUE dimension EDA for ENS

Figure 2.15 - EDA analysis for ENS pattern from three images.

different times and also at different days. Images used are illustrated on figures 2.16, 2.17 and 2.18. One important observation about figure 2.16 is that a significant amount of DRAY pattern pixels were considered a nuisance factor for RAYL pattern

and masked from image, to avoid errors on pattern definition. Another important observation is that dust on reflector surface could also cause diffusion on images around the Sun aureole, as illustrated near the shading band mask on figure 2.18.



(a) HSL (b) Original (c) RGB

(d) HSL (e) Masked (f) RGB

Figure 2.16 - First image used for RAYL pattern GT for January 1^{st} 2005 1945 GMT.

Images were obtained after processing on graphics interface that also generates data files from image patterns. These data were loaded into a statistical package to generate characterization of patterns by Exploratory Data Analysis (EDA). Graphical results obtained by EDA analysis are illustrated on figure 2.19.

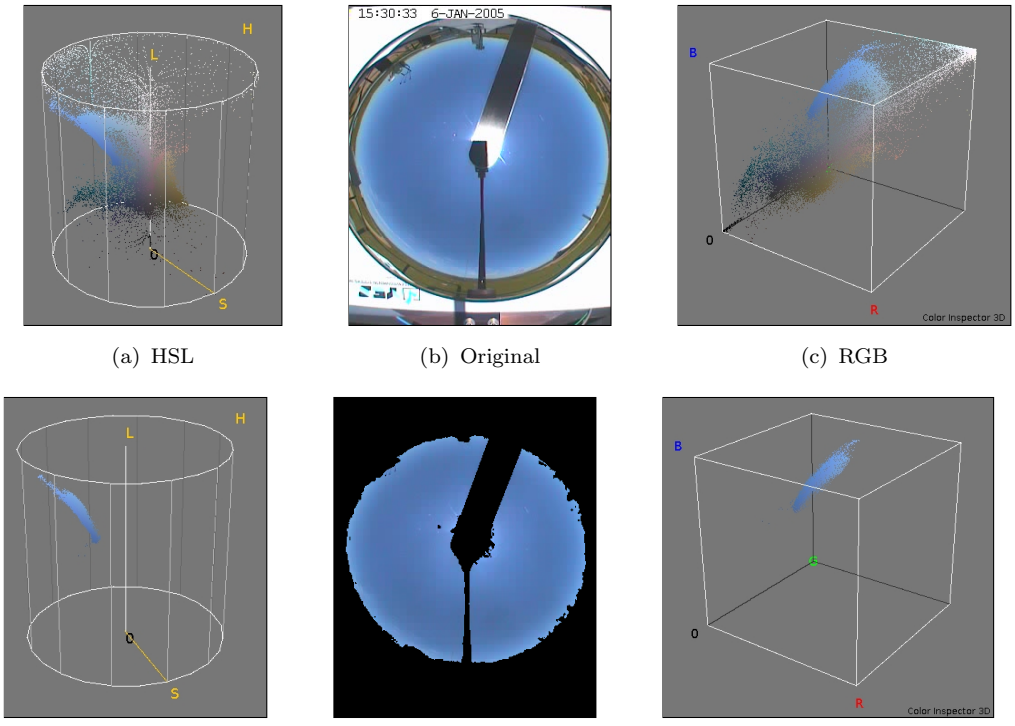
After EDA the standard error determined for each dimension is illustrated on equation 2.7. The number of pixels used on image is very large, so the standard error is very low and will not be considered. The covariant matrix was also generated during multivariate analysis. The final pattern equation considered as a ground truth (GT)

for the RAYL pattern was determined by the equation 2.8.

$$\begin{aligned} e_r &= \frac{s_r}{\sqrt{n_{RAYL}}} &= \frac{12.16}{\sqrt{120354}} &= 0.035 \\ e_g &= \frac{s_g}{\sqrt{n_{RAYL}}} &= \frac{16.61}{\sqrt{120354}} &= 0.049 \\ e_b &= \frac{s_b}{\sqrt{n_{RAYL}}} &= \frac{21.36}{\sqrt{120354}} &= 0.062 \end{aligned} \tag{2.7}$$

where:

- e_r: standard error for red color dimension
- e_g: standard error for green color dimension
- e_b: standard error for blue color dimension
- s_r: standard deviation of red color dimension
- s_g: standard deviation of green color dimension



(a) HSL (b) Original (c) RGB

(d) HSL (e) Masked (f) RGB

Figure 2.17 - Second image used for RAYL pattern GT for January 6^{th} 2005 1530 GMT.

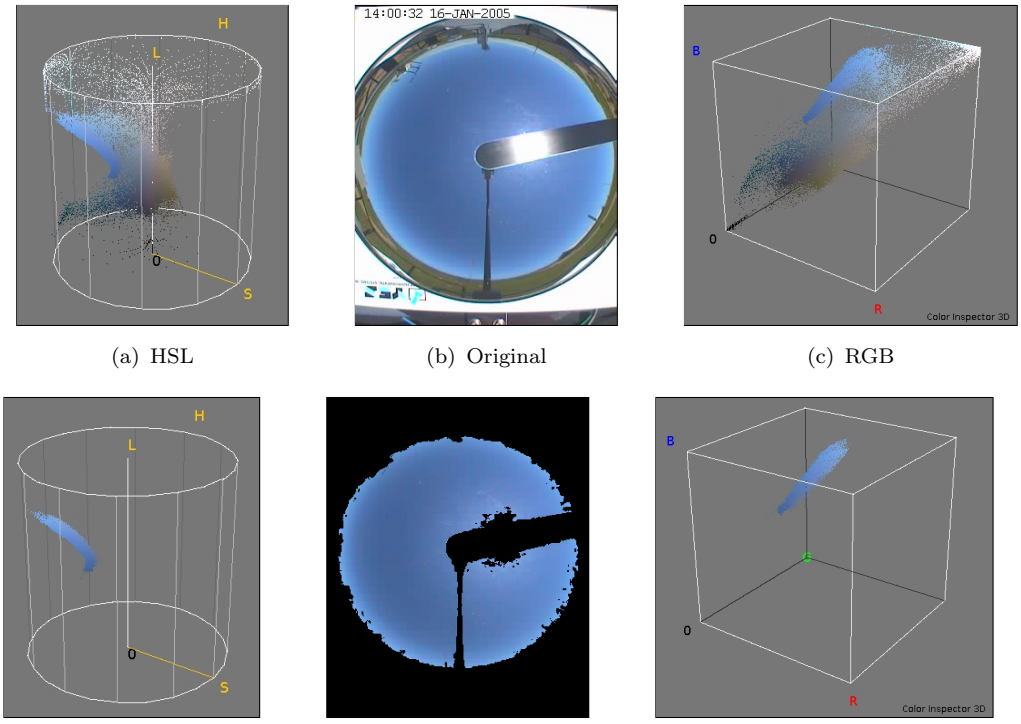
- s_b: standard deviation of blue color dimension
- n_{RAYL}: number of pixels used for RAYL pattern definition

$$RAYL = \left| \begin{matrix} 88.65 \\ 128.48 \\ 191.90 \end{matrix} \right| + \left| \begin{matrix} 147.90 & 190.11 & 235.32 \\ 190.11 & 275.95 & 342.42 \\ 235.32 & 342.42 & 456.11 \end{matrix} \right| + \left| \begin{matrix} 0.035 \\ 0.049 \\ 0.062 \end{matrix} \right| \tag{2.8}$$

After RAYL GT patterns has been defined by multivariate analysis, unknown pixels could be classified by mahalanobis (or statistical) distance Mahalanobis (1936), Johnson e Wichern (2007). Mahalanobis distance has F-distribution and could be calculated according to the equation recommended by Mahalanobis 2.9.

$$D^2 = n(\mathbf{x} - \mu)^T \cdot \Sigma^{-1} \cdot (\mathbf{x} - \mu) \tag{2.9}$$

where:

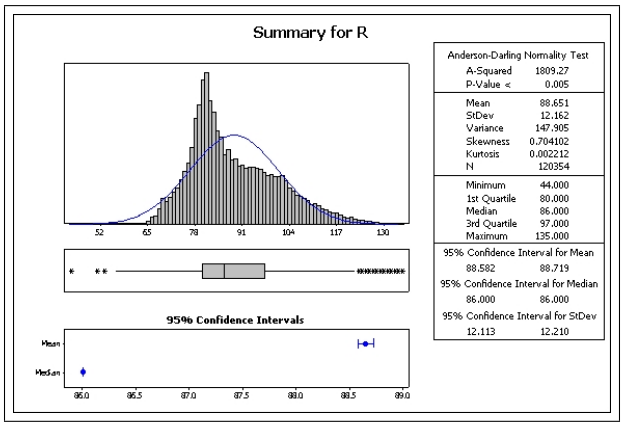


(a) HSL (b) Original (c) RGB

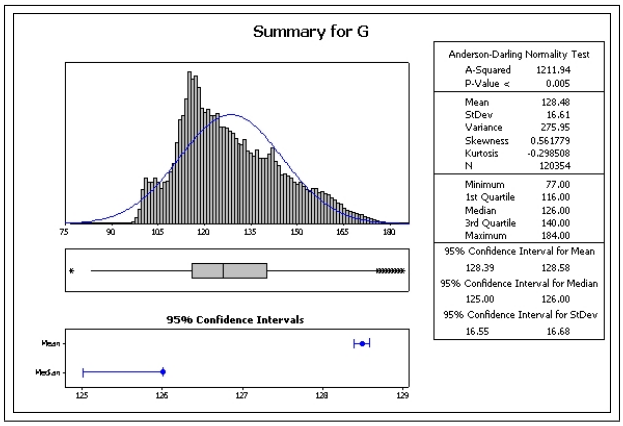
(d) HSL (e) Masked (f) RGB

Figure 2.18 - Third image used for RAYL pattern GT for January 16^{th} 2005 1400 GMT.

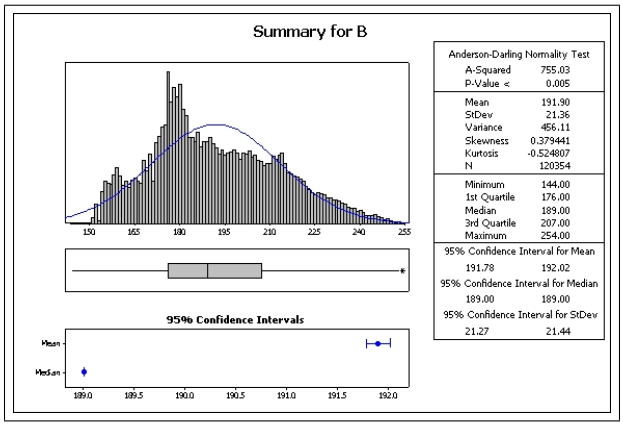
- D^2 : is the pixel squared Mahalanobis distance from the GT pattern being classified.



(a) RED dimension EDA for RAYL



(b) GREEN dimension EDA for RAYL



(c) BLUE dimension EDA for RAYL

Figure 2.19 - EDA analysis for RAYL pattern from three images.

- **x** (r,g,b) : is the pixel vector to be classified, represented by its color dimensions.
- μ : is the average GT vector.
- T : is the transpose matrix operation.
- $_{-1}$: is the inversion matrix operation
- n : is the number of pixels used to determine the GT.
- p : is the degrees of freedom correspondent to the number of color space dimensions (p = 3).
- n-p : is the degree of freedom of the GT sampled population. If $(n-p) \geq 120$ the statistics tables considers the degree of freedom to be infinite (∞).
- $\alpha = 0,05$: is the level of confidence established for the evaluation test.
- $F_{p,n-p,(\alpha)}$: is the discrimination threshold from GT. This value is obtained from the percentage point from a F-distribution table. $F_{3,\infty,(0,1)} = 3,78$; $F_{3,\infty,(0,05)} = 2,61$; $F_{3,\infty,(0,01)} = 2,08$
- Σ is the GT covariance matrix.

A discrimination threshold based on pixel values is established based on statistical F-scores on the same way as the traditional hypothesis testing. Statistical tables are easily found on related literature according to degrees of freedom on the formula suggested by (JOHNSON; WICHERN, 2007, chap. 5) and illustrated on equation 2.10. For practical reasons and large population cases, the distance and threshold values needed to be adjusted according to application. Otherwise a large amount of pixels will be discarded by its rigorous criteria. That situation happened in the present research and the statistical threshold values were tunned up to $D^2_{ENS} = 29.1$ and $D^2_{RAYL} = 22.68$.

$$D^2 \leq \frac{(n-1)p}{(n-p)} F_{p,n-p,(\alpha)} \tag{2.10}$$

2.6.7 Resume of Principal classification methods proposed

After the definition of the criteria used for pattern classification they were implemented in a graphic interface to generate the results. Table 2.3 describes the resume of the principal methods used in the present work.

Table 2.3 - Principal classification methods proposed. H is the hierarchical order, P is the pattern.

H	P	Criterion of classification
1	DENS	$\{\forall R,G,B \in [0,255] \mid ((B \geq 255)$ **AND** $(EGD \leq 52,5))\}$
2	DRAY	$\{\forall R,G,B \in [0,255] \mid ((B \geq 255)$ **AND** $(EGD \geq 52,5))\}$
3	SEPY	$\{\forall h \in [0,1] \mid (h > 0.0833)$ **AND** $(h <= 0.1667)\}$
4	SEPR	$\{\forall h \in [0,1] \mid (h <= 0.0833)\}$
5	ENS	$D^2_{ENS} \leq F_{p,n-p,(\alpha)} = 29,01$
6	RAY	$D^2_{RAY} \leq F_{p,n-p,(\alpha)} = 22,68$
7	NC	Non classifiable on above cases

2.7 Methods used to determine cloud coverage using radiometers

Surface solar radiation sensors are widely used for cloud validation. Most models considers mainly the dependence of radiation fluxes on cloud amount and type (KARSTEN; CZEPLAK, 1980) or cloud forcing (NORRIS, 2005). Parametrization could be done by evaluating Top of Atmosphere (toa) irradiance combined with Global (glo) and Diffuse (diff) Earth surface measurements (HARRISON et al., 2008), or by using time series characterization of clear sky (LONG; ACKERMAN, 1996). Usually these methods take into account the difference between clear-sky parametrization and current (or all-sky) conditions, such as the methods developed by (HARRISON et al., 2008; DUCHON; O´MALLEY, 1999; CESS et al., 1995; LONG; ACKERMAN, 1996; LONG, 1997; WALISER et al., 1996). The current work will make a comparison among three indexes obtained from two solar radiation based methods.

The solar radiation data used was sampled every second and collected in one minute interval averages. Only the data coincident to image acquisition was used. Three indexes of two SW-based methods were selected in related literature defined by a long historical record performed by (KARSTEN; CZEPLAK, 1980; HARRISON et al., 2008) for data comparison with EGD image-based as follows. Karsten and Czeplak

(KARSTEN; CZEPLAK, 1980) parameterized clouds from Earth surface based on data collected from synoptic observers (SO) over a period of 10 years with global (glo) and diffuse (diff) SW radiometers at the Hamburg-Germany meteorological observatory. They compared the SW data with SO observations, proposing an expression indicating cloud cover (C_{KC}) relating G and D. Rearranging the cloud cover expression as a function of glo and diff data to obtain percentage values instead of eights, we arrived at Equation 2.11 as follows:

$$C_{KC} = \sqrt{(\frac{diff}{glo} - 0.3)\frac{1}{0.7}}. \tag{2.11}$$

Harrison et al. (HARRISON et al., 2008) also parametrized clouds from Earth surface based on 10 years of SW Global and Diffuse data using two indexes, Opacity (op) and Diffuse Fraction (df), described in Equations 2.12 to 2.15 as follow:

$$df = \frac{diff}{glo}, \tag{2.12}$$

$$op = 1 - kt, \tag{2.13}$$

$$kt = \frac{diff}{toa}, \tag{2.14}$$

$$toa = \frac{S_0 cos\theta_z}{d^2}. \tag{2.15}$$

Where, df is the (HARRISON et al., 2008) Diffuse Fraction index; D is the Diffuse Radiation SW data; G is the Global Radiation SW data; op is the (HARRISON et al., 2008) Opacity Index; kt is the Clearness Index; toa is the Top of Atmosphere Radiation; S_0 is the Average Solar Constant (IQBAL, 1983), d is the Sun-Earth distance and θ the Sun Zenith Angle.

All data table and graphs obtained from derived quantities are described on appendix C.

3 CONCLUSÕES

The present work described a method developed for classification of atmospheric patterns using cameras and its limitations considering the dynamic range of outdoor scenes. It was described a qualitative analysis of surface images intended to be used as synoptic observations system to replace synoptic observations of cloud coverage. Results are intended to be used to evaluate cloud coverage from surface to validate satellite models.

It was used an on-the-shelf sky imager system co allocated to a BSRN station to develop the present report. Present research demonstrated that image analysis are limited to the available technology of acquisition and file storage. The illumination scale domain of natural scenes is at least five decades broader than the sensitivity of cameras, resulting on distortions to accommodate the image subjects. By this reason a special proceeding is necessary to identify the saturation patterns on image.

Nearly 1650 images were used, collected every 15 minutes during daylight period. Co-allocated solar sensors data were also simultaneously collected for a comparison with the image methods. A massive amount of results are presented in the appendixes A, B and C.

The large amount of data presented in this report is intended to be used as a reference for future scientific work and publications on related area, but is too extensive to be presented in more detail. Future work on this area include high dynamic range imaging of sky scenes on new file format to accommodate logarithmic scale of high luminance scenes.

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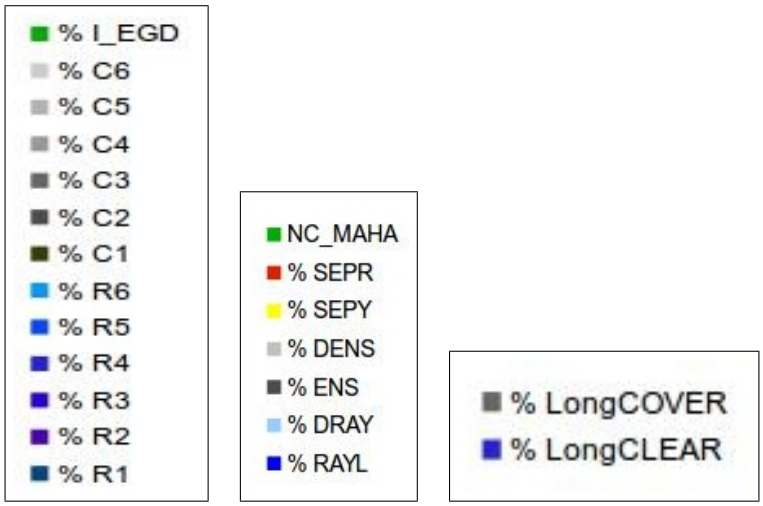
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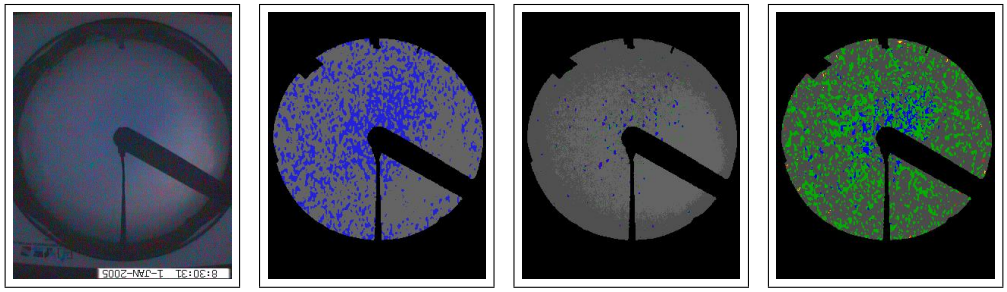
Appendix A - Surface images of January 2005, obtained from the sky imager and the results of three methods implemented

This appendix illustrates the original images obtained from the SOS, and the result of LONG, EGD and MAHA classification methods. The color legends used on the classification for each method is described on figure A.1.

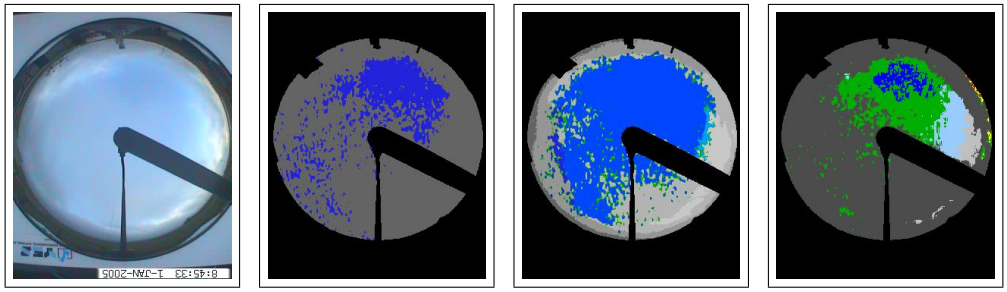


(i) EGD (ii) MAHA (iii) LONG.

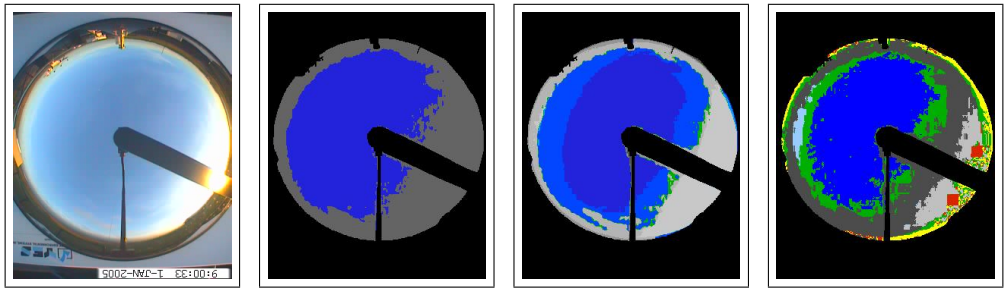
Figure A.1 - Color codes used on each image classification method.



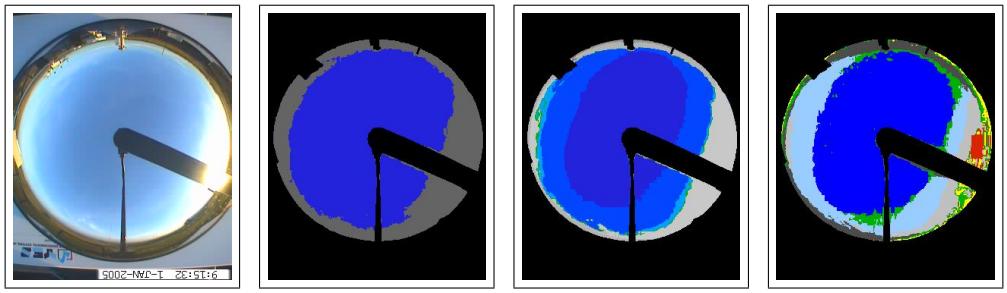
(i) 0501010830 (ii) 0501010830 Long (iii) 0501010830 EGD (iv) 0501010830 MAHA



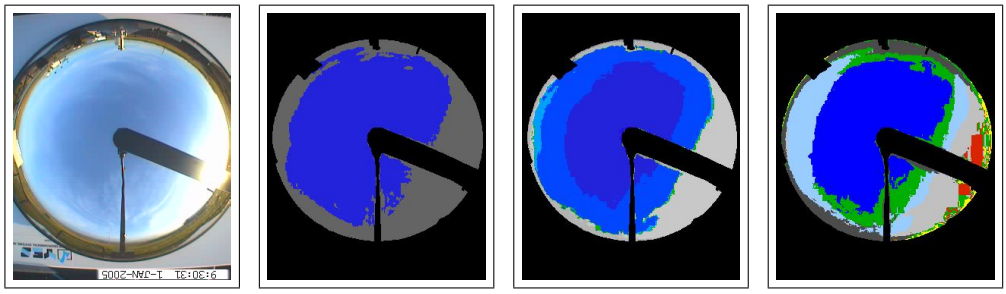
(v) 0501010845 (vi) 0501010845 Long (vii) 0501010845 EGD (viii) 0501010845 MAHA



(ix) 0501010900 (x) 0501010900 Long (xi) 0501010900 EGD (xii) 0501010900 MAHA

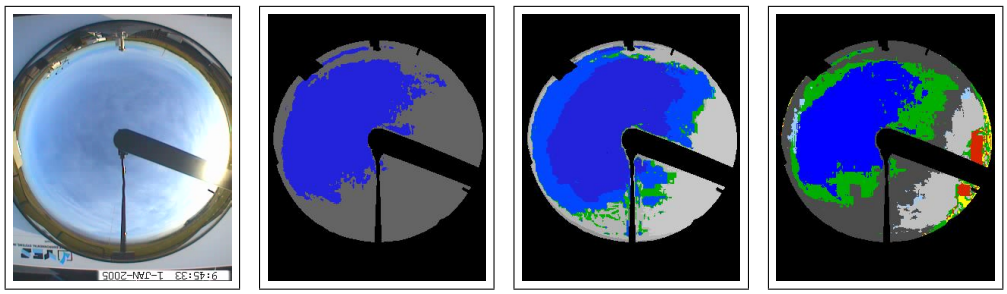


(xiii) 0501010915 (xiv) 0501010915 Long (xv) 0501010915 EGD (xvi) 0501010915 MAHA

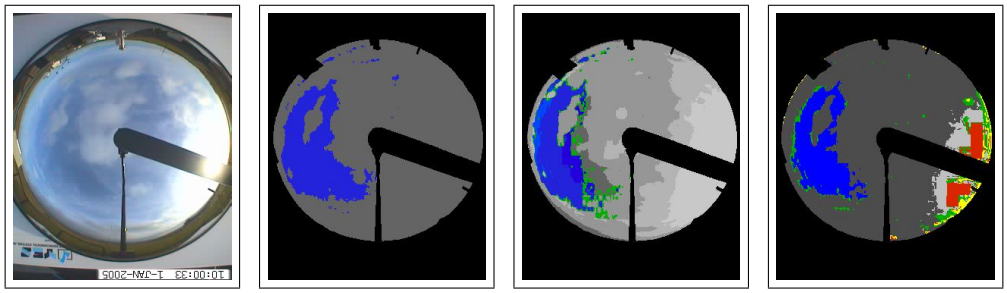


(xvii) 0501010930 (xviii) 0501010930 Long (xix) 0501010930 EGD (xx) 0501010930 MAHA

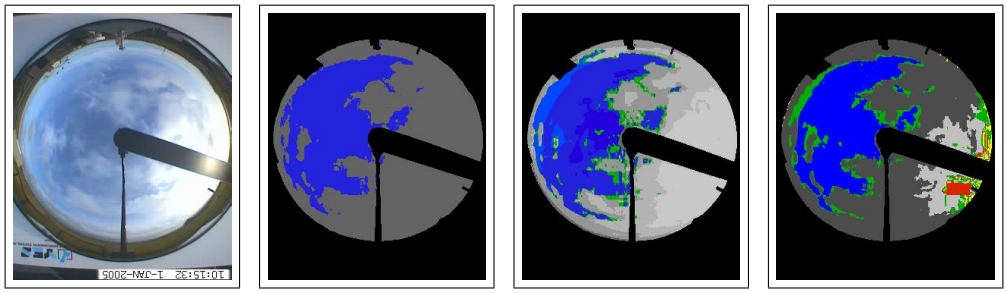
Figure A.2 - Sky images generated from 0501010830 to 0501010930.



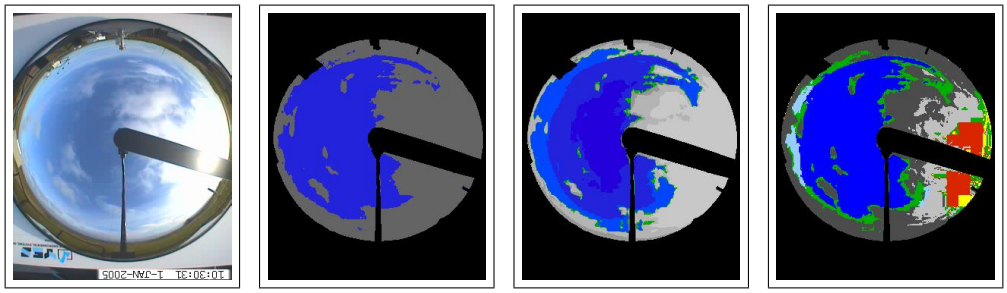
(i) 0501010945 (ii) 0501010945 Long (iii) 0501010945 EGD (iv) 0501010945 MAHA



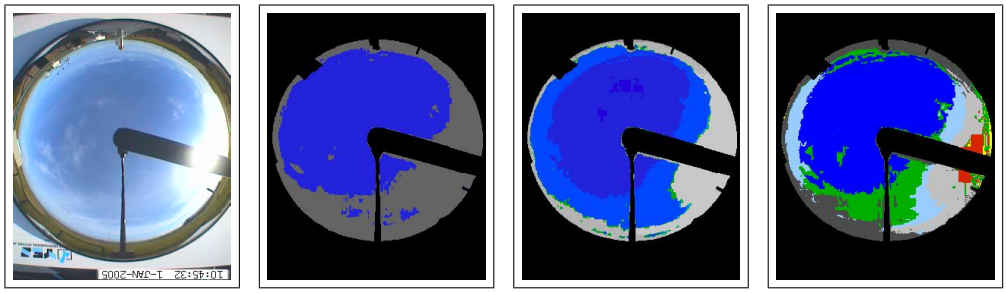
(v) 050101000 (vi) 050101000 Long (vii) 050101000 EGD (viii) 050101000 MAHA



(ix) 0501011015 (x) 0501011015 Long (xi) 0501011015 EGD (xii) 0501011015 MAHA

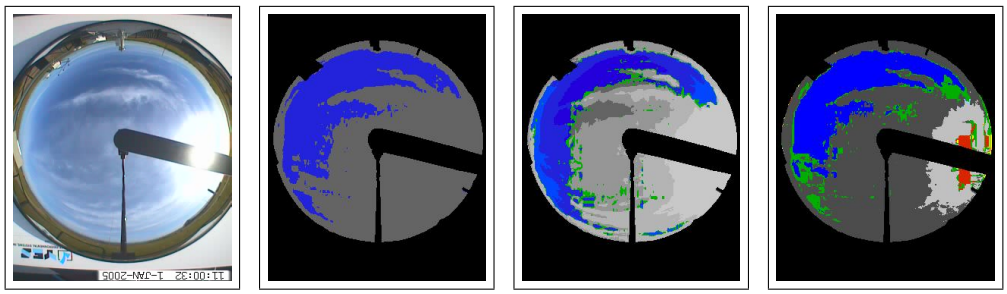


(xiii) 0501011030 (xiv) 0501011030 Long (xv) 0501011030 EGD (xvi) 0501011030 MAHA

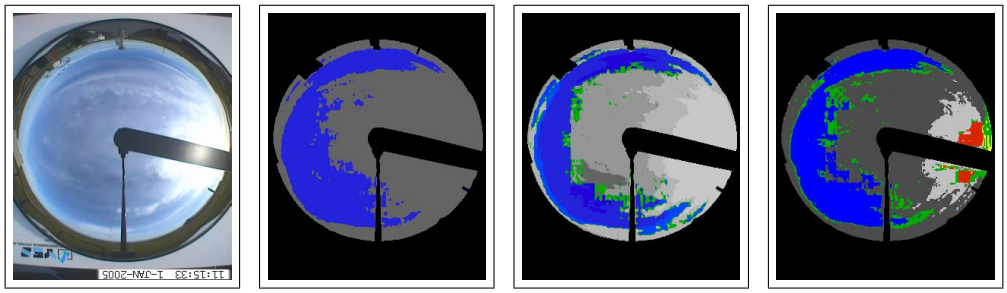


(xvii) 0501011045 (xviii) 0501011045 Long (xix) 0501011045 EGD (xx) 0501011045 MAHA

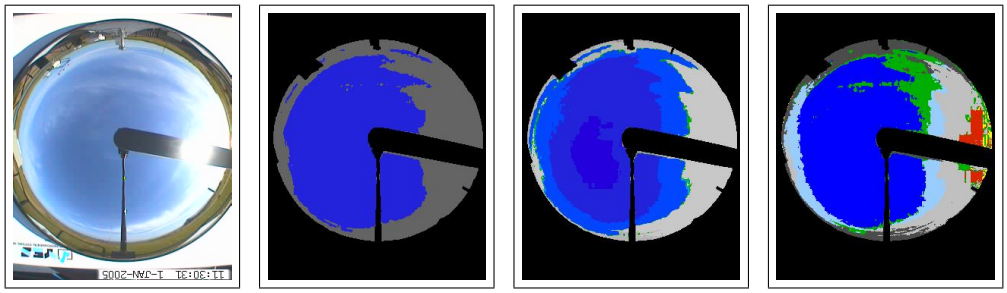
Figure A.3 - Sky images generated from 0501010945 to 0501011045.



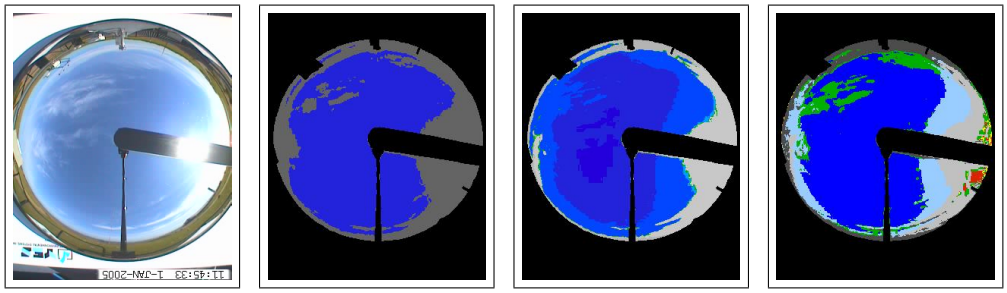
(i) 0501011100 (ii) 0501011100 Long (iii) 0501011100 EGD (iv) 0501011100 MAHA



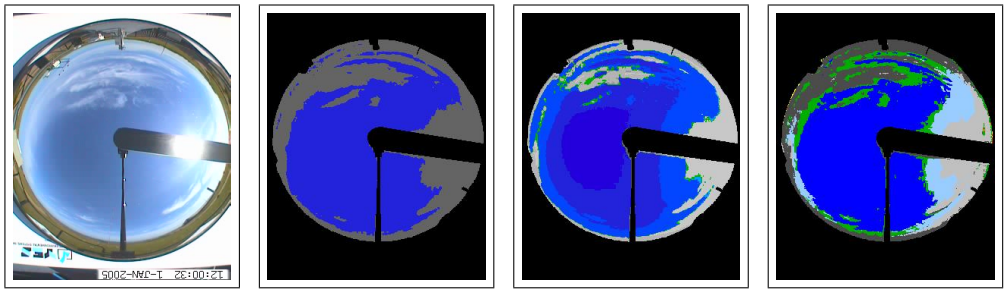
(v) 0501011115 (vi) 0501011115 Long (vii) 0501011115 EGD (viii) 0501011115 MAHA



(ix) 0501011130 (x) 0501011130 Long (xi) 0501011130 EGD (xii) 0501011130 MAHA

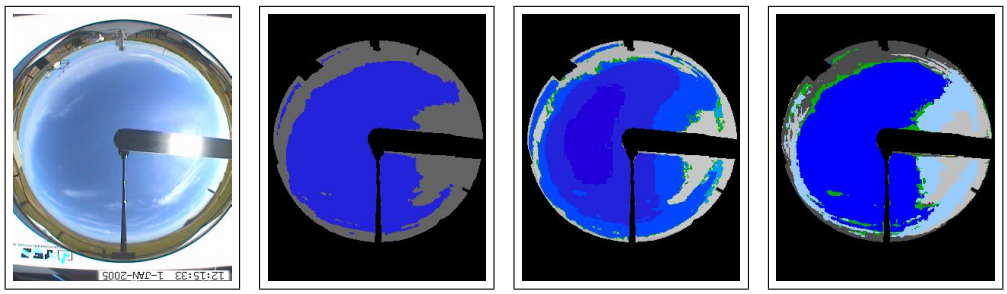


(xiii) 0501011145 (xiv) 0501011145 Long (xv) 0501011145 EGD (xvi) 0501011145 MAHA

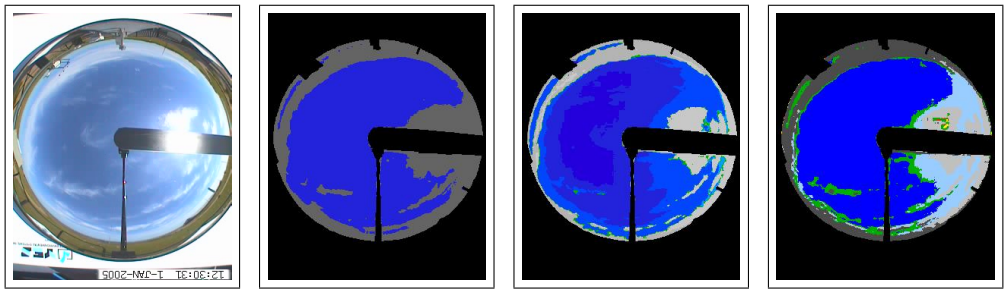


(xvii) 0501011200 (xviii) 0501011200 Long (xix) 0501011200 EGD (xx) 0501011200 MAHA

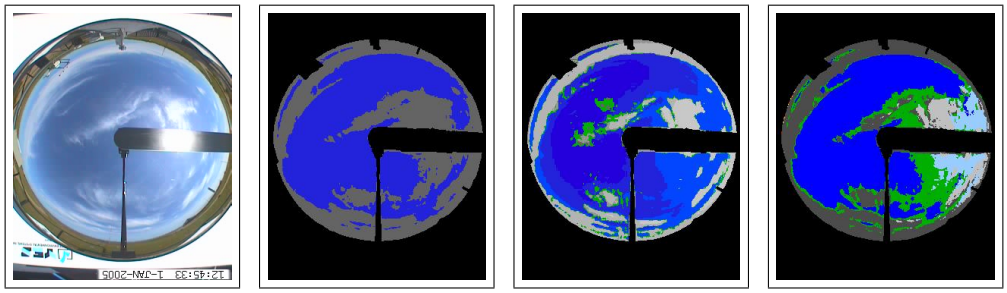
Figure A.4 - Sky images generated from 050101100 to 0501011200.



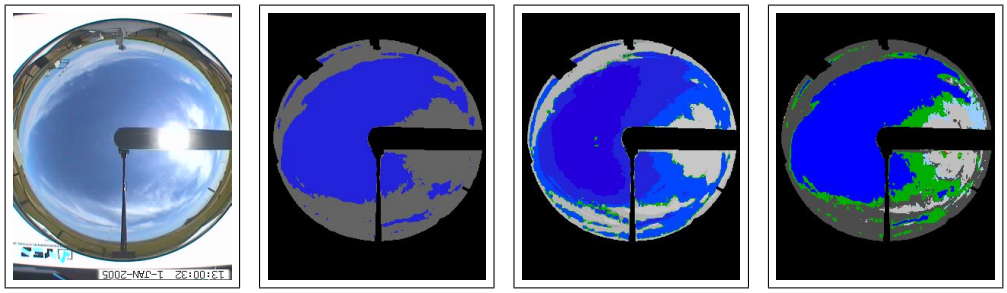
(i) 0501011215 (ii) 0501011215 Long (iii) 0501011215 EGD (iv) 0501011215 MAHA



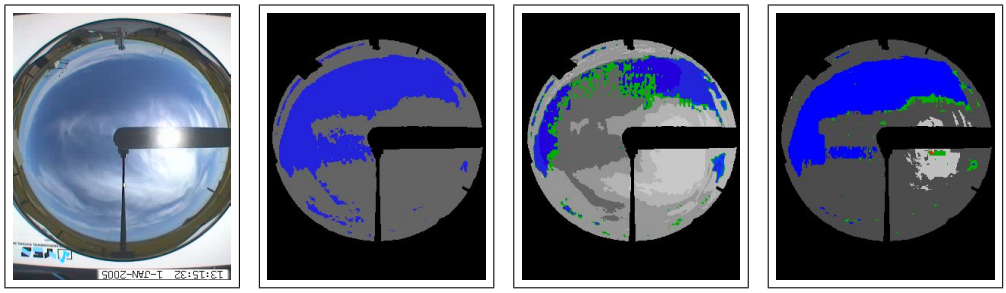
(v) 0501011230 (vi) 0501011230 Long (vii) 0501011230 EGD (viii) 0501011230 MAHA



(ix) 0501011245 (x) 0501011245 Long (xi) 0501011245 EGD (xii) 0501011245 MAHA

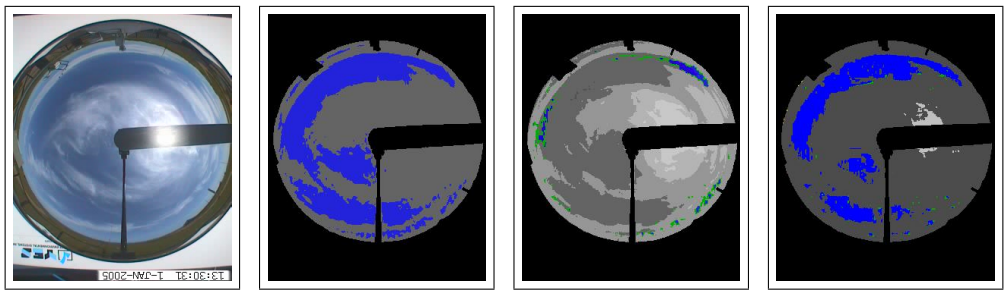


(xiii) 0501011300 (xiv) 0501011300 Long (xv) 0501011300 EGD (xvi) 0501011300 MAHA

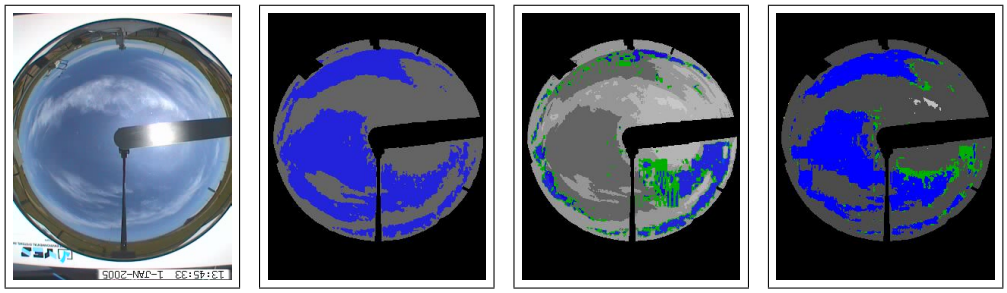


(xvii) 0501011315 (xviii) 0501011315 Long (xix) 0501011315 EGD (xx) 0501011315 MAHA

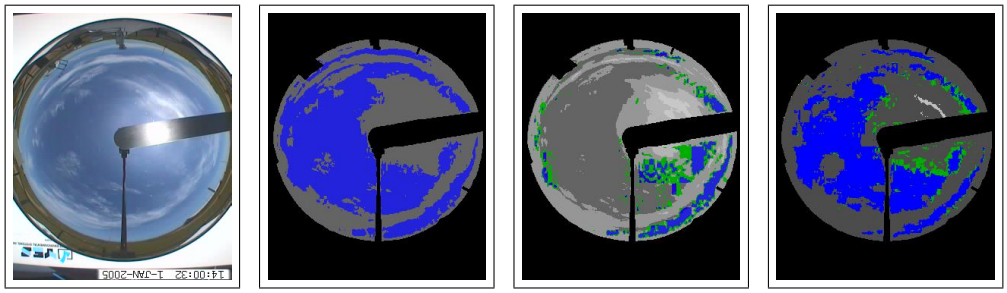
Figure A.5 - Sky images generated from 0501011215 to 0501011315.



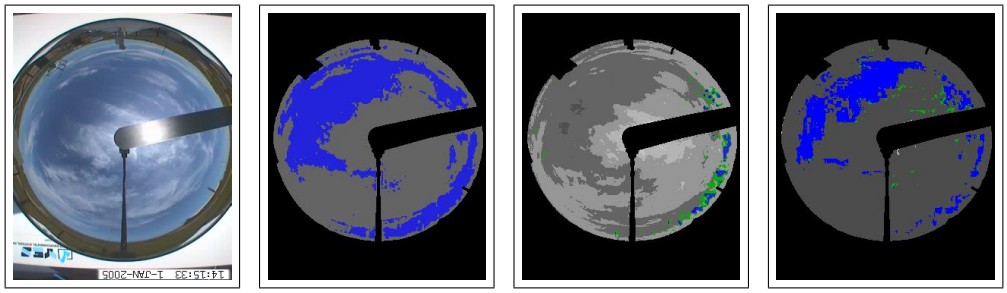
(i) 0501011330 (ii) 0501011330 Long (iii) 0501011330 EGD (iv) 0501011330 MAHA



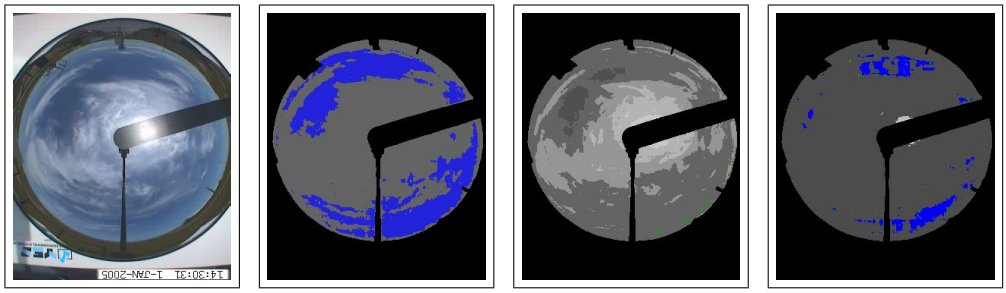
(v) 0501011345 (vi) 0501011345 Long (vii) 0501011345 EGD (viii) 0501011345 MAHA



(ix) 0501011400 (x) 0501011400 Long (xi) 0501011400 EGD (xii) 0501011400 MAHA

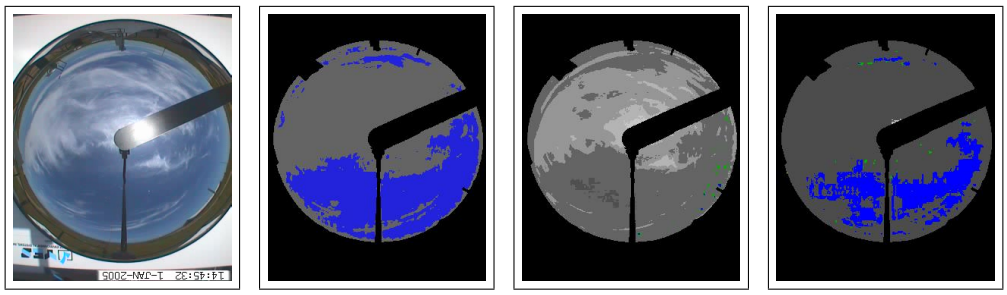


(xiii) 0501011415 (xiv) 0501011415 Long (xv) 0501011415 EGD (xvi) 0501011415 MAHA

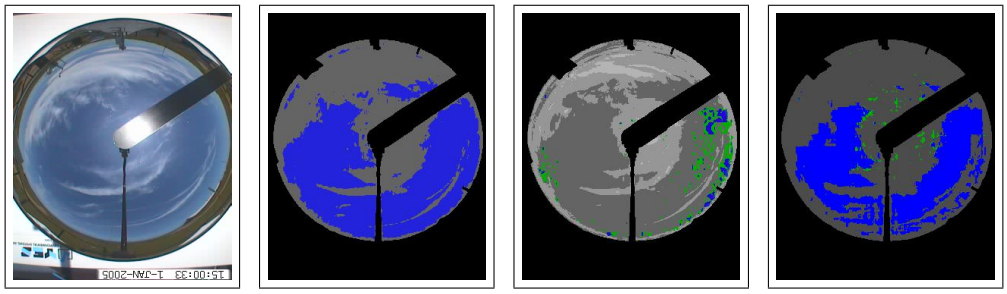


(xvii) 0501011430 (xviii) 0501011430 Long (xix) 0501011430 EGD (xx) 0501011430 MAHA

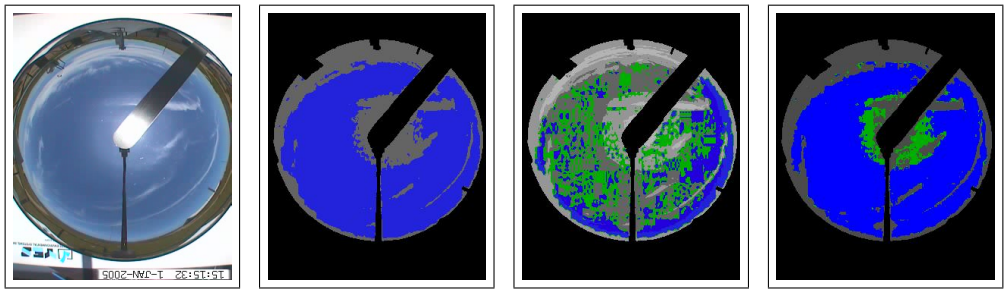
Figure A.6 - Sky images generated from 0501011330 to 0501011430.



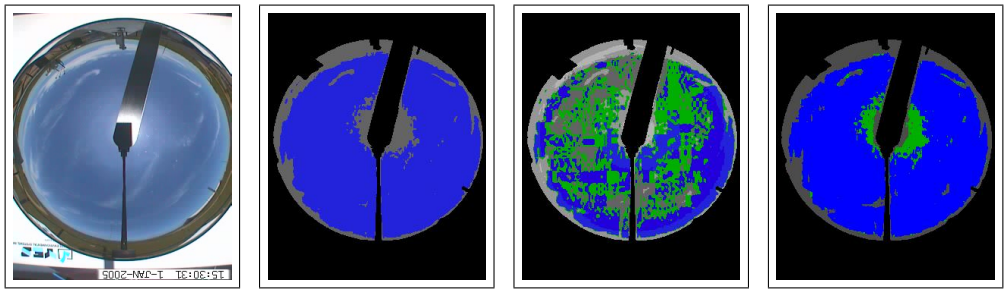
(i) 0501011445 (ii) 0501011445 Long (iii) 0501011445 EGD (iv) 0501011445 MAHA



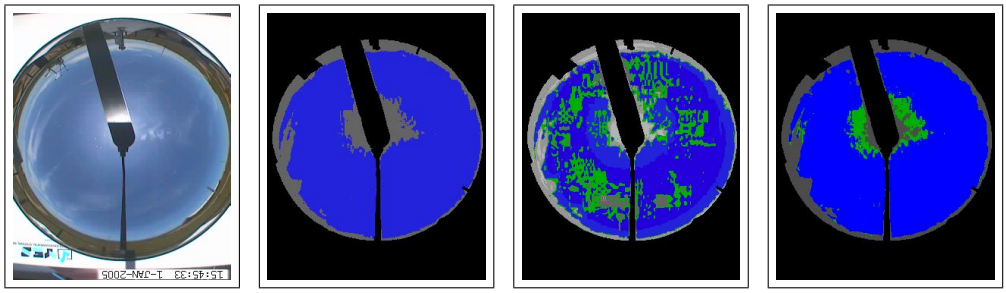
(v) 0501011500 (vi) 0501011500 Long (vii) 0501011500 EGD (viii) 0501011500 MAHA



(ix) 0501011515 (x) 0501011515 Long (xi) 0501011515 EGD (xii) 0501011515 MAHA

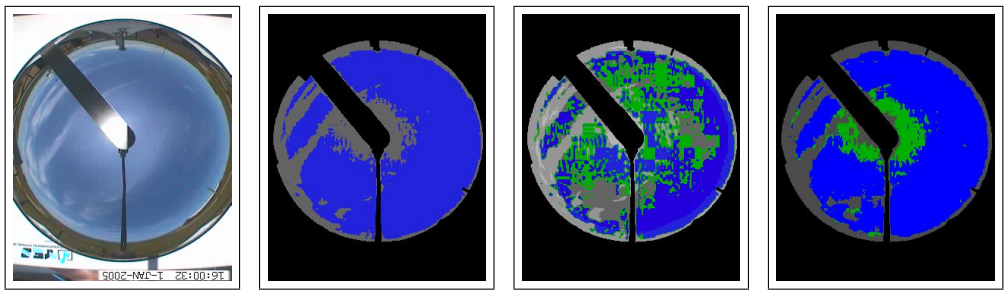


(xiii) 0501011530 (xiv) 0501011530 Long (xv) 0501011530 EGD (xvi) 0501011530 MAHA

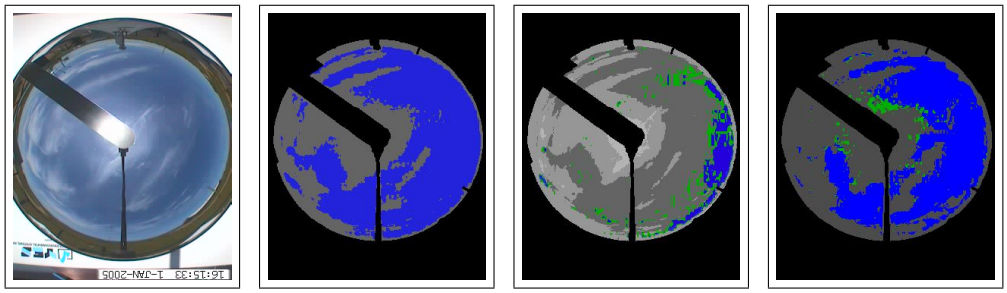


(xvii) 0501011545 (xviii) 0501011545 Long (xix) 0501011545 EGD (xx) 0501011545 MAHA

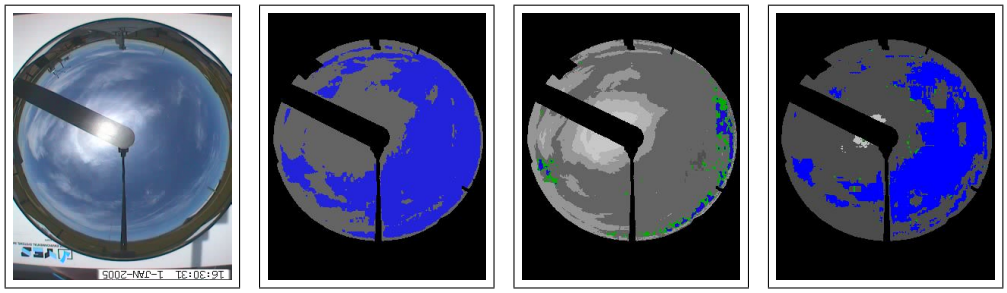
Figure A.7 - Sky images generated from 0501011445 to 0501011545.



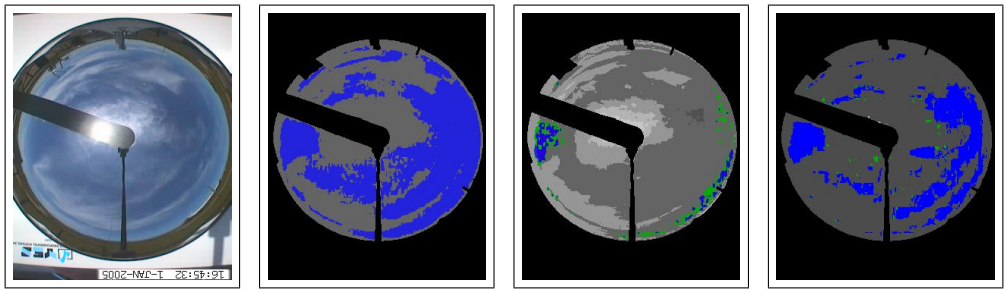
(i) 0501011600 (ii) 0501011600 Long (iii) 0501011600 EGD (iv) 0501011600 MAHA



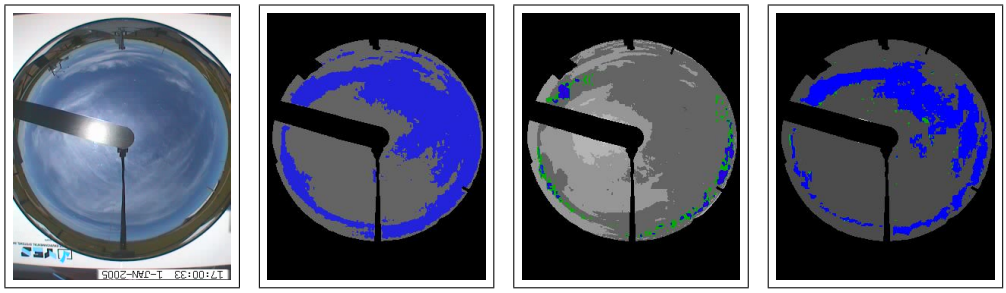
(v) 0501011615 (vi) 0501011615 Long (vii) 0501011615 EGD (viii) 0501011615 MAHA



(ix) 0501011630 (x) 0501011630 Long (xi) 0501011630 EGD (xii) 0501011630 MAHA

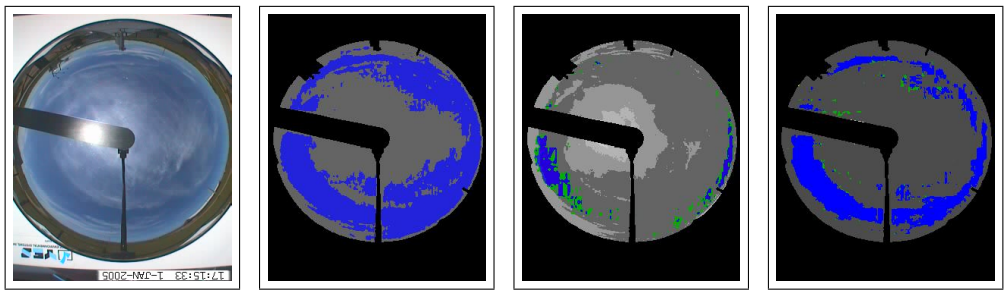


(xiii) 0501011645 (xiv) 0501011645 Long (xv) 0501011645 EGD (xvi) 0501011645 MAHA

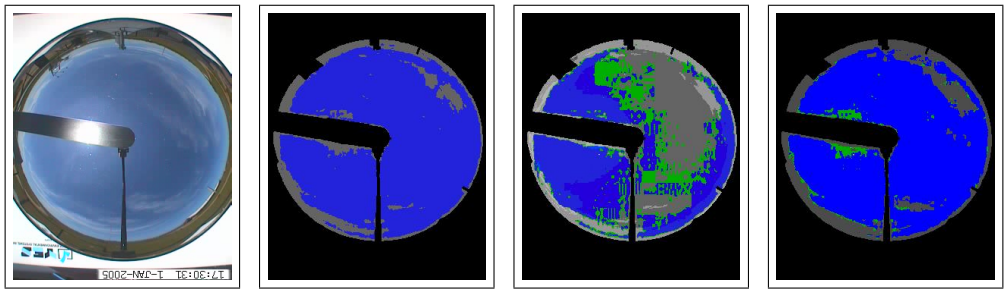


(xvii) 0501011700 (xviii) 0501011700 Long (xix) 0501011700 EGD (xx) 0501011700 MAHA

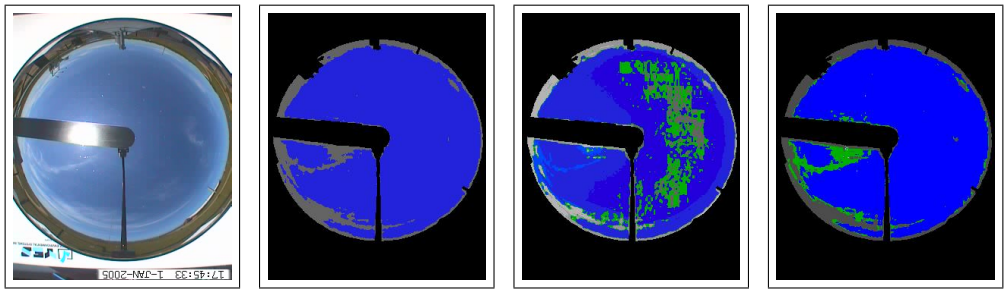
Figure A.8 - Sky images generated from 0501011600 to 0501011700.



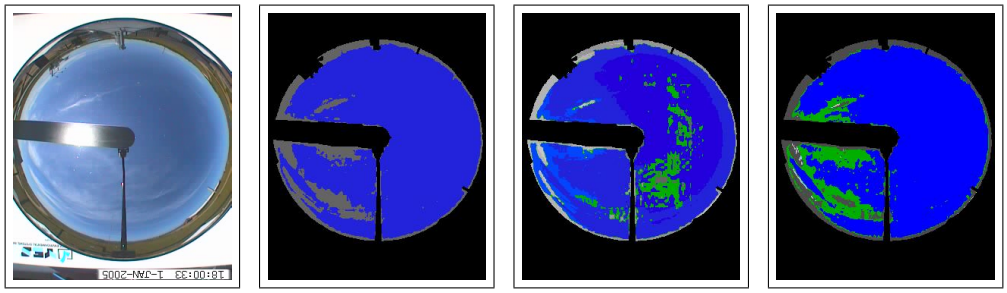
(i) 0501011715 (ii) 0501011715 Long (iii) 0501011715 EGD (iv) 0501011715 MAHA



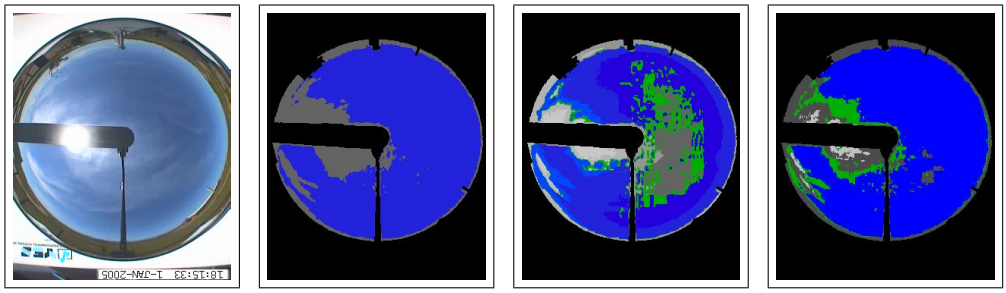
(v) 0501011730 (vi) 0501011730 Long (vii) 0501011730 EGD (viii) 0501011730 MAHA



(ix) 0501011745 (x) 0501011745 Long (xi) 0501011745 EGD (xii) 0501011745 MAHA

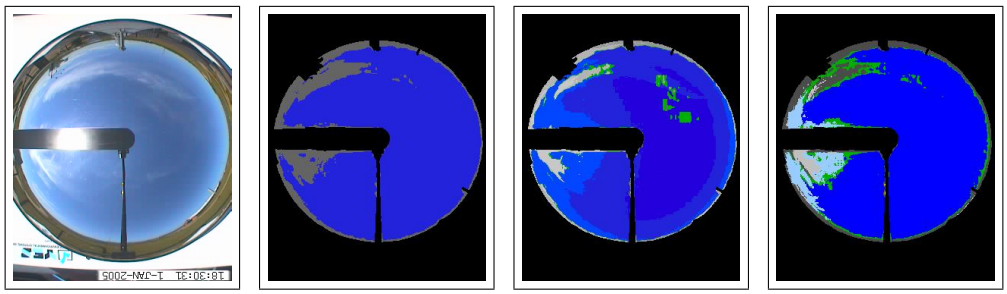


(xiii) 0501011800 (xiv) 0501011800 Long (xv) 0501011800 EGD (xvi) 0501011800 MAHA

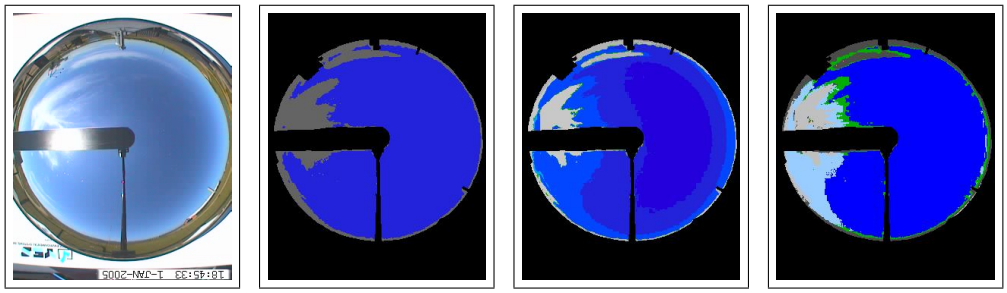


(xvii) 0501011815 (xviii) 0501011815 Long (xix) 0501011815 EGD (xx) 0501011815 MAHA

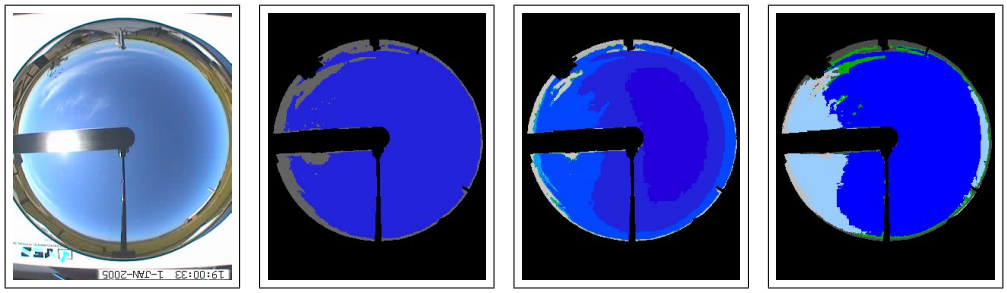
Figure A.9 - Sky images generated from 0501011715 to 0501011815.



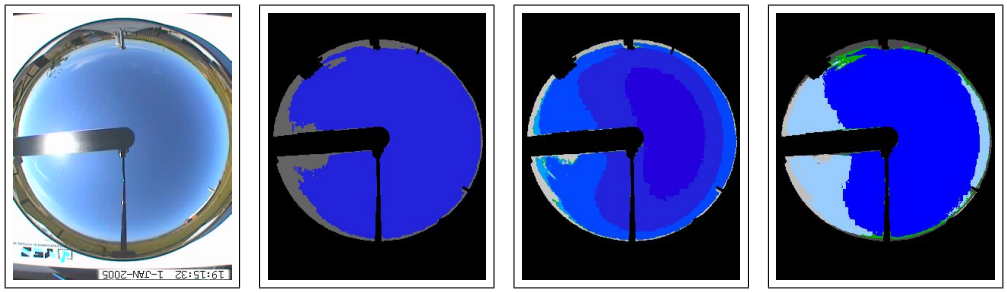
(i) 0501011830 (ii) 0501011830 Long (iii) 0501011830 EGD (iv) 0501011830 MAHA



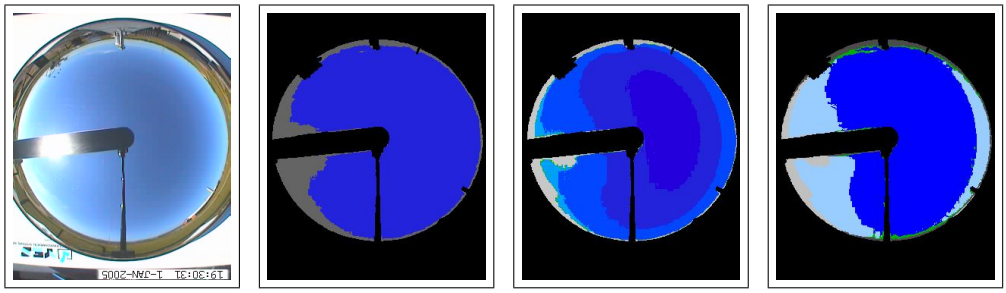
(v) 0501011845 (vi) 0501011845 Long (vii) 0501011845 EGD (viii) 0501011845 MAHA



(ix) 0501011900 (x) 0501011900 Long (xi) 0501011900 EGD (xii) 0501011900 MAHA

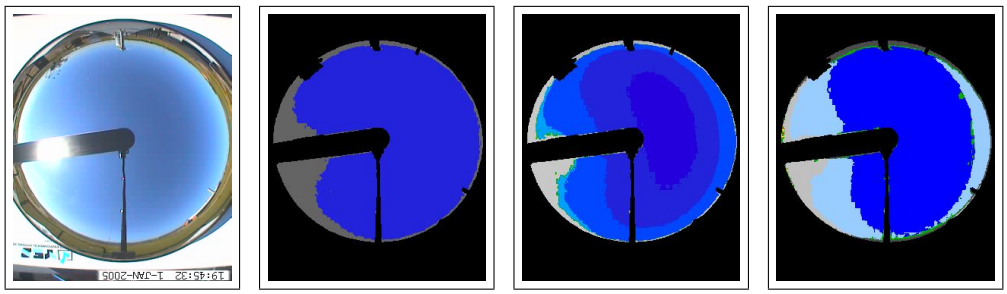


(xiii) 0501011915 (xiv) 0501011915 Long (xv) 0501011915 EGD (xvi) 0501011915 MAHA

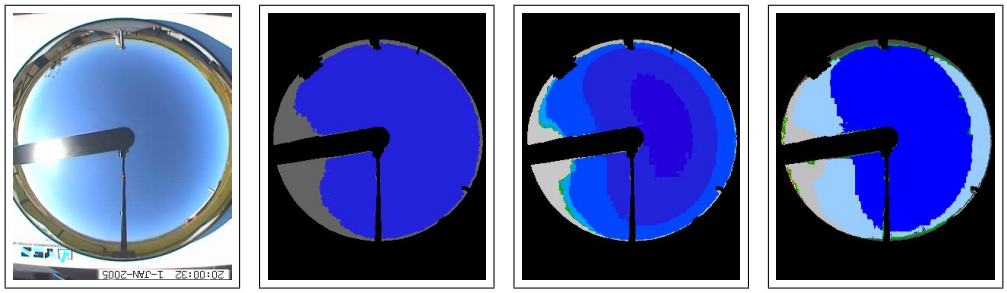


(xvii) 0501011930 (xviii) 0501011930 Long (xix) 0501011930 EGD (xx) 0501011930 MAHA

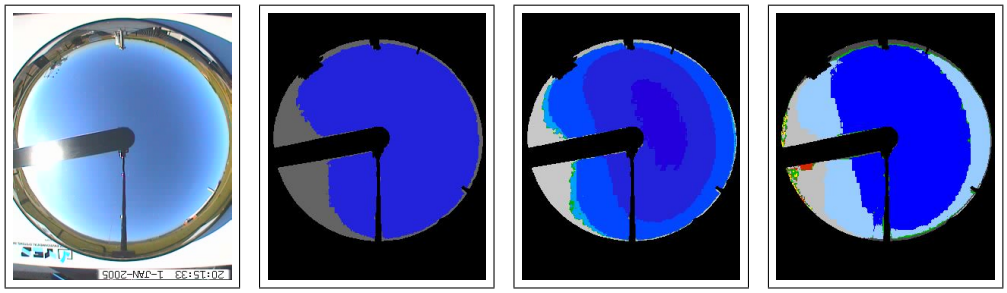
Figure A.10 - Sky images generated from 0501011830 to 0501011930.



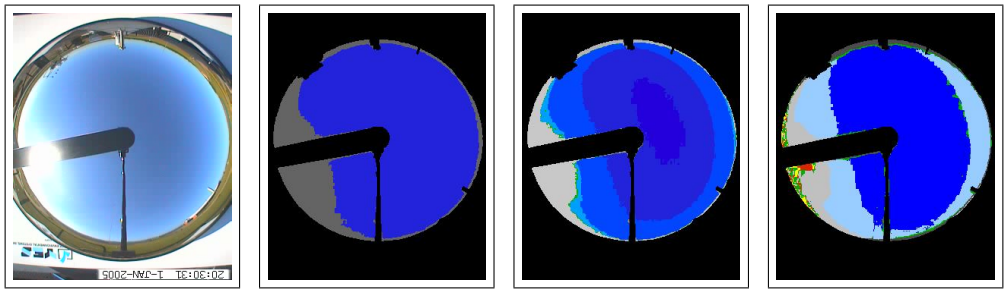
(i) 0501011945 (ii) 0501011945 Long (iii) 0501011945 EGD (iv) 0501011945 MAHA



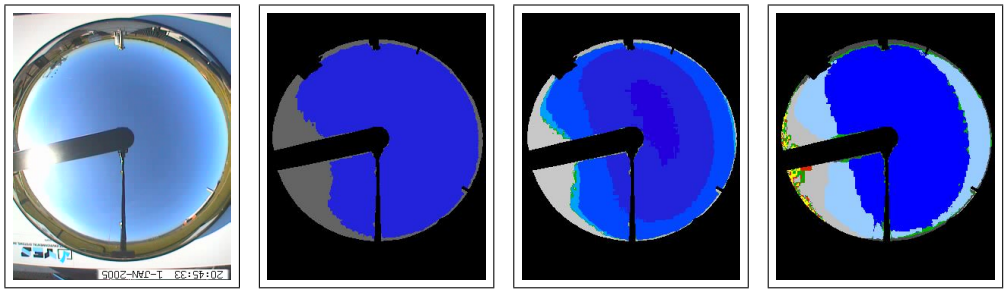
(v) 0501012000 (vi) 0501012000 Long (vii) 0501012000 EGD (viii) 0501012000 MAHA



(ix) 0501012015 (x) 0501012015 Long (xi) 0501012015 EGD (xii) 0501012015 MAHA

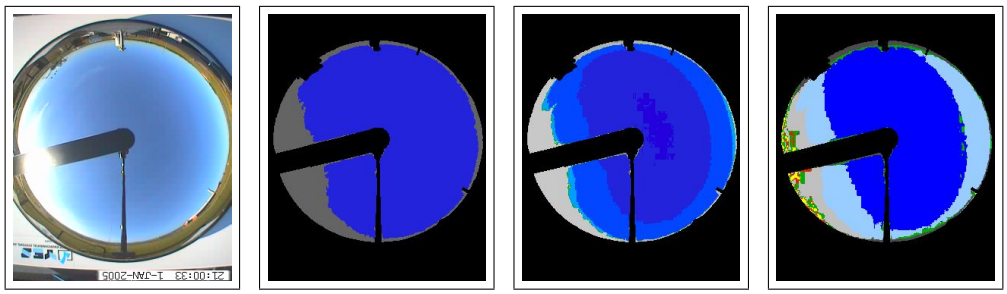


(xiii) 0501012030 (xiv) 0501012030 Long (xv) 0501012030 EGD (xvi) 0501012030 MAHA

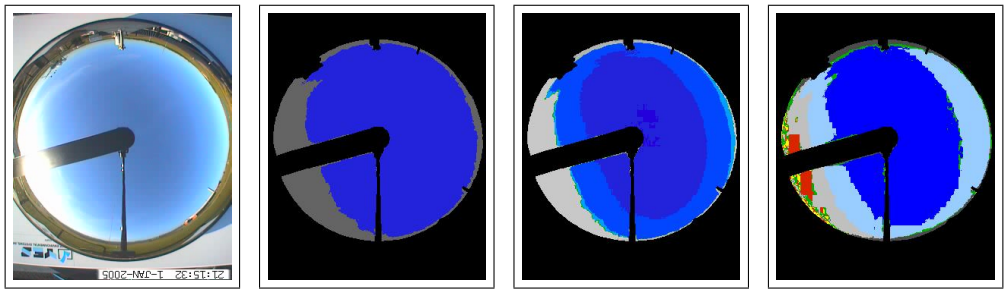


(xvii) 0501012045 (xviii) 0501012045 Long (xix) 0501012045 EGD (xx) 0501012045 MAHA

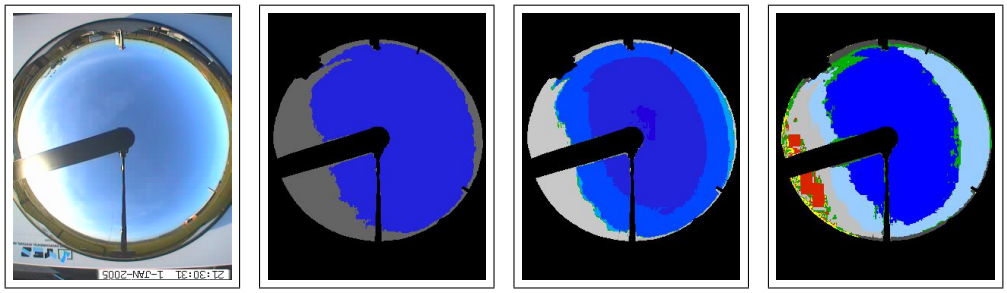
Figure A.11 - Sky images generated from 0501011945 to 0501012045.



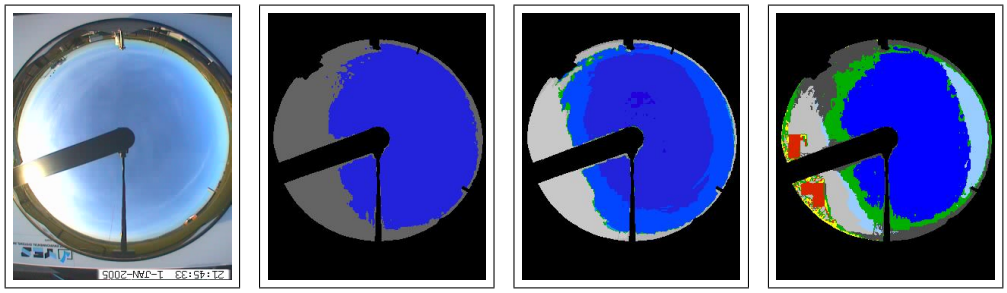
(i) 0501012100 (ii) 0501012100 Long (iii) 0501012100 EGD (iv) 0501012100 MAHA



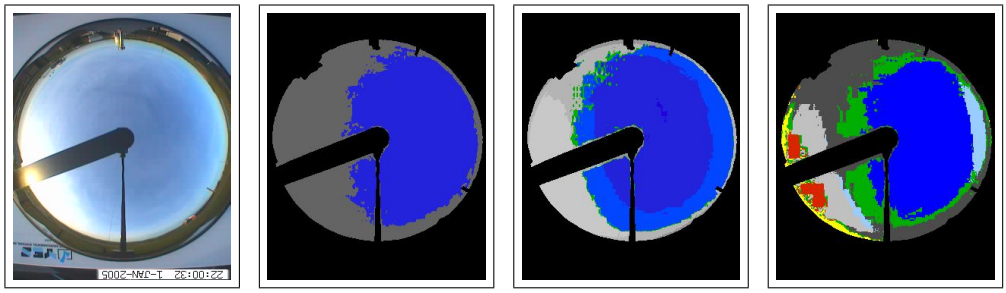
(v) 0501012115 (vi) 0501012115 Long (vii) 0501012115 EGD (viii) 0501012115 MAHA



(ix) 0501012130 (x) 0501012130 Long (xi) 0501012130 EGD (xii) 0501012130 MAHA



(xiii) 0501012145 (xiv) 0501012145 Long (xv) 0501012145 EGD (xvi) 0501012145 MAHA

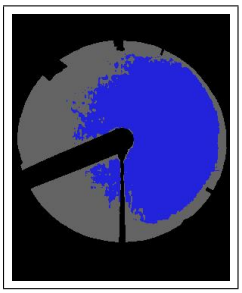


(xvii) 0501012200 (xviii) 0501012200 Long (xix) 0501012200 EGD (xx) 0501012200 MAHA

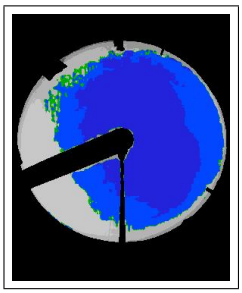
Figure A.12 - Sky images generated from 0501012100 to 0501012200.



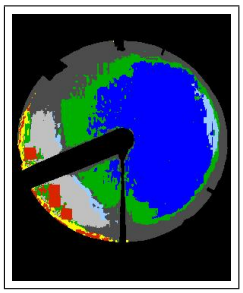
(i) 0501012215



(ii) 0501012215 Long



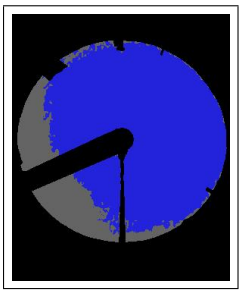
(iii) 0501012215 EGD



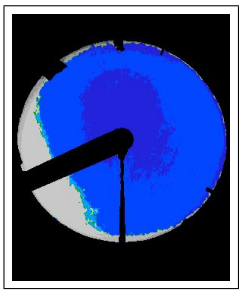
(iv) 0501012215 MAHA



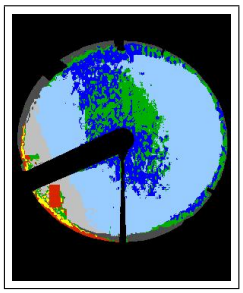
(v) 0501012230



(vi) 0501012230 Long



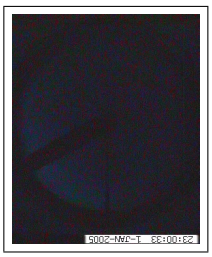
(vii) 0501012230 EGD



(viii) 0501012230 MAHA

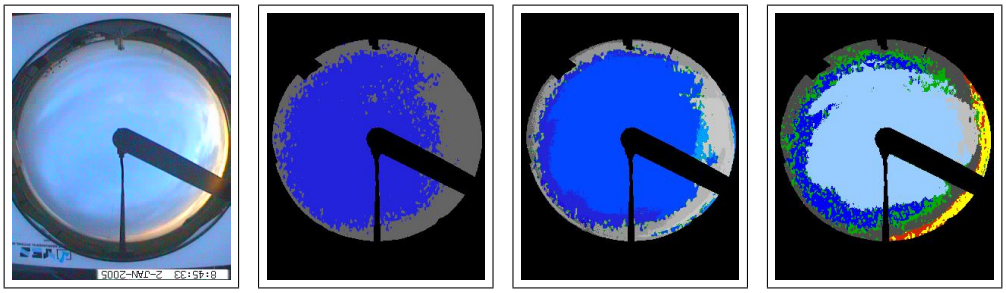


(ix) 0501012245

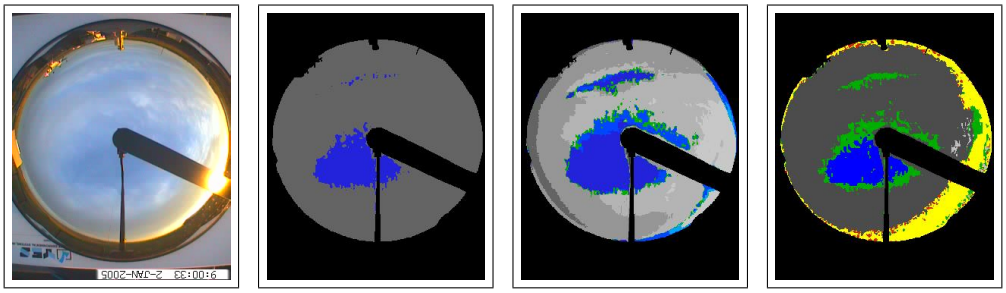


(x) 0501012300

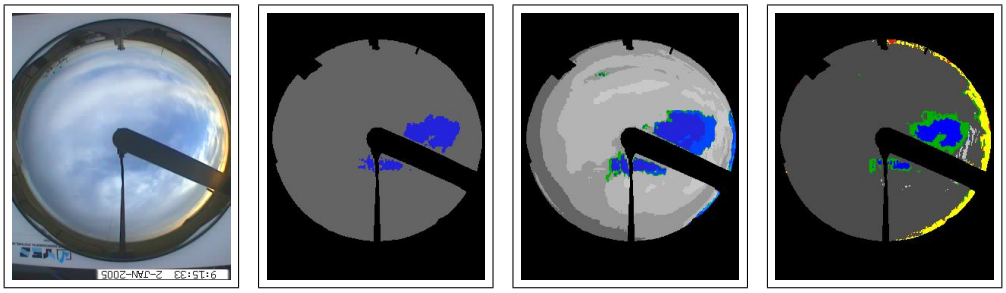
Figure A.13 - Sky images generated from 0501011600 to 0501012300.



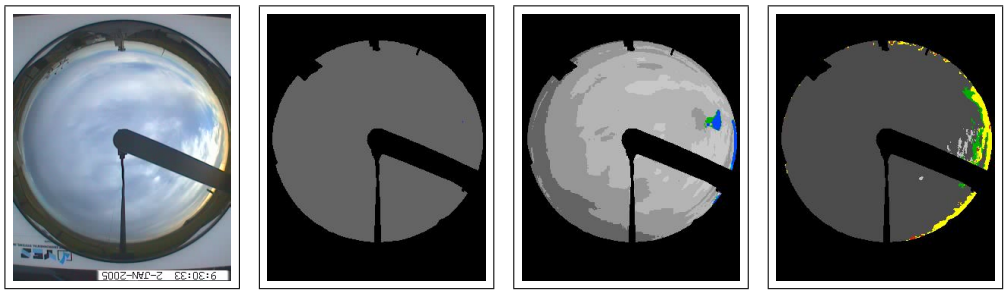
(i) 0501020845 (ii) 0501020845 Long (iii) 0501020845 EGD (iv) 0501020845 MAHA



(v) 0501020900 (vi) 0501020900 Long (vii) 0501020900 EGD (viii) 0501020900 MAHA

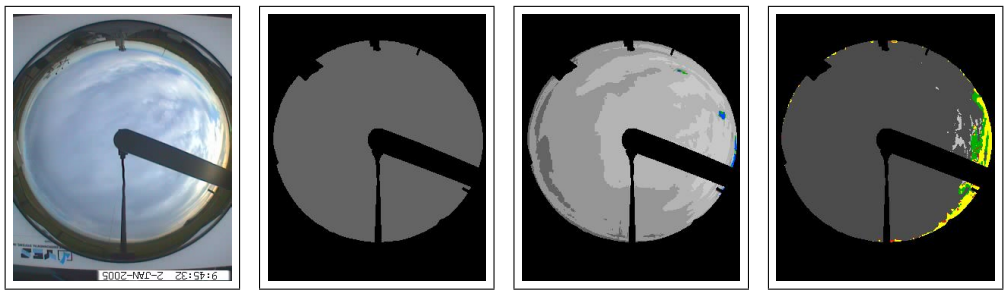


(ix) 0501020915 (x) 0501020915 Long (xi) 0501020915 EGD (xii) 0501020915 MAHA

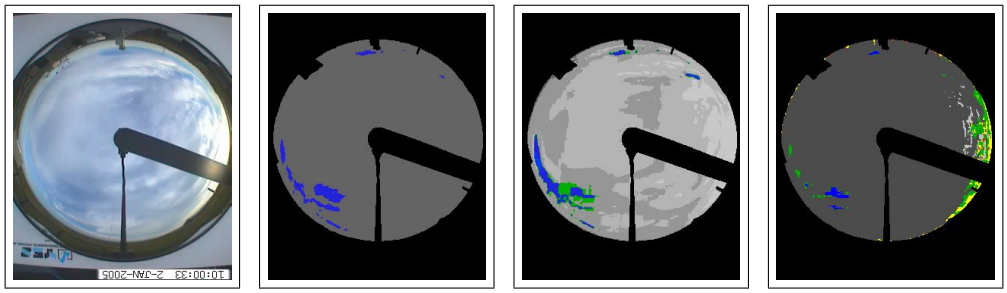


(xiii) 0501020930 (xiv) 0501020930 Long (xv) 0501020930 EGD (xvi) 0501020930 MAHA

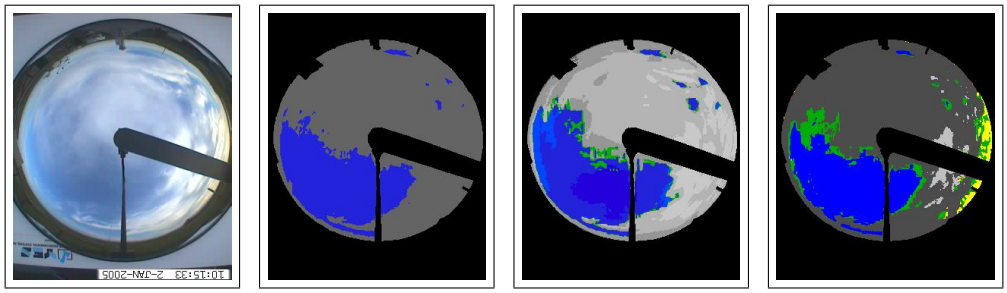
Figure A.14 - Sky images generated from 0501020845 to 0501020930.



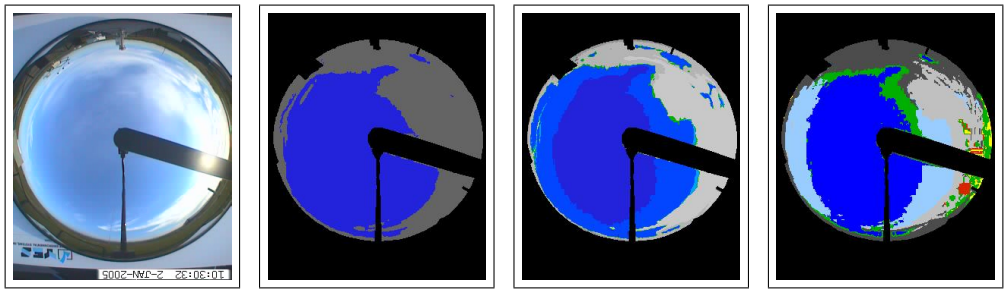
(i) 0501020945 (ii) 0501020945 Long (iii) 0501020945 EGD (iv) 0501020945 MAHA



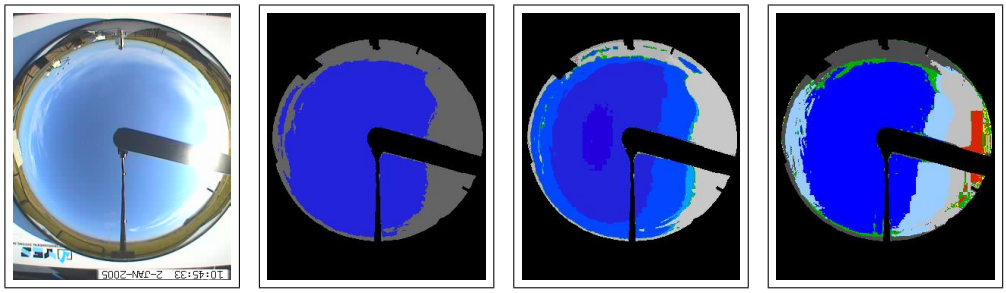
(v) 050102000 (vi) 050102000 Long (vii) 050102000 EGD (viii) 050102000 MAHA



(ix) 0501021015 (x) 0501021015 Long (xi) 0501021015 EGD (xii) 0501021015 MAHA

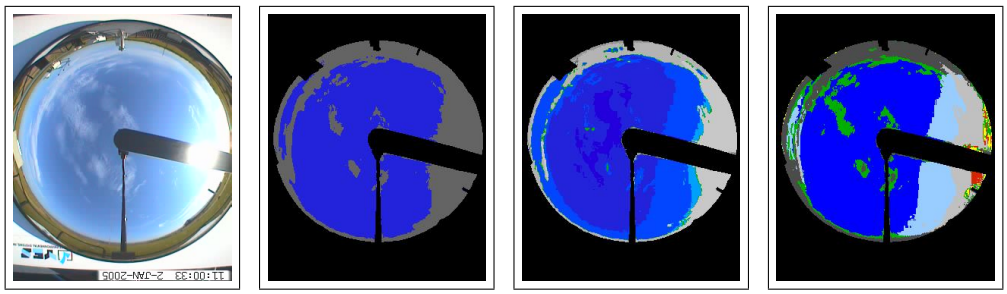


(xiii) 0501021030 (xiv) 0501021030 Long (xv) 0501021030 EGD (xvi) 0501021030 MAHA

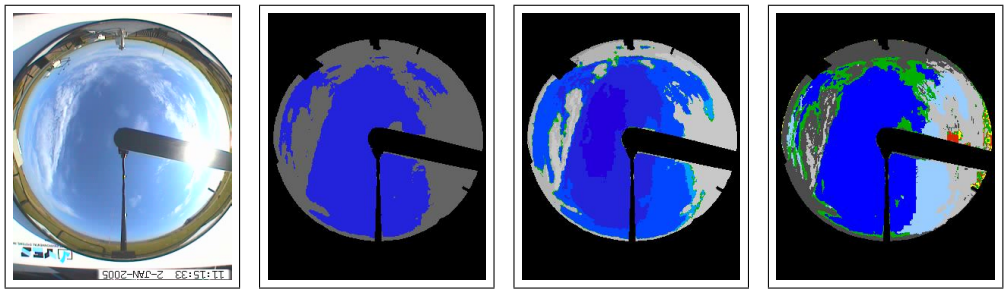


(xvii) 0501021045 (xviii) 0501021045 Long (xix) 0501021045 EGD (xx) 0501021045 MAHA

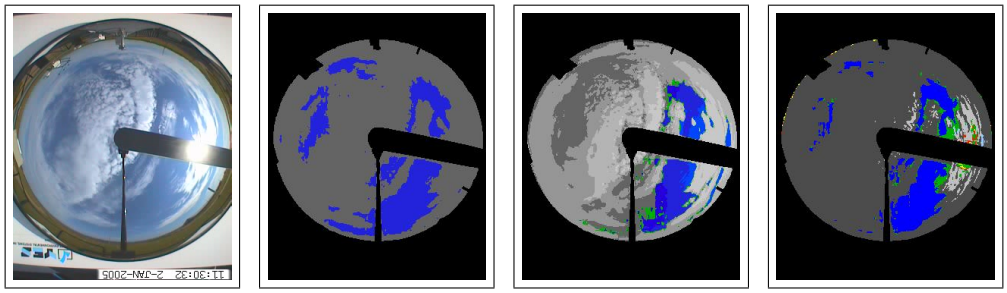
Figure A.15 - Sky images generated from 0501020945 to 0501021045.



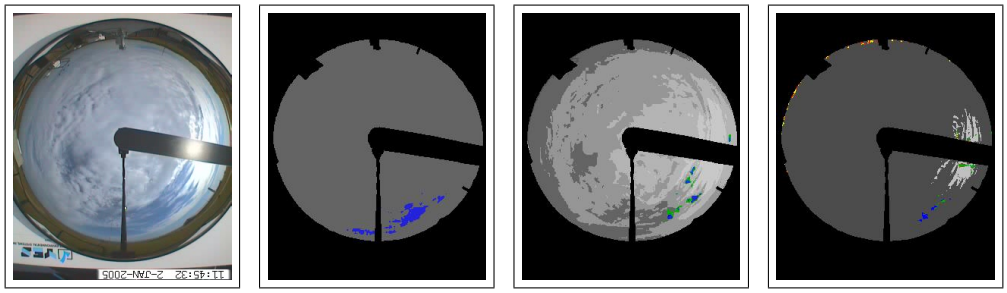
(i) 0501021100 (ii) 0501021100 Long (iii) 0501021100 EGD (iv) 0501021100 MAHA



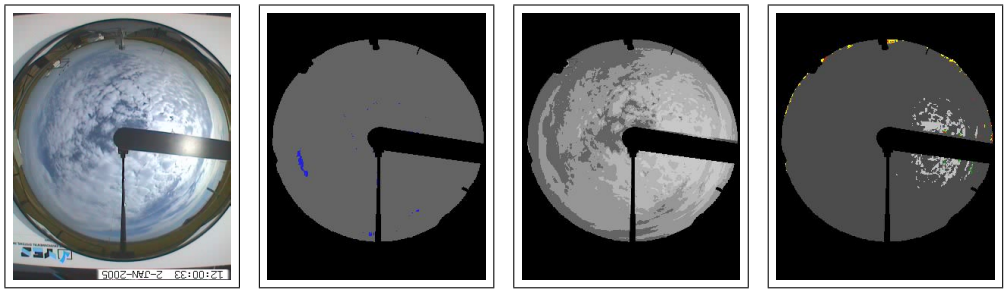
(v) 0501021115 (vi) 0501021115 Long (vii) 0501021115 EGD (viii) 0501021115 MAHA



(ix) 0501021130 (x) 0501021130 Long (xi) 0501021130 EGD (xii) 0501021130 MAHA

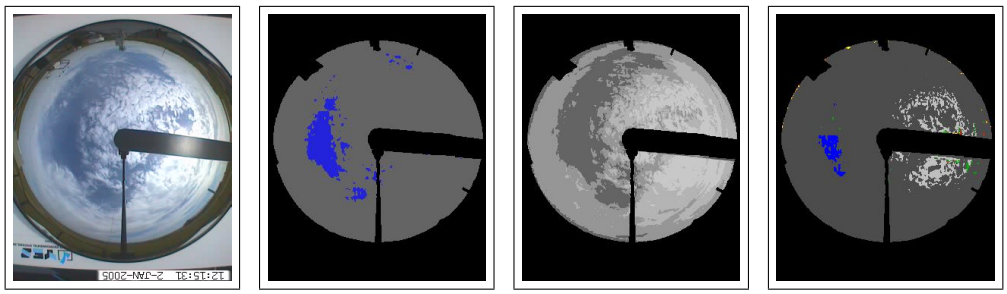


(xiii) 0501021145 (xiv) 0501021145 Long (xv) 0501021145 EGD (xvi) 0501021145 MAHA

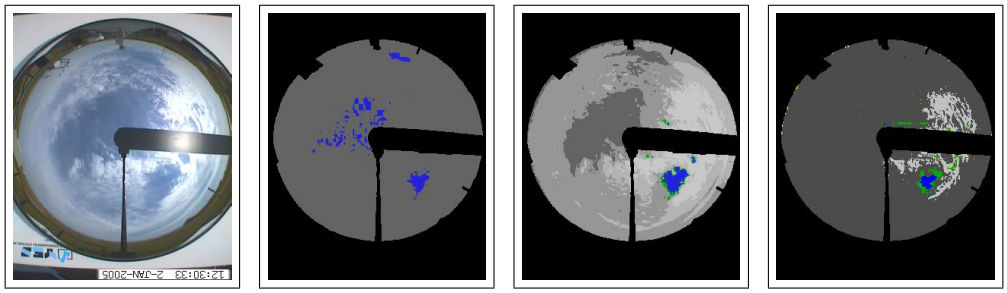


(xvii) 0501021200 (xviii) 0501021200 Long (xix) 0501021200 EGD (xx) 0501021200 MAHA

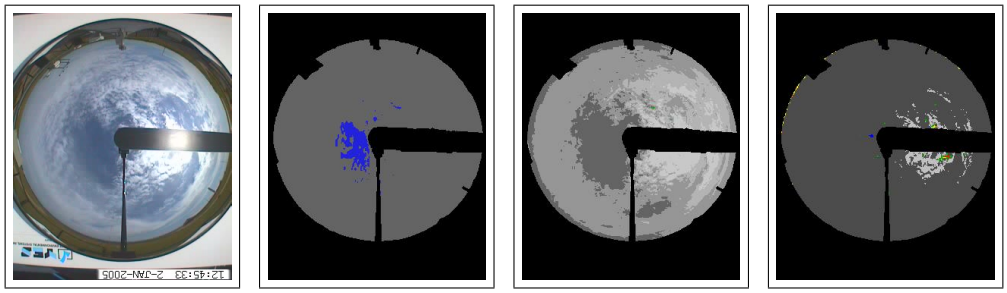
Figure A.16 - Sky images generated from 050102100 to 0501021200.



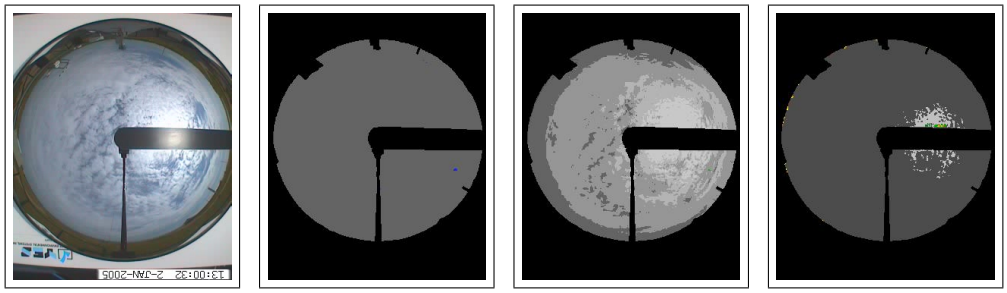
(i) 0501021215 (ii) 0501021215 Long (iii) 0501021215 EGD (iv) 0501021215 MAHA



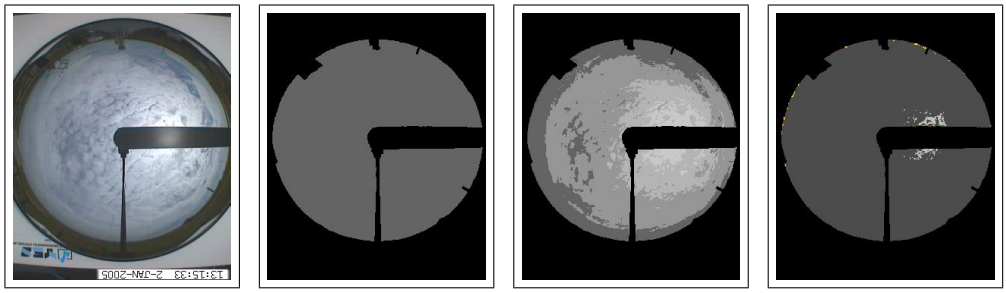
(v) 0501021230 (vi) 0501021230 Long (vii) 0501021230 EGD (viii) 0501021230 MAHA



(ix) 0501021245 (x) 0501021245 Long (xi) 0501021245 EGD (xii) 0501021245 MAHA

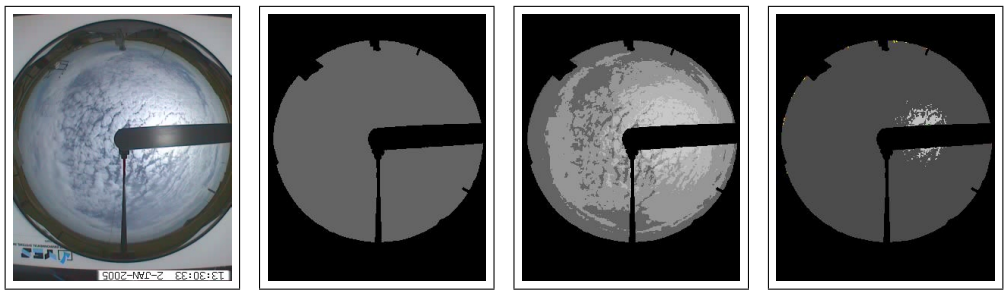


(xiii) 0501021300 (xiv) 0501021300 Long (xv) 0501021300 EGD (xvi) 0501021300 MAHA

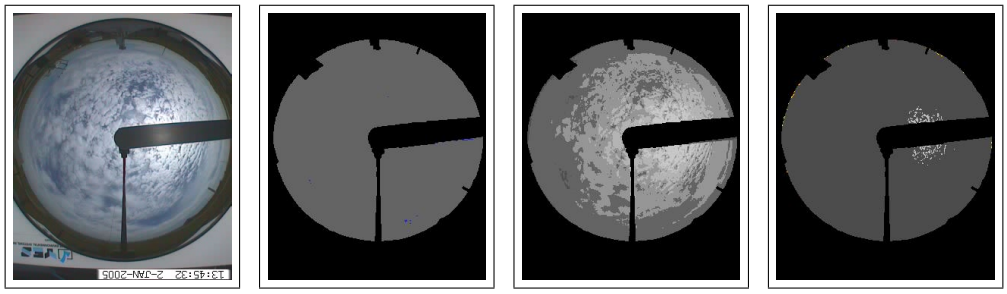


(xvii) 0501021315 (xviii) 0501021315 Long (xix) 0501021315 EGD (xx) 0501021315 MAHA

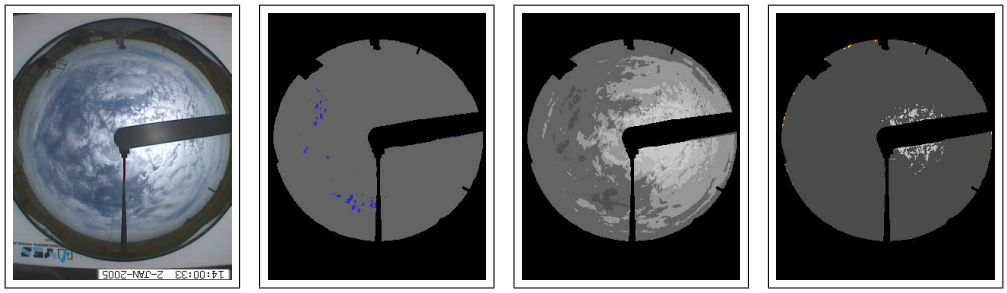
Figure A.17 - Sky images generated from 0501021215 to 0501021315.



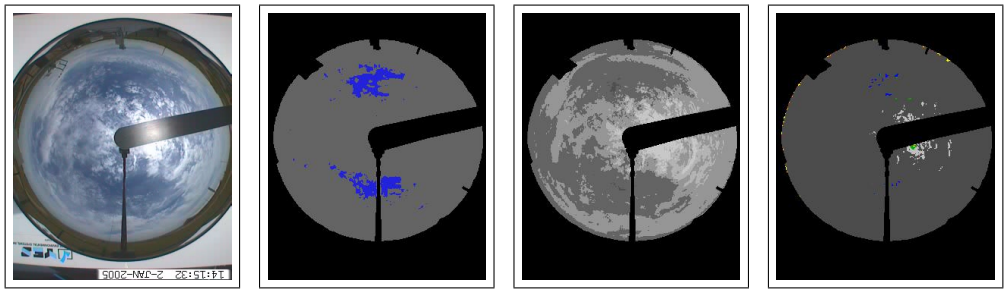
(i) 0501021330 (ii) 0501021330 Long (iii) 0501021330 EGD (iv) 0501021330 MAHA



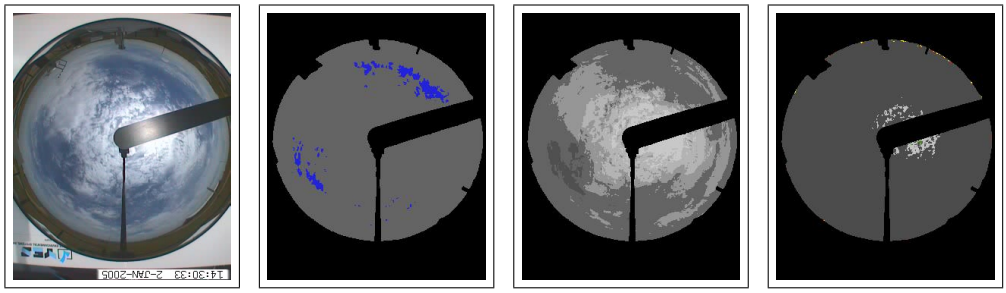
(v) 0501021345 (vi) 0501021345 Long (vii) 0501021345 EGD (viii) 0501021345 MAHA



(ix) 0501021400 (x) 0501021400 Long (xi) 0501021400 EGD (xii) 0501021400 MAHA

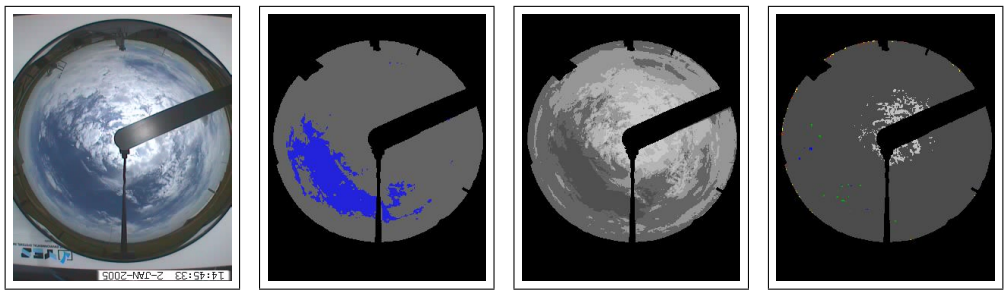


(xiii) 0501021415 (xiv) 0501021415 Long (xv) 0501021415 EGD (xvi) 0501021415 MAHA

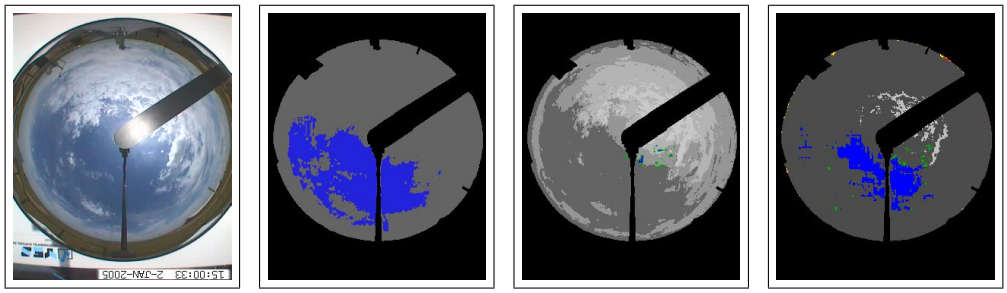


(xvii) 0501021430 (xviii) 0501021430 Long (xix) 0501021430 EGD (xx) 0501021430 MAHA

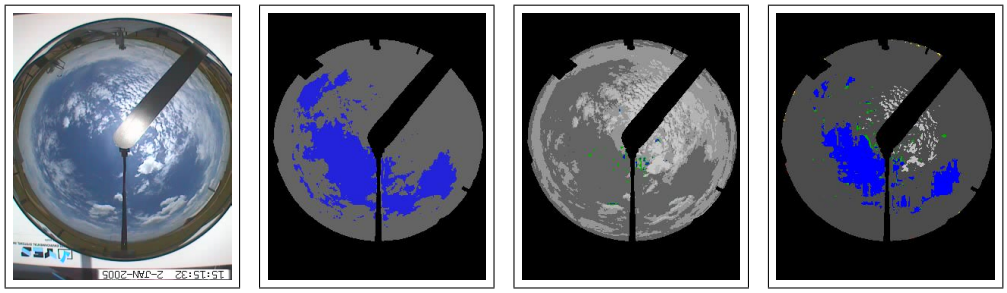
Figure A.18 - Sky images generated from 0501021330 to 0501021430.



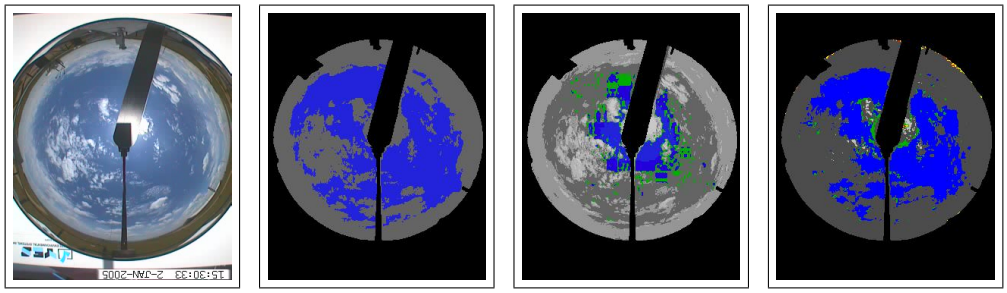
(i) 0501021445 (ii) 0501021445 Long (iii) 0501021445 EGD (iv) 0501021445 MAHA



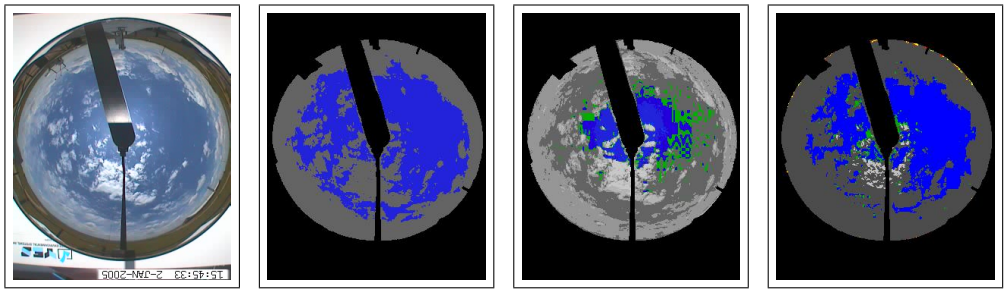
(v) 0501021500 (vi) 0501021500 Long (vii) 0501021500 EGD (viii) 0501021500 MAHA



(ix) 0501021515 (x) 0501021515 Long (xi) 0501021515 EGD (xii) 0501021515 MAHA

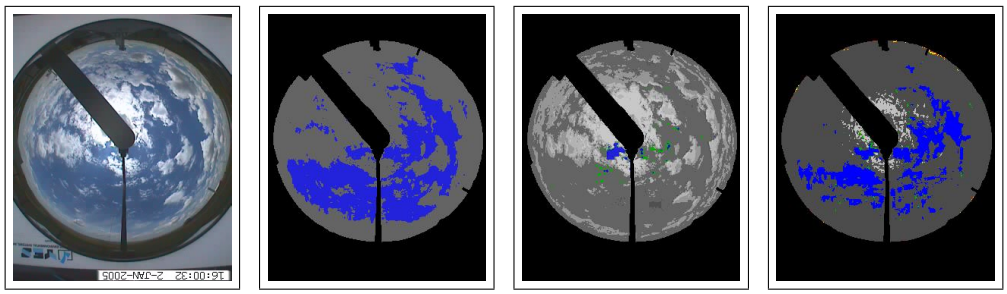


(xiii) 0501021530 (xiv) 0501021530 Long (xv) 0501021530 EGD (xvi) 0501021530 MAHA

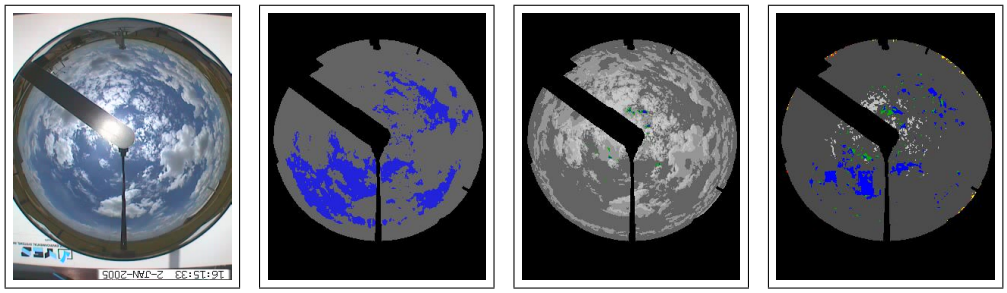


(xvii) 0501021545 (xviii) 0501021545 Long (xix) 0501021545 EGD (xx) 0501021545 MAHA

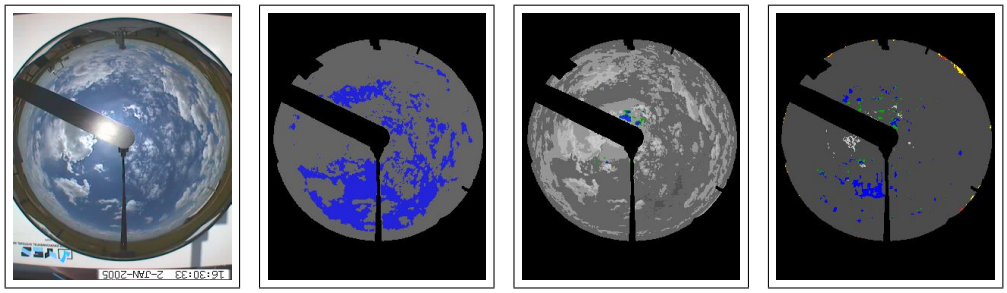
Figure A.19 - Sky images generated from 0501021445 to 0501021545.



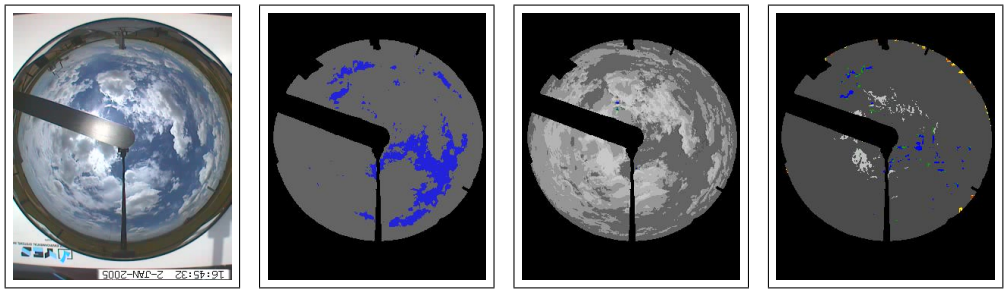
(i) 0501021600 (ii) 0501021600 Long (iii) 0501021600 EGD (iv) 0501021600 MAHA



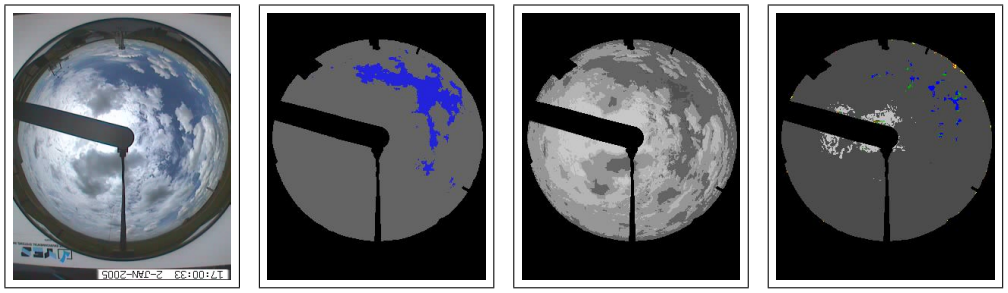
(v) 0501021615 (vi) 0501021615 Long (vii) 0501021615 EGD (viii) 0501021615 MAHA



(ix) 0501021630 (x) 0501021630 Long (xi) 0501021630 EGD (xii) 0501021630 MAHA

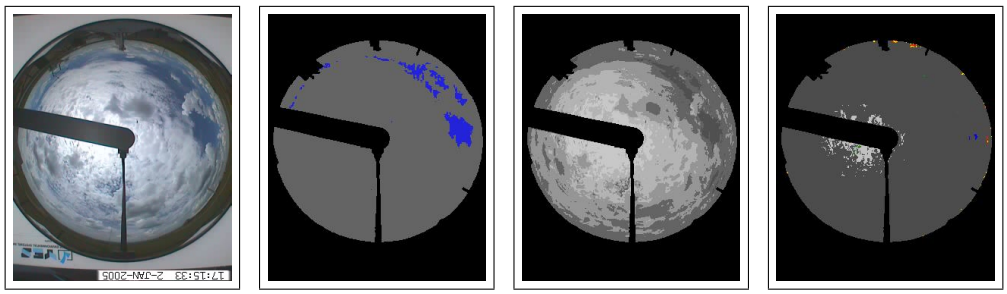


(xiii) 0501021645 (xiv) 0501021645 Long (xv) 0501021645 EGD (xvi) 0501021645 MAHA

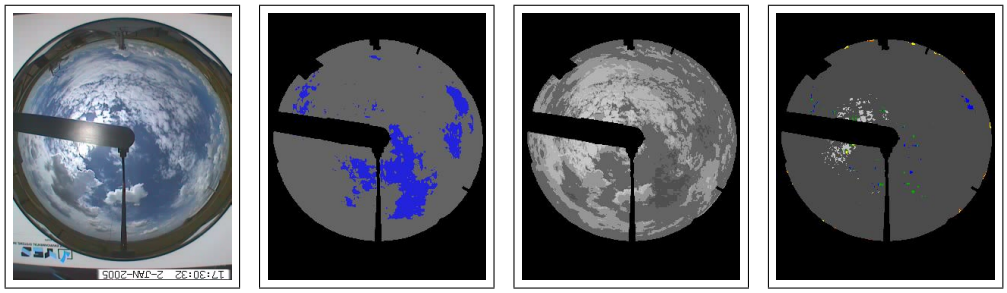


(xvii) 0501021700 (xviii) 0501021700 Long (xix) 0501021700 EGD (xx) 0501021700 MAHA

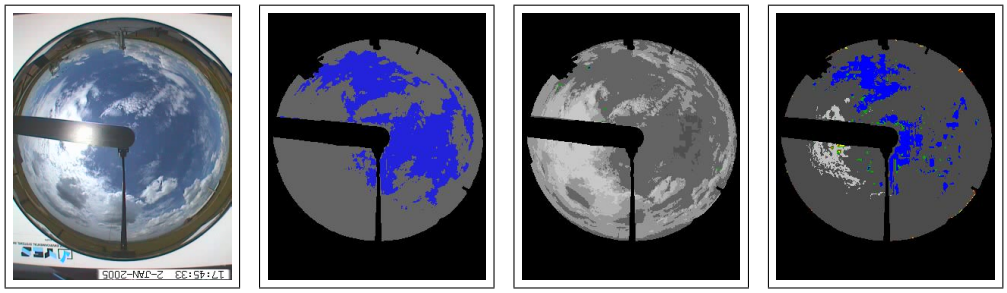
Figure A.20 - Sky images generated from 0501021600 to 0501021700.



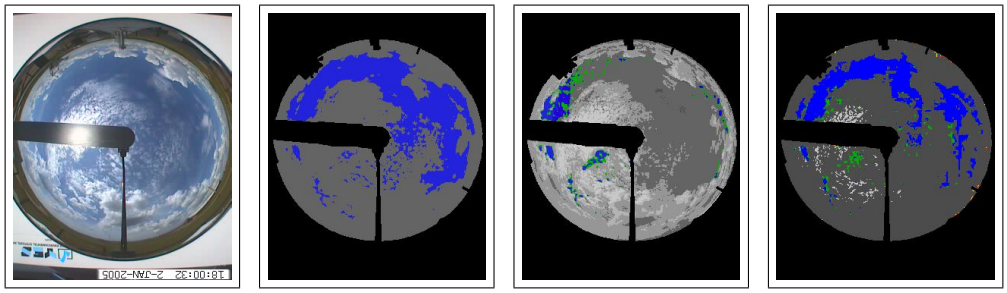
(i) 0501021715 (ii) 0501021715 Long (iii) 0501021715 EGD (iv) 0501021715 MAHA



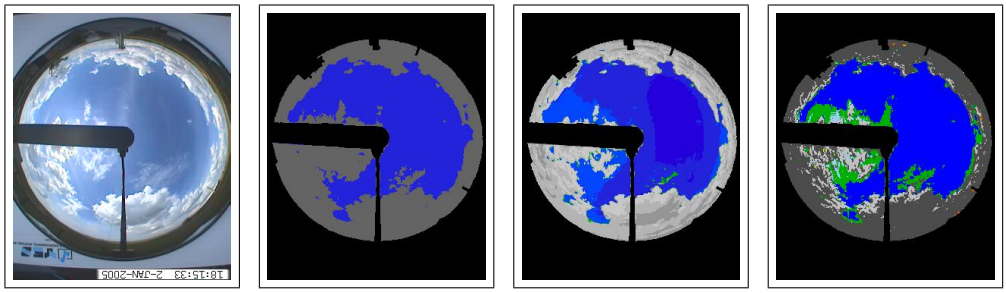
(v) 0501021730 (vi) 0501021730 Long (vii) 0501021730 EGD (viii) 0501021730 MAHA



(ix) 0501021745 (x) 0501021745 Long (xi) 0501021745 EGD (xii) 0501021745 MAHA

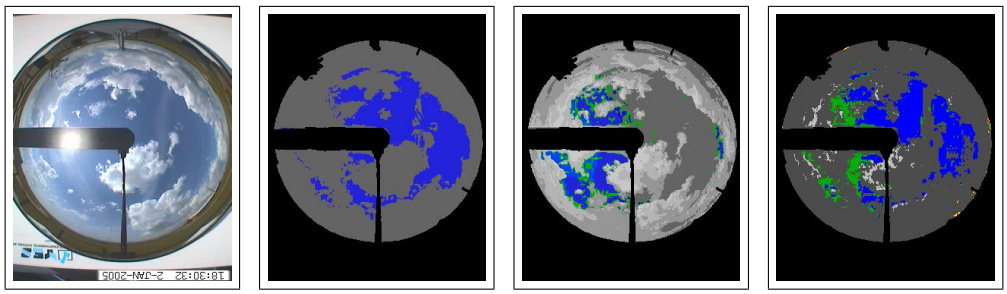


(xiii) 0501021800 (xiv) 0501021800 Long (xv) 0501021800 EGD (xvi) 0501021800 MAHA

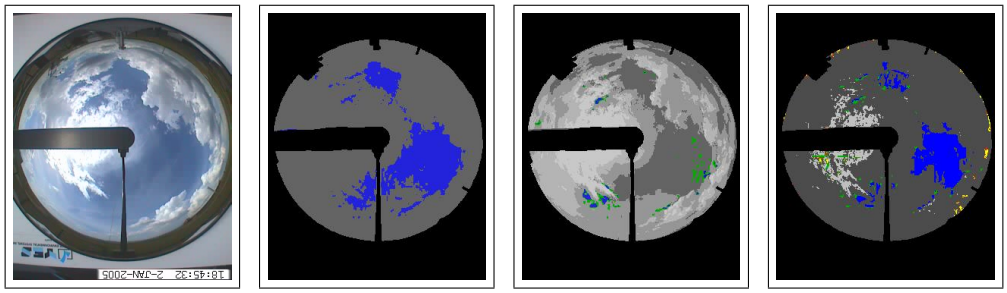


(xvii) 0501021815 (xviii) 0501021815 Long (xix) 0501021815 EGD (xx) 0501021815 MAHA

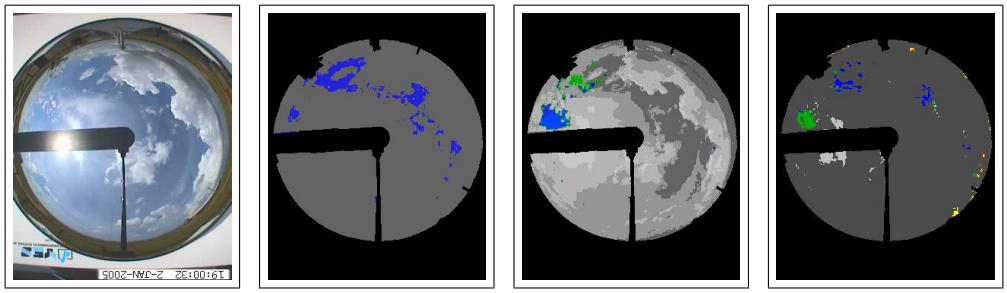
Figure A.21 - Sky images generated from 0501021715 to 0501021815.



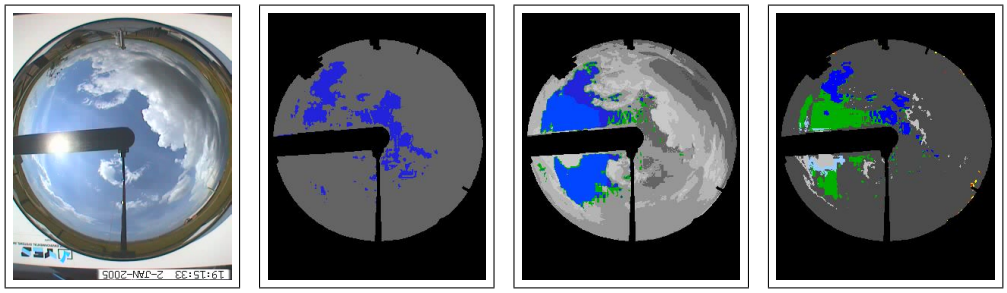
(i) 0501021830 (ii) 0501021830 Long (iii) 0501021830 EGD (iv) 0501021830 MAHA



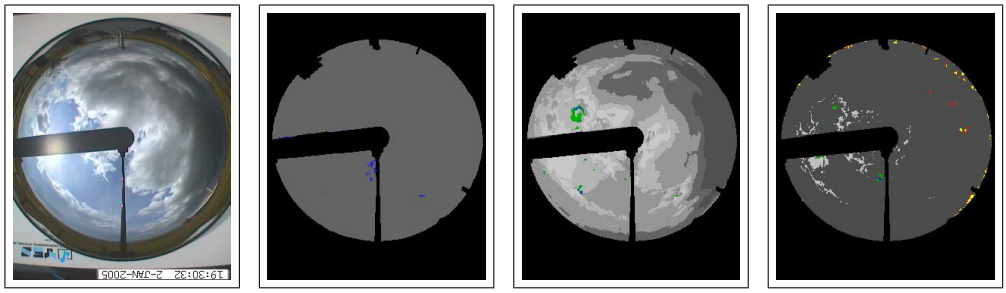
(v) 0501021845 (vi) 0501021845 Long (vii) 0501021845 EGD (viii) 0501021845 MAHA



(ix) 0501021900 (x) 0501021900 Long (xi) 0501021900 EGD (xii) 0501021900 MAHA

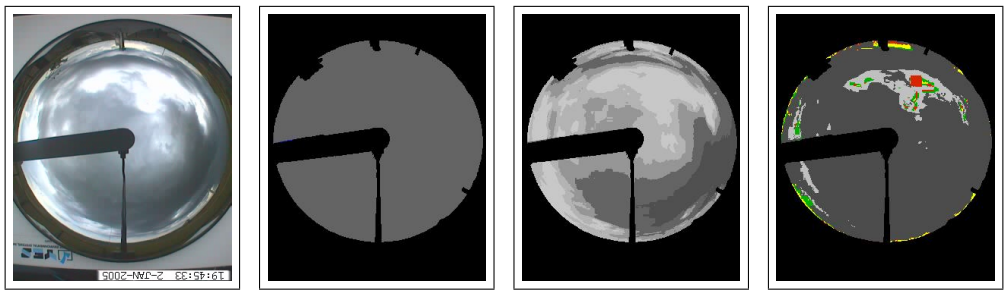


(xiii) 0501021915 (xiv) 0501021915 Long (xv) 0501021915 EGD (xvi) 0501021915 MAHA

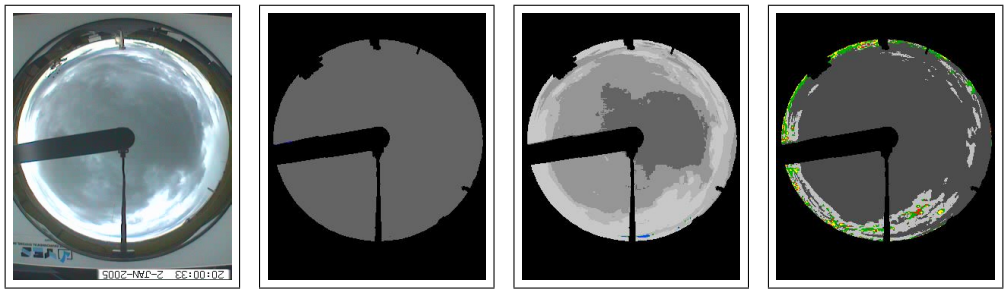


(xvii) 0501021930 (xviii) 0501021930 Long (xix) 0501021930 EGD (xx) 0501021930 MAHA

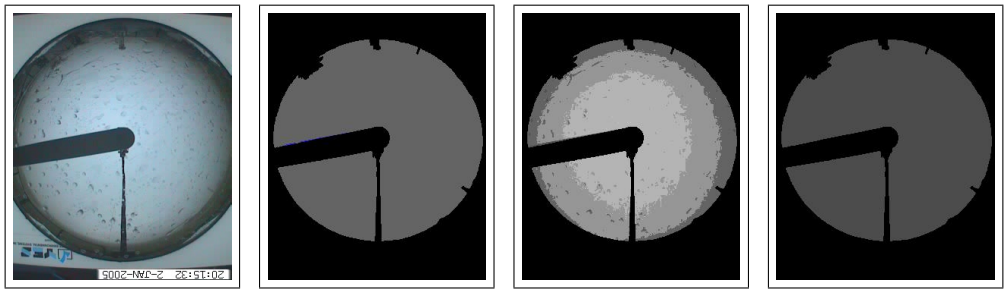
Figure A.22 - Sky images generated from 0501021830 to 0501021930.



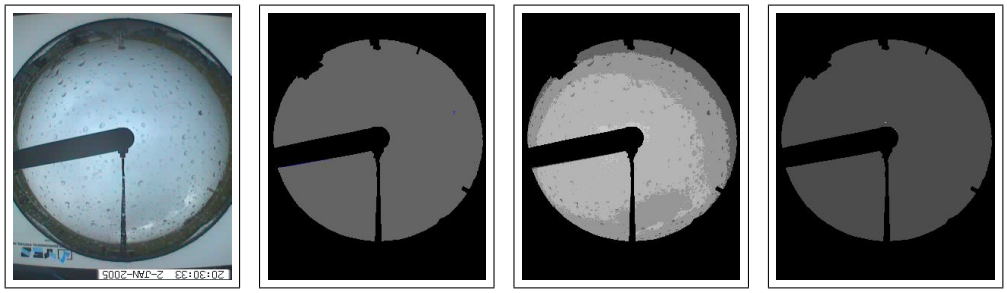
(i) 0501021945 (ii) 0501021945 Long (iii) 0501021945 EGD (iv) 0501021945 MAHA



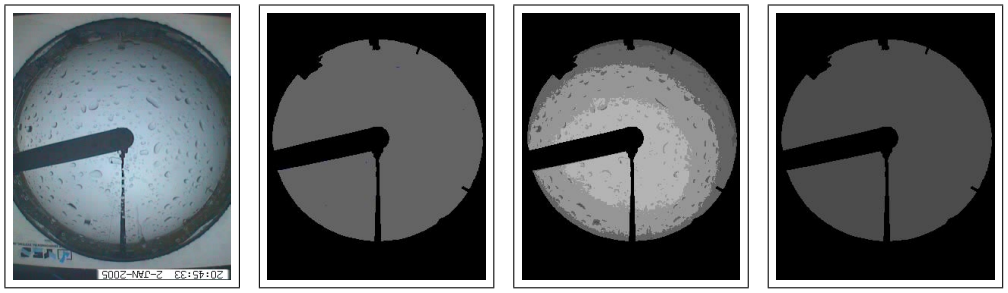
(v) 0501022000 (vi) 0501022000 Long (vii) 0501022000 EGD (viii) 0501022000 MAHA



(ix) 0501022015 (x) 0501022015 Long (xi) 0501022015 EGD (xii) 0501022015 MAHA

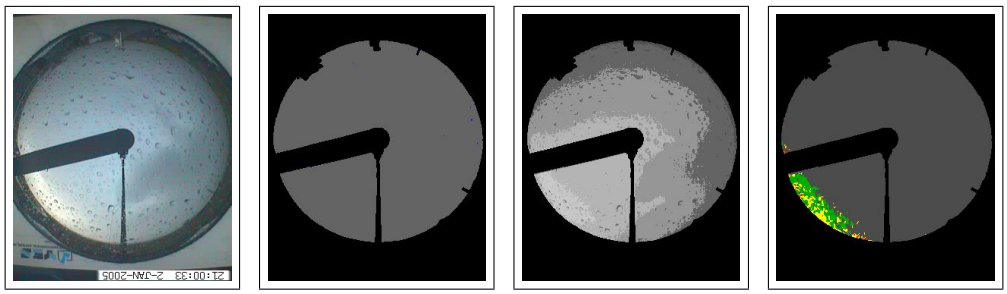


(xiii) 0501022030 (xiv) 0501022030 Long (xv) 0501022030 EGD (xvi) 0501022030 MAHA

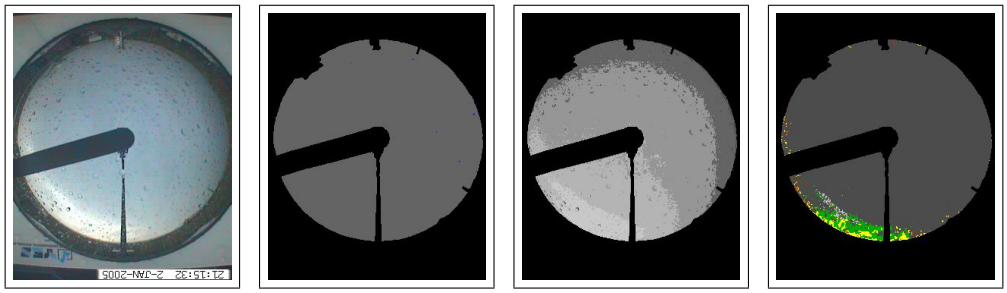


(xvii) 0501022045 (xviii) 0501022045 Long (xix) 0501022045 EGD (xx) 0501022045 MAHA

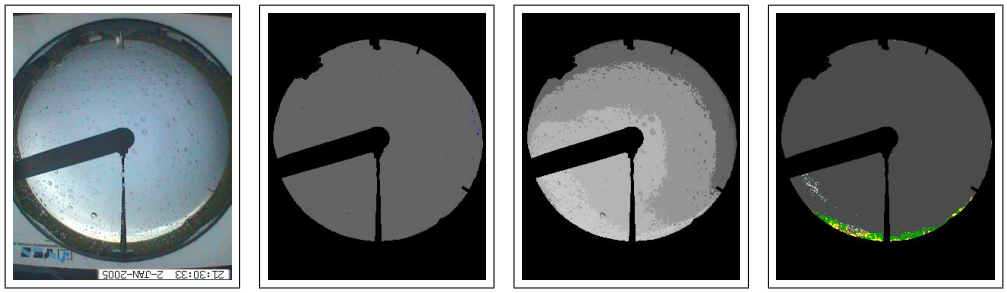
Figure A.23 - Sky images generated from 0501021945 to 0501022045.



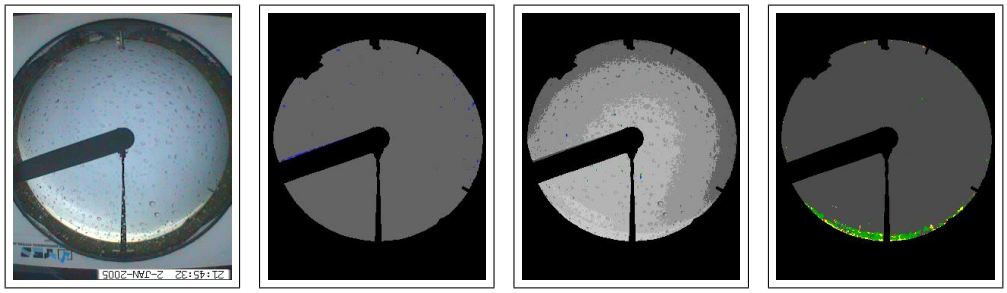
(i) 0501022100 (ii) 0501022100 Long (iii) 0501022100 EGD (iv) 0501022100 MAHA



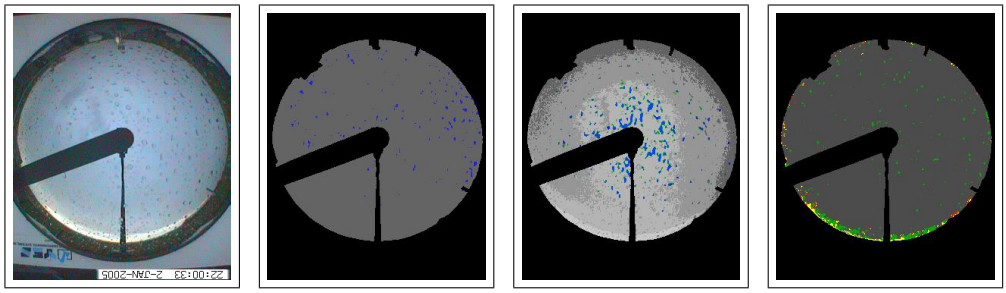
(v) 0501022115 (vi) 0501022115 Long (vii) 0501022115 EGD (viii) 0501022115 MAHA



(ix) 0501022130 (x) 0501022130 Long (xi) 0501022130 EGD (xii) 0501022130 MAHA

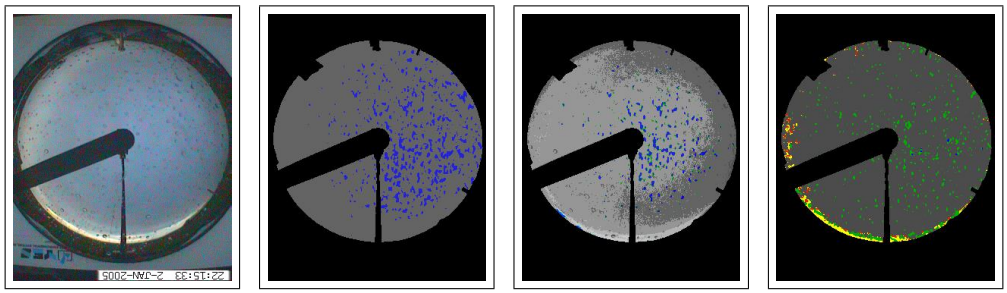


(xiii) 0501022145 (xiv) 0501022145 Long (xv) 0501022145 EGD (xvi) 0501022145 MAHA

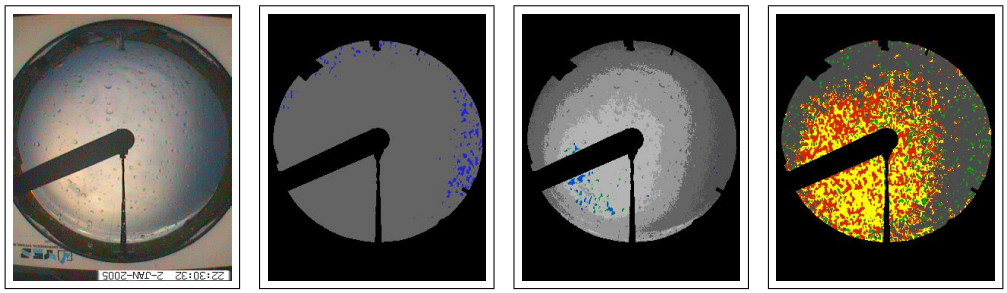


(xvii) 0501022200 (xviii) 0501022200 Long (xix) 0501022200 EGD (xx) 0501022200 MAHA

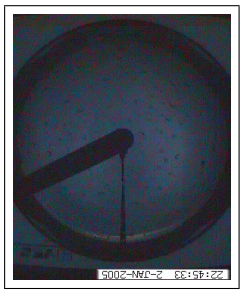
Figure A.24 - Sky images generated from 0501022100 to 0501022200.



(i) 0501022215 (ii) 0501022215 Long (iii) 0501022215 EGD (iv) 0501022215 MAHA

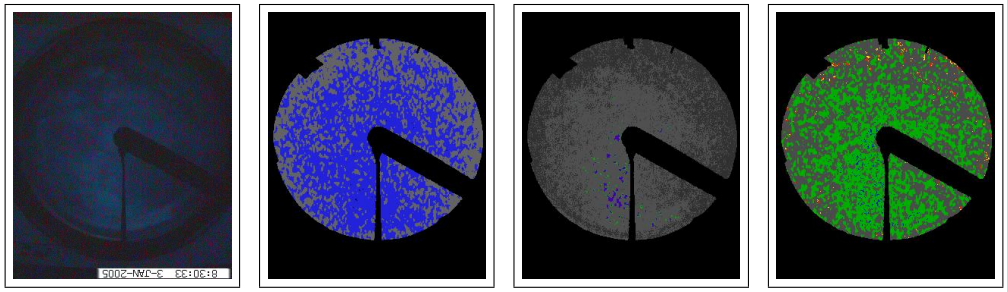


(v) 0501022230 (vi) 0501022230 Long (vii) 0501022230 EGD (viii) 0501022230 MAHA

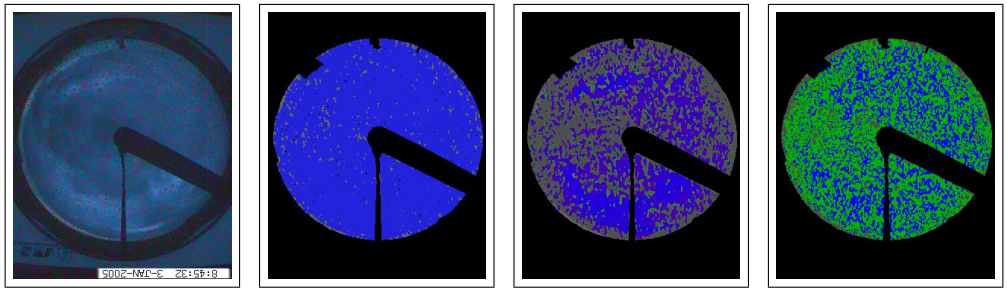


(ix) 0501022245

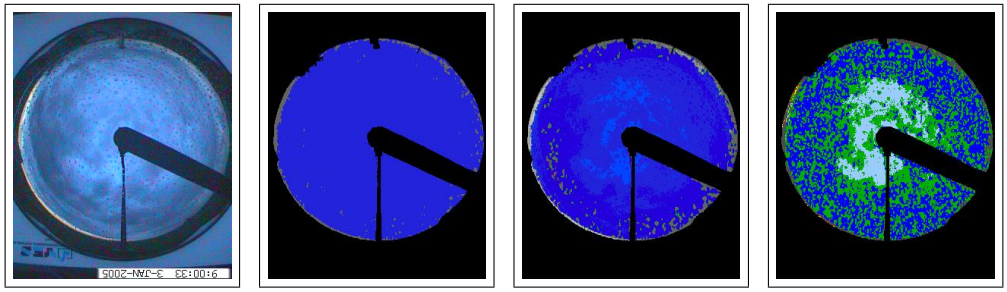
Figure A.25 - Sky images generated from 0501022215 to 0501022245.



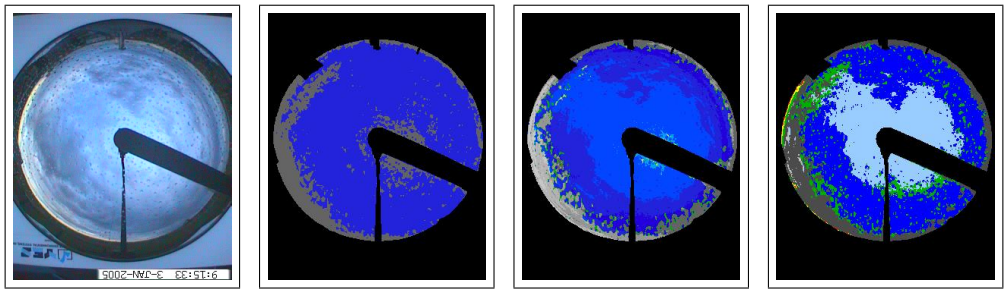
(i) 0501030830 (ii) 0501030830 Long (iii) 0501030830 EGD (iv) 0501030830 MAHA



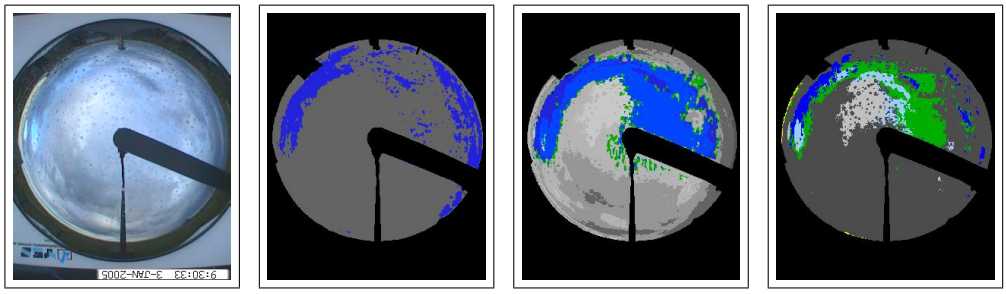
(v) 0501030845 (vi) 0501030845 Long (vii) 0501030845 EGD (viii) 0501030845 MAHA



(ix) 0501030900 (x) 0501030900 Long (xi) 0501030900 EGD (xii) 0501030900 MAHA

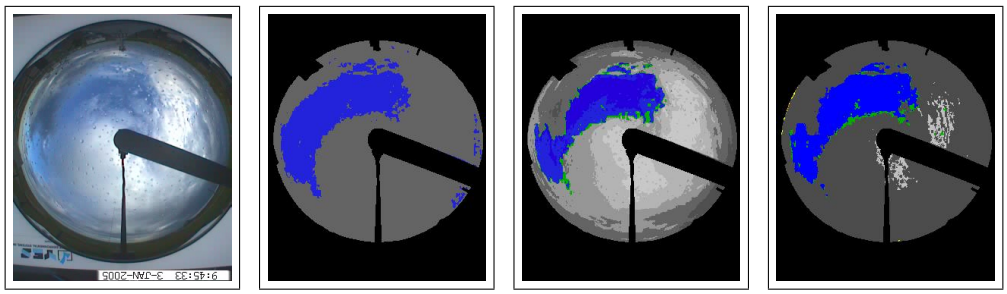


(xiii) 0501030915 (xiv) 0501030915 Long (xv) 0501030915 EGD (xvi) 0501030915 MAHA

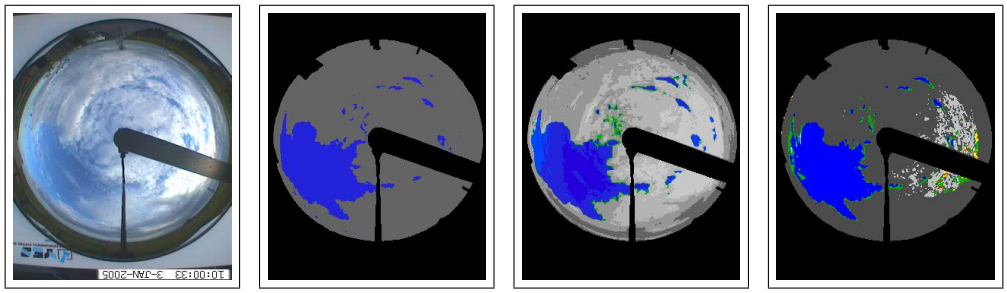


(xvii) 0501030930 (xviii) 0501030930 Long (xix) 0501030930 EGD (xx) 0501030930 MAHA

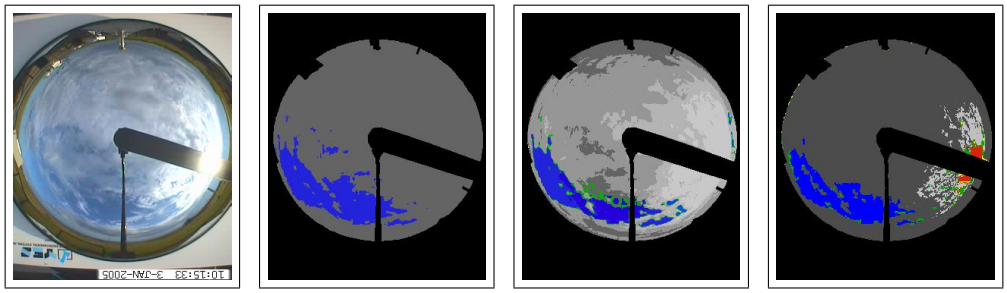
Figure A.26 - Sky images generated from 0501030830 to 0501030930.



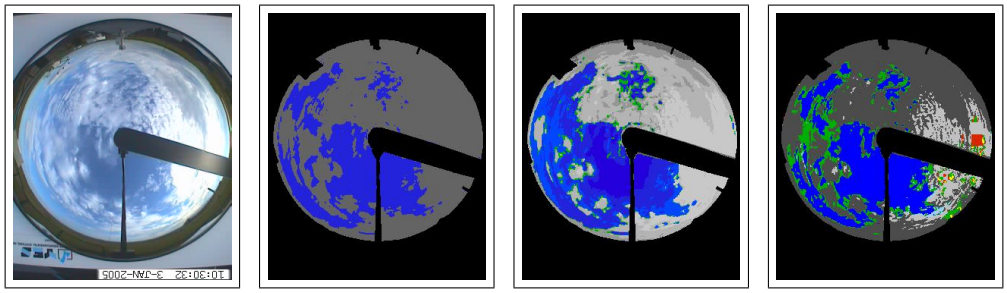
(i) 0501030945 (ii) 0501030945 Long (iii) 0501030945 EGD (iv) 0501030945 MAHA



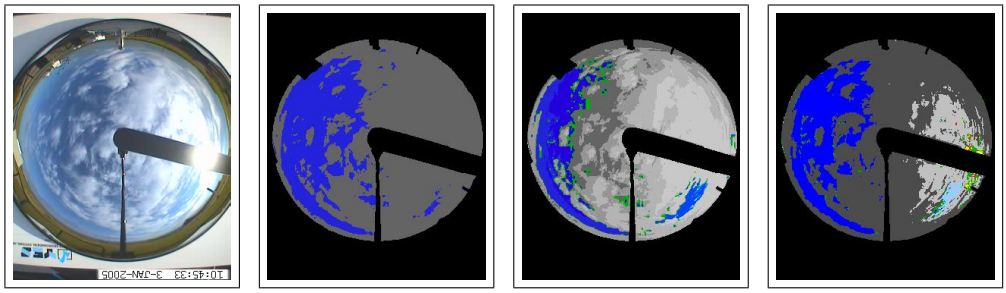
(v) 050103000 (vi) 050103000 Long (vii) 050103000 EGD (viii) 050103000 MAHA



(ix) 0501031015 (x) 0501031015 Long (xi) 0501031015 EGD (xii) 0501031015 MAHA

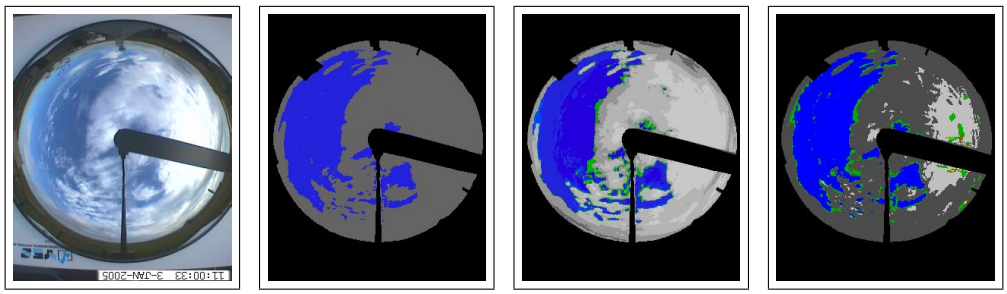


(xiii) 0501031030 (xiv) 0501031030 Long (xv) 0501031030 EGD (xvi) 0501031030 MAHA

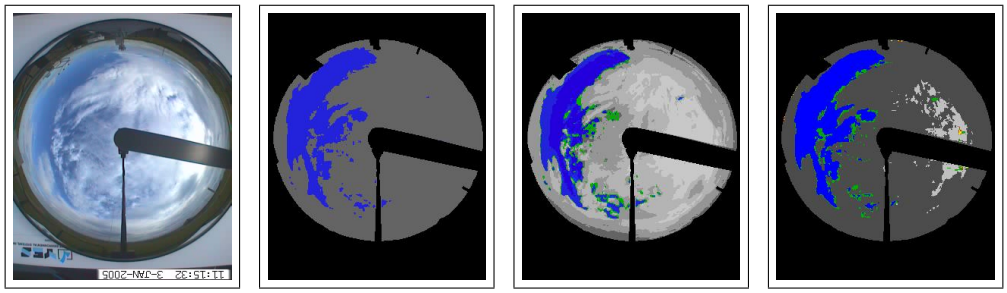


(xvii) 0501031045 (xviii) 0501031045 Long (xix) 0501031045 EGD (xx) 0501031045 MAHA

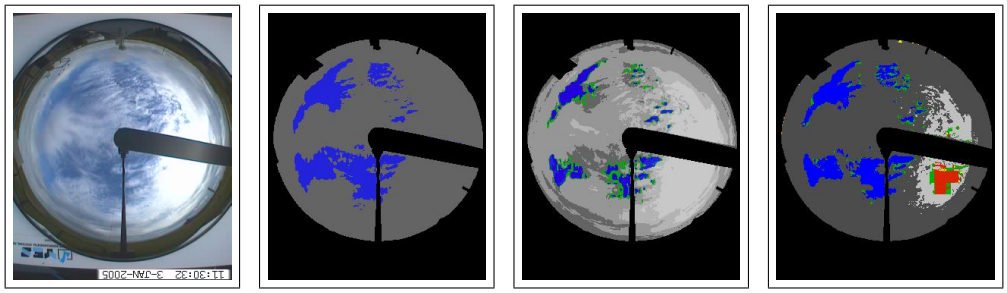
Figure A.27 - Sky images generated from 0501030945 to 0501031045.



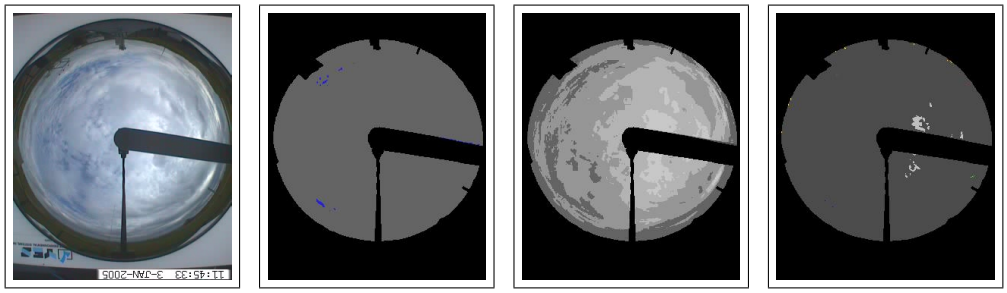
(i) 0501031100 (ii) 0501031100 Long (iii) 0501031100 EGD (iv) 0501031100 MAHA



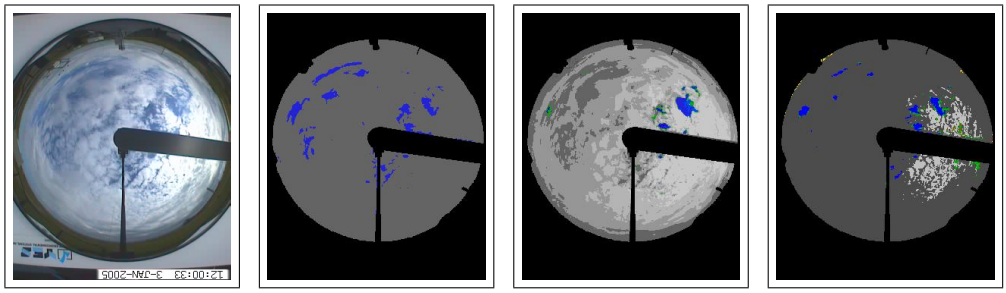
(v) 0501031115 (vi) 0501031115 Long (vii) 0501031115 EGD (viii) 0501031115 MAHA



(ix) 0501031130 (x) 0501031130 Long (xi) 0501031130 EGD (xii) 0501031130 MAHA

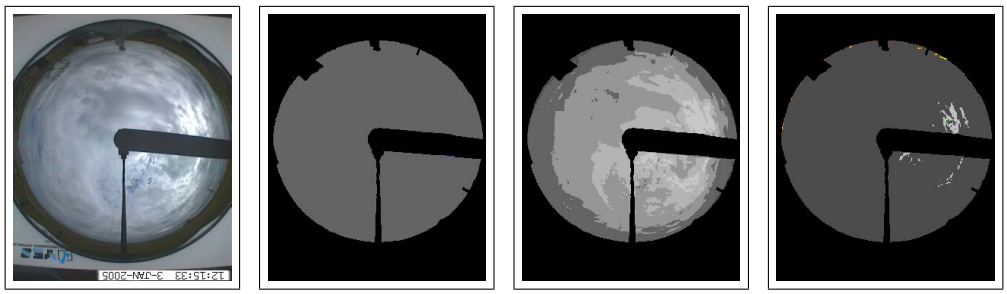


(xiii) 0501031145 (xiv) 0501031145 Long (xv) 0501031145 EGD (xvi) 0501031145 MAHA

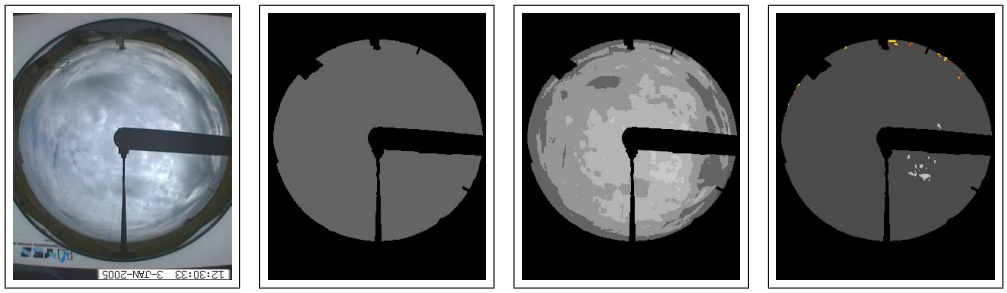


(xvii) 0501031200 (xviii) 0501031200 Long (xix) 0501031200 EGD (xx) 0501031200 MAHA

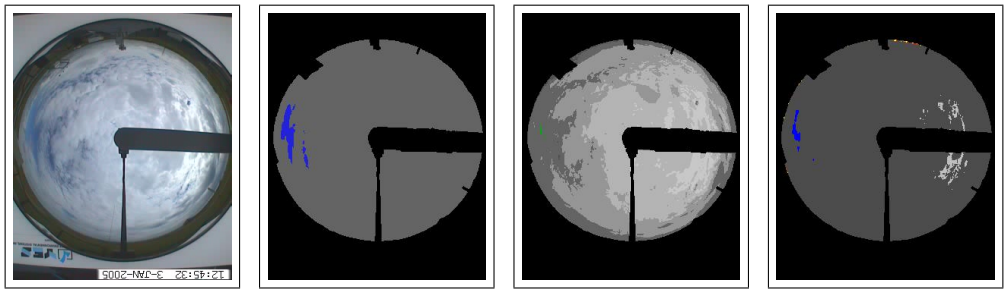
Figure A.28 - Sky images generated from 050103100 to 0501031200.



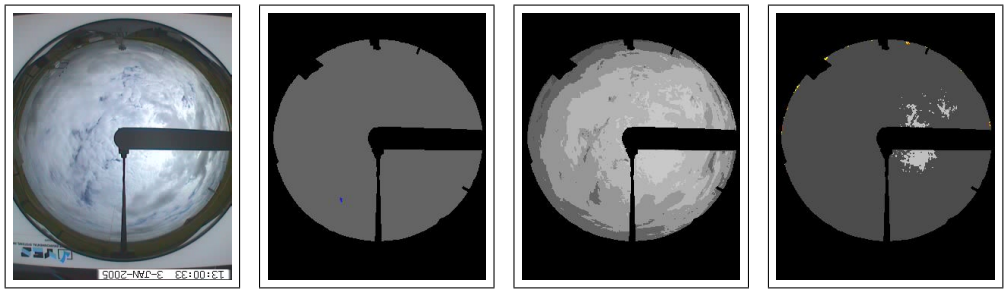
(i) 0501031215 (ii) 0501031215 Long (iii) 0501031215 EGD (iv) 0501031215 MAHA



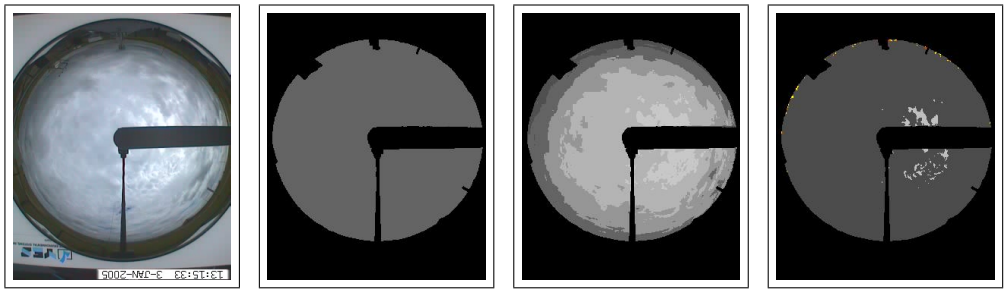
(v) 0501031230 (vi) 0501031230 Long (vii) 0501031230 EGD (viii) 0501031230 MAHA



(ix) 0501031245 (x) 0501031245 Long (xi) 0501031245 EGD (xii) 0501031245 MAHA

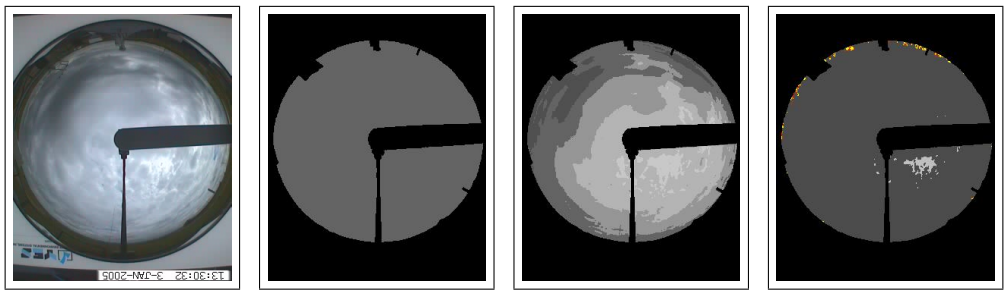


(xiii) 0501031300 (xiv) 0501031300 Long (xv) 0501031300 EGD (xvi) 0501031300 MAHA

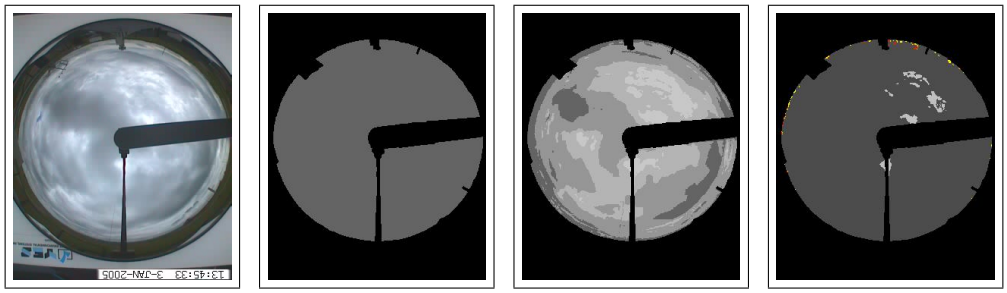


(xvii) 0501031315 (xviii) 0501031315 Long (xix) 0501031315 EGD (xx) 0501031315 MAHA

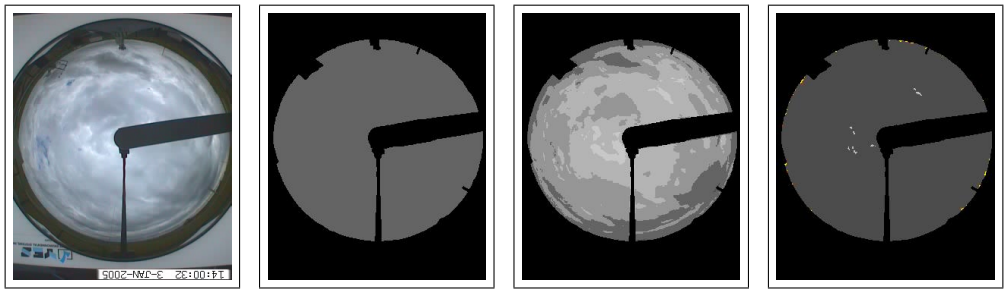
Figure A.29 - Sky images generated from 0501031215 to 0501031315.



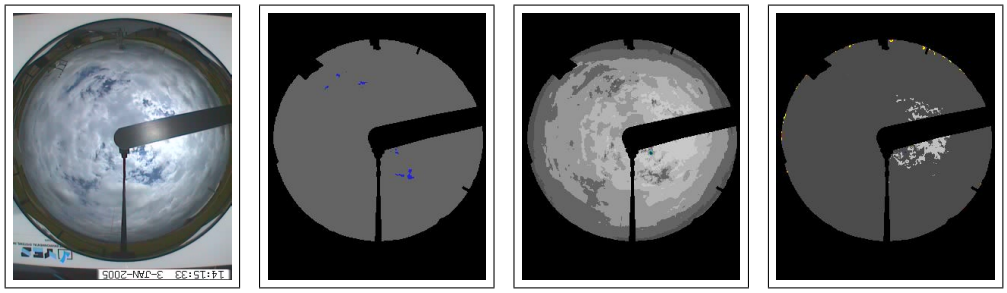
(i) 0501031330 (ii) 0501031330 Long (iii) 0501031330 EGD (iv) 0501031330 MAHA



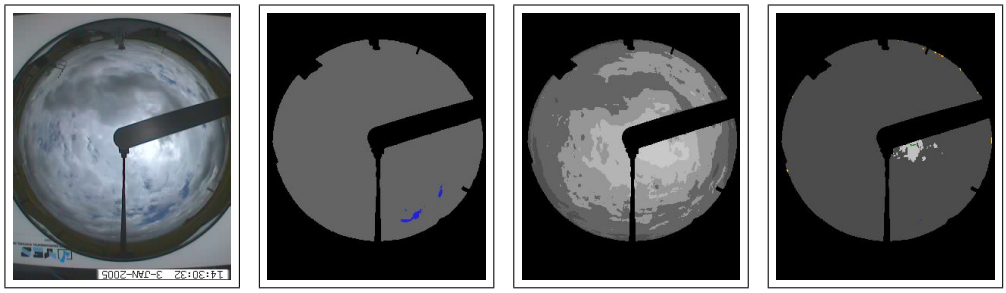
(v) 0501031345 (vi) 0501031345 Long (vii) 0501031345 EGD (viii) 0501031345 MAHA



(ix) 0501031400 (x) 0501031400 Long (xi) 0501031400 EGD (xii) 0501031400 MAHA

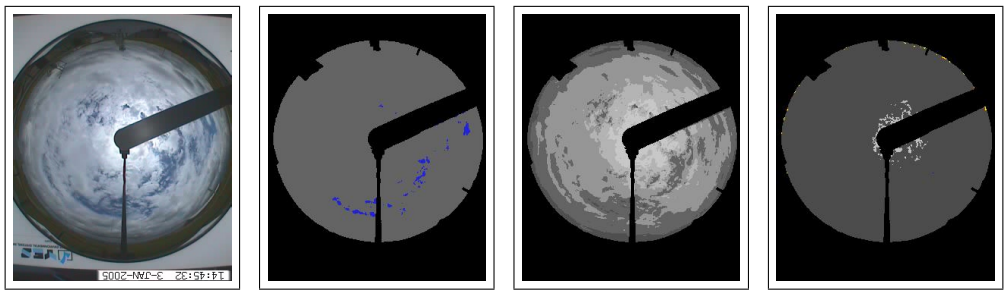


(xiii) 0501031415 (xiv) 0501031415 Long (xv) 0501031415 EGD (xvi) 0501031415 MAHA

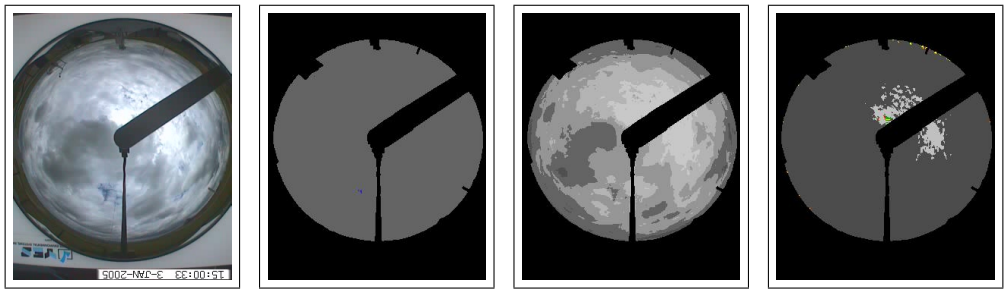


(xvii) 0501031430 (xviii) 0501031430 Long (xix) 0501031430 EGD (xx) 0501031430 MAHA

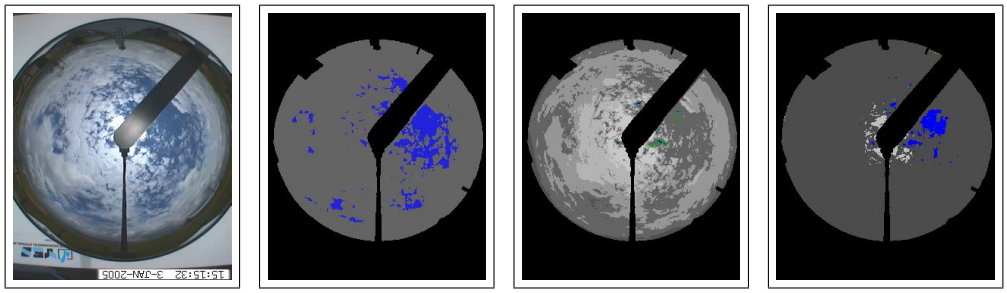
Figure A.30 - Sky images generated from 0501031330 to 0501031430.



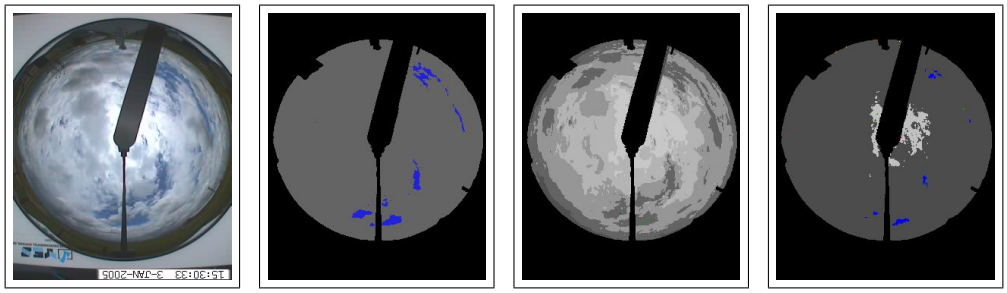
(i) 0501031445 (ii) 0501031445 Long (iii) 0501031445 EGD (iv) 0501031445 MAHA



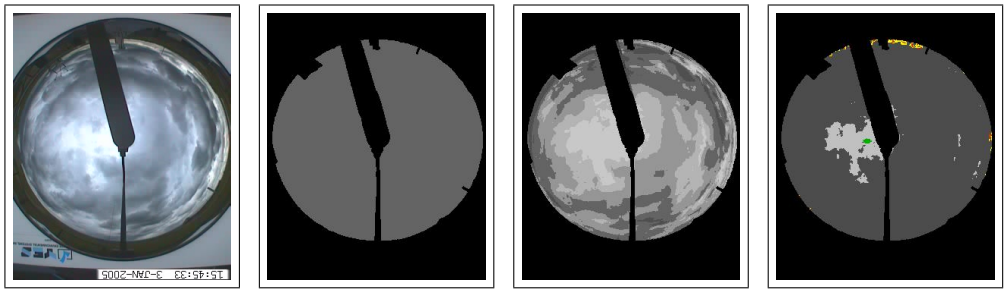
(v) 0501031500 (vi) 0501031500 Long (vii) 0501031500 EGD (viii) 0501031500 MAHA



(ix) 0501031515 (x) 0501031515 Long (xi) 0501031515 EGD (xii) 0501031515 MAHA

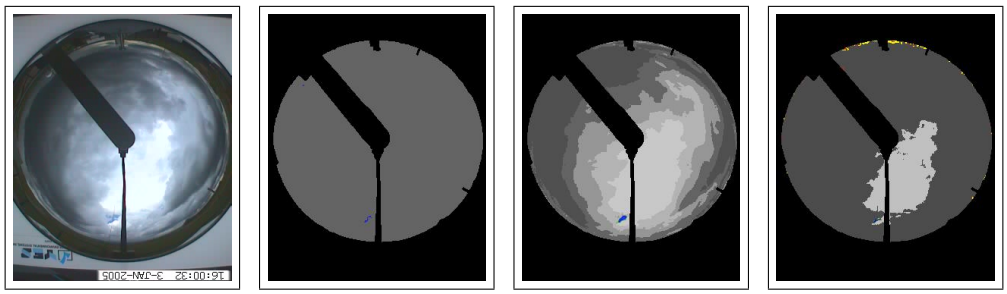


(xiii) 0501031530 (xiv) 0501031530 Long (xv) 0501031530 EGD (xvi) 0501031530 MAHA

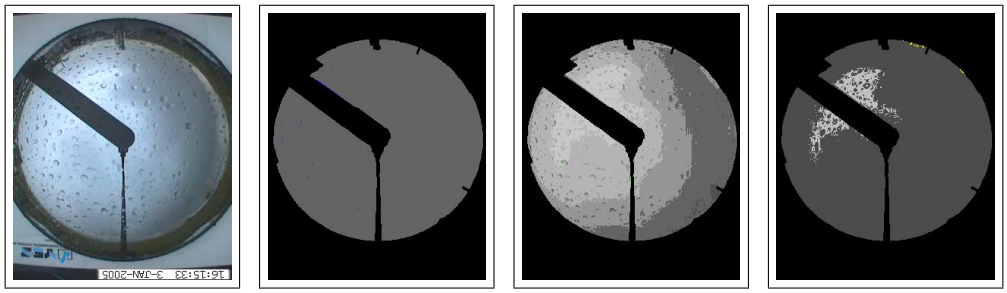


(xvii) 0501031545 (xviii) 0501031545 Long (xix) 0501031545 EGD (xx) 0501031545 MAHA

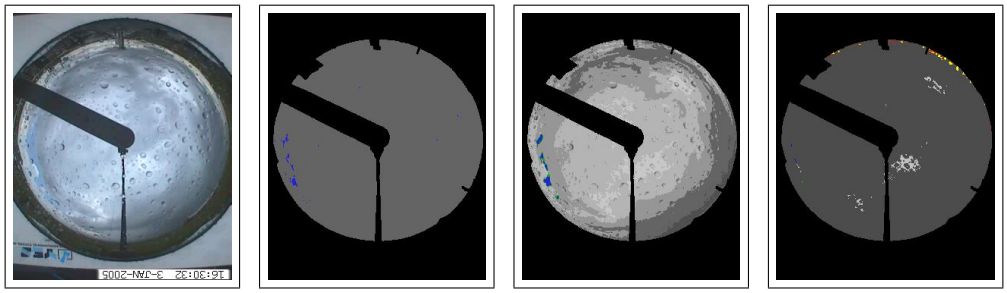
Figure A.31 - Sky images generated from 0501031445 to 0501031545.



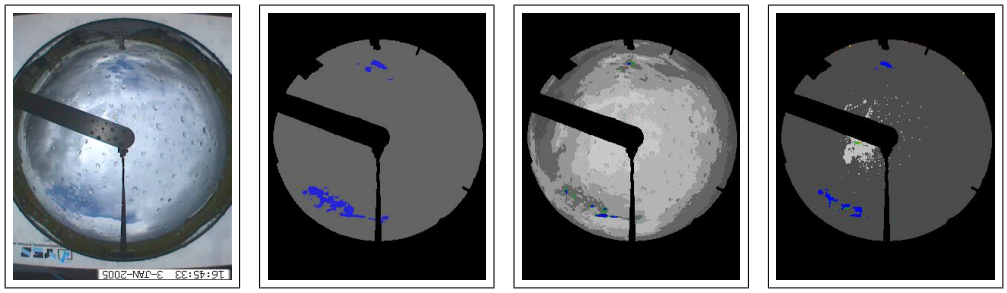
(i) 0501031600 (ii) 0501031600 Long (iii) 0501031600 EGD (iv) 0501031600 MAHA



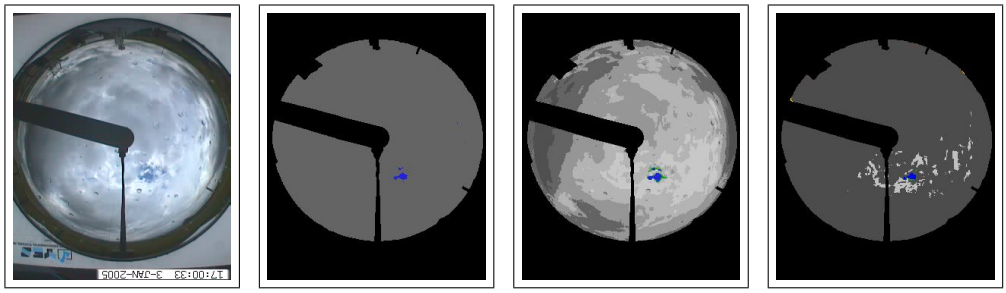
(v) 0501031615 (vi) 0501031615 Long (vii) 0501031615 EGD (viii) 0501031615 MAHA



(ix) 0501031630 (x) 0501031630 Long (xi) 0501031630 EGD (xii) 0501031630 MAHA

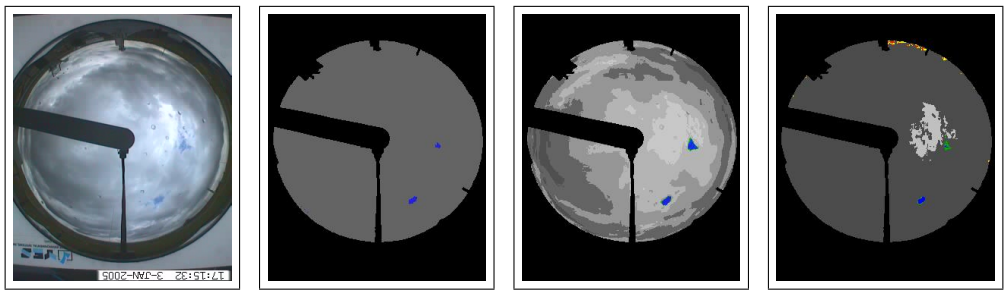


(xiii) 0501031645 (xiv) 0501031645 Long (xv) 0501031645 EGD (xvi) 0501031645 MAHA

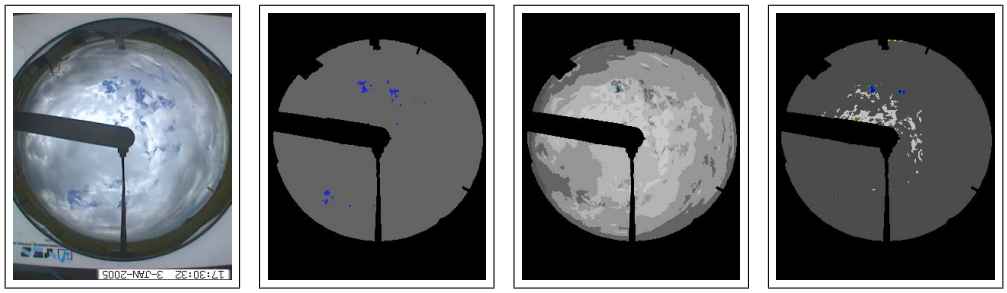


(xvii) 0501031700 (xviii) 0501031700 Long (xix) 0501031700 EGD (xx) 0501031700 MAHA

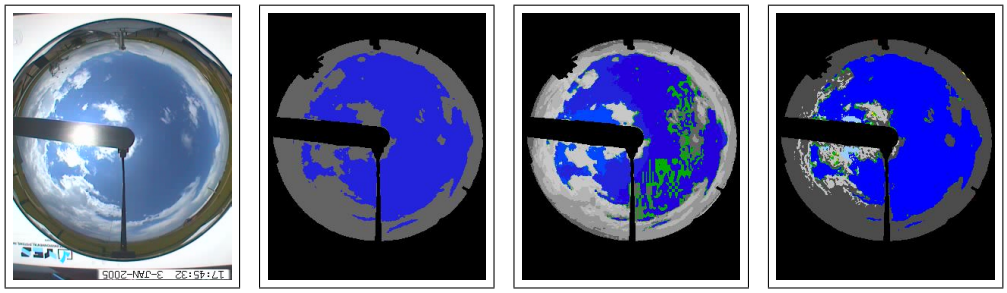
Figure A.32 - Sky images generated from 0501031600 to 0501031700.



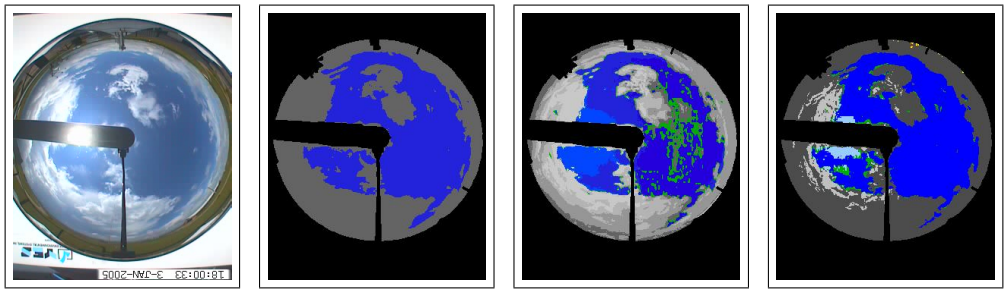
(i) 0501031715 (ii) 0501031715 Long (iii) 0501031715 EGD (iv) 0501031715 MAHA



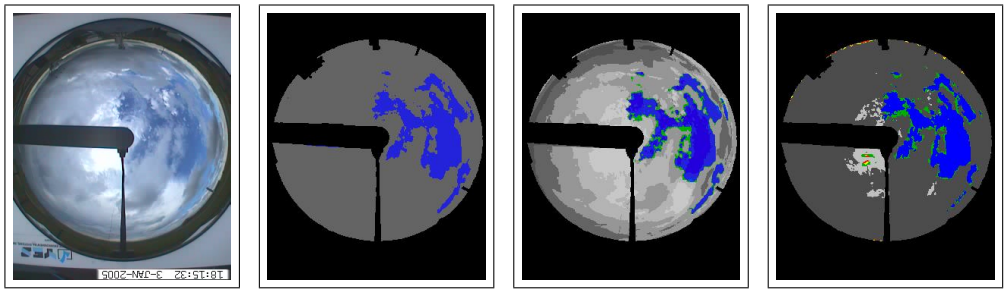
(v) 0501031730 (vi) 0501031730 Long (vii) 0501031730 EGD (viii) 0501031730 MAHA



(ix) 0501031745 (x) 0501031745 Long (xi) 0501031745 EGD (xii) 0501031745 MAHA

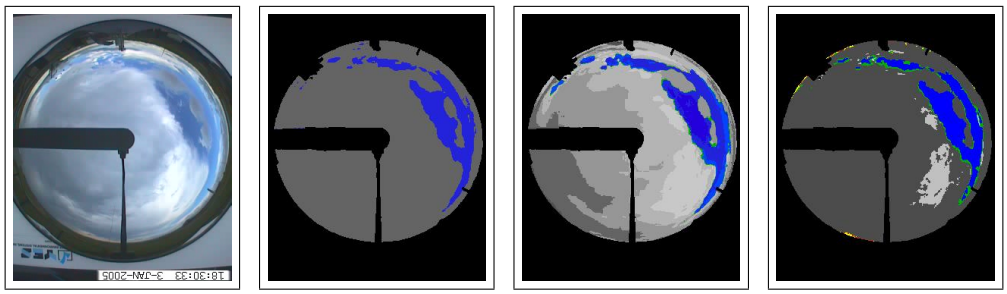


(xiii) 0501031800 (xiv) 0501031800 Long (xv) 0501031800 EGD (xvi) 0501031800 MAHA

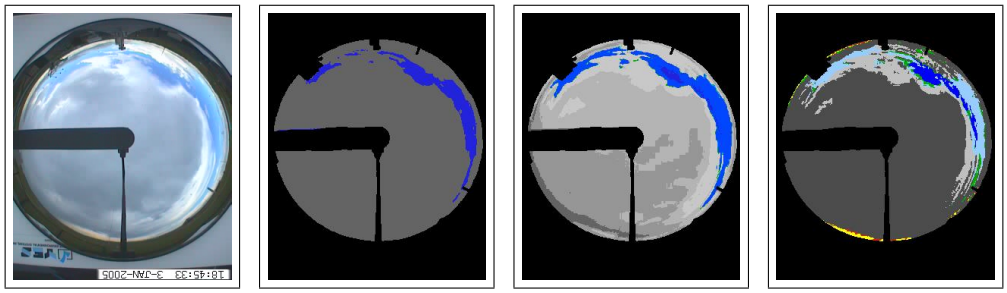


(xvii) 0501031815 (xviii) 0501031815 Long (xix) 0501031815 EGD (xx) 0501031815 MAHA

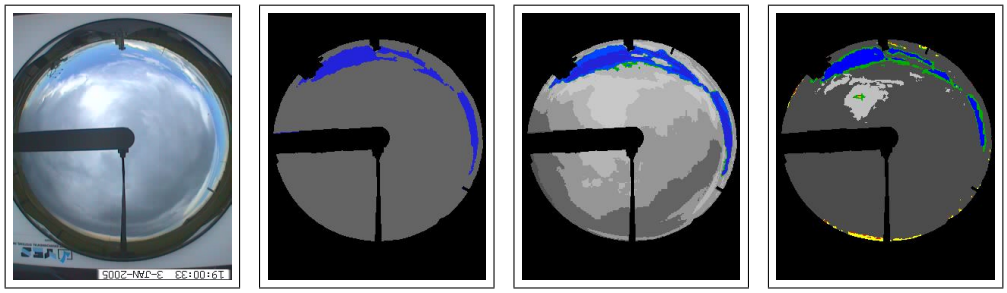
Figure A.33 - Sky images generated from 0501031715 to 0501031815.



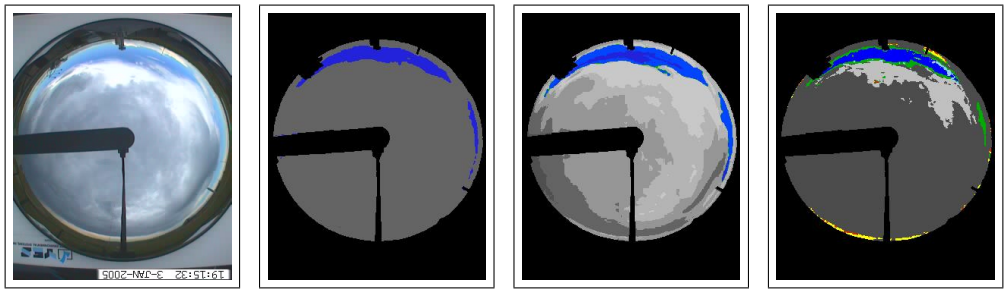
(i) 0501031830 (ii) 0501031830 Long (iii) 0501031830 EGD (iv) 0501031830 MAHA



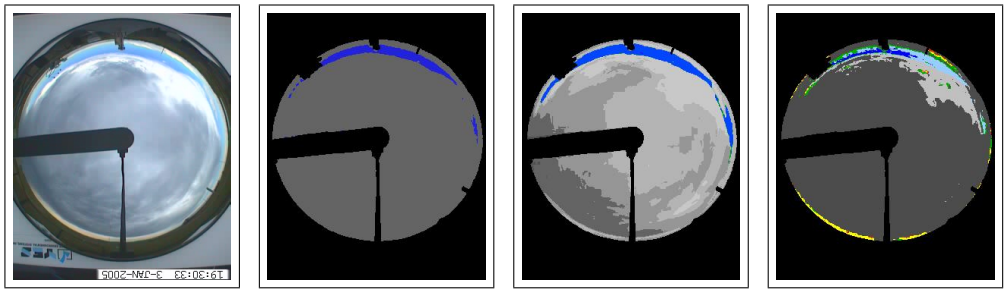
(v) 0501031845 (vi) 0501031845 Long (vii) 0501031845 EGD (viii) 0501031845 MAHA



(ix) 0501031900 (x) 0501031900 Long (xi) 0501031900 EGD (xii) 0501031900 MAHA

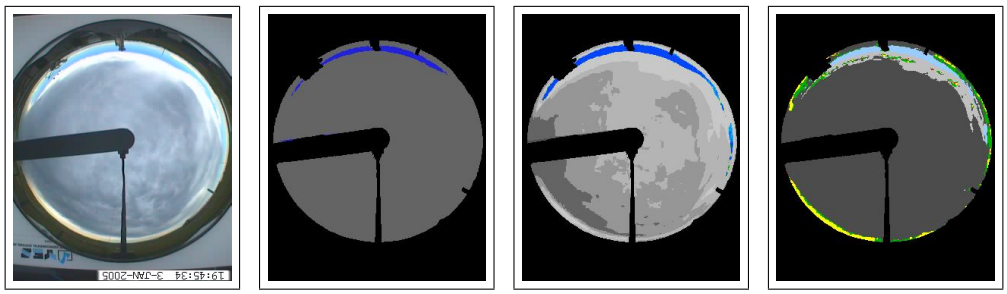


(xiii) 0501031915 (xiv) 0501031915 Long (xv) 0501031915 EGD (xvi) 0501031915 MAHA

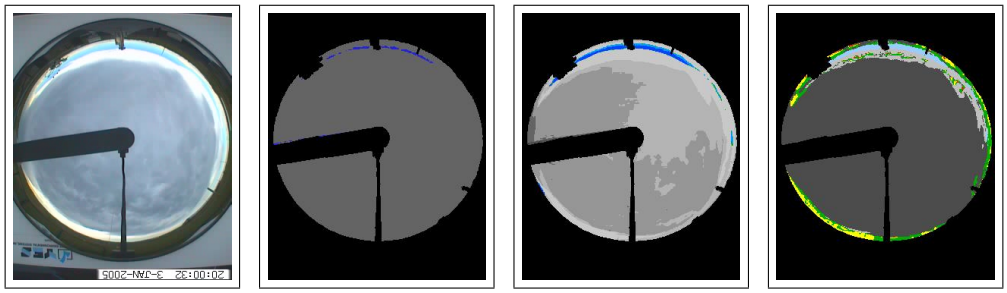


(xvii) 0501031930 (xviii) 0501031930 Long (xix) 0501031930 EGD (xx) 0501031930 MAHA

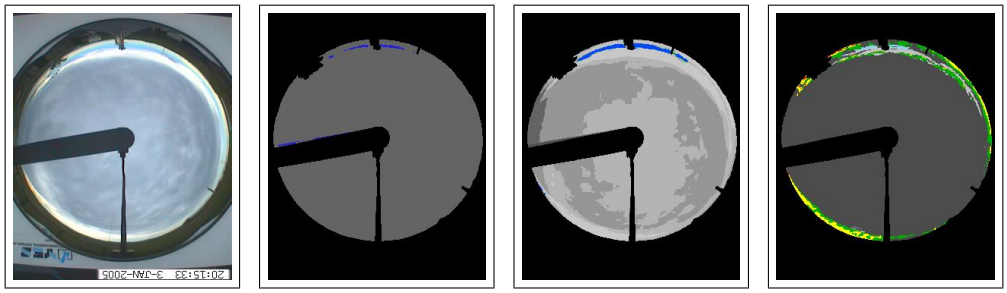
Figure A.34 - Sky images generated from 0501031830 to 0501031930.



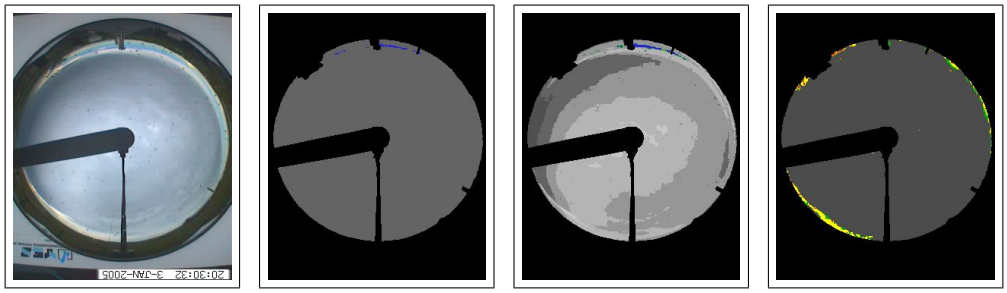
(i) 0501031945 (ii) 0501031945 Long (iii) 0501031945 EGD (iv) 0501031945 MAHA



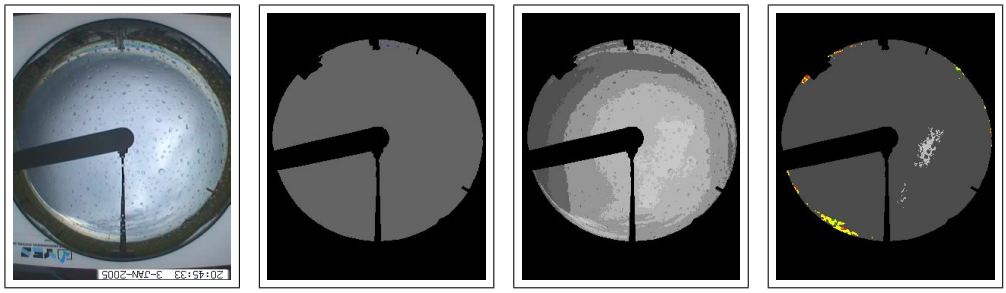
(v) 0501032000 (vi) 0501032000 Long (vii) 0501032000 EGD (viii) 0501032000 MAHA



(ix) 0501032015 (x) 0501032015 Long (xi) 0501032015 EGD (xii) 0501032015 MAHA

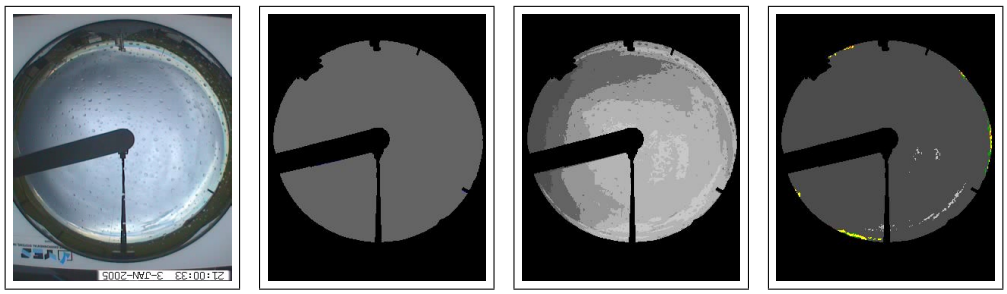


(xiii) 0501032030 (xiv) 0501032030 Long (xv) 0501032030 EGD (xvi) 0501032030 MAHA

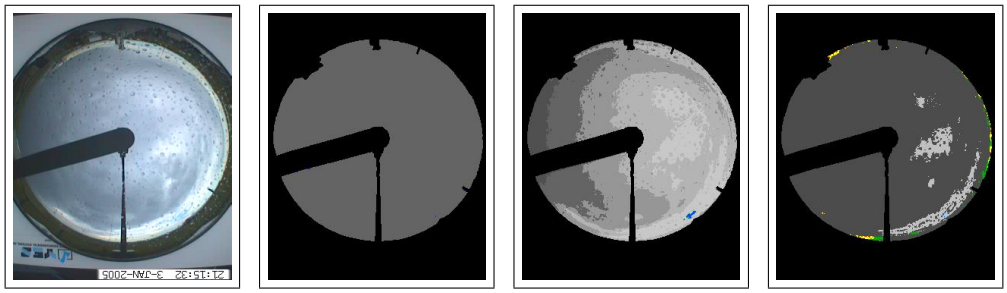


(xvii) 0501032045 (xviii) 0501032045 Long (xix) 0501032045 EGD (xx) 0501032045 MAHA

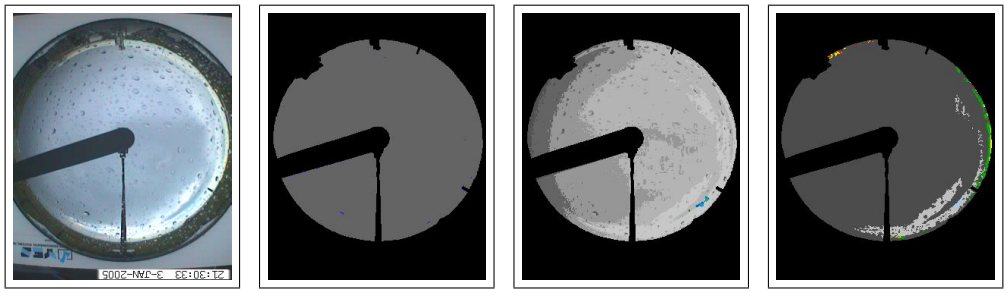
Figure A.35 - Sky images generated from 0501031945 to 0501032045.



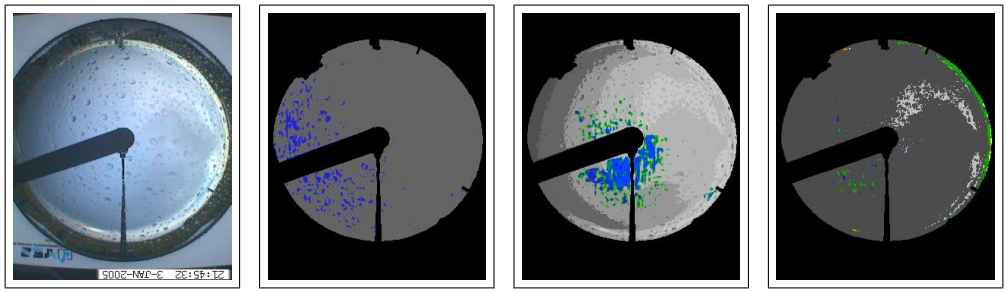
(i) 0501032100 (ii) 0501032100 Long (iii) 0501032100 EGD (iv) 0501032100 MAHA



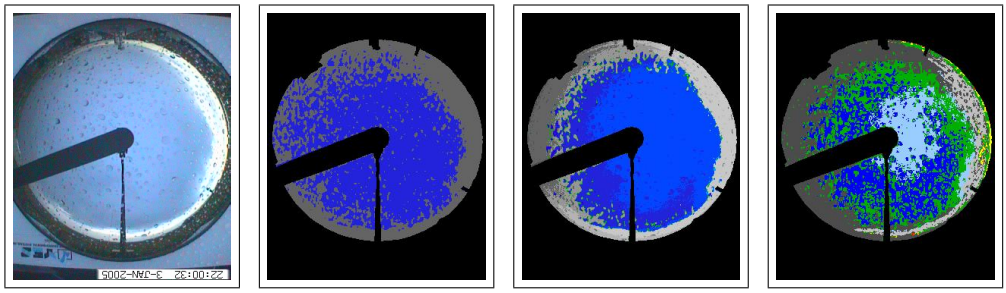
(v) 0501032115 (vi) 0501032115 Long (vii) 0501032115 EGD (viii) 0501032115 MAHA



(ix) 0501032130 (x) 0501032130 Long (xi) 0501032130 EGD (xii) 0501032130 MAHA

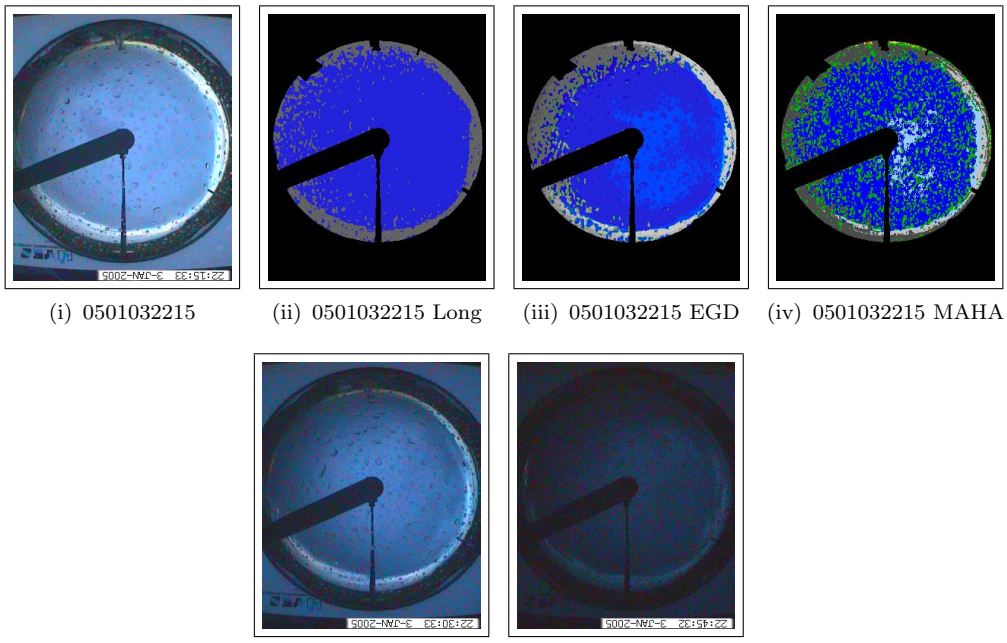


(xiii) 0501032145 (xiv) 0501032145 Long (xv) 0501032145 EGD (xvi) 0501032145 MAHA



(xvii) 0501032200 (xviii) 0501032200 Long (xix) 0501032200 EGD (xx) 0501032200 MAHA

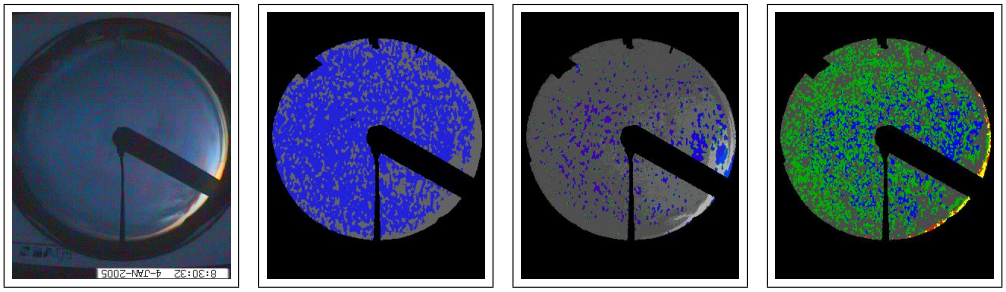
Figure A.36 - Sky images generated from 0501032100 to 0501032200.



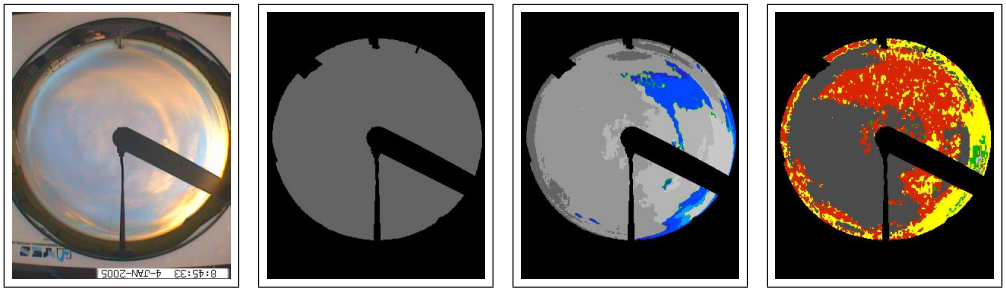
(i) 0501032215 (ii) 0501032215 Long (iii) 0501032215 EGD (iv) 0501032215 MAHA

(v) 0501032230 (vi) 0501032245

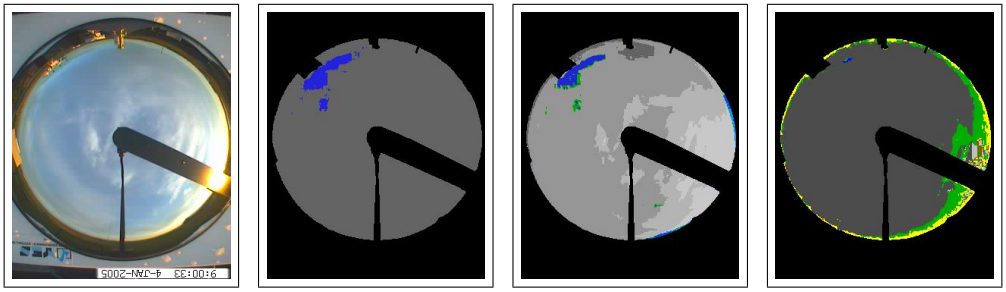
Figure A.37 - Sky images generated from 0501031600 to 0501032300.



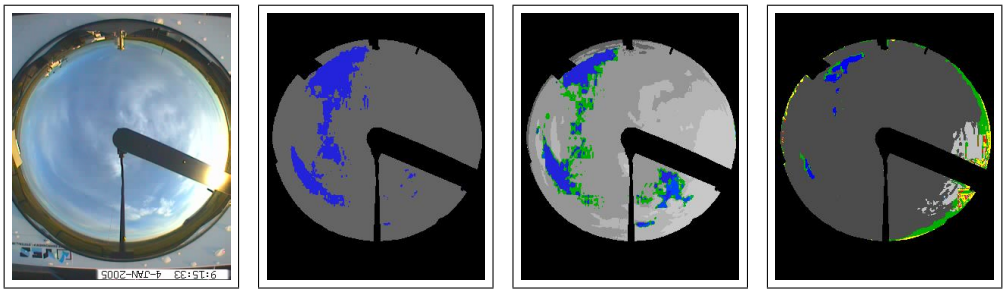
(i) 0501040830 (ii) 0501040830 Long (iii) 0501040830 EGD (iv) 0501040830 MAHA



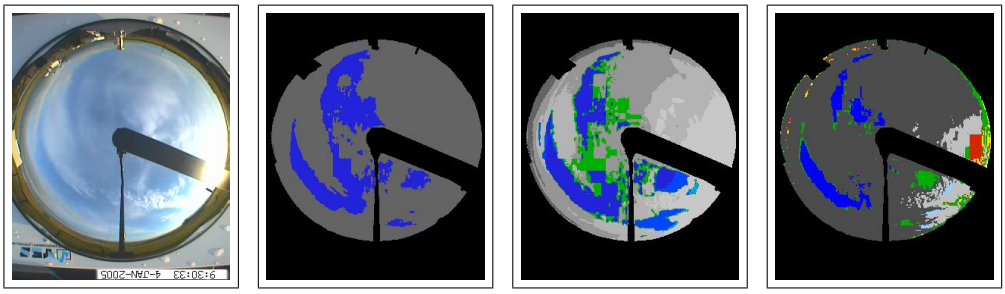
(v) 0501040845 (vi) 0501040845 Long (vii) 0501040845 EGD (viii) 0501040845 MAHA



(ix) 0501040900 (x) 0501040900 Long (xi) 0501040900 EGD (xii) 0501040900 MAHA

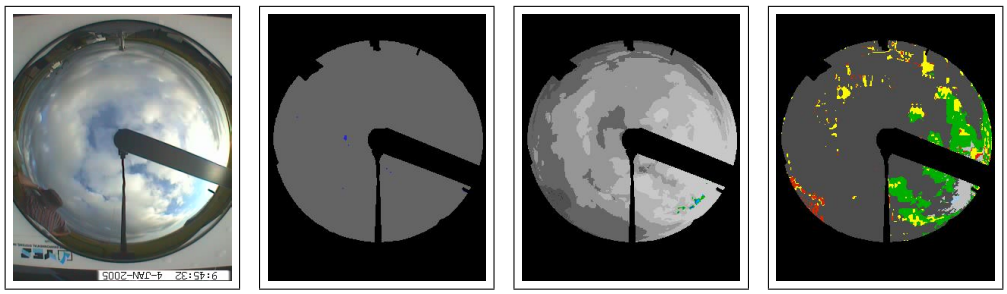


(xiii) 0501040915 (xiv) 0501040915 Long (xv) 0501040915 EGD (xvi) 0501040915 MAHA

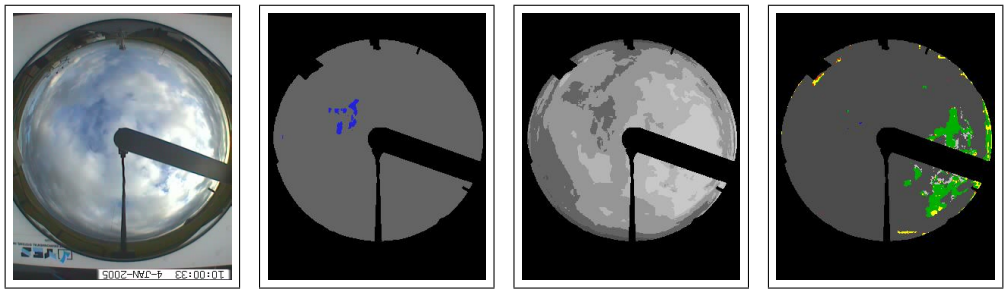


(xvii) 0501040930 (xviii) 0501040930 Long (xix) 0501040930 EGD (xx) 0501040930 MAHA

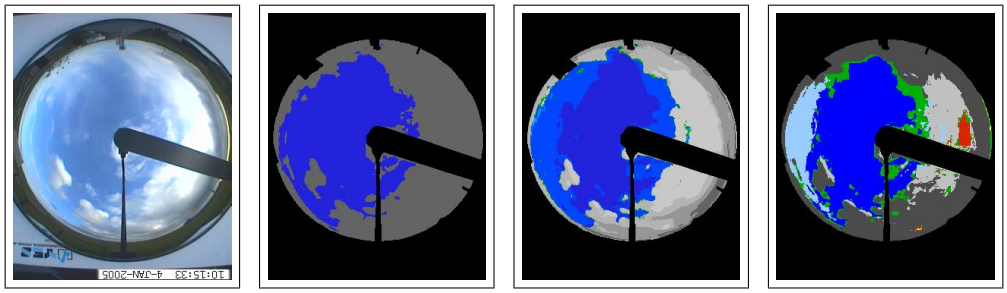
Figure A.38 - Sky images generated from 0501040830 to 0501040930.



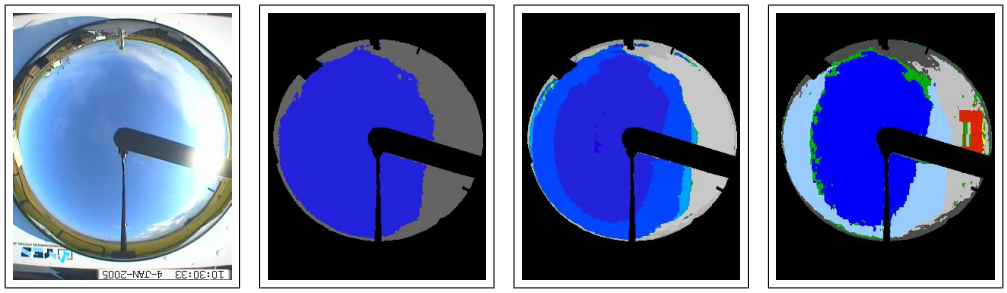
(i) 0501040945 (ii) 0501040945 Long (iii) 0501040945 EGD (iv) 0501040945 MAHA



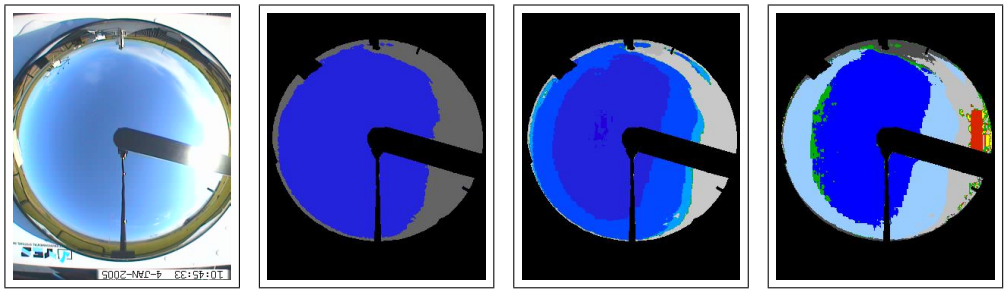
(v) 050104000 (vi) 050104000 Long (vii) 050104000 EGD (viii) 050104000 MAHA



(ix) 0501041015 (x) 0501041015 Long (xi) 0501041015 EGD (xii) 0501041015 MAHA

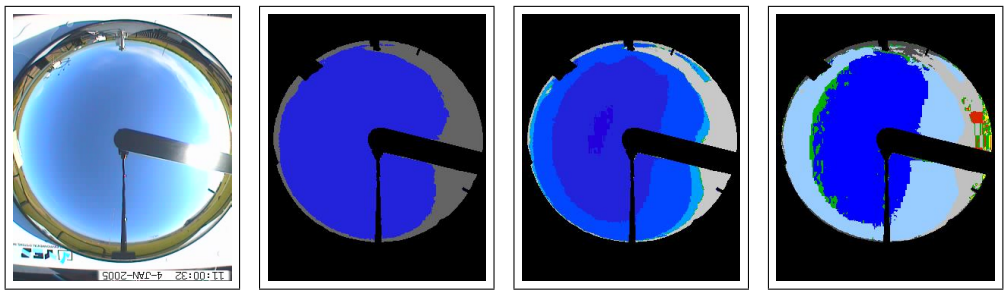


(xiii) 0501041030 (xiv) 0501041030 Long (xv) 0501041030 EGD (xvi) 0501041030 MAHA

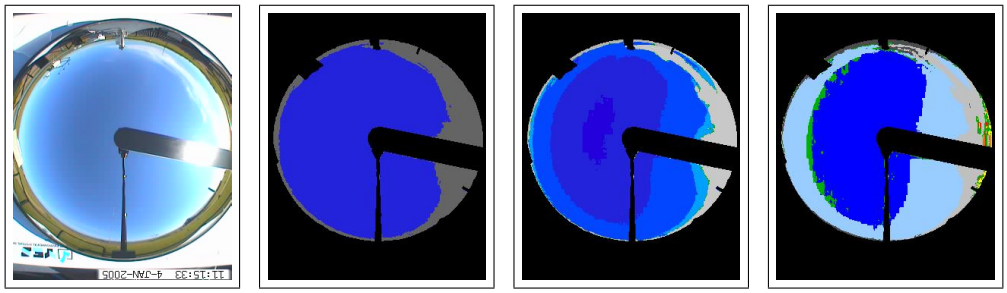


(xvii) 0501041045 (xviii) 0501041045 Long (xix) 0501041045 EGD (xx) 0501041045 MAHA

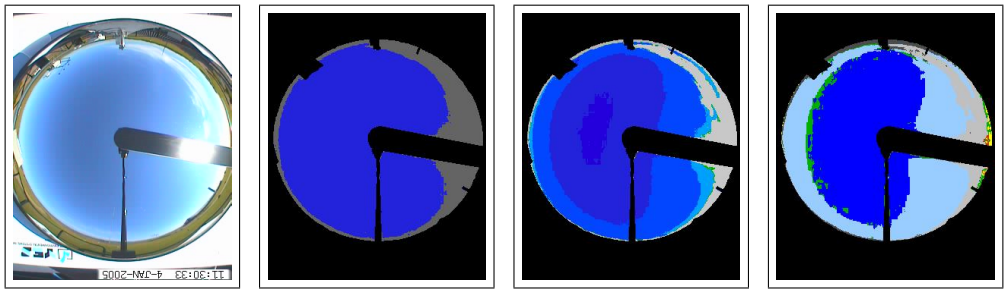
Figure A.39 - Sky images generated from 0501040945 to 0501041045.



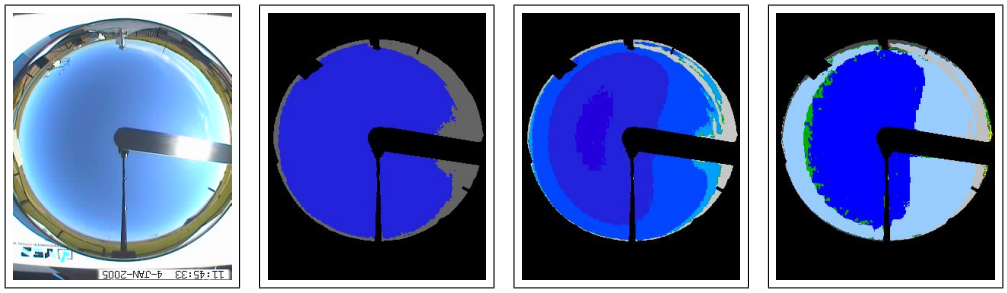
(i) 0501041100 (ii) 0501041100 Long (iii) 0501041100 EGD (iv) 0501041100 MAHA



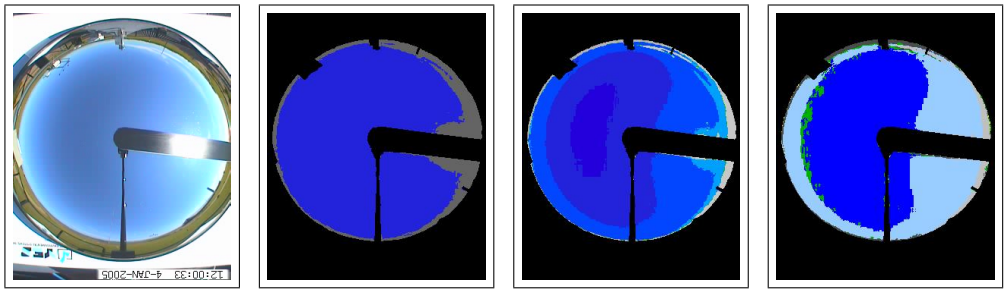
(v) 0501041115 (vi) 0501041115 Long (vii) 0501041115 EGD (viii) 0501041115 MAHA



(ix) 0501041130 (x) 0501041130 Long (xi) 0501041130 EGD (xii) 0501041130 MAHA

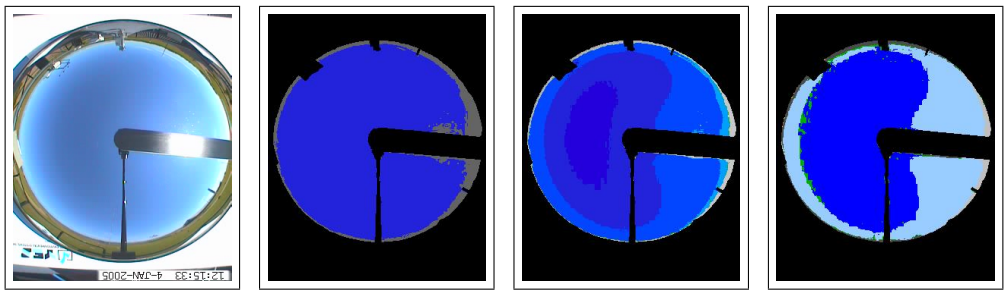


(xiii) 0501041145 (xiv) 0501041145 Long (xv) 0501041145 EGD (xvi) 0501041145 MAHA

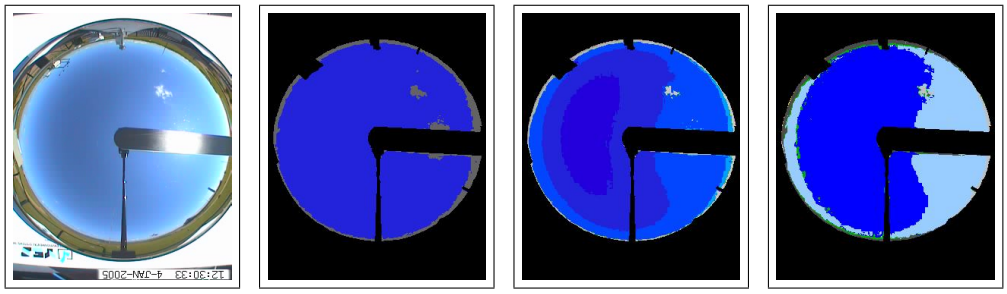


(xvii) 0501041200 (xviii) 0501041200 Long (xix) 0501041200 EGD (xx) 0501041200 MAHA

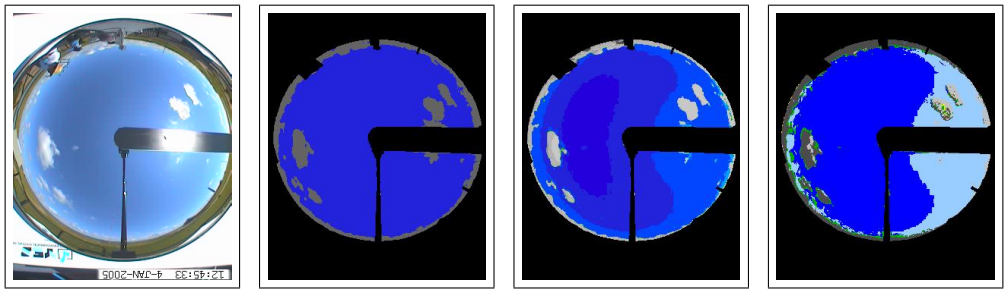
Figure A.40 - Sky images generated from 050104100 to 0501041200.



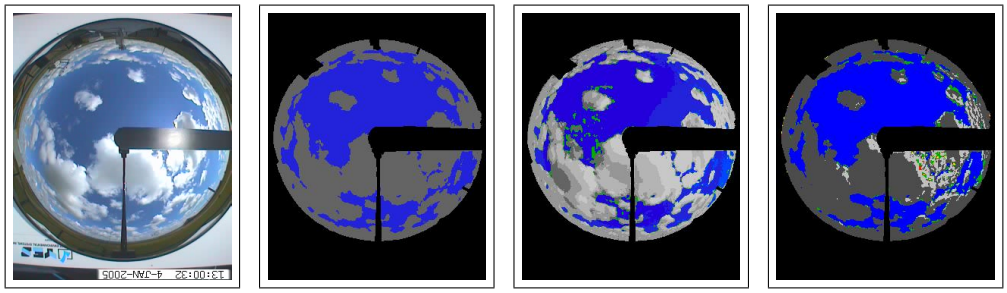
(i) 0501041215 (ii) 0501041215 Long (iii) 0501041215 EGD (iv) 0501041215 MAHA



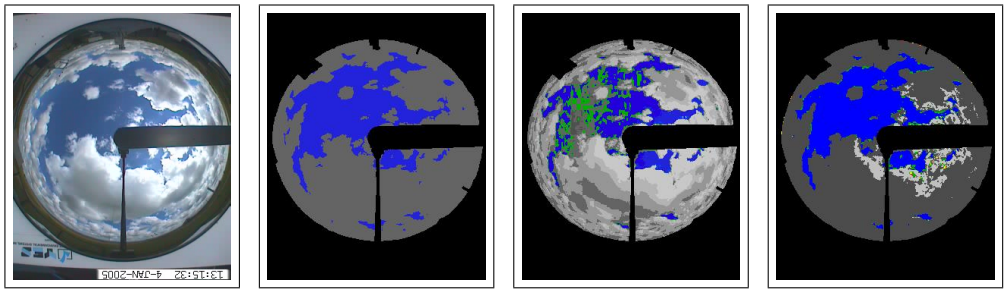
(v) 0501041230 (vi) 0501041230 Long (vii) 0501041230 EGD (viii) 0501041230 MAHA



(ix) 0501041245 (x) 0501041245 Long (xi) 0501041245 EGD (xii) 0501041245 MAHA

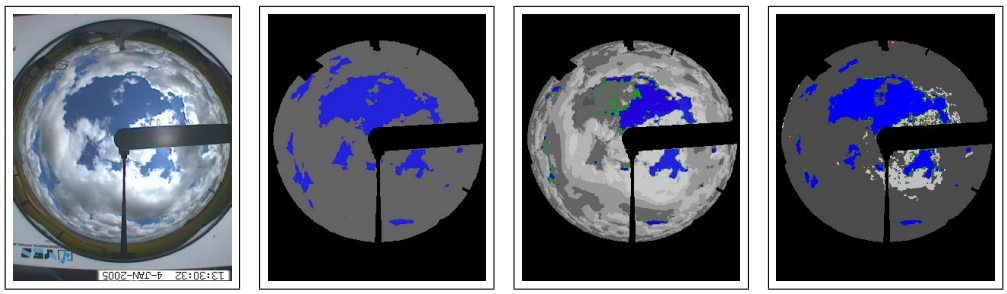


(xiii) 0501041300 (xiv) 0501041300 Long (xv) 0501041300 EGD (xvi) 0501041300 MAHA

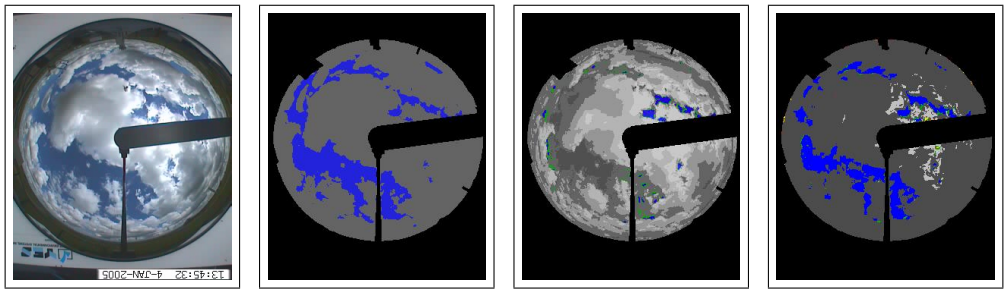


(xvii) 0501041315 (xviii) 0501041315 Long (xix) 0501041315 EGD (xx) 0501041315 MAHA

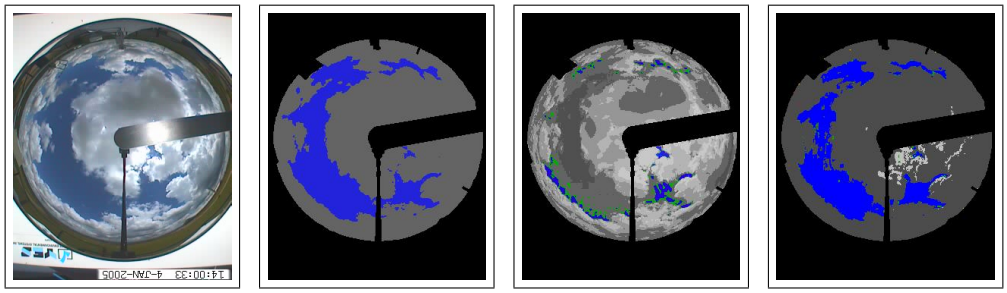
Figure A.41 - Sky images generated from 0501041215 to 0501041315.



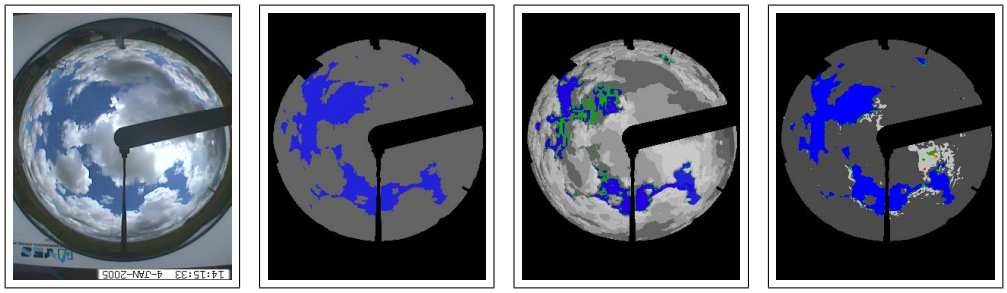
(i) 0501041330 (ii) 0501041330 Long (iii) 0501041330 EGD (iv) 0501041330 MAHA



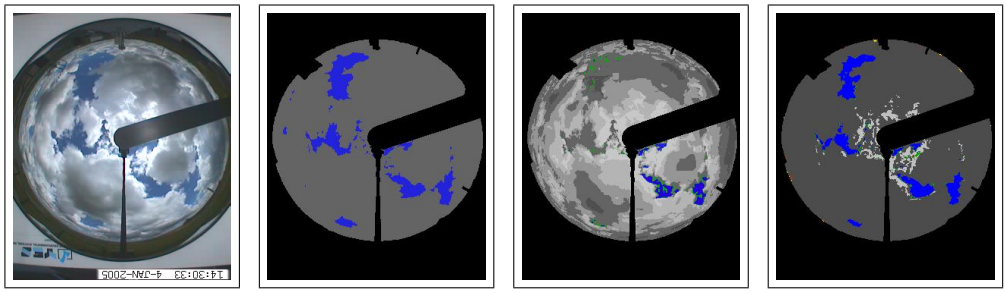
(v) 0501041345 (vi) 0501041345 Long (vii) 0501041345 EGD (viii) 0501041345 MAHA



(ix) 0501041400 (x) 0501041400 Long (xi) 0501041400 EGD (xii) 0501041400 MAHA

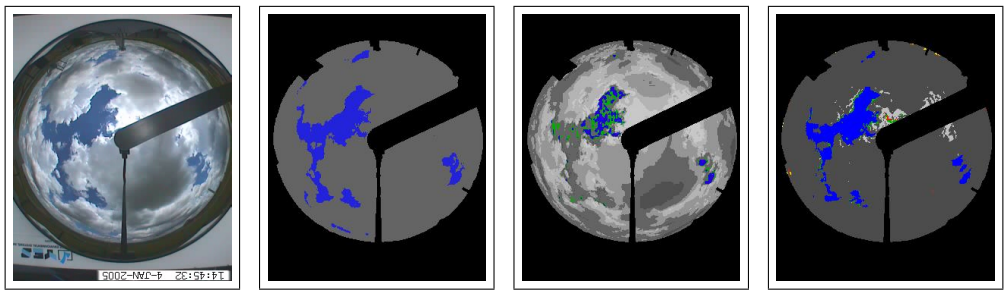


(xiii) 0501041415 (xiv) 0501041415 Long (xv) 0501041415 EGD (xvi) 0501041415 MAHA

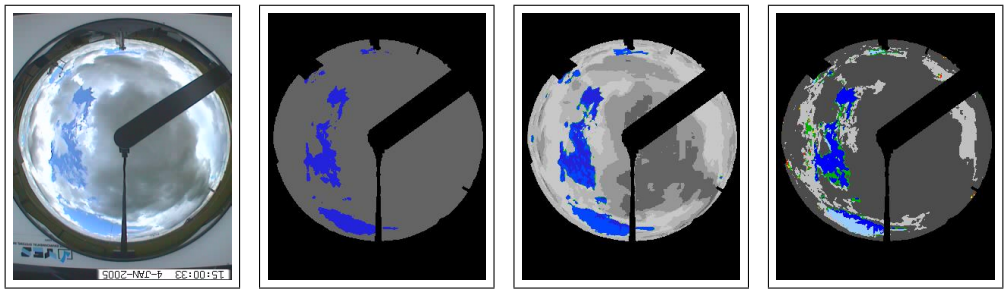


(xvii) 0501041430 (xviii) 0501041430 Long (xix) 0501041430 EGD (xx) 0501041430 MAHA

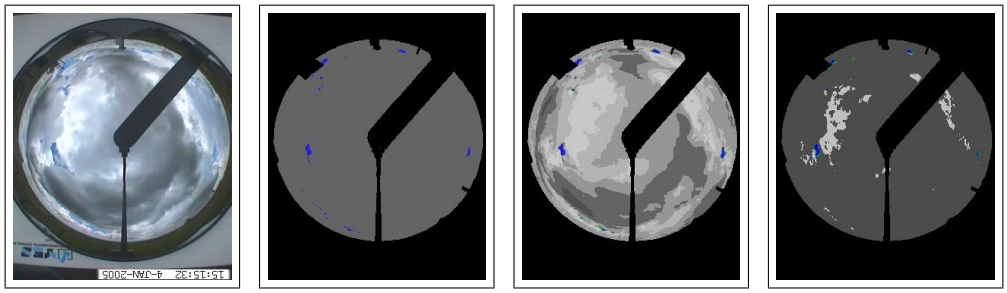
Figure A.42 - Sky images generated from 0501041330 to 0501041430.



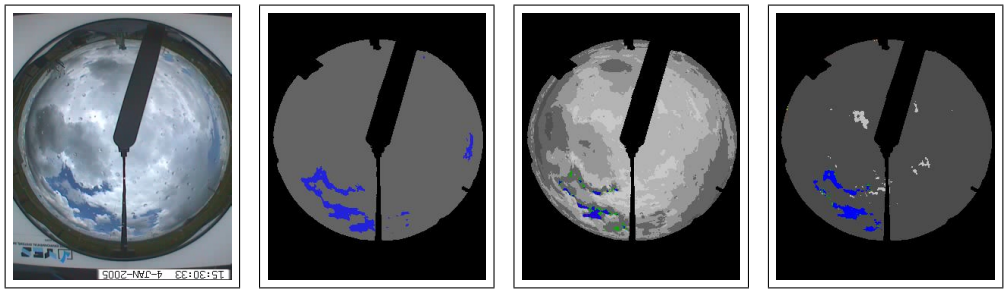
(i) 0501041445 (ii) 0501041445 Long (iii) 0501041445 EGD (iv) 0501041445 MAHA



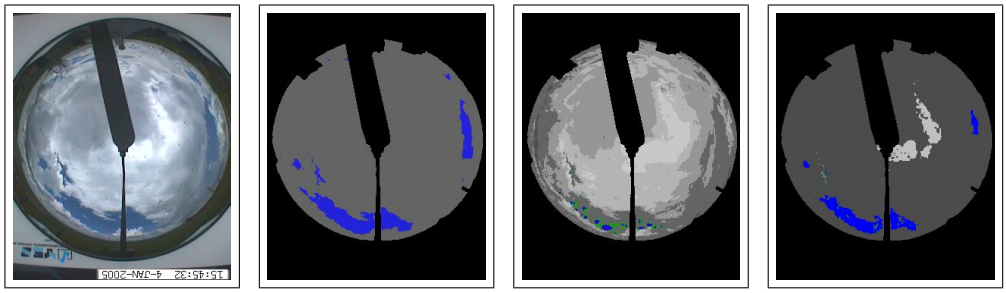
(v) 0501041500 (vi) 0501041500 Long (vii) 0501041500 EGD (viii) 0501041500 MAHA



(ix) 0501041515 (x) 0501041515 Long (xi) 0501041515 EGD (xii) 0501041515 MAHA

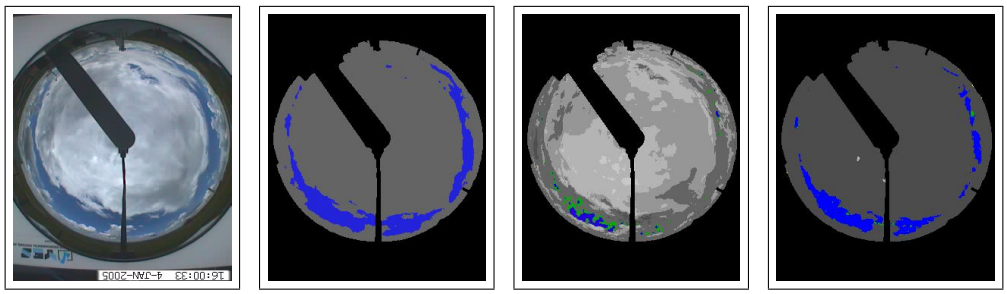


(xiii) 0501041530 (xiv) 0501041530 Long (xv) 0501041530 EGD (xvi) 0501041530 MAHA

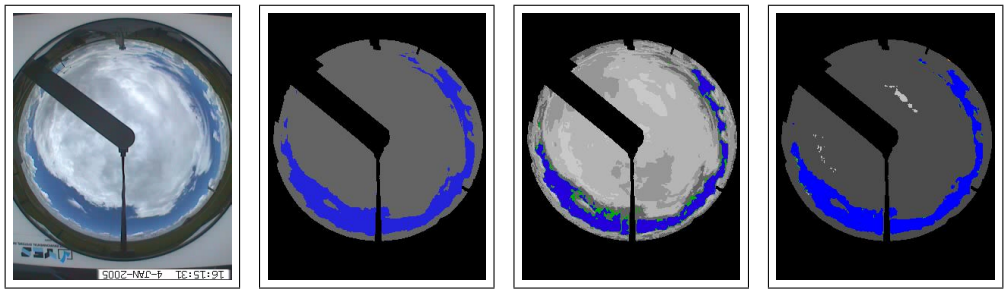


(xvii) 0501041545 (xviii) 0501041545 Long (xix) 0501041545 EGD (xx) 0501041545 MAHA

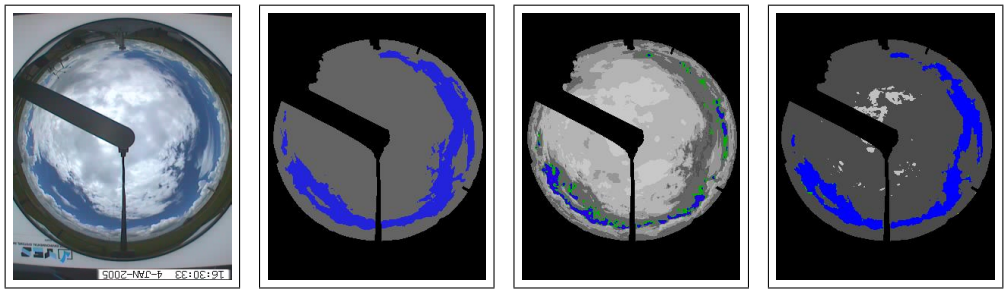
Figure A.43 - Sky images generated from 0501041445 to 0501041545.



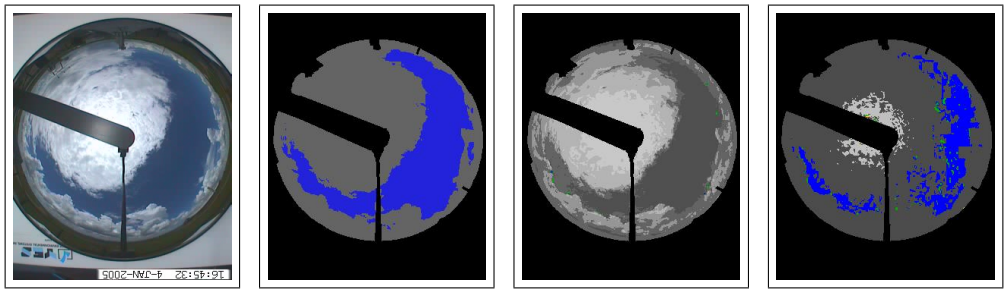
(i) 0501041600 (ii) 0501041600 Long (iii) 0501041600 EGD (iv) 0501041600 MAHA



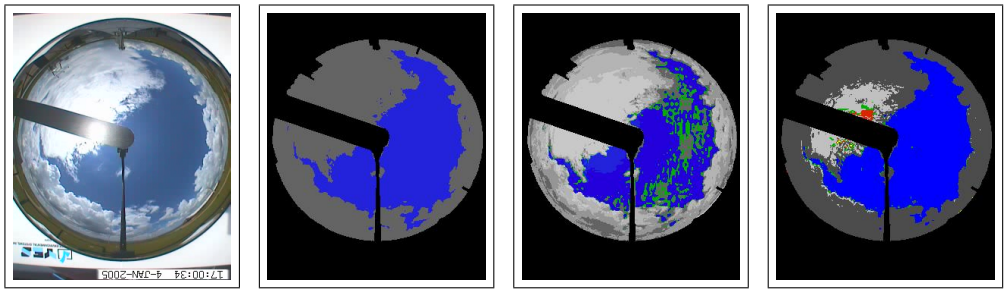
(v) 0501041615 (vi) 0501041615 Long (vii) 0501041615 EGD (viii) 0501041615 MAHA



(ix) 0501041630 (x) 0501041630 Long (xi) 0501041630 EGD (xii) 0501041630 MAHA

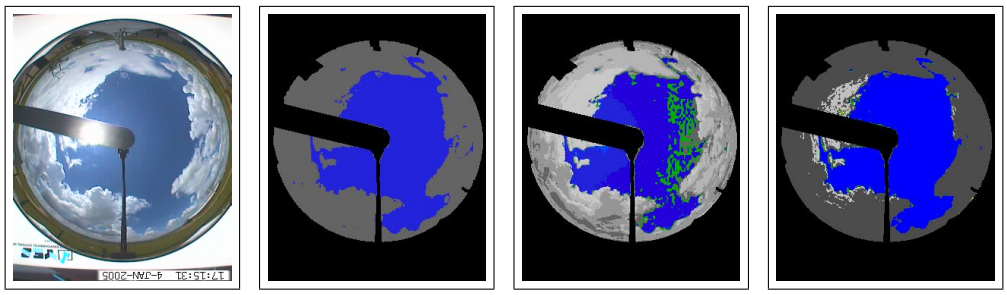


(xiii) 0501041645 (xiv) 0501041645 Long (xv) 0501041645 EGD (xvi) 0501041645 MAHA

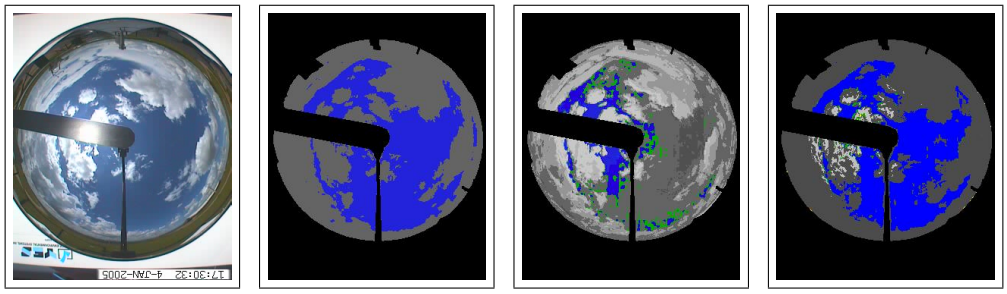


(xvii) 0501041700 (xviii) 0501041700 Long (xix) 0501041700 EGD (xx) 0501041700 MAHA

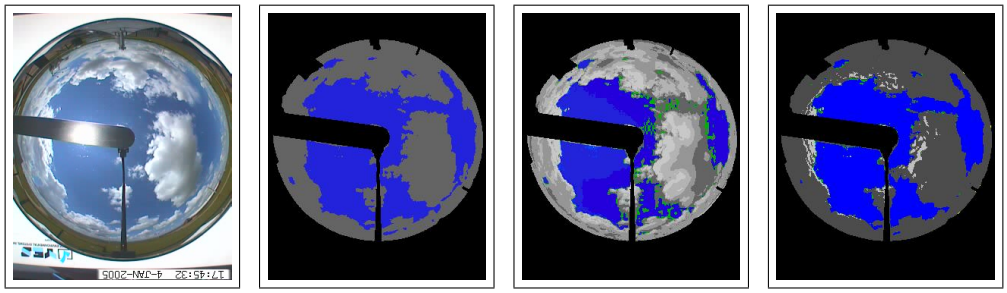
Figure A.44 - Sky images generated from 0501041600 to 0501041700.



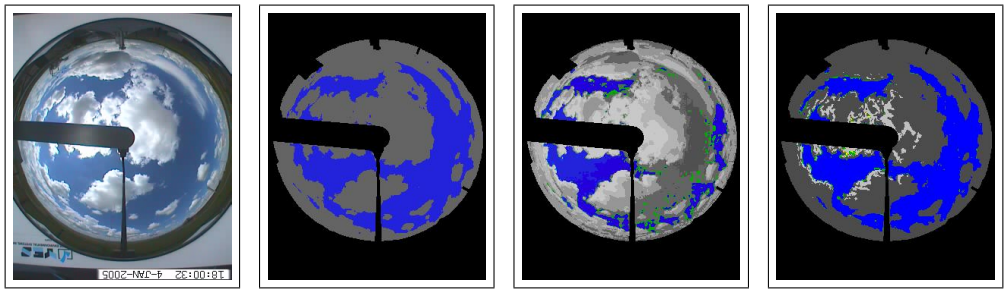
(i) 0501041715 (ii) 0501041715 Long (iii) 0501041715 EGD (iv) 0501041715 MAHA



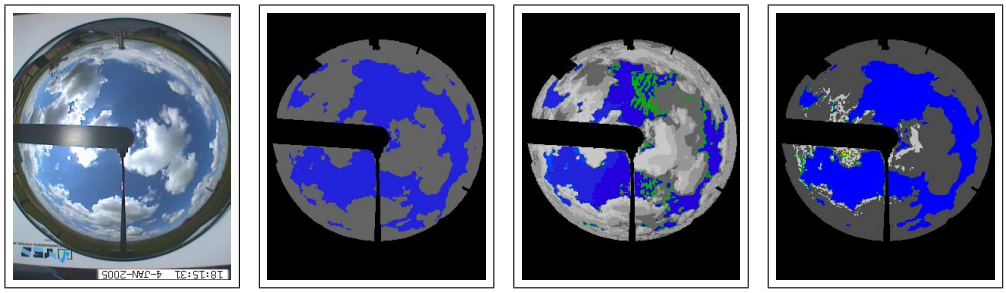
(v) 0501041730 (vi) 0501041730 Long (vii) 0501041730 EGD (viii) 0501041730 MAHA



(ix) 0501041745 (x) 0501041745 Long (xi) 0501041745 EGD (xii) 0501041745 MAHA

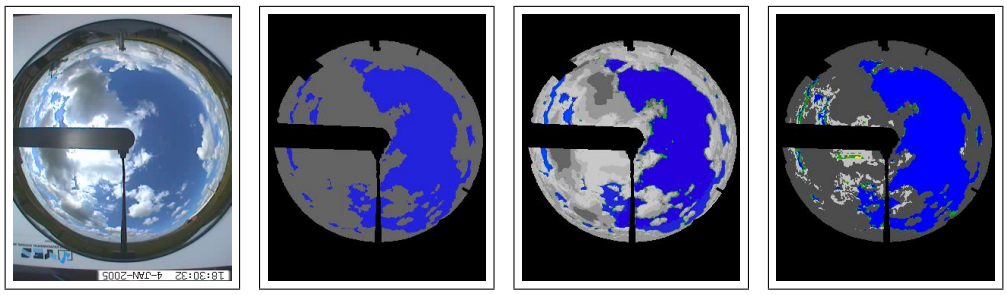


(xiii) 0501041800 (xiv) 0501041800 Long (xv) 0501041800 EGD (xvi) 0501041800 MAHA

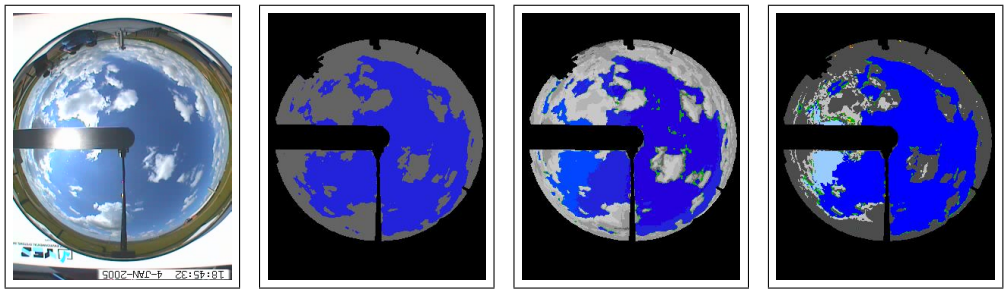


(xvii) 0501041815 (xviii) 0501041815 Long (xix) 0501041815 EGD (xx) 0501041815 MAHA

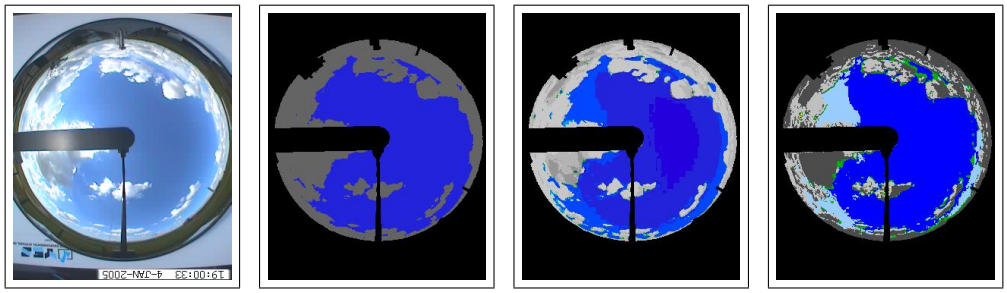
Figure A.45 - Sky images generated from 0501041715 to 0501041815.



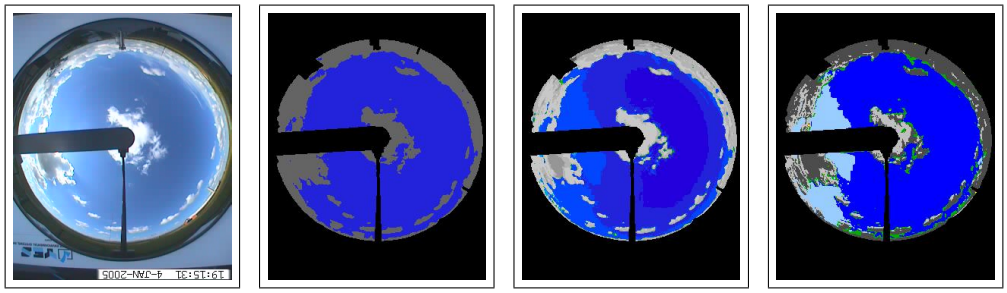
(i) 0501041830 (ii) 0501041830 Long (iii) 0501041830 EGD (iv) 0501041830 MAHA



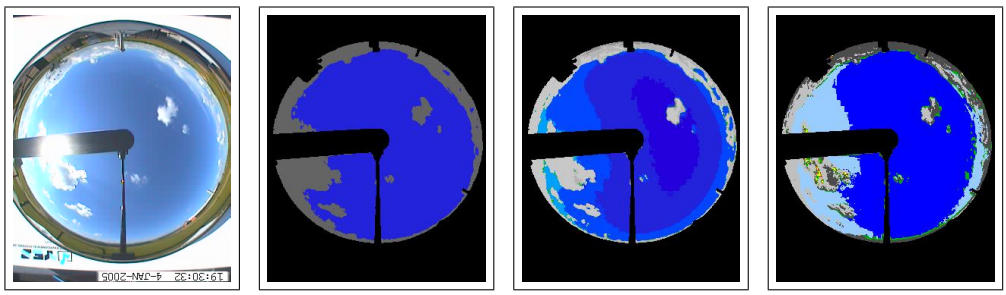
(v) 0501041845 (vi) 0501041845 Long (vii) 0501041845 EGD (viii) 0501041845 MAHA



(ix) 0501041900 (x) 0501041900 Long (xi) 0501041900 EGD (xii) 0501041900 MAHA

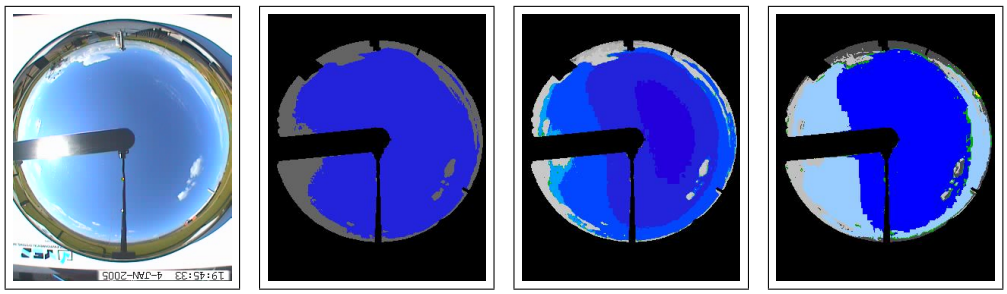


(xiii) 0501041915 (xiv) 0501041915 Long (xv) 0501041915 EGD (xvi) 0501041915 MAHA

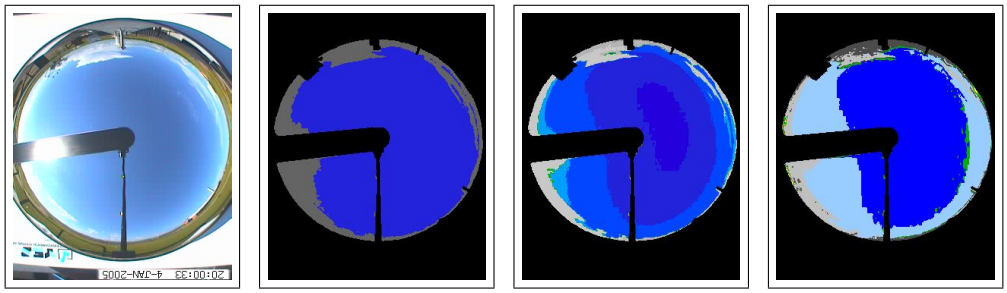


(xvii) 0501041930 (xviii) 0501041930 Long (xix) 0501041930 EGD (xx) 0501041930 MAHA

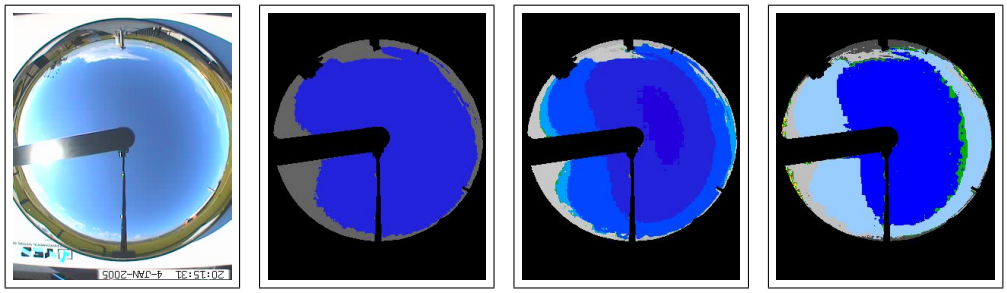
Figure A.46 - Sky images generated from 0501041830 to 0501041930.



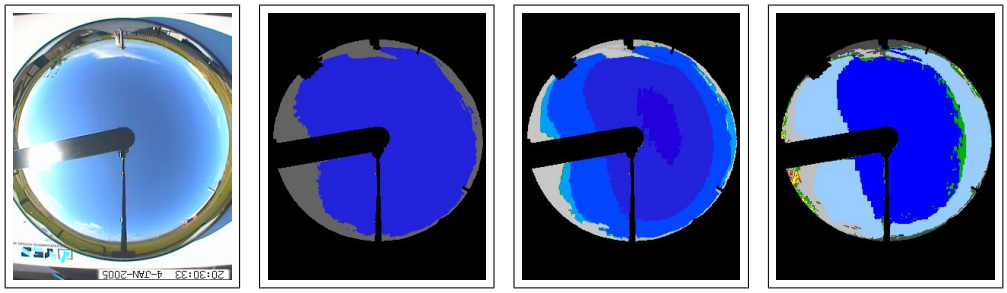
(i) 0501041945 (ii) 0501041945 Long (iii) 0501041945 EGD (iv) 0501041945 MAHA



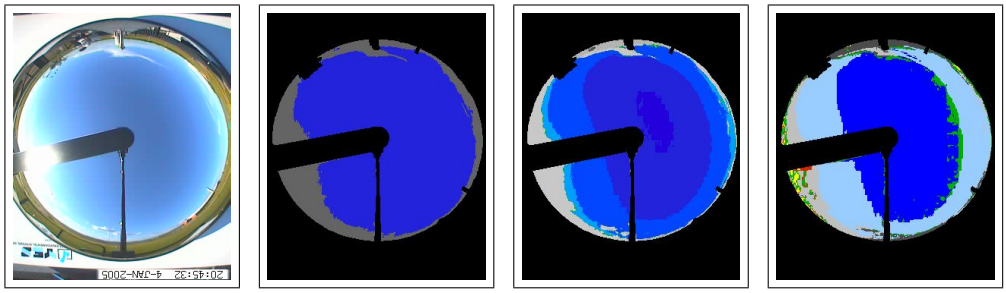
(v) 0501042000 (vi) 0501042000 Long (vii) 0501042000 EGD (viii) 0501042000 MAHA



(ix) 0501042015 (x) 0501042015 Long (xi) 0501042015 EGD (xii) 0501042015 MAHA

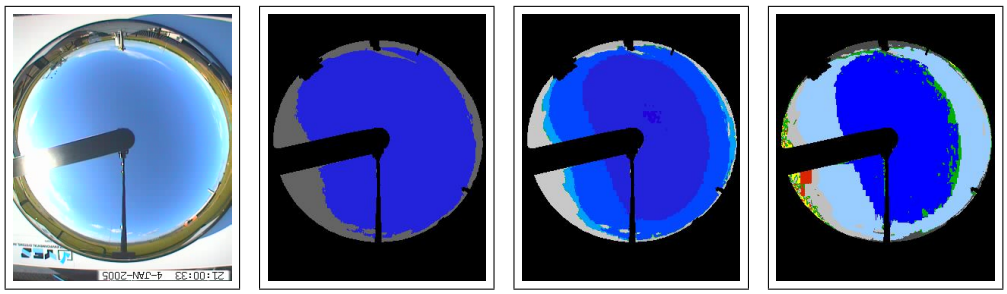


(xiii) 0501042030 (xiv) 0501042030 Long (xv) 0501042030 EGD (xvi) 0501042030 MAHA

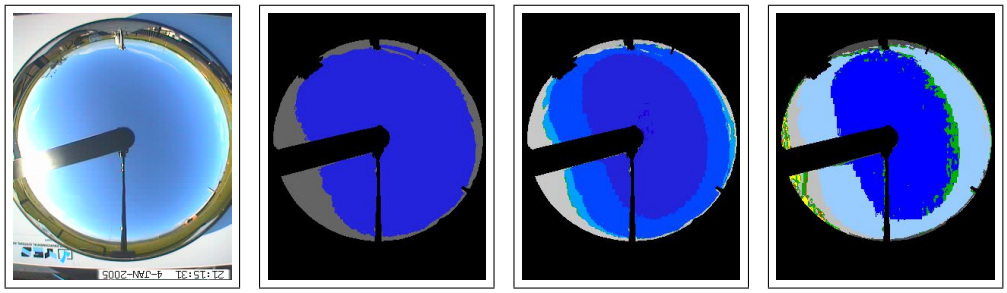


(xvii) 0501042045 (xviii) 0501042045 Long (xix) 0501042045 EGD (xx) 0501042045 MAHA

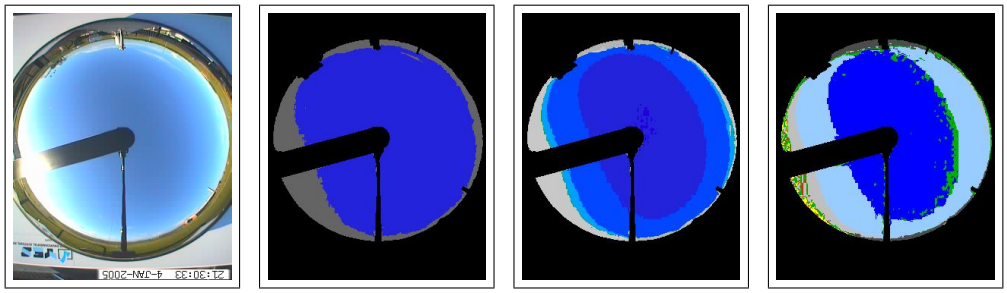
Figure A.47 - Sky images generated from 0501041945 to 0501042045.



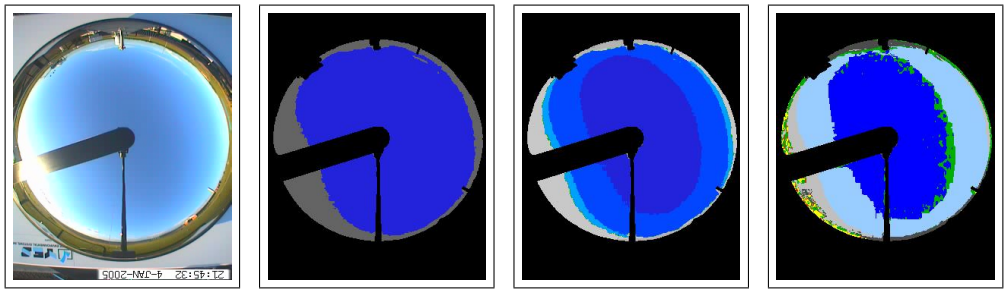
(i) 0501042100 (ii) 0501042100 Long (iii) 0501042100 EGD (iv) 0501042100 MAHA



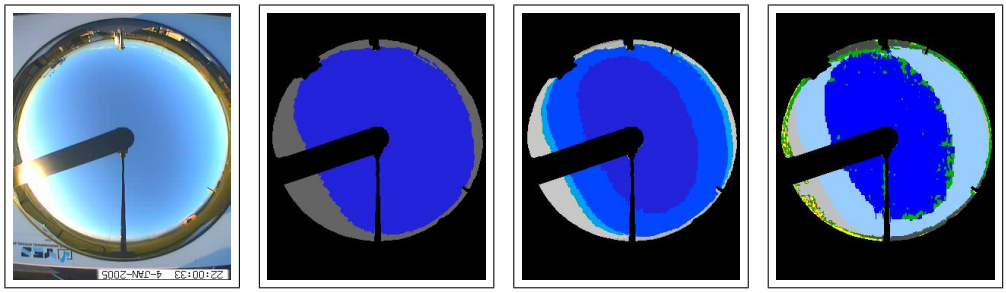
(v) 0501042115 (vi) 0501042115 Long (vii) 0501042115 EGD (viii) 0501042115 MAHA



(ix) 0501042130 (x) 0501042130 Long (xi) 0501042130 EGD (xii) 0501042130 MAHA

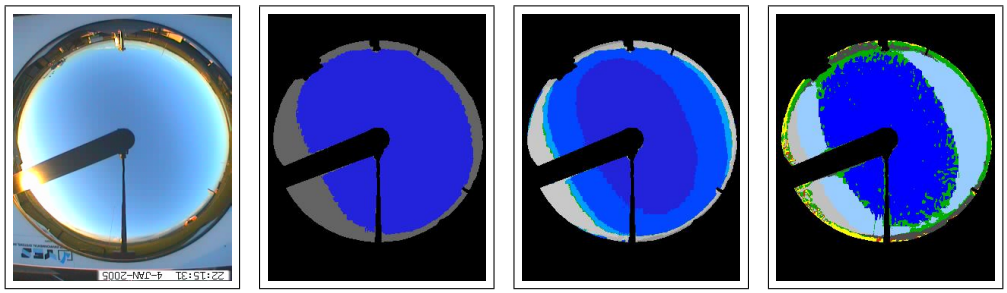


(xiii) 0501042145 (xiv) 0501042145 Long (xv) 0501042145 EGD (xvi) 0501042145 MAHA

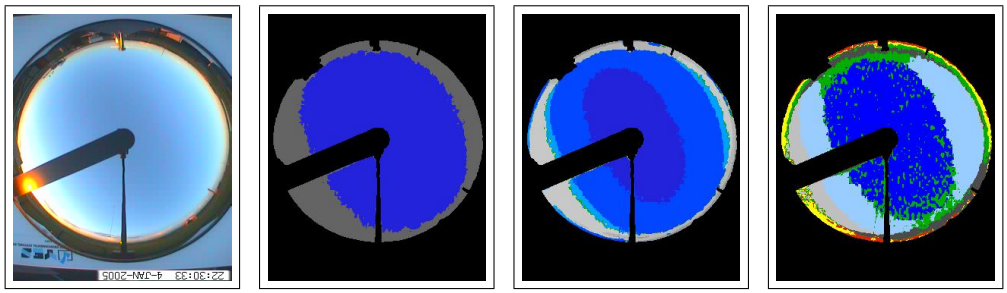


(xvii) 0501042200 (xviii) 0501042200 Long (xix) 0501042200 EGD (xx) 0501042200 MAHA

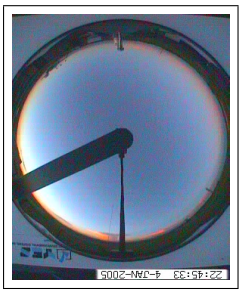
Figure A.48 - Sky images generated from 0501042100 to 0501042200.



(i) 0501042215 (ii) 0501042215 Long (iii) 0501042215 EGD (iv) 0501042215 MAHA

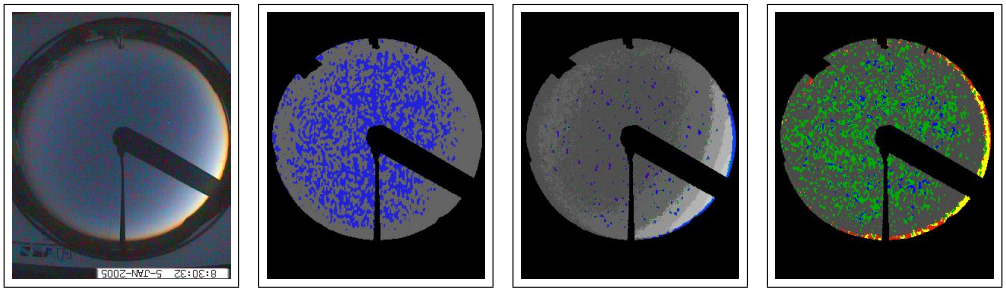


(v) 0501042230 (vi) 0501042230 Long (vii) 0501042230 EGD (viii) 0501042230 MAHA

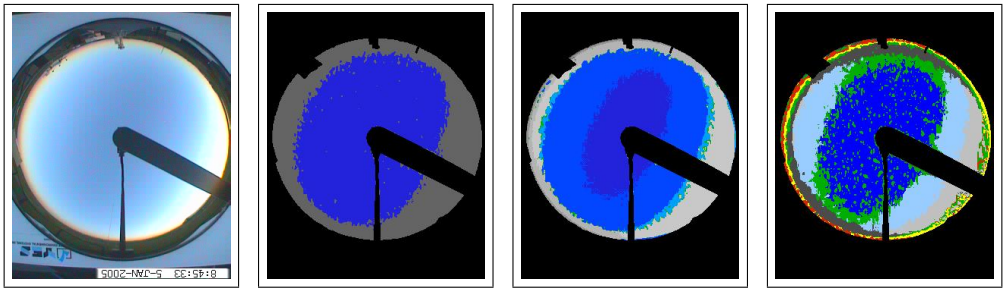


(ix) 0501042245

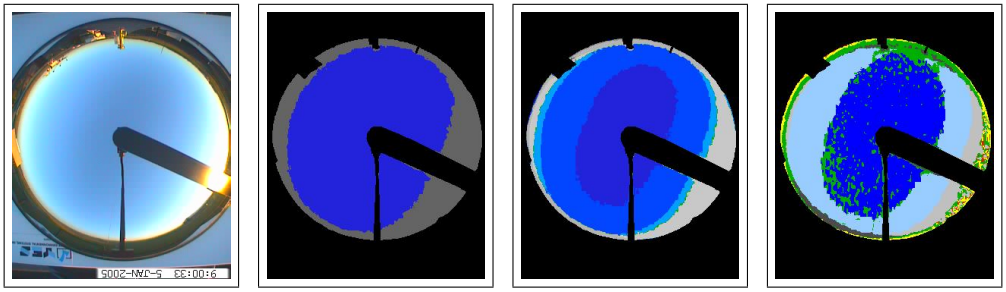
Figure A.49 - Sky images generated from 0501041600 to 0501042300.



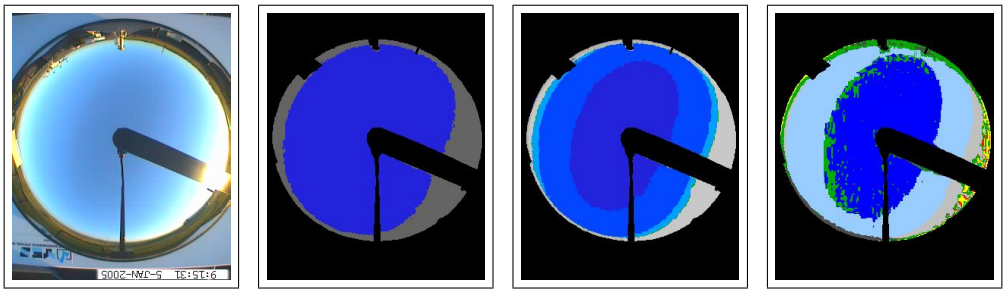
(i) 0501050830 (ii) 0501050830 Long (iii) 0501050830 EGD (iv) 0501050830 MAHA



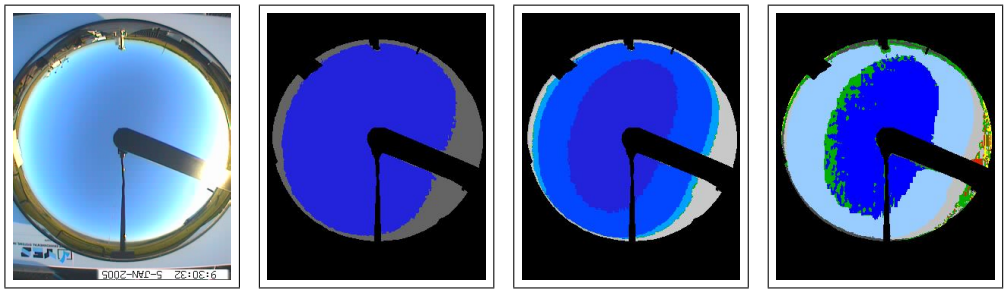
(v) 0501050845 (vi) 0501050845 Long (vii) 0501050845 EGD (viii) 0501050845 MAHA



(ix) 0501050900 (x) 0501050900 Long (xi) 0501050900 EGD (xii) 0501050900 MAHA

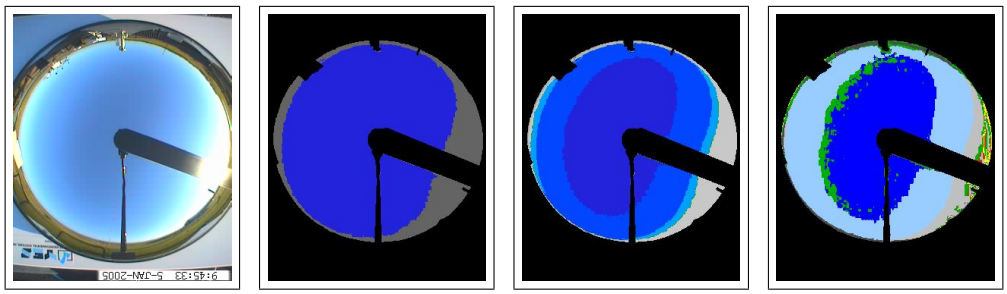


(xiii) 0501050915 (xiv) 0501050915 Long (xv) 0501050915 EGD (xvi) 0501050915 MAHA

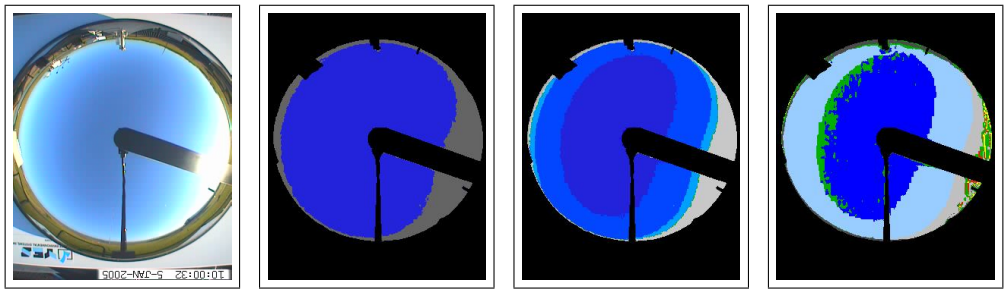


(xvii) 0501050930 (xviii) 0501050930 Long (xix) 0501050930 EGD (xx) 0501050930 MAHA

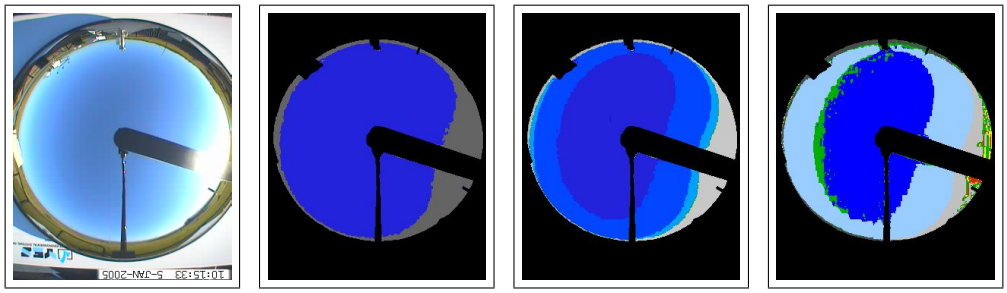
Figure A.50 - Sky images generated from 0501050830 to 0501050930.



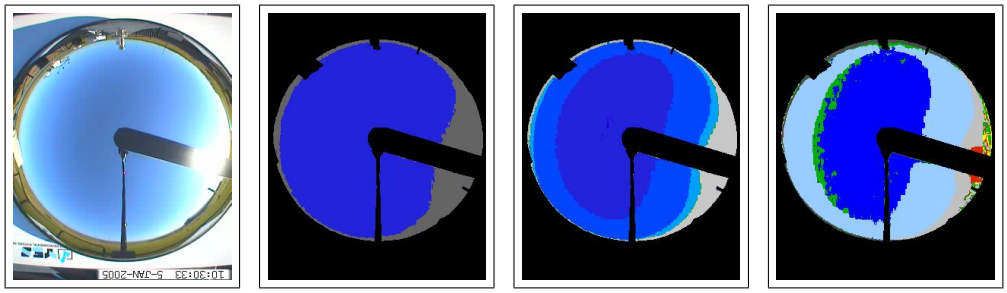
(i) 0501050945 (ii) 0501050945 Long (iii) 0501050945 EGD (iv) 0501050945 MAHA



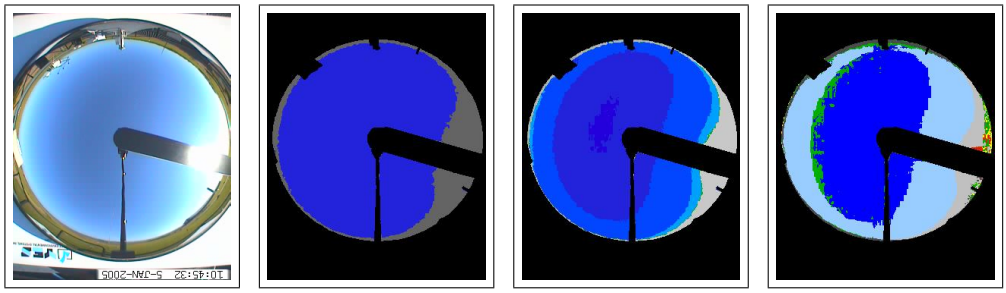
(v) 050105000 (vi) 050105000 Long (vii) 050105000 EGD (viii) 050105000 MAHA



(ix) 0501051015 (x) 0501051015 Long (xi) 0501051015 EGD (xii) 0501051015 MAHA

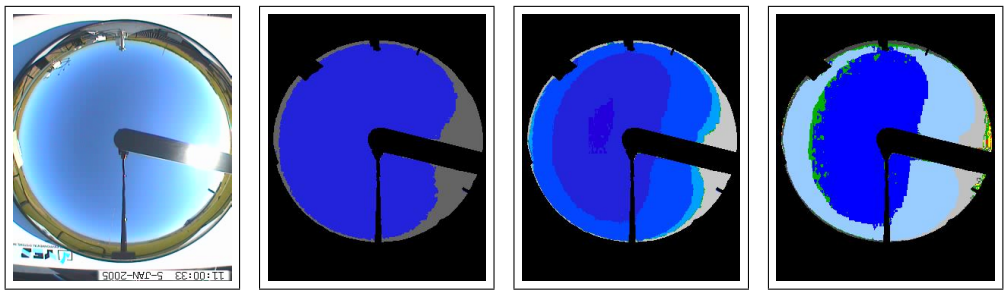


(xiii) 0501051030 (xiv) 0501051030 Long (xv) 0501051030 EGD (xvi) 0501051030 MAHA

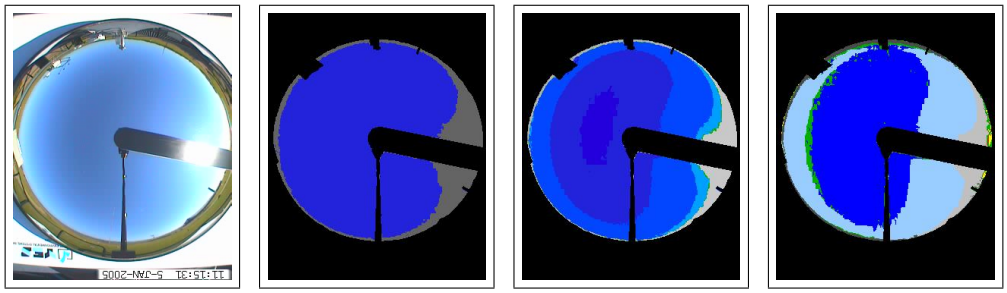


(xvii) 0501051045 (xviii) 0501051045 Long (xix) 0501051045 EGD (xx) 0501051045 MAHA

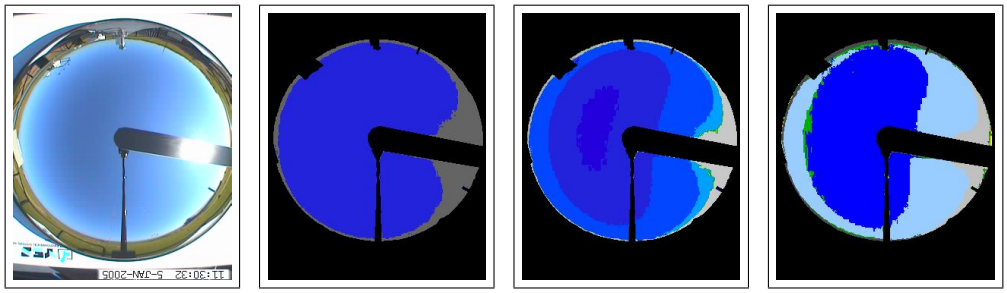
Figure A.51 - Sky images generated from 0501050945 to 0501051045.



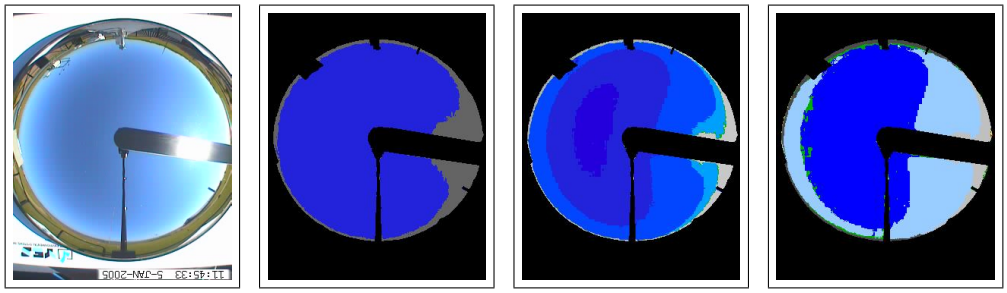
(i) 0501051100 (ii) 0501051100 Long (iii) 0501051100 EGD (iv) 0501051100 MAHA



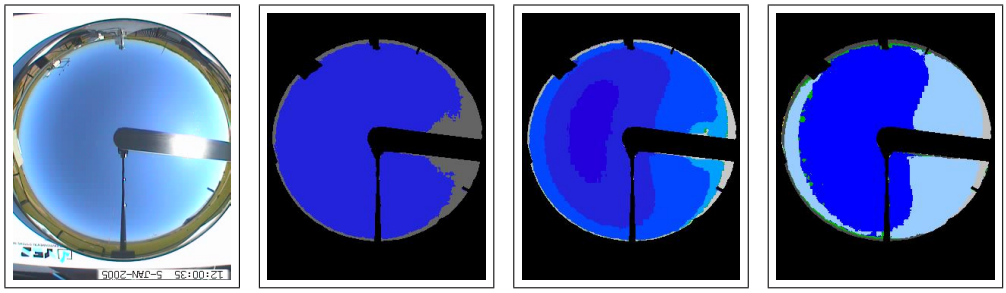
(v) 0501051115 (vi) 0501051115 Long (vii) 0501051115 EGD (viii) 0501051115 MAHA



(ix) 0501051130 (x) 0501051130 Long (xi) 0501051130 EGD (xii) 0501051130 MAHA

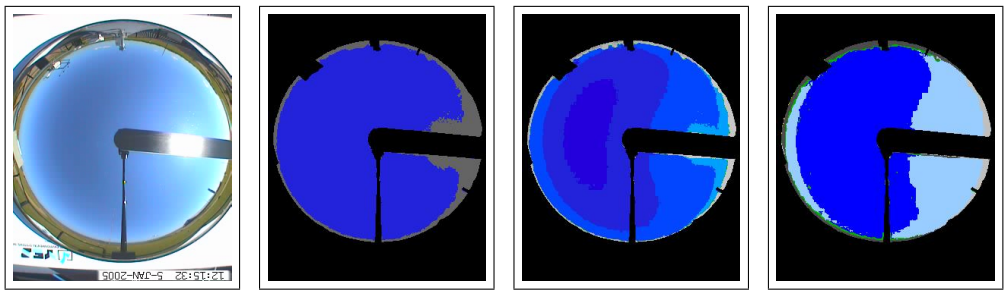


(xiii) 0501051145 (xiv) 0501051145 Long (xv) 0501051145 EGD (xvi) 0501051145 MAHA

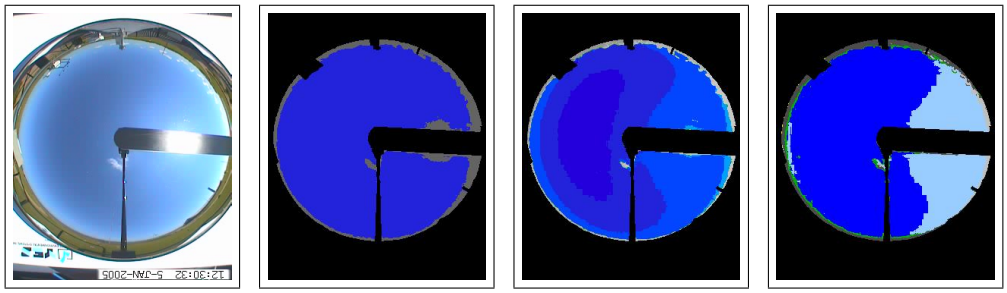


(xvii) 0501051200 (xviii) 0501051200 Long (xix) 0501051200 EGD (xx) 0501051200 MAHA

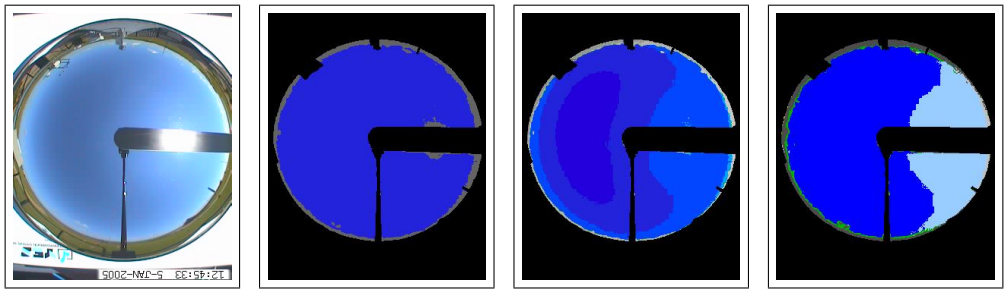
Figure A.52 - Sky images generated from 050105100 to 0501051200.



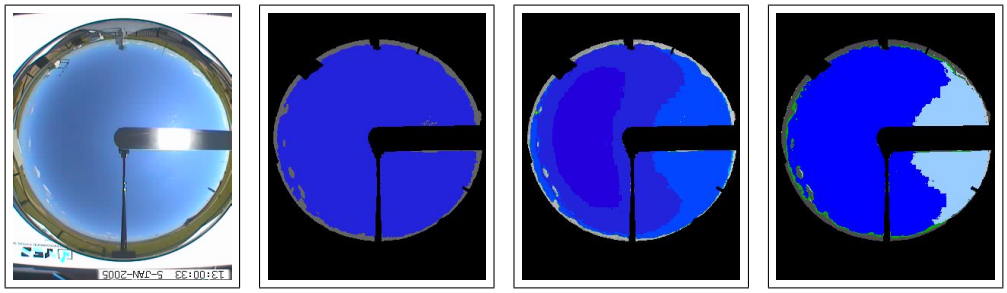
(i) 0501051215 (ii) 0501051215 Long (iii) 0501051215 EGD (iv) 0501051215 MAHA



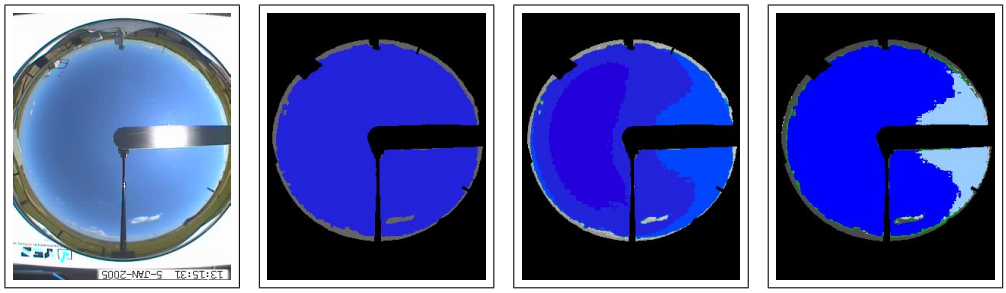
(v) 0501051230 (vi) 0501051230 Long (vii) 0501051230 EGD (viii) 0501051230 MAHA



(ix) 0501051245 (x) 0501051245 Long (xi) 0501051245 EGD (xii) 0501051245 MAHA

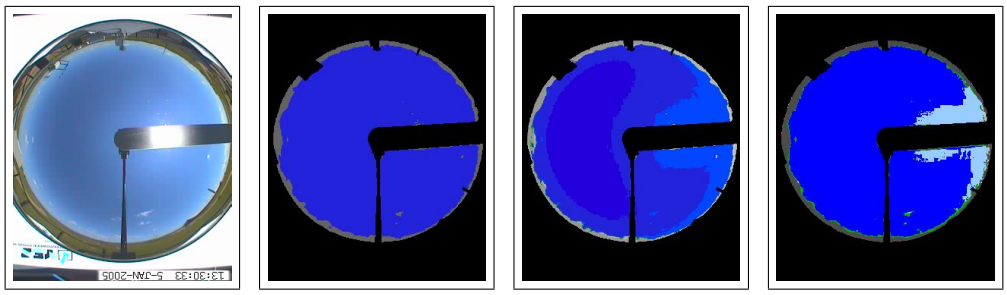


(xiii) 0501051300 (xiv) 0501051300 Long (xv) 0501051300 EGD (xvi) 0501051300 MAHA

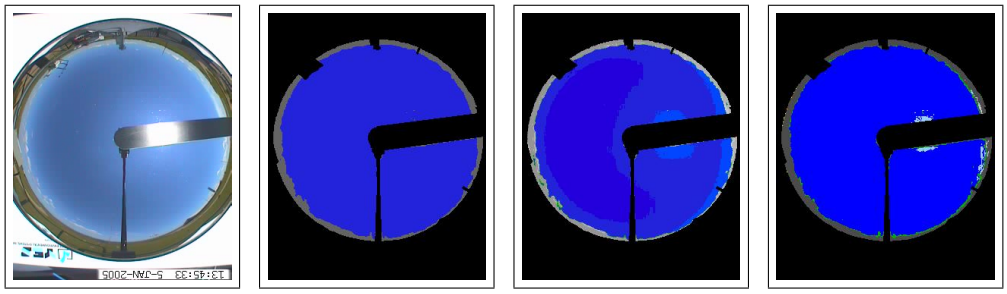


(xvii) 0501051315 (xviii) 0501051315 Long (xix) 0501051315 EGD (xx) 0501051315 MAHA

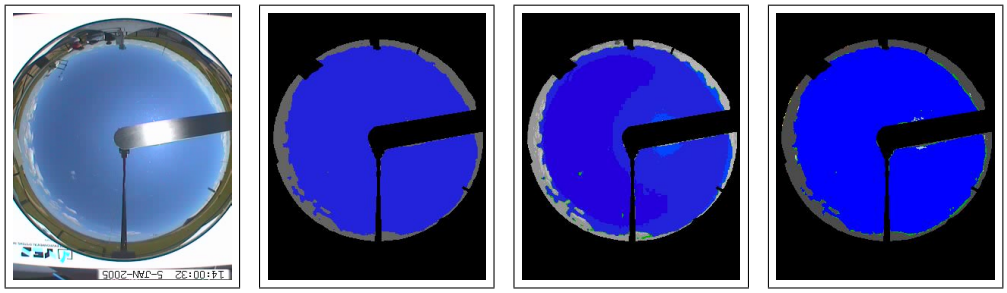
Figure A.53 - Sky images generated from 0501051215 to 0501051315.



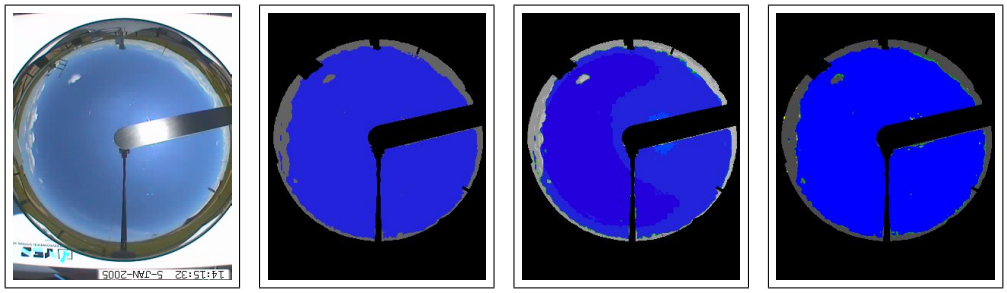
(i) 0501051330 (ii) 0501051330 Long (iii) 0501051330 EGD (iv) 0501051330 MAHA



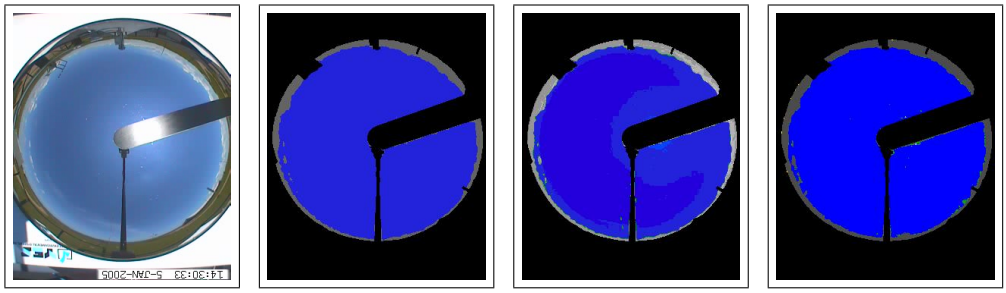
(v) 0501051345 (vi) 0501051345 Long (vii) 0501051345 EGD (viii) 0501051345 MAHA



(ix) 0501051400 (x) 0501051400 Long (xi) 0501051400 EGD (xii) 0501051400 MAHA

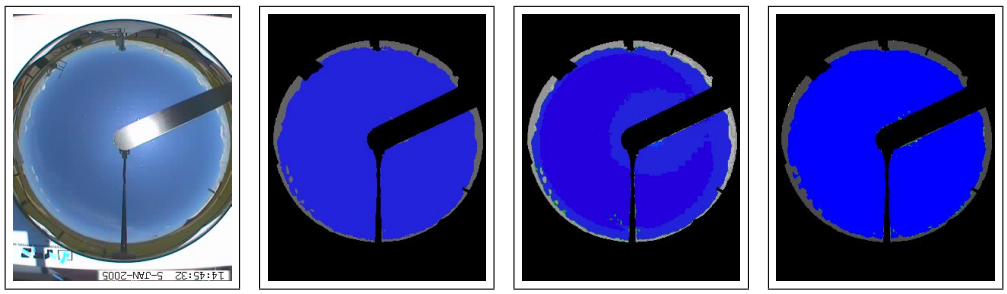


(xiii) 0501051415 (xiv) 0501051415 Long (xv) 0501051415 EGD (xvi) 0501051415 MAHA

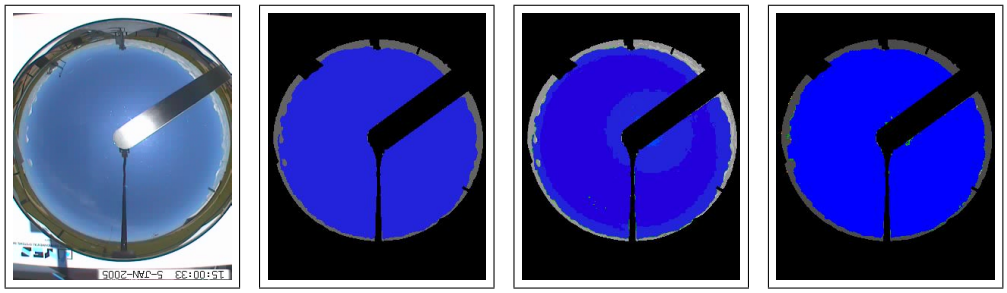


(xvii) 0501051430 (xviii) 0501051430 Long (xix) 0501051430 EGD (xx) 0501051430 MAHA

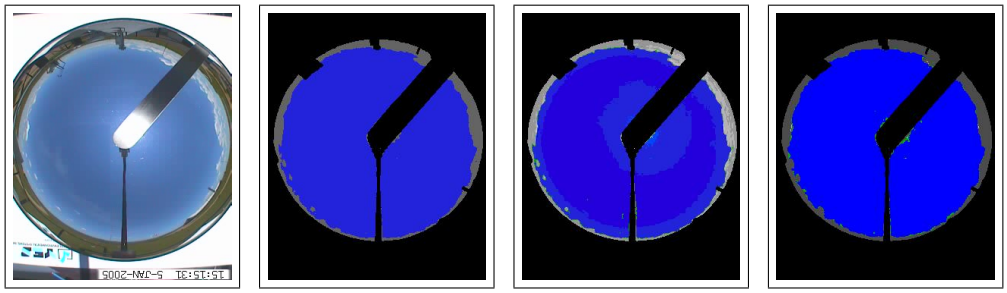
Figure A.54 - Sky images generated from 0501051330 to 0501051430.



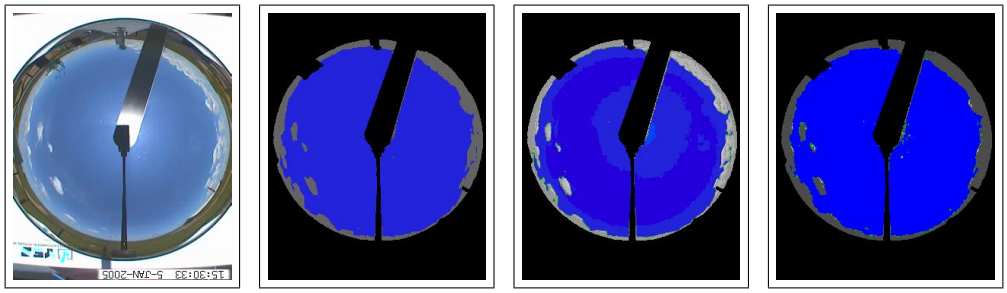
(i) 0501051445 (ii) 0501051445 Long (iii) 0501051445 EGD (iv) 0501051445 MAHA



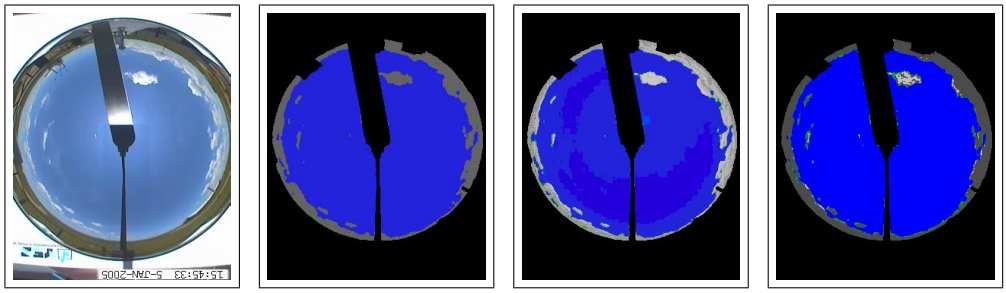
(v) 0501051500 (vi) 0501051500 Long (vii) 0501051500 EGD (viii) 0501051500 MAHA



(ix) 0501051515 (x) 0501051515 Long (xi) 0501051515 EGD (xii) 0501051515 MAHA

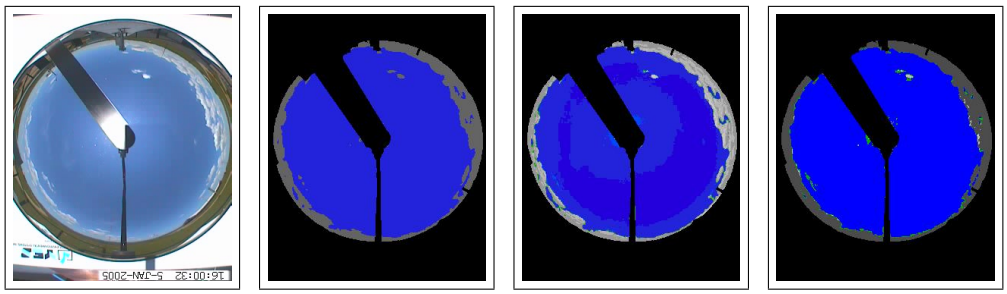


(xiii) 0501051530 (xiv) 0501051530 Long (xv) 0501051530 EGD (xvi) 0501051530 MAHA

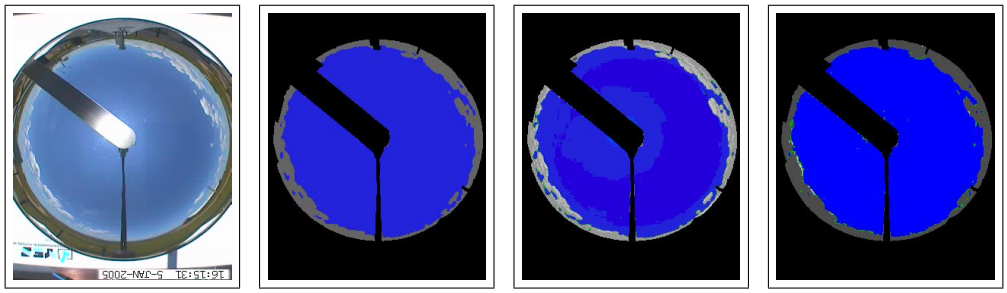


(xvii) 0501051545 (xviii) 0501051545 Long (xix) 0501051545 EGD (xx) 0501051545 MAHA

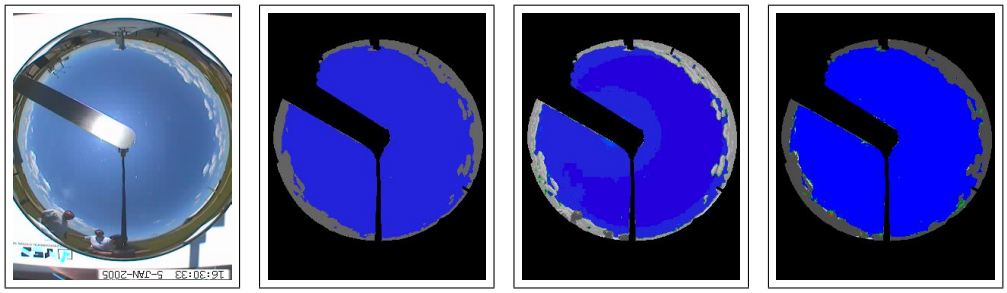
Figure A.55 - Sky images generated from 0501051445 to 0501051545.



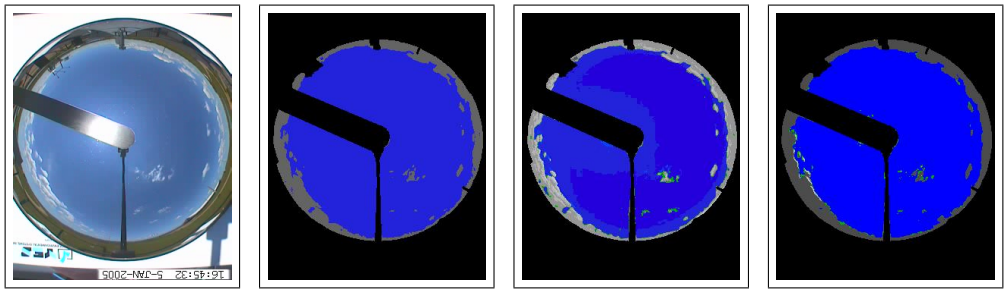
(i) 0501051600 (ii) 0501051600 Long (iii) 0501051600 EGD (iv) 0501051600 MAHA



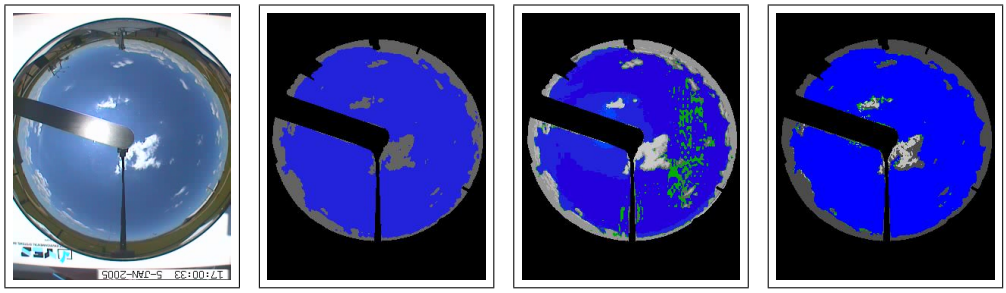
(v) 0501051615 (vi) 0501051615 Long (vii) 0501051615 EGD (viii) 0501051615 MAHA



(ix) 0501051630 (x) 0501051630 Long (xi) 0501051630 EGD (xii) 0501051630 MAHA

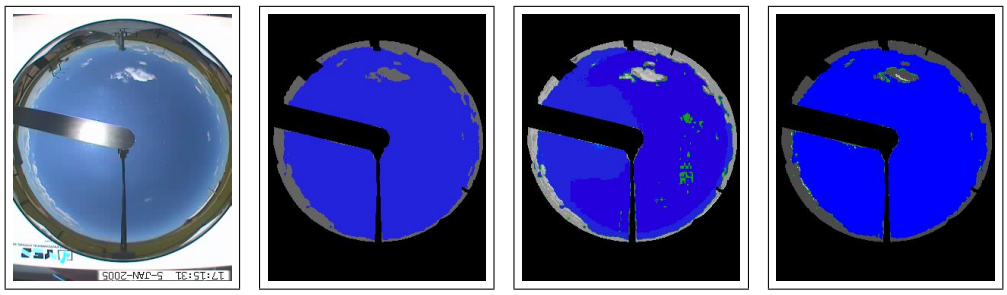


(xiii) 0501051645 (xiv) 0501051645 Long (xv) 0501051645 EGD (xvi) 0501051645 MAHA

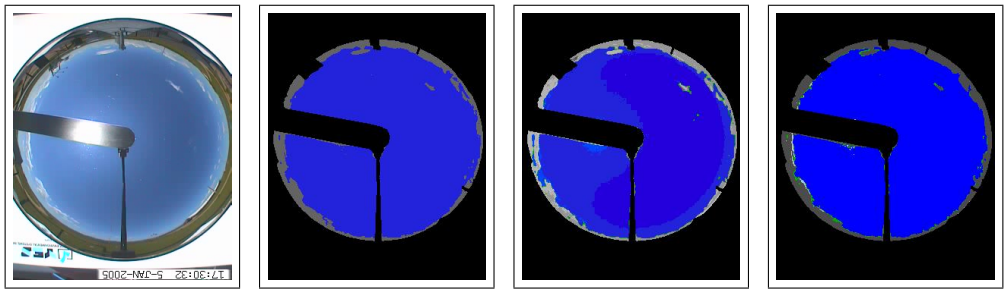


(xvii) 0501051700 (xviii) 0501051700 Long (xix) 0501051700 EGD (xx) 0501051700 MAHA

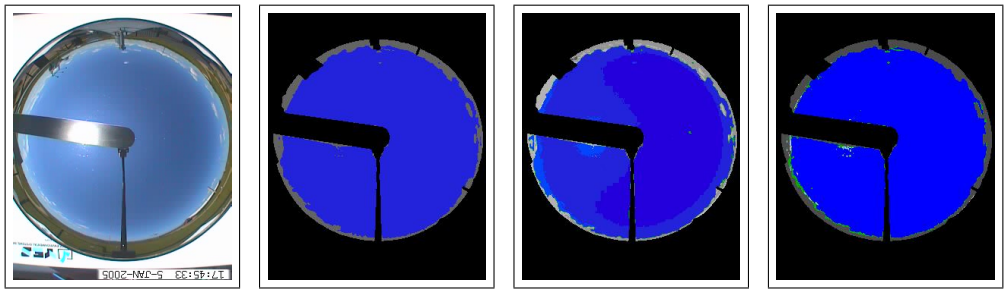
Figure A.56 - Sky images generated from 0501051600 to 0501051700.



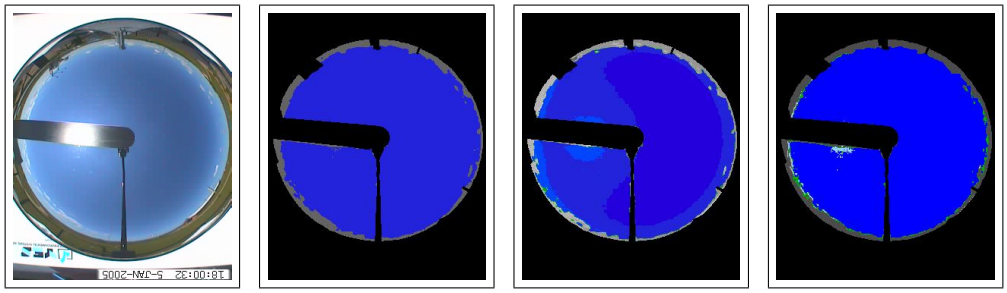
(i) 0501051715 (ii) 0501051715 Long (iii) 0501051715 EGD (iv) 0501051715 MAHA



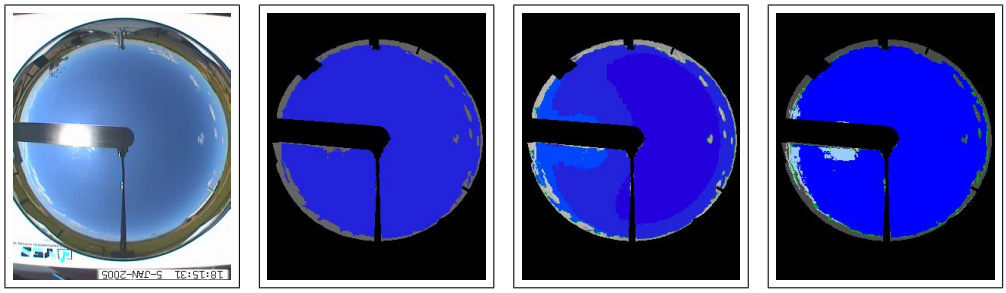
(v) 0501051730 (vi) 0501051730 Long (vii) 0501051730 EGD (viii) 0501051730 MAHA



(ix) 0501051745 (x) 0501051745 Long (xi) 0501051745 EGD (xii) 0501051745 MAHA

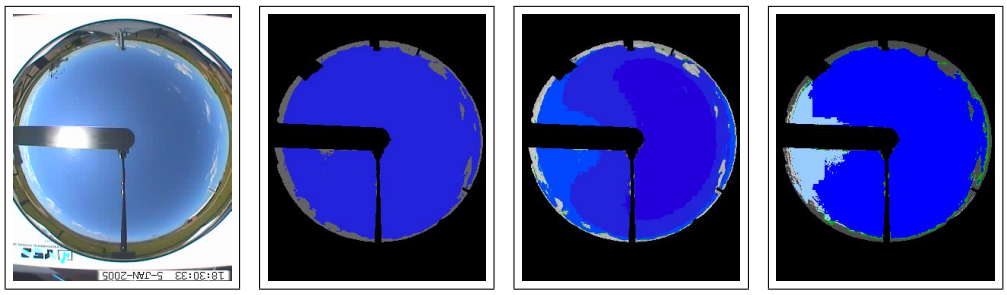


(xiii) 0501051800 (xiv) 0501051800 Long (xv) 0501051800 EGD (xvi) 0501051800 MAHA

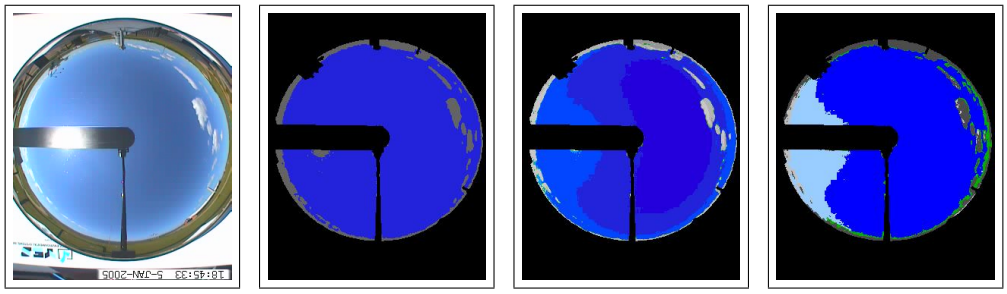


(xvii) 0501051815 (xviii) 0501051815 Long (xix) 0501051815 EGD (xx) 0501051815 MAHA

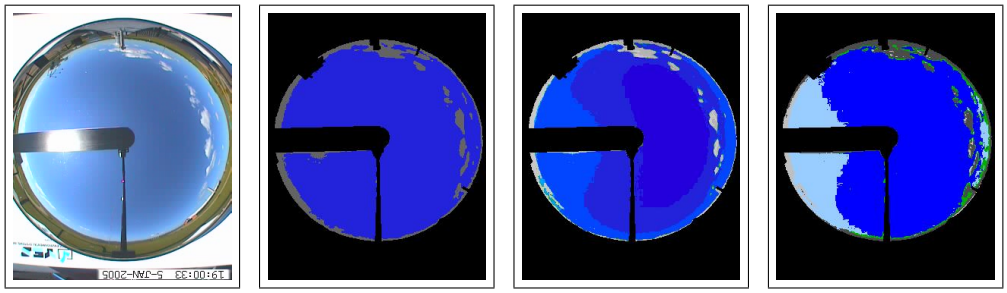
Figure A.57 - Sky images generated from 0501051715 to 0501051815.



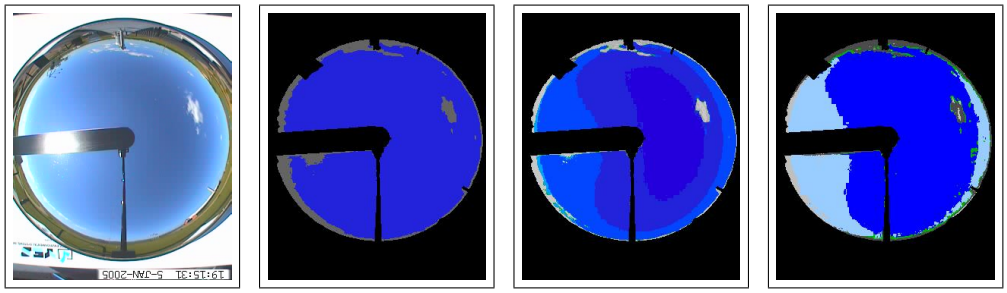
(i) 0501051830 (ii) 0501051830 Long (iii) 0501051830 EGD (iv) 0501051830 MAHA



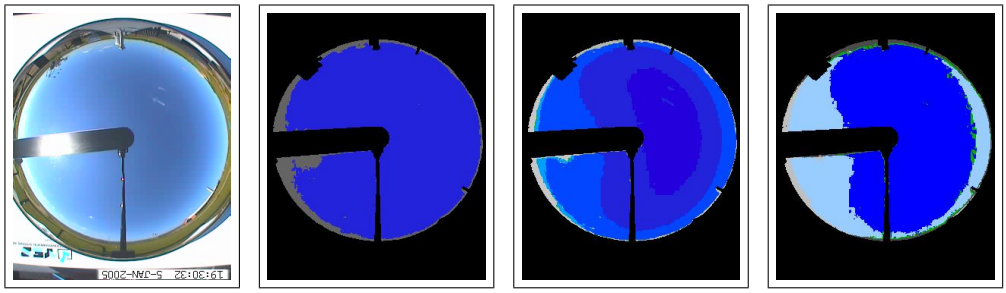
(v) 0501051845 (vi) 0501051845 Long (vii) 0501051845 EGD (viii) 0501051845 MAHA



(ix) 0501051900 (x) 0501051900 Long (xi) 0501051900 EGD (xii) 0501051900 MAHA

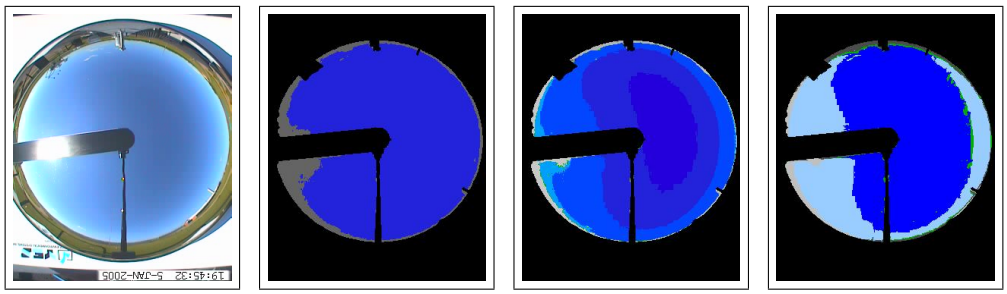


(xiii) 0501051915 (xiv) 0501051915 Long (xv) 0501051915 EGD (xvi) 0501051915 MAHA

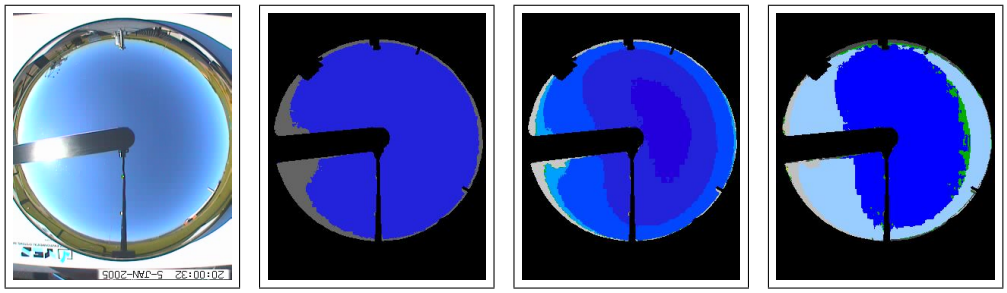


(xvii) 0501051930 (xviii) 0501051930 Long (xix) 0501051930 EGD (xx) 0501051930 MAHA

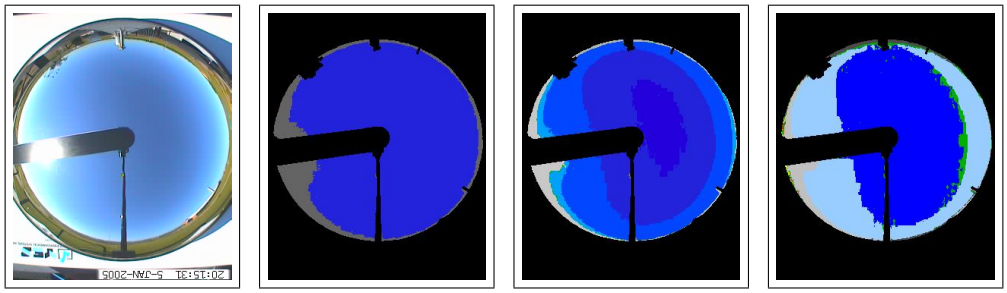
Figure A.58 - Sky images generated from 0501051830 to 0501051930.



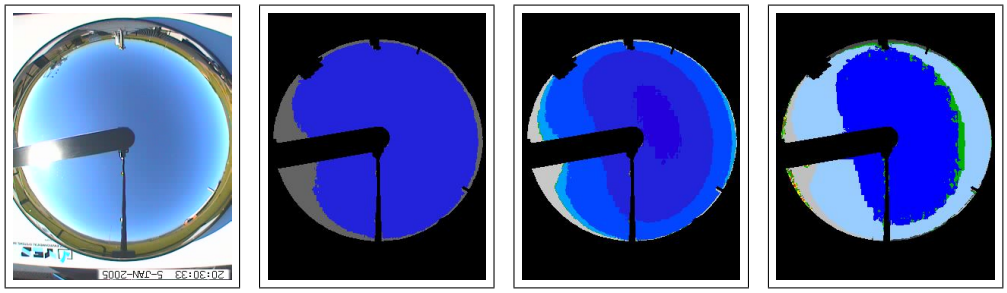
(i) 0501051945 (ii) 0501051945 Long (iii) 0501051945 EGD (iv) 0501051945 MAHA



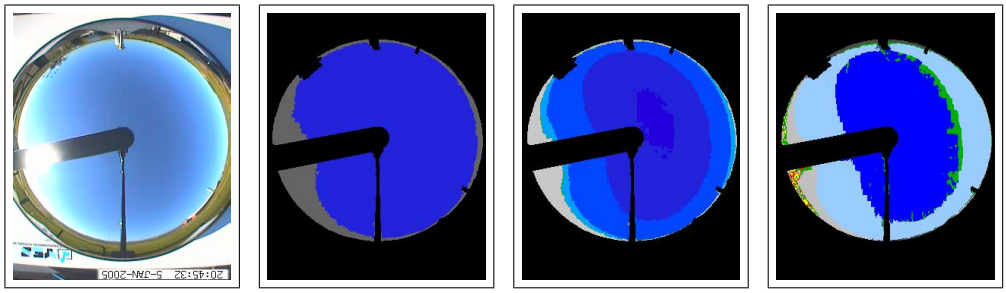
(v) 0501052000 (vi) 0501052000 Long (vii) 0501052000 EGD (viii) 0501052000 MAHA



(ix) 0501052015 (x) 0501052015 Long (xi) 0501052015 EGD (xii) 0501052015 MAHA

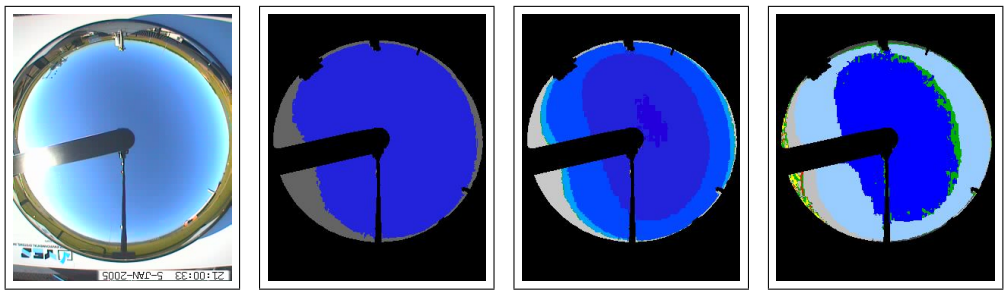


(xiii) 0501052030 (xiv) 0501052030 Long (xv) 0501052030 EGD (xvi) 0501052030 MAHA

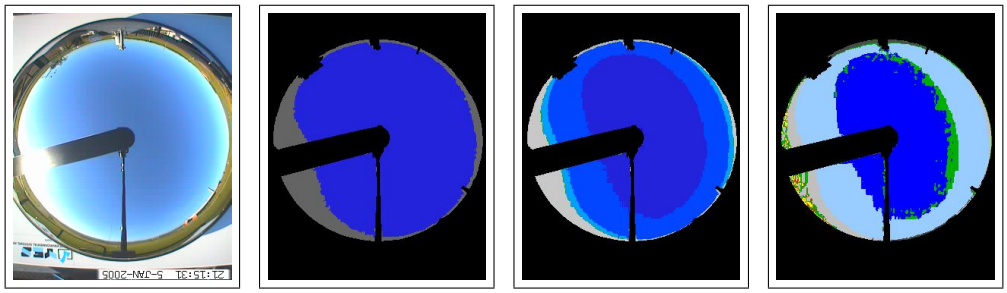


(xvii) 0501052045 (xviii) 0501052045 Long (xix) 0501052045 EGD (xx) 0501052045 MAHA

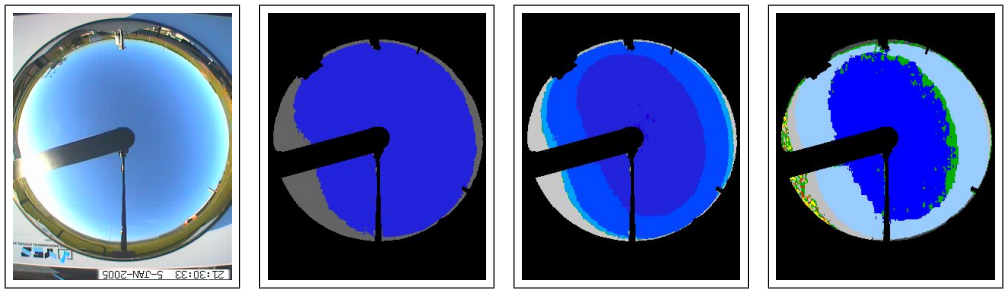
Figure A.59 - Sky images generated from 0501051945 to 0501052045.



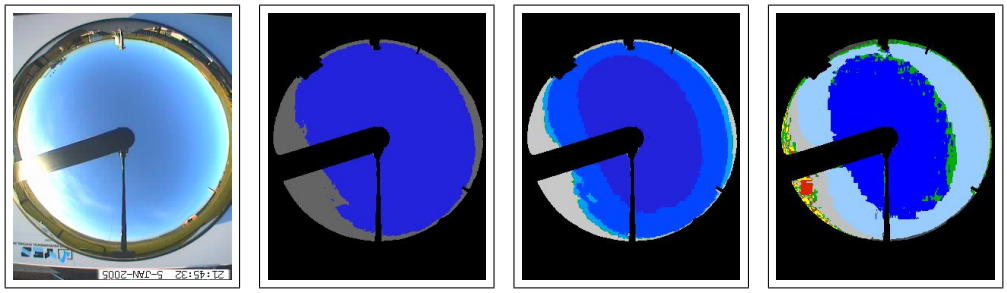
(i) 0501052100 (ii) 0501052100 Long (iii) 0501052100 EGD (iv) 0501052100 MAHA



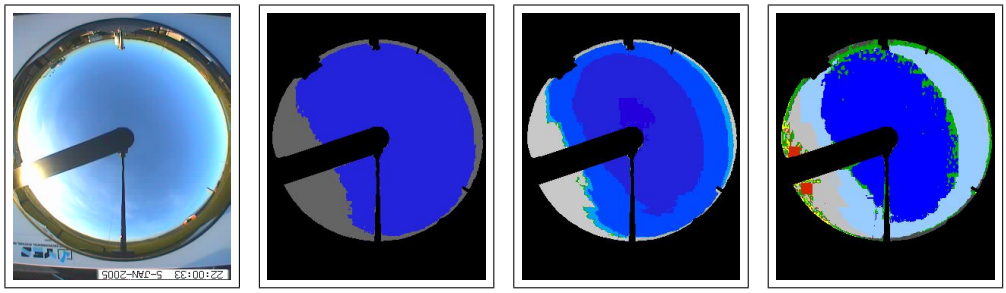
(v) 0501052115 (vi) 0501052115 Long (vii) 0501052115 EGD (viii) 0501052115 MAHA



(ix) 0501052130 (x) 0501052130 Long (xi) 0501052130 EGD (xii) 0501052130 MAHA

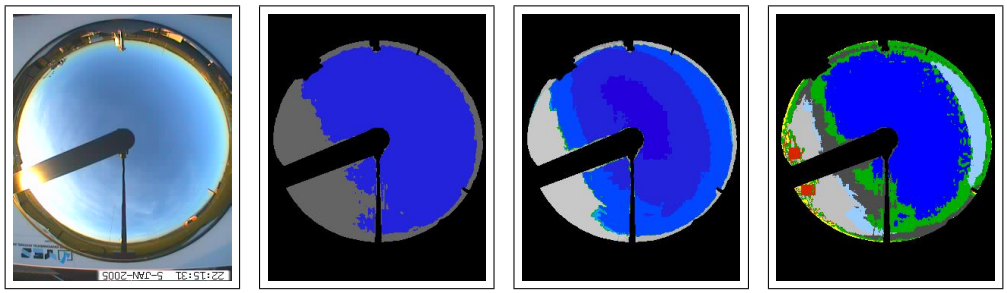


(xiii) 0501052145 (xiv) 0501052145 Long (xv) 0501052145 EGD (xvi) 0501052145 MAHA

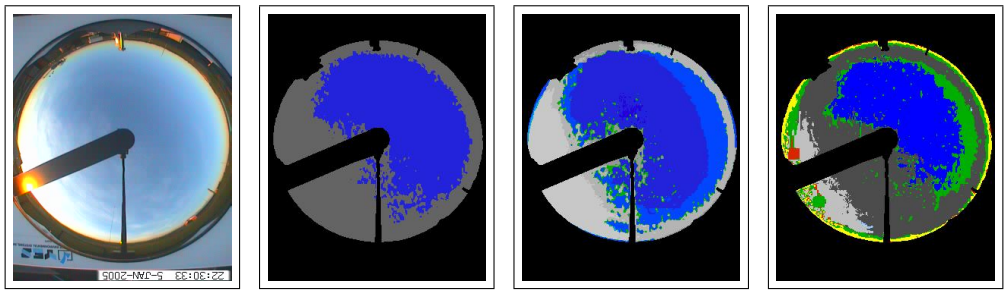


(xvii) 0501052200 (xviii) 0501052200 Long (xix) 0501052200 EGD (xx) 0501052200 MAHA

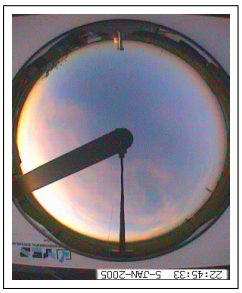
Figure A.60 - Sky images generated from 0501052100 to 0501052200.



(i) 0501052215 (ii) 0501052215 Long (iii) 0501052215 EGD (iv) 0501052215 MAHA

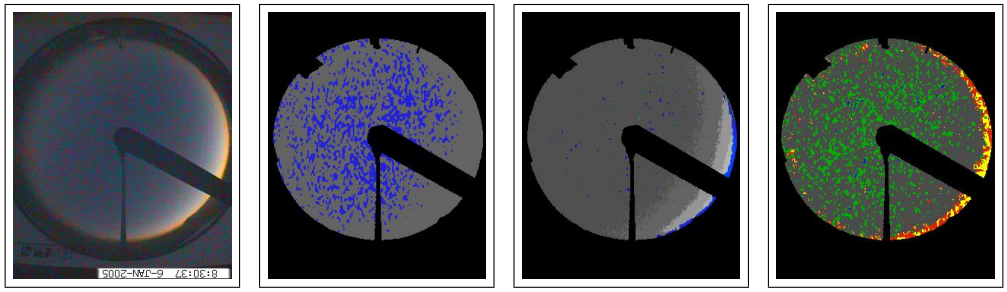


(v) 0501052230 (vi) 0501052230 Long (vii) 0501052230 EGD (viii) 0501052230 MAHA

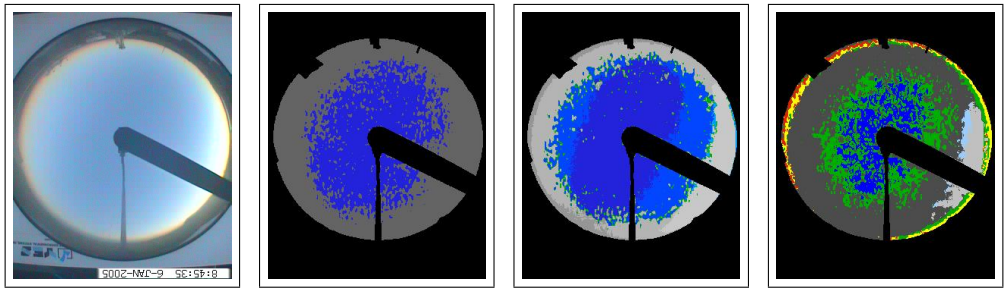


(ix) 0501052245

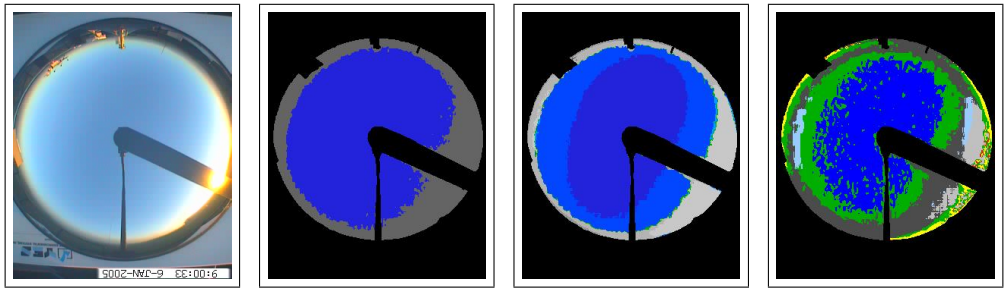
Figure A.61 - Sky images generated from 0501051600 to 0501052300.



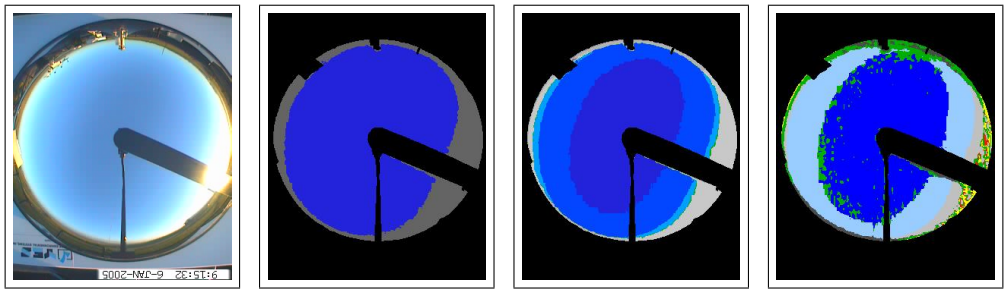
(i) 0501060830 (ii) 0501060830 Long (iii) 0501060830 EGD (iv) 0501060830 MAHA



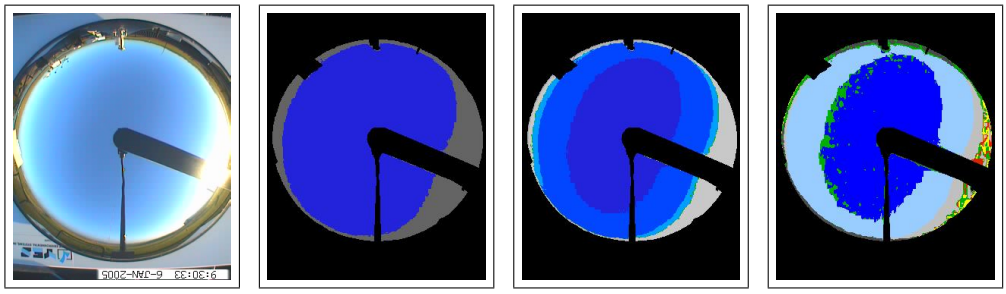
(v) 0501060845 (vi) 0501060845 Long (vii) 0501060845 EGD (viii) 0501060845 MAHA



(ix) 0501060900 (x) 0501060900 Long (xi) 0501060900 EGD (xii) 0501060900 MAHA

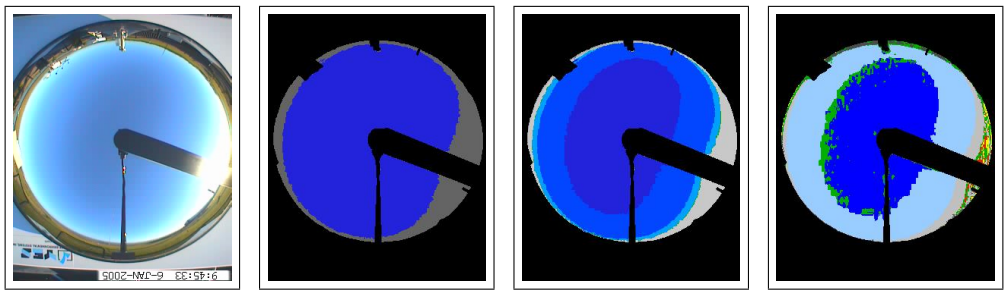


(xiii) 0501060915 (xiv) 0501060915 Long (xv) 0501060915 EGD (xvi) 0501060915 MAHA

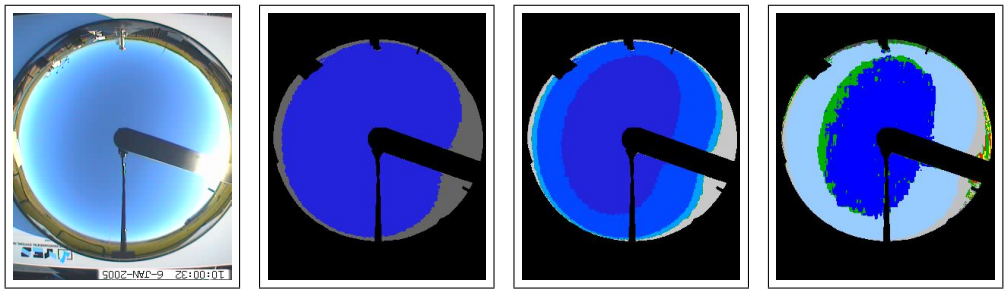


(xvii) 0501060930 (xviii) 0501060930 Long (xix) 0501060930 EGD (xx) 0501060930 MAHA

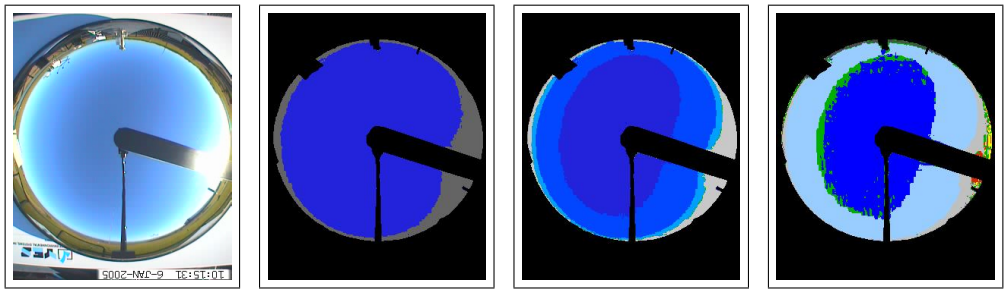
Figure A.62 - Sky images generated from 0501060830 to 0501060930.



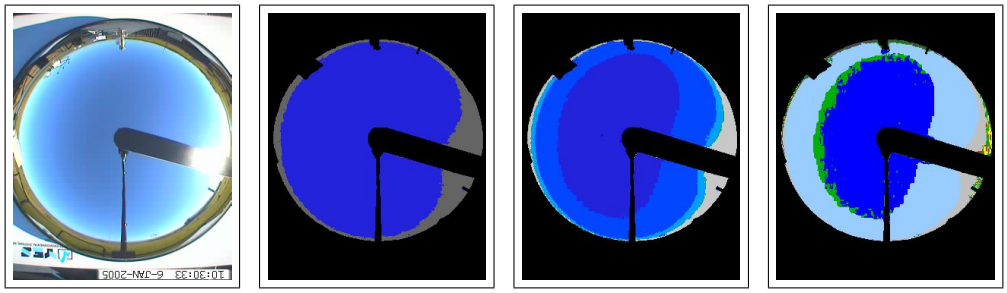
(i) 0501060945 (ii) 0501060945 Long (iii) 0501060945 EGD (iv) 0501060945 MAHA



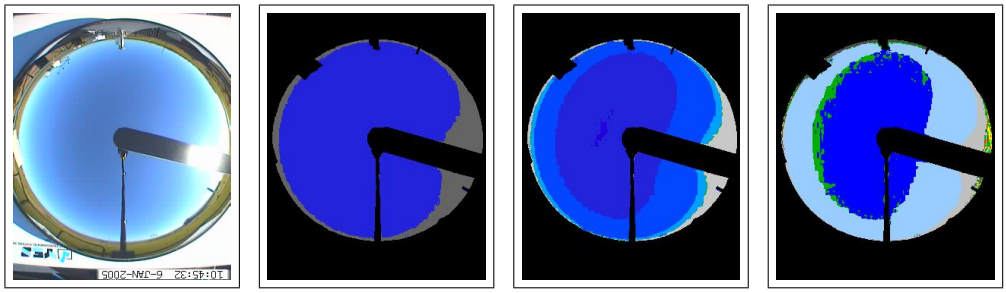
(v) 050106000 (vi) 050106000 Long (vii) 050106000 EGD (viii) 050106000 MAHA



(ix) 0501061015 (x) 0501061015 Long (xi) 0501061015 EGD (xii) 0501061015 MAHA

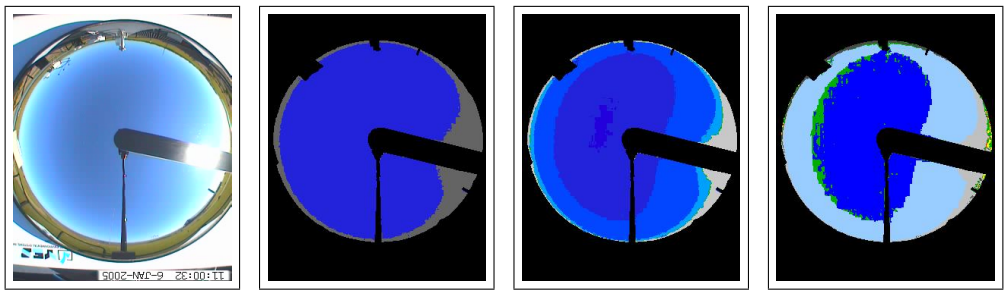


(xiii) 0501061030 (xiv) 0501061030 Long (xv) 0501061030 EGD (xvi) 0501061030 MAHA

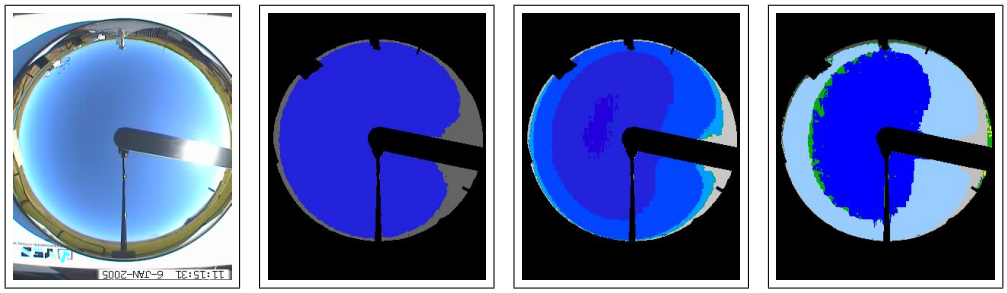


(xvii) 0501061045 (xviii) 0501061045 Long (xix) 0501061045 EGD (xx) 0501061045 MAHA

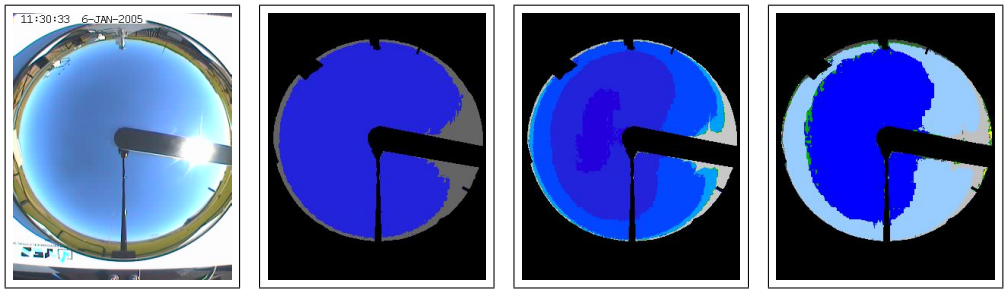
Figure A.63 - Sky images generated from 0501060945 to 0501061045.



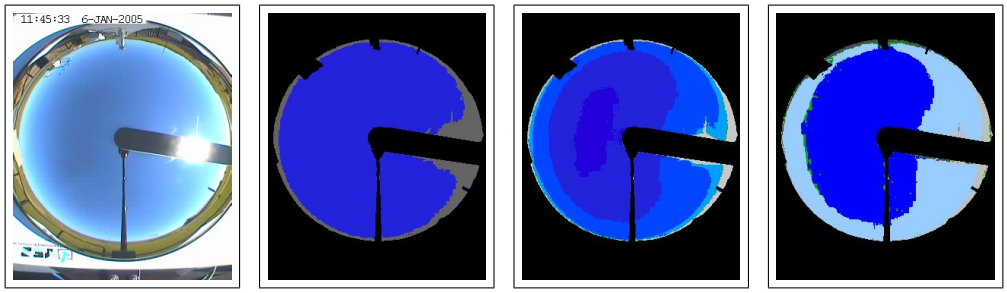
(i) 0501061100 (ii) 0501061100 Long (iii) 0501061100 EGD (iv) 0501061100 MAHA



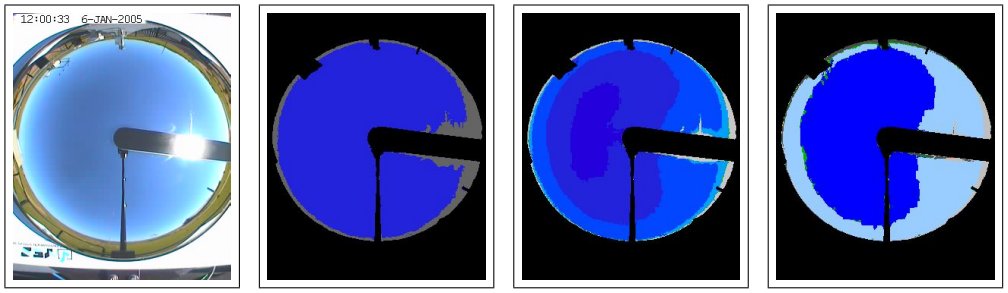
(v) 0501061115 (vi) 0501061115 Long (vii) 0501061115 EGD (viii) 0501061115 MAHA



(ix) 0501061130 (x) 0501061130 Long (xi) 0501061130 EGD (xii) 0501061130 MAHA

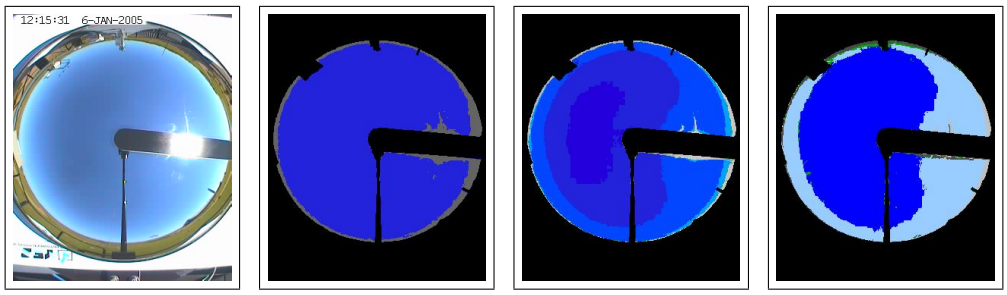


(xiii) 0501061145 (xiv) 0501061145 Long (xv) 0501061145 EGD (xvi) 0501061145 MAHA

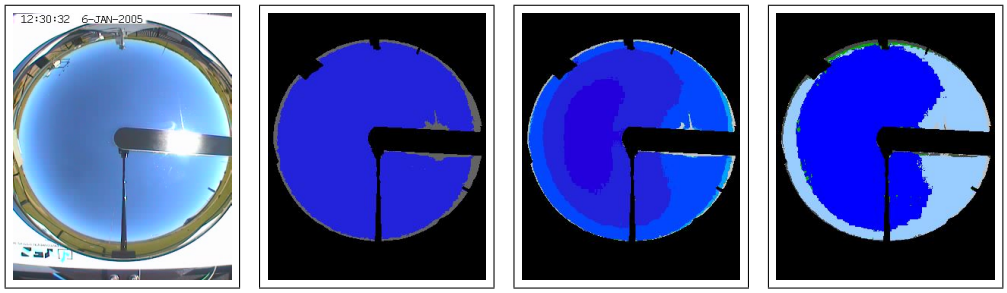


(xvii) 0501061200 (xviii) 0501061200 Long (xix) 0501061200 EGD (xx) 0501061200 MAHA

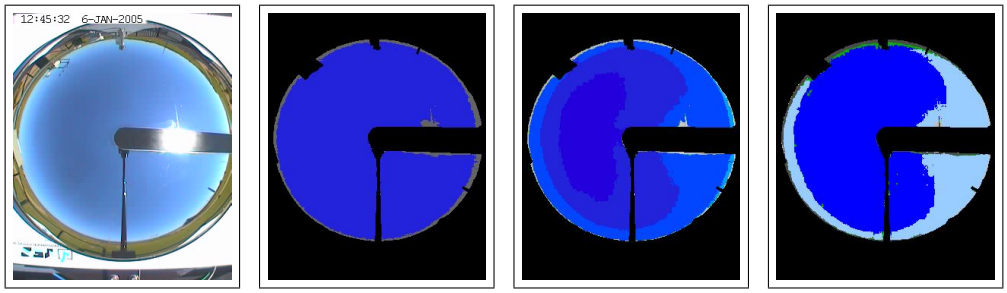
Figure A.64 - Sky images generated from 050106100 to 0501061200.



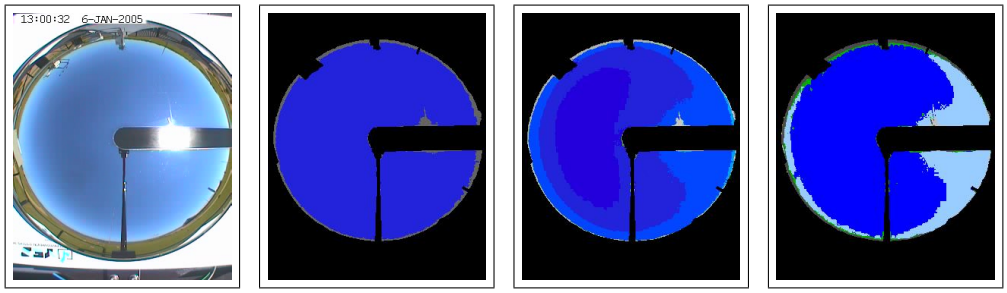
(i) 0501061215 (ii) 0501061215 Long (iii) 0501061215 EGD (iv) 0501061215 MAHA



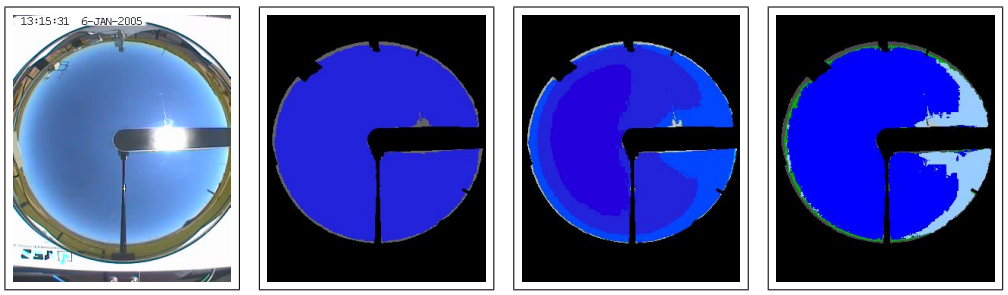
(v) 0501061230 (vi) 0501061230 Long (vii) 0501061230 EGD (viii) 0501061230 MAHA



(ix) 0501061245 (x) 0501061245 Long (xi) 0501061245 EGD (xii) 0501061245 MAHA

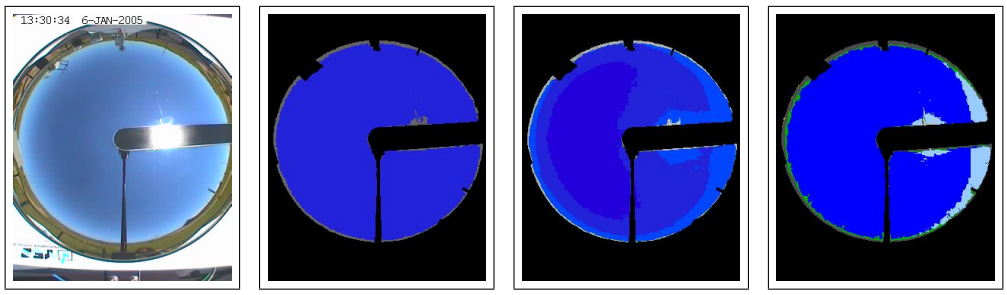


(xiii) 0501061300 (xiv) 0501061300 Long (xv) 0501061300 EGD (xvi) 0501061300 MAHA

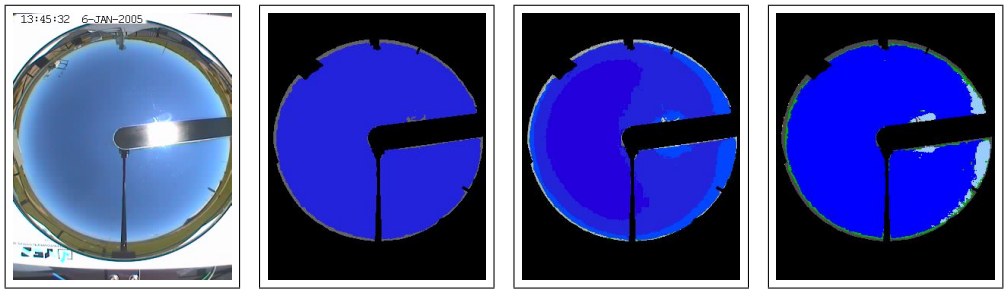


(xvii) 0501061315 (xviii) 0501061315 Long (xix) 0501061315 EGD (xx) 0501061315 MAHA

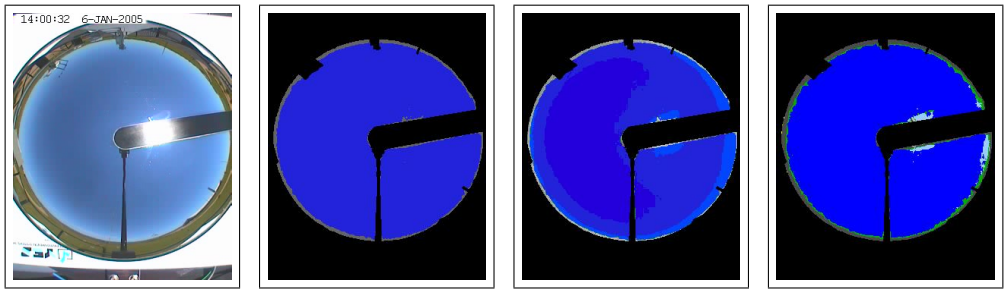
Figure A.65 - Sky images generated from 0501061215 to 0501061315.



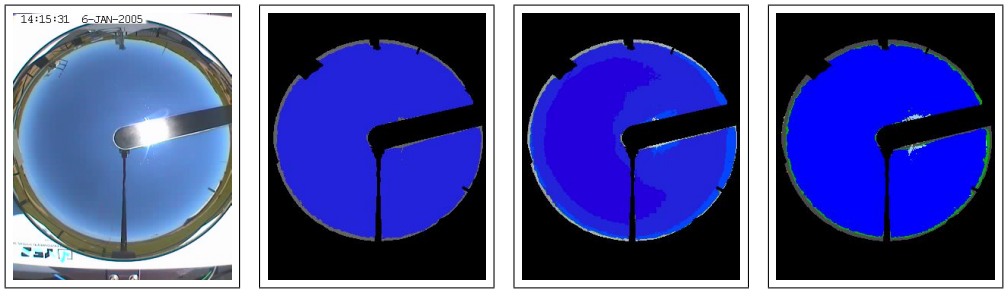
(i) 0501061330 (ii) 0501061330 Long (iii) 0501061330 EGD (iv) 0501061330 MAHA



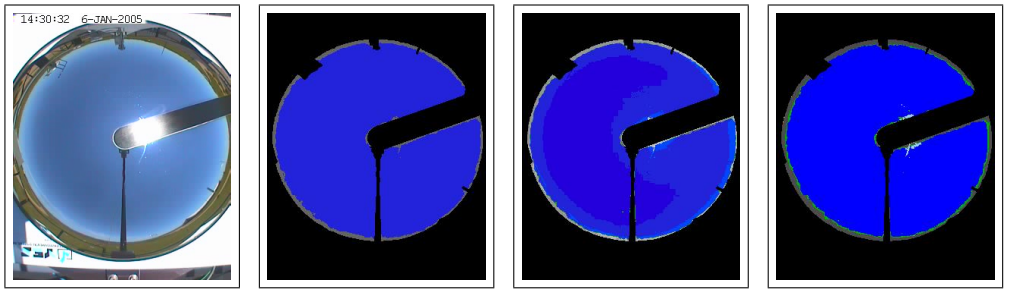
(v) 0501061345 (vi) 0501061345 Long (vii) 0501061345 EGD (viii) 0501061345 MAHA



(ix) 0501061400 (x) 0501061400 Long (xi) 0501061400 EGD (xii) 0501061400 MAHA

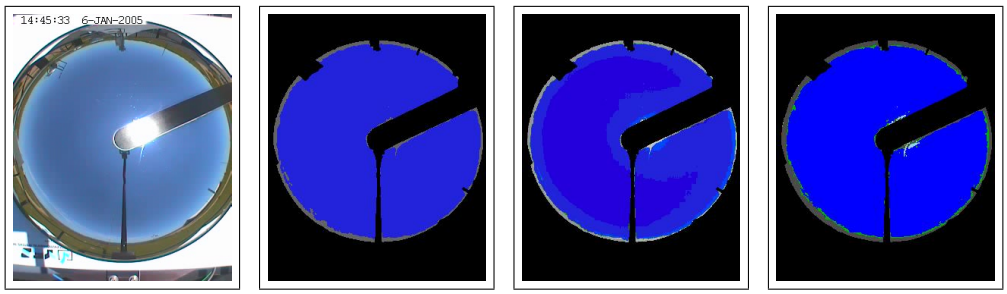


(xiii) 0501061415 (xiv) 0501061415 Long (xv) 0501061415 EGD (xvi) 0501061415 MAHA

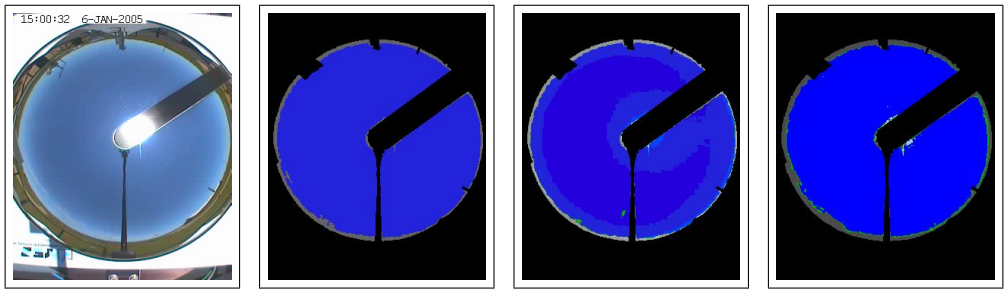


(xvii) 0501061430 (xviii) 0501061430 Long (xix) 0501061430 EGD (xx) 0501061430 MAHA

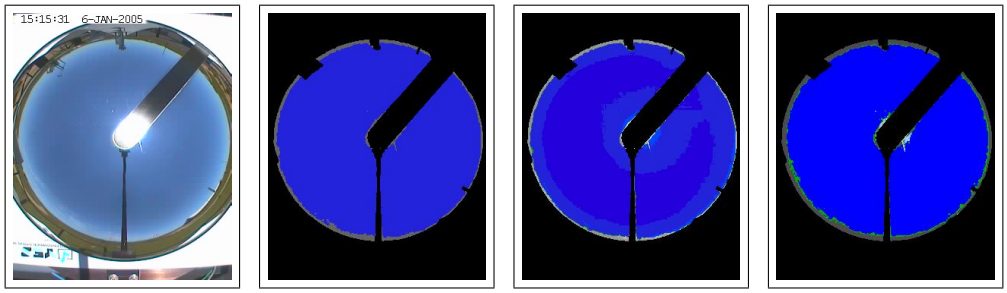
Figure A.66 - Sky images generated from 0501061330 to 0501061430.



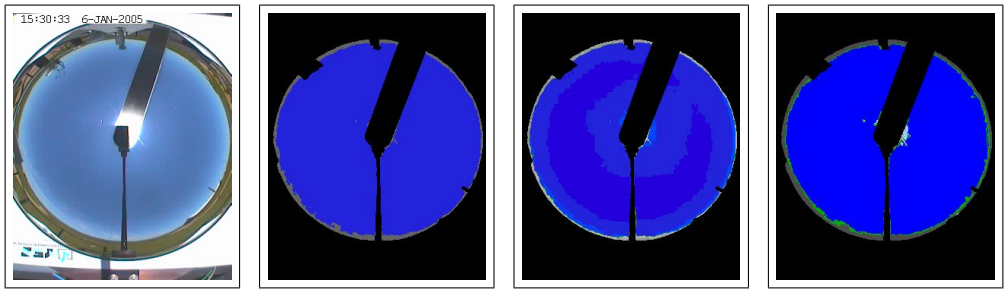
(i) 0501061445 (ii) 0501061445 Long (iii) 0501061445 EGD (iv) 0501061445 MAHA



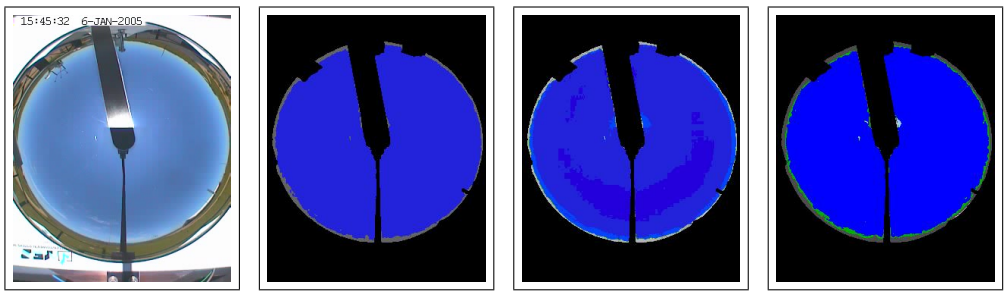
(v) 0501061500 (vi) 0501061500 Long (vii) 0501061500 EGD (viii) 0501061500 MAHA



(ix) 0501061515 (x) 0501061515 Long (xi) 0501061515 EGD (xii) 0501061515 MAHA

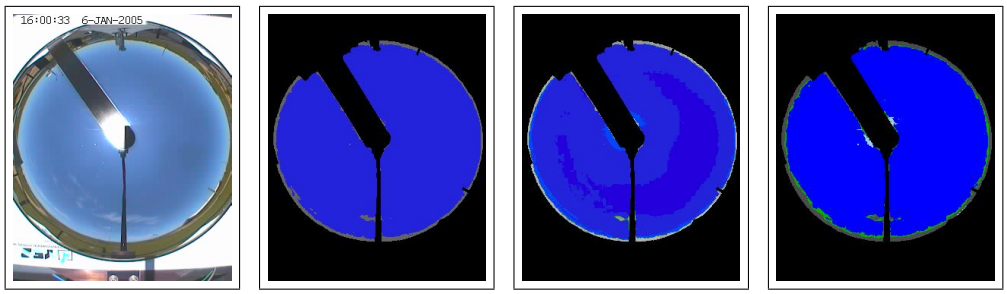


(xiii) 0501061530 (xiv) 0501061530 Long (xv) 0501061530 EGD (xvi) 0501061530 MAHA

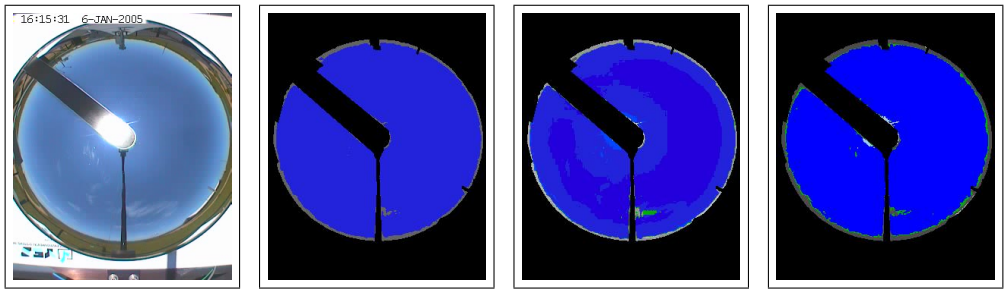


(xvii) 0501061545 (xviii) 0501061545 Long (xix) 0501061545 EGD (xx) 0501061545 MAHA

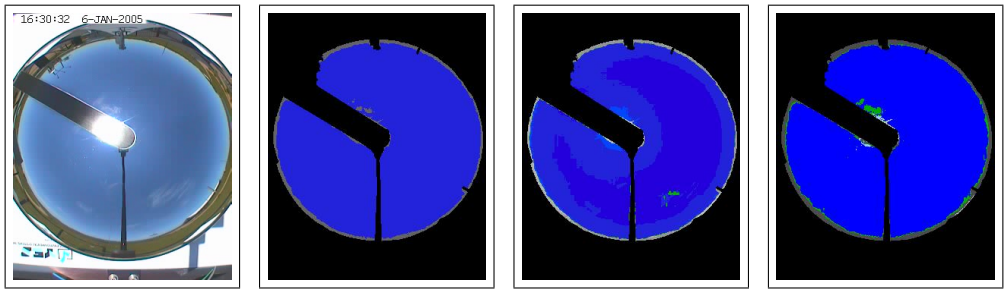
Figure A.67 - Sky images generated from 0501061445 to 0501061545.



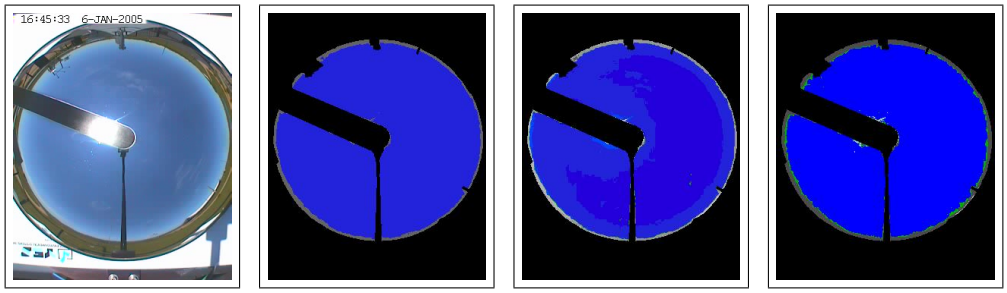
(i) 0501061600 (ii) 0501061600 Long (iii) 0501061600 EGD (iv) 0501061600 MAHA



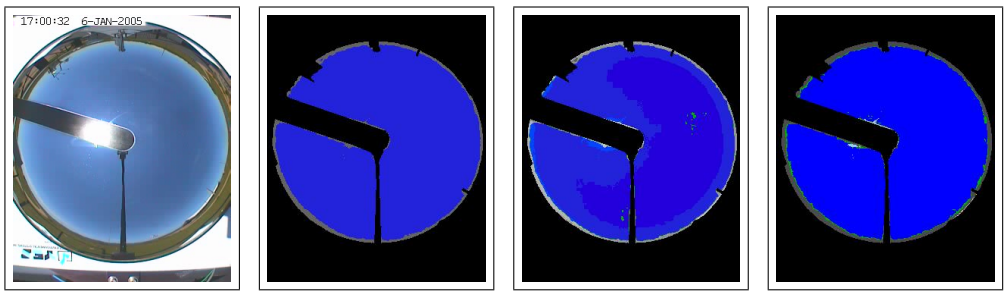
(v) 0501061615 (vi) 0501061615 Long (vii) 0501061615 EGD (viii) 0501061615 MAHA



(ix) 0501061630 (x) 0501061630 Long (xi) 0501061630 EGD (xii) 0501061630 MAHA

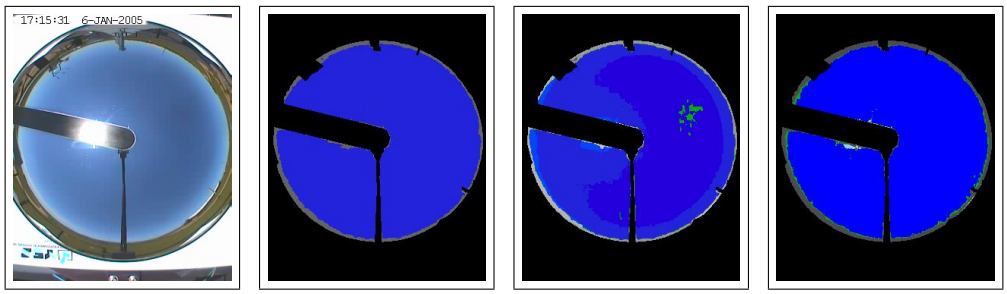


(xiii) 0501061645 (xiv) 0501061645 Long (xv) 0501061645 EGD (xvi) 0501061645 MAHA

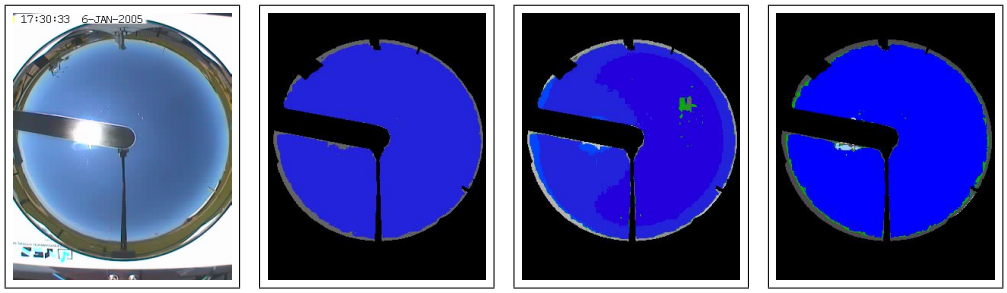


(xvii) 0501061700 (xviii) 0501061700 Long (xix) 0501061700 EGD (xx) 0501061700 MAHA

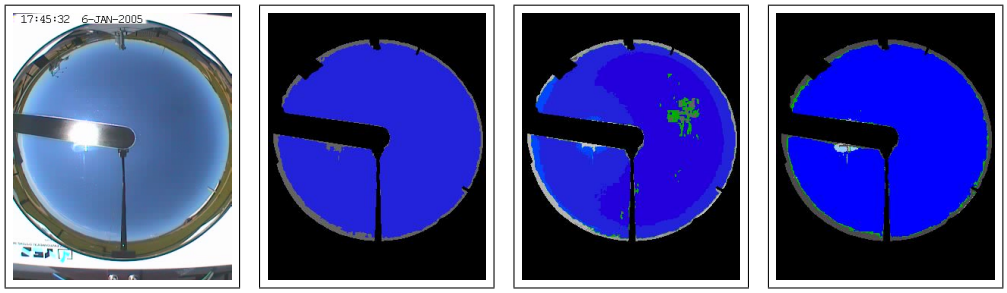
Figure A.68 - Sky images generated from 0501061600 to 0501061700.



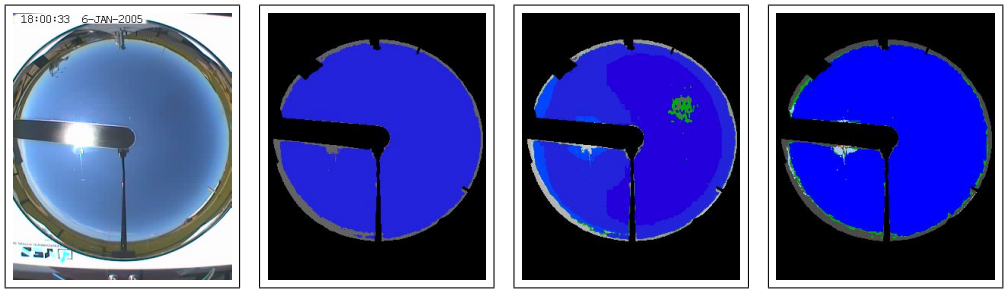
(i) 0501061715 (ii) 0501061715 Long (iii) 0501061715 EGD (iv) 0501061715 MAHA



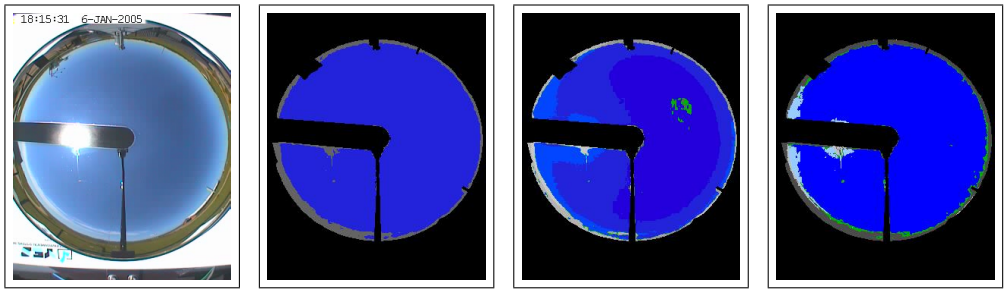
(v) 0501061730 (vi) 0501061730 Long (vii) 0501061730 EGD (viii) 0501061730 MAHA



(ix) 0501061745 (x) 0501061745 Long (xi) 0501061745 EGD (xii) 0501061745 MAHA

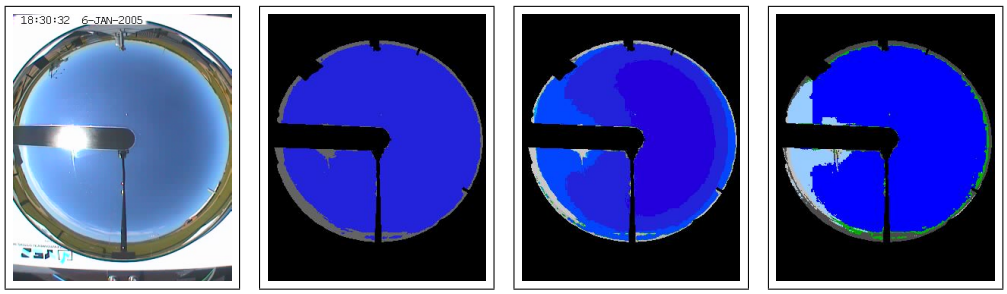


(xiii) 0501061800 (xiv) 0501061800 Long (xv) 0501061800 EGD (xvi) 0501061800 MAHA

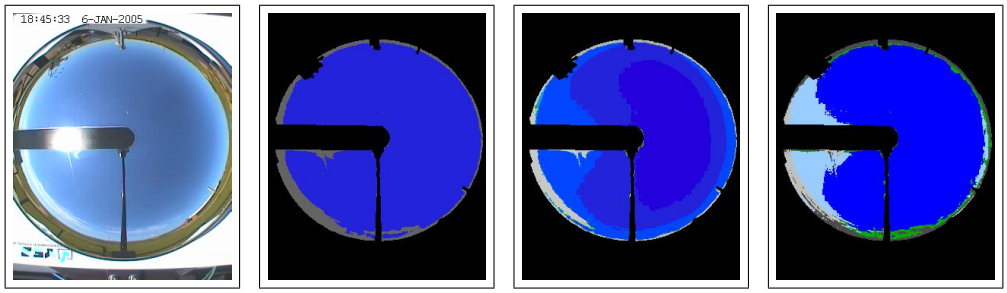


(xvii) 0501061815 (xviii) 0501061815 Long (xix) 0501061815 EGD (xx) 0501061815 MAHA

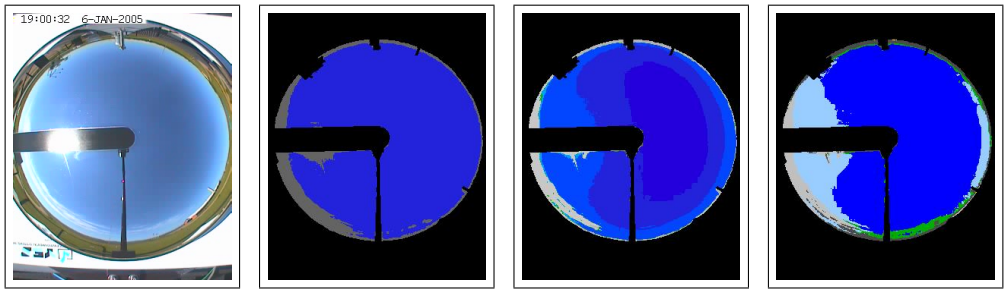
Figure A.69 - Sky images generated from 0501061715 to 0501061815.



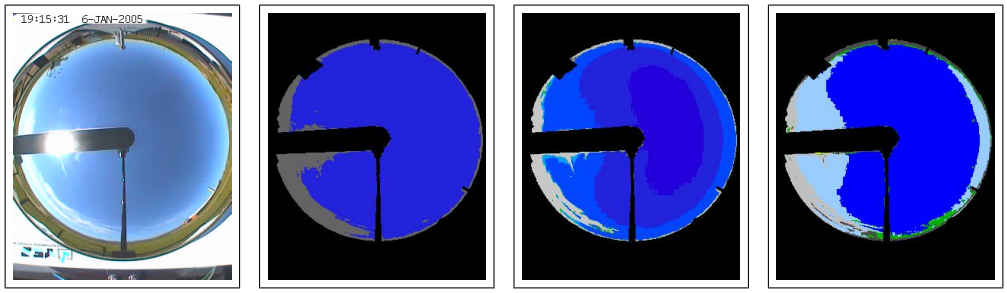
(i) 0501061830 (ii) 0501061830 Long (iii) 0501061830 EGD (iv) 0501061830 MAHA



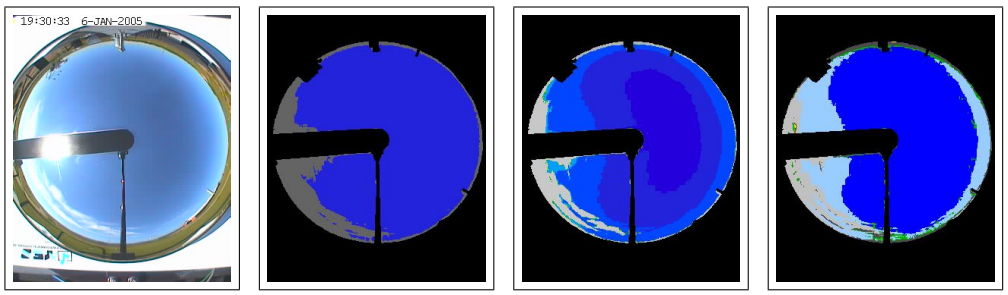
(v) 0501061845 (vi) 0501061845 Long (vii) 0501061845 EGD (viii) 0501061845 MAHA



(ix) 0501061900 (x) 0501061900 Long (xi) 0501061900 EGD (xii) 0501061900 MAHA

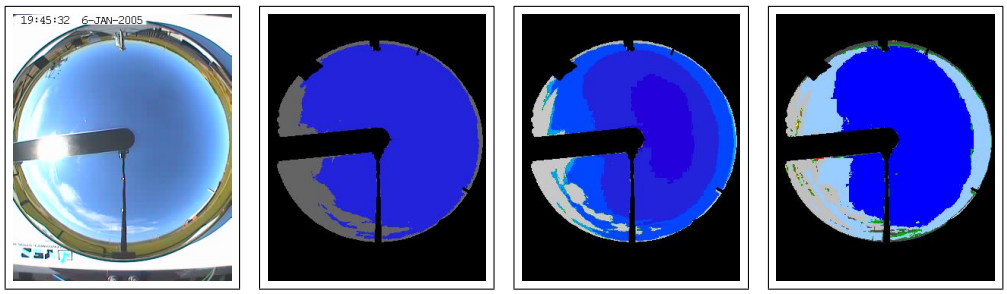


(xiii) 0501061915 (xiv) 0501061915 Long (xv) 0501061915 EGD (xvi) 0501061915 MAHA

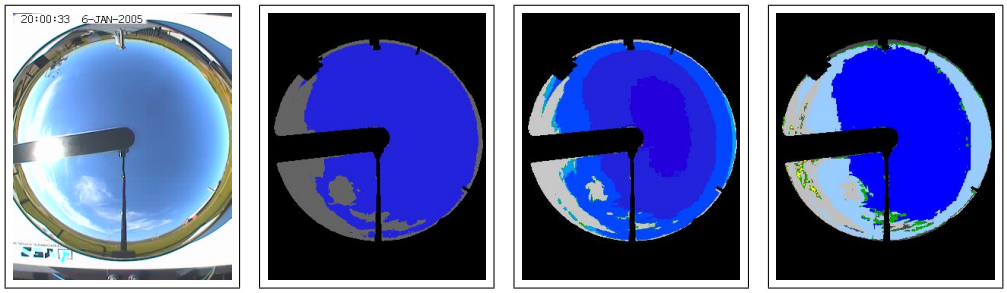


(xvii) 0501061930 (xviii) 0501061930 Long (xix) 0501061930 EGD (xx) 0501061930 MAHA

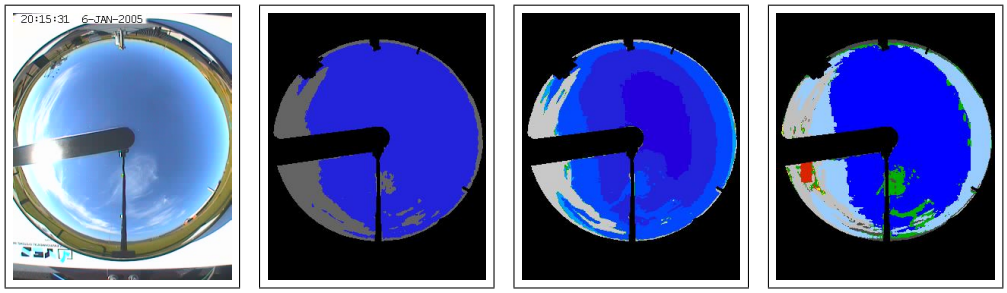
Figure A.70 - Sky images generated from 0501061830 to 0501061930.



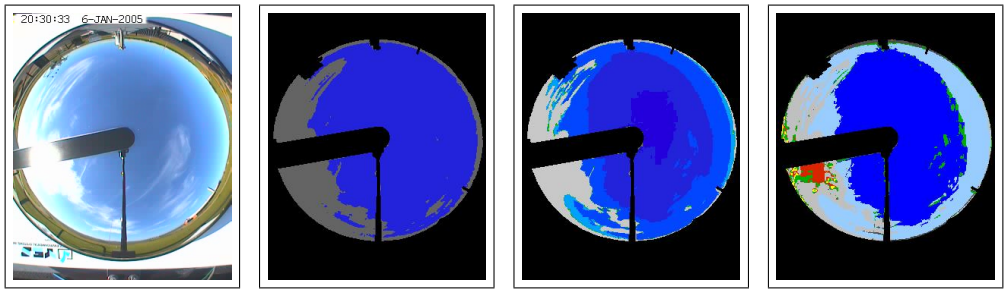
(i) 0501061945 (ii) 0501061945 Long (iii) 0501061945 EGD (iv) 0501061945 MAHA



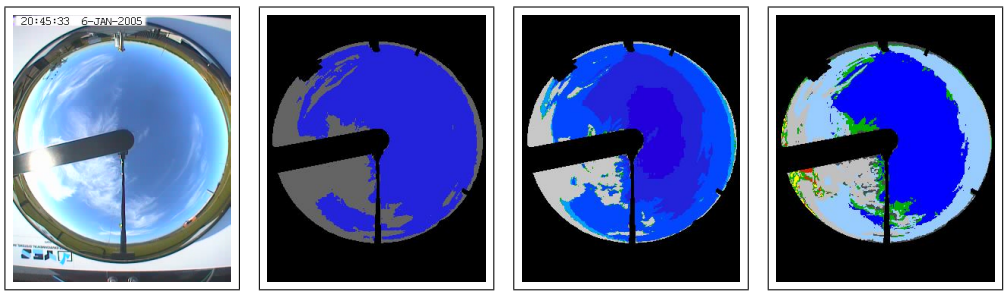
(v) 0501062000 (vi) 0501062000 Long (vii) 0501062000 EGD (viii) 0501062000 MAHA



(ix) 0501062015 (x) 0501062015 Long (xi) 0501062015 EGD (xii) 0501062015 MAHA

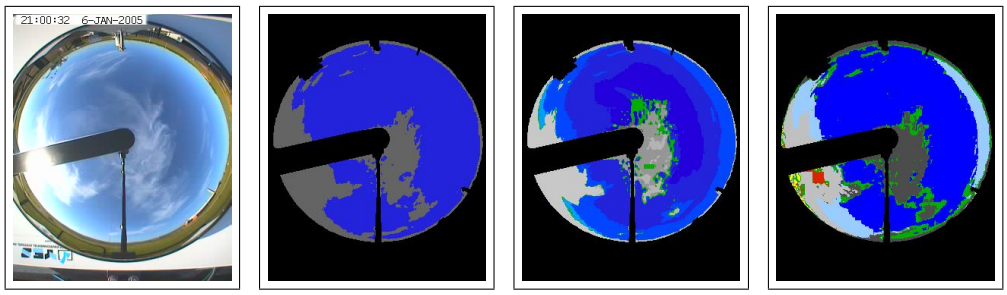


(xiii) 0501062030 (xiv) 0501062030 Long (xv) 0501062030 EGD (xvi) 0501062030 MAHA

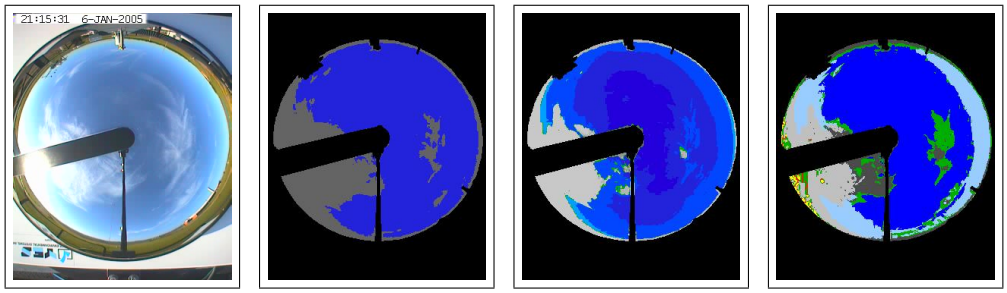


(xvii) 0501062045 (xviii) 0501062045 Long (xix) 0501062045 EGD (xx) 0501062045 MAHA

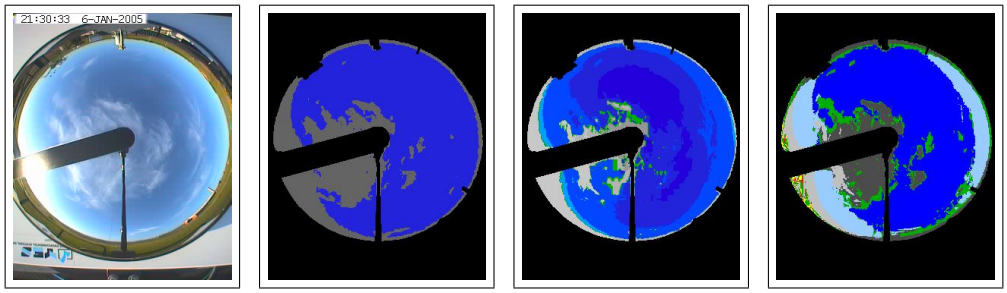
Figure A.71 - Sky images generated from 0501061945 to 0501062045.



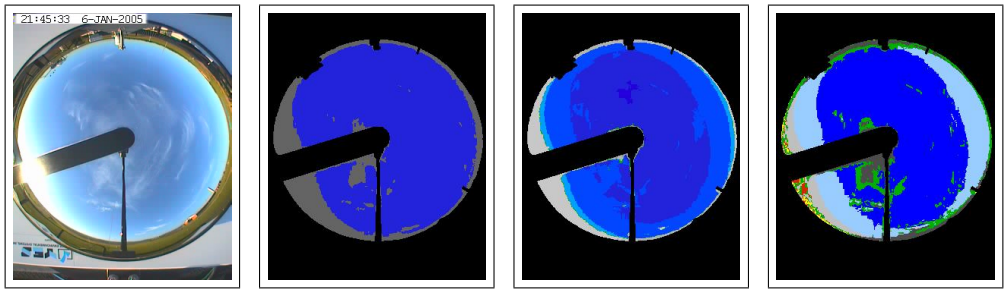
(i) 0501062100 (ii) 0501062100 Long (iii) 0501062100 EGD (iv) 0501062100 MAHA



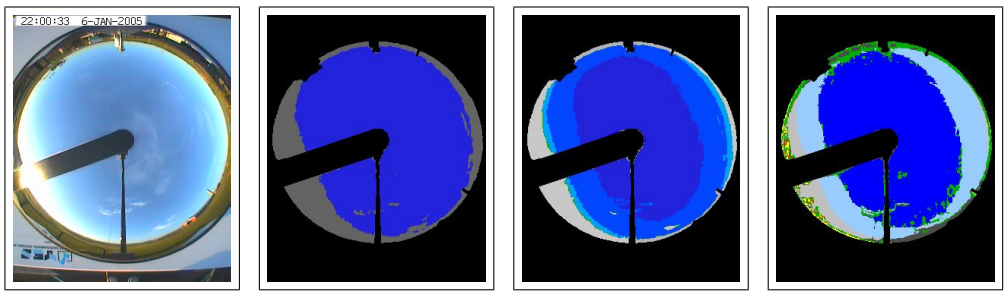
(v) 0501062115 (vi) 0501062115 Long (vii) 0501062115 EGD (viii) 0501062115 MAHA



(ix) 0501062130 (x) 0501062130 Long (xi) 0501062130 EGD (xii) 0501062130 MAHA

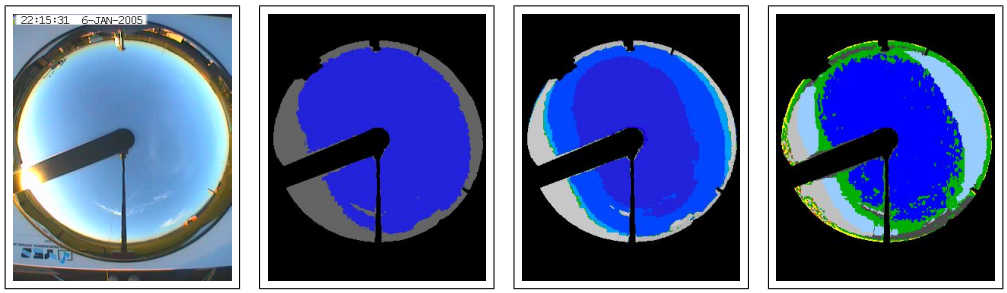


(xiii) 0501062145 (xiv) 0501062145 Long (xv) 0501062145 EGD (xvi) 0501062145 MAHA

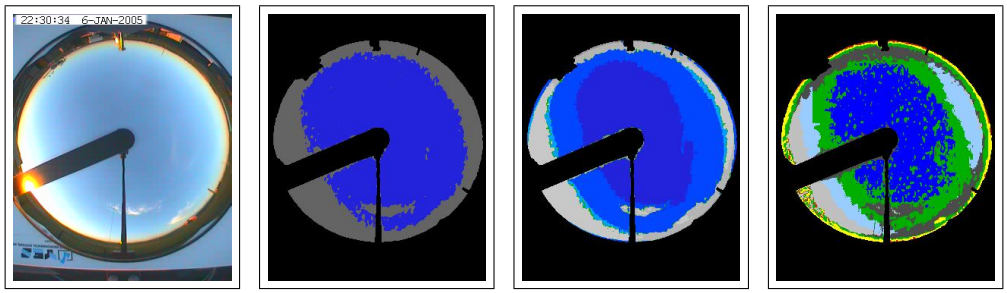


(xvii) 0501062200 (xviii) 0501062200 Long (xix) 0501062200 EGD (xx) 0501062200 MAHA

Figure A.72 - Sky images generated from 0501062100 to 0501062200.



(i) 0501062215 (ii) 0501062215 Long (iii) 0501062215 EGD (iv) 0501062215 MAHA

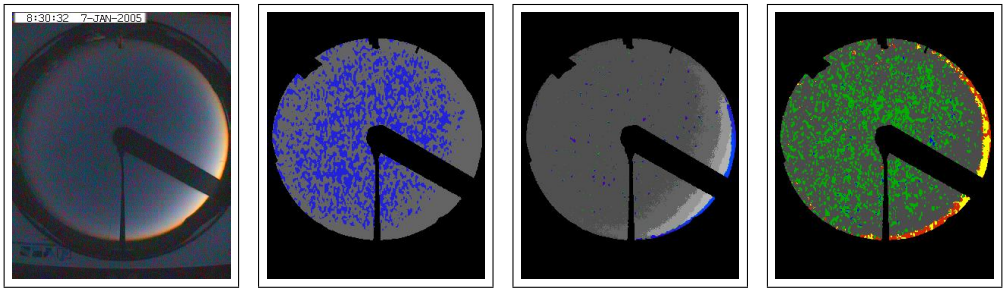


(v) 0501062230 (vi) 0501062230 Long (vii) 0501062230 EGD (viii) 0501062230 MAHA

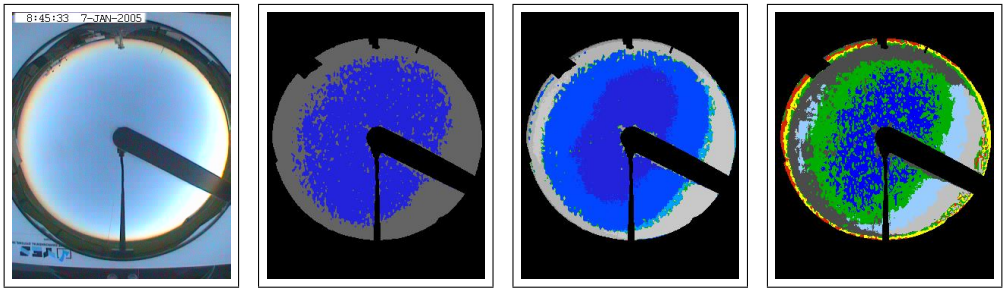


(ix) 0501062245

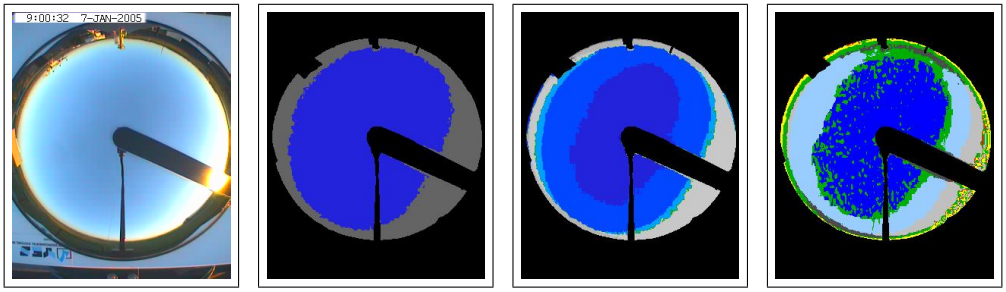
Figure A.73 - Sky images generated from 0501061600 to 0501062245.



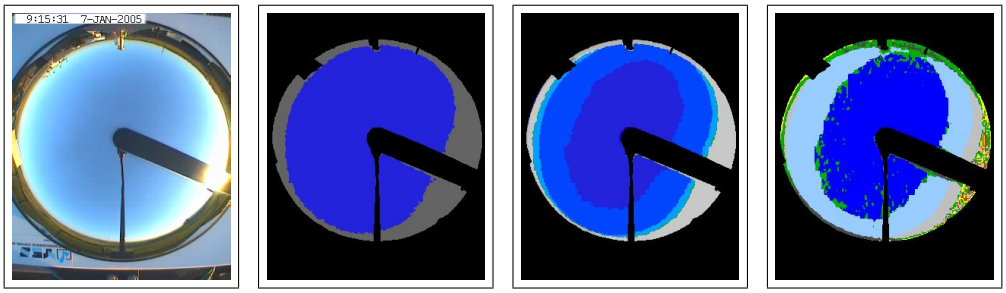
(i) 0501070830 (ii) 0501070830 Long (iii) 0501070830 EGD (iv) 0501070830 MAHA



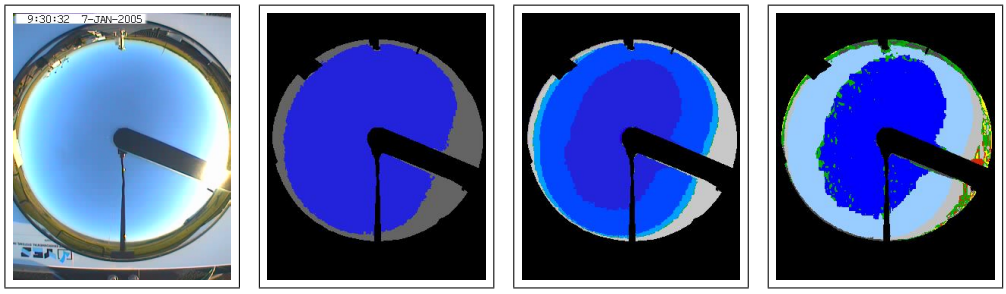
(v) 0501070845 (vi) 0501070845 Long (vii) 0501070845 EGD (viii) 0501070845 MAHA



(ix) 0501070900 (x) 0501070900 Long (xi) 0501070900 EGD (xii) 0501070900 MAHA

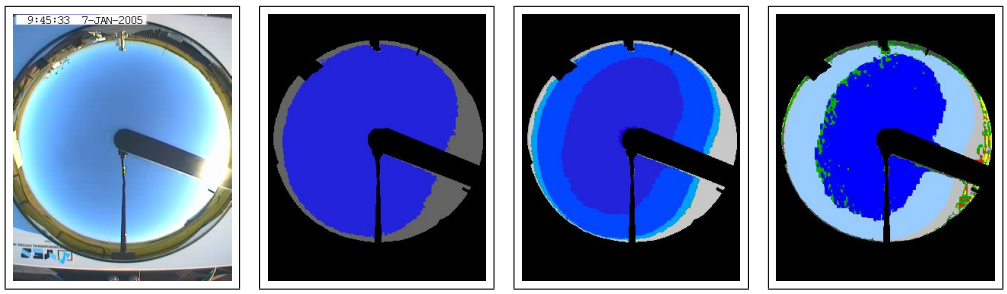


(xiii) 0501070915 (xiv) 0501070915 Long (xv) 0501070915 EGD (xvi) 0501070915 MAHA

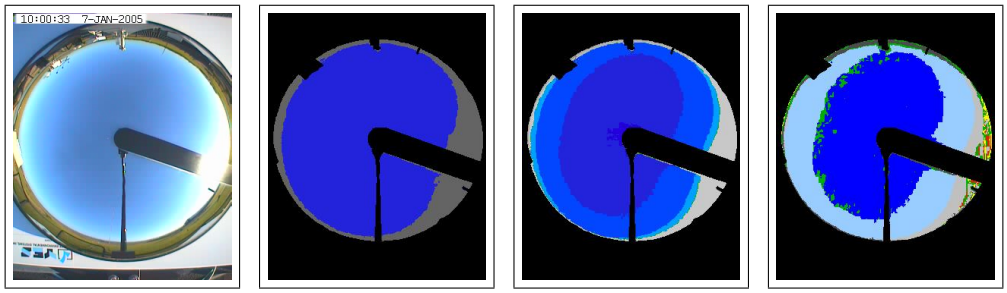


(xvii) 0501070930 (xviii) 0501070930 Long (xix) 0501070930 EGD (xx) 0501070930 MAHA

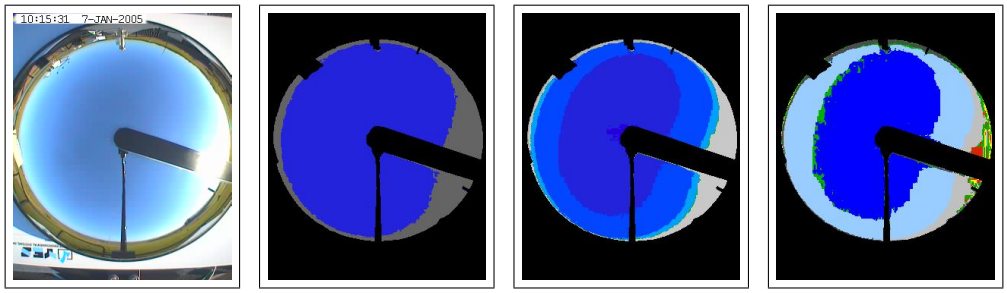
Figure A.74 - Sky images generated from 0501070830 to 0501070930.



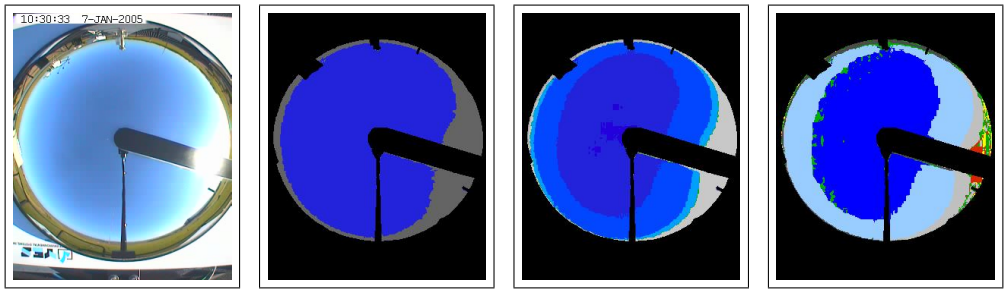
(i) 0501070945 (ii) 0501070945 Long (iii) 0501070945 EGD (iv) 0501070945 MAHA



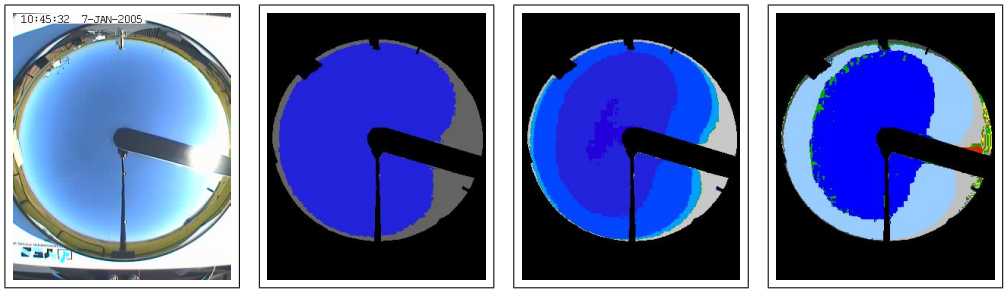
(v) 050107000 (vi) 050107000 Long (vii) 050107000 EGD (viii) 050107000 MAHA



(ix) 0501071015 (x) 0501071015 Long (xi) 0501071015 EGD (xii) 0501071015 MAHA

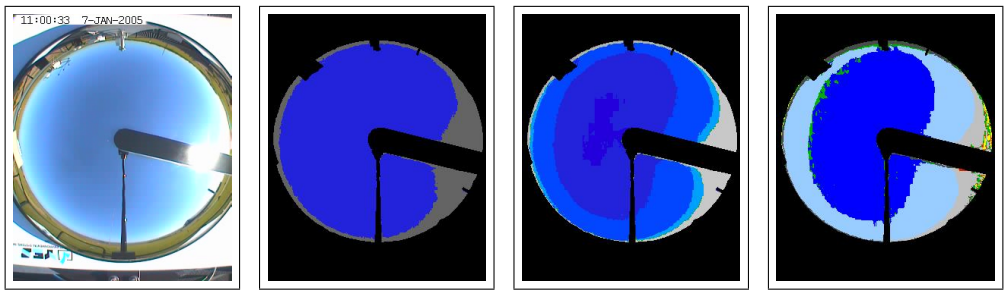


(xiii) 0501071030 (xiv) 0501071030 Long (xv) 0501071030 EGD (xvi) 0501071030 MAHA

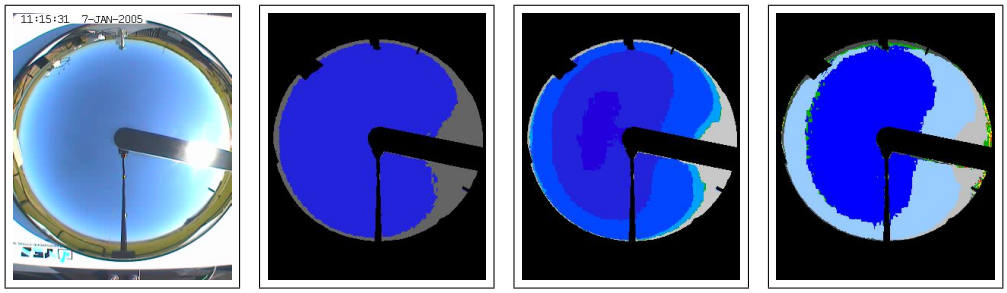


(xvii) 0501071045 (xviii) 0501071045 Long (xix) 0501071045 EGD (xx) 0501071045 MAHA

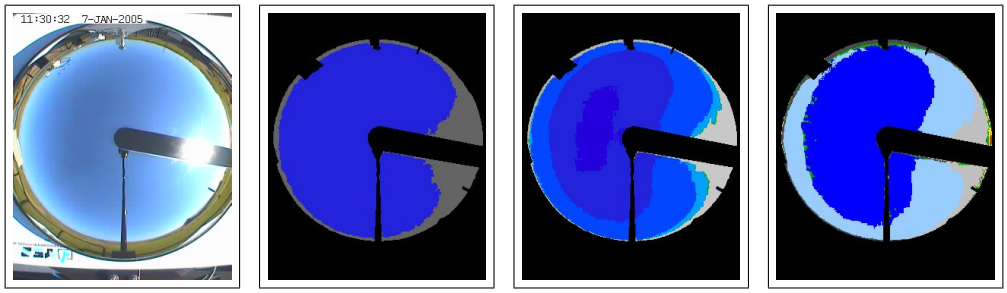
Figure A.75 - Sky images generated from 0501070945 to 0501071045.



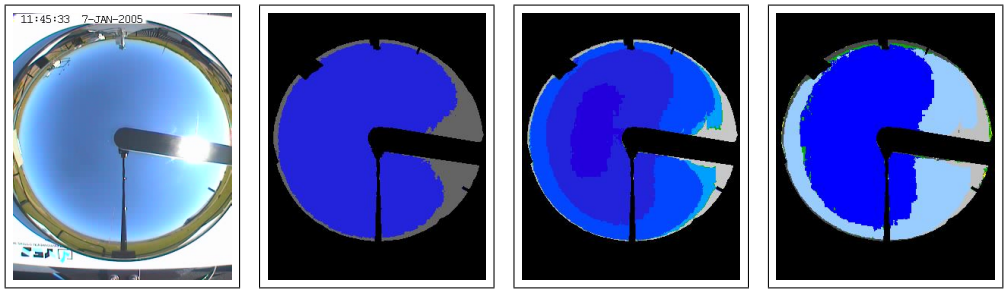
(i) 0501071100 (ii) 0501071100 Long (iii) 0501071100 EGD (iv) 0501071100 MAHA



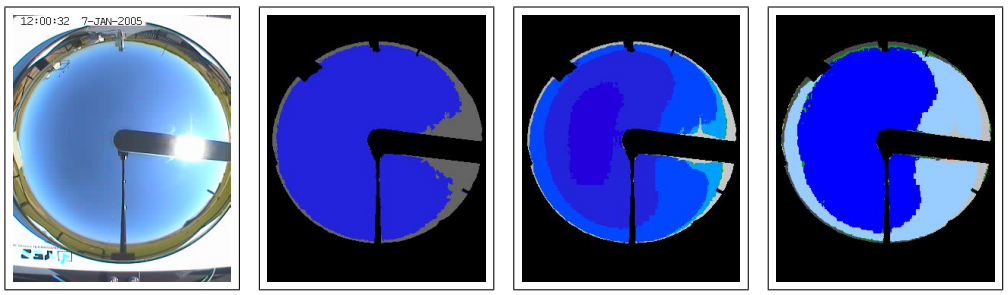
(v) 0501071115 (vi) 0501071115 Long (vii) 0501071115 EGD (viii) 0501071115 MAHA



(ix) 0501071130 (x) 0501071130 Long (xi) 0501071130 EGD (xii) 0501071130 MAHA

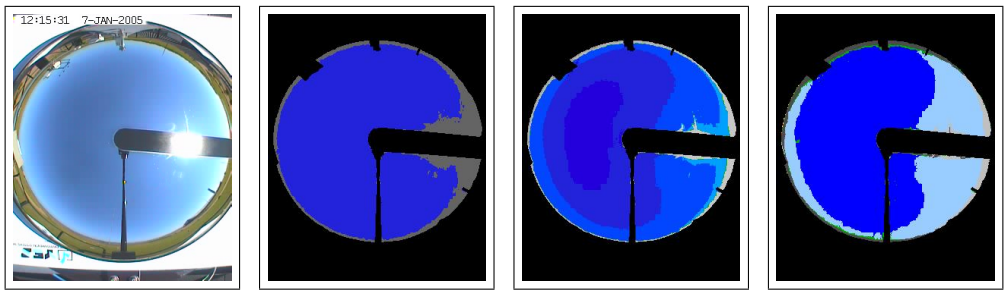


(xiii) 0501071145 (xiv) 0501071145 Long (xv) 0501071145 EGD (xvi) 0501071145 MAHA

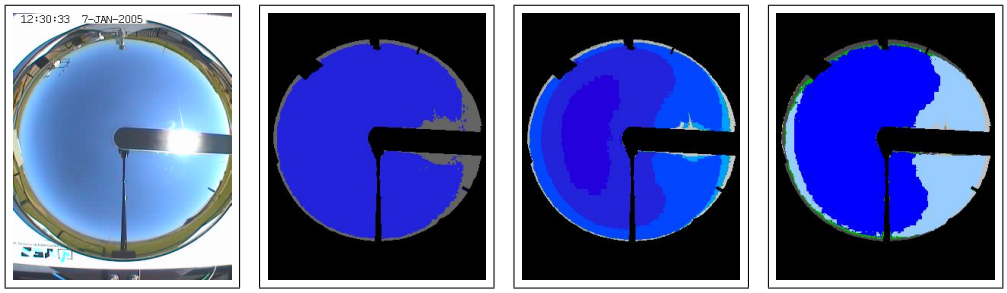


(xvii) 0501071200 (xviii) 0501071200 Long (xix) 0501071200 EGD (xx) 0501071200 MAHA

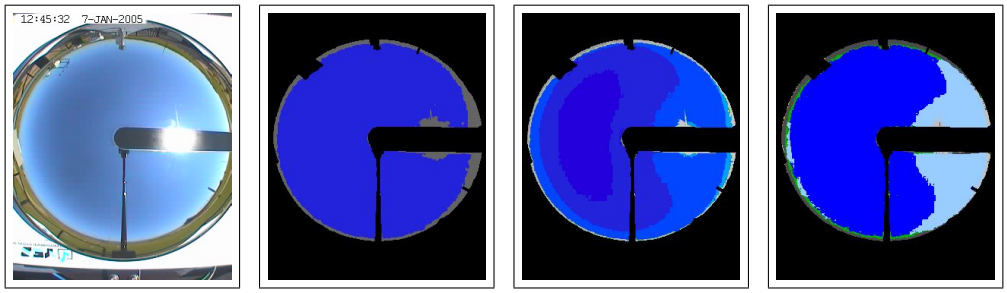
Figure A.76 - Sky images generated from 050107100 to 0501071200.



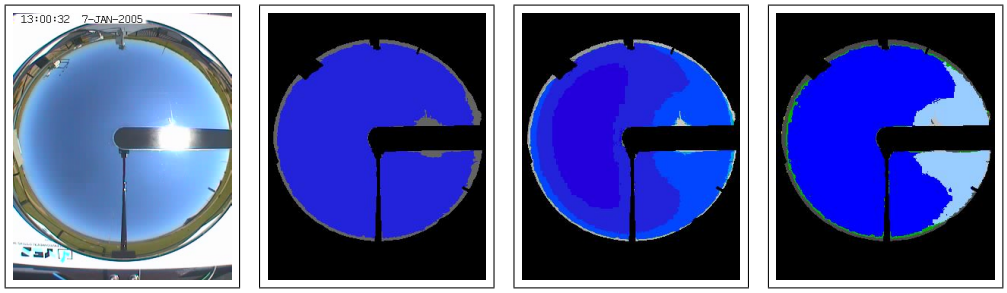
(i) 0501071215 (ii) 0501071215 Long (iii) 0501071215 EGD (iv) 0501071215 MAHA



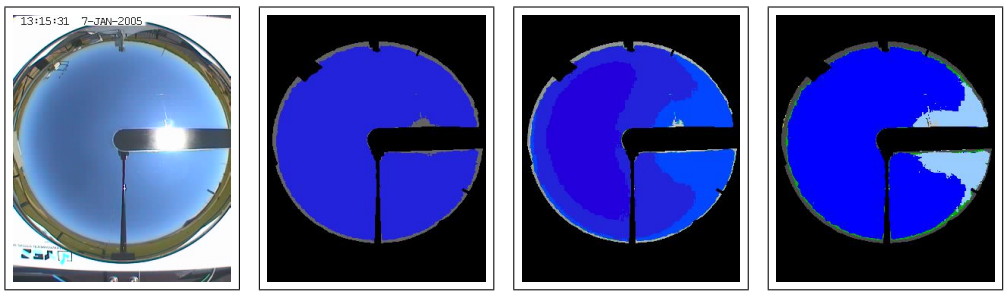
(v) 0501071230 (vi) 0501071230 Long (vii) 0501071230 EGD (viii) 0501071230 MAHA



(ix) 0501071245 (x) 0501071245 Long (xi) 0501071245 EGD (xii) 0501071245 MAHA

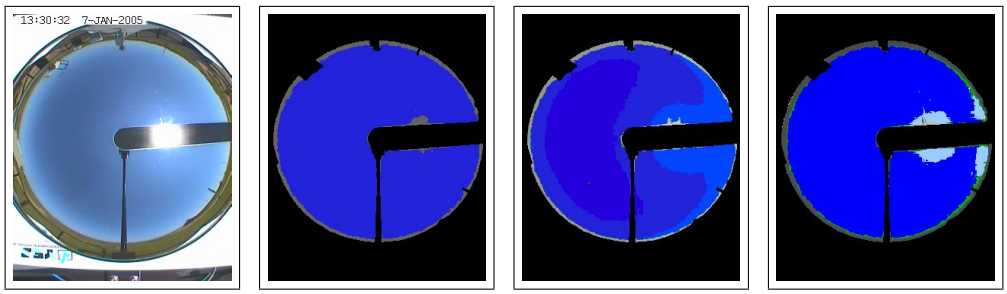


(xiii) 0501071300 (xiv) 0501071300 Long (xv) 0501071300 EGD (xvi) 0501071300 MAHA

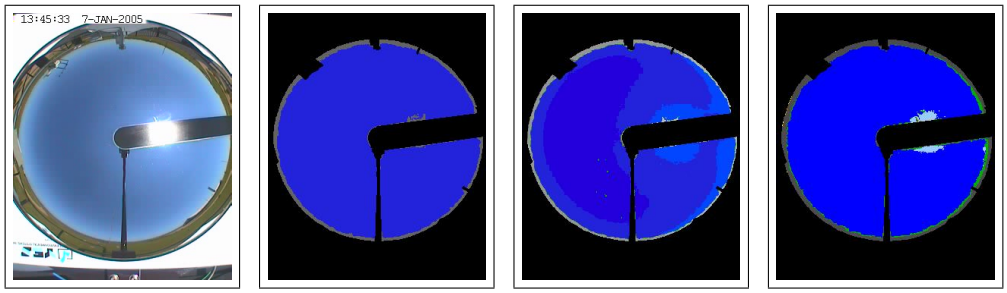


(xvii) 0501071315 (xviii) 0501071315 Long (xix) 0501071315 EGD (xx) 0501071315 MAHA

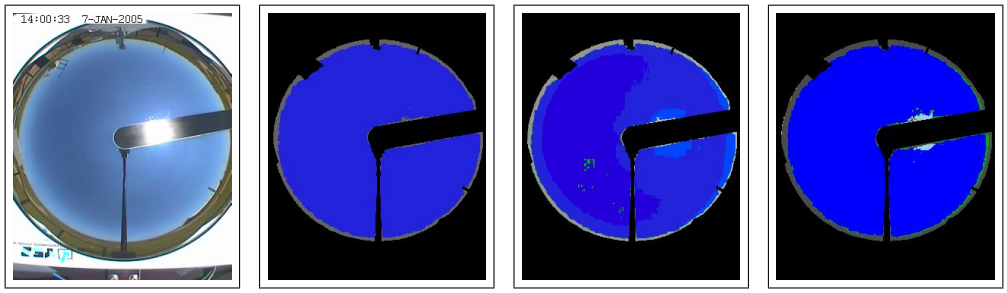
Figure A.77 - Sky images generated from 0501071215 to 0501071315.



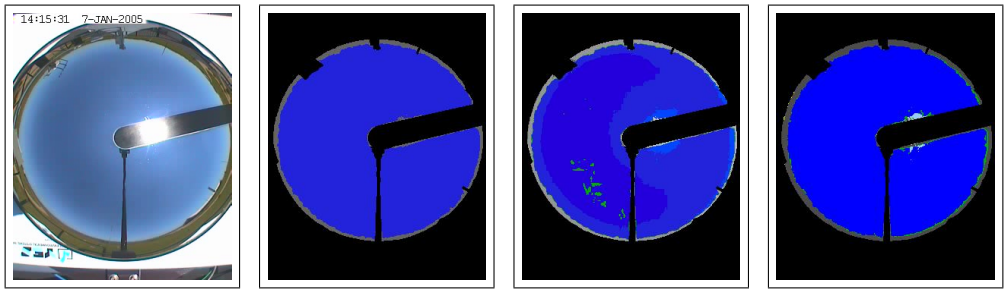
(i) 0501071330 (ii) 0501071330 Long (iii) 0501071330 EGD (iv) 0501071330 MAHA



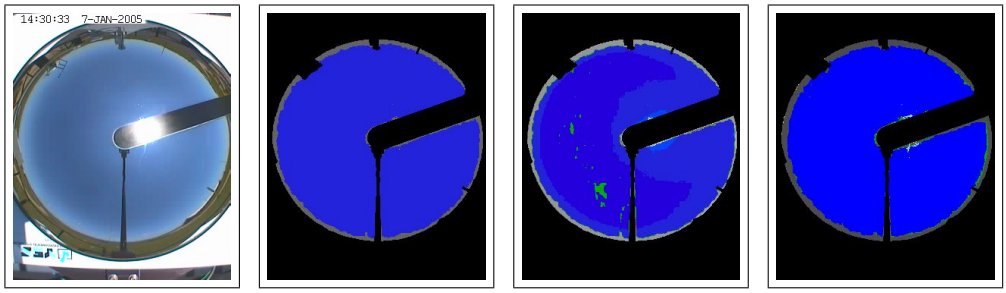
(v) 0501071345 (vi) 0501071345 Long (vii) 0501071345 EGD (viii) 0501071345 MAHA



(ix) 0501071400 (x) 0501071400 Long (xi) 0501071400 EGD (xii) 0501071400 MAHA

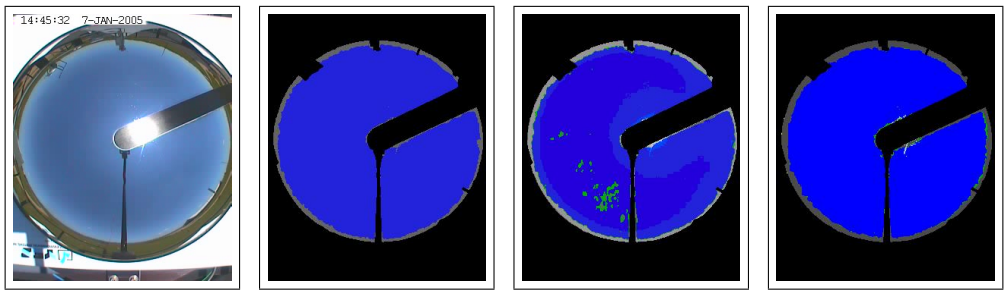


(xiii) 0501071415 (xiv) 0501071415 Long (xv) 0501071415 EGD (xvi) 0501071415 MAHA

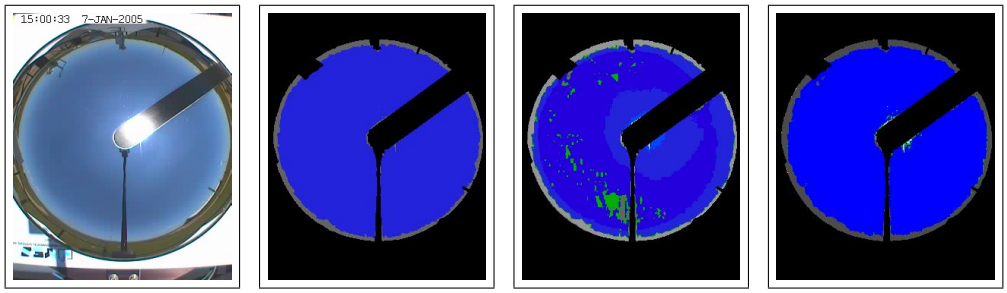


(xvii) 0501071430 (xviii) 0501071430 Long (xix) 0501071430 EGD (xx) 0501071430 MAHA

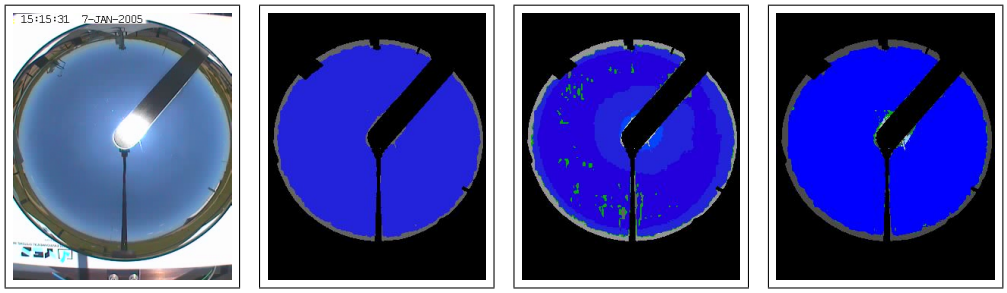
Figure A.78 - Sky images generated from 0501071330 to 0501071430.



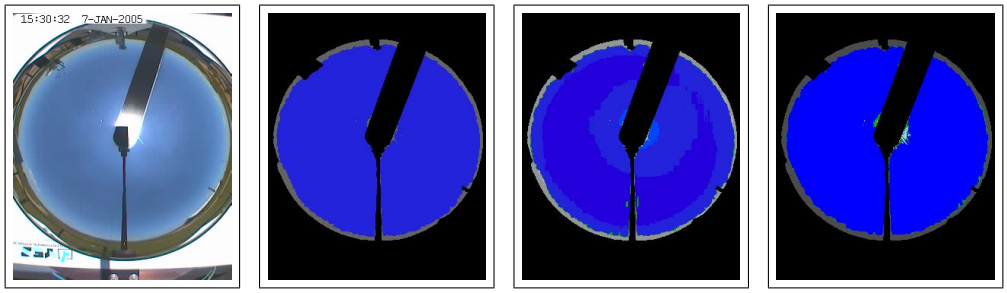
(i) 0501071445 (ii) 0501071445 Long (iii) 0501071445 EGD (iv) 0501071445 MAHA



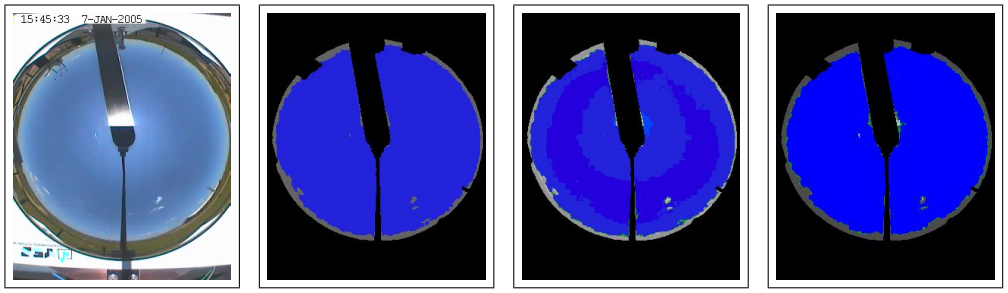
(v) 0501071500 (vi) 0501071500 Long (vii) 0501071500 EGD (viii) 0501071500 MAHA



(ix) 0501071515 (x) 0501071515 Long (xi) 0501071515 EGD (xii) 0501071515 MAHA

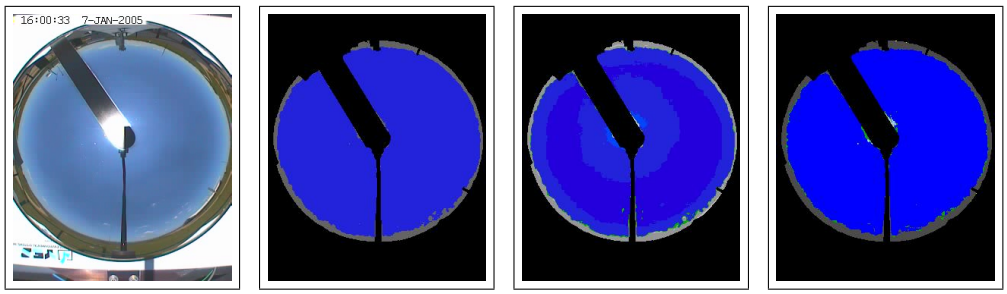


(xiii) 0501071530 (xiv) 0501071530 Long (xv) 0501071530 EGD (xvi) 0501071530 MAHA

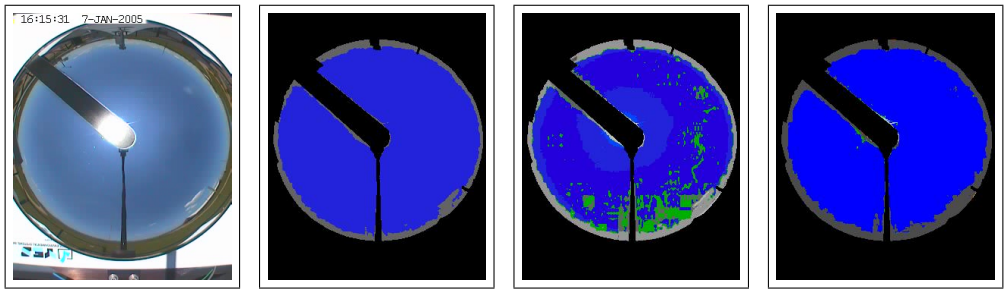


(xvii) 0501071545 (xviii) 0501071545 Long (xix) 0501071545 EGD (xx) 0501071545 MAHA

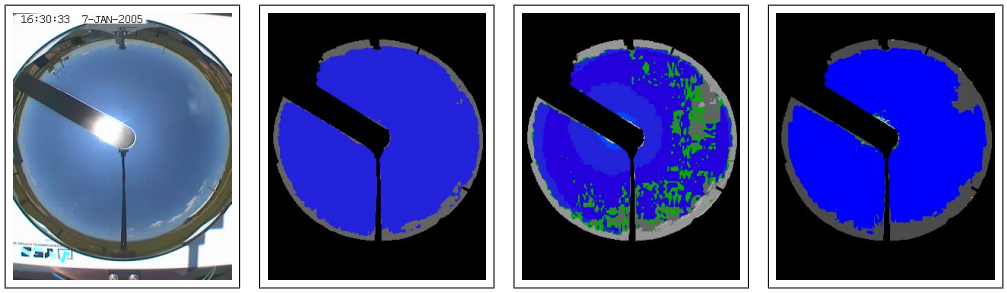
Figure A.79 - Sky images generated from 0501071445 to 0501071545.



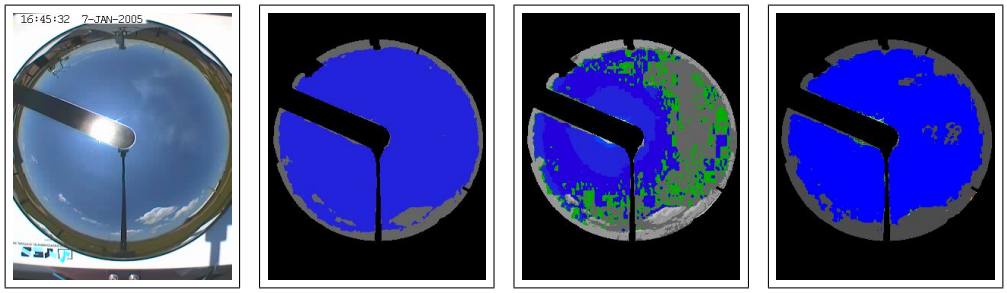
(i) 0501071600 (ii) 0501071600 Long (iii) 0501071600 EGD (iv) 0501071600 MAHA



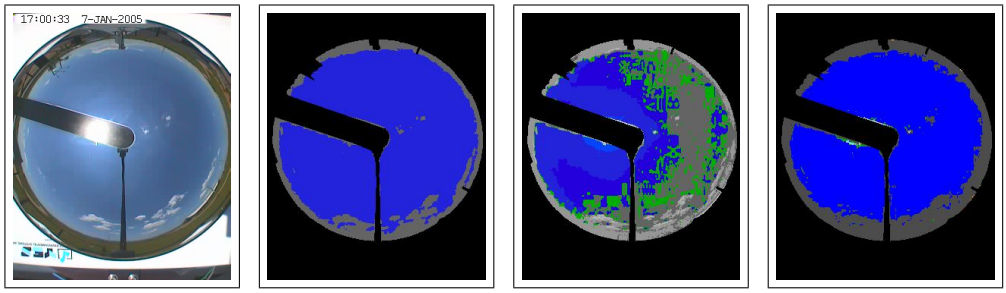
(v) 0501071615 (vi) 0501071615 Long (vii) 0501071615 EGD (viii) 0501071615 MAHA



(ix) 0501071630 (x) 0501071630 Long (xi) 0501071630 EGD (xii) 0501071630 MAHA

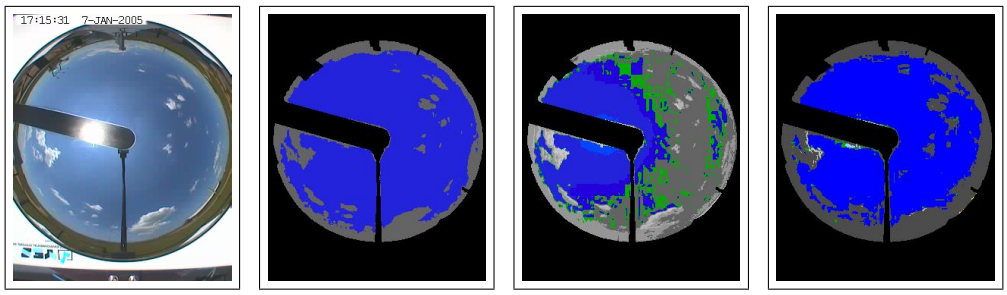


(xiii) 0501071645 (xiv) 0501071645 Long (xv) 0501071645 EGD (xvi) 0501071645 MAHA

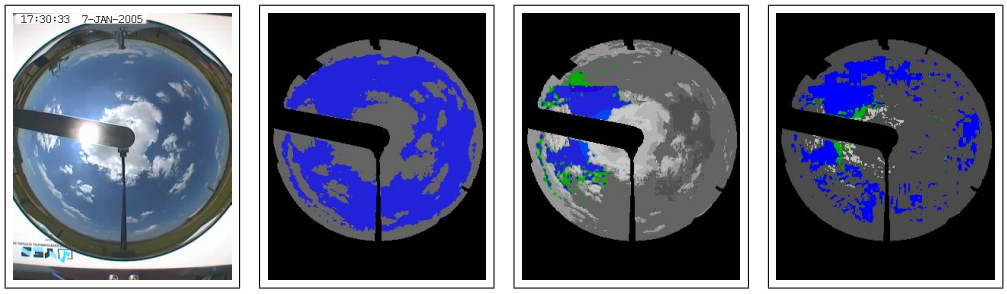


(xvii) 0501071700 (xviii) 0501071700 Long (xix) 0501071700 EGD (xx) 0501071700 MAHA

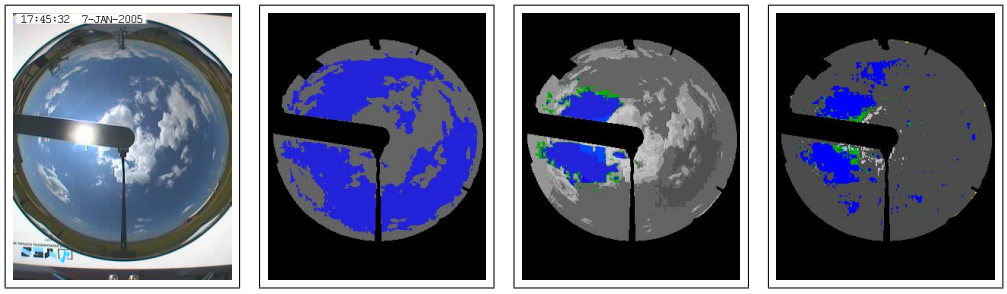
Figure A.80 - Sky images generated from 0501071600 to 0501071700.



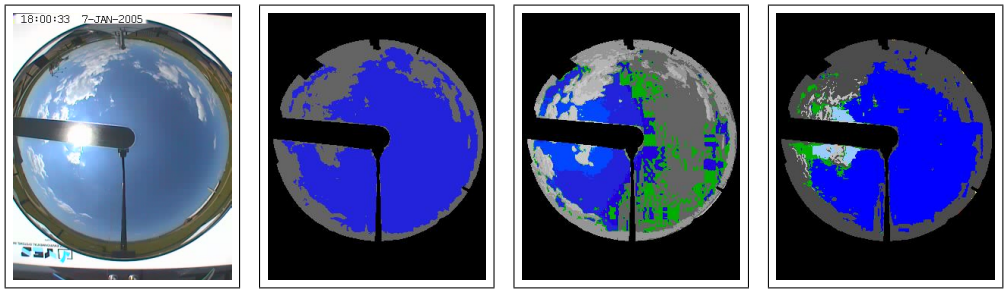
(i) 0501071715 (ii) 0501071715 Long (iii) 0501071715 EGD (iv) 0501071715 MAHA



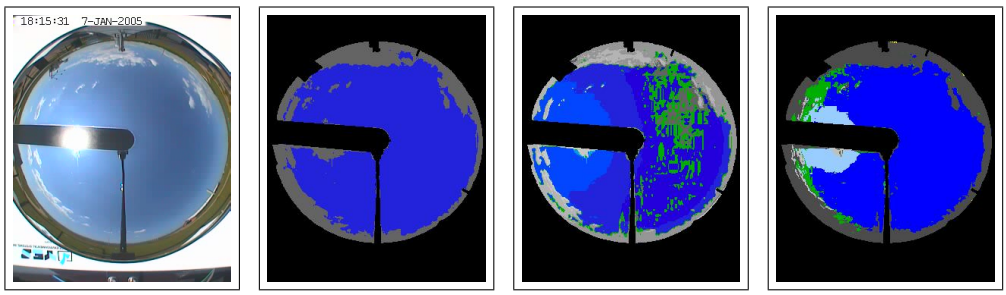
(v) 0501071730 (vi) 0501071730 Long (vii) 0501071730 EGD (viii) 0501071730 MAHA



(ix) 0501071745 (x) 0501071745 Long (xi) 0501071745 EGD (xii) 0501071745 MAHA

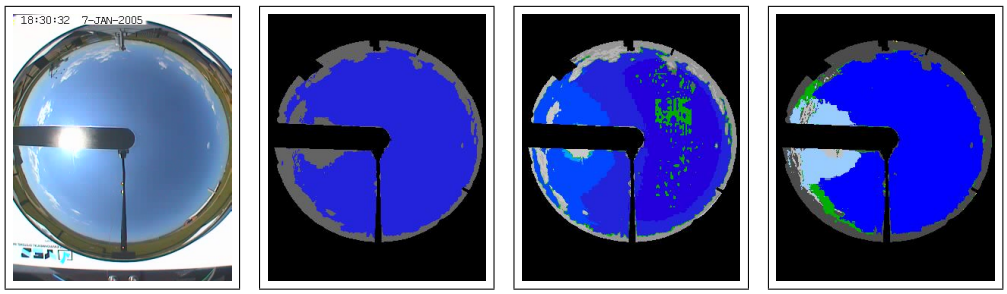


(xiii) 0501071800 (xiv) 0501071800 Long (xv) 0501071800 EGD (xvi) 0501071800 MAHA

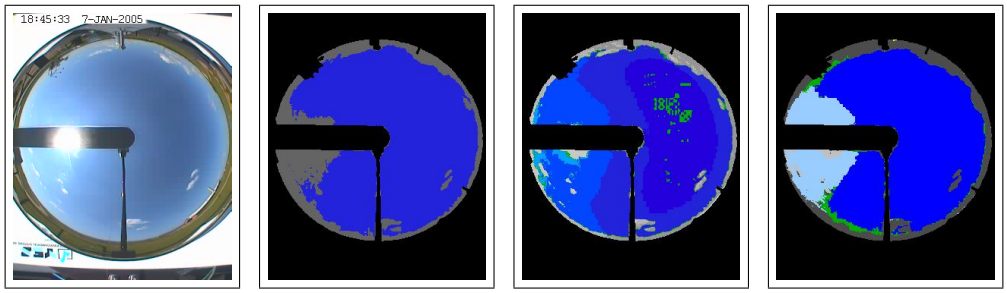


(xvii) 0501071815 (xviii) 0501071815 Long (xix) 0501071815 EGD (xx) 0501071815 MAHA

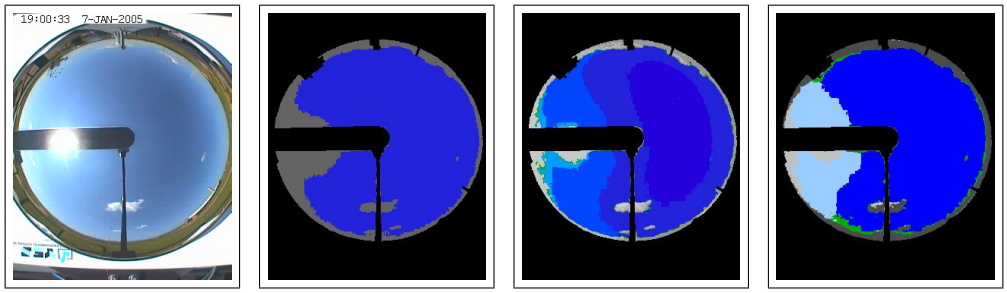
Figure A.81 - Sky images generated from 0501071715 to 0501071815.



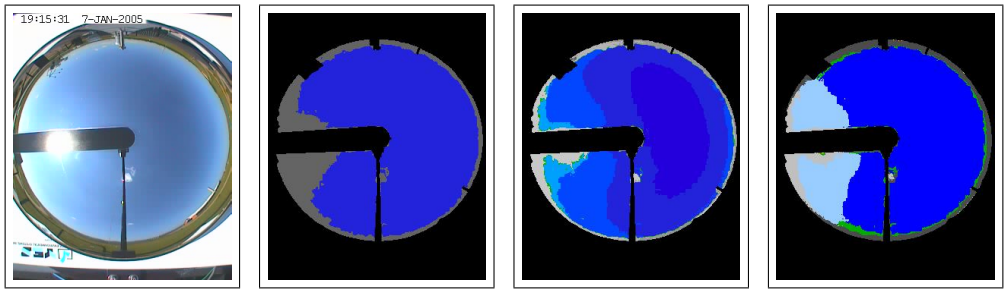
(i) 0501071830 (ii) 0501071830 Long (iii) 0501071830 EGD (iv) 0501071830 MAHA



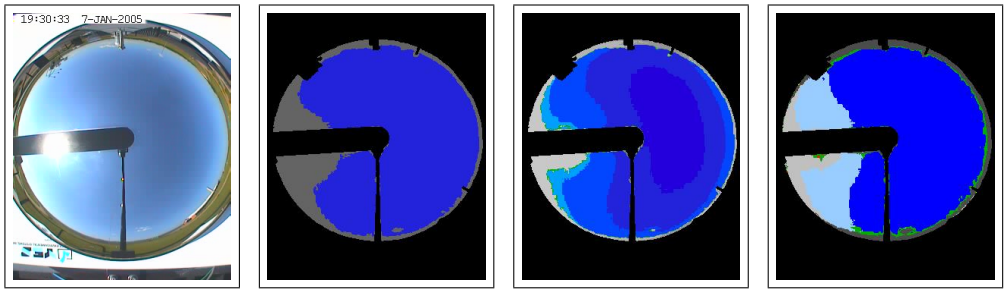
(v) 0501071845 (vi) 0501071845 Long (vii) 0501071845 EGD (viii) 0501071845 MAHA



(ix) 0501071900 (x) 0501071900 Long (xi) 0501071900 EGD (xii) 0501071900 MAHA

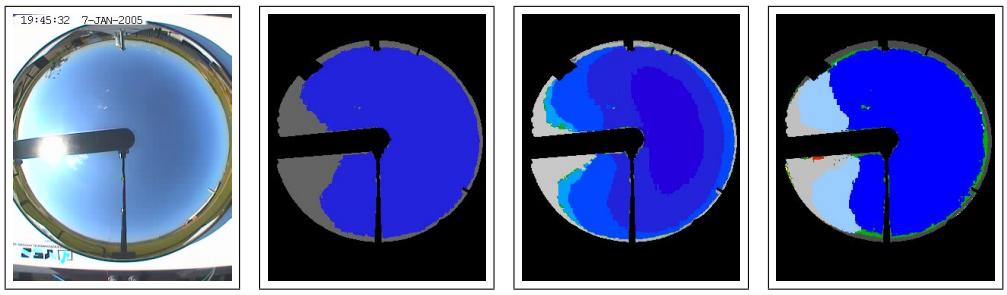


(xiii) 0501071915 (xiv) 0501071915 Long (xv) 0501071915 EGD (xvi) 0501071915 MAHA

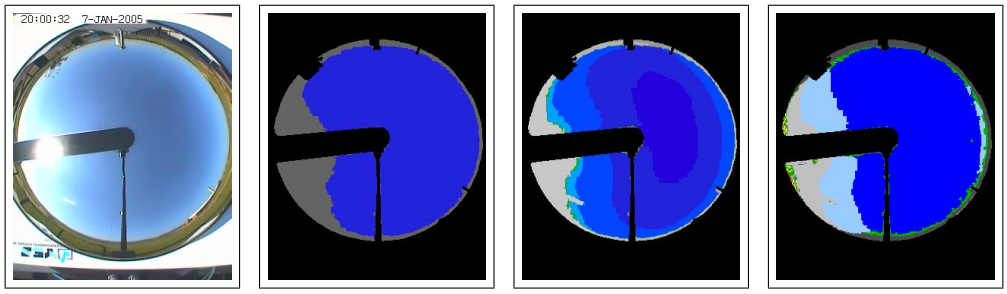


(xvii) 0501071930 (xviii) 0501071930 Long (xix) 0501071930 EGD (xx) 0501071930 MAHA

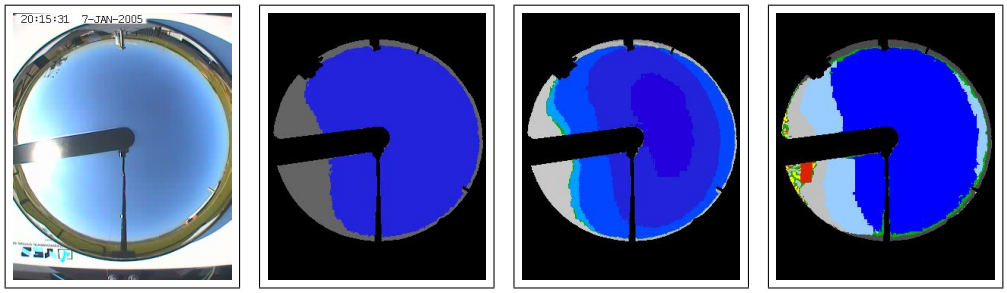
Figure A.82 - Sky images generated from 0501071830 to 0501071930.



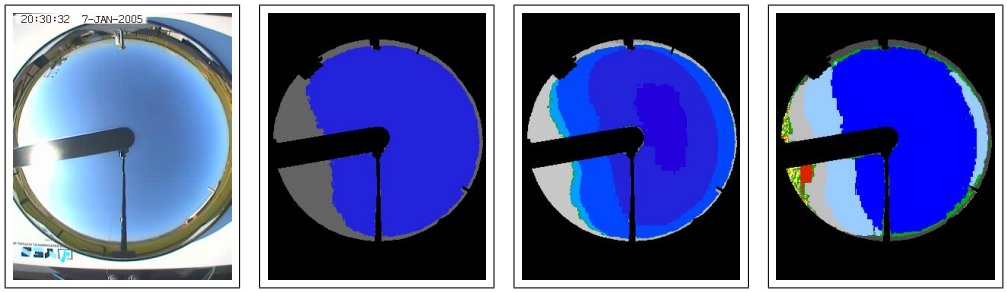
(i) 0501071945 (ii) 0501071945 Long (iii) 0501071945 EGD (iv) 0501071945 MAHA



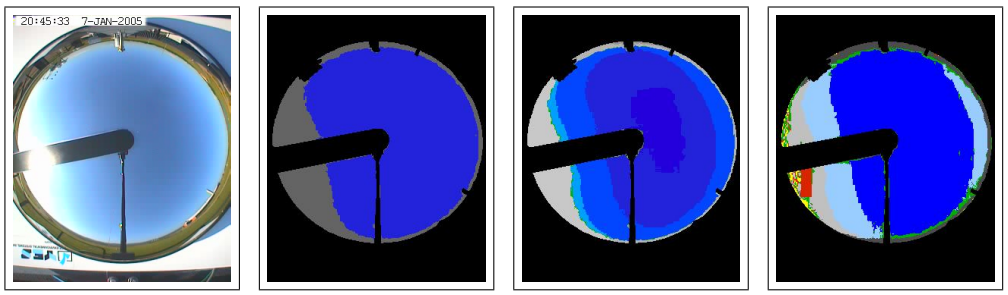
(v) 0501072000 (vi) 0501072000 Long (vii) 0501072000 EGD (viii) 0501072000 MAHA



(ix) 0501072015 (x) 0501072015 Long (xi) 0501072015 EGD (xii) 0501072015 MAHA

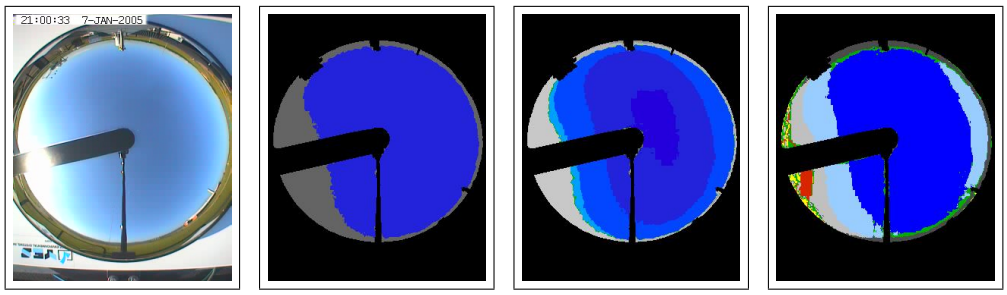


(xiii) 0501072030 (xiv) 0501072030 Long (xv) 0501072030 EGD (xvi) 0501072030 MAHA

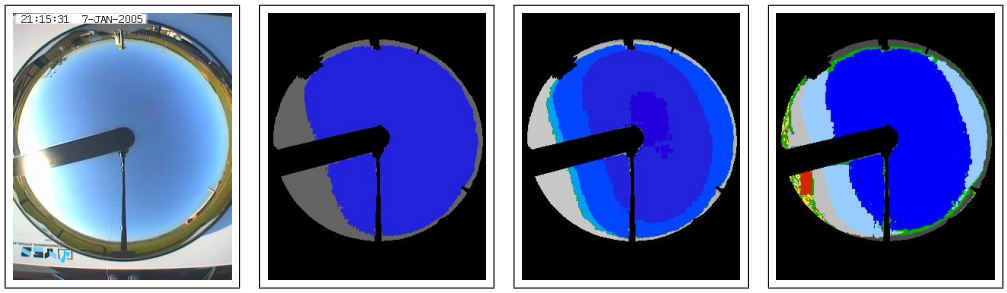


(xvii) 0501072045 (xviii) 0501072045 Long (xix) 0501072045 EGD (xx) 0501072045 MAHA

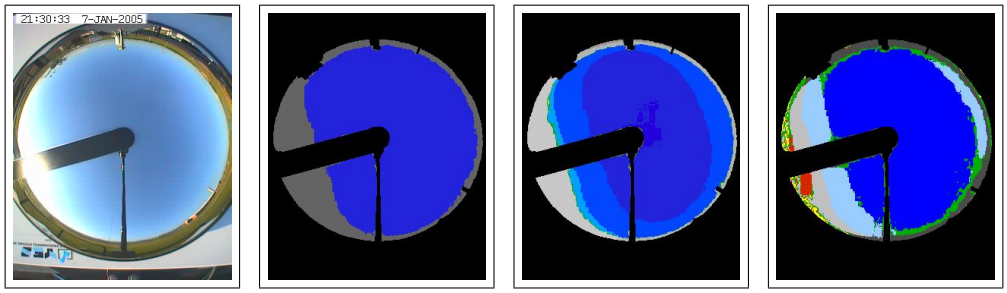
Figure A.83 - Sky images generated from 0501071945 to 0501072045.



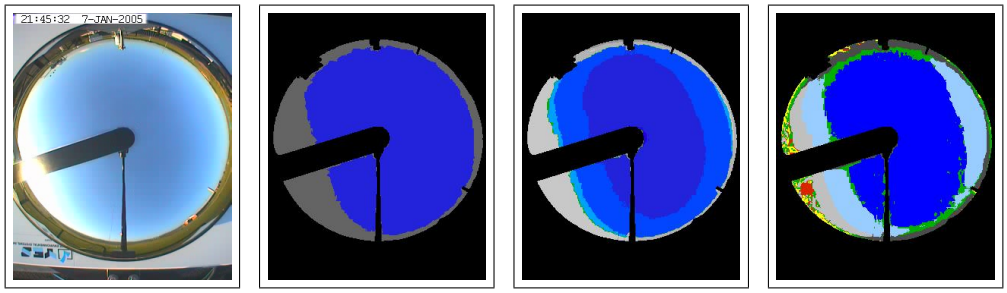
(i) 0501072100 (ii) 0501072100 Long (iii) 0501072100 EGD (iv) 0501072100 MAHA



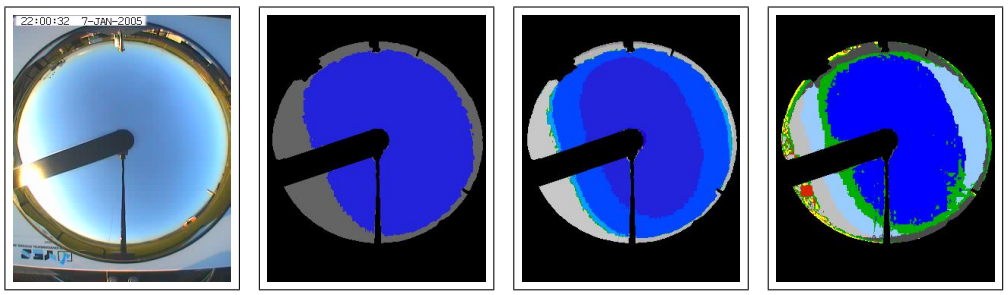
(v) 0501072115 (vi) 0501072115 Long (vii) 0501072115 EGD (viii) 0501072115 MAHA



(ix) 0501072130 (x) 0501072130 Long (xi) 0501072130 EGD (xii) 0501072130 MAHA

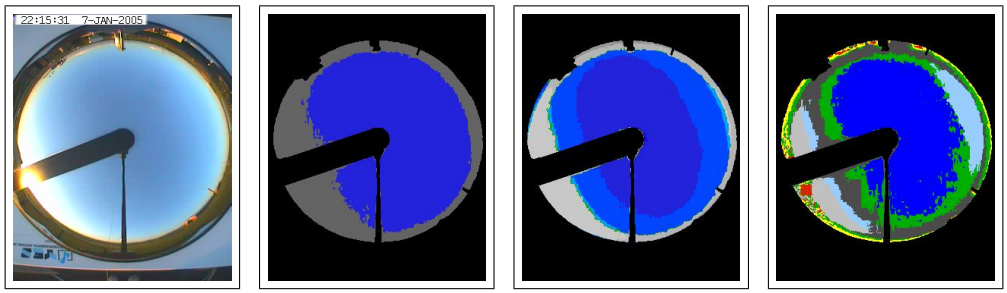


(xiii) 0501072145 (xiv) 0501072145 Long (xv) 0501072145 EGD (xvi) 0501072145 MAHA

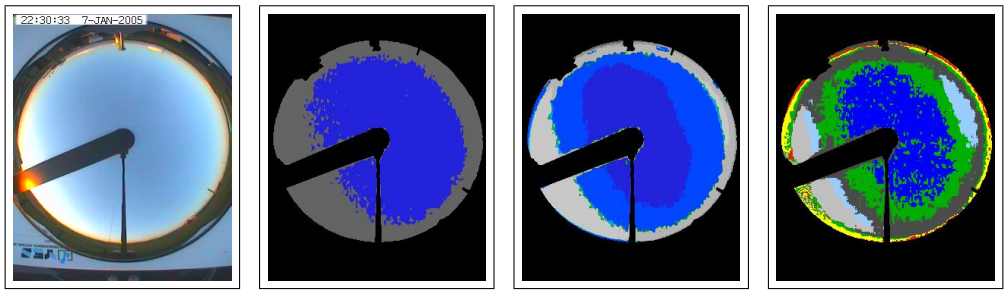


(xvii) 0501072200 (xviii) 0501072200 Long (xix) 0501072200 EGD (xx) 0501072200 MAHA

Figure A.84 - Sky images generated from 0501072100 to 0501072200.



(i) 0501072215 (ii) 0501072215 Long (iii) 0501072215 EGD (iv) 0501072215 MAHA

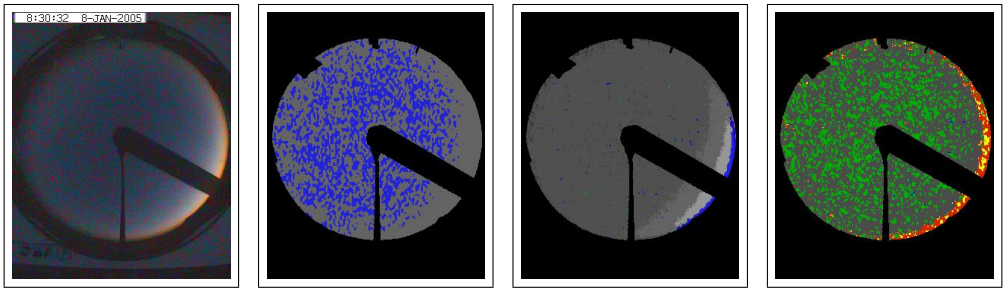


(v) 0501072230 (vi) 0501072230 Long (vii) 0501072230 EGD (viii) 0501072230 MAHA

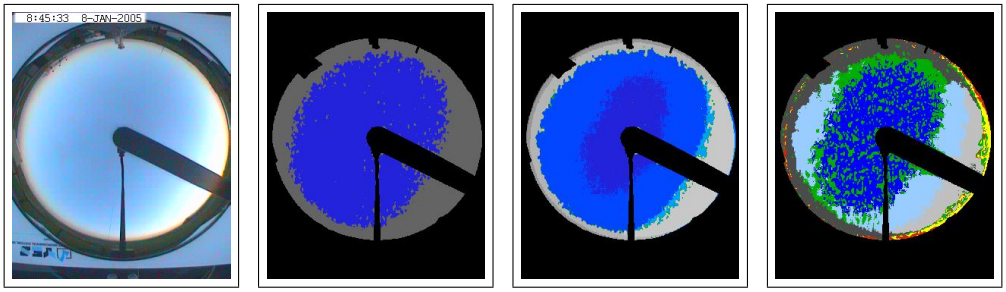


(ix) 0501072245

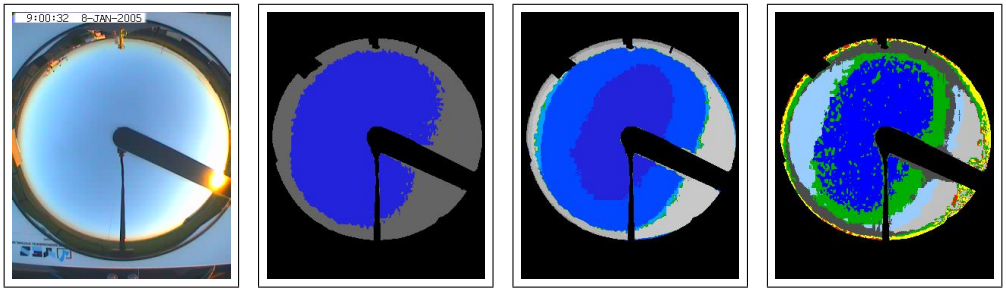
Figure A.85 - Sky images generated from 0501071600 to 0501072245.



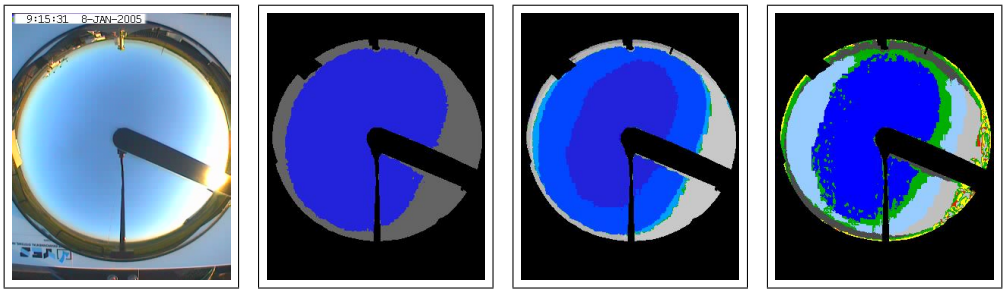
(i) 0501080830 (ii) 0501080830 Long (iii) 0501080830 EGD (iv) 0501080830 MAHA



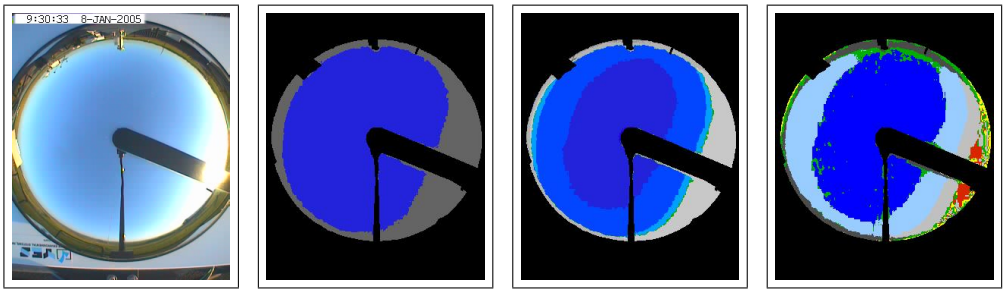
(v) 0501080845 (vi) 0501080845 Long (vii) 0501080845 EGD (viii) 0501080845 MAHA



(ix) 0501080900 (x) 0501080900 Long (xi) 0501080900 EGD (xii) 0501080900 MAHA

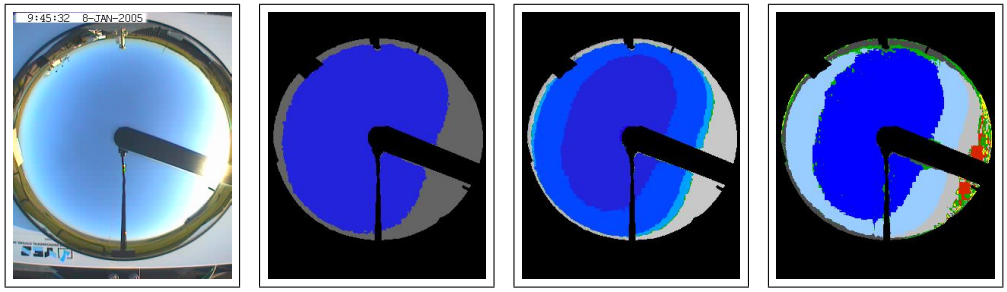


(xiii) 0501080915 (xiv) 0501080915 Long (xv) 0501080915 EGD (xvi) 0501080915 MAHA

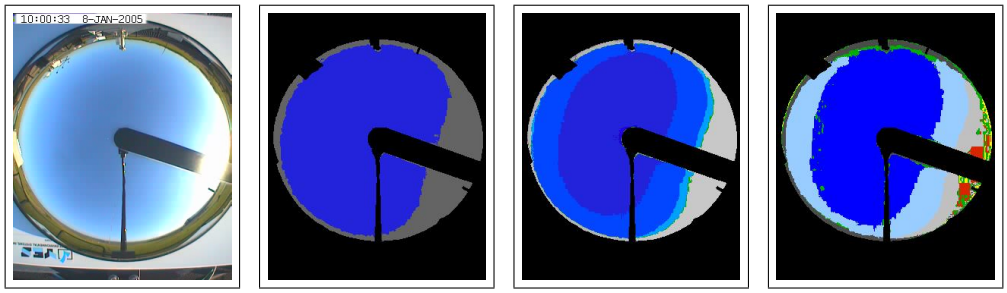


(xvii) 0501080930 (xviii) 0501080930 Long (xix) 0501080930 EGD (xx) 0501080930 MAHA

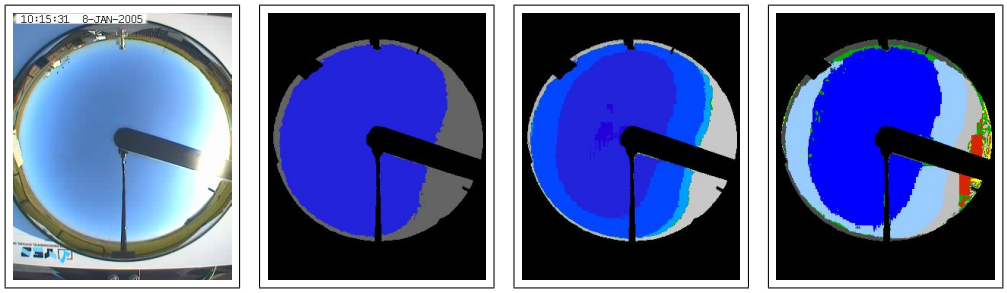
Figure A.86 - Sky images generated from 0501080830 to 0501080930.



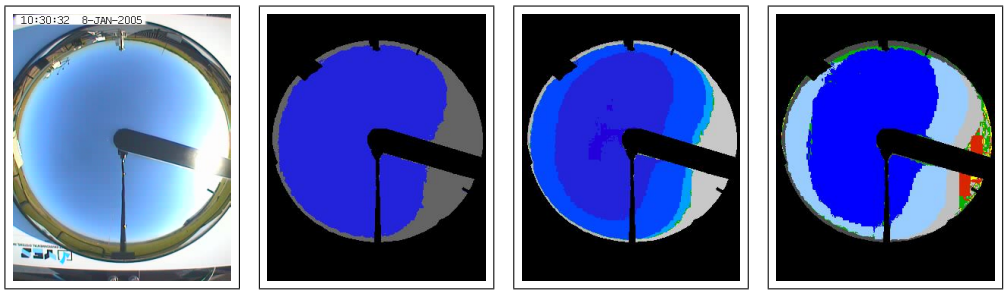
(i) 0501080945 (ii) 0501080945 Long (iii) 0501080945 EGD (iv) 0501080945 MAHA



(v) 050108000 (vi) 050108000 Long (vii) 050108000 EGD (viii) 050108000 MAHA

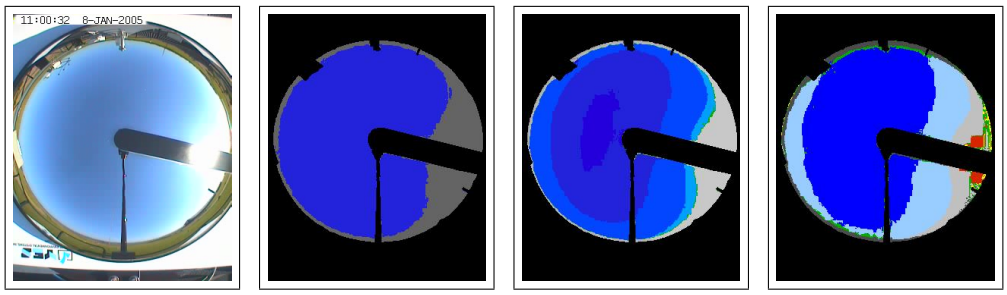


(ix) 0501081015 (x) 0501081015 Long (xi) 0501081015 EGD (xii) 0501081015 MAHA

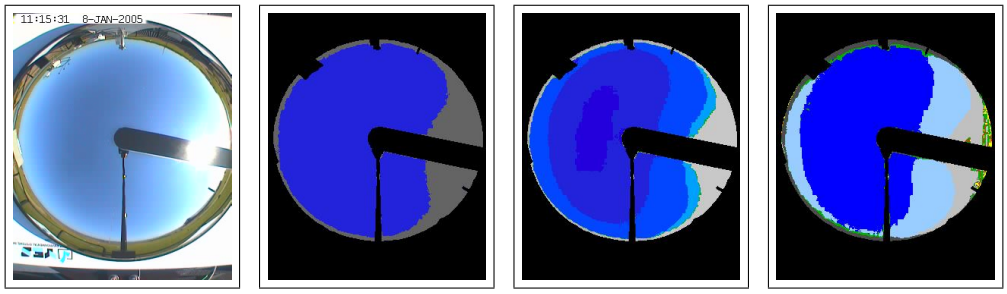


(xiii) 0501081030 (xiv) 0501081030 Long (xv) 0501081030 EGD (xvi) 0501081030 MAHA

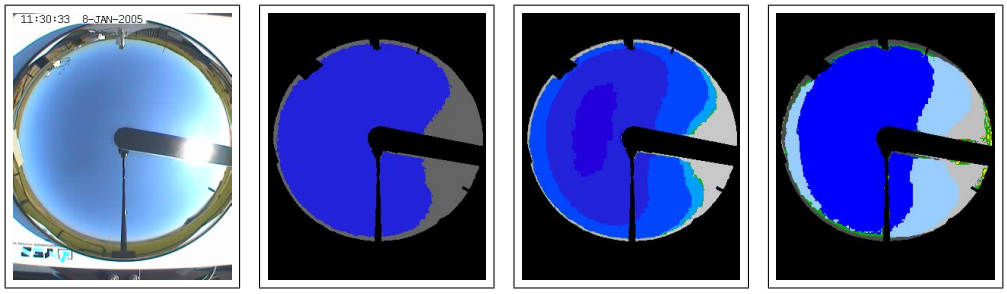
Figure A.87 - Sky images generated from 0501080945 to 0501081030.



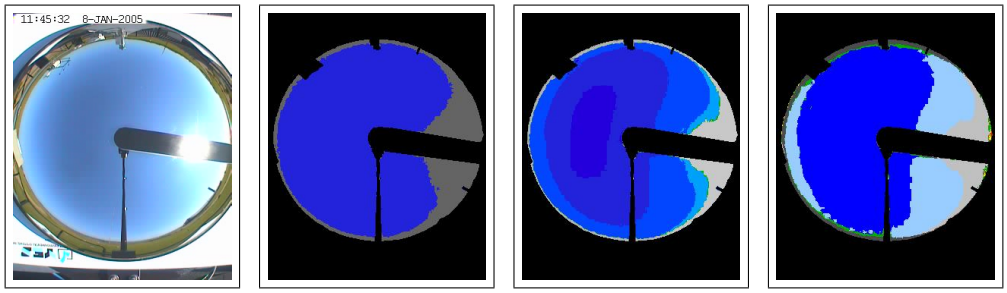
(i) 0501081100 (ii) 0501081100 Long (iii) 0501081100 EGD (iv) 0501081100 MAHA



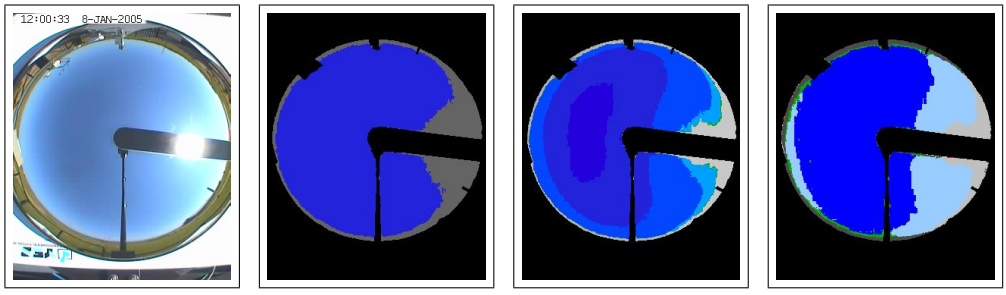
(v) 0501081115 (vi) 0501081115 Long (vii) 0501081115 EGD (viii) 0501081115 MAHA



(ix) 0501081130 (x) 0501081130 Long (xi) 0501081130 EGD (xii) 0501081130 MAHA

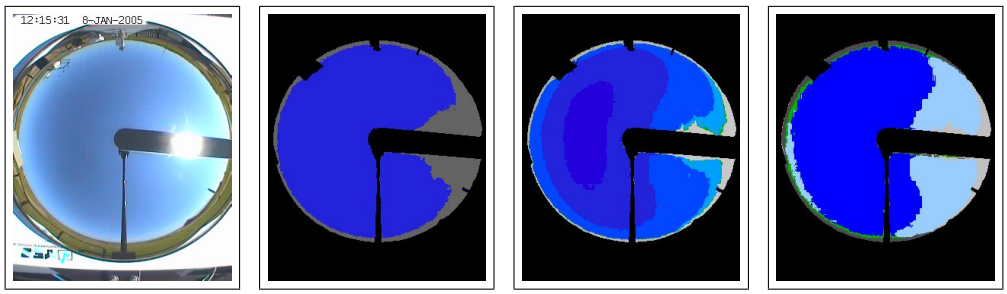


(xiii) 0501081145 (xiv) 0501081145 Long (xv) 0501081145 EGD (xvi) 0501081145 MAHA

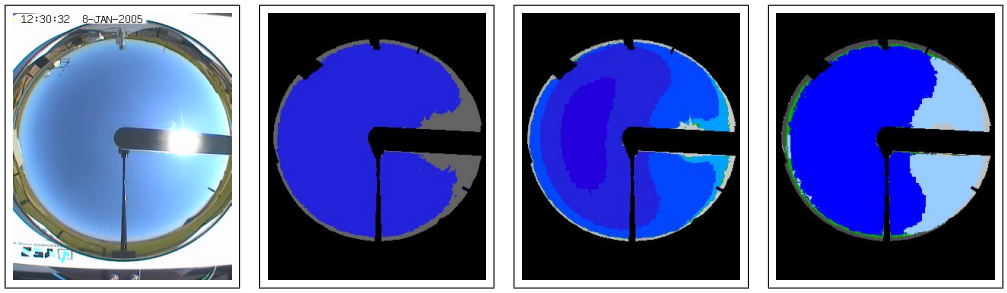


(xvii) 0501081200 (xviii) 0501081200 Long (xix) 0501081200 EGD (xx) 0501081200 MAHA

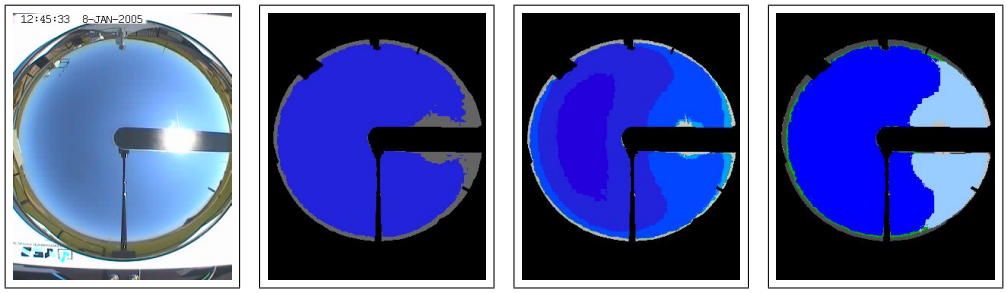
Figure A.88 - Sky images generated from 050108100 to 0501081200.



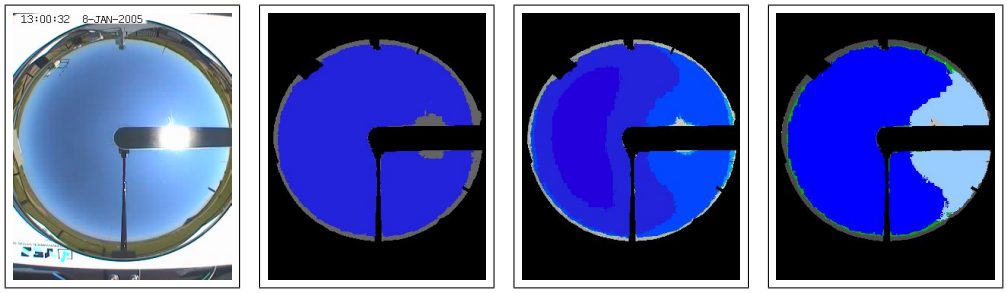
(i) 0501081215 (ii) 0501081215 Long (iii) 0501081215 EGD (iv) 0501081215 MAHA



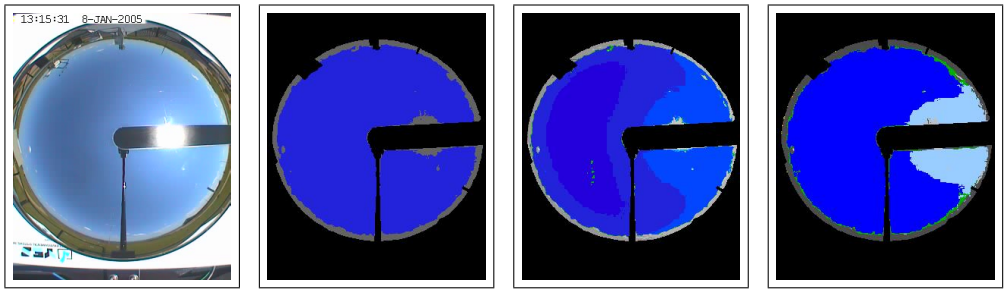
(v) 0501081230 (vi) 0501081230 Long (vii) 0501081230 EGD (viii) 0501081230 MAHA



(ix) 0501081245 (x) 0501081245 Long (xi) 0501081245 EGD (xii) 0501081245 MAHA

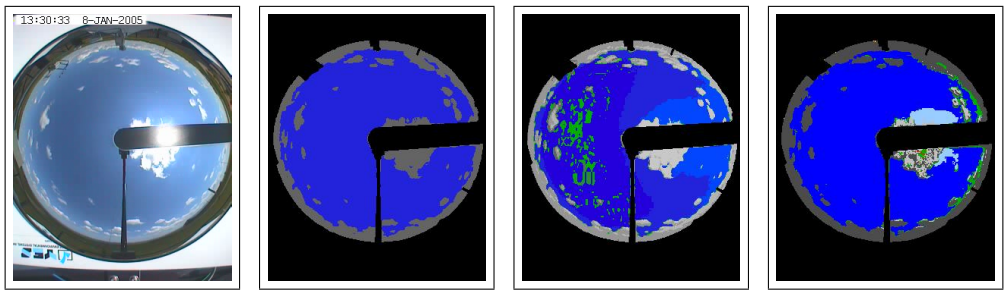


(xiii) 0501081300 (xiv) 0501081300 Long (xv) 0501081300 EGD (xvi) 0501081300 MAHA

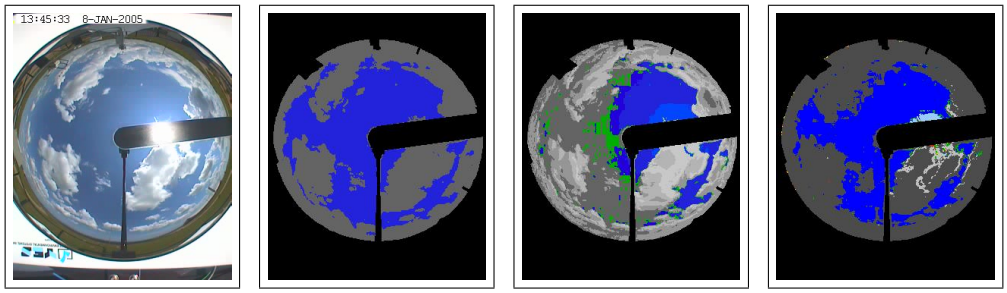


(xvii) 0501081315 (xviii) 0501081315 Long (xix) 0501081315 EGD (xx) 0501081315 MAHA

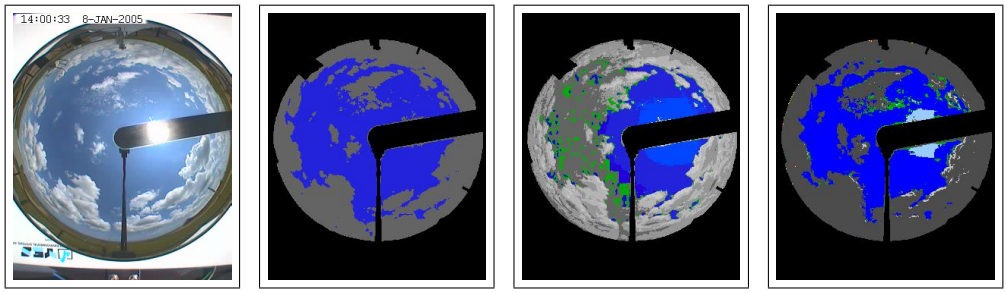
Figure A.89 - Sky images generated from 0501081215 to 0501081315.



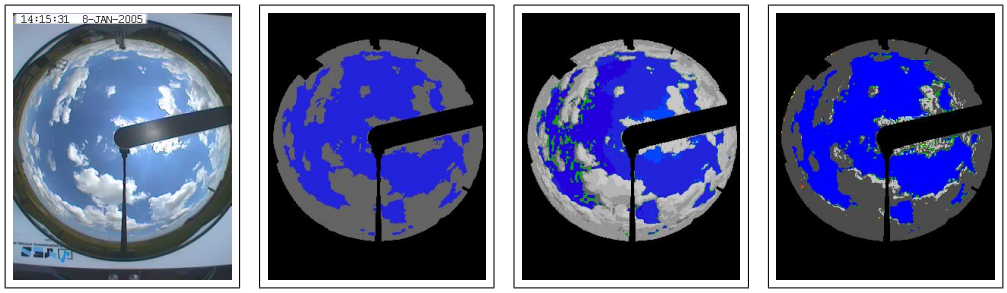
(i) 0501081330 (ii) 0501081330 Long (iii) 0501081330 EGD (iv) 0501081330 MAHA



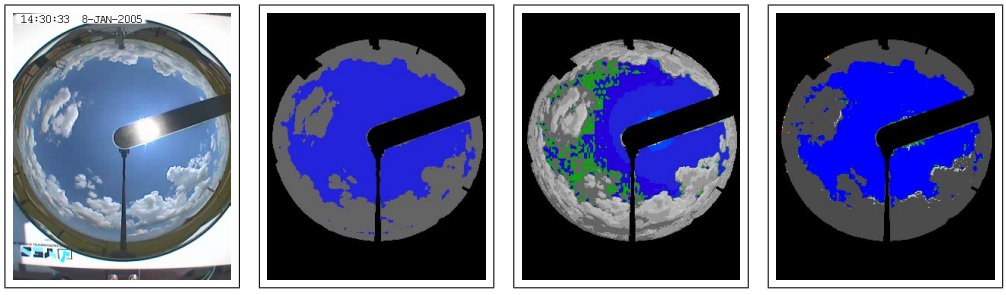
(v) 0501081345 (vi) 0501081345 Long (vii) 0501081345 EGD (viii) 0501081345 MAHA



(ix) 0501081400 (x) 0501081400 Long (xi) 0501081400 EGD (xii) 0501081400 MAHA

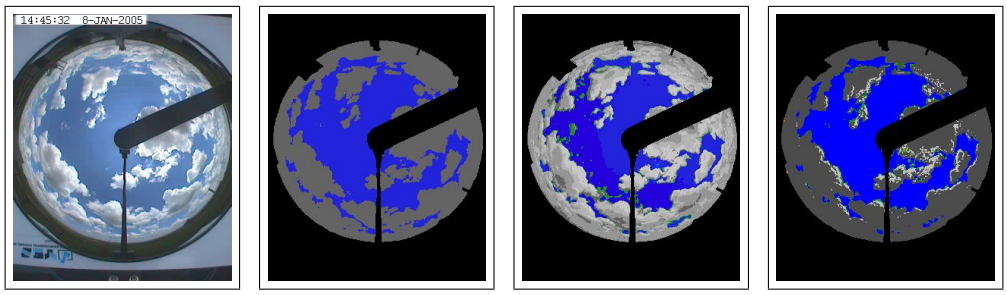


(xiii) 0501081415 (xiv) 0501081415 Long (xv) 0501081415 EGD (xvi) 0501081415 MAHA

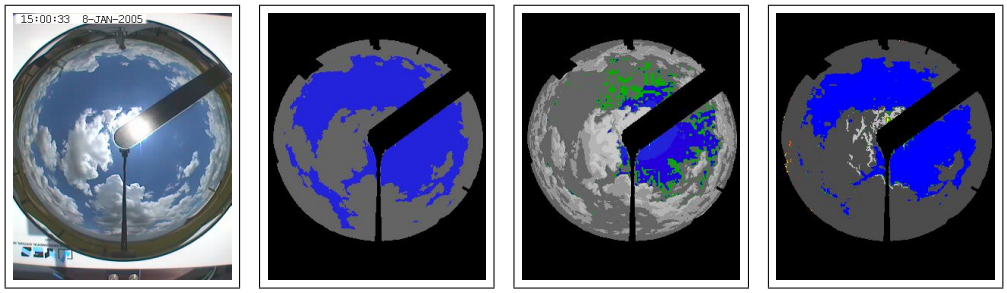


(xvii) 0501081430 (xviii) 0501081430 Long (xix) 0501081430 EGD (xx) 0501081430 MAHA

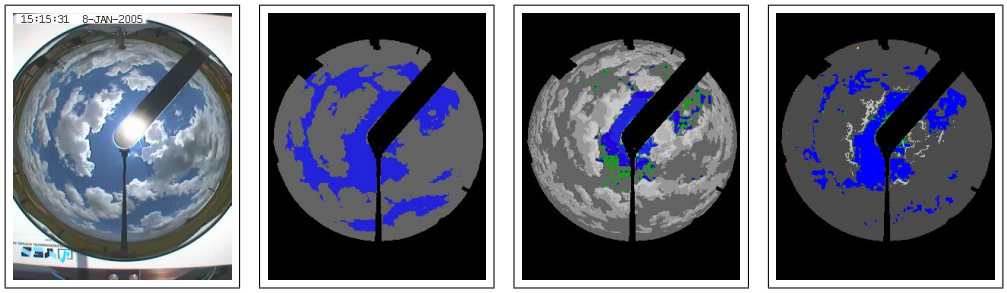
Figure A.90 - Sky images generated from 0501081330 to 0501081430.



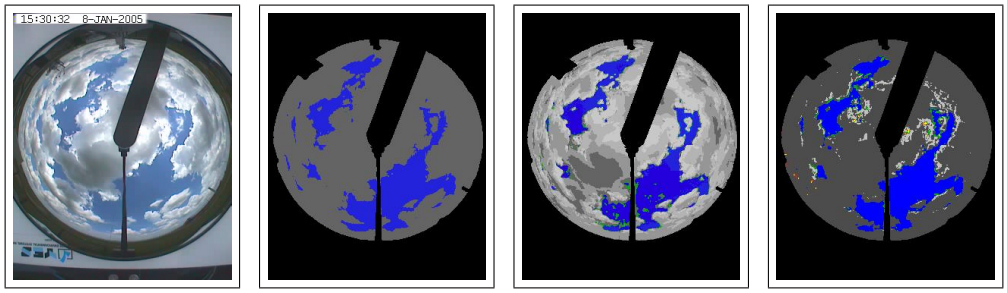
(i) 0501081445 (ii) 0501081445 Long (iii) 0501081445 EGD (iv) 0501081445 MAHA



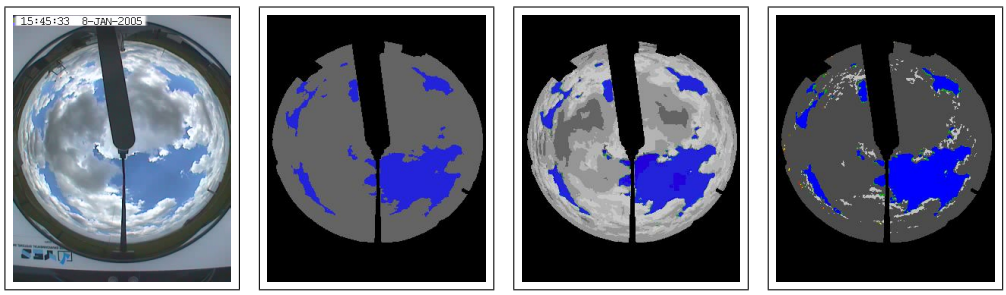
(v) 0501081500 (vi) 0501081500 Long (vii) 0501081500 EGD (viii) 0501081500 MAHA



(ix) 0501081515 (x) 0501081515 Long (xi) 0501081515 EGD (xii) 0501081515 MAHA

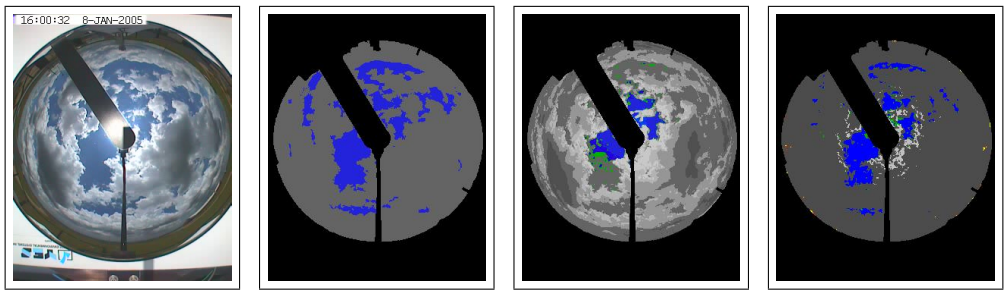


(xiii) 0501081530 (xiv) 0501081530 Long (xv) 0501081530 EGD (xvi) 0501081530 MAHA

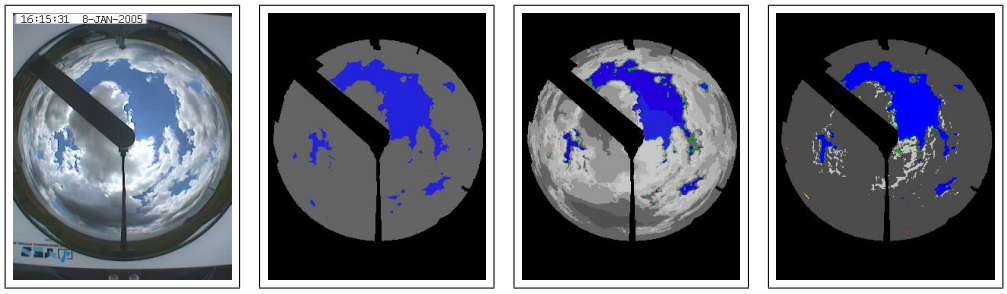


(xvii) 0501081545 (xviii) 0501081545 Long (xix) 0501081545 EGD (xx) 0501081545 MAHA

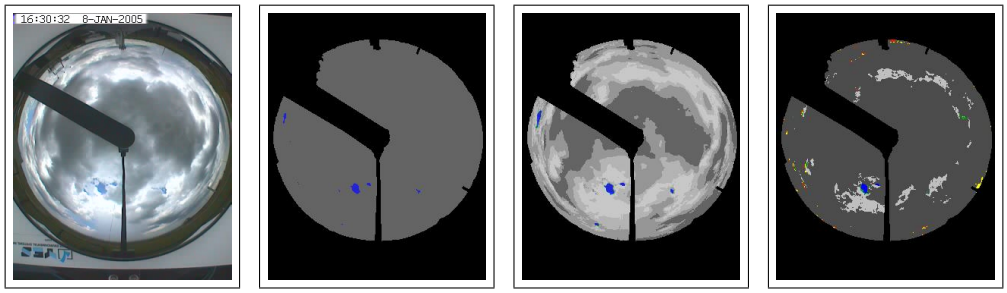
Figure A.91 - Sky images generated from 0501081445 to 0501081545.



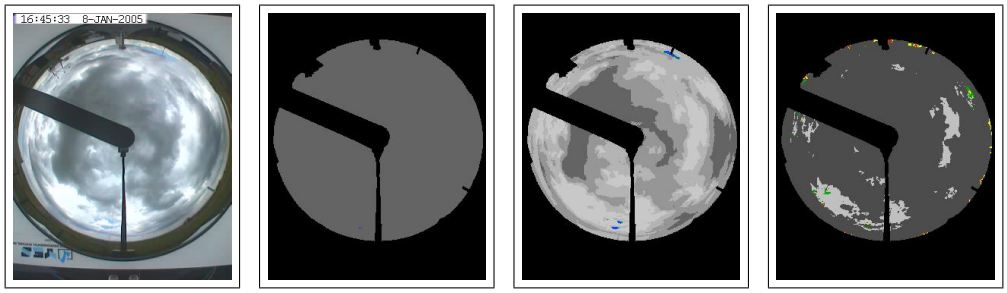
(i) 0501081600 (ii) 0501081600 Long (iii) 0501081600 EGD (iv) 0501081600 MAHA



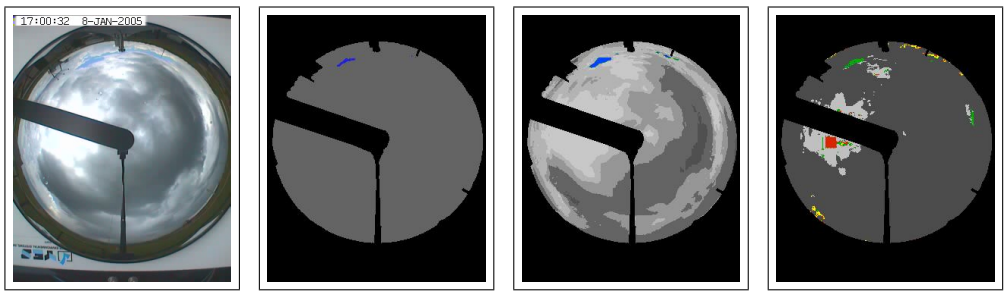
(v) 0501081615 (vi) 0501081615 Long (vii) 0501081615 EGD (viii) 0501081615 MAHA



(ix) 0501081630 (x) 0501081630 Long (xi) 0501081630 EGD (xii) 0501081630 MAHA

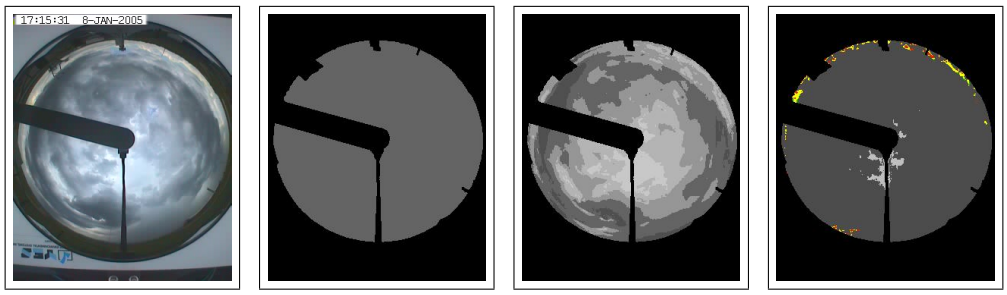


(xiii) 0501081645 (xiv) 0501081645 Long (xv) 0501081645 EGD (xvi) 0501081645 MAHA

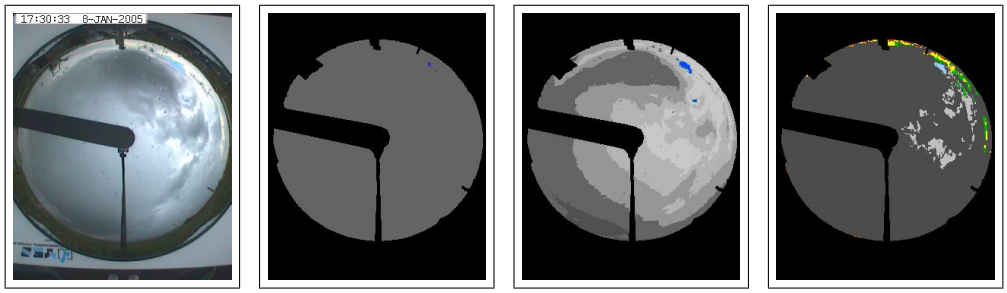


(xvii) 0501081700 (xviii) 0501081700 Long (xix) 0501081700 EGD (xx) 0501081700 MAHA

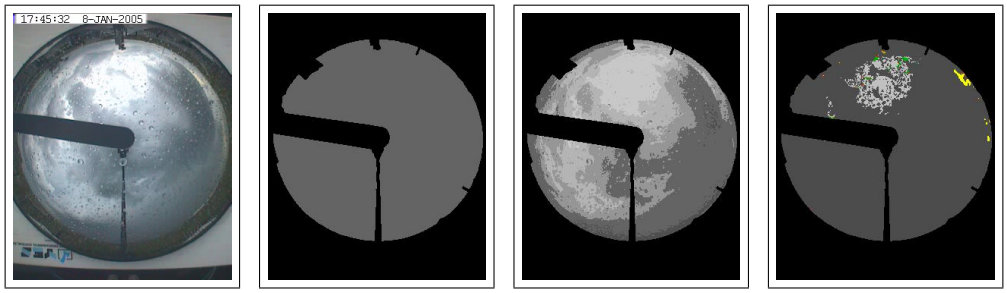
Figure A.92 - Sky images generated from 0501081600 to 0501081700.



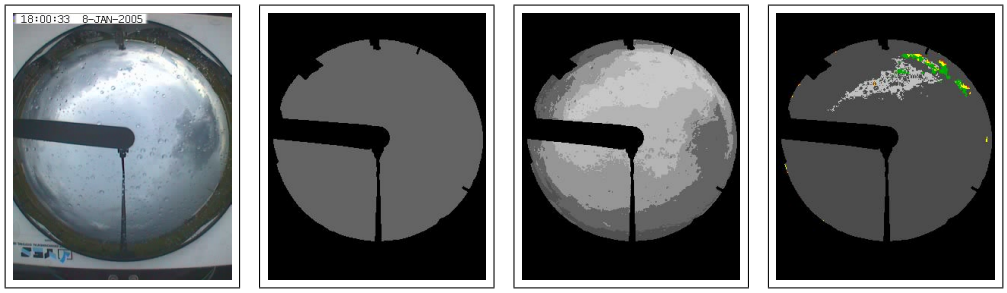
(i) 0501081715 (ii) 0501081715 Long (iii) 0501081715 EGD (iv) 0501081715 MAHA



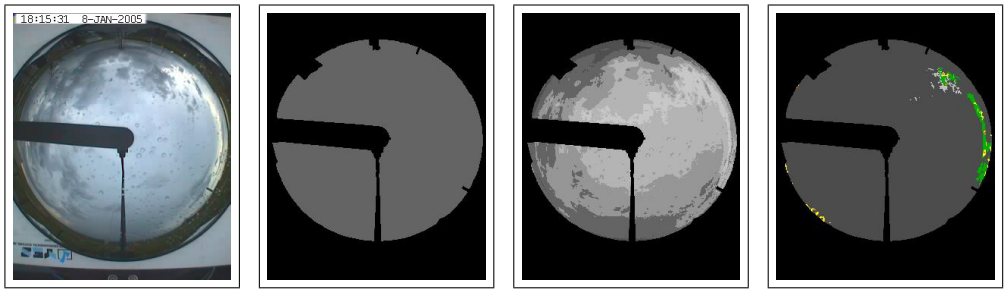
(v) 0501081730 (vi) 0501081730 Long (vii) 0501081730 EGD (viii) 0501081730 MAHA



(ix) 0501081745 (x) 0501081745 Long (xi) 0501081745 EGD (xii) 0501081745 MAHA

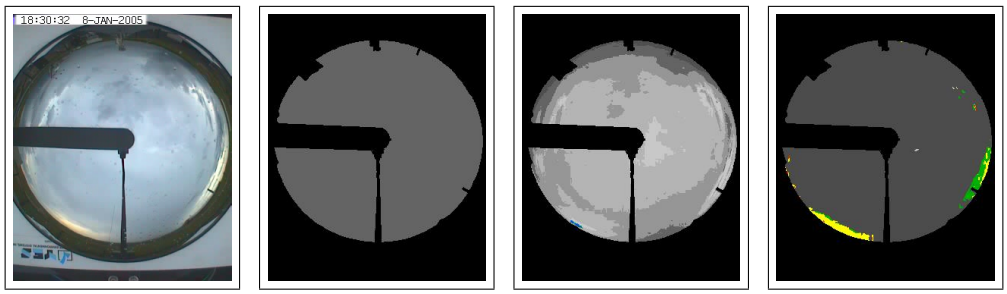


(xiii) 0501081800 (xiv) 0501081800 Long (xv) 0501081800 EGD (xvi) 0501081800 MAHA

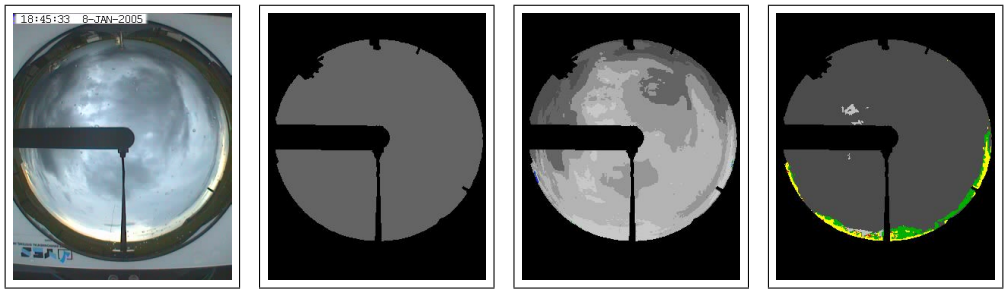


(xvii) 0501081815 (xviii) 0501081815 Long (xix) 0501081815 EGD (xx) 0501081815 MAHA

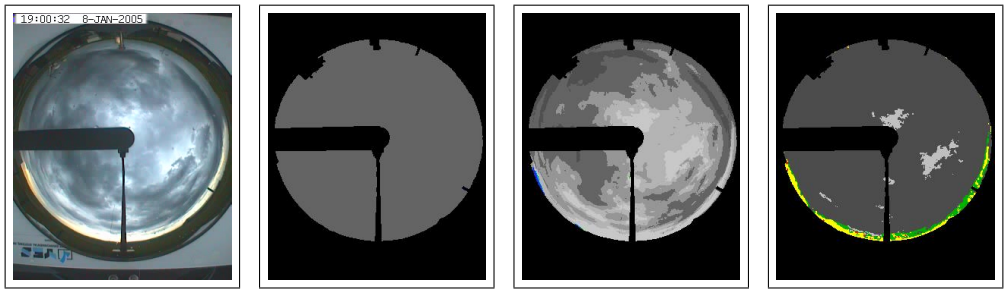
Figure A.93 - Sky images generated from 0501081715 to 0501081815.



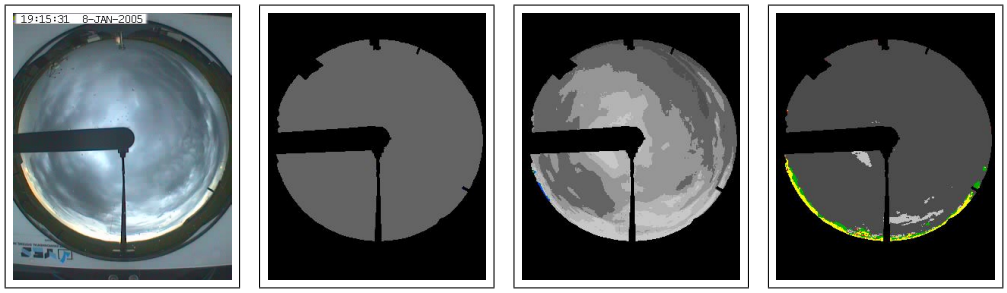
(i) 0501081830 (ii) 0501081830 Long (iii) 0501081830 EGD (iv) 0501081830 MAHA



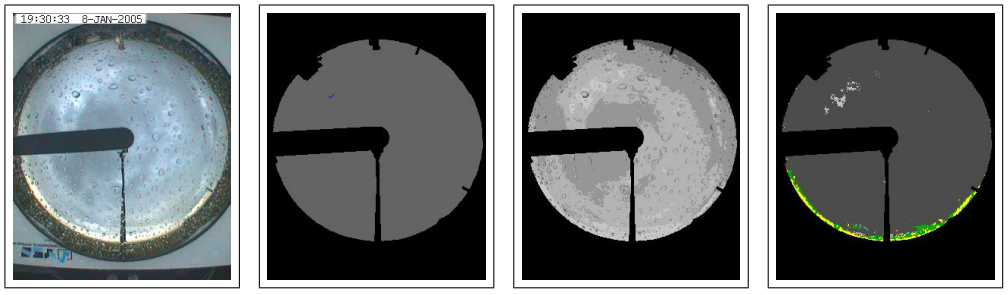
(v) 0501081845 (vi) 0501081845 Long (vii) 0501081845 EGD (viii) 0501081845 MAHA



(ix) 0501081900 (x) 0501081900 Long (xi) 0501081900 EGD (xii) 0501081900 MAHA

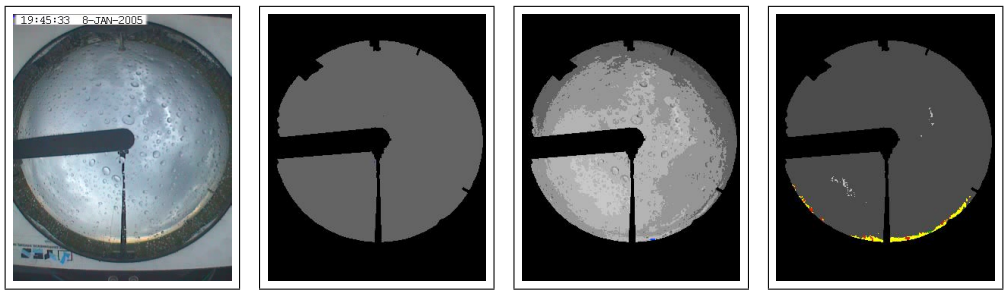


(xiii) 0501081915 (xiv) 0501081915 Long (xv) 0501081915 EGD (xvi) 0501081915 MAHA

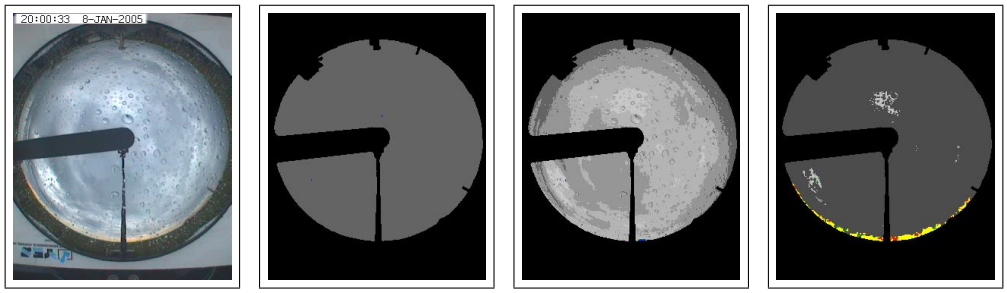


(xvii) 0501081930 (xviii) 0501081930 Long (xix) 0501081930 EGD (xx) 0501081930 MAHA

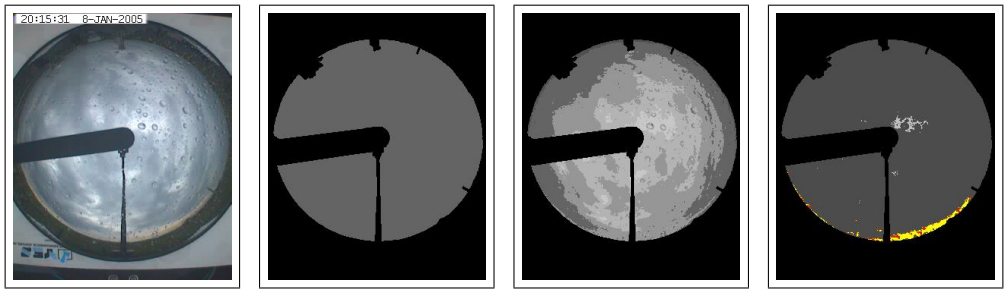
Figure A.94 - Sky images generated from 0501081830 to 0501081930.



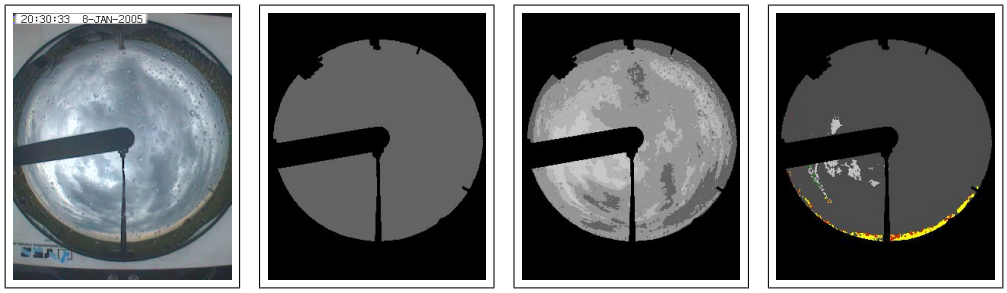
(i) 0501081945 (ii) 0501081945 Long (iii) 0501081945 EGD (iv) 0501081945 MAHA



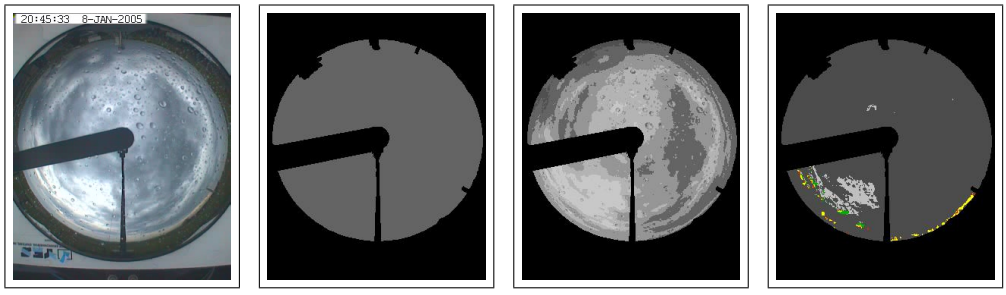
(v) 0501082000 (vi) 0501082000 Long (vii) 0501082000 EGD (viii) 0501082000 MAHA



(ix) 0501082015 (x) 0501082015 Long (xi) 0501082015 EGD (xii) 0501082015 MAHA

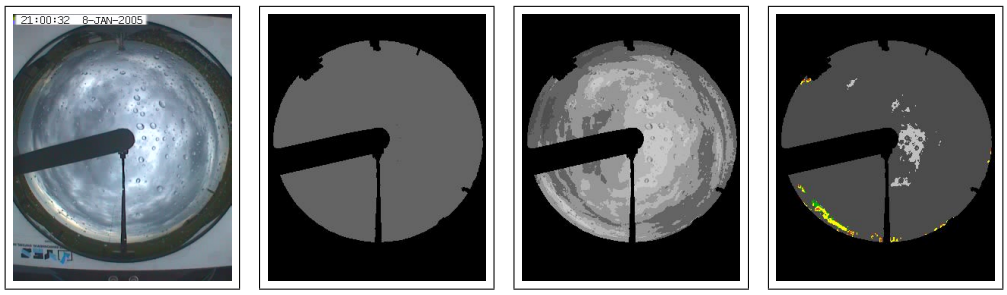


(xiii) 0501082030 (xiv) 0501082030 Long (xv) 0501082030 EGD (xvi) 0501082030 MAHA

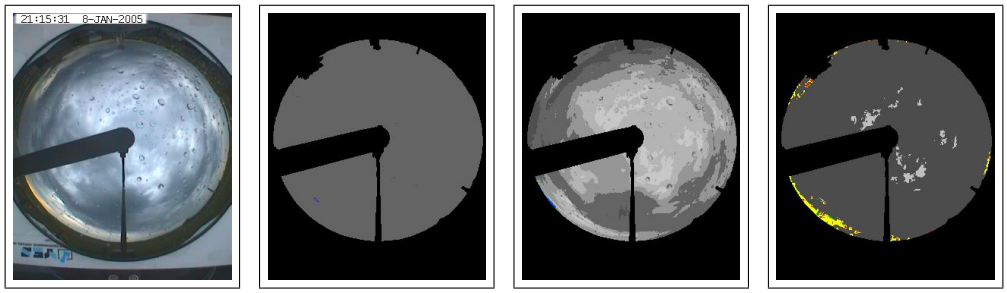


(xvii) 0501082045 (xviii) 0501082045 Long (xix) 0501082045 EGD (xx) 0501082045 MAHA

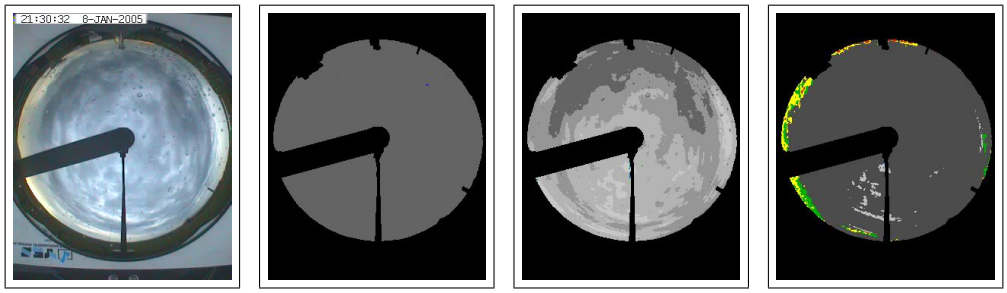
Figure A.95 - Sky images generated from 0501081945 to 0501082045.



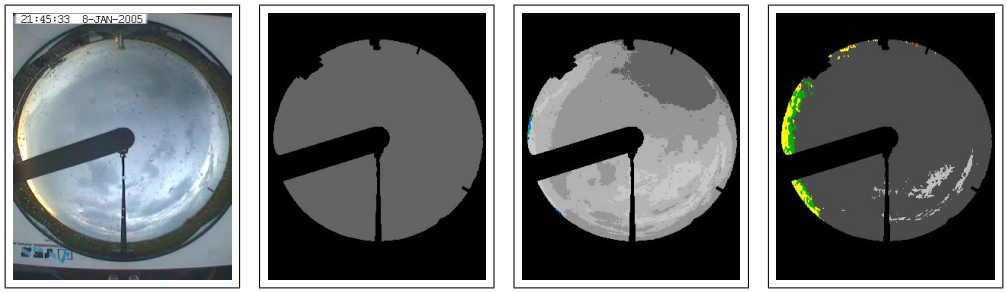
(i) 0501082100 (ii) 0501082100 Long (iii) 0501082100 EGD (iv) 0501082100 MAHA



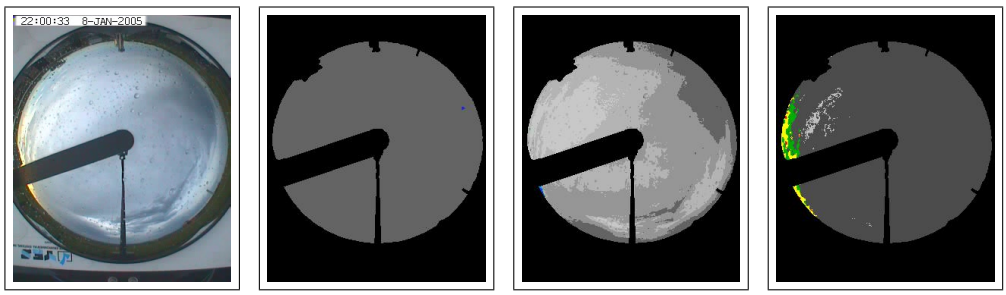
(v) 0501082115 (vi) 0501082115 Long (vii) 0501082115 EGD (viii) 0501082115 MAHA



(ix) 0501082130 (x) 0501082130 Long (xi) 0501082130 EGD (xii) 0501082130 MAHA

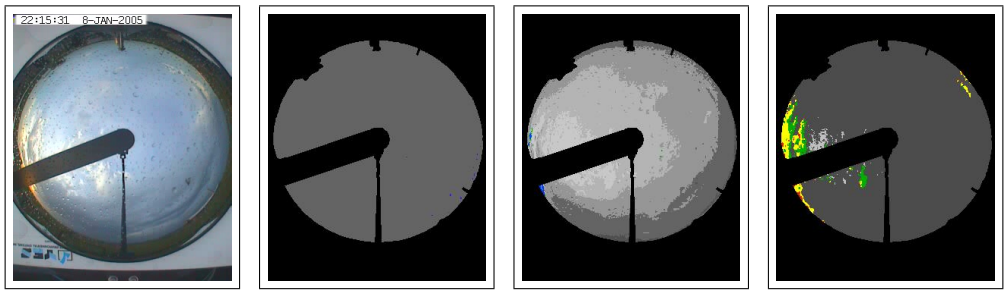


(xiii) 0501082145 (xiv) 0501082145 Long (xv) 0501082145 EGD (xvi) 0501082145 MAHA

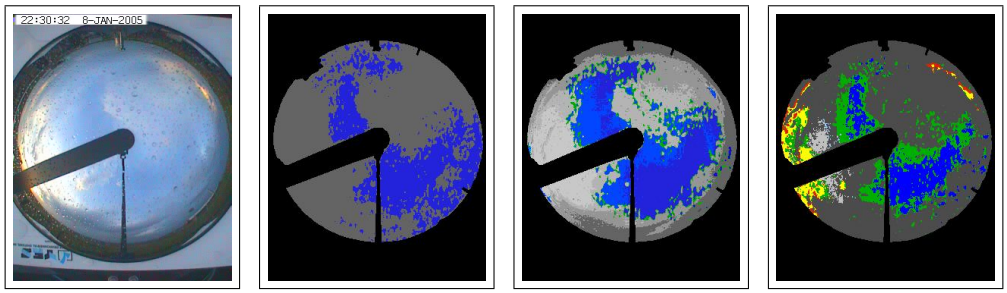


(xvii) 0501082200 (xviii) 0501082200 Long (xix) 0501082200 EGD (xx) 0501082200 MAHA

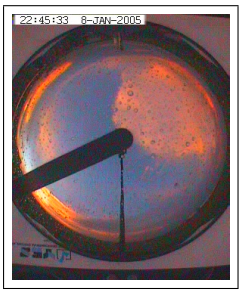
Figure A.96 - Sky images generated from 0501082100 to 0501082200.



(i) 0501082215 (ii) 0501082215 Long (iii) 0501082215 EGD (iv) 0501082215 MAHA

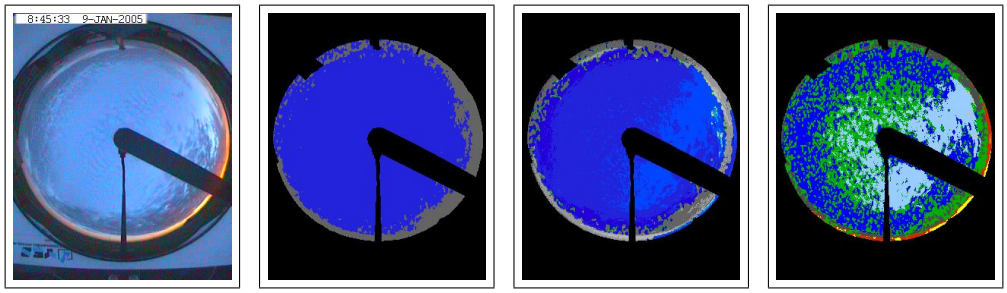


(v) 0501082230 (vi) 0501082230 Long (vii) 0501082230 EGD (viii) 0501082230 MAHA

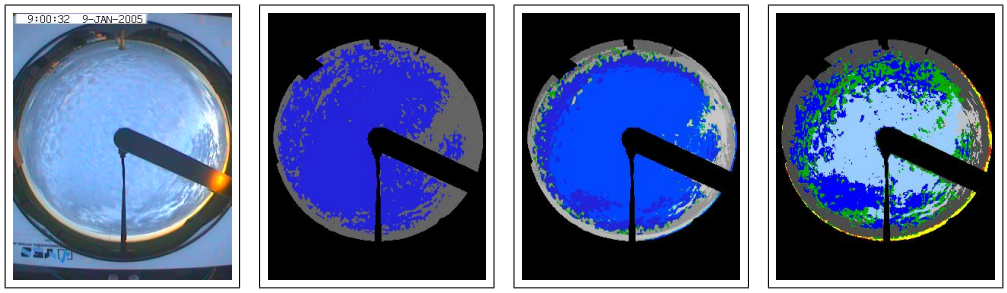


(ix) 0501082245

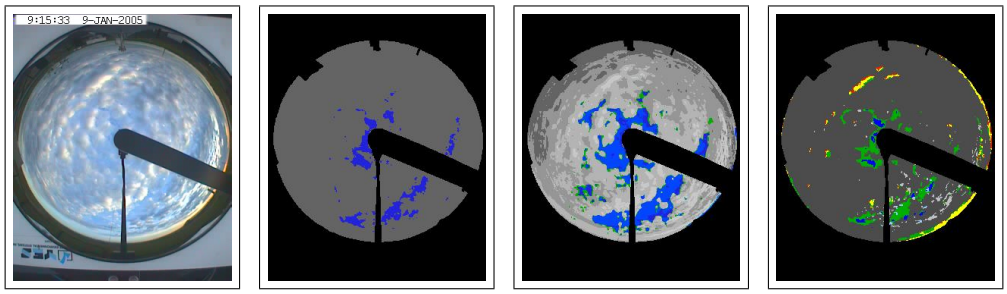
Figure A.97 - Sky images generated from 0501081600 to 0501082245.



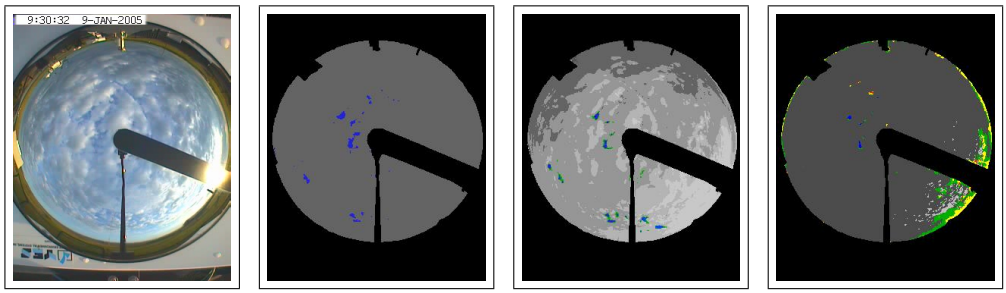
(i) 0501090845 (ii) 0501090845 Long (iii) 0501090845 EGD (iv) 0501090845 MAHA



(v) 0501090900 (vi) 0501090900 Long (vii) 0501090900 EGD (viii) 0501090900 MAHA

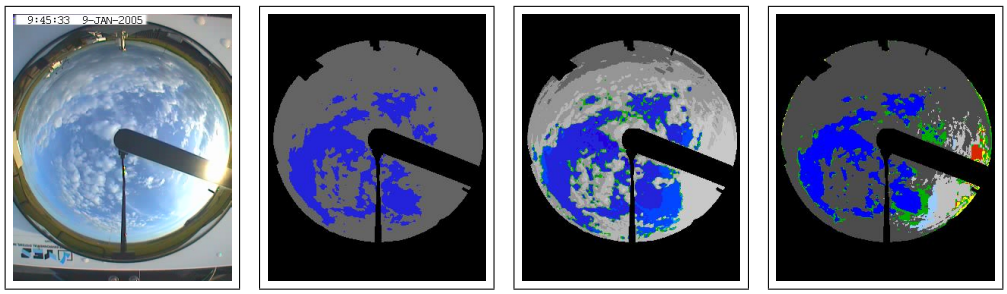


(ix) 0501090915 (x) 0501090915 Long (xi) 0501090915 EGD (xii) 0501090915 MAHA

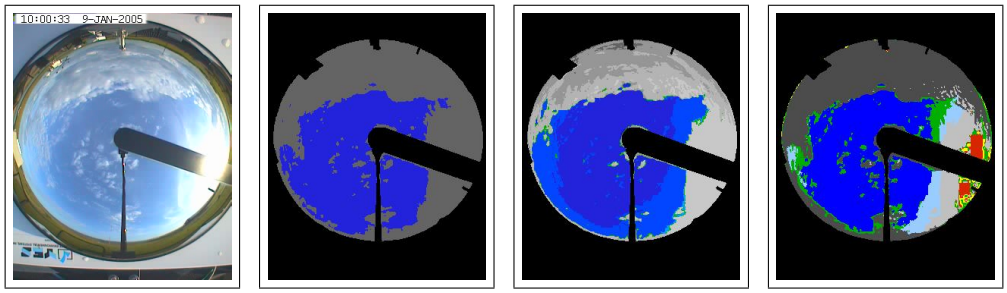


(xiii) 0501090930 (xiv) 0501090930 Long (xv) 0501090930 EGD (xvi) 0501090930 MAHA

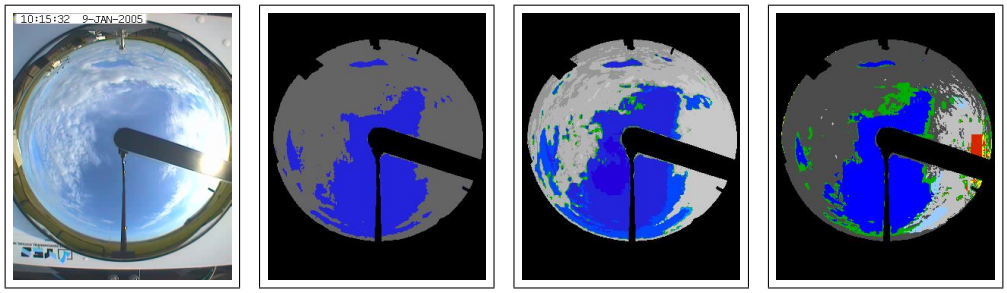
Figure A.98 - Sky images generated from 0501090845 to 0501090930.



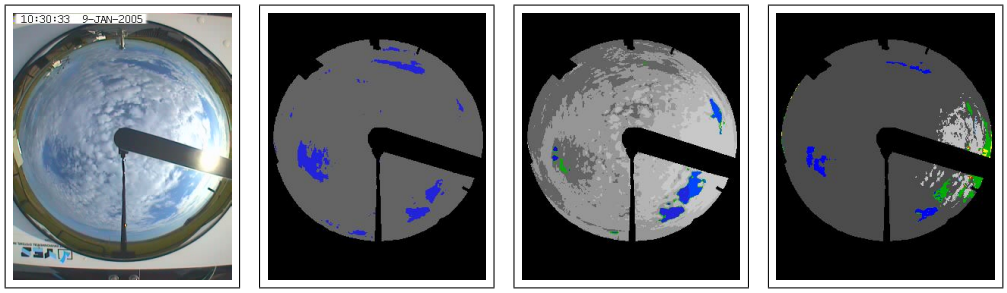
(i) 0501090945 (ii) 0501090945 Long (iii) 0501090945 EGD (iv) 0501090945 MAHA



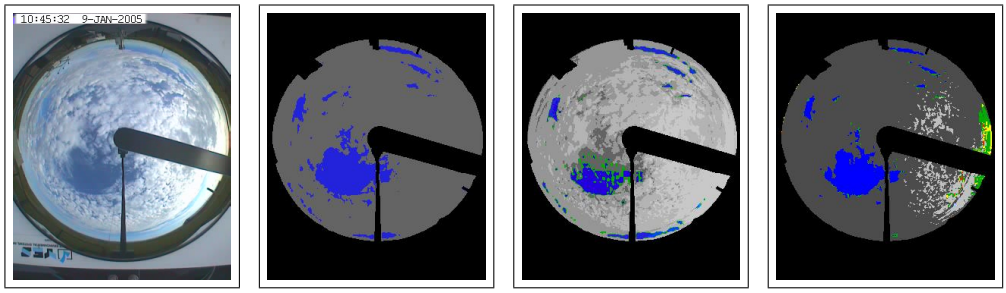
(v) 050109000 (vi) 050109000 Long (vii) 050109000 EGD (viii) 050109000 MAHA



(ix) 0501091015 (x) 0501091015 Long (xi) 0501091015 EGD (xii) 0501091015 MAHA

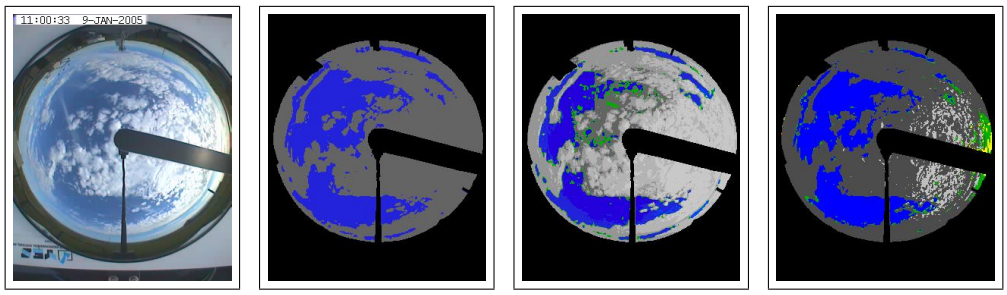


(xiii) 0501091030 (xiv) 0501091030 Long (xv) 0501091030 EGD (xvi) 0501091030 MAHA

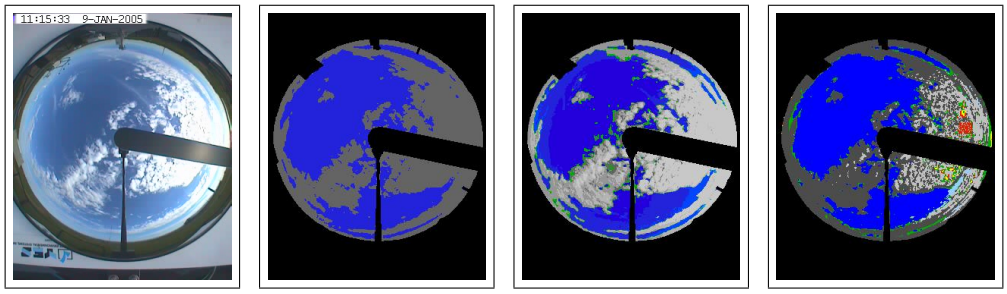


(xvii) 0501091045 (xviii) 0501091045 Long (xix) 0501091045 EGD (xx) 0501091045 MAHA

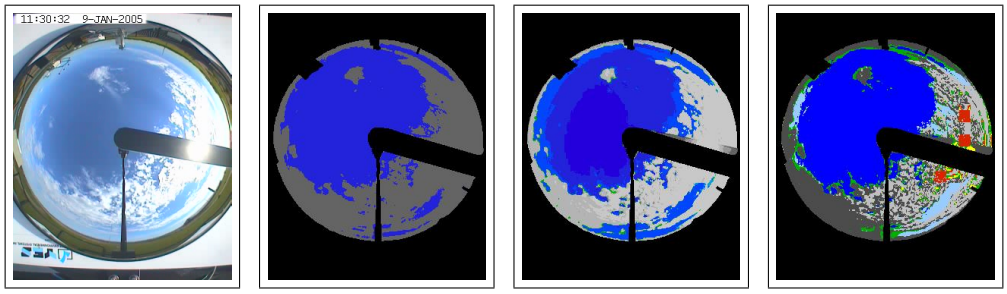
Figure A.99 - Sky images generated from 0501090945 to 0501091045.



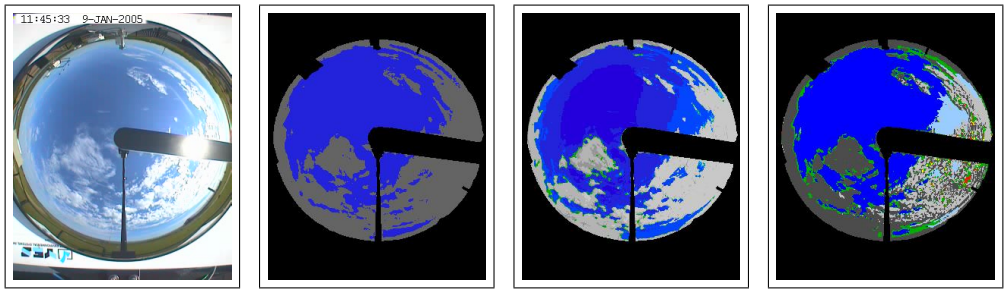
(i) 0501091100 (ii) 0501091100 Long (iii) 0501091100 EGD (iv) 0501091100 MAHA



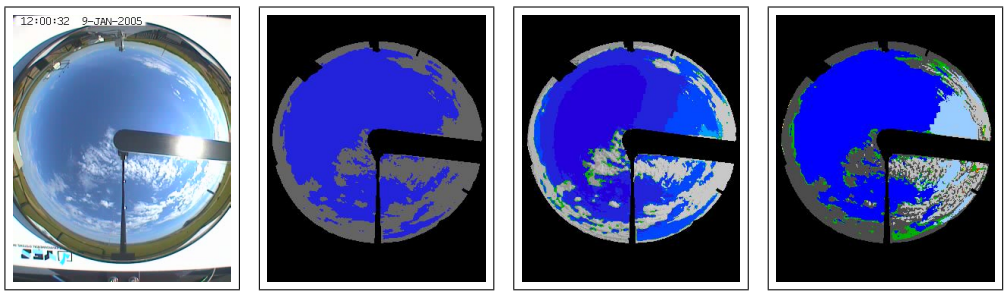
(v) 0501091115 (vi) 0501091115 Long (vii) 0501091115 EGD (viii) 0501091115 MAHA



(ix) 0501091130 (x) 0501091130 Long (xi) 0501091130 EGD (xii) 0501091130 MAHA

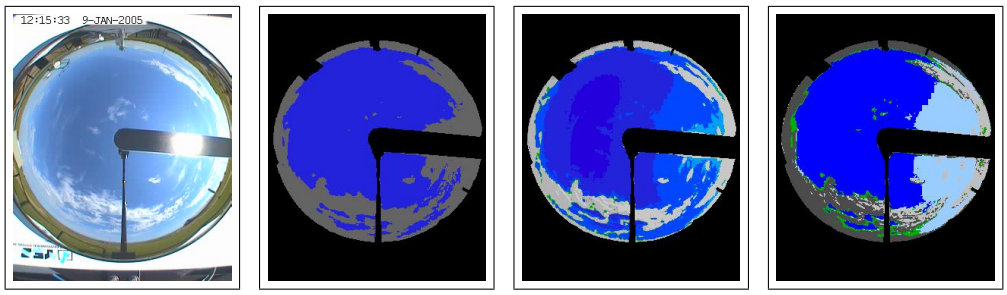


(xiii) 0501091145 (xiv) 0501091145 Long (xv) 0501091145 EGD (xvi) 0501091145 MAHA

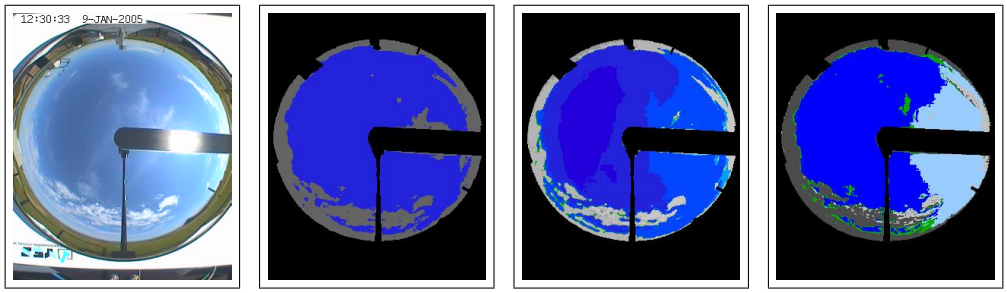


(xvii) 0501091200 (xviii) 0501091200 Long (xix) 0501091200 EGD (xx) 0501091200 MAHA

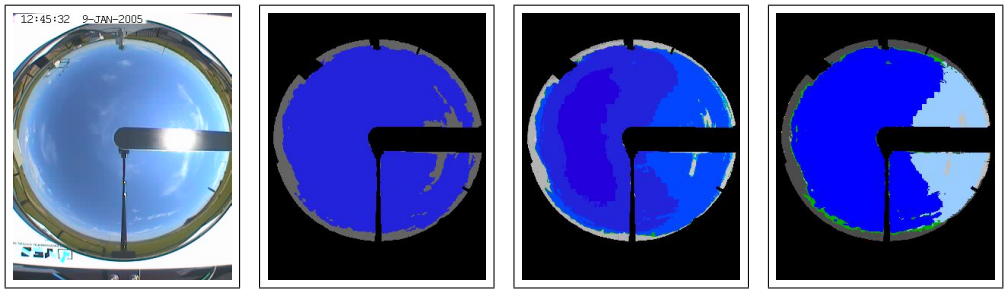
Figure A.100 - Sky images generated from 050109100 to 0501091200.



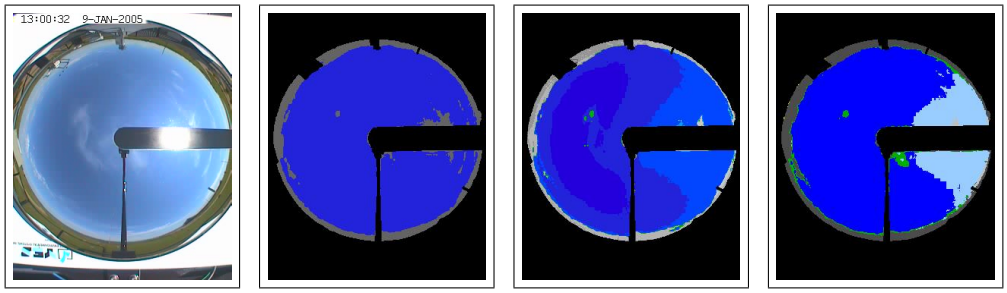
(i) 0501091215 (ii) 0501091215 Long (iii) 0501091215 EGD (iv) 0501091215 MAHA



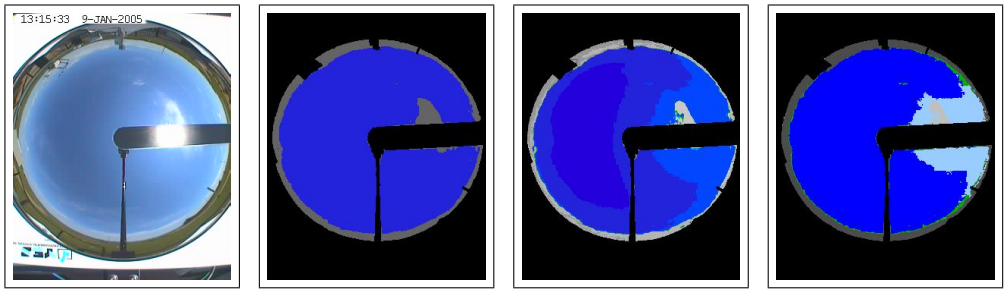
(v) 0501091230 (vi) 0501091230 Long (vii) 0501091230 EGD (viii) 0501091230 MAHA



(ix) 0501091245 (x) 0501091245 Long (xi) 0501091245 EGD (xii) 0501091245 MAHA

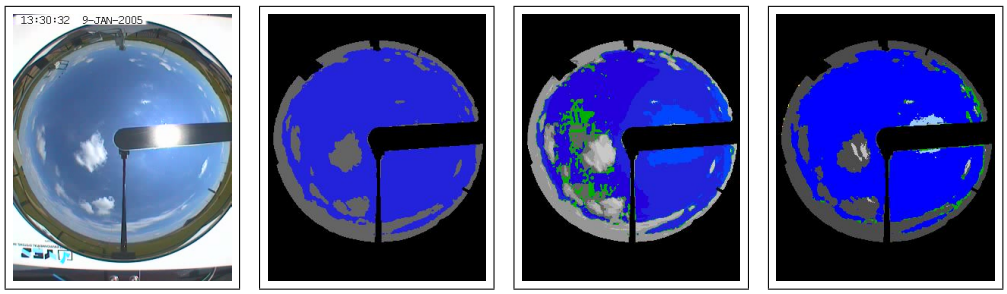


(xiii) 0501091300 (xiv) 0501091300 Long (xv) 0501091300 EGD (xvi) 0501091300 MAHA

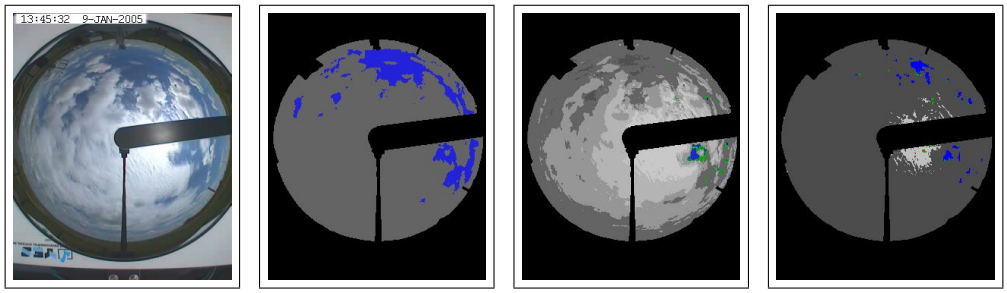


(xvii) 0501091315 (xviii) 0501091315 Long (xix) 0501091315 EGD (xx) 0501091315 MAHA

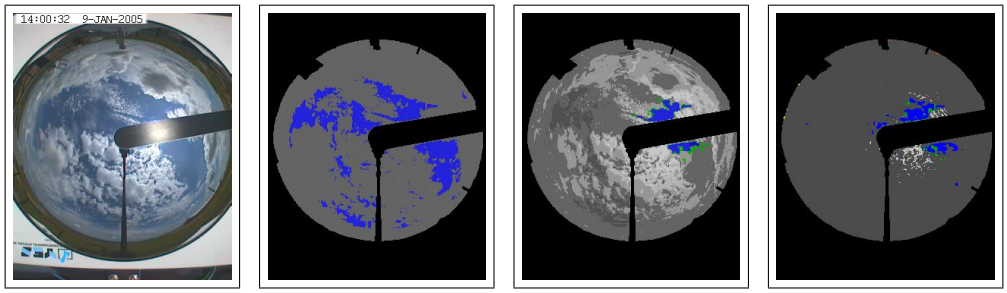
Figure A.101 - Sky images generated from 0501091215 to 0501091315.



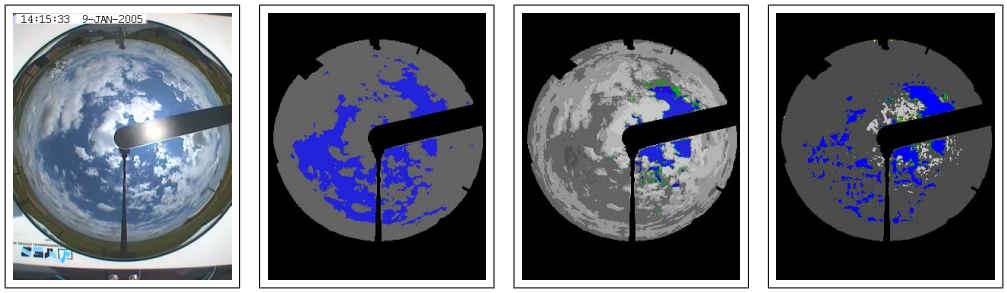
(i) 0501091330 (ii) 0501091330 Long (iii) 0501091330 EGD (iv) 0501091330 MAHA



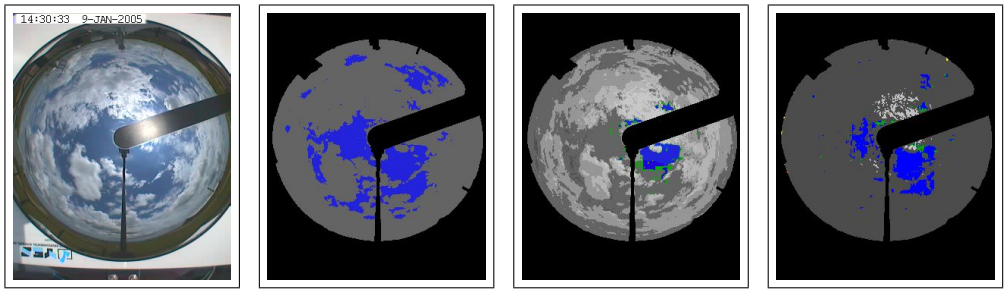
(v) 0501091345 (vi) 0501091345 Long (vii) 0501091345 EGD (viii) 0501091345 MAHA



(ix) 0501091400 (x) 0501091400 Long (xi) 0501091400 EGD (xii) 0501091400 MAHA

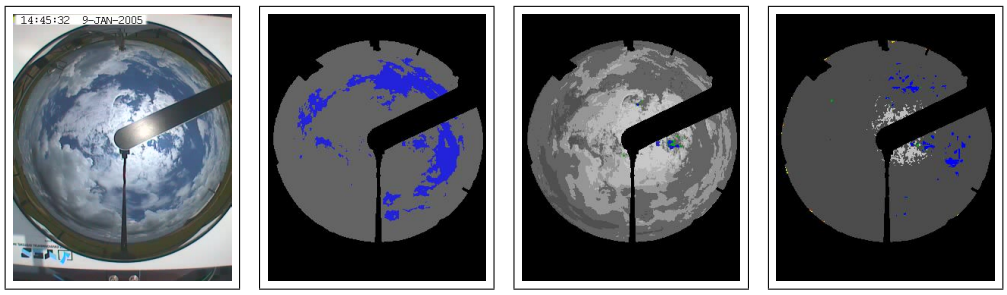


(xiii) 0501091415 (xiv) 0501091415 Long (xv) 0501091415 EGD (xvi) 0501091415 MAHA

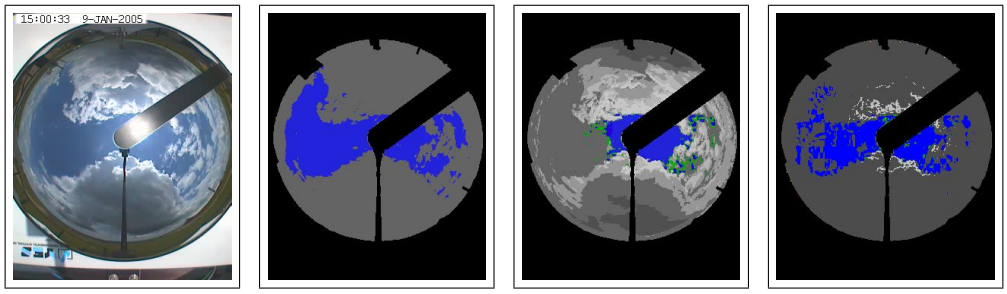


(xvii) 0501091430 (xviii) 0501091430 Long (xix) 0501091430 EGD (xx) 0501091430 MAHA

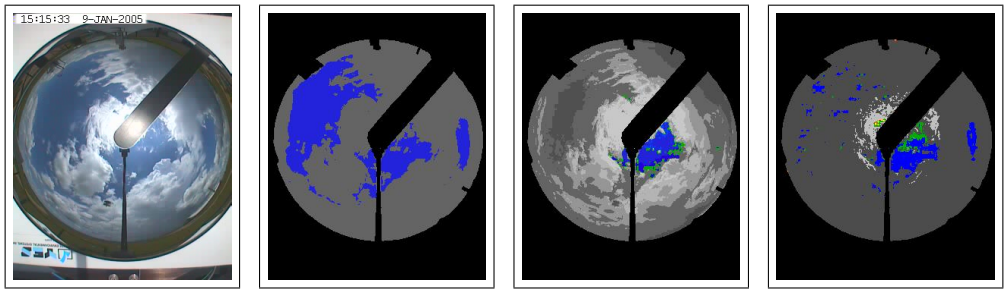
Figure A.102 - Sky images generated from 0501091330 to 0501091430.



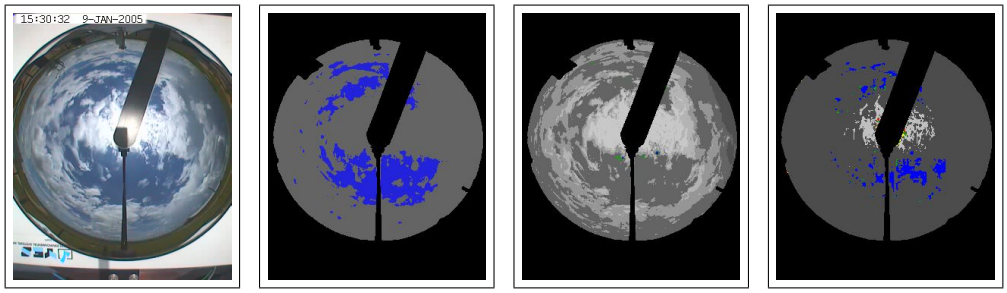
(i) 0501091445 (ii) 0501091445 Long (iii) 0501091445 EGD (iv) 0501091445 MAHA



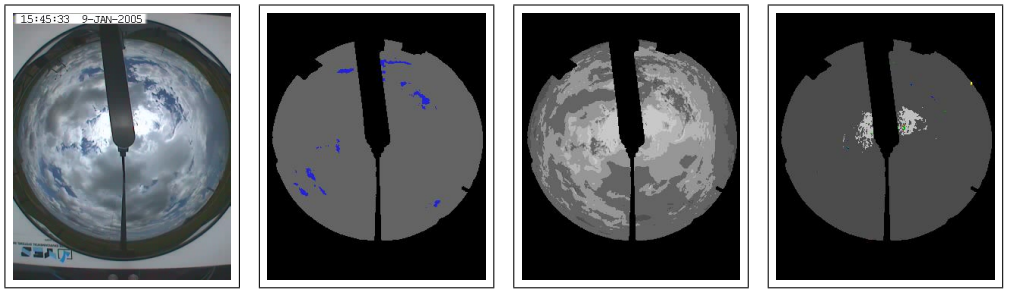
(v) 0501091500 (vi) 0501091500 Long (vii) 0501091500 EGD (viii) 0501091500 MAHA



(ix) 0501091515 (x) 0501091515 Long (xi) 0501091515 EGD (xii) 0501091515 MAHA

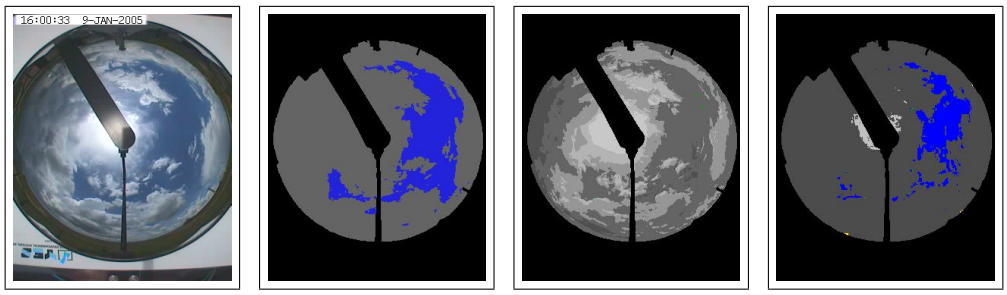


(xiii) 0501091530 (xiv) 0501091530 Long (xv) 0501091530 EGD (xvi) 0501091530 MAHA

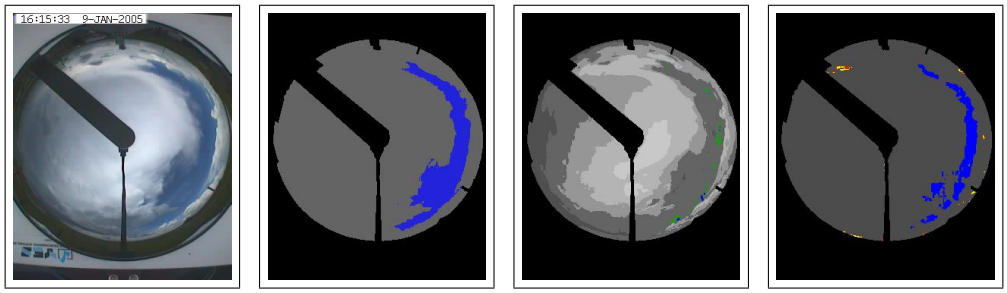


(xvii) 0501091545 (xviii) 0501091545 Long (xix) 0501091545 EGD (xx) 0501091545 MAHA

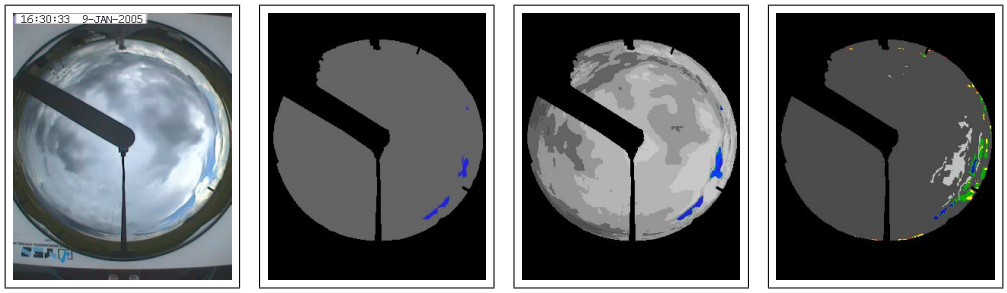
Figure A.103 - Sky images generated from 0501091445 to 0501091545.



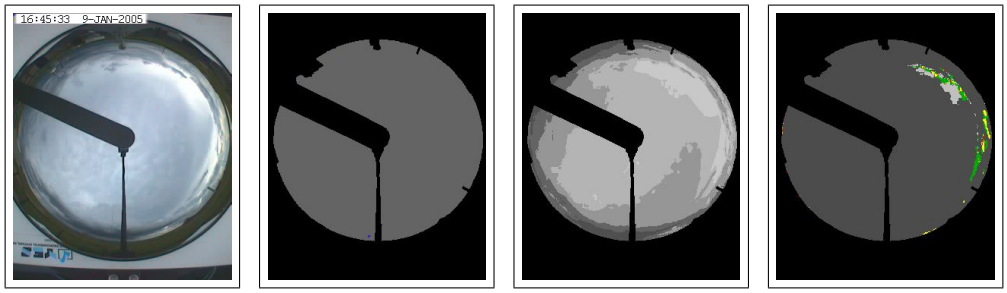
(i) 0501091600 (ii) 0501091600 Long (iii) 0501091600 EGD (iv) 0501091600 MAHA



(v) 0501091615 (vi) 0501091615 Long (vii) 0501091615 EGD (viii) 0501091615 MAHA



(ix) 0501091630 (x) 0501091630 Long (xi) 0501091630 EGD (xii) 0501091630 MAHA

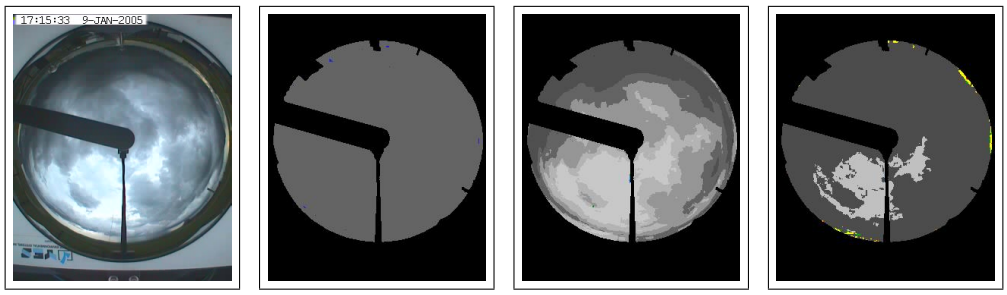


(xiii) 0501091645 (xiv) 0501091645 Long (xv) 0501091645 EGD (xvi) 0501091645 MAHA

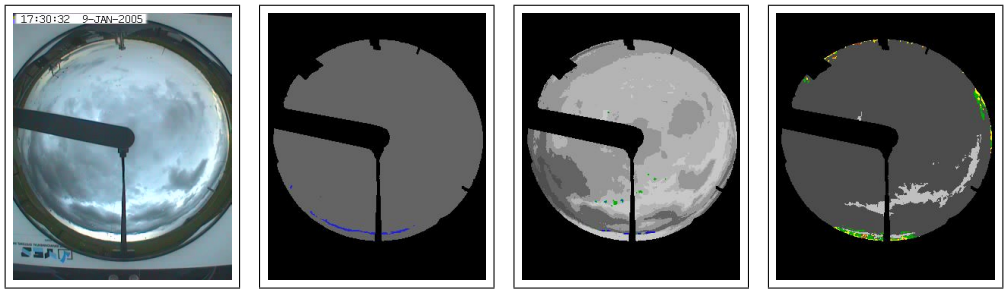


(xvii) 0501091700 (xviii) 0501091700 Long (xix) 0501091700 EGD (xx) 0501091700 MAHA

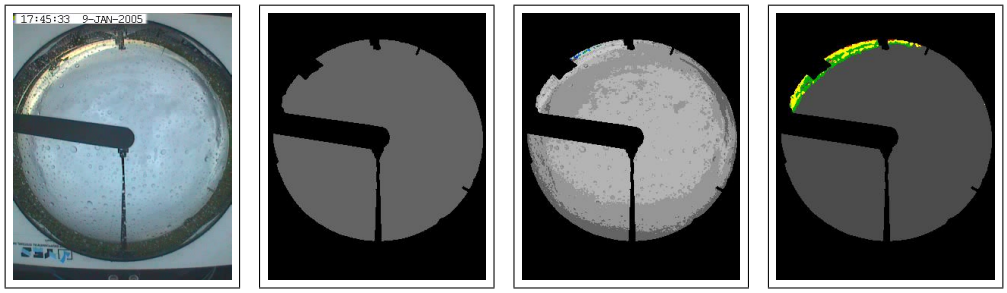
Figure A.104 - Sky images generated from 0501091600 to 0501091700.



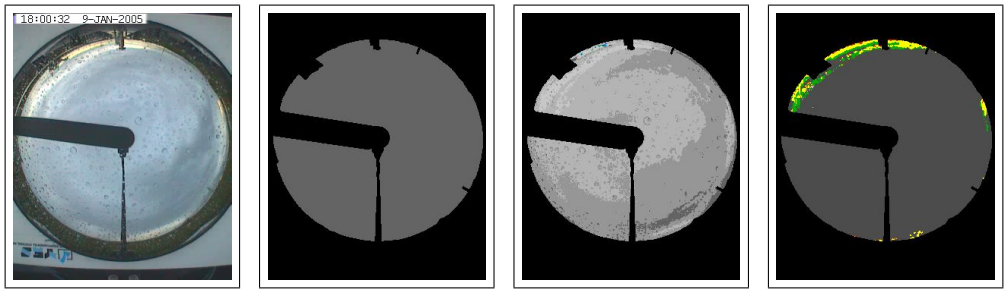
(i) 0501091715 (ii) 0501091715 Long (iii) 0501091715 EGD (iv) 0501091715 MAHA



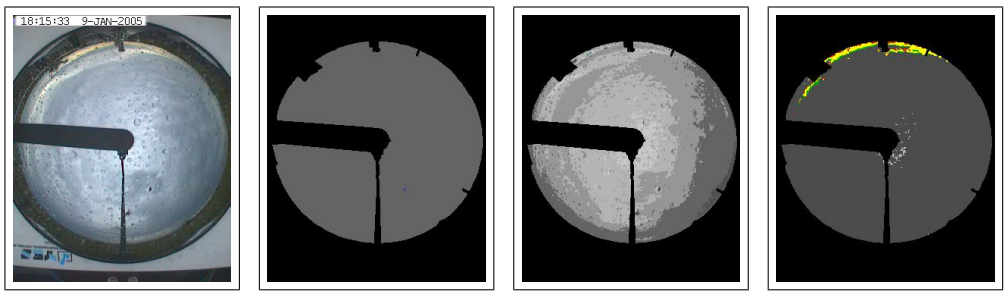
(v) 0501091730 (vi) 0501091730 Long (vii) 0501091730 EGD (viii) 0501091730 MAHA



(ix) 0501091745 (x) 0501091745 Long (xi) 0501091745 EGD (xii) 0501091745 MAHA

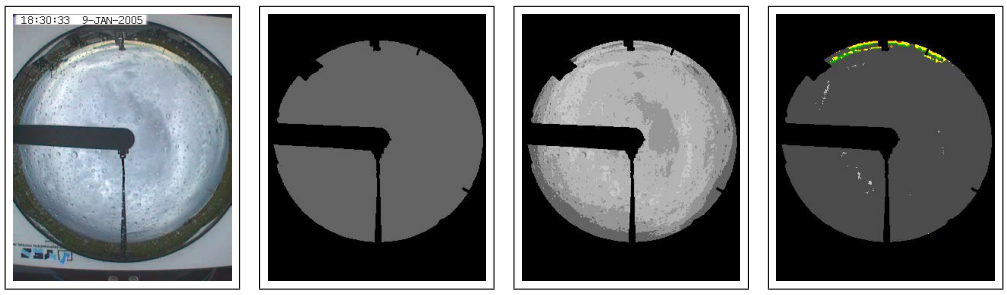


(xiii) 0501091800 (xiv) 0501091800 Long (xv) 0501091800 EGD (xvi) 0501091800 MAHA

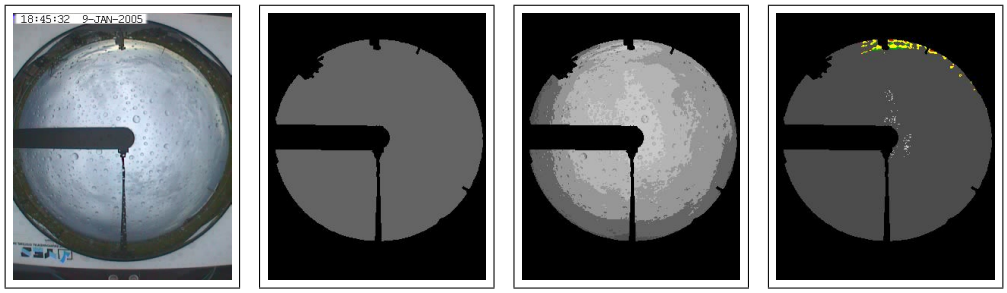


(xvii) 0501091815 (xviii) 0501091815 Long (xix) 0501091815 EGD (xx) 0501091815 MAHA

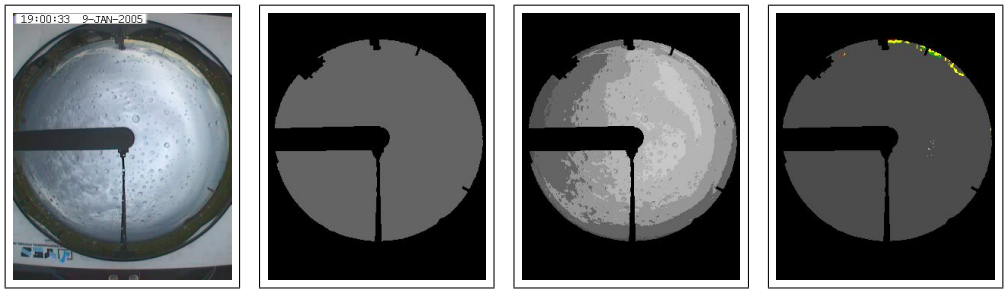
Figure A.105 - Sky images generated from 0501091715 to 0501091815.



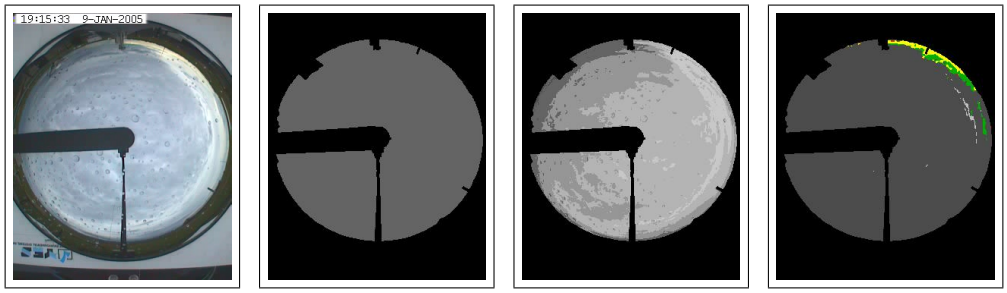
(i) 0501091830 (ii) 0501091830 Long (iii) 0501091830 EGD (iv) 0501091830 MAHA



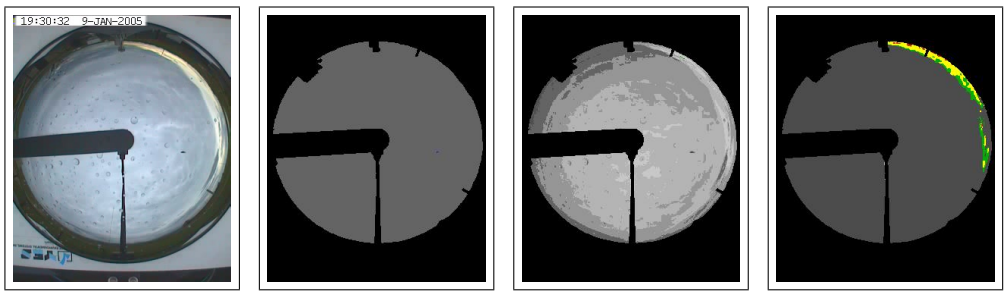
(v) 0501091845 (vi) 0501091845 Long (vii) 0501091845 EGD (viii) 0501091845 MAHA



(ix) 0501091900 (x) 0501091900 Long (xi) 0501091900 EGD (xii) 0501091900 MAHA

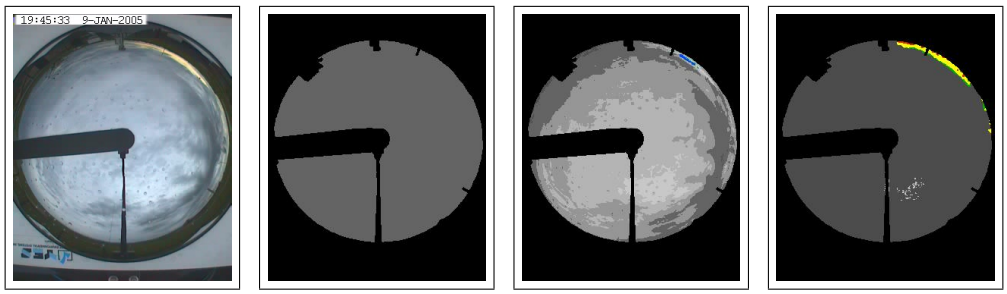


(xiii) 0501091915 (xiv) 0501091915 Long (xv) 0501091915 EGD (xvi) 0501091915 MAHA

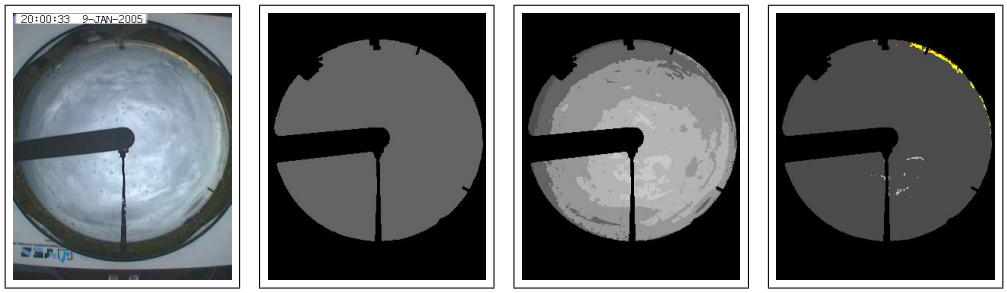


(xvii) 0501091930 (xviii) 0501091930 Long (xix) 0501091930 EGD (xx) 0501091930 MAHA

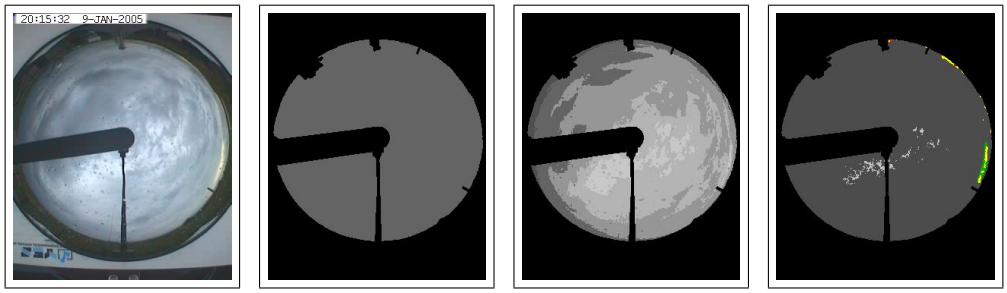
Figure A.106 - Sky images generated from 0501091830 to 0501091930.



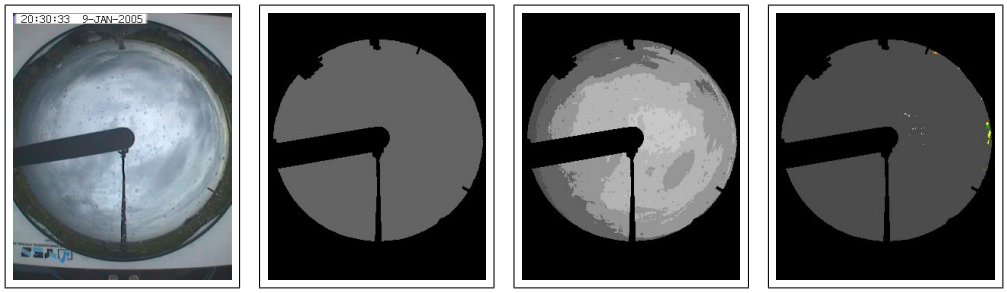
(i) 0501091945 (ii) 0501091945 Long (iii) 0501091945 EGD (iv) 0501091945 MAHA



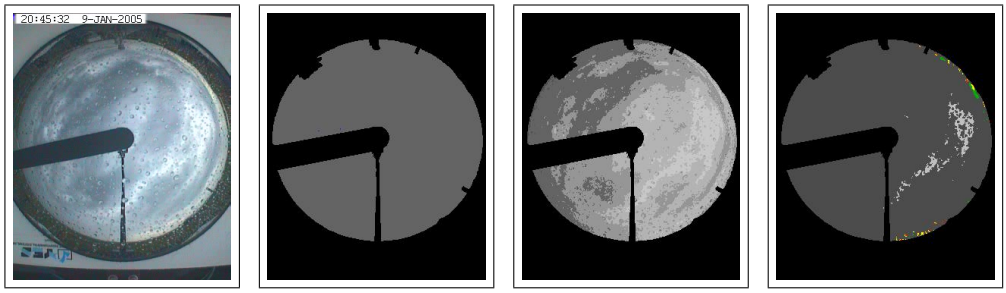
(v) 0501092000 (vi) 0501092000 Long (vii) 0501092000 EGD (viii) 0501092000 MAHA



(ix) 0501092015 (x) 0501092015 Long (xi) 0501092015 EGD (xii) 0501092015 MAHA

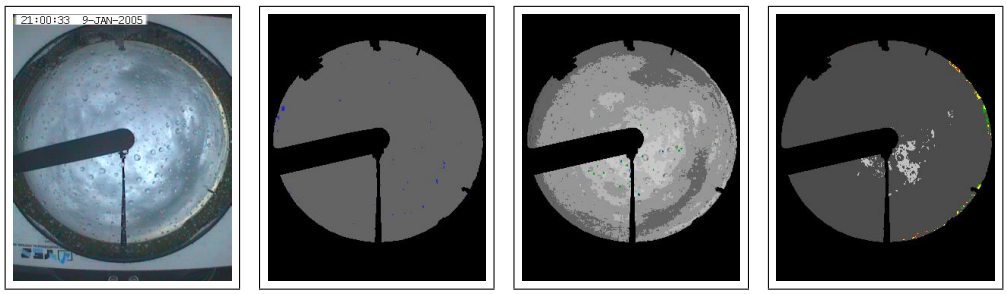


(xiii) 0501092030 (xiv) 0501092030 Long (xv) 0501092030 EGD (xvi) 0501092030 MAHA

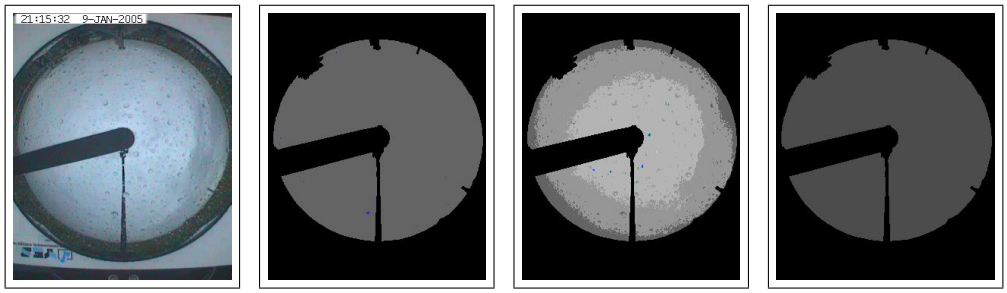


(xvii) 0501092045 (xviii) 0501092045 Long (xix) 0501092045 EGD (xx) 0501092045 MAHA

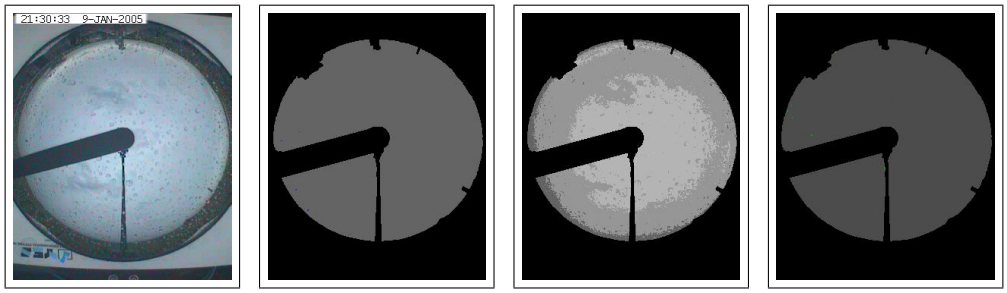
Figure A.107 - Sky images generated from 0501091945 to 0501092045.



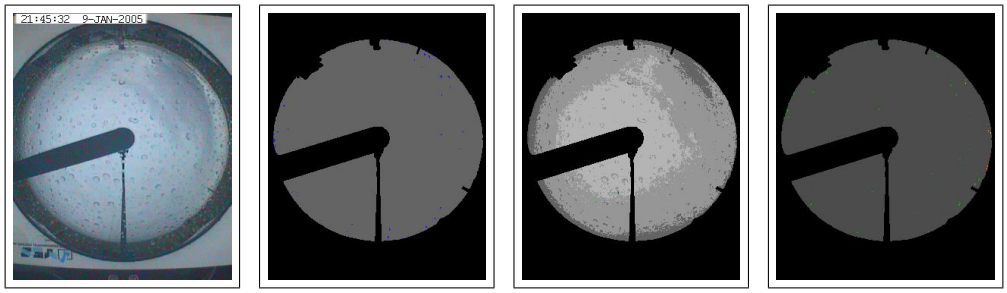
(i) 0501092100 (ii) 0501092100 Long (iii) 0501092100 EGD (iv) 0501092100 MAHA



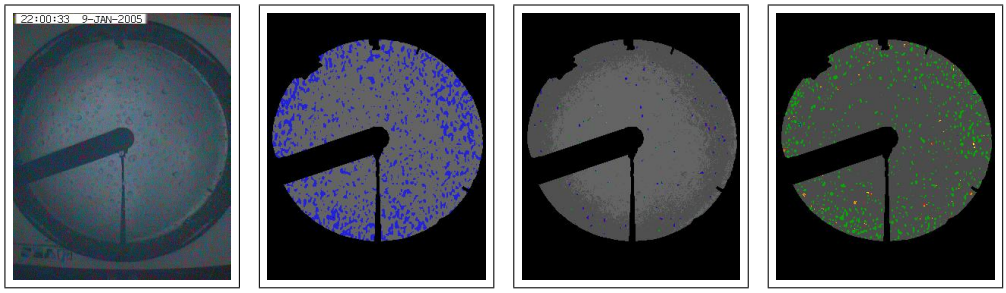
(v) 0501092115 (vi) 0501092115 Long (vii) 0501092115 EGD (viii) 0501092115 MAHA



(ix) 0501092130 (x) 0501092130 Long (xi) 0501092130 EGD (xii) 0501092130 MAHA

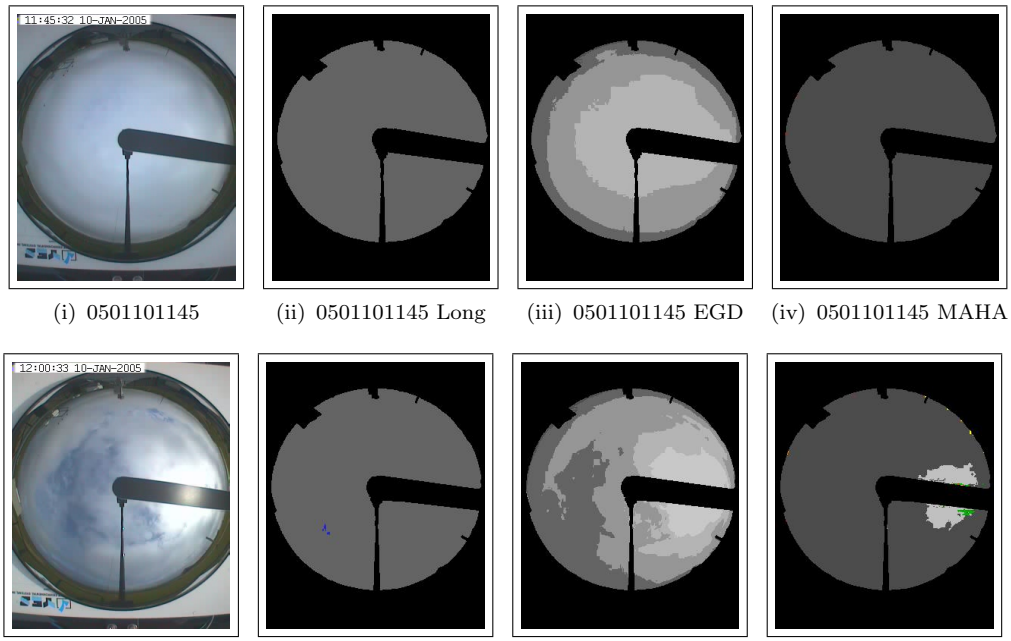


(xiii) 0501092145 (xiv) 0501092145 Long (xv) 0501092145 EGD (xvi) 0501092145 MAHA



(xvii) 0501092200 (xviii) 0501092200 Long (xix) 0501092200 EGD (xx) 0501092200 MAHA

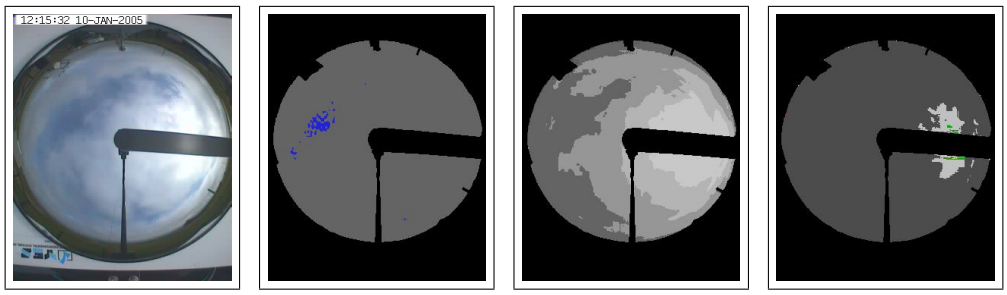
Figure A.108 - Sky images generated from 0501092100 to 0501092200.



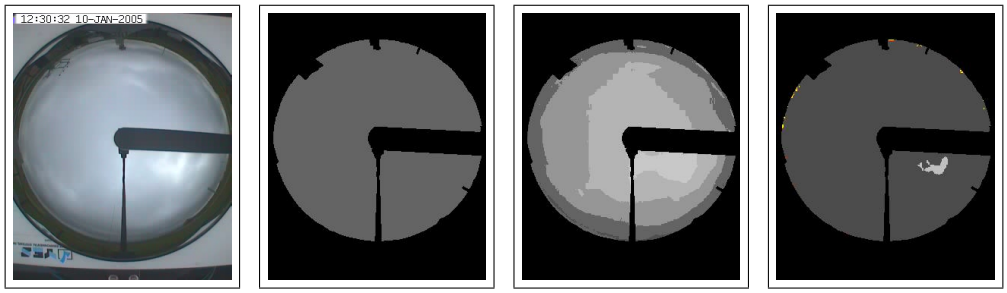
(i) 0501101145 (ii) 0501101145 Long (iii) 0501101145 EGD (iv) 0501101145 MAHA

(v) 0501101200 (vi) 0501101200 Long (vii) 0501101200 EGD (viii) 0501101200 MAHA

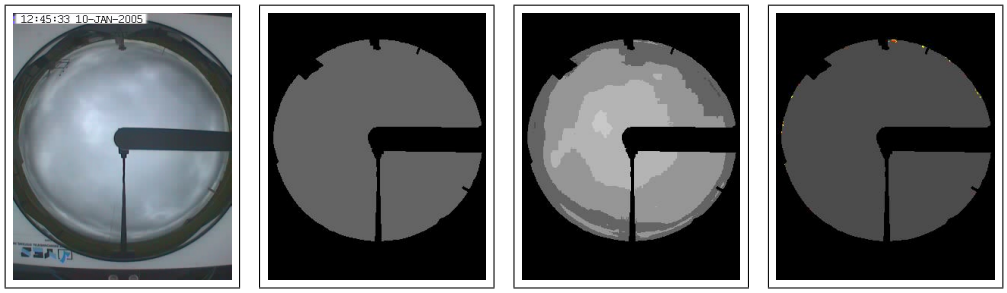
Figure A.109 - Sky images generated from 0501101145 to 0501101200.



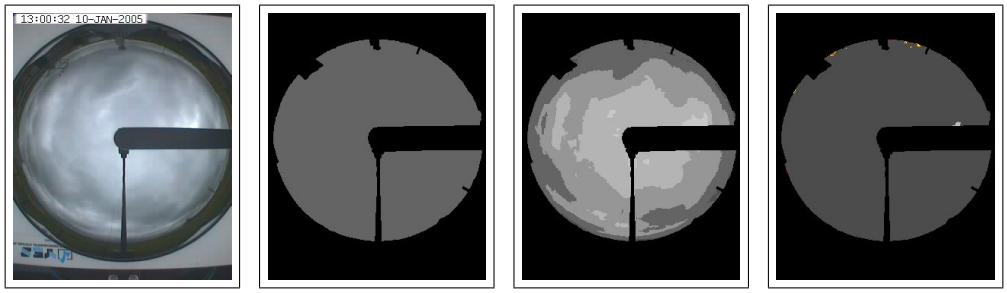
(i) 0501101215 (ii) 0501101215 Long (iii) 0501101215 EGD (iv) 0501101215 MAHA



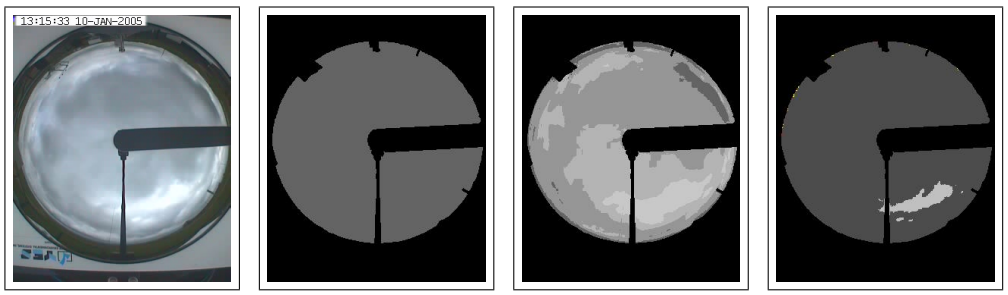
(v) 0501101230 (vi) 0501101230 Long (vii) 0501101230 EGD (viii) 0501101230 MAHA



(ix) 0501101245 (x) 0501101245 Long (xi) 0501101245 EGD (xii) 0501101245 MAHA

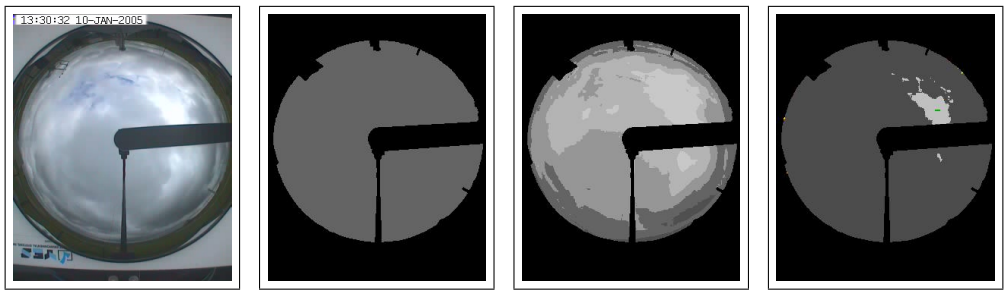


(xiii) 0501101300 (xiv) 0501101300 Long (xv) 0501101300 EGD (xvi) 0501101300 MAHA

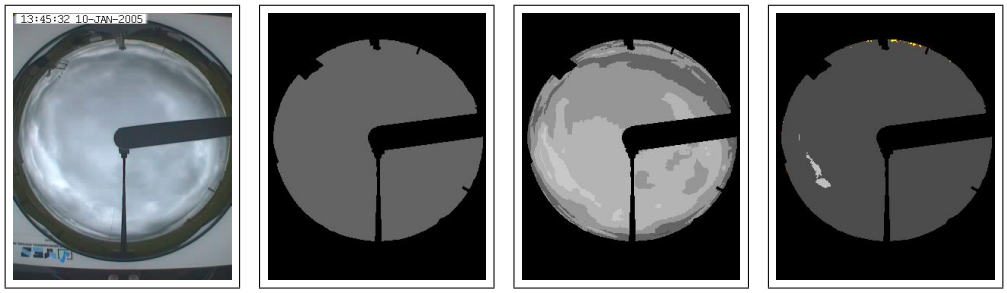


(xvii) 0501101315 (xviii) 0501101315 Long (xix) 0501101315 EGD (xx) 0501101315 MAHA

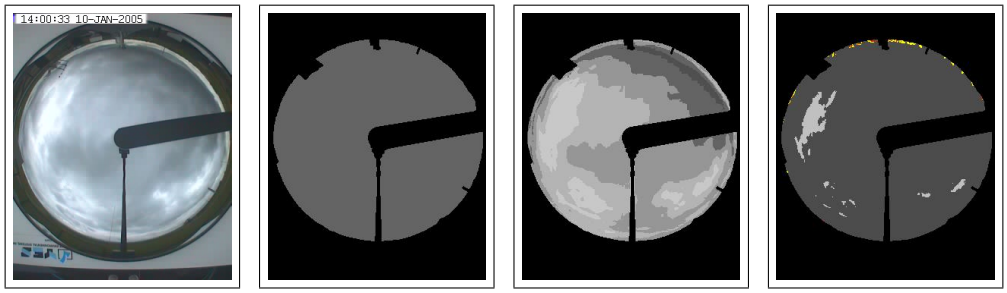
Figure A.110 - Sky images generated from 0501101215 to 0501101315.



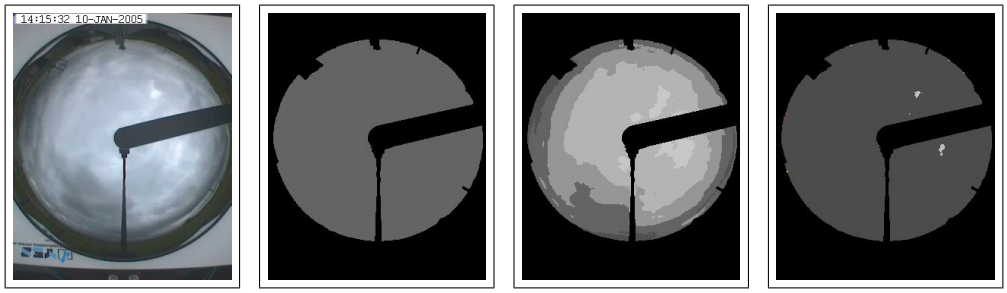
(i) 0501101330 (ii) 0501101330 Long (iii) 0501101330 EGD (iv) 0501101330 MAHA



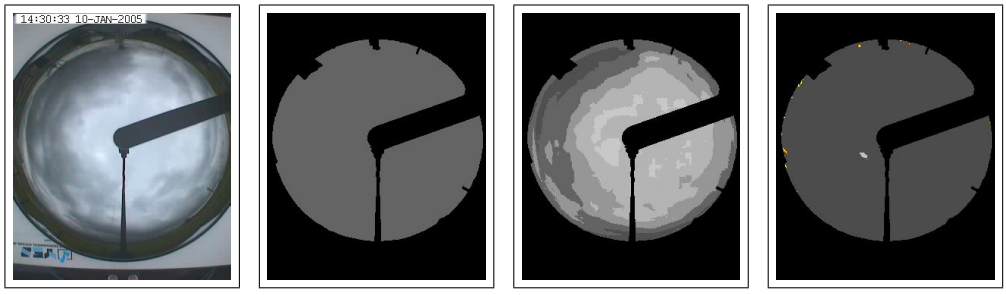
(v) 0501101345 (vi) 0501101345 Long (vii) 0501101345 EGD (viii) 0501101345 MAHA



(ix) 0501101400 (x) 0501101400 Long (xi) 0501101400 EGD (xii) 0501101400 MAHA

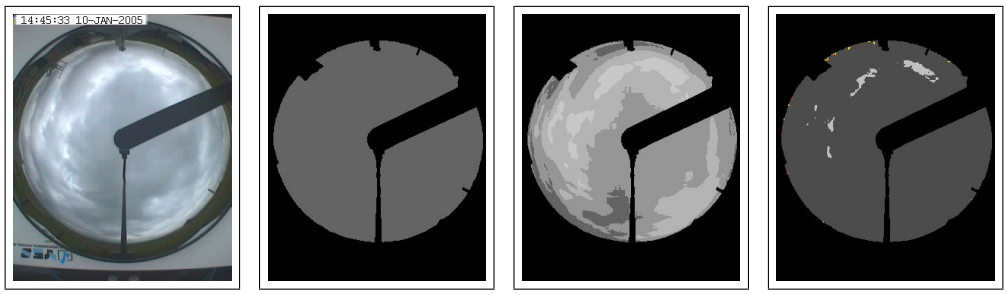


(xiii) 0501101415 (xiv) 0501101415 Long (xv) 0501101415 EGD (xvi) 0501101415 MAHA

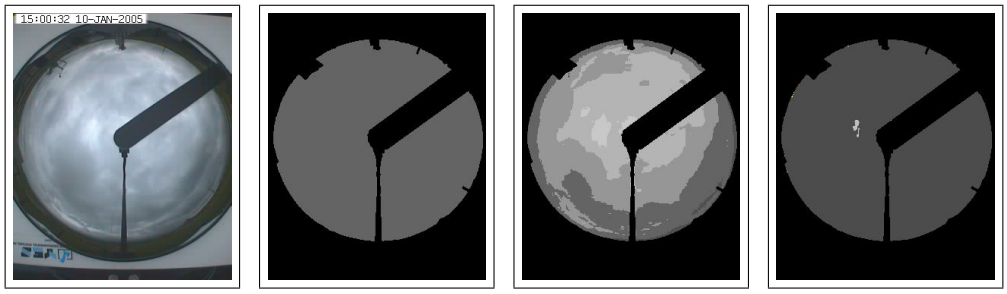


(xvii) 0501101430 (xviii) 0501101430 Long (xix) 0501101430 EGD (xx) 0501101430 MAHA

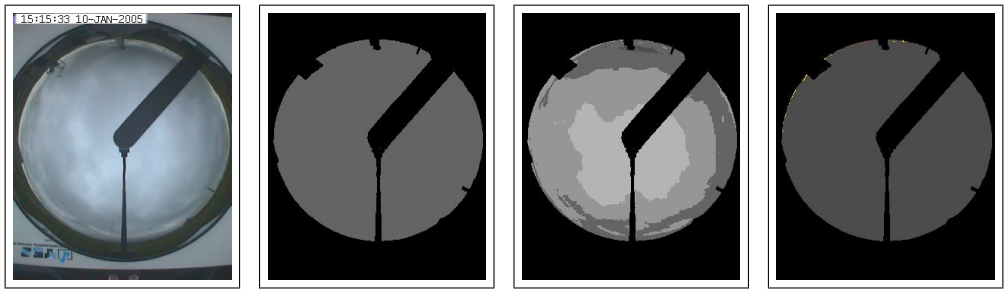
Figure A.111 - Sky images generated from 0501101330 to 0501101430.



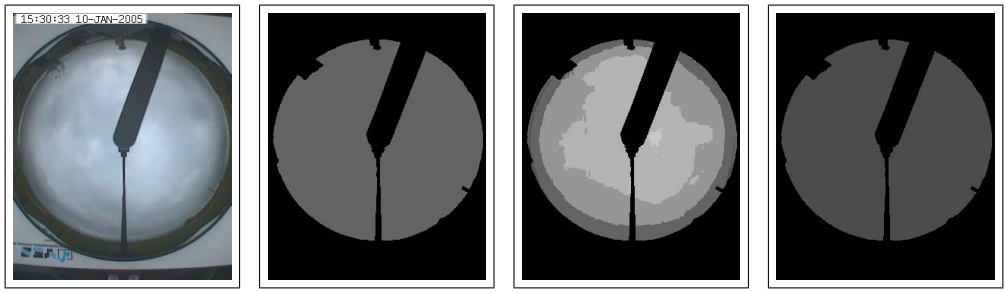
(i) 0501101445 (ii) 0501101445 Long (iii) 0501101445 EGD (iv) 0501101445 MAHA



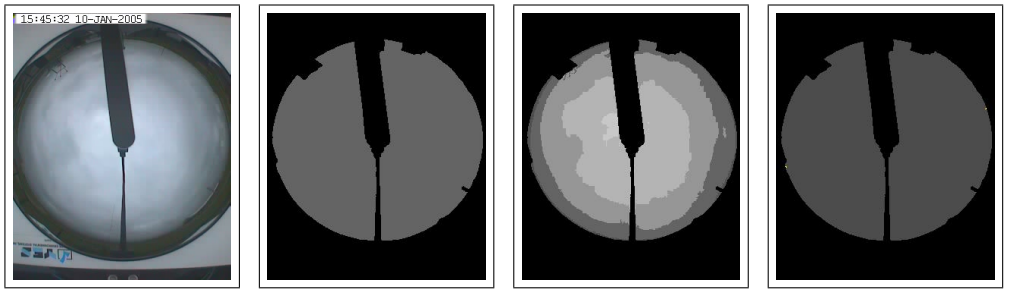
(v) 0501101500 (vi) 0501101500 Long (vii) 0501101500 EGD (viii) 0501101500 MAHA



(ix) 0501101515 (x) 0501101515 Long (xi) 0501101515 EGD (xii) 0501101515 MAHA

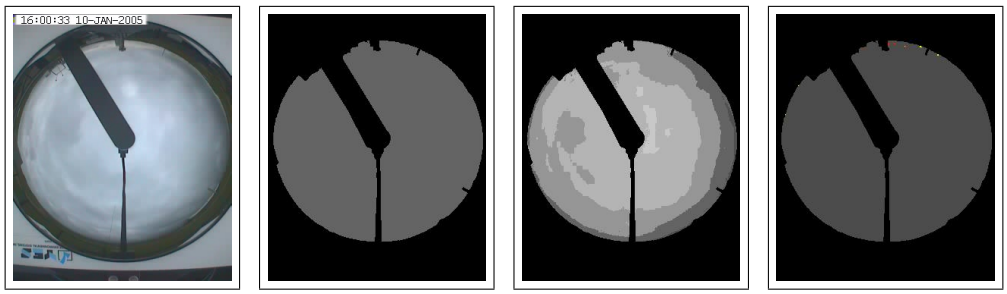


(xiii) 0501101530 (xiv) 0501101530 Long (xv) 0501101530 EGD (xvi) 0501101530 MAHA

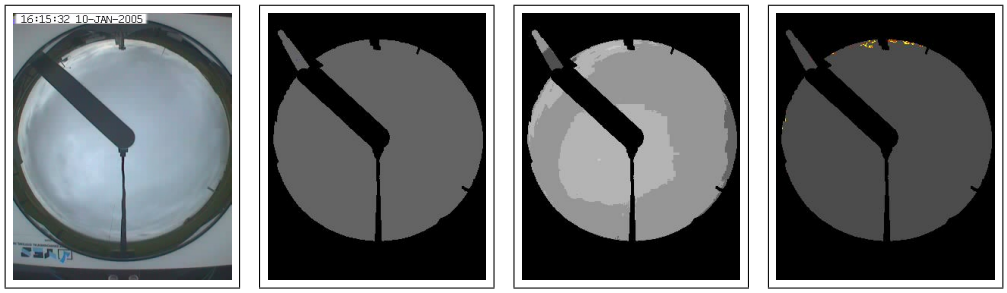


(xvii) 0501101545 (xviii) 0501101545 Long (xix) 0501101545 EGD (xx) 0501101545 MAHA

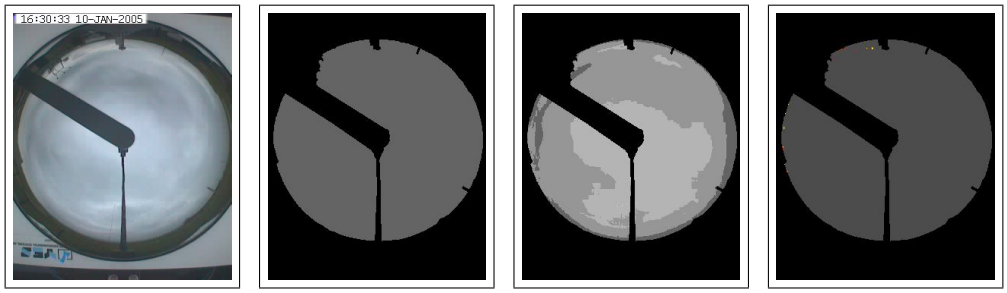
Figure A.112 - Sky images generated from 0501101445 to 0501101545.



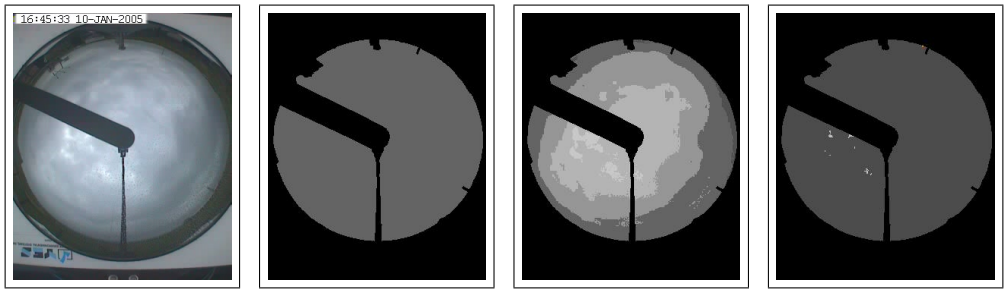
(i) 0501101600 (ii) 0501101600 Long (iii) 0501101600 EGD (iv) 0501101600 MAHA



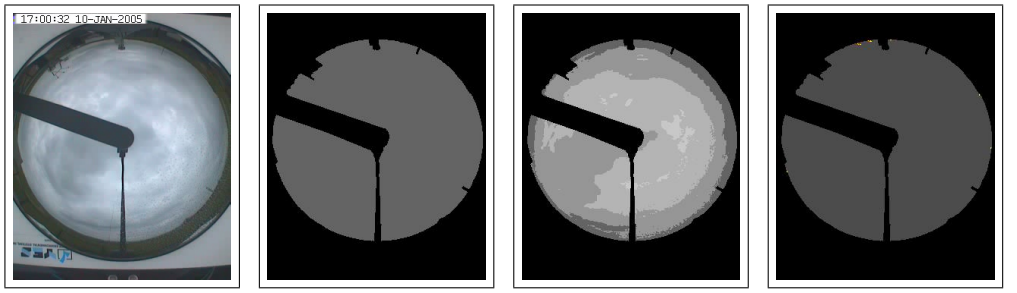
(v) 0501101615 (vi) 0501101615 Long (vii) 0501101615 EGD (viii) 0501101615 MAHA



(ix) 0501101630 (x) 0501101630 Long (xi) 0501101630 EGD (xii) 0501101630 MAHA

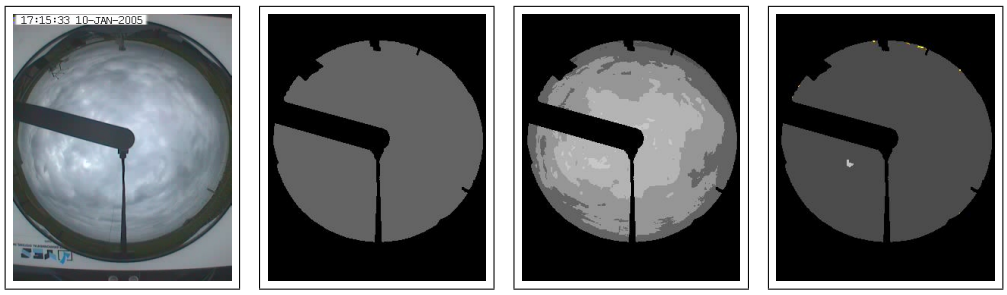


(xiii) 0501101645 (xiv) 0501101645 Long (xv) 0501101645 EGD (xvi) 0501101645 MAHA

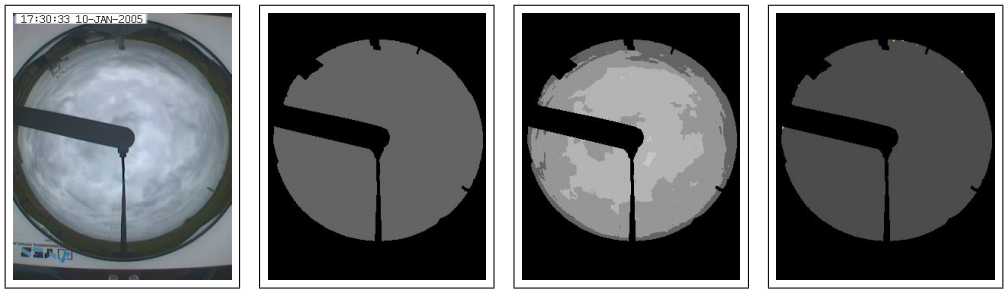


(xvii) 0501101700 (xviii) 0501101700 Long (xix) 0501101700 EGD (xx) 0501101700 MAHA

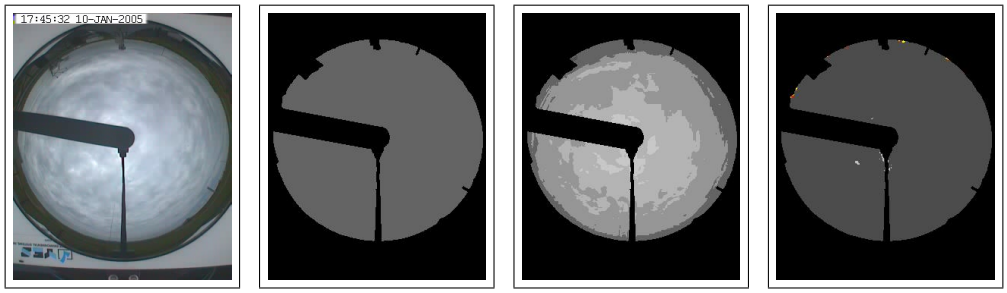
Figure A.113 - Sky images generated from 0501101600 to 0501101700.



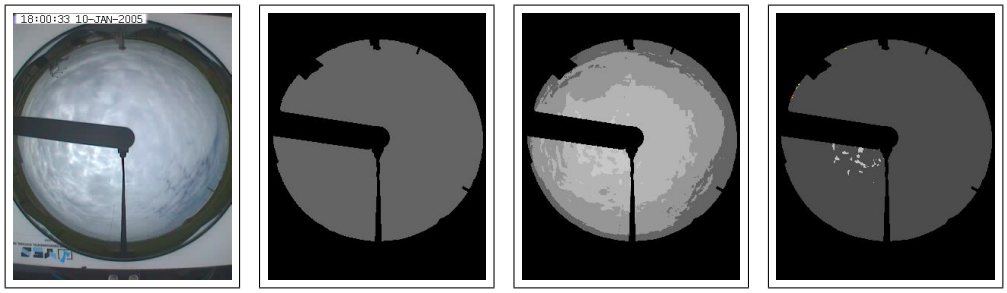
(i) 0501101715 (ii) 0501101715 Long (iii) 0501101715 EGD (iv) 0501101715 MAHA



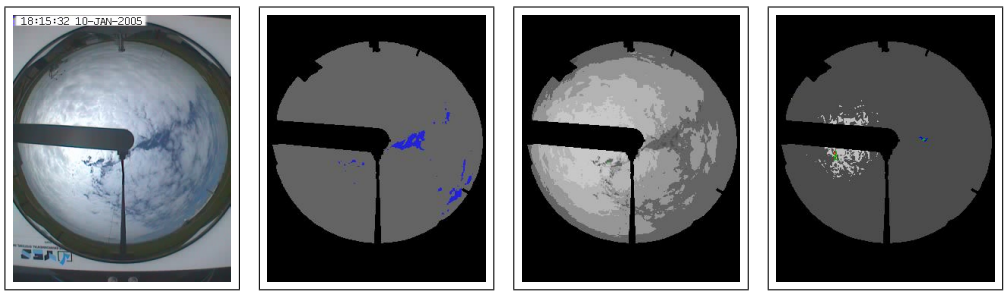
(v) 0501101730 (vi) 0501101730 Long (vii) 0501101730 EGD (viii) 0501101730 MAHA



(ix) 0501101745 (x) 0501101745 Long (xi) 0501101745 EGD (xii) 0501101745 MAHA

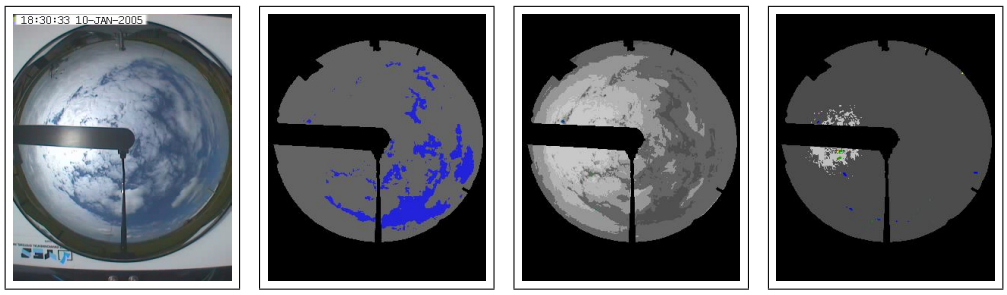


(xiii) 0501101800 (xiv) 0501101800 Long (xv) 0501101800 EGD (xvi) 0501101800 MAHA

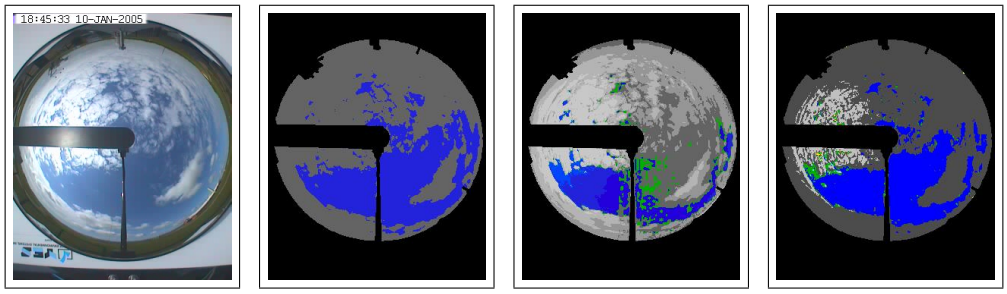


(xvii) 0501101815 (xviii) 0501101815 Long (xix) 0501101815 EGD (xx) 0501101815 MAHA

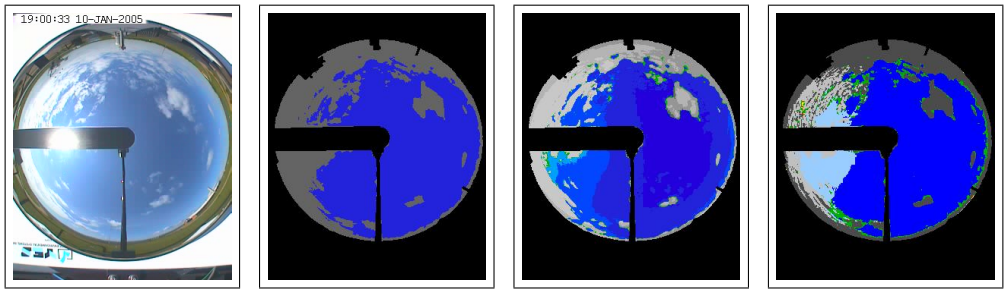
Figure A.114 - Sky images generated from 0501101715 to 0501101815.



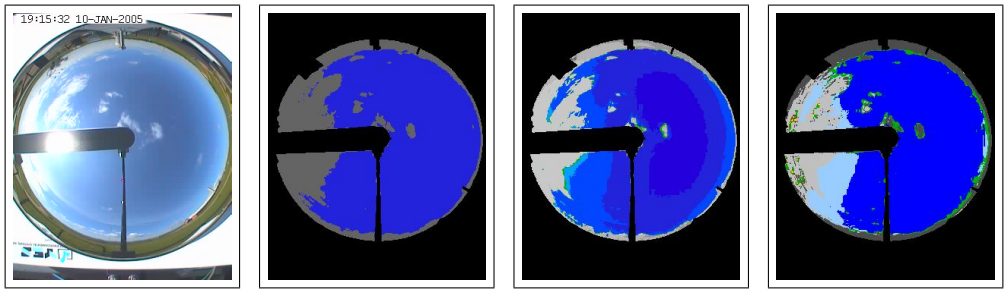
(i) 0501101830 (ii) 0501101830 Long (iii) 0501101830 EGD (iv) 0501101830 MAHA



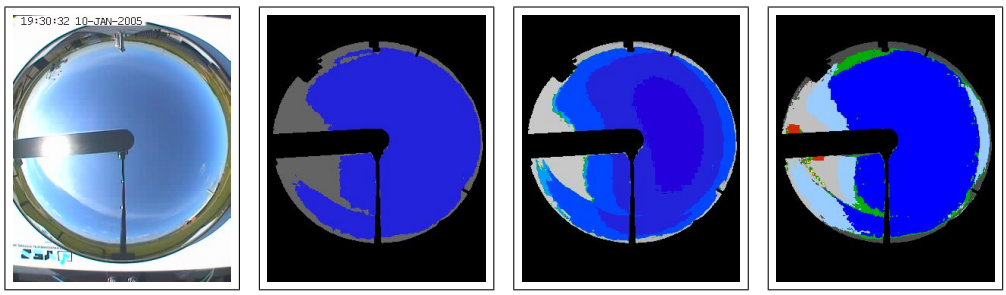
(v) 0501101845 (vi) 0501101845 Long (vii) 0501101845 EGD (viii) 0501101845 MAHA



(ix) 0501101900 (x) 0501101900 Long (xi) 0501101900 EGD (xii) 0501101900 MAHA

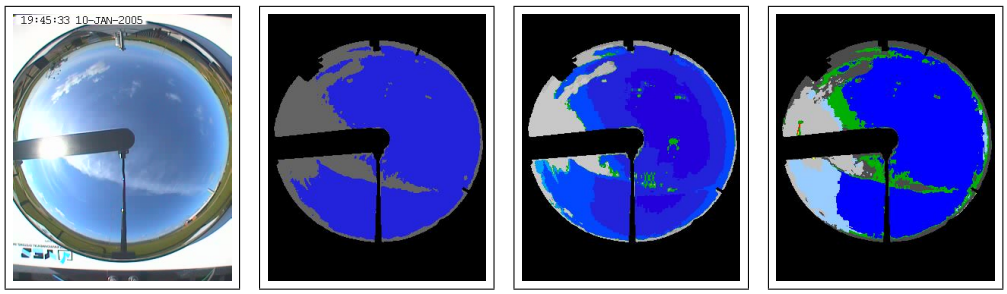


(xiii) 0501101915 (xiv) 0501101915 Long (xv) 0501101915 EGD (xvi) 0501101915 MAHA

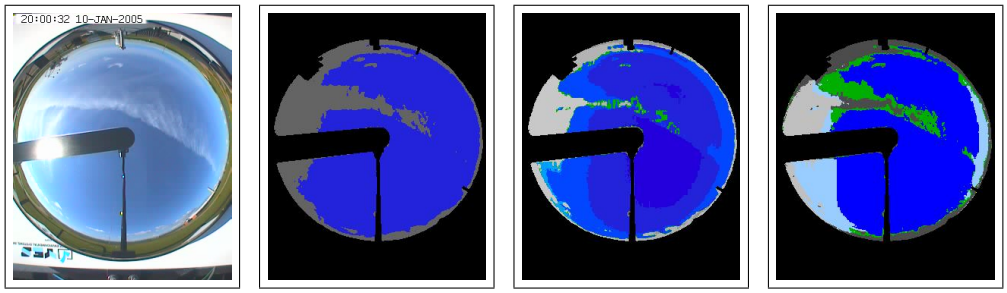


(xvii) 0501101930 (xviii) 0501101930 Long (xix) 0501101930 EGD (xx) 0501101930 MAHA

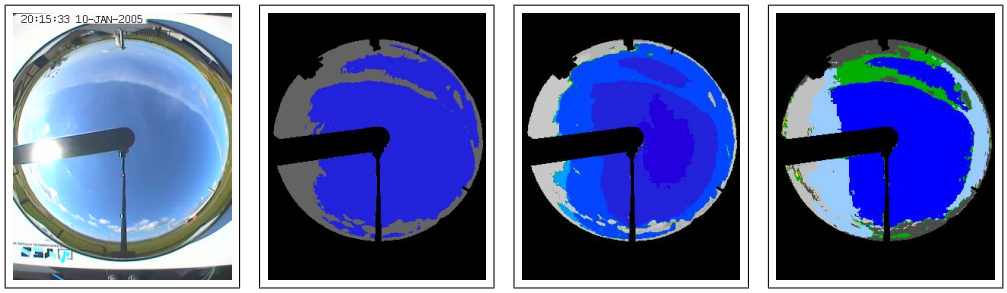
Figure A.115 - Sky images generated from 0501101830 to 0501101930.



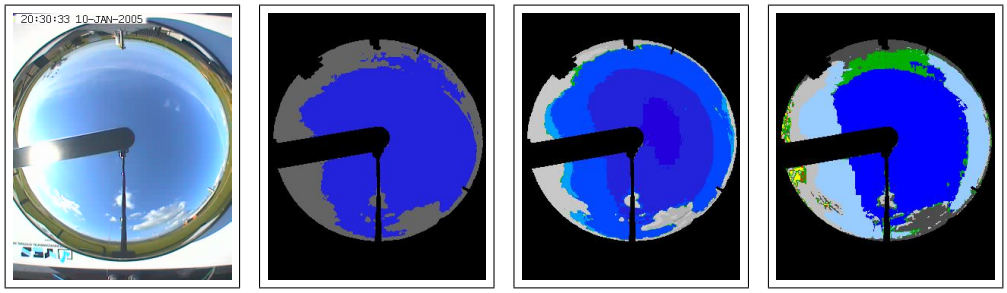
(i) 0501101945 (ii) 0501101945 Long (iii) 0501101945 EGD (iv) 0501101945 MAHA



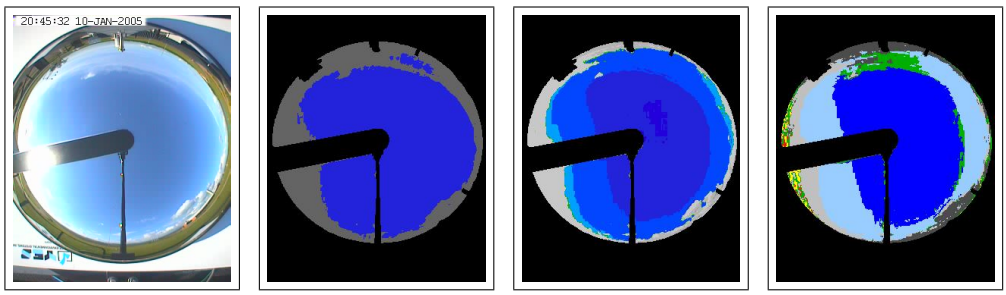
(v) 0501102000 (vi) 0501102000 Long (vii) 0501102000 EGD (viii) 0501102000 MAHA



(ix) 0501102015 (x) 0501102015 Long (xi) 0501102015 EGD (xii) 0501102015 MAHA

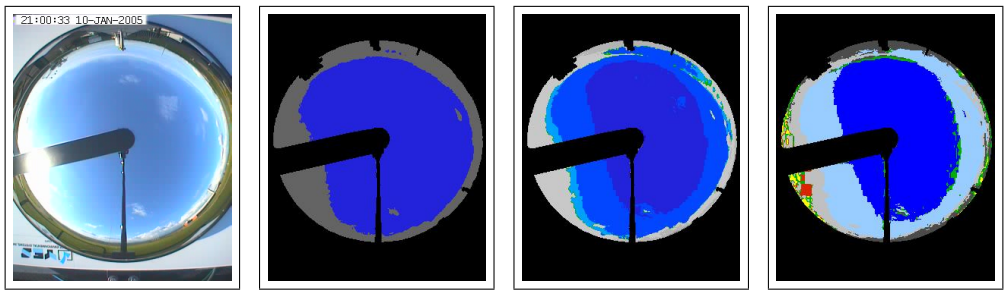


(xiii) 0501102030 (xiv) 0501102030 Long (xv) 0501102030 EGD (xvi) 0501102030 MAHA

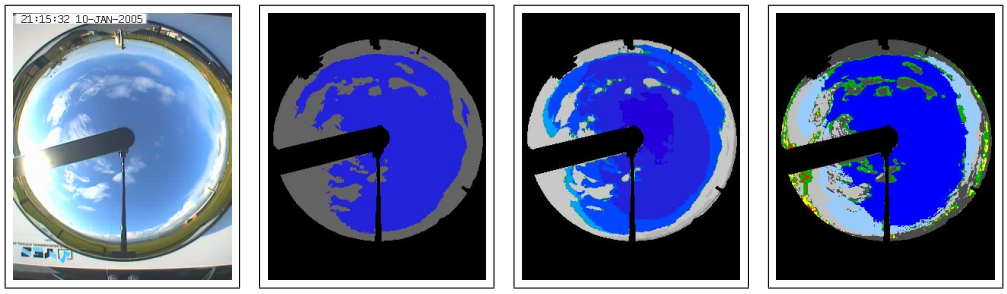


(xvii) 0501102045 (xviii) 0501102045 Long (xix) 0501102045 EGD (xx) 0501102045 MAHA

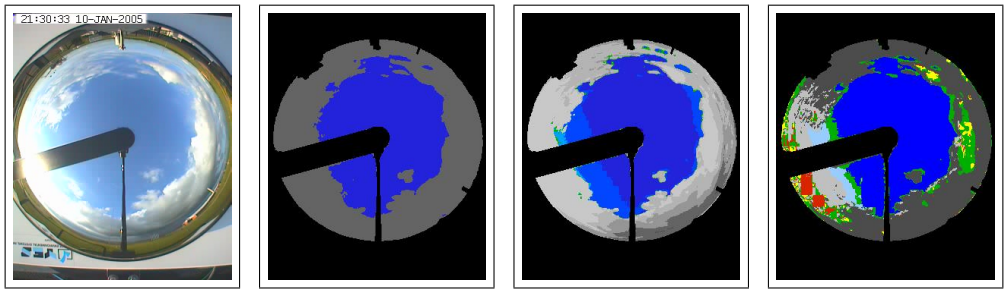
Figure A.116 - Sky images generated from 0501101945 to 0501102045.



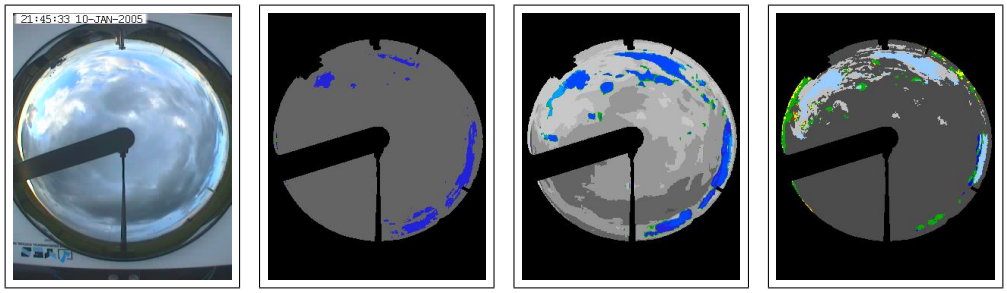
(i) 0501102100 (ii) 0501102100 Long (iii) 0501102100 EGD (iv) 0501102100 MAHA



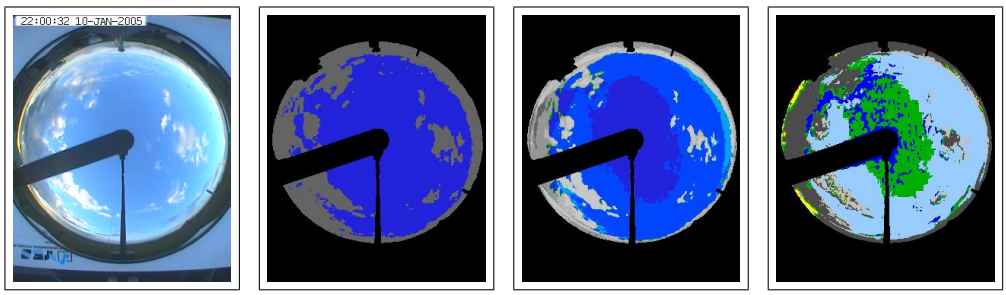
(v) 0501102115 (vi) 0501102115 Long (vii) 0501102115 EGD (viii) 0501102115 MAHA



(ix) 0501102130 (x) 0501102130 Long (xi) 0501102130 EGD (xii) 0501102130 MAHA

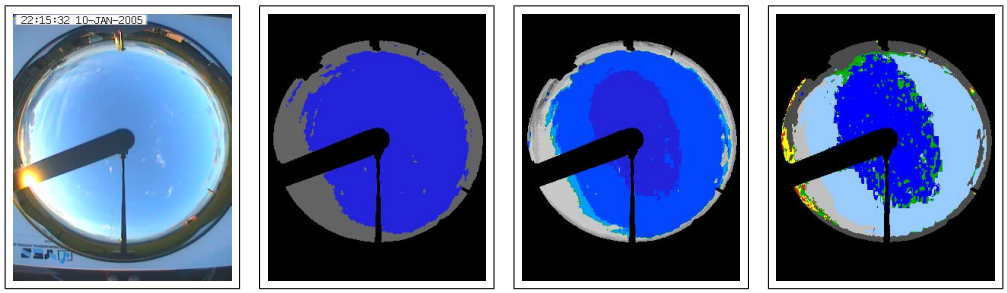


(xiii) 0501102145 (xiv) 0501102145 Long (xv) 0501102145 EGD (xvi) 0501102145 MAHA

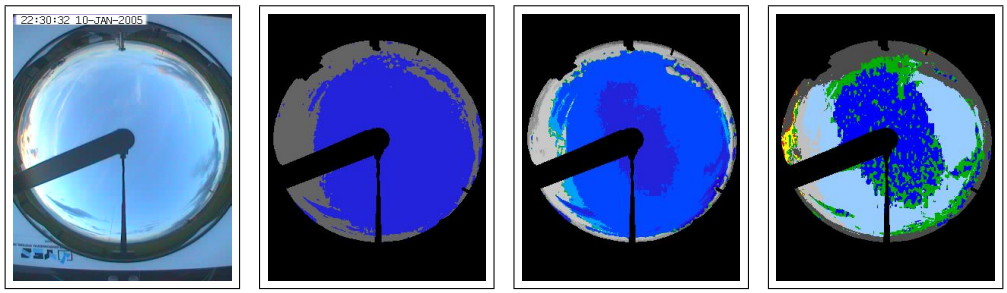


(xvii) 0501102200 (xviii) 0501102200 Long (xix) 0501102200 EGD (xx) 0501102200 MAHA

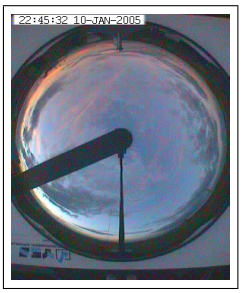
Figure A.117 - Sky images generated from 0501102100 to 0501102200.



(i) 0501102215 (ii) 0501102215 Long (iii) 0501102215 EGD (iv) 0501102215 MAHA

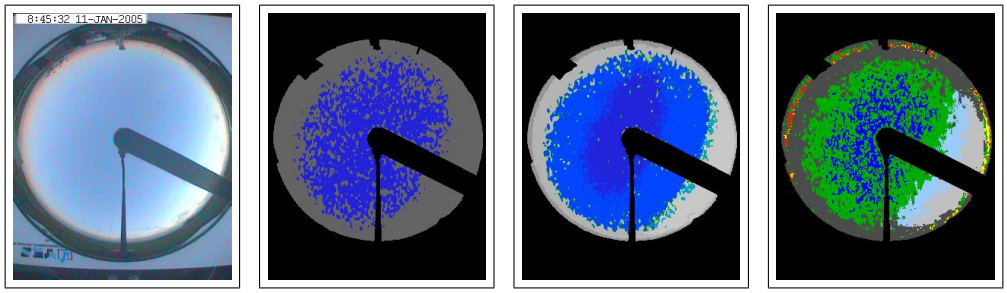


(v) 0501102230 (vi) 0501102230 Long (vii) 0501102230 EGD (viii) 0501102230 MAHA

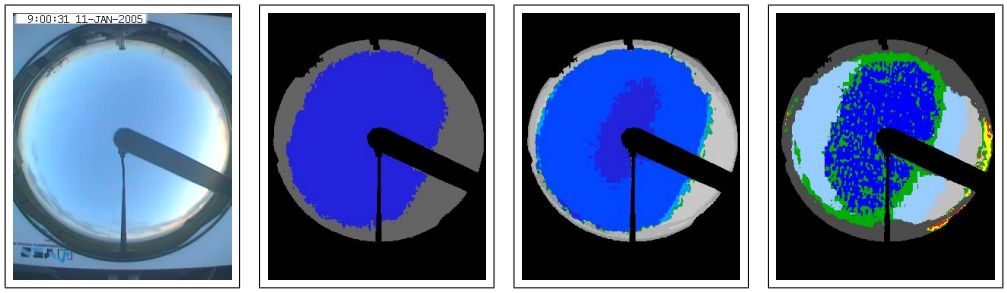


(ix) 0501102245

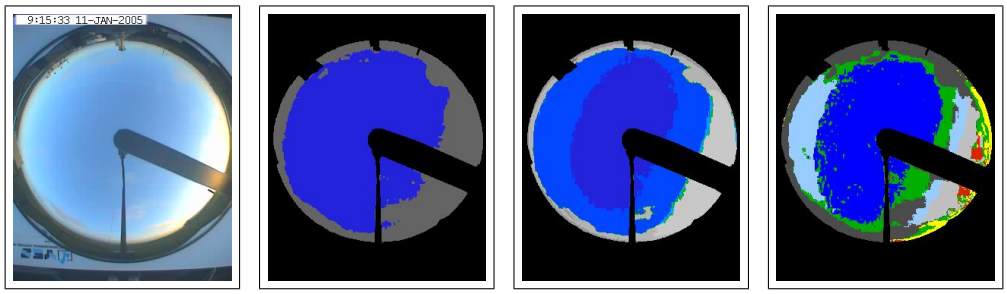
Figure A.118 - Sky images generated from 0501101600 to 0501102245.



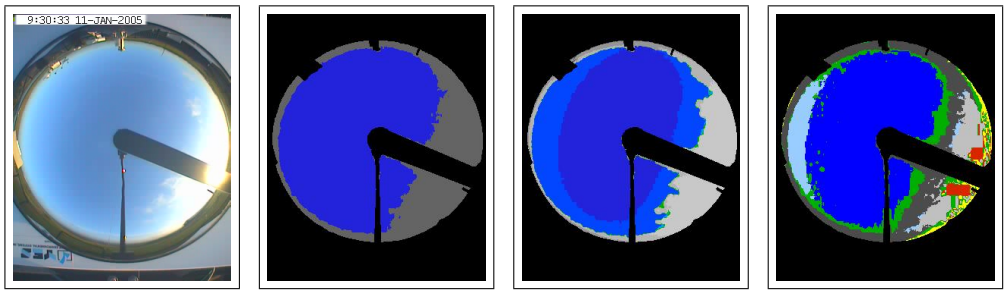
(i) 0501110845 (ii) 0501110845 Long (iii) 0501110845 EGD (iv) 0501110845 MAHA



(v) 0501110900 (vi) 0501110900 Long (vii) 0501110900 EGD (viii) 0501110900 MAHA

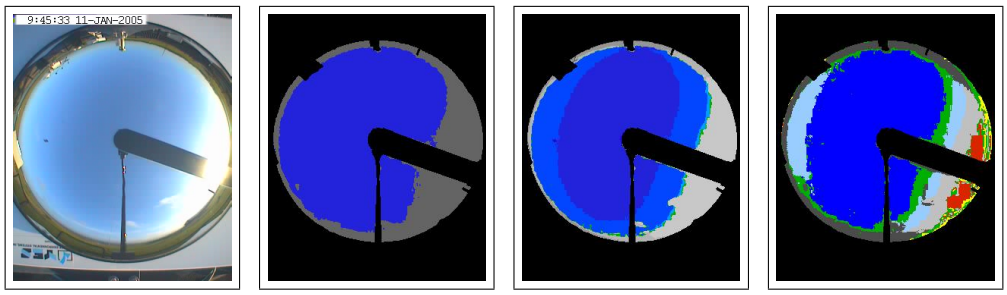


(ix) 0501110915 (x) 0501110915 Long (xi) 0501110915 EGD (xii) 0501110915 MAHA

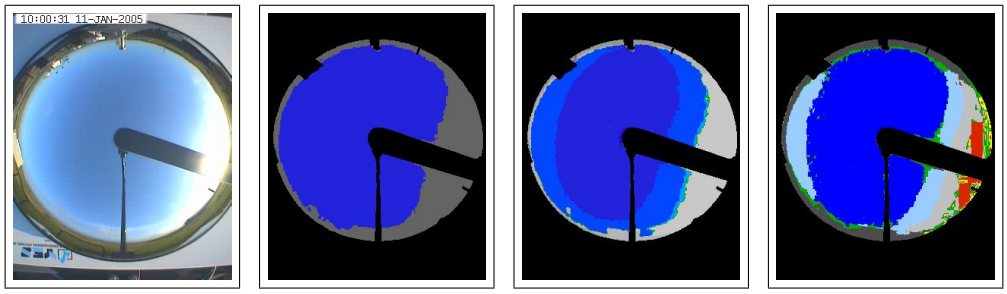


(xiii) 0501110930 (xiv) 0501110930 Long (xv) 0501110930 EGD (xvi) 0501110930 MAHA

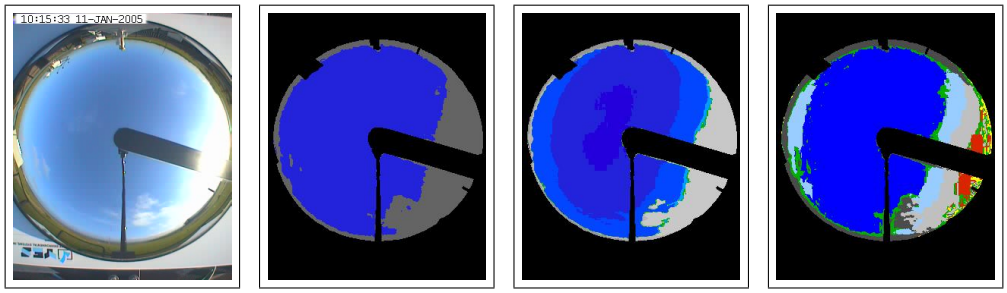
Figure A.119 - Sky images generated from 0501110845 to 0501110930.



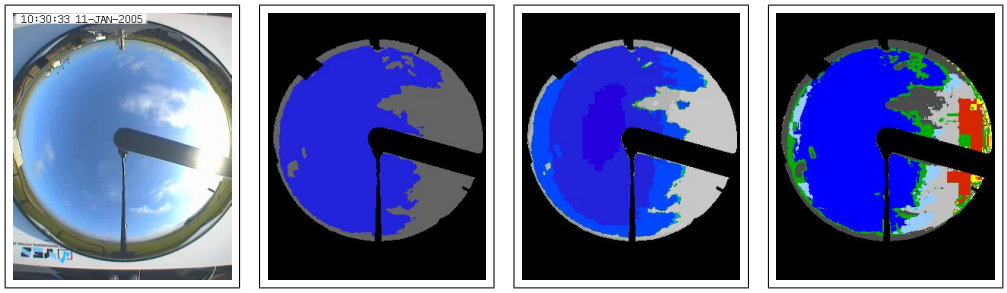
(i) 0501110945 (ii) 0501110945 Long (iii) 0501110945 EGD (iv) 0501110945 MAHA



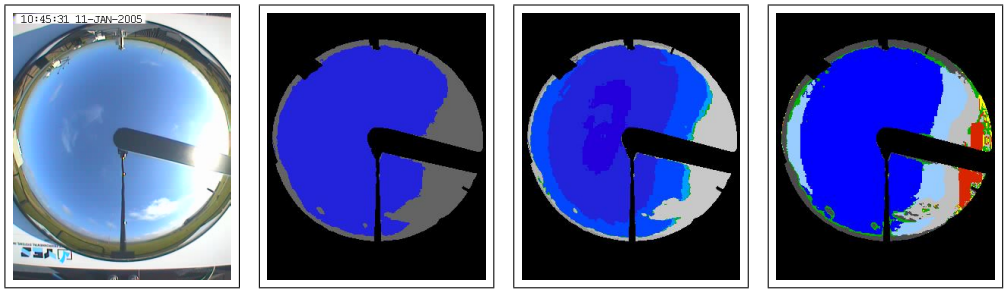
(v) 050111000 (vi) 050111000 Long (vii) 050111000 EGD (viii) 050111000 MAHA



(ix) 0501111015 (x) 0501111015 Long (xi) 0501111015 EGD (xii) 0501111015 MAHA

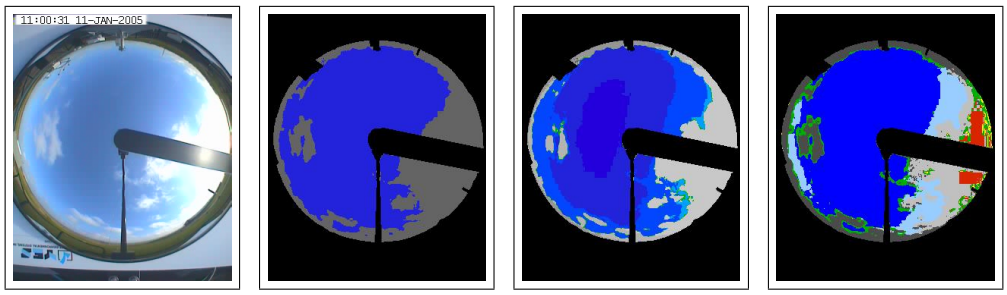


(xiii) 0501111030 (xiv) 0501111030 Long (xv) 0501111030 EGD (xvi) 0501111030 MAHA

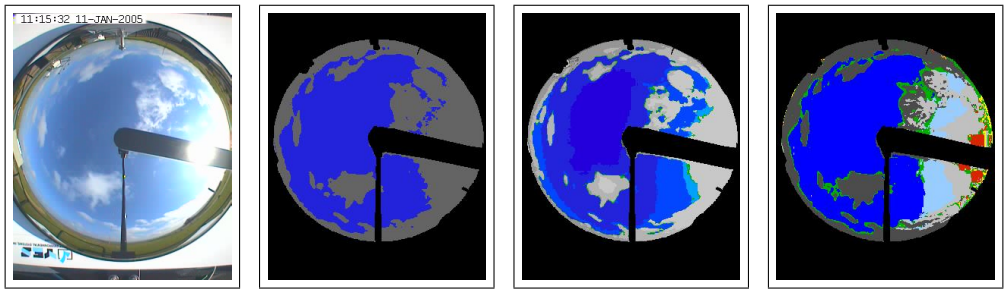


(xvii) 0501111045 (xviii) 0501111045 Long (xix) 0501111045 EGD (xx) 0501111045 MAHA

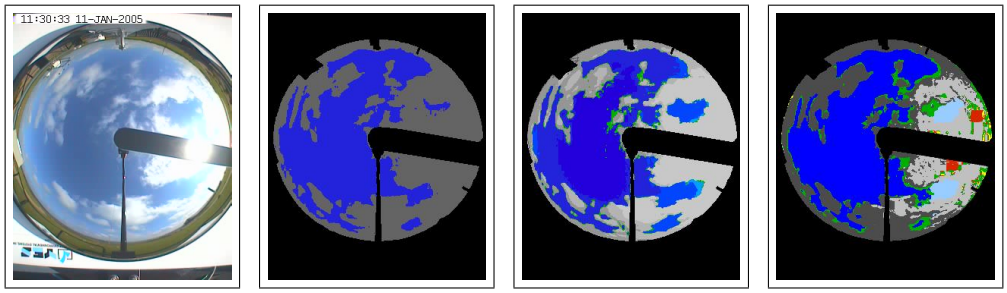
Figure A.120 - Sky images generated from 0501110945 to 0501111045.



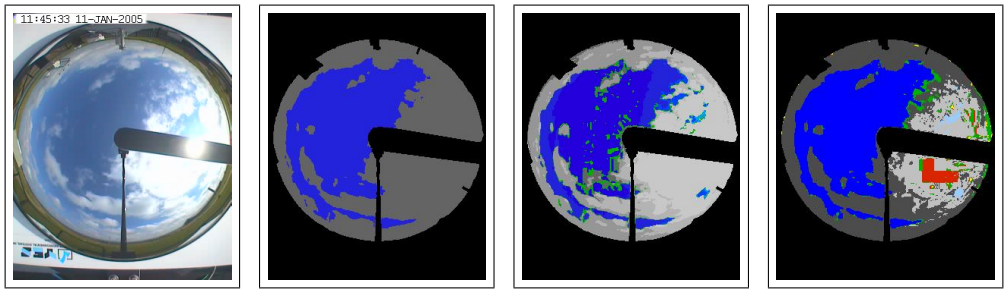
(i) 0501111100 (ii) 0501111100 Long (iii) 0501111100 EGD (iv) 0501111100 MAHA



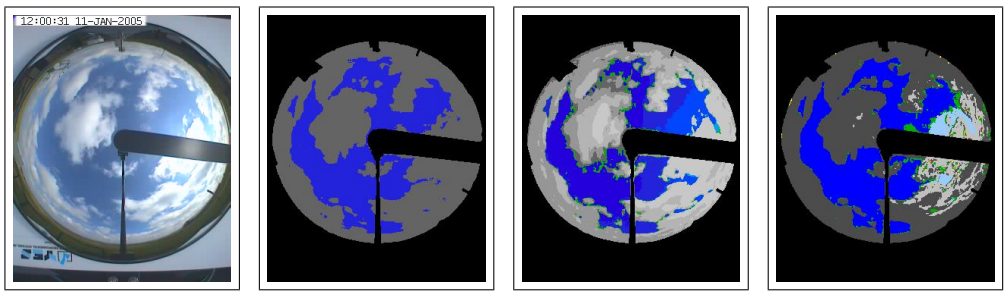
(v) 0501111115 (vi) 0501111115 Long (vii) 0501111115 EGD (viii) 0501111115 MAHA



(ix) 0501111130 (x) 0501111130 Long (xi) 0501111130 EGD (xii) 0501111130 MAHA

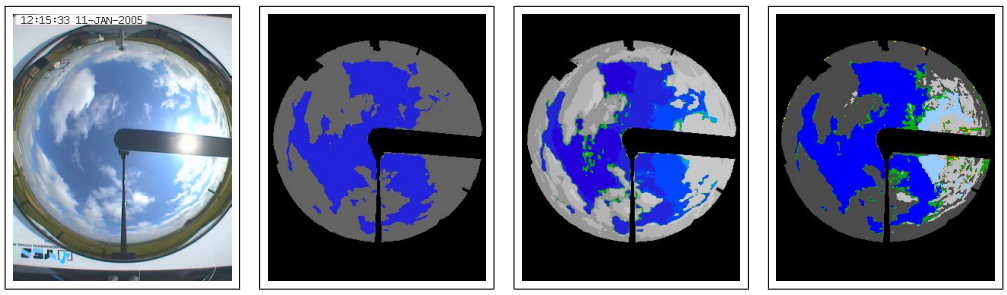


(xiii) 0501111145 (xiv) 0501111145 Long (xv) 0501111145 EGD (xvi) 0501111145 MAHA

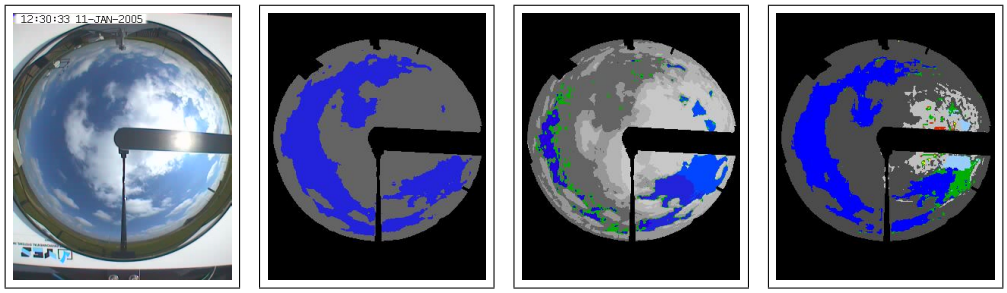


(xvii) 0501111200 (xviii) 0501111200 Long (xix) 0501111200 EGD (xx) 0501111200 MAHA

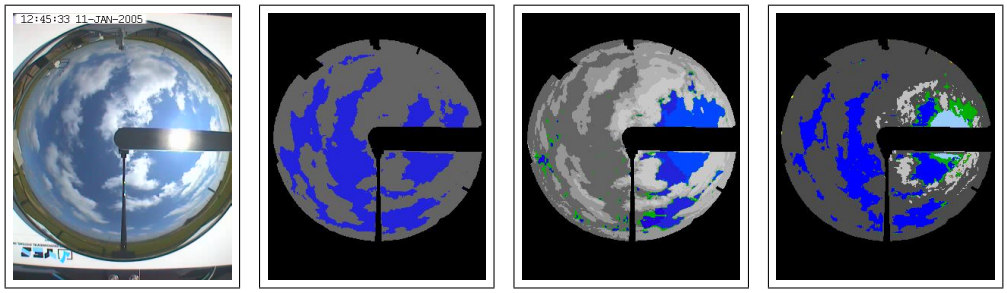
Figure A.121 - Sky images generated from 050111100 to 0501111200.



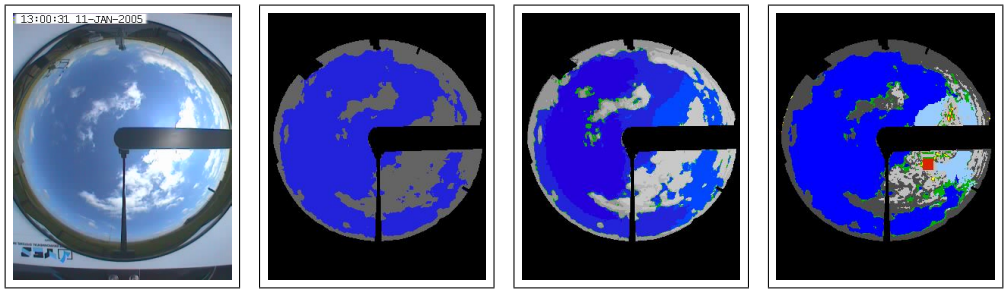
(i) 0501111215 (ii) 0501111215 Long (iii) 0501111215 EGD (iv) 0501111215 MAHA



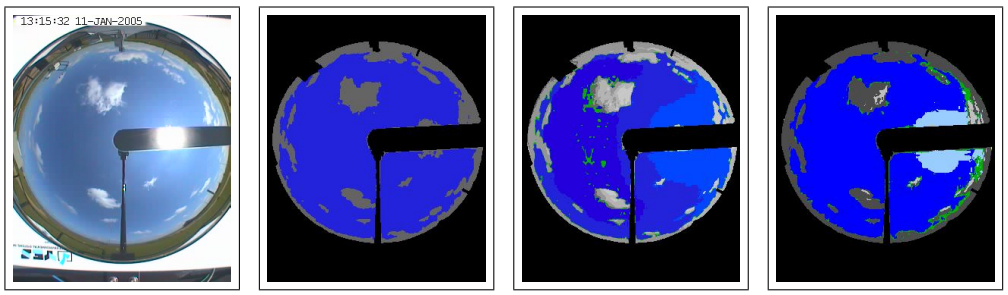
(v) 0501111230 (vi) 0501111230 Long (vii) 0501111230 EGD (viii) 0501111230 MAHA



(ix) 0501111245 (x) 0501111245 Long (xi) 0501111245 EGD (xii) 0501111245 MAHA

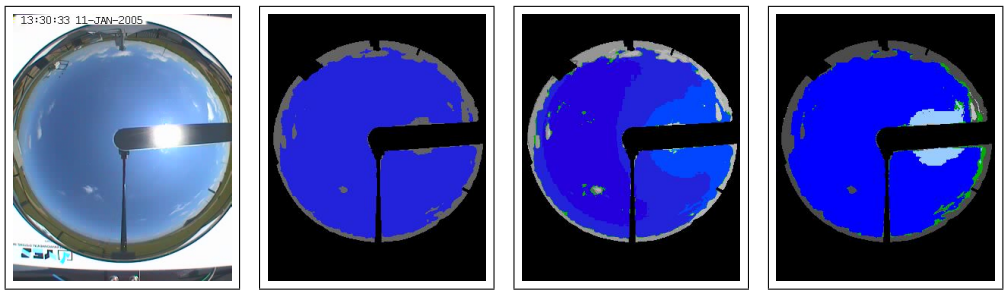


(xiii) 0501111300 (xiv) 0501111300 Long (xv) 0501111300 EGD (xvi) 0501111300 MAHA

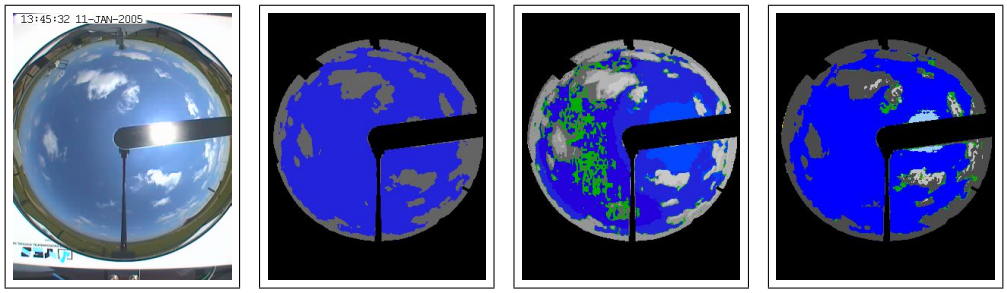


(xvii) 0501111315 (xviii) 0501111315 Long (xix) 0501111315 EGD (xx) 0501111315 MAHA

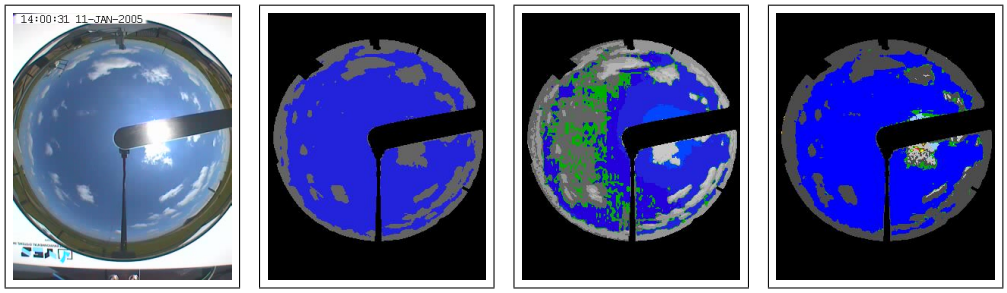
Figure A.122 - Sky images generated from 0501111215 to 0501111315.



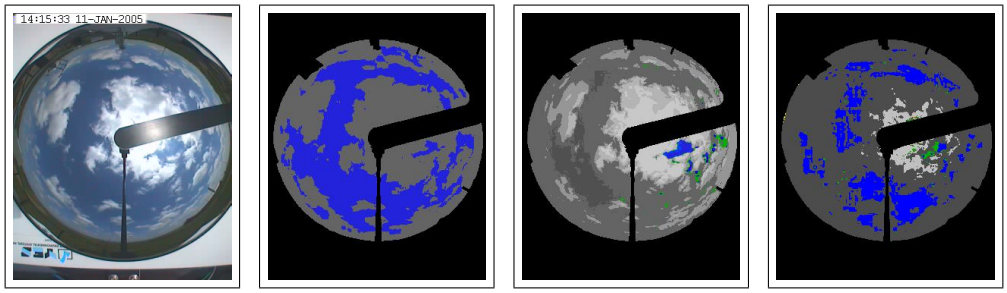
(i) 0501111330 (ii) 0501111330 Long (iii) 0501111330 EGD (iv) 0501111330 MAHA



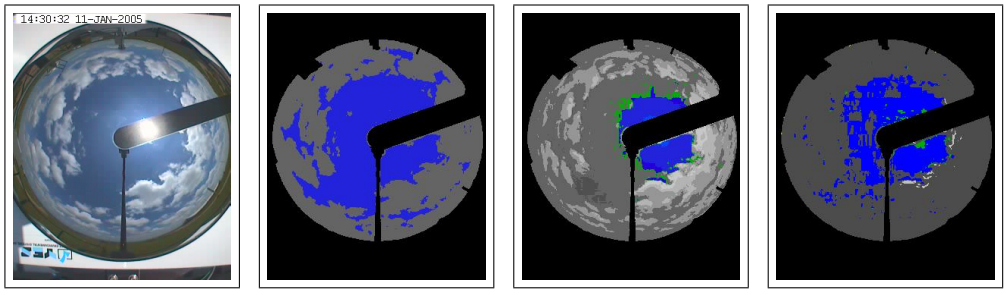
(v) 0501111345 (vi) 0501111345 Long (vii) 0501111345 EGD (viii) 0501111345 MAHA



(ix) 0501111400 (x) 0501111400 Long (xi) 0501111400 EGD (xii) 0501111400 MAHA

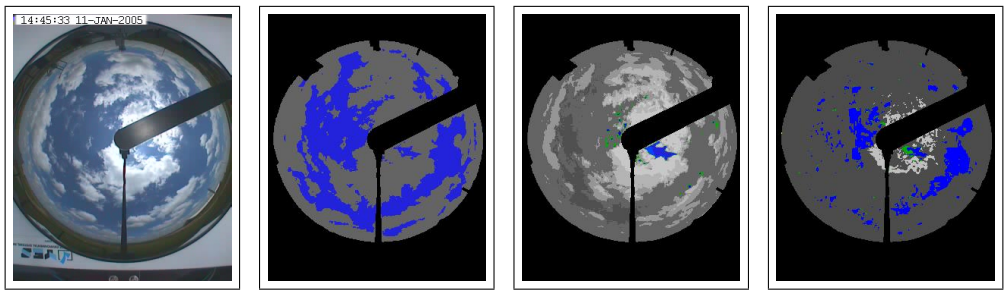


(xiii) 0501111415 (xiv) 0501111415 Long (xv) 0501111415 EGD (xvi) 0501111415 MAHA

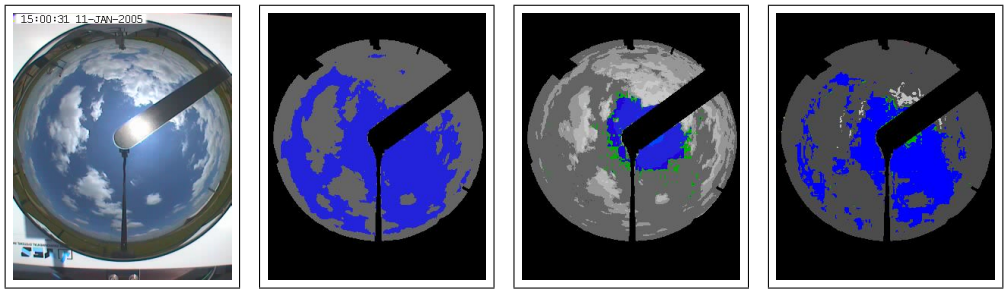


(xvii) 0501111430 (xviii) 0501111430 Long (xix) 0501111430 EGD (xx) 0501111430 MAHA

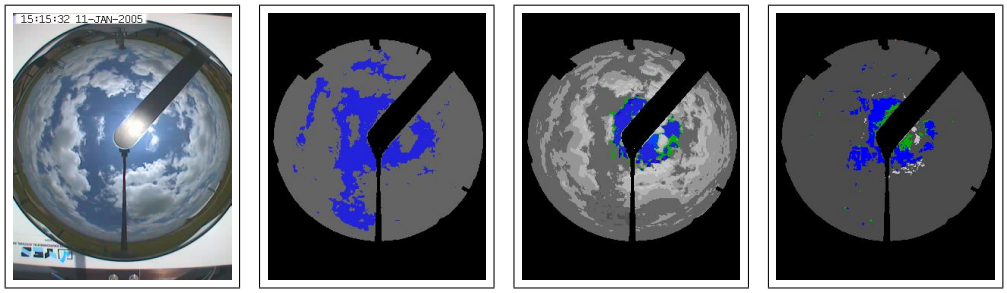
Figure A.123 - Sky images generated from 0501111330 to 0501111430.



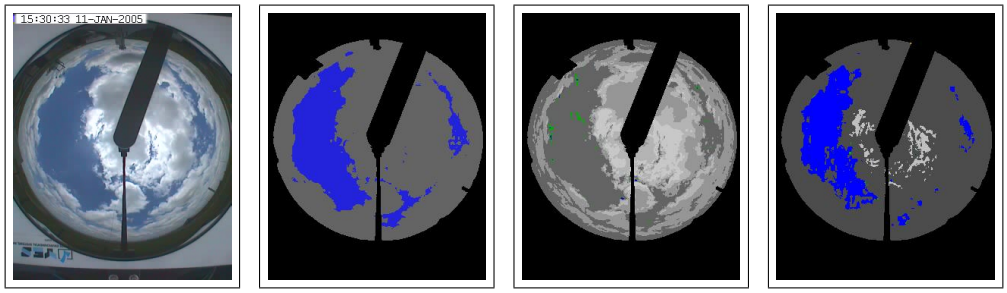
(i) 0501111445 (ii) 0501111445 Long (iii) 0501111445 EGD (iv) 0501111445 MAHA



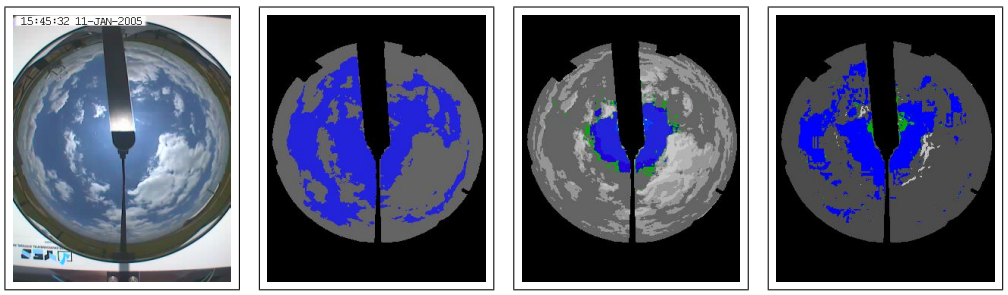
(v) 0501111500 (vi) 0501111500 Long (vii) 0501111500 EGD (viii) 0501111500 MAHA



(ix) 0501111515 (x) 0501111515 Long (xi) 0501111515 EGD (xii) 0501111515 MAHA

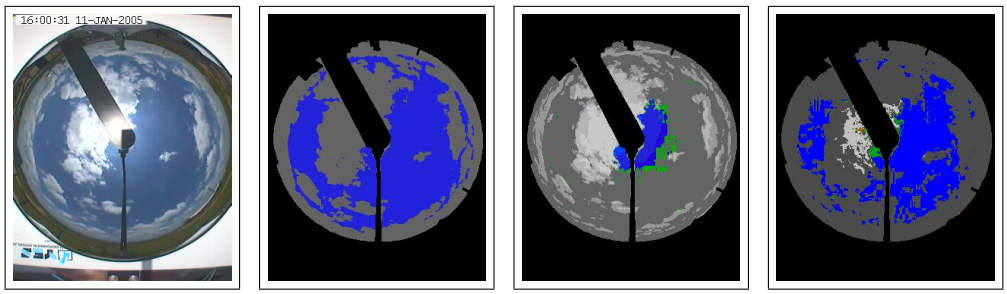


(xiii) 0501111530 (xiv) 0501111530 Long (xv) 0501111530 EGD (xvi) 0501111530 MAHA

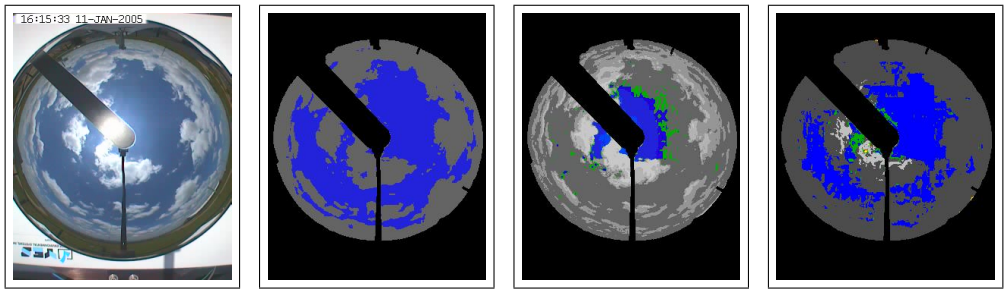


(xvii) 0501111545 (xviii) 0501111545 Long (xix) 0501111545 EGD (xx) 0501111545 MAHA

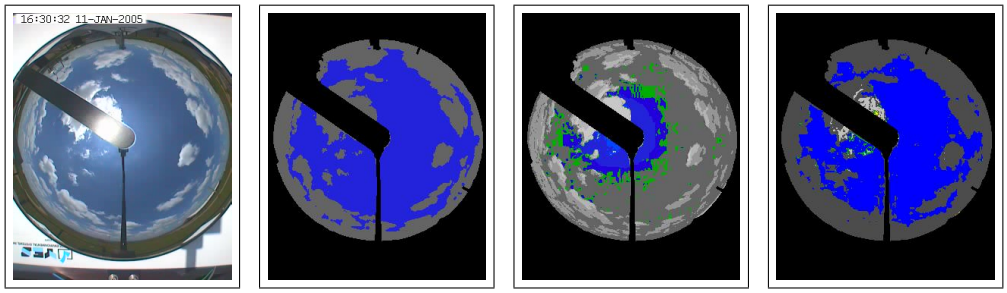
Figure A.124 - Sky images generated from 0501111445 to 0501111545.



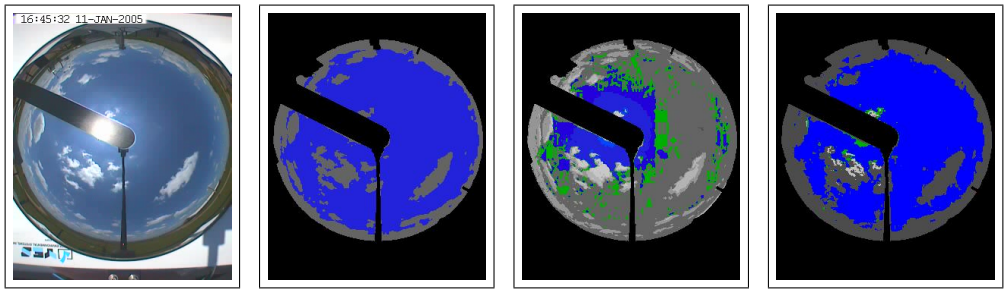
(i) 0501111600 (ii) 0501111600 Long (iii) 0501111600 EGD (iv) 0501111600 MAHA



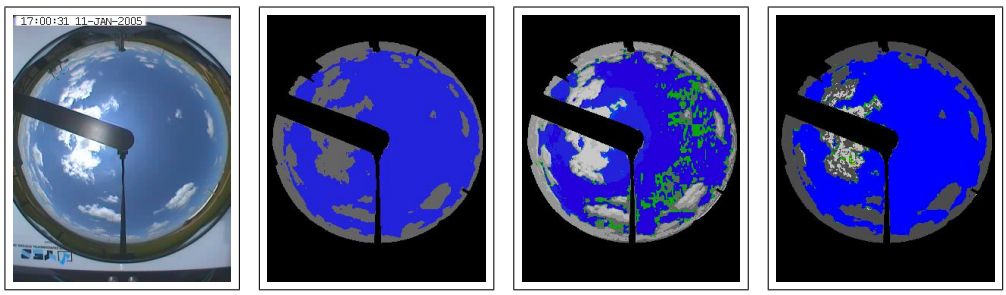
(v) 0501111615 (vi) 0501111615 Long (vii) 0501111615 EGD (viii) 0501111615 MAHA



(ix) 0501111630 (x) 0501111630 Long (xi) 0501111630 EGD (xii) 0501111630 MAHA

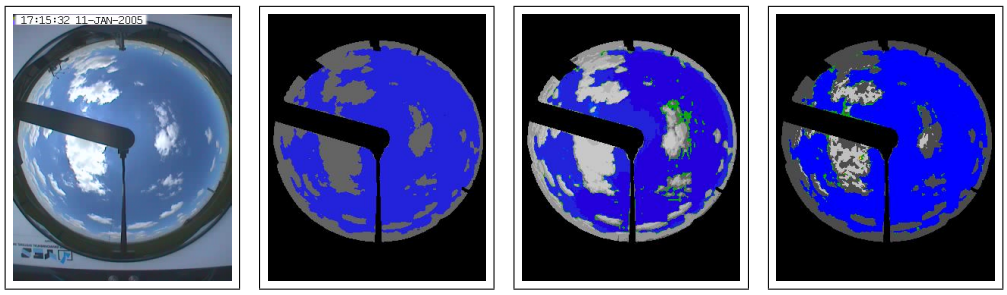


(xiii) 0501111645 (xiv) 0501111645 Long (xv) 0501111645 EGD (xvi) 0501111645 MAHA

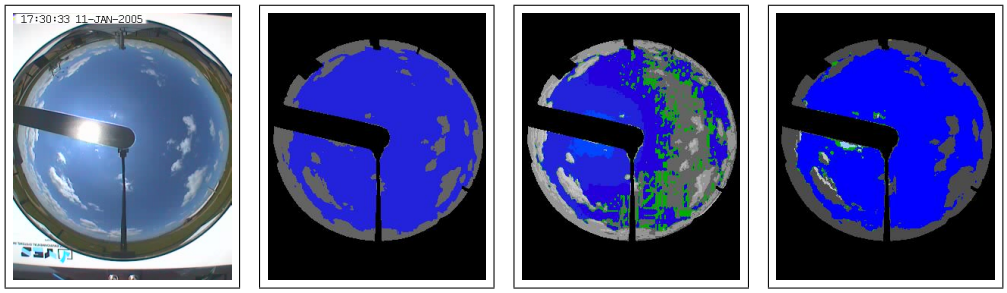


(xvii) 0501111700 (xviii) 0501111700 Long (xix) 0501111700 EGD (xx) 0501111700 MAHA

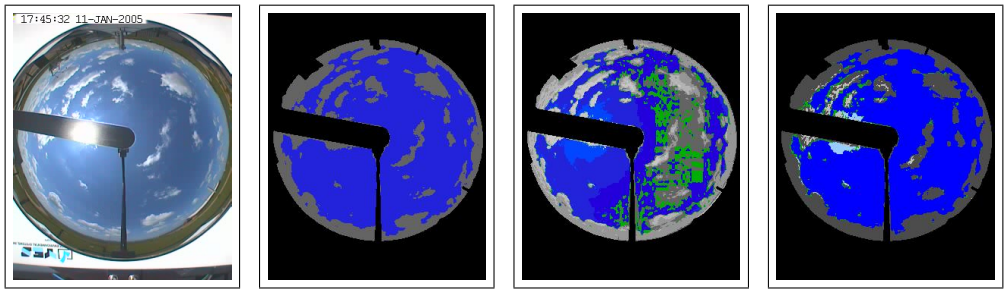
Figure A.125 - Sky images generated from 0501111600 to 0501111700.



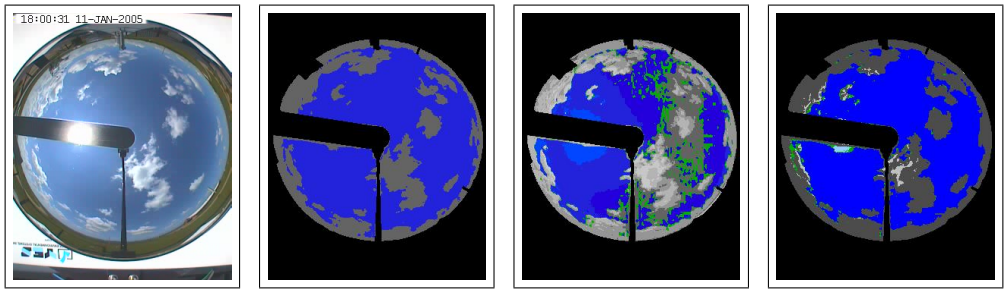
(i) 0501111715 (ii) 0501111715 Long (iii) 0501111715 EGD (iv) 0501111715 MAHA



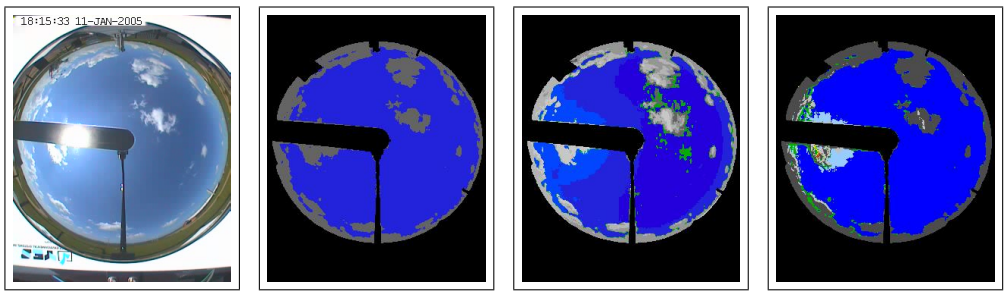
(v) 0501111730 (vi) 0501111730 Long (vii) 0501111730 EGD (viii) 0501111730 MAHA



(ix) 0501111745 (x) 0501111745 Long (xi) 0501111745 EGD (xii) 0501111745 MAHA

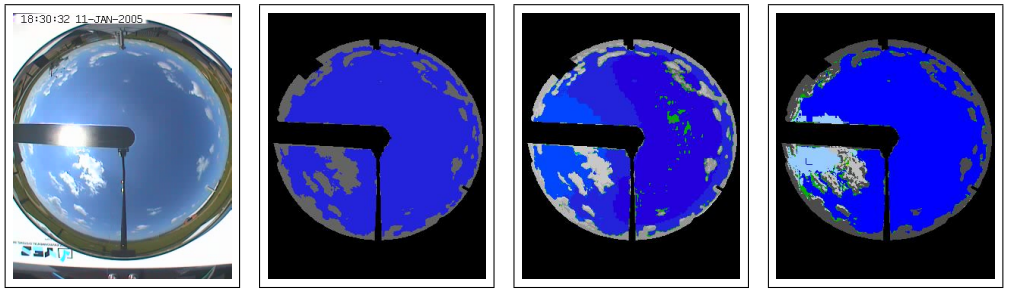


(xiii) 0501111800 (xiv) 0501111800 Long (xv) 0501111800 EGD (xvi) 0501111800 MAHA

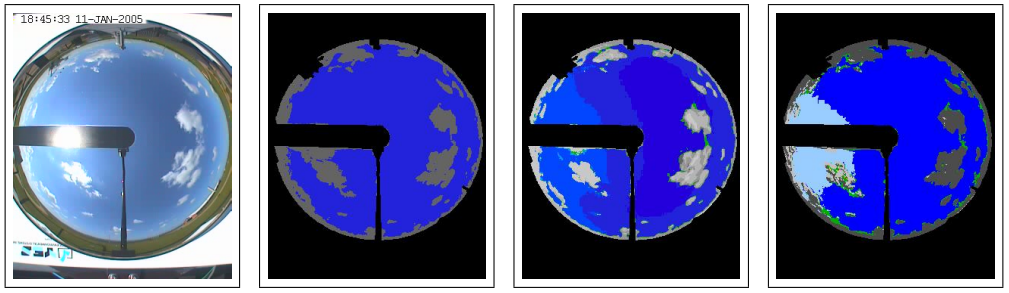


(xvii) 0501111815 (xviii) 0501111815 Long (xix) 0501111815 EGD (xx) 0501111815 MAHA

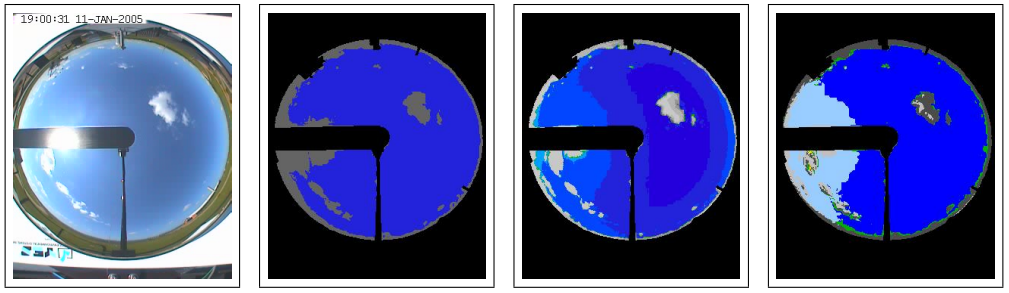
Figure A.126 - Sky images generated from 0501111715 to 0501111815.



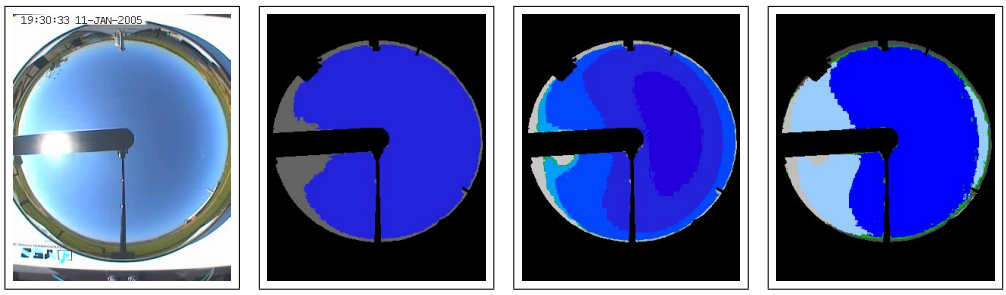
(i) 0501111830 (ii) 0501111830 Long (iii) 0501111830 EGD (iv) 0501111830 MAHA



(v) 0501111845 (vi) 0501111845 Long (vii) 0501111845 EGD (viii) 0501111845 MAHA

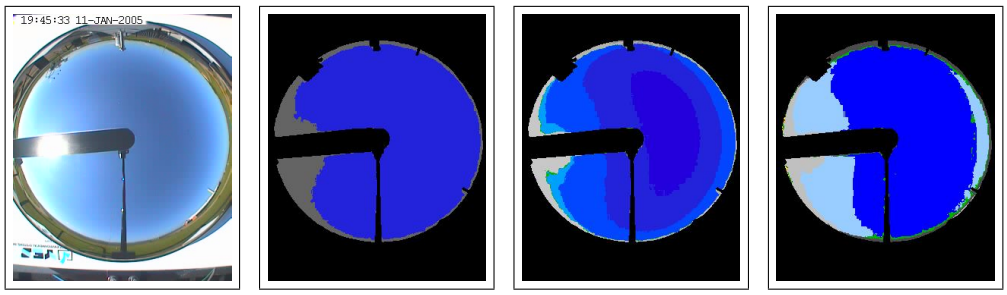


(ix) 0501111900 (x) 0501111900 Long (xi) 0501111900 EGD (xii) 0501111900 MAHA

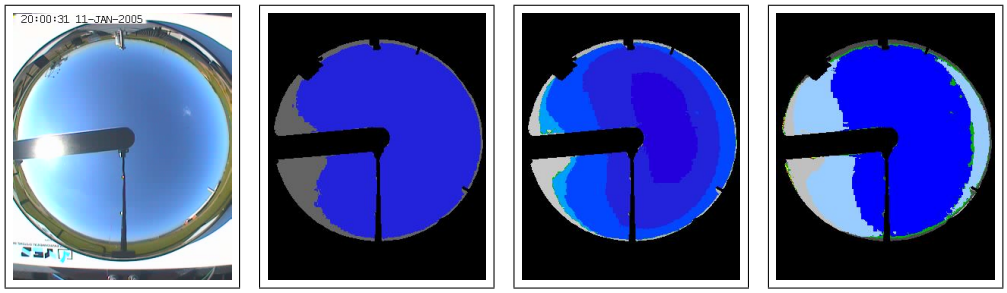


(xiii) 0501111930 (xiv) 0501111930 Long (xv) 0501111930 EGD (xvi) 0501111930 MAHA

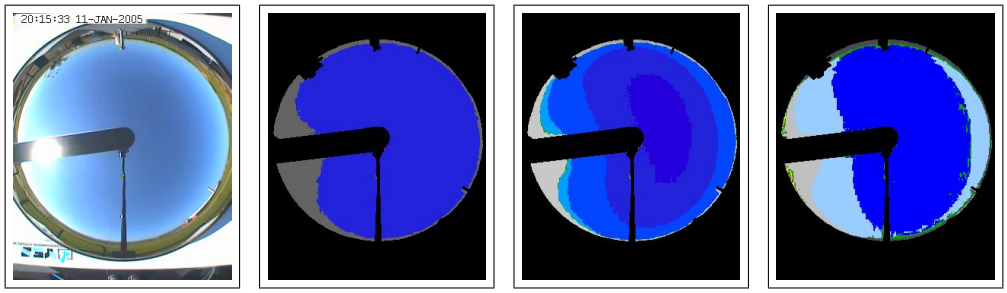
Figure A.127 - Sky images generated from 0501111830 to 0501111930. Image 0501111930 is missing.



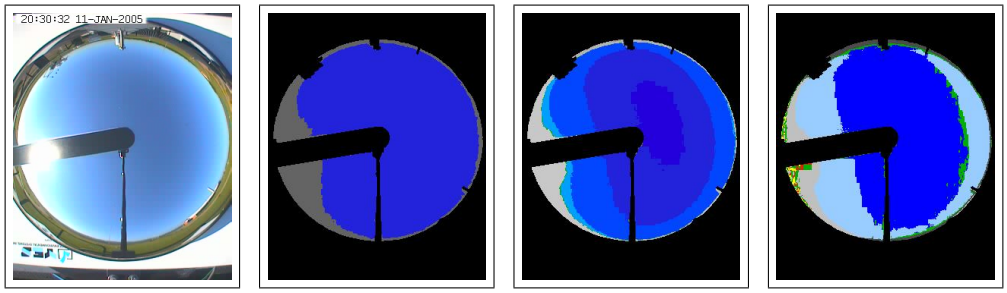
(i) 0501111945 (ii) 0501111945 Long (iii) 0501111945 EGD (iv) 0501111945 MAHA



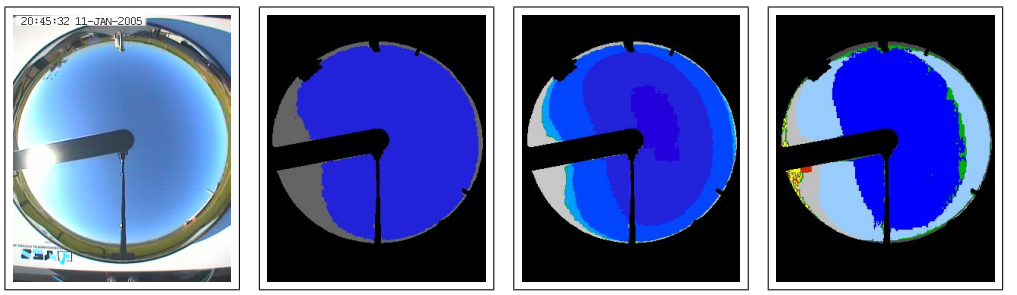
(v) 0501112000 (vi) 0501112000 Long (vii) 0501112000 EGD (viii) 0501112000 MAHA



(ix) 0501112015 (x) 0501112015 Long (xi) 0501112015 EGD (xii) 0501112015 MAHA

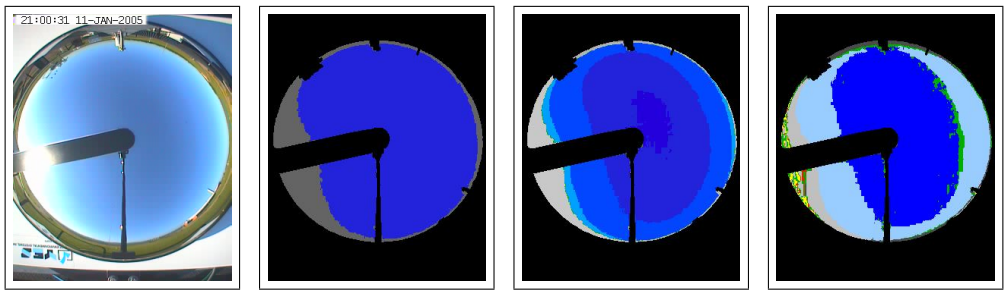


(xiii) 0501112030 (xiv) 0501112030 Long (xv) 0501112030 EGD (xvi) 0501112030 MAHA

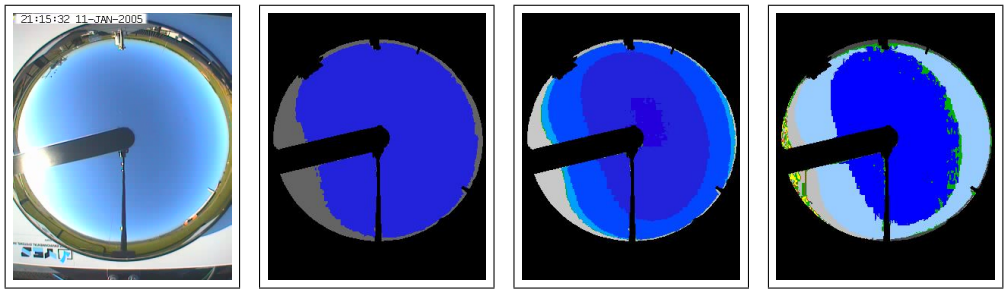


(xvii) 0501112045 (xviii) 0501112045 Long (xix) 0501112045 EGD (xx) 0501112045 MAHA

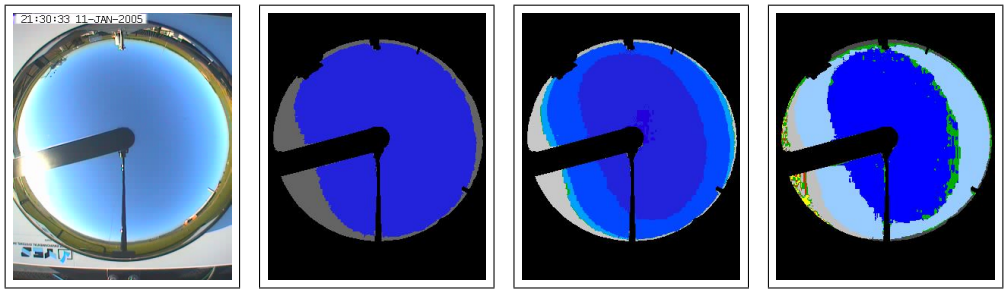
Figure A.128 - Sky images generated from 0501111945 to 0501112045.



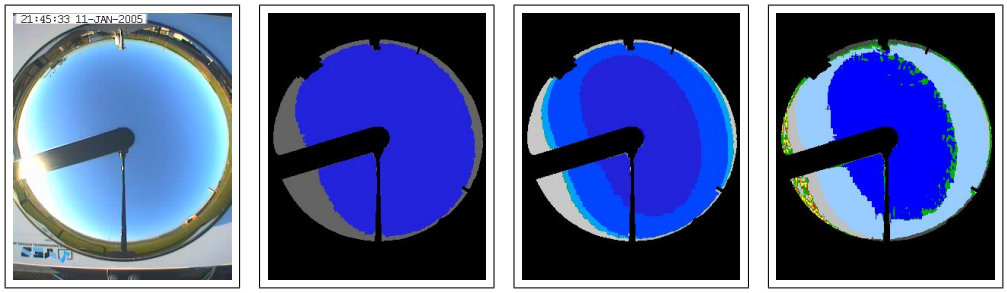
(i) 0501112100 (ii) 0501112100 Long (iii) 0501112100 EGD (iv) 0501112100 MAHA



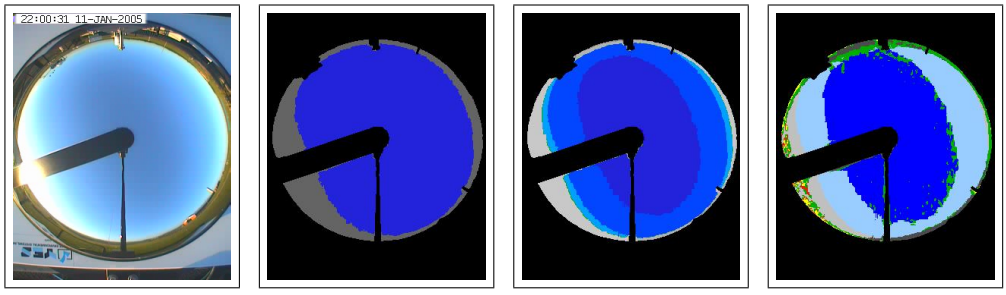
(v) 0501112115 (vi) 0501112115 Long (vii) 0501112115 EGD (viii) 0501112115 MAHA



(ix) 0501112130 (x) 0501112130 Long (xi) 0501112130 EGD (xii) 0501112130 MAHA

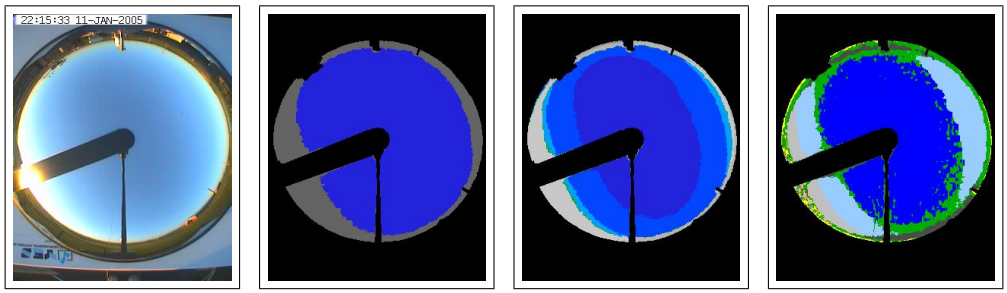


(xiii) 0501112145 (xiv) 0501112145 Long (xv) 0501112145 EGD (xvi) 0501112145 MAHA

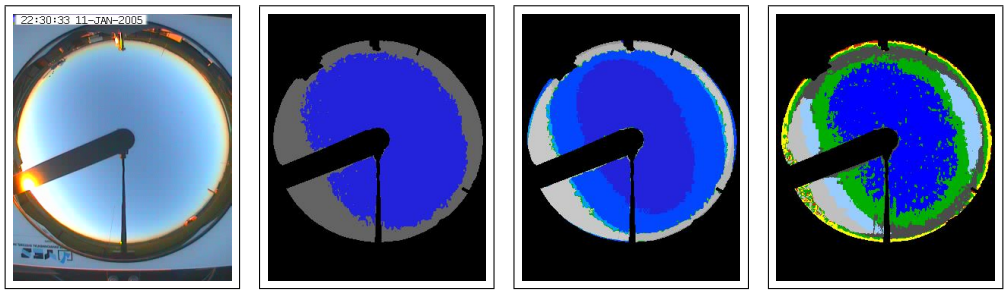


(xvii) 0501112200 (xviii) 0501112200 Long (xix) 0501112200 EGD (xx) 0501112200 MAHA

Figure A.129 - Sky images generated from 0501112100 to 0501112200.



(i) 0501112215 (ii) 0501112215 Long (iii) 0501112215 EGD (iv) 0501112215 MAHA

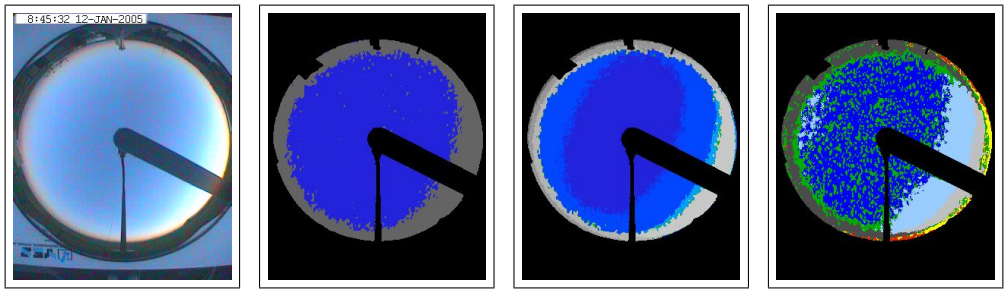


(v) 0501112230 (vi) 0501112230 Long (vii) 0501112230 EGD (viii) 0501112230 MAHA

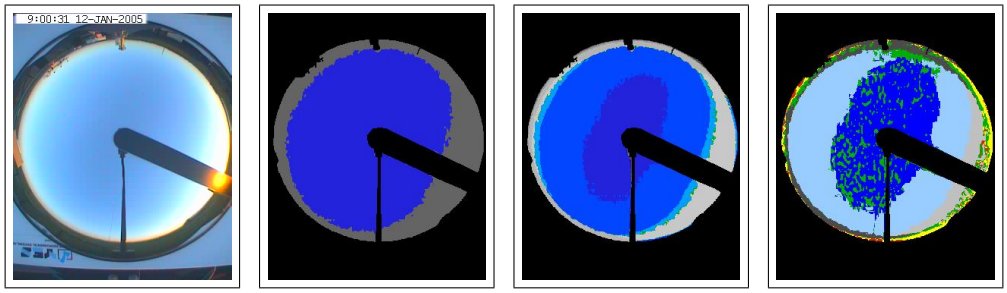


(ix) 0501112245

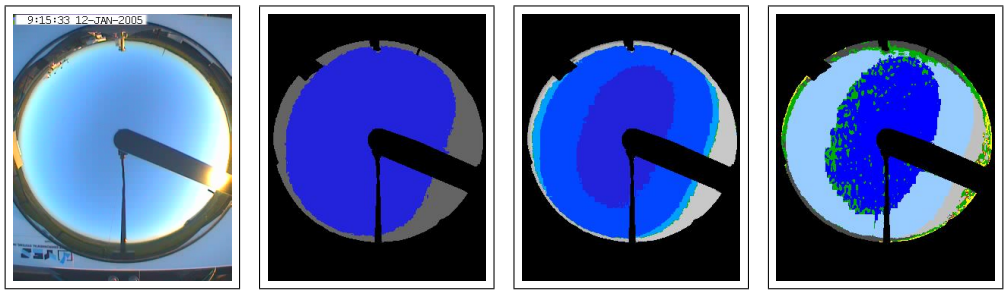
Figure A.130 - Sky images generated from 0501111600 to 0501112245.



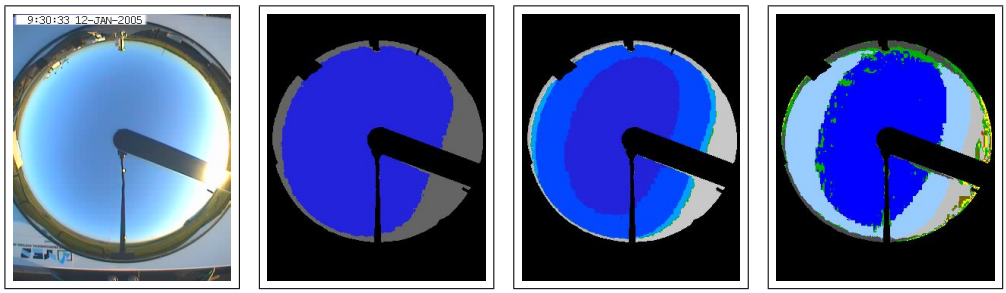
(i) 0501120845 (ii) 0501120845 Long (iii) 0501120845 EGD (iv) 0501120845 MAHA



(v) 0501120900 (vi) 0501120900 Long (vii) 0501120900 EGD (viii) 0501120900 MAHA

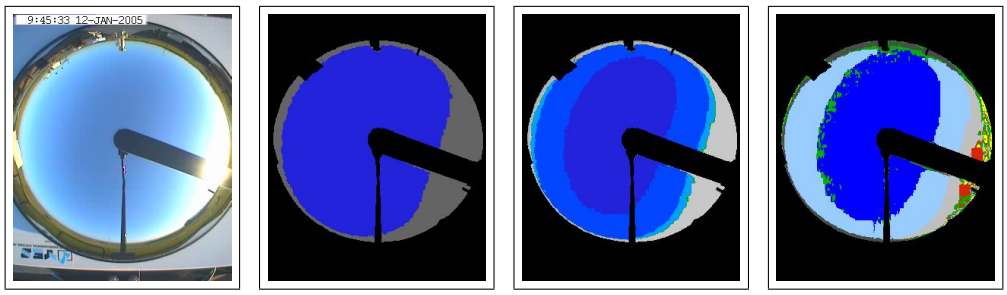


(ix) 0501120915 (x) 0501120915 Long (xi) 0501120915 EGD (xii) 0501120915 MAHA

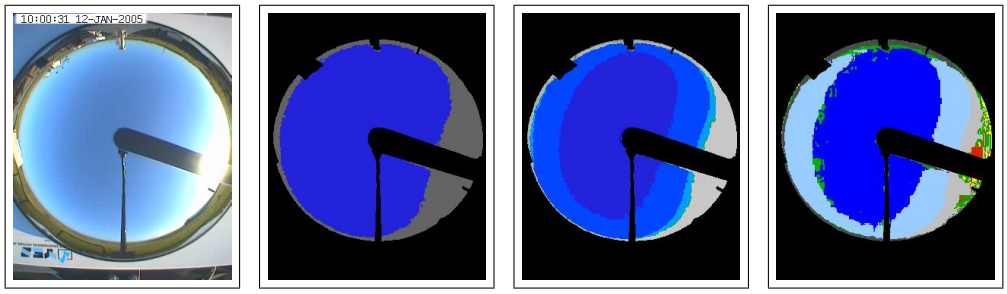


(xiii) 0501120930 (xiv) 0501120930 Long (xv) 0501120930 EGD (xvi) 0501120930 MAHA

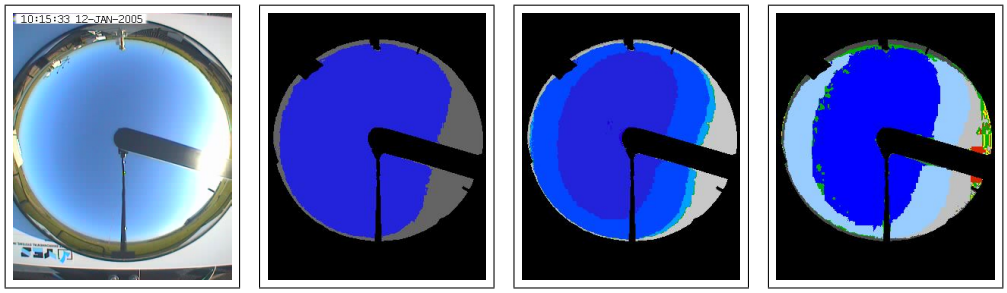
Figure A.131 - Sky images generated from 0501120845 to 0501120930.



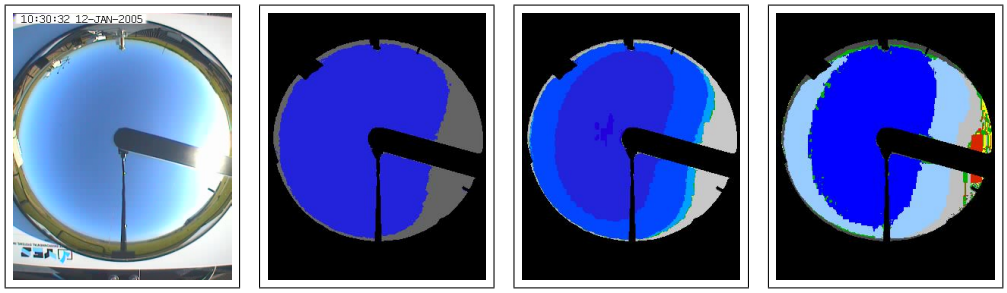
(i) 0501120945 (ii) 0501120945 Long (iii) 0501120945 EGD (iv) 0501120945 MAHA



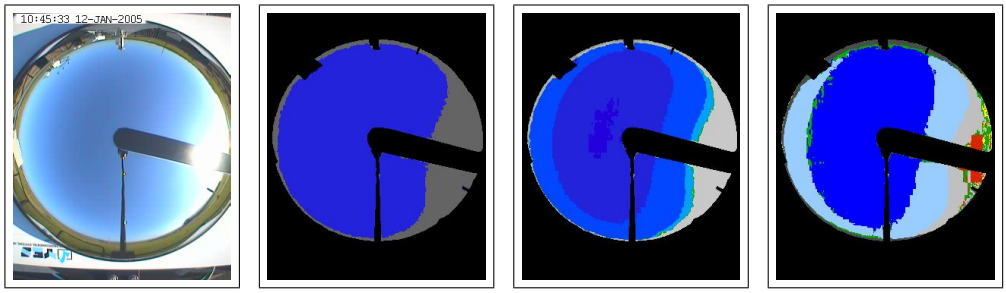
(v) 050112000 (vi) 050112000 Long (vii) 050112000 EGD (viii) 050112000 MAHA



(ix) 0501121015 (x) 0501121015 Long (xi) 0501121015 EGD (xii) 0501121015 MAHA

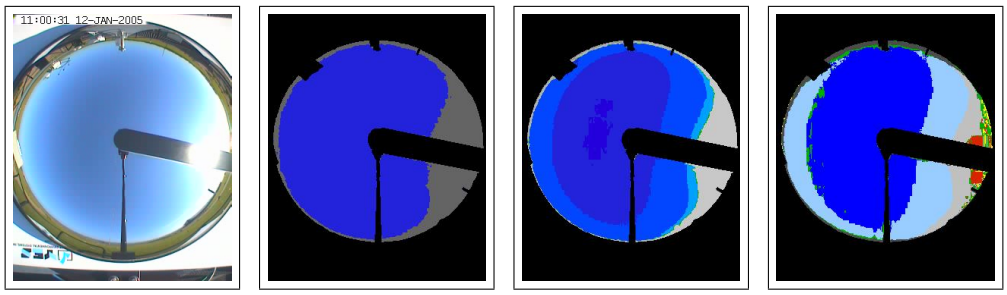


(xiii) 0501121030 (xiv) 0501121030 Long (xv) 0501121030 EGD (xvi) 0501121030 MAHA

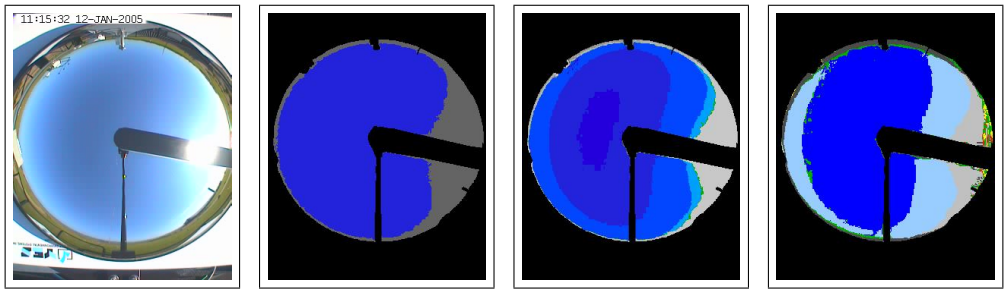


(xvii) 0501121045 (xviii) 0501121045 Long (xix) 0501121045 EGD (xx) 0501121045 MAHA

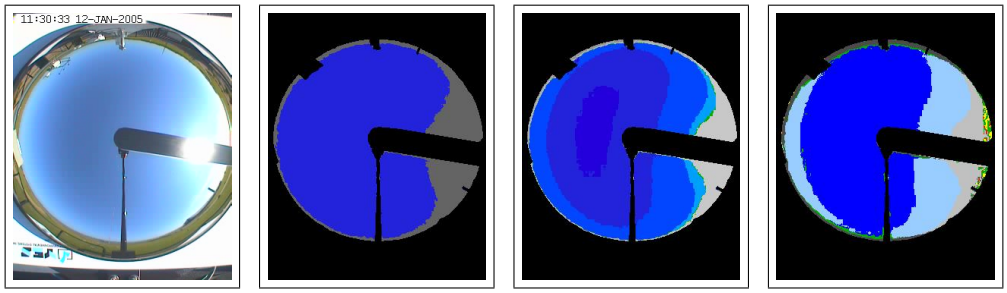
Figure A.132 - Sky images generated from 0501120945 to 0501121045.



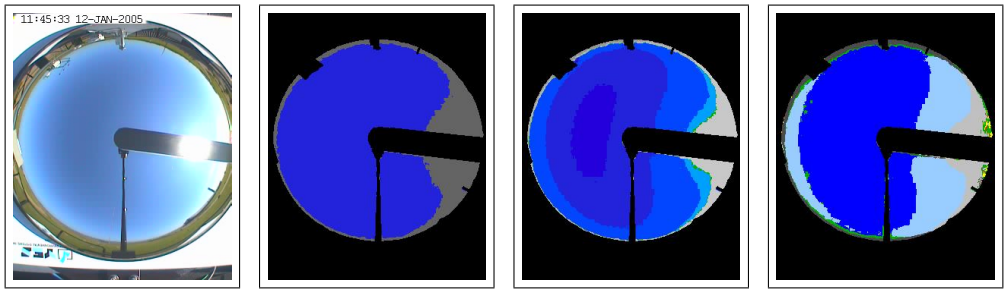
(i) 0501121100 (ii) 0501121100 Long (iii) 0501121100 EGD (iv) 0501121100 MAHA



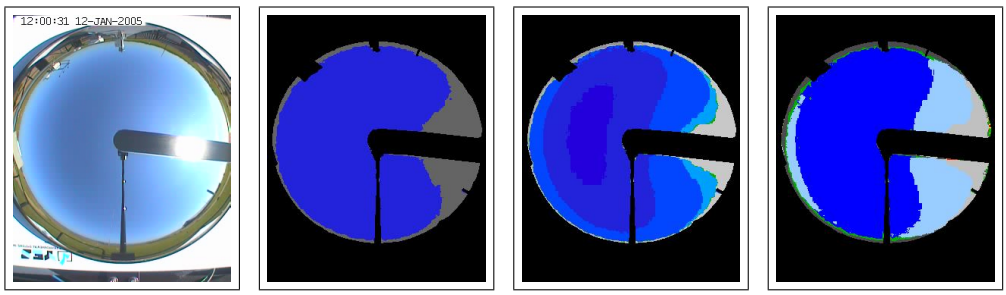
(v) 0501121115 (vi) 0501121115 Long (vii) 0501121115 EGD (viii) 0501121115 MAHA



(ix) 0501121130 (x) 0501121130 Long (xi) 0501121130 EGD (xii) 0501121130 MAHA

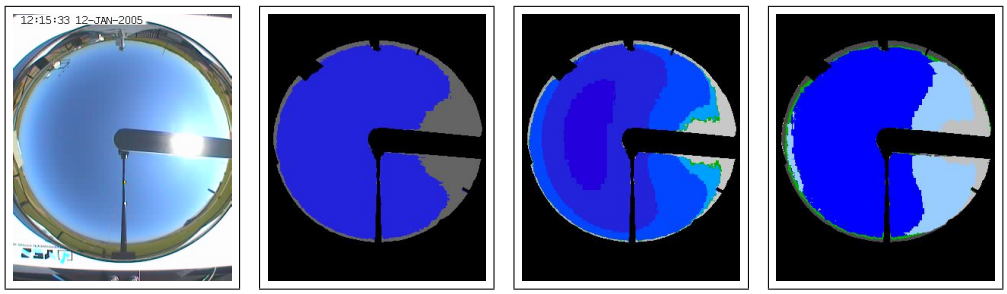


(xiii) 0501121145 (xiv) 0501121145 Long (xv) 0501121145 EGD (xvi) 0501121145 MAHA

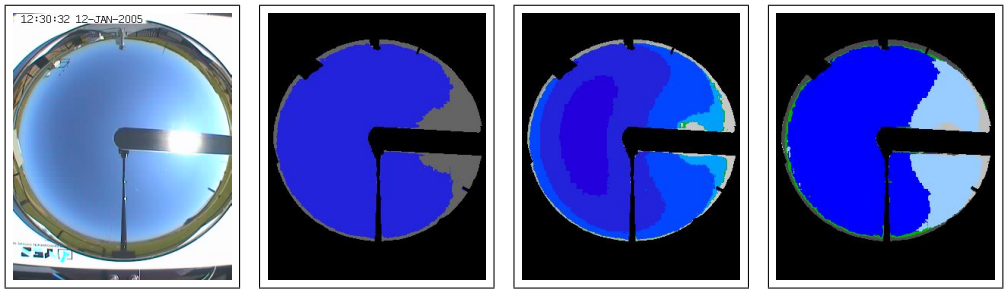


(xvii) 0501121200 (xviii) 0501121200 Long (xix) 0501121200 EGD (xx) 0501121200 MAHA

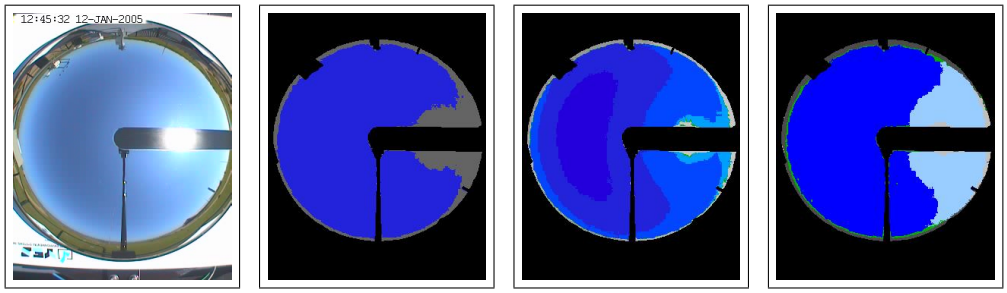
Figure A.133 - Sky images generated from 050112100 to 0501121200.



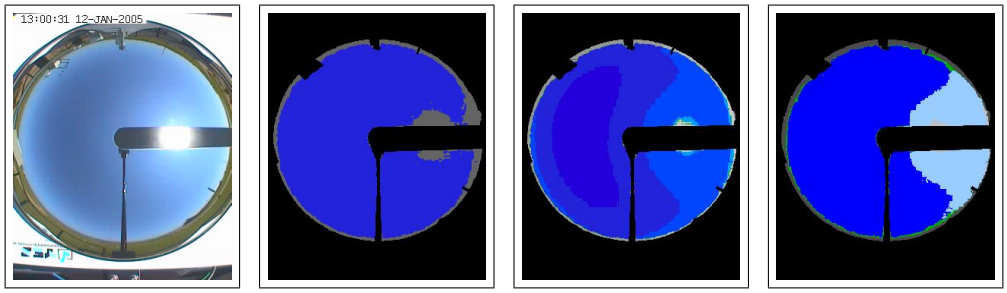
(i) 0501121215 (ii) 0501121215 Long (iii) 0501121215 EGD (iv) 0501121215 MAHA



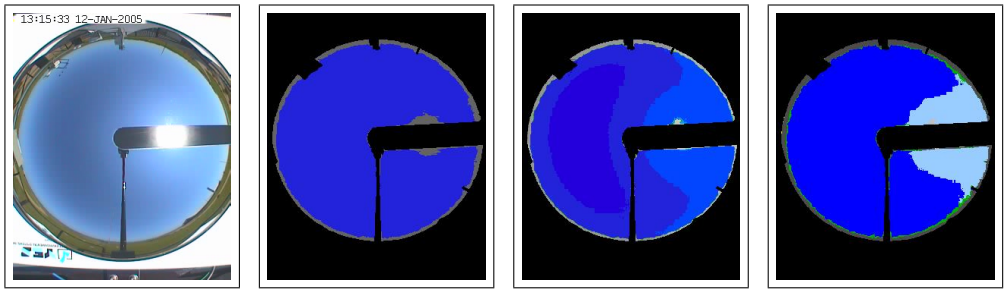
(v) 0501121230 (vi) 0501121230 Long (vii) 0501121230 EGD (viii) 0501121230 MAHA



(ix) 0501121245 (x) 0501121245 Long (xi) 0501121245 EGD (xii) 0501121245 MAHA

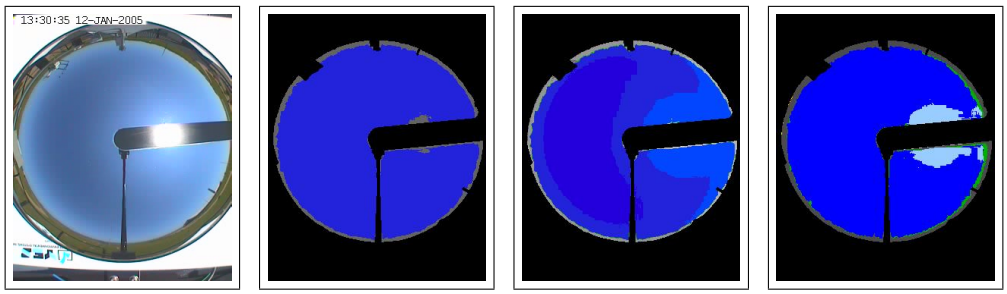


(xiii) 0501121300 (xiv) 0501121300 Long (xv) 0501121300 EGD (xvi) 0501121300 MAHA

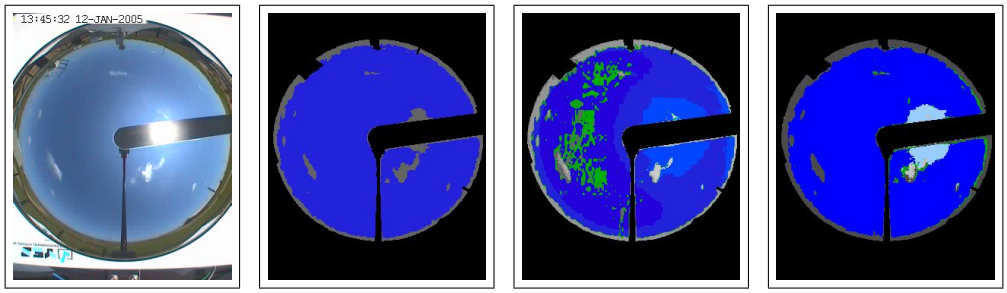


(xvii) 0501121315 (xviii) 0501121315 Long (xix) 0501121315 EGD (xx) 0501121315 MAHA

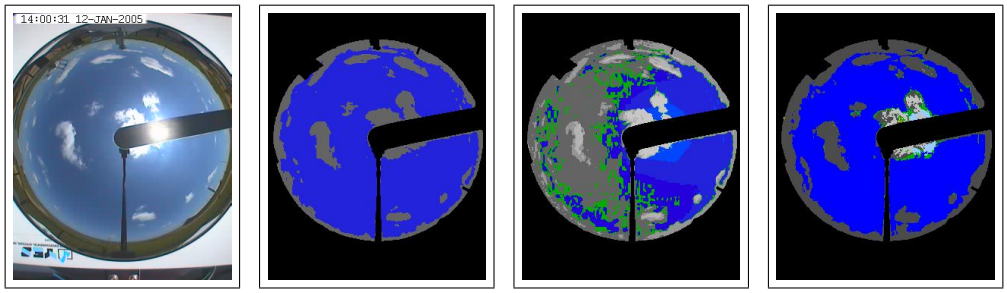
Figure A.134 - Sky images generated from 0501121215 to 0501121315.



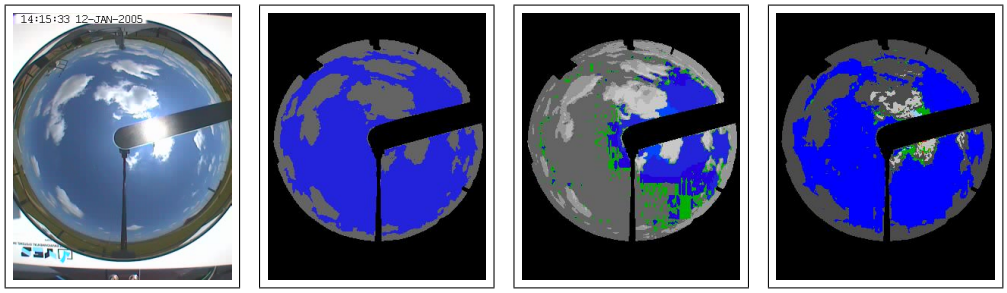
(i) 0501121330 (ii) 0501121330 Long (iii) 0501121330 EGD (iv) 0501121330 MAHA



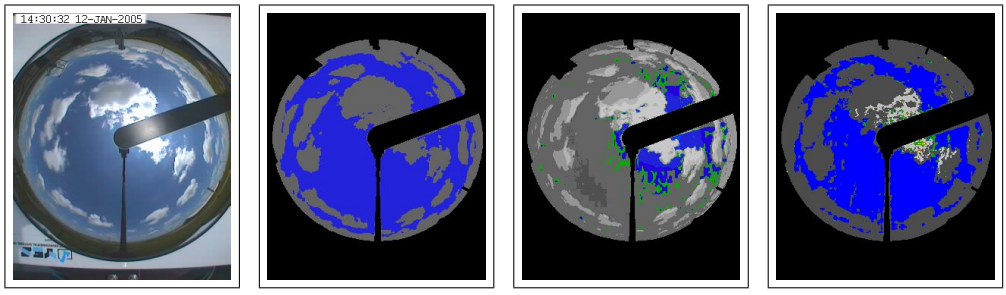
(v) 0501121345 (vi) 0501121345 Long (vii) 0501121345 EGD (viii) 0501121345 MAHA



(ix) 0501121400 (x) 0501121400 Long (xi) 0501121400 EGD (xii) 0501121400 MAHA

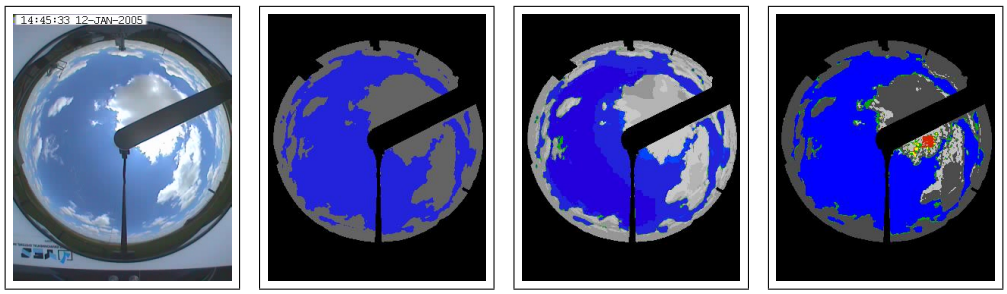


(xiii) 0501121415 (xiv) 0501121415 Long (xv) 0501121415 EGD (xvi) 0501121415 MAHA

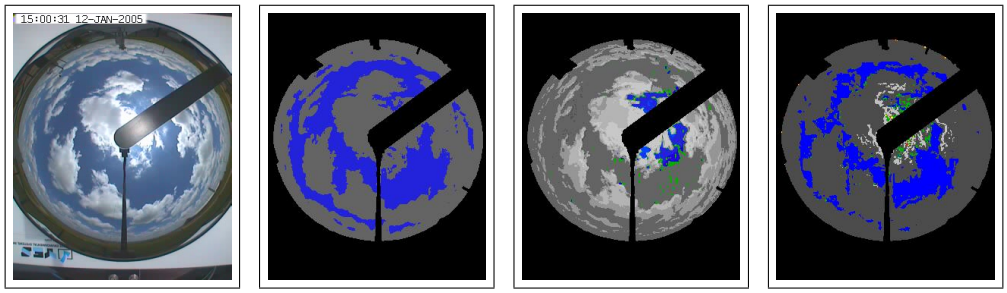


(xvii) 0501121430 (xviii) 0501121430 Long (xix) 0501121430 EGD (xx) 0501121430 MAHA

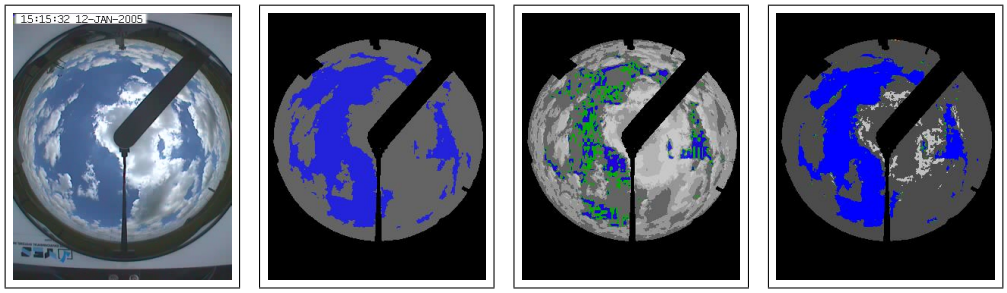
Figure A.135 - Sky images generated from 0501121330 to 0501121430.



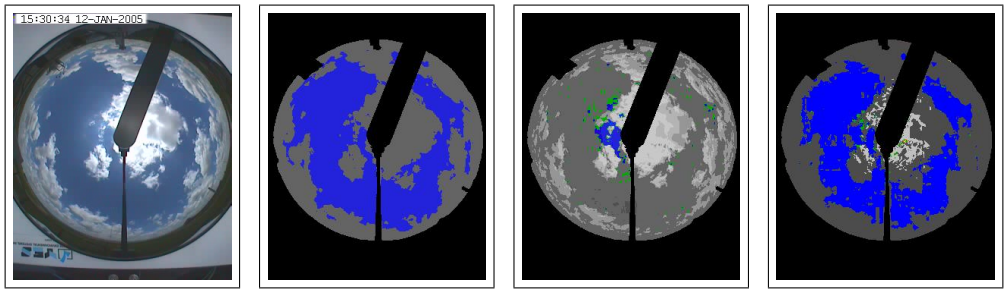
(i) 0501121445 (ii) 0501121445 Long (iii) 0501121445 EGD (iv) 0501121445 MAHA



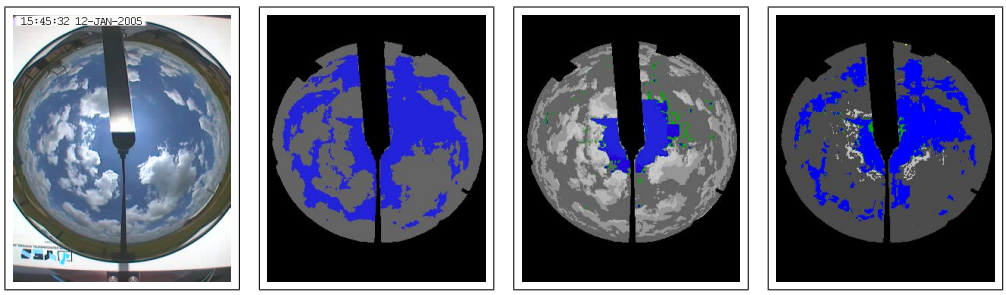
(v) 0501121500 (vi) 0501121500 Long (vii) 0501121500 EGD (viii) 0501121500 MAHA



(ix) 0501121515 (x) 0501121515 Long (xi) 0501121515 EGD (xii) 0501121515 MAHA

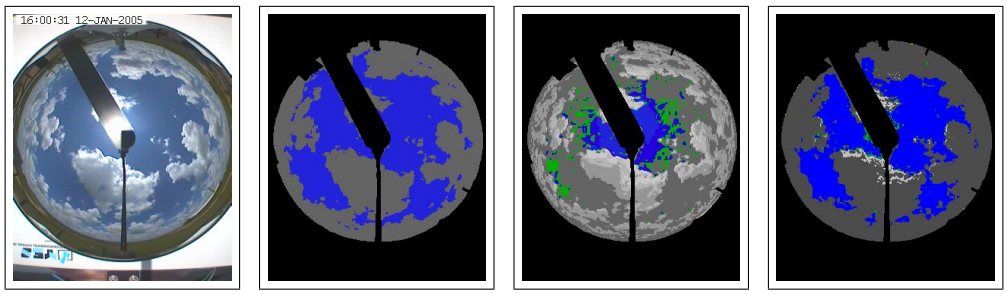


(xiii) 0501121530 (xiv) 0501121530 Long (xv) 0501121530 EGD (xvi) 0501121530 MAHA

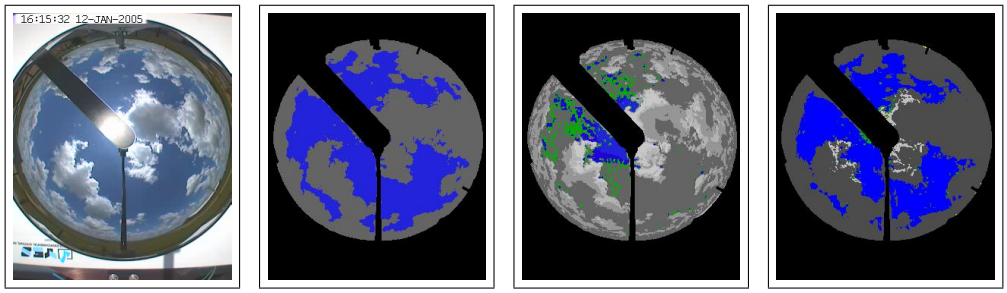


(xvii) 0501121545 (xviii) 0501121545 Long (xix) 0501121545 EGD (xx) 0501121545 MAHA

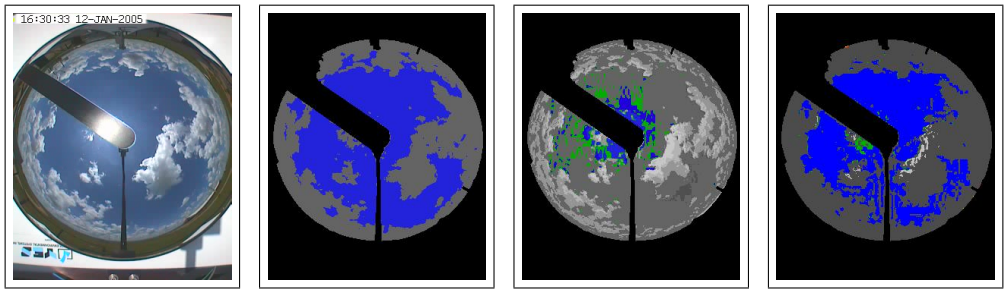
Figure A.136 - Sky images generated from 0501121445 to 0501121545.



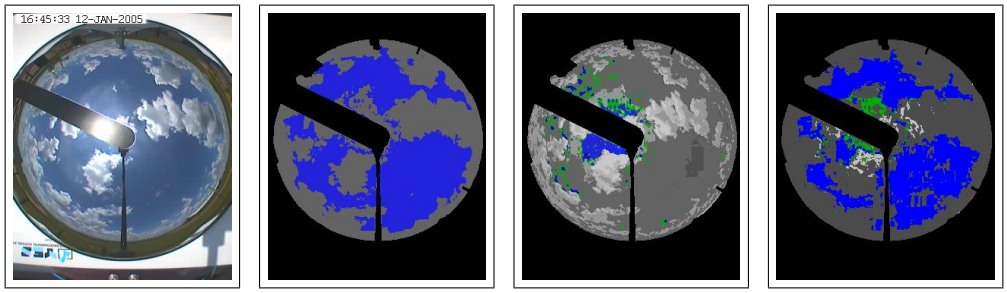
(i) 0501121600 (ii) 0501121600 Long (iii) 0501121600 EGD (iv) 0501121600 MAHA



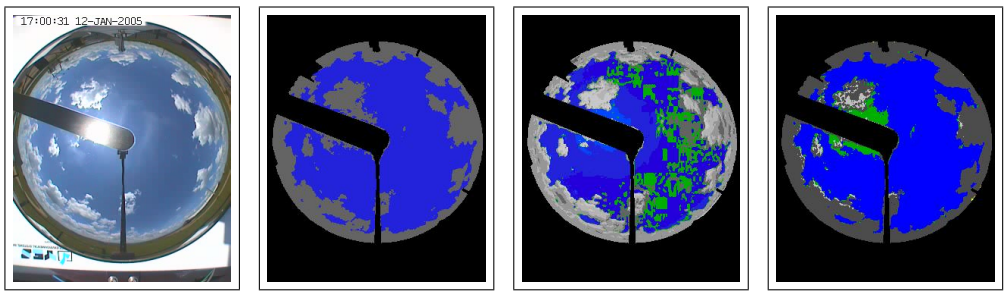
(v) 0501121615 (vi) 0501121615 Long (vii) 0501121615 EGD (viii) 0501121615 MAHA



(ix) 0501121630 (x) 0501121630 Long (xi) 0501121630 EGD (xii) 0501121630 MAHA

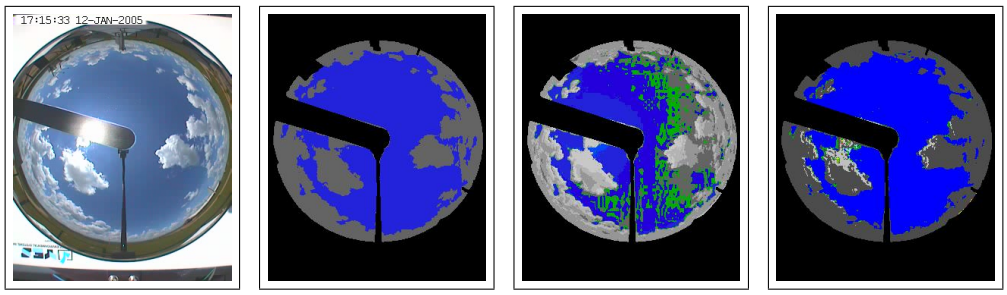


(xiii) 0501121645 (xiv) 0501121645 Long (xv) 0501121645 EGD (xvi) 0501121645 MAHA

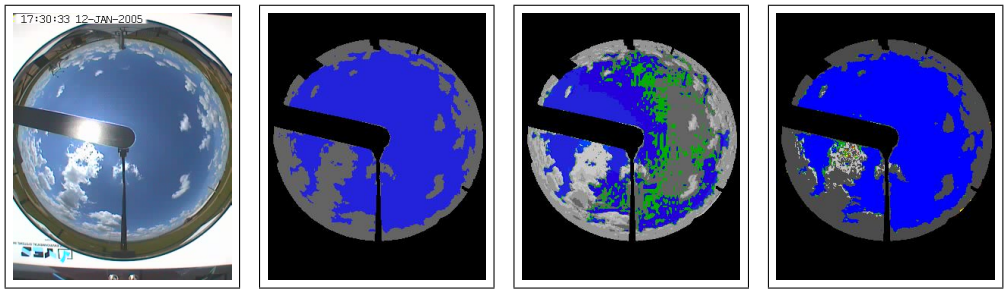


(xvii) 0501121700 (xviii) 0501121700 Long (xix) 0501121700 EGD (xx) 0501121700 MAHA

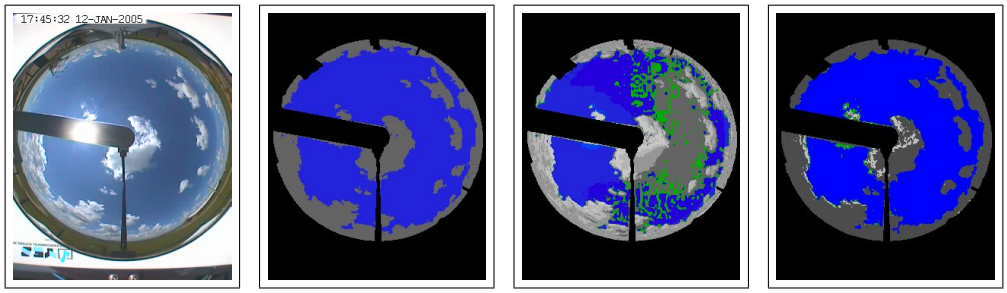
Figure A.137 - Sky images generated from 0501121600 to 0501121700.



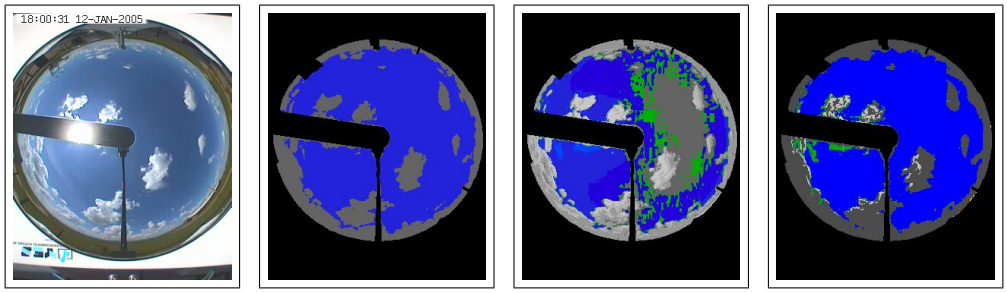
(i) 0501121715 (ii) 0501121715 Long (iii) 0501121715 EGD (iv) 0501121715 MAHA



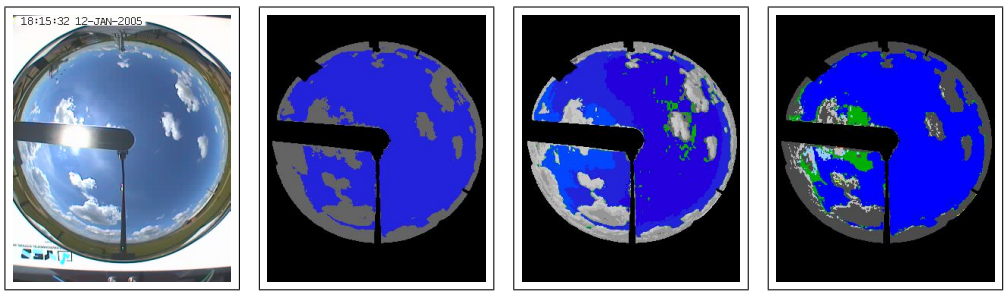
(v) 0501121730 (vi) 0501121730 Long (vii) 0501121730 EGD (viii) 0501121730 MAHA



(ix) 0501121745 (x) 0501121745 Long (xi) 0501121745 EGD (xii) 0501121745 MAHA

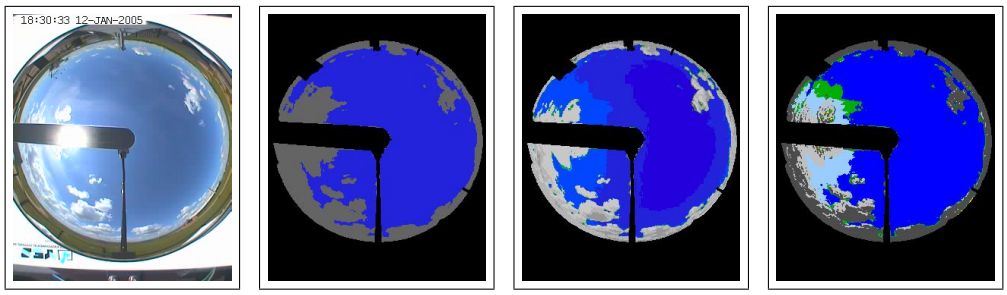


(xiii) 0501121800 (xiv) 0501121800 Long (xv) 0501121800 EGD (xvi) 0501121800 MAHA

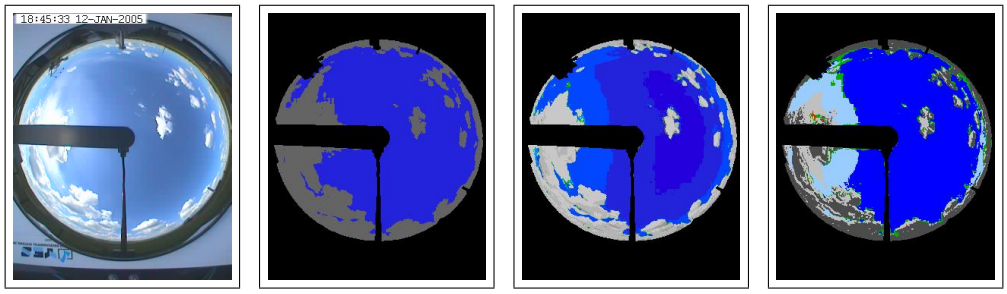


(xvii) 0501121815 (xviii) 0501121815 Long (xix) 0501121815 EGD (xx) 0501121815 MAHA

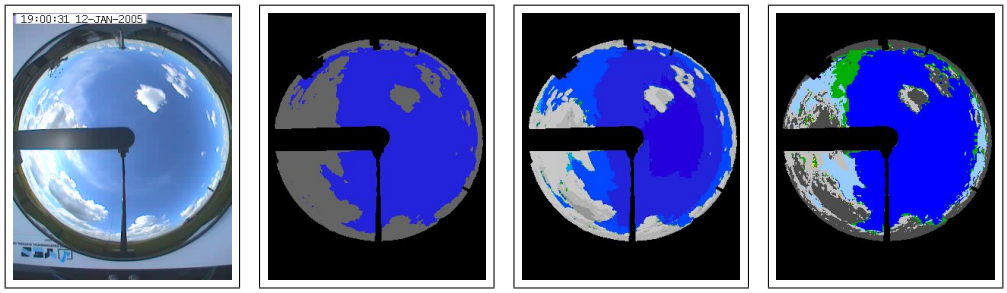
Figure A.138 - Sky images generated from 0501121715 to 0501121815.



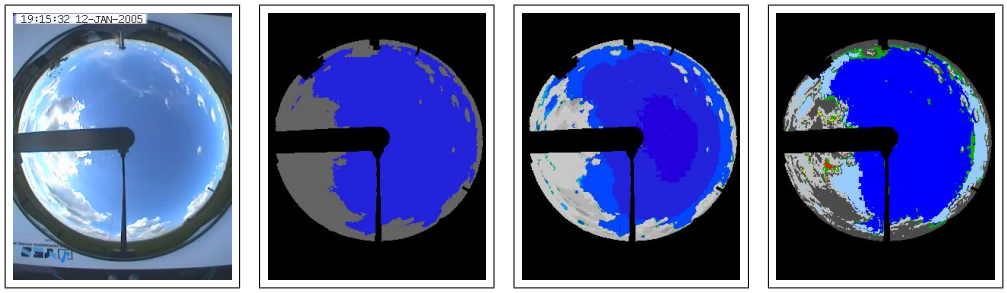
(i) 0501121830 (ii) 0501121830 Long (iii) 0501121830 EGD (iv) 0501121830 MAHA



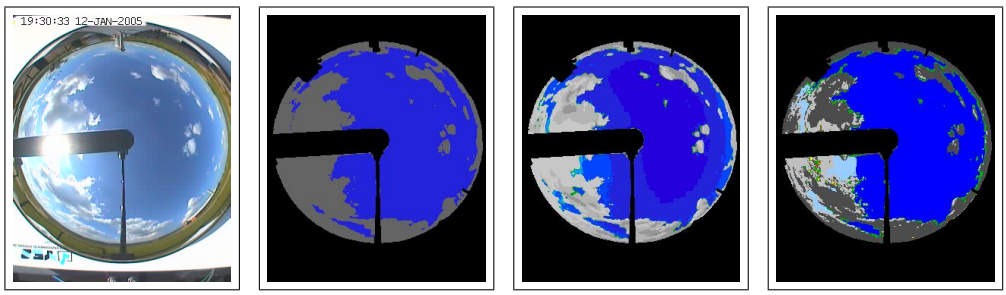
(v) 0501121845 (vi) 0501121845 Long (vii) 0501121845 EGD (viii) 0501121845 MAHA



(ix) 0501121900 (x) 0501121900 Long (xi) 0501121900 EGD (xii) 0501121900 MAHA

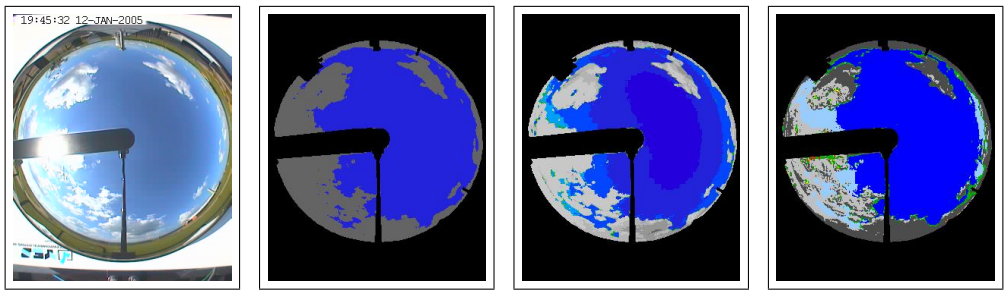


(xiii) 0501121915 (xiv) 0501121915 Long (xv) 0501121915 EGD (xvi) 0501121915 MAHA

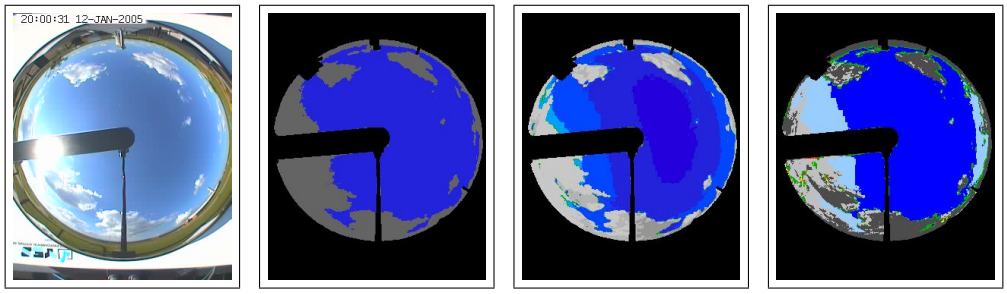


(xvii) 0501121930 (xviii) 0501121930 Long (xix) 0501121930 EGD (xx) 0501121930 MAHA

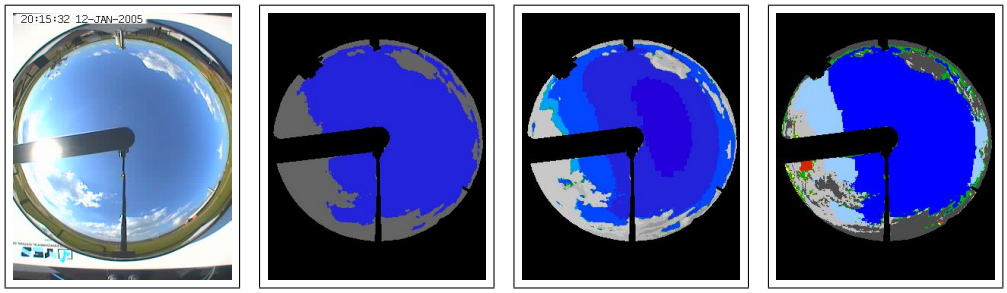
Figure A.139 - Sky images generated from 0501121830 to 0501121930.



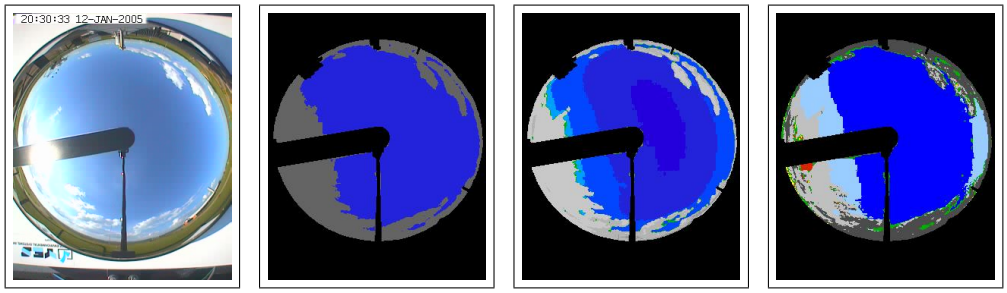
(i) 0501121945 (ii) 0501121945 Long (iii) 0501121945 EGD (iv) 0501121945 MAHA



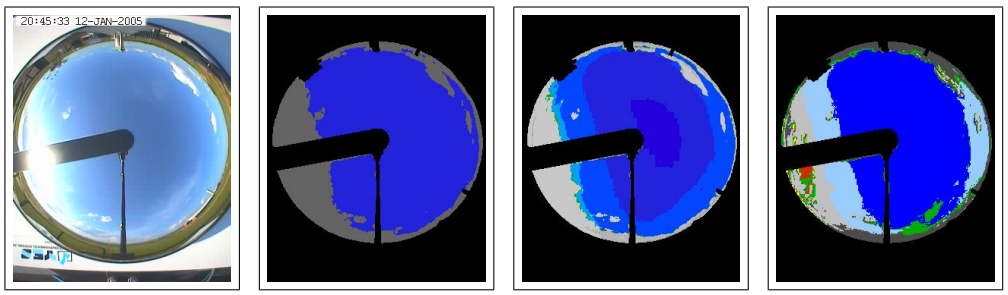
(v) 0501122000 (vi) 0501122000 Long (vii) 0501122000 EGD (viii) 0501122000 MAHA



(ix) 0501122015 (x) 0501122015 Long (xi) 0501122015 EGD (xii) 0501122015 MAHA

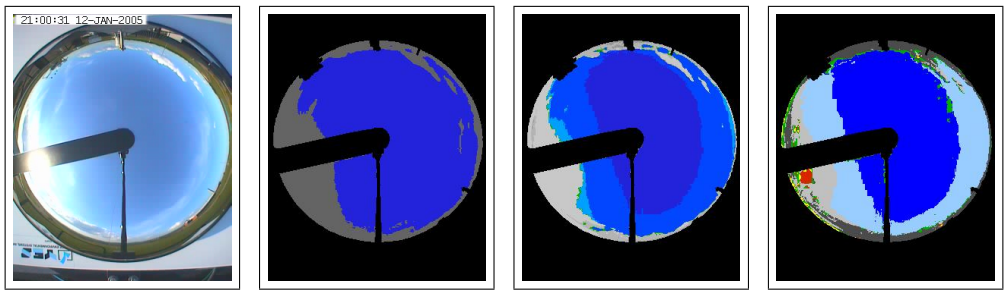


(xiii) 0501122030 (xiv) 0501122030 Long (xv) 0501122030 EGD (xvi) 0501122030 MAHA

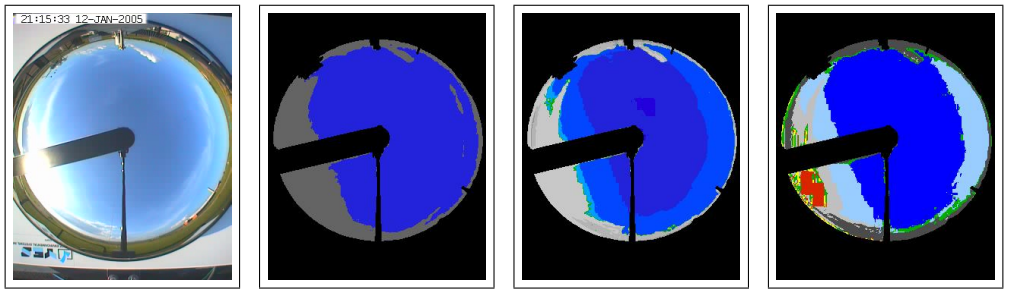


(xvii) 0501122045 (xviii) 0501122045 Long (xix) 0501122045 EGD (xx) 0501122045 MAHA

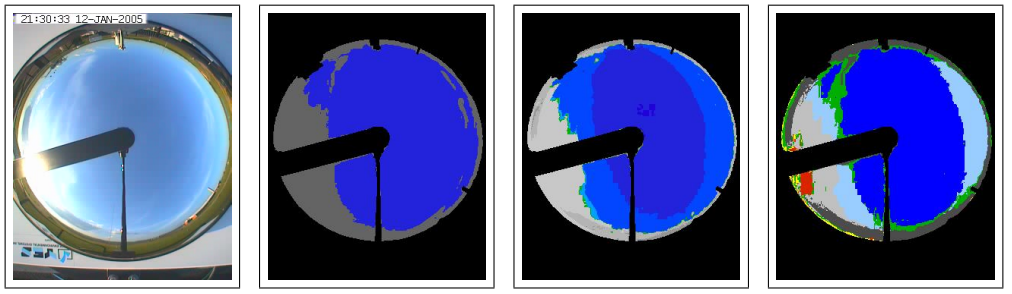
Figure A.140 - Sky images generated from 0501121945 to 0501122045.



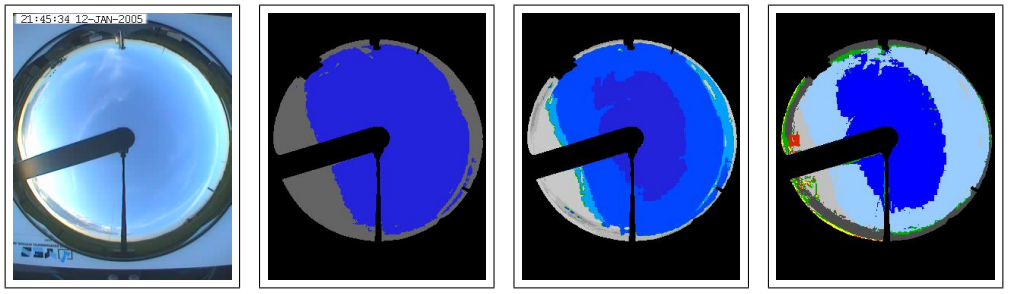
(i) 0501122100 (ii) 0501122100 Long (iii) 0501122100 EGD (iv) 0501122100 MAHA



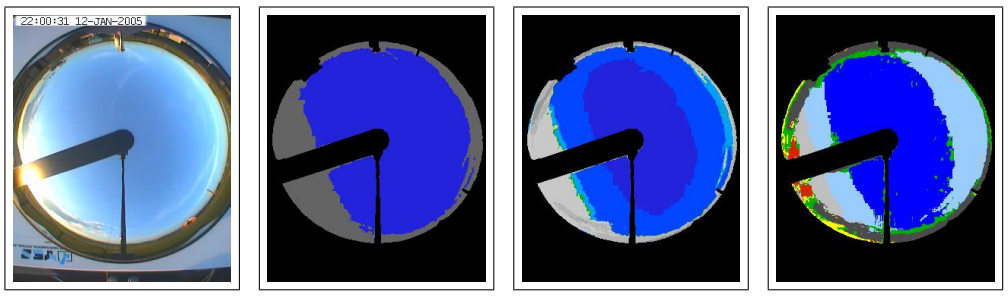
(v) 0501122115 (vi) 0501122115 Long (vii) 0501122115 EGD (viii) 0501122115 MAHA



(ix) 0501122130 (x) 0501122130 Long (xi) 0501122130 EGD (xii) 0501122130 MAHA

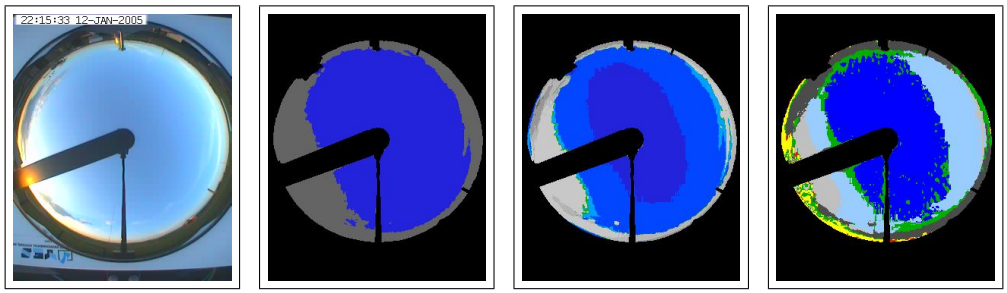


(xiii) 0501122145 (xiv) 0501122145 Long (xv) 0501122145 EGD (xvi) 0501122145 MAHA

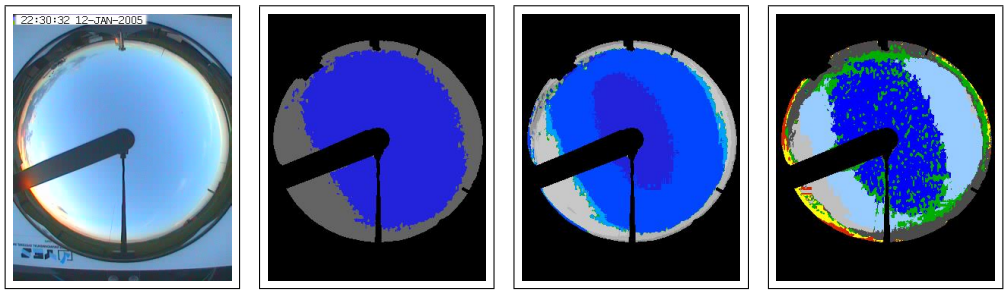


(xvii) 0501122200 (xviii) 0501122200 Long (xix) 0501122200 EGD (xx) 0501122200 MAHA

Figure A.141 - Sky images generated from 0501122100 to 0501122200.



(i) 0501122215 (ii) 0501122215 Long (iii) 0501122215 EGD (iv) 0501122215 MAHA

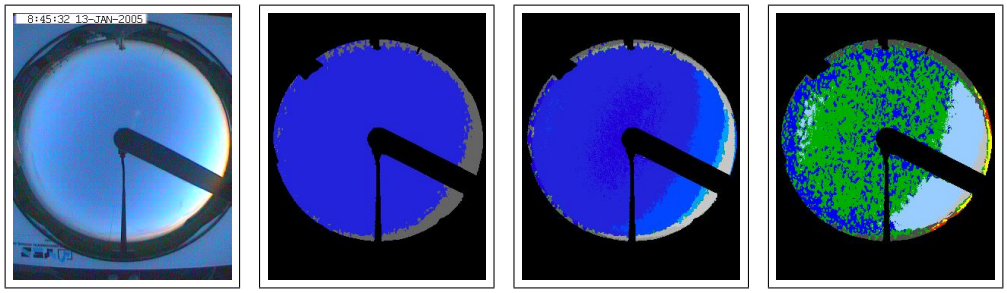


(v) 0501122230 (vi) 0501122230 Long (vii) 0501122230 EGD (viii) 0501122230 MAHA

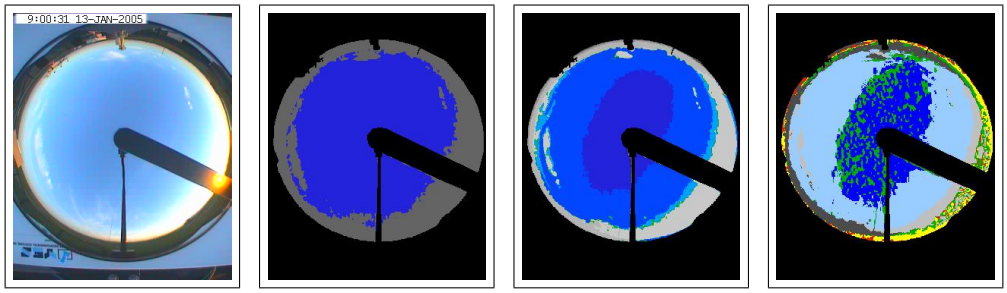


(ix) 0501122245

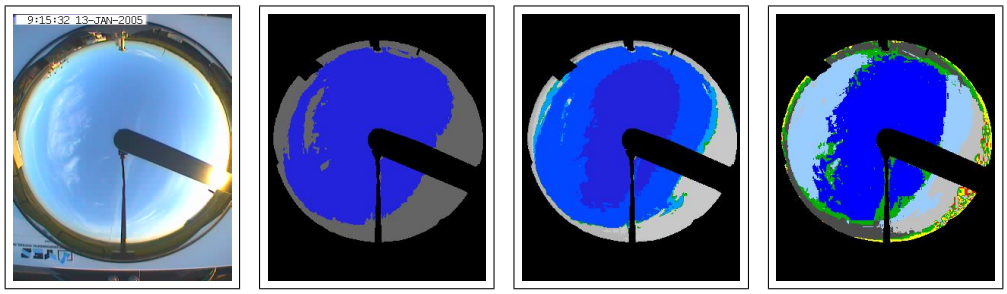
Figure A.142 - Sky images generated from 0501121600 to 0501122245.



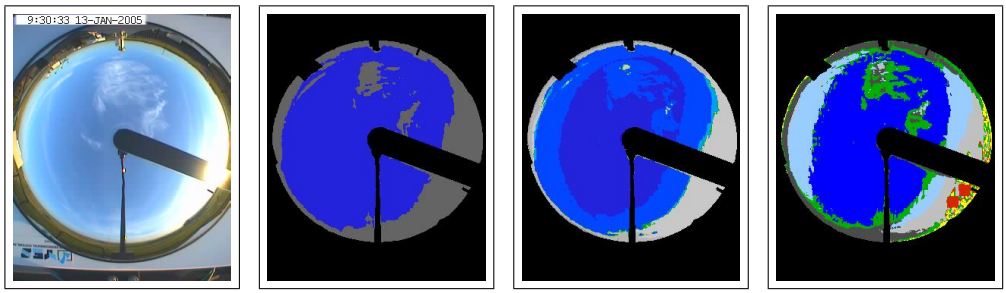
(i) 0501130845 (ii) 0501130845 Long (iii) 0501130845 EGD (iv) 0501130845 MAHA



(v) 0501130900 (vi) 0501130900 Long (vii) 0501130900 EGD (viii) 0501130900 MAHA

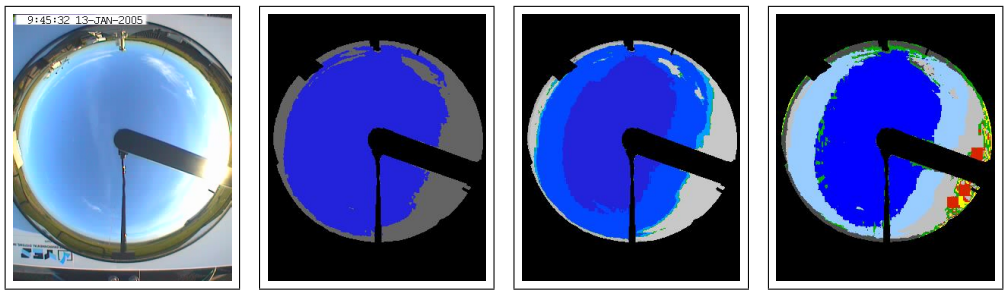


(ix) 0501130915 (x) 0501130915 Long (xi) 0501130915 EGD (xii) 0501130915 MAHA

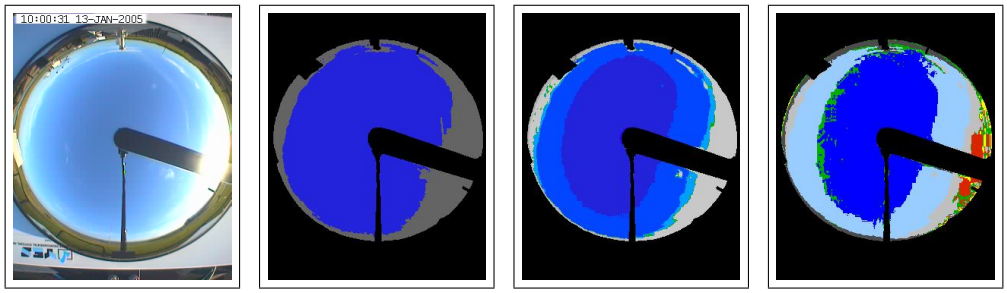


(xiii) 0501130930 (xiv) 0501130930 Long (xv) 0501130930 EGD (xvi) 0501130930 MAHA

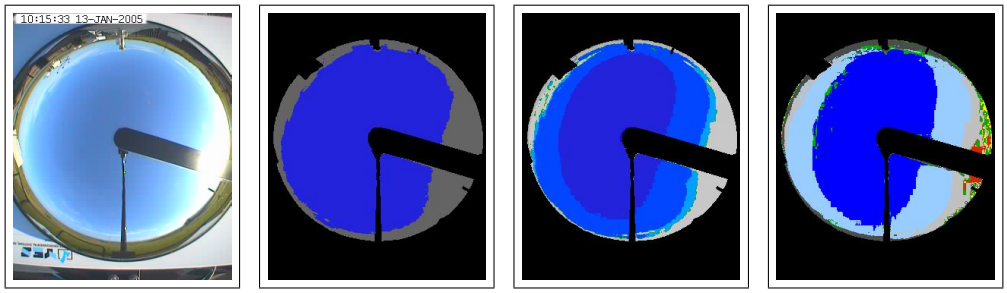
Figure A.143 - Sky images generated from 0501130845 to 0501130930.



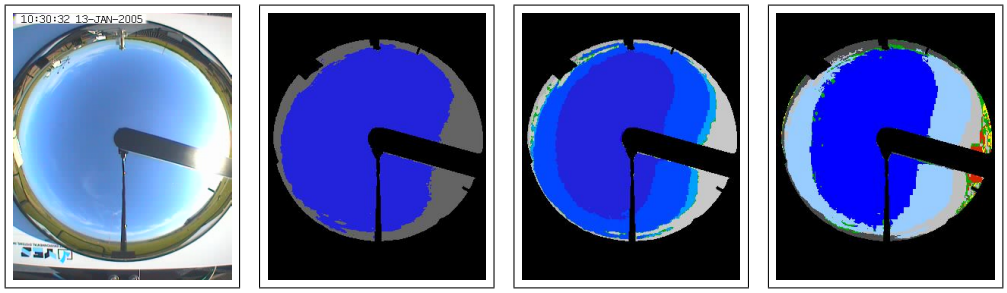
(i) 0501130945 (ii) 0501130945 Long (iii) 0501130945 EGD (iv) 0501130945 MAHA



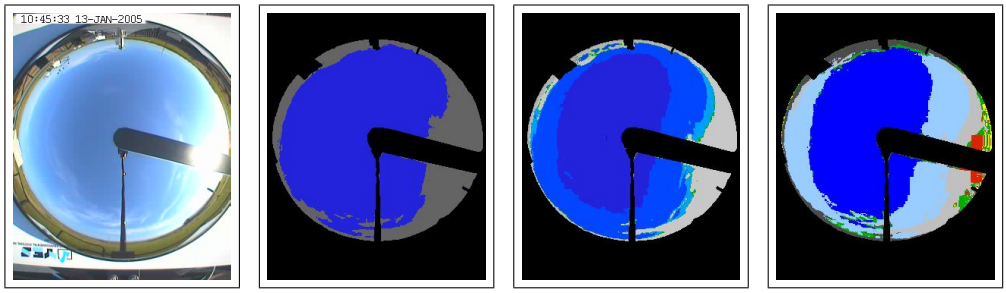
(v) 050113000 (vi) 050113000 Long (vii) 050113000 EGD (viii) 050113000 MAHA



(ix) 0501131015 (x) 0501131015 Long (xi) 0501131015 EGD (xii) 0501131015 MAHA

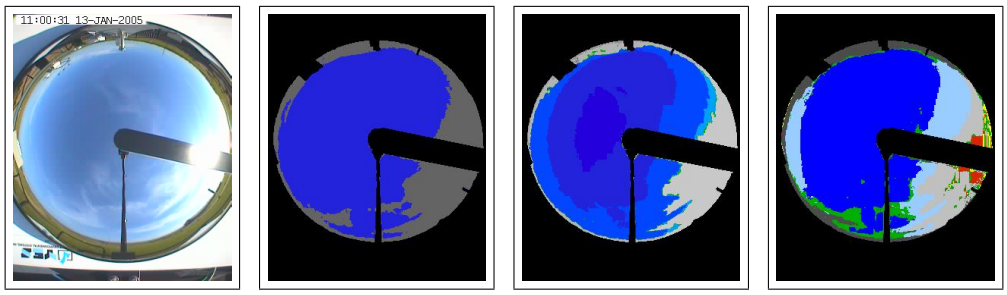


(xiii) 0501131030 (xiv) 0501131030 Long (xv) 0501131030 EGD (xvi) 0501131030 MAHA

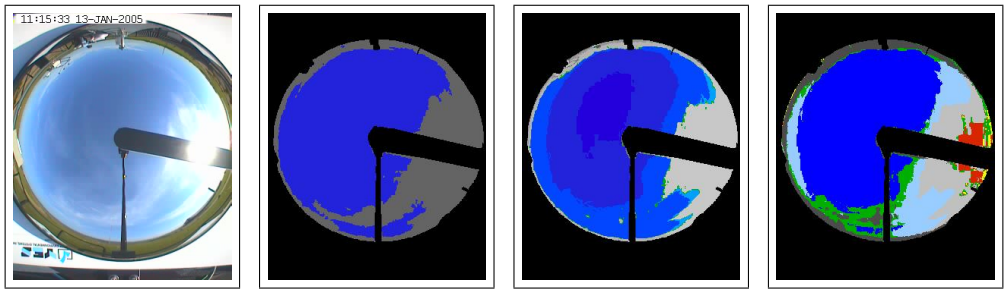


(xvii) 0501131045 (xviii) 0501131045 Long (xix) 0501131045 EGD (xx) 0501131045 MAHA

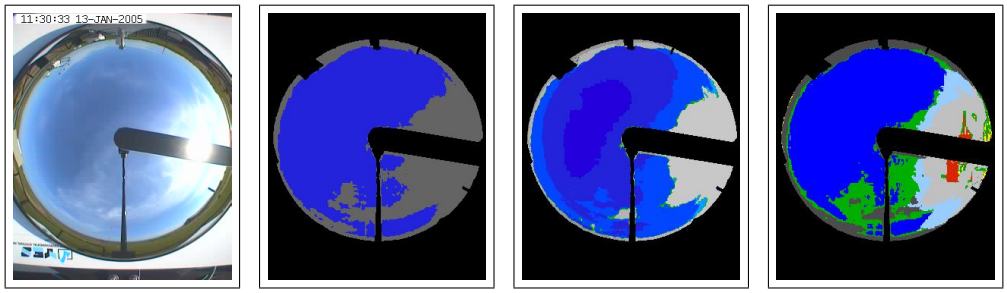
Figure A.144 - Sky images generated from 0501130945 to 0501131045.



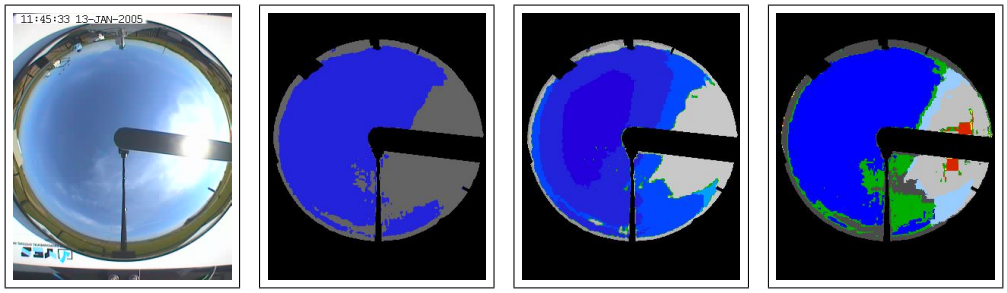
(i) 0501131100 (ii) 0501131100 Long (iii) 0501131100 EGD (iv) 0501131100 MAHA



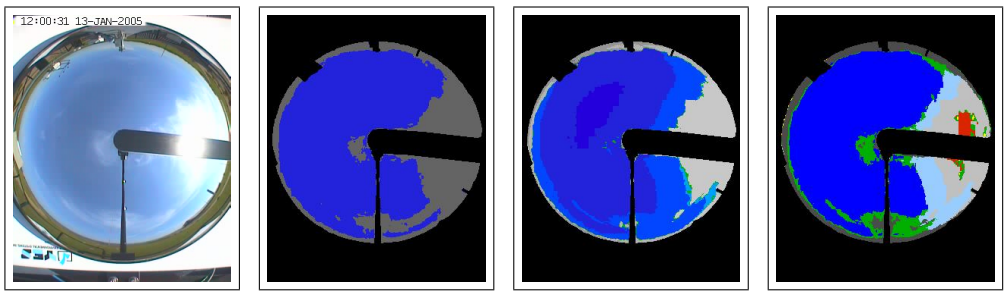
(v) 0501131115 (vi) 0501131115 Long (vii) 0501131115 EGD (viii) 0501131115 MAHA



(ix) 0501131130 (x) 0501131130 Long (xi) 0501131130 EGD (xii) 0501131130 MAHA

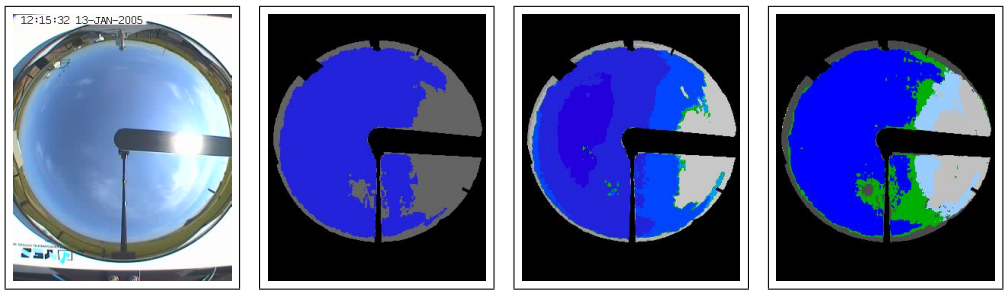


(xiii) 0501131145 (xiv) 0501131145 Long (xv) 0501131145 EGD (xvi) 0501131145 MAHA

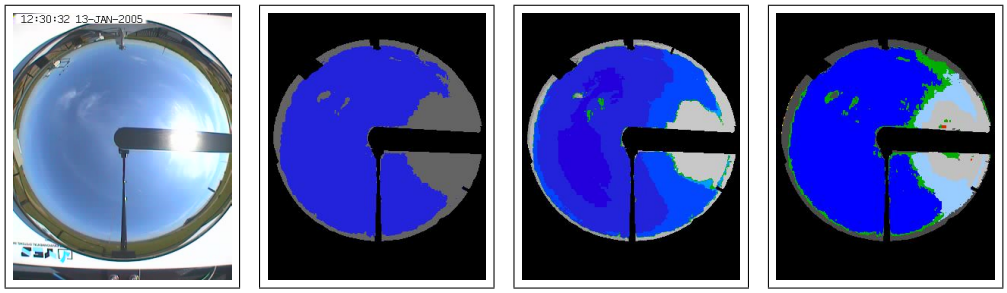


(xvii) 0501131200 (xviii) 0501131200 Long (xix) 0501131200 EGD (xx) 0501131200 MAHA

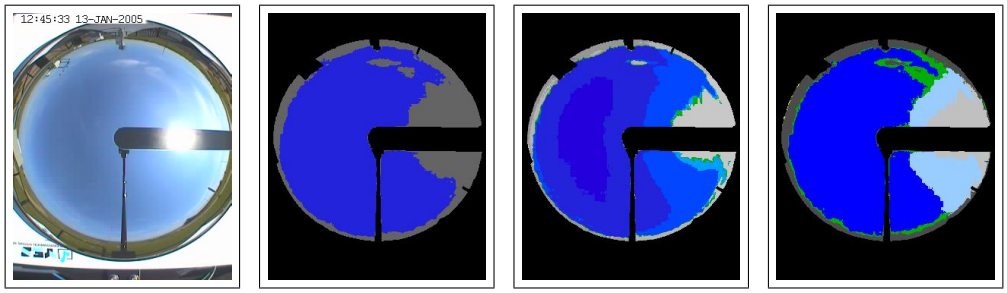
Figure A.145 - Sky images generated from 050113100 to 0501131200.



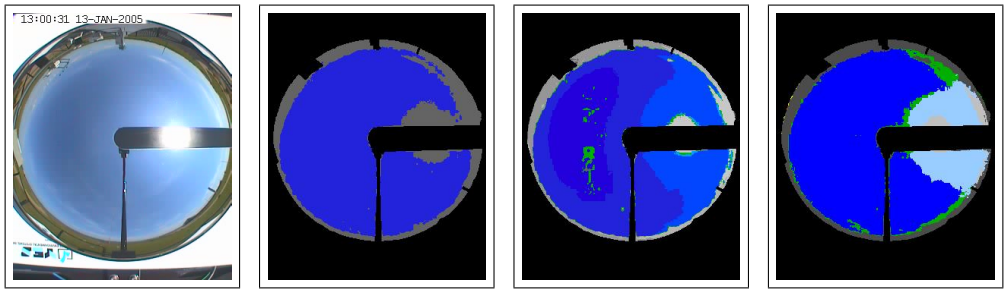
(i) 0501131215 (ii) 0501131215 Long (iii) 0501131215 EGD (iv) 0501131215 MAHA



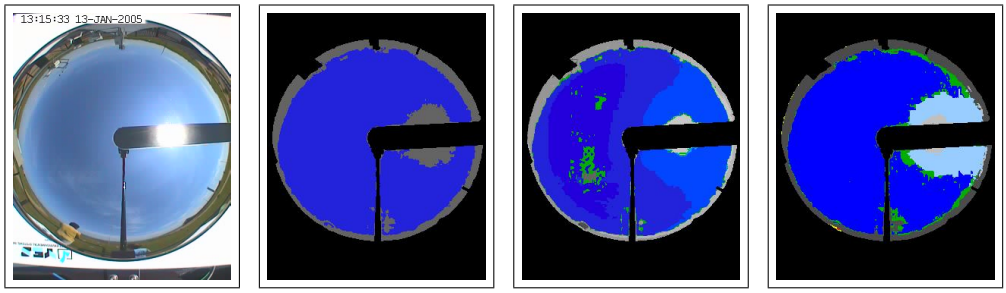
(v) 0501131230 (vi) 0501131230 Long (vii) 0501131230 EGD (viii) 0501131230 MAHA



(ix) 0501131245 (x) 0501131245 Long (xi) 0501131245 EGD (xii) 0501131245 MAHA

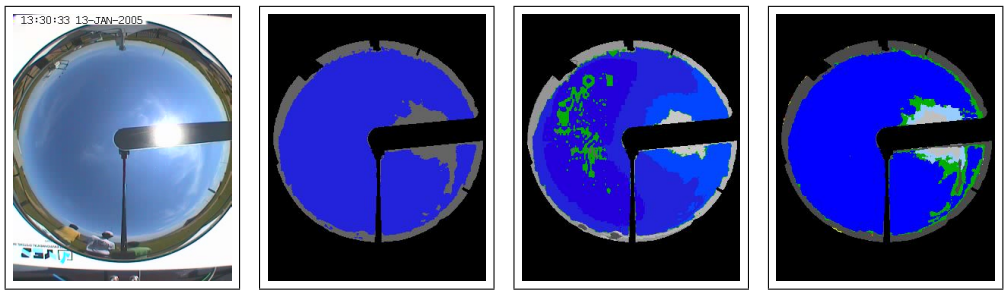


(xiii) 0501131300 (xiv) 0501131300 Long (xv) 0501131300 EGD (xvi) 0501131300 MAHA

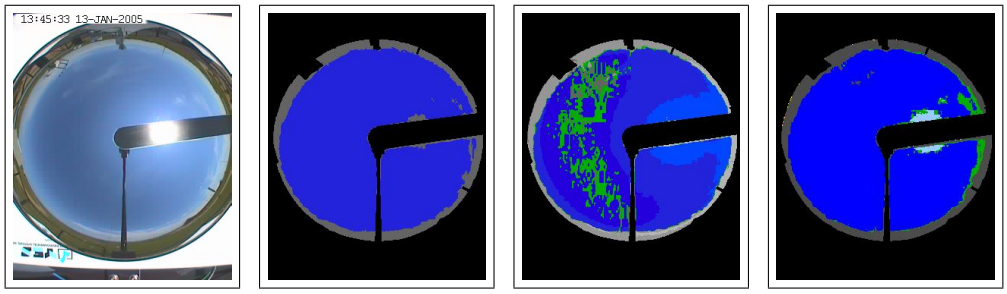


(xvii) 0501131315 (xviii) 0501131315 Long (xix) 0501131315 EGD (xx) 0501131315 MAHA

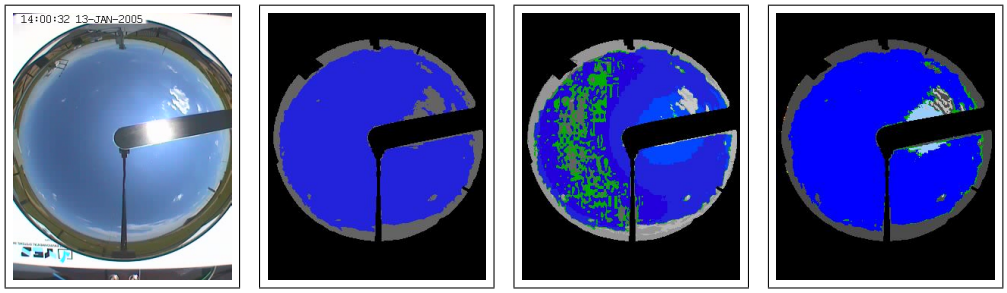
Figure A.146 - Sky images generated from 0501131215 to 0501131315.



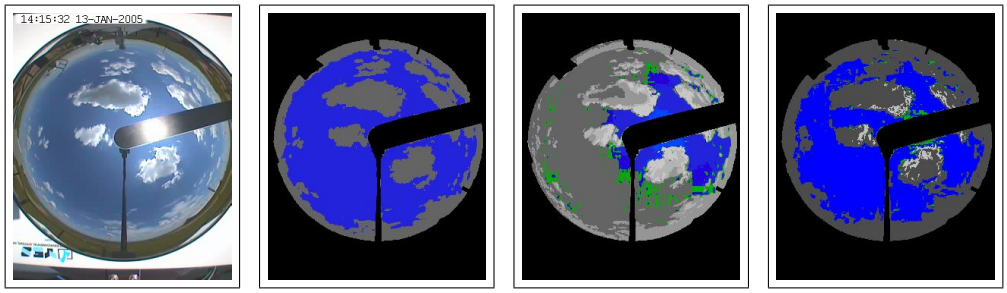
(i) 0501131330 (ii) 0501131330 Long (iii) 0501131330 EGD (iv) 0501131330 MAHA



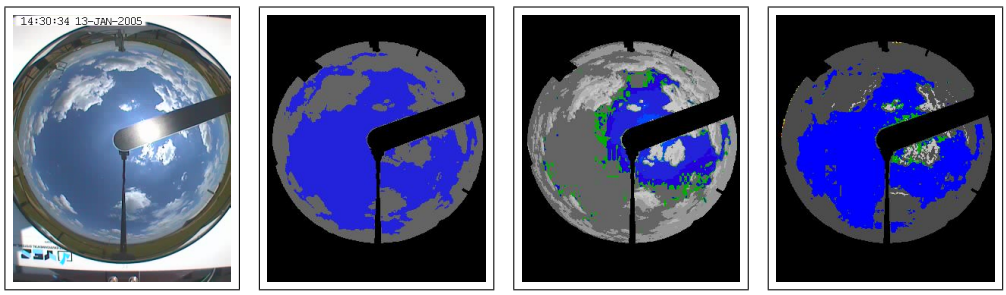
(v) 0501131345 (vi) 0501131345 Long (vii) 0501131345 EGD (viii) 0501131345 MAHA



(ix) 0501131400 (x) 0501131400 Long (xi) 0501131400 EGD (xii) 0501131400 MAHA

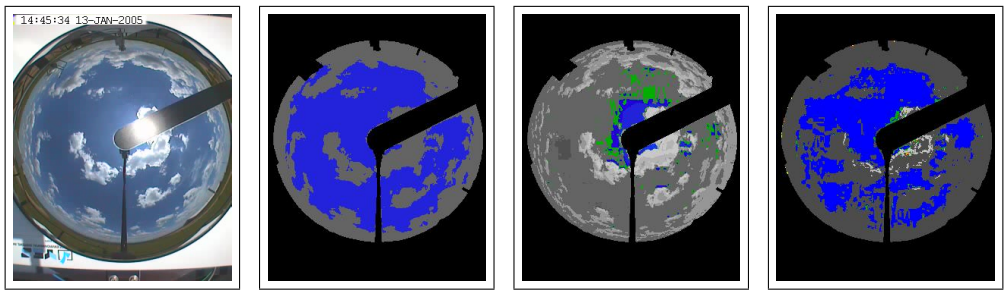


(xiii) 0501131415 (xiv) 0501131415 Long (xv) 0501131415 EGD (xvi) 0501131415 MAHA

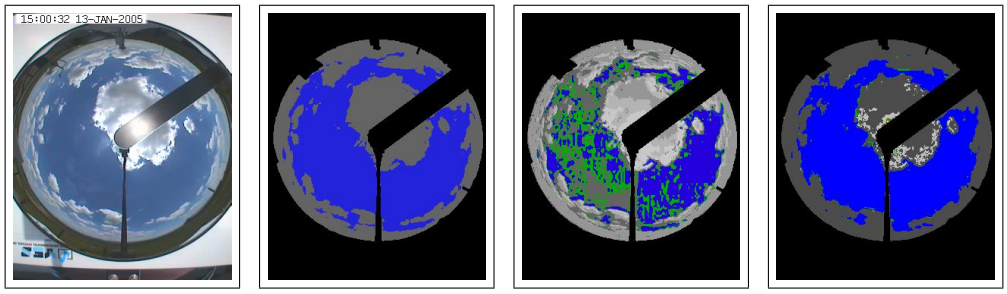


(xvii) 0501131430 (xviii) 0501131430 Long (xix) 0501131430 EGD (xx) 0501131430 MAHA

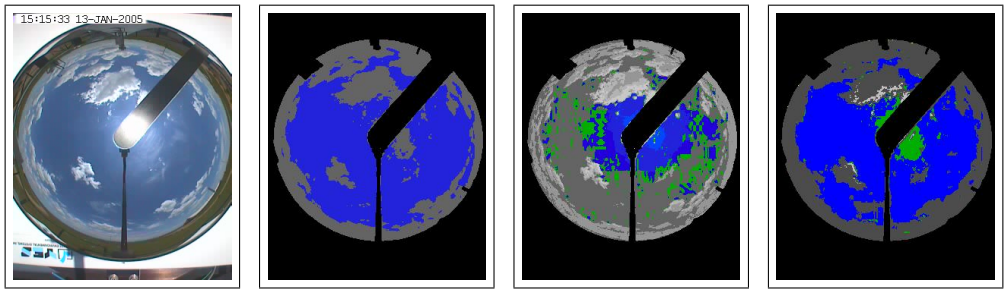
Figure A.147 - Sky images generated from 0501131330 to 0501131430.



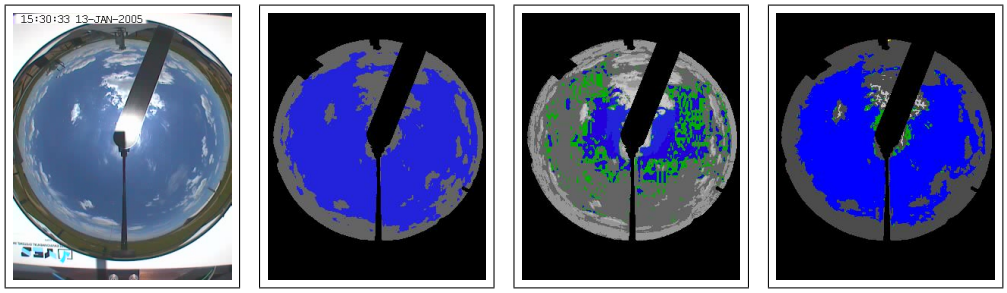
(i) 0501131445 (ii) 0501131445 Long (iii) 0501131445 EGD (iv) 0501131445 MAHA



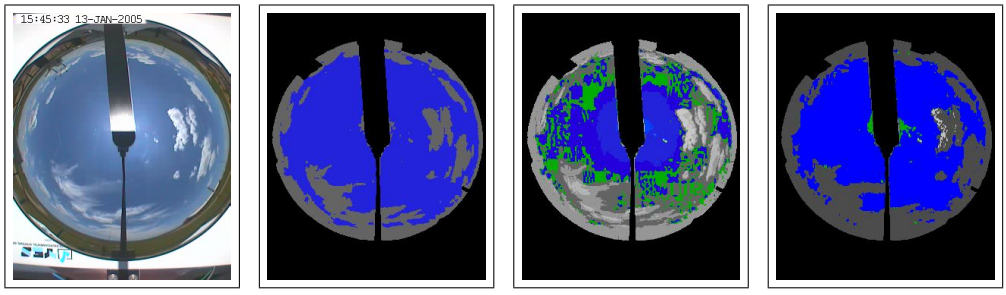
(v) 0501131500 (vi) 0501131500 Long (vii) 0501131500 EGD (viii) 0501131500 MAHA



(ix) 0501131515 (x) 0501131515 Long (xi) 0501131515 EGD (xii) 0501131515 MAHA

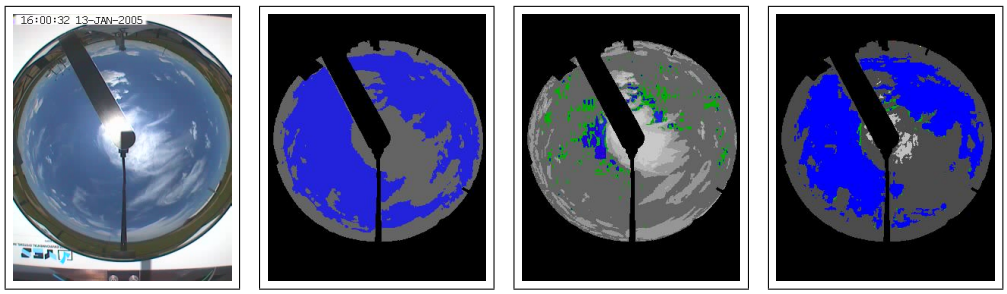


(xiii) 0501131530 (xiv) 0501131530 Long (xv) 0501131530 EGD (xvi) 0501131530 MAHA

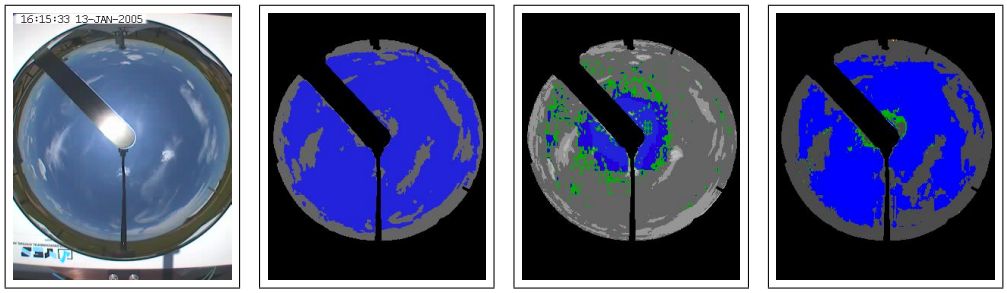


(xvii) 0501131545 (xviii) 0501131545 Long (xix) 0501131545 EGD (xx) 0501131545 MAHA

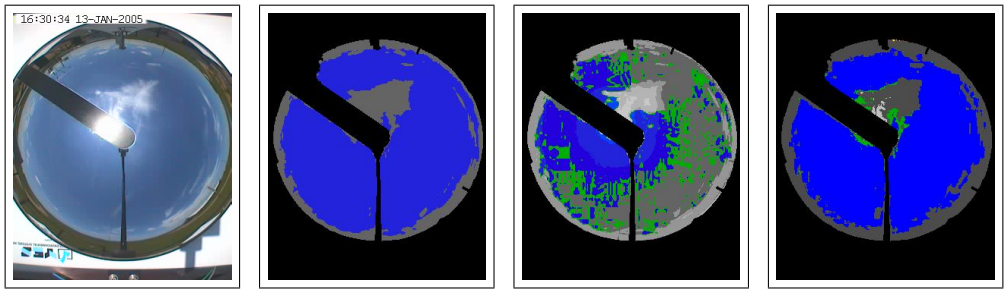
Figure A.148 - Sky images generated from 0501131445 to 0501131545.



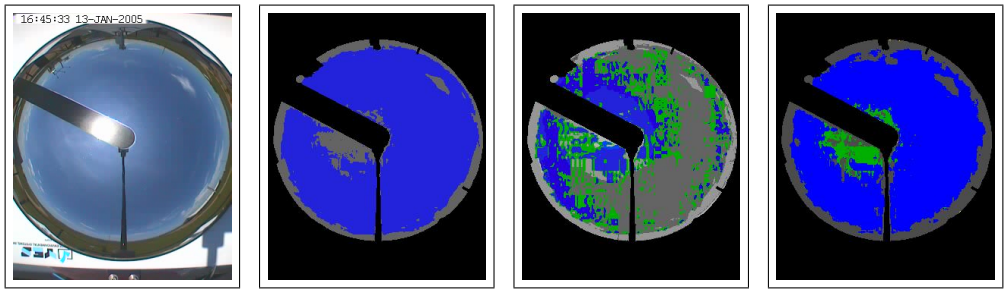
(i) 0501131600 (ii) 0501131600 Long (iii) 0501131600 EGD (iv) 0501131600 MAHA



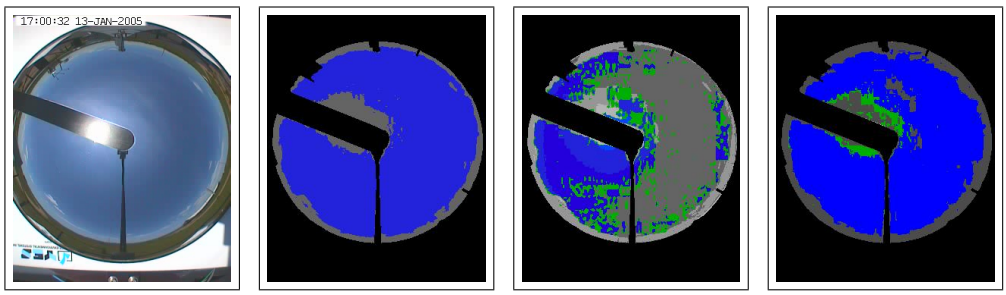
(v) 0501131615 (vi) 0501131615 Long (vii) 0501131615 EGD (viii) 0501131615 MAHA



(ix) 0501131630 (x) 0501131630 Long (xi) 0501131630 EGD (xii) 0501131630 MAHA

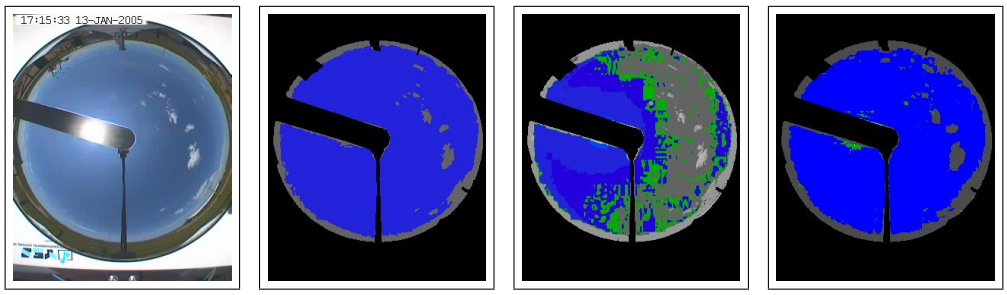


(xiii) 0501131645 (xiv) 0501131645 Long (xv) 0501131645 EGD (xvi) 0501131645 MAHA

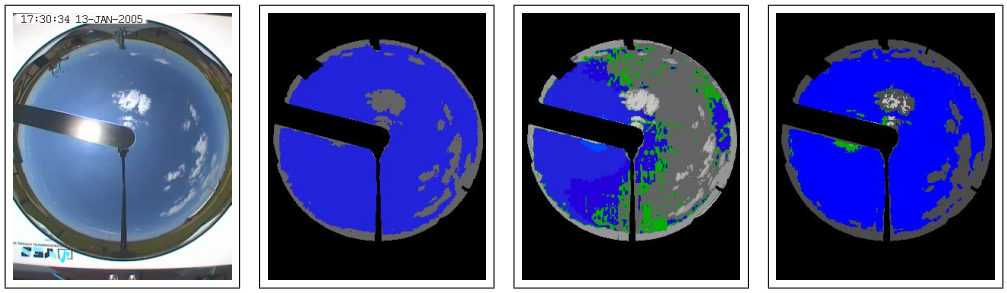


(xvii) 0501131700 (xviii) 0501131700 Long (xix) 0501131700 EGD (xx) 0501131700 MAHA

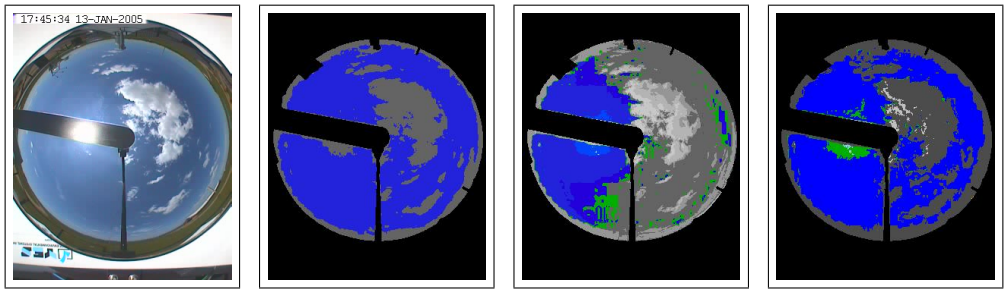
Figure A.149 - Sky images generated from 0501131600 to 0501131700.



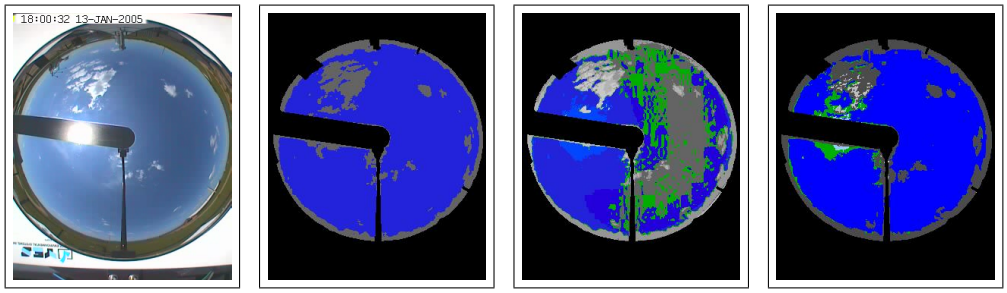
(i) 0501131715 (ii) 0501131715 Long (iii) 0501131715 EGD (iv) 0501131715 MAHA



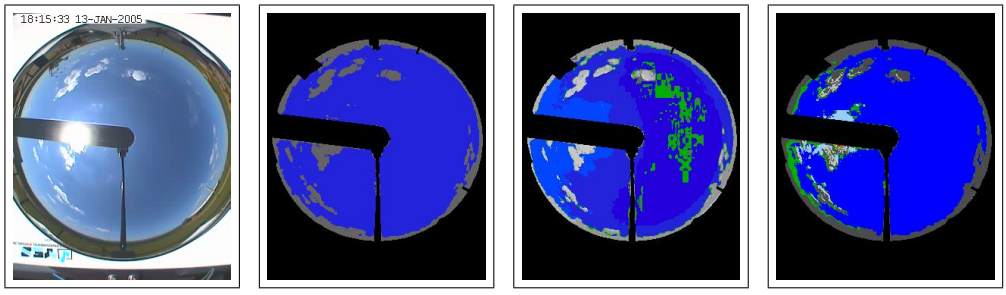
(v) 0501131730 (vi) 0501131730 Long (vii) 0501131730 EGD (viii) 0501131730 MAHA



(ix) 0501131745 (x) 0501131745 Long (xi) 0501131745 EGD (xii) 0501131745 MAHA

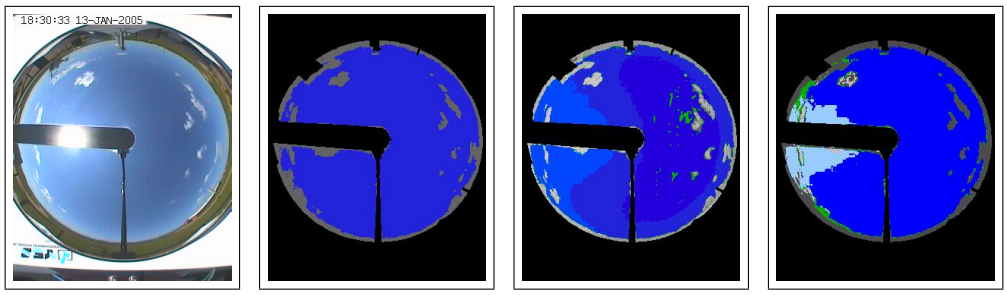


(xiii) 0501131800 (xiv) 0501131800 Long (xv) 0501131800 EGD (xvi) 0501131800 MAHA

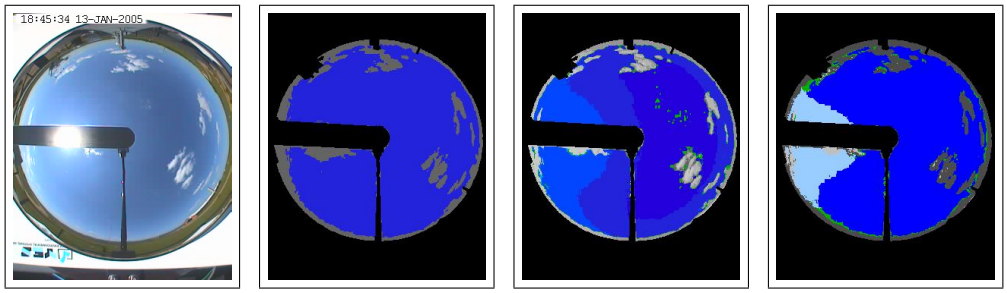


(xvii) 0501131815 (xviii) 0501131815 Long (xix) 0501131815 EGD (xx) 0501131815 MAHA

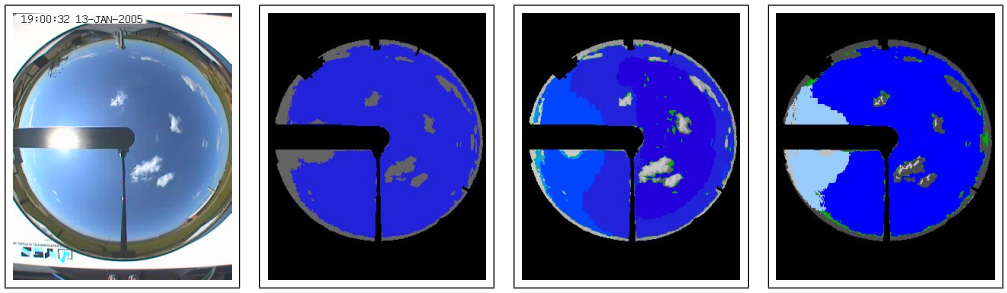
Figure A.150 - Sky images generated from 0501131715 to 0501131815.



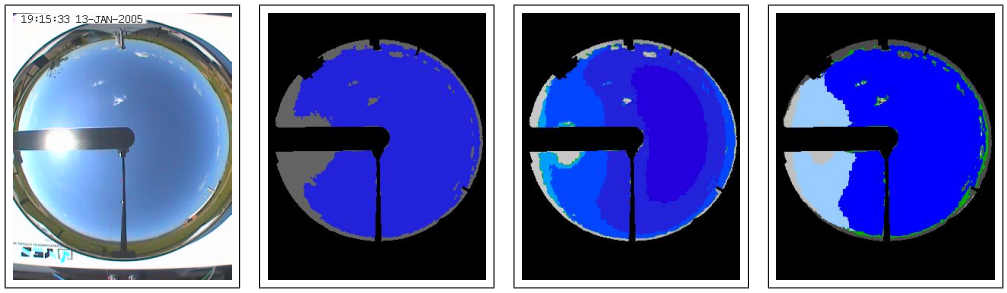
(i) 0501131830 (ii) 0501131830 Long (iii) 0501131830 EGD (iv) 0501131830 MAHA



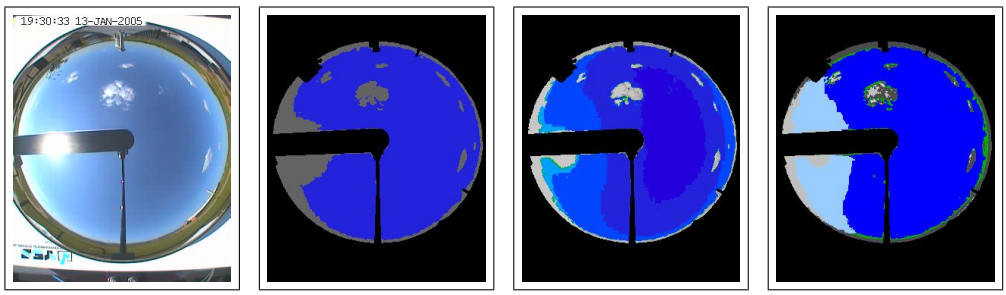
(v) 0501131845 (vi) 0501131845 Long (vii) 0501131845 EGD (viii) 0501131845 MAHA



(ix) 0501131900 (x) 0501131900 Long (xi) 0501131900 EGD (xii) 0501131900 MAHA

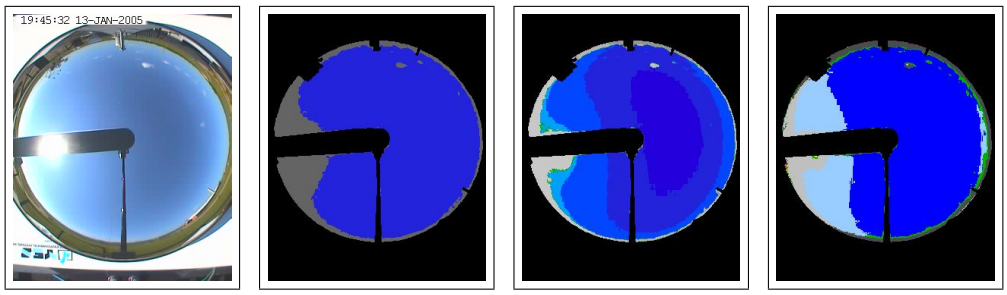


(xiii) 0501131915 (xiv) 0501131915 Long (xv) 0501131915 EGD (xvi) 0501131915 MAHA

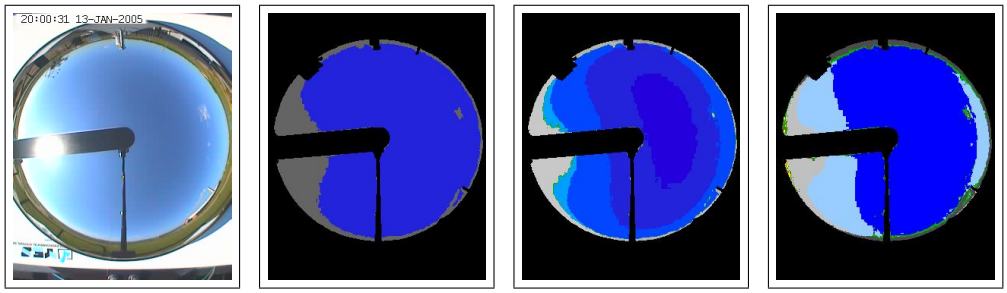


(xvii) 0501131930 (xviii) 0501131930 Long (xix) 0501131930 EGD (xx) 0501131930 MAHA

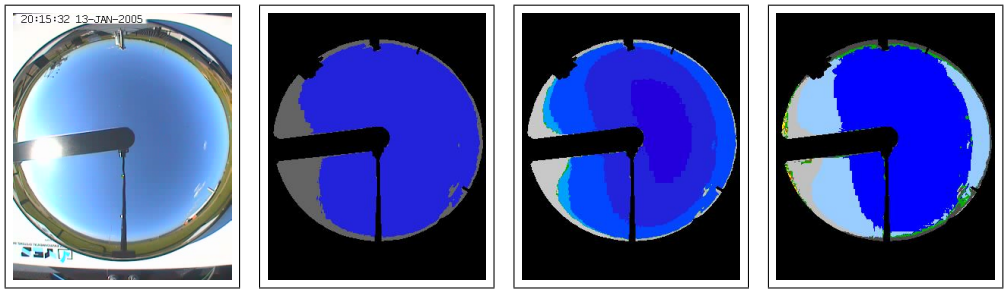
Figure A.151 - Sky images generated from 0501131830 to 0501131930.



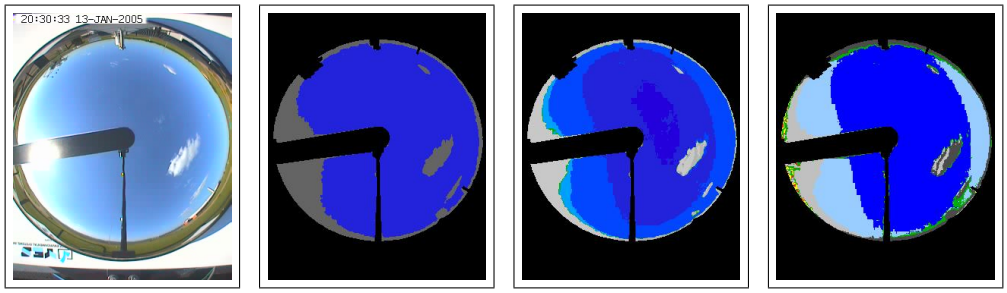
(i) 0501131945 (ii) 0501131945 Long (iii) 0501131945 EGD (iv) 0501131945 MAHA



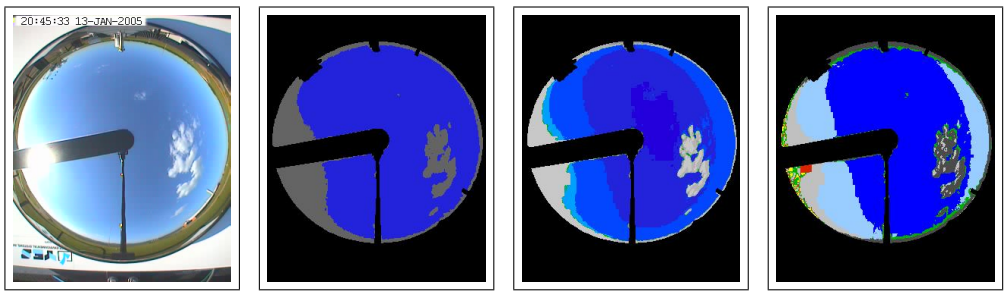
(v) 0501132000 (vi) 0501132000 Long (vii) 0501132000 EGD (viii) 0501132000 MAHA



(ix) 0501132015 (x) 0501132015 Long (xi) 0501132015 EGD (xii) 0501132015 MAHA

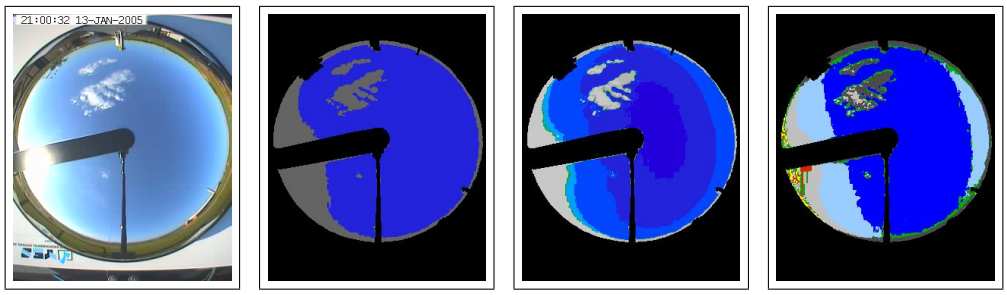


(xiii) 0501132030 (xiv) 0501132030 Long (xv) 0501132030 EGD (xvi) 0501132030 MAHA

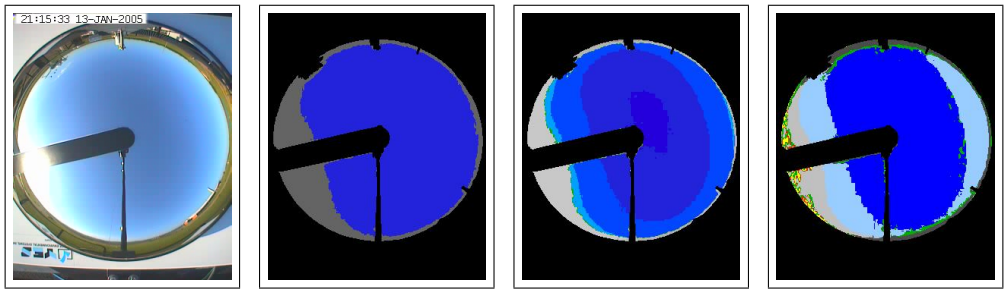


(xvii) 0501132045 (xviii) 0501132045 Long (xix) 0501132045 EGD (xx) 0501132045 MAHA

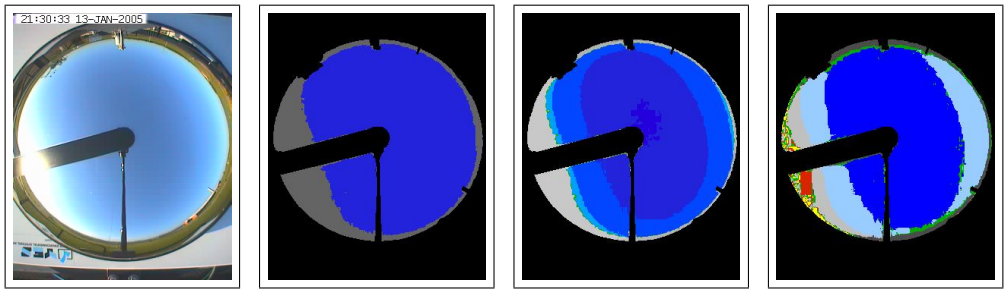
Figure A.152 - Sky images generated from 0501131945 to 0501132045.



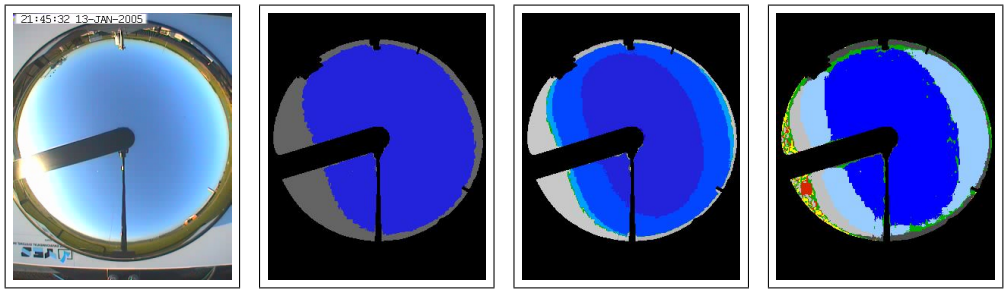
(i) 0501132100 (ii) 0501132100 Long (iii) 0501132100 EGD (iv) 0501132100 MAHA



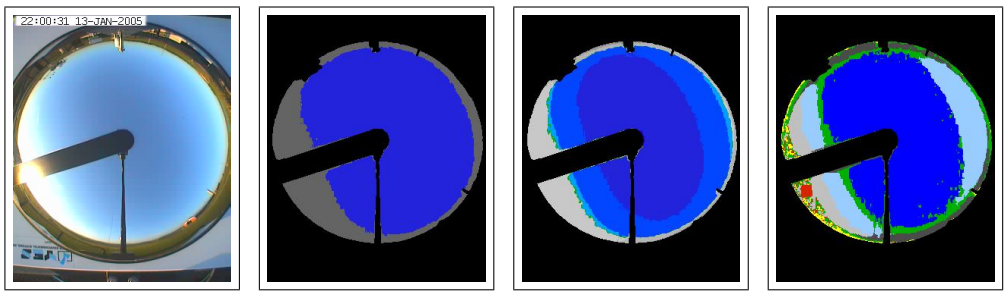
(v) 0501132115 (vi) 0501132115 Long (vii) 0501132115 EGD (viii) 0501132115 MAHA



(ix) 0501132130 (x) 0501132130 Long (xi) 0501132130 EGD (xii) 0501132130 MAHA

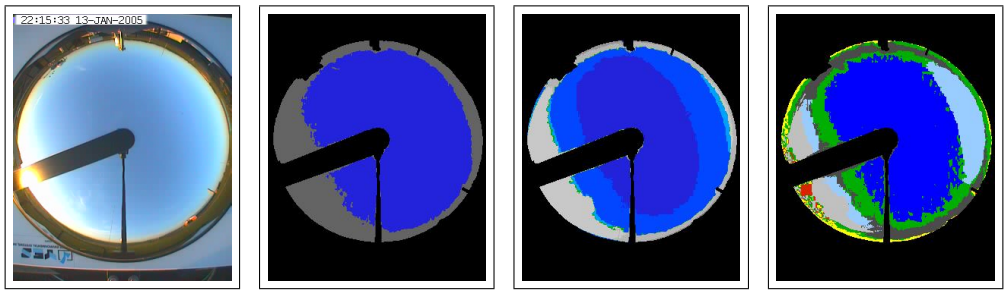


(xiii) 0501132145 (xiv) 0501132145 Long (xv) 0501132145 EGD (xvi) 0501132145 MAHA

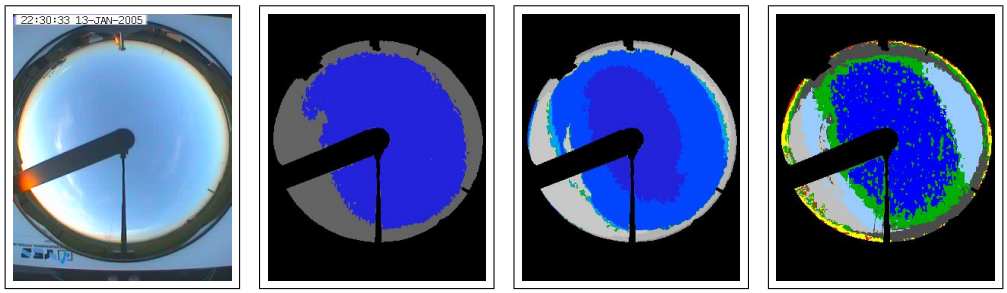


(xvii) 0501132200 (xviii) 0501132200 Long (xix) 0501132200 EGD (xx) 0501132200 MAHA

Figure A.153 - Sky images generated from 0501132100 to 0501132200.



(i) 0501132215 (ii) 0501132215 Long (iii) 0501132215 EGD (iv) 0501132215 MAHA

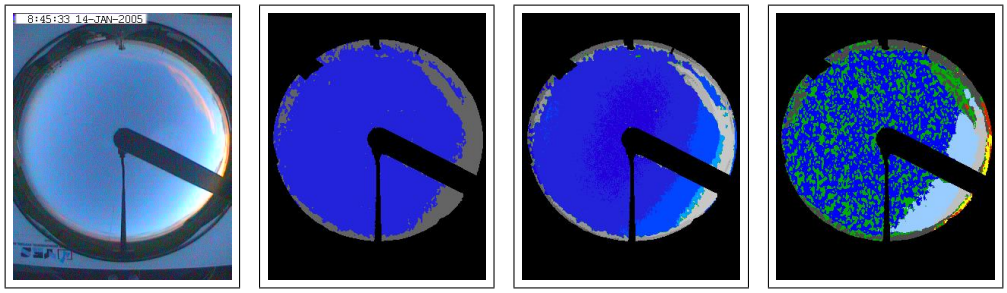


(v) 0501132230 (vi) 0501132230 Long (vii) 0501132230 EGD (viii) 0501132230 MAHA

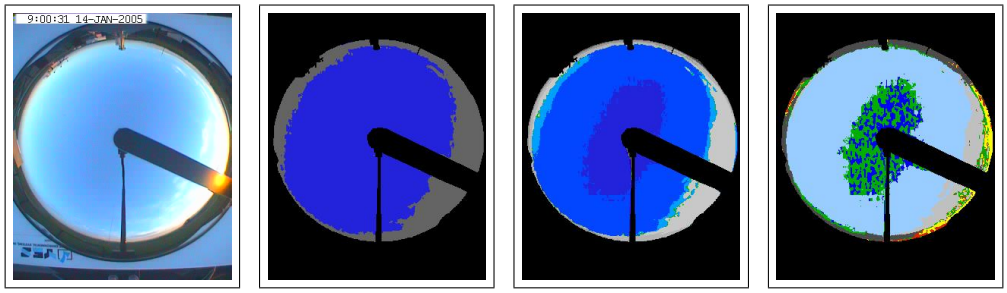


(ix) 0501132245

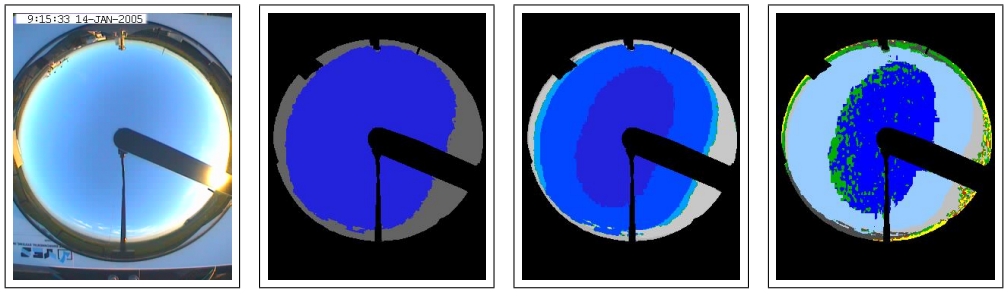
Figure A.154 - Sky images generated from 0501131600 to 0501132245.



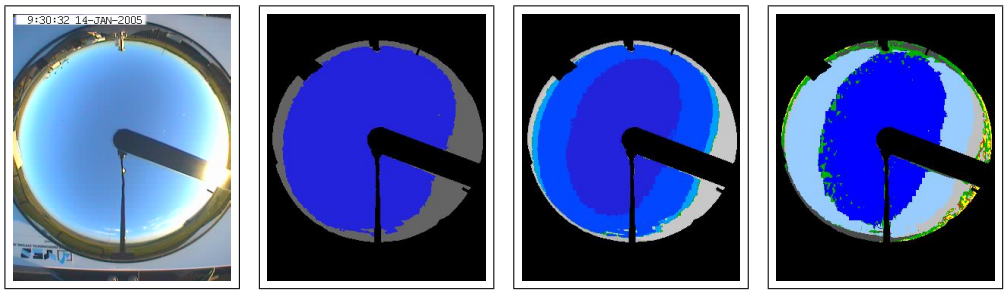
(i) 0501140845 (ii) 0501140845 Long (iii) 0501140845 EGD (iv) 0501140845 MAHA



(v) 0501140900 (vi) 0501140900 Long (vii) 0501140900 EGD (viii) 0501140900 MAHA

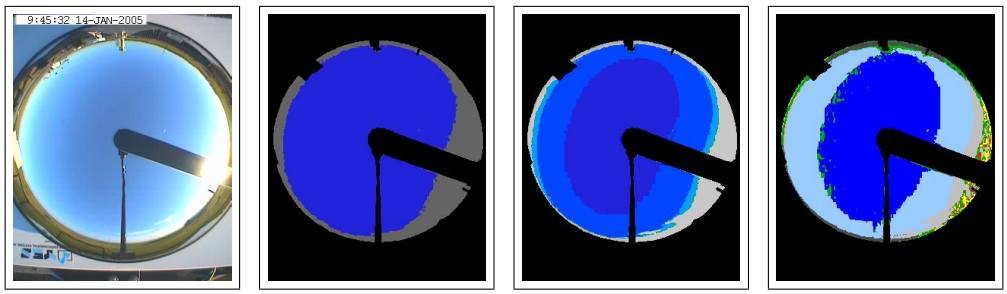


(ix) 0501140915 (x) 0501140915 Long (xi) 0501140915 EGD (xii) 0501140915 MAHA

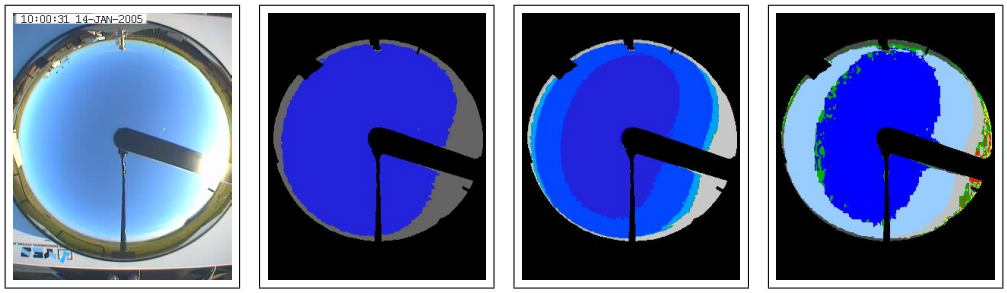


(xiii) 0501140930 (xiv) 0501140930 Long (xv) 0501140930 EGD (xvi) 0501140930 MAHA

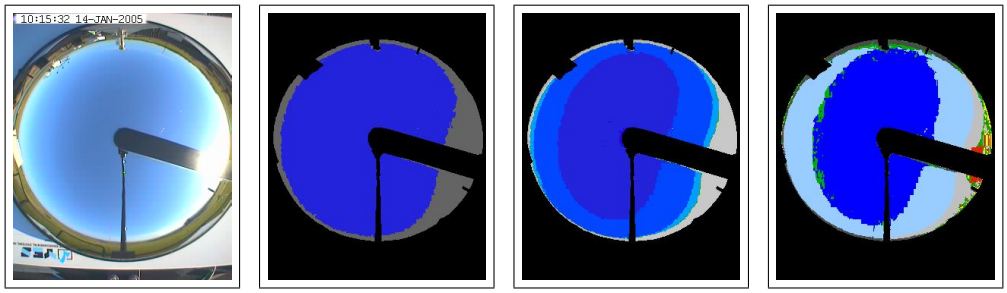
Figure A.155 - Sky images generated from 0501140845 to 0501140930.



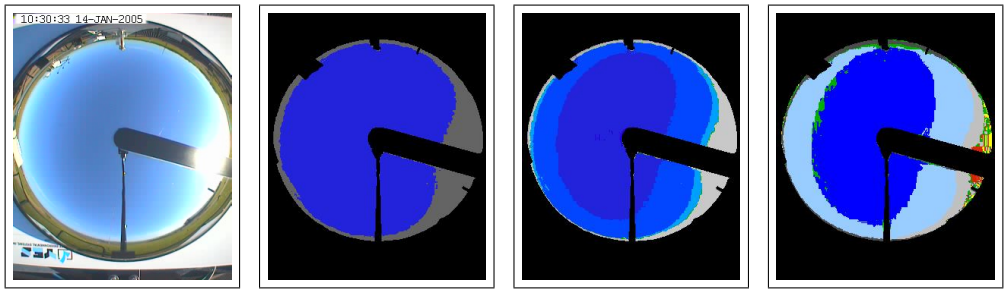
(i) 0501140945 (ii) 0501140945 Long (iii) 0501140945 EGD (iv) 0501140945 MAHA



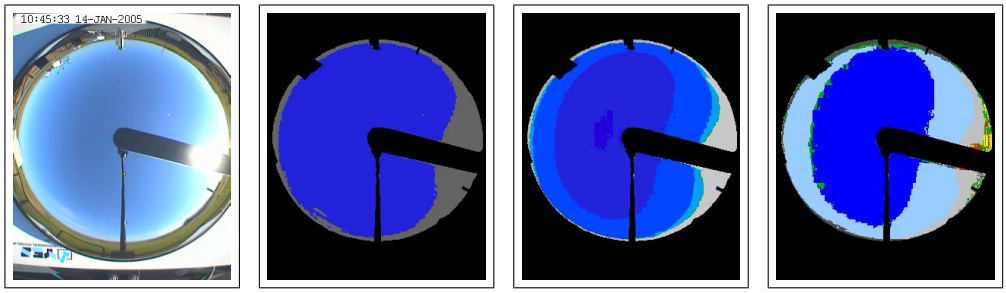
(v) 050114000 (vi) 050114000 Long (vii) 050114000 EGD (viii) 050114000 MAHA



(ix) 0501141015 (x) 0501141015 Long (xi) 0501141015 EGD (xii) 0501141015 MAHA

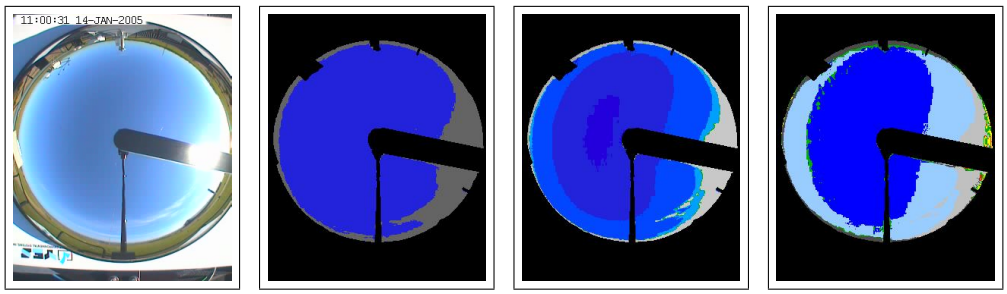


(xiii) 0501141030 (xiv) 0501141030 Long (xv) 0501141030 EGD (xvi) 0501141030 MAHA

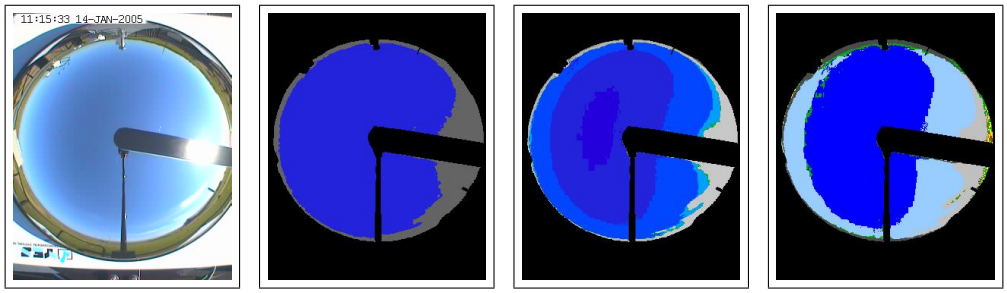


(xvii) 0501141045 (xviii) 0501141045 Long (xix) 0501141045 EGD (xx) 0501141045 MAHA

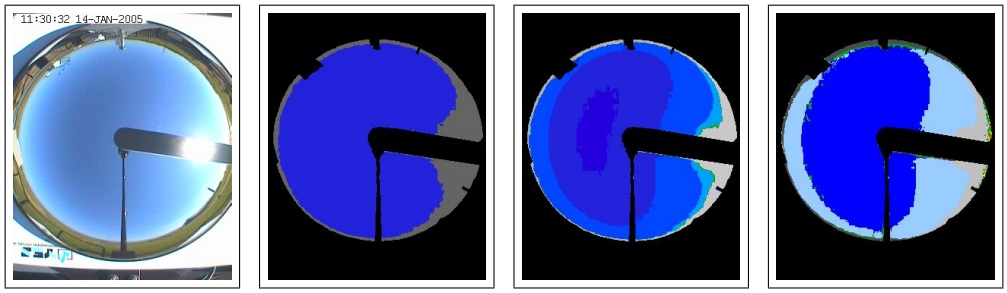
Figure A.156 - Sky images generated from 0501140945 to 0501141045.



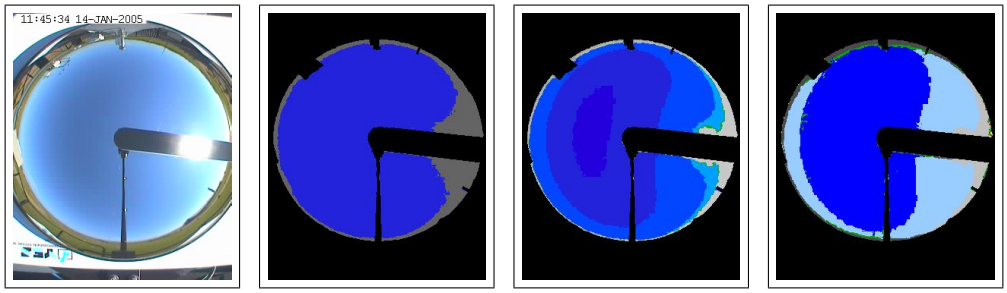
(i) 0501141100 (ii) 0501141100 Long (iii) 0501141100 EGD (iv) 0501141100 MAHA



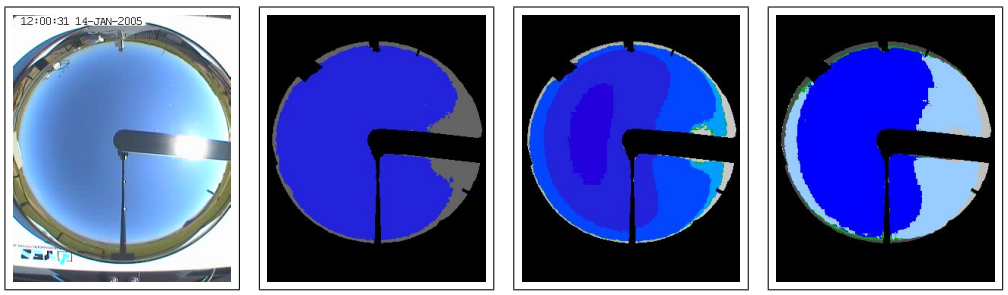
(v) 0501141115 (vi) 0501141115 Long (vii) 0501141115 EGD (viii) 0501141115 MAHA



(ix) 0501141130 (x) 0501141130 Long (xi) 0501141130 EGD (xii) 0501141130 MAHA

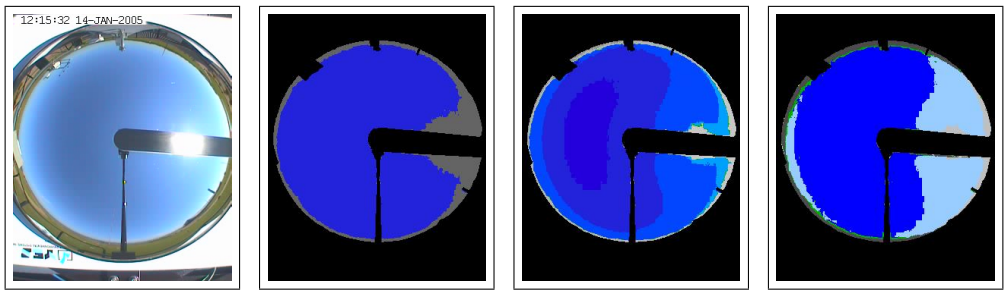


(xiii) 0501141145 (xiv) 0501141145 Long (xv) 0501141145 EGD (xvi) 0501141145 MAHA

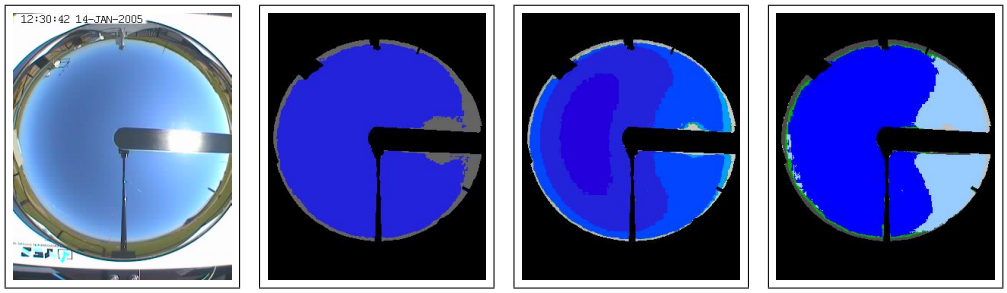


(xvii) 0501141200 (xviii) 0501141200 Long (xix) 0501141200 EGD (xx) 0501141200 MAHA

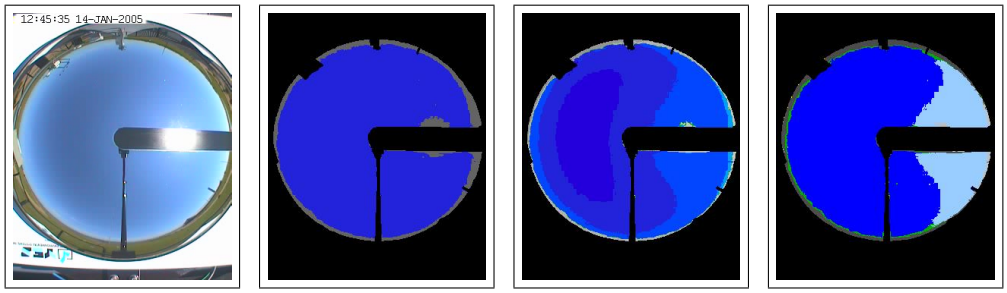
Figure A.157 - Sky images generated from 050114100 to 0501141200.



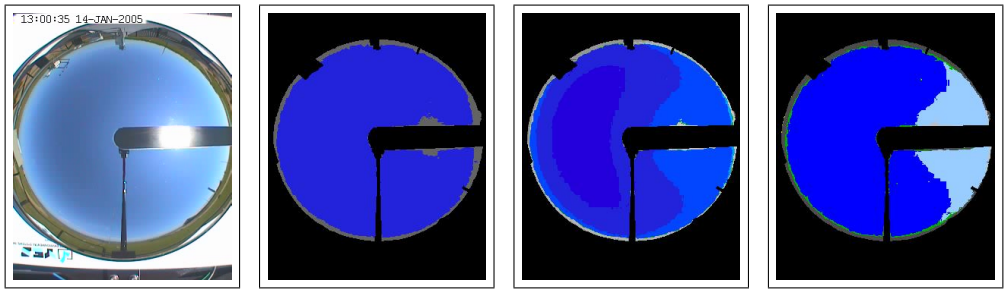
(i) 0501141215 (ii) 0501141215 Long (iii) 0501141215 EGD (iv) 0501141215 MAHA



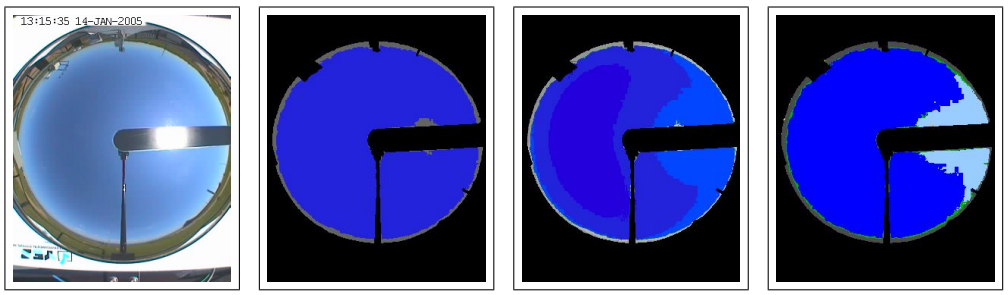
(v) 0501141230 (vi) 0501141230 Long (vii) 0501141230 EGD (viii) 0501141230 MAHA



(ix) 0501141245 (x) 0501141245 Long (xi) 0501141245 EGD (xii) 0501141245 MAHA

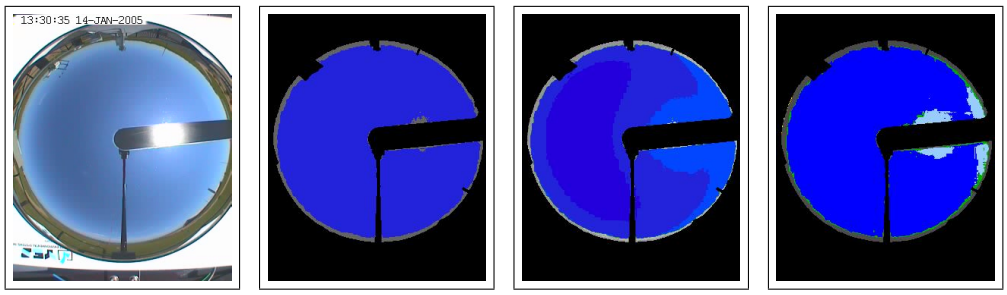


(xiii) 0501141300 (xiv) 0501141300 Long (xv) 0501141300 EGD (xvi) 0501141300 MAHA

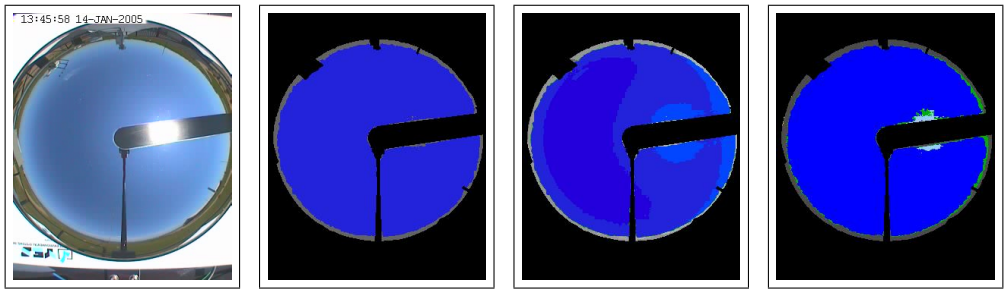


(xvii) 0501141315 (xviii) 0501141315 Long (xix) 0501141315 EGD (xx) 0501141315 MAHA

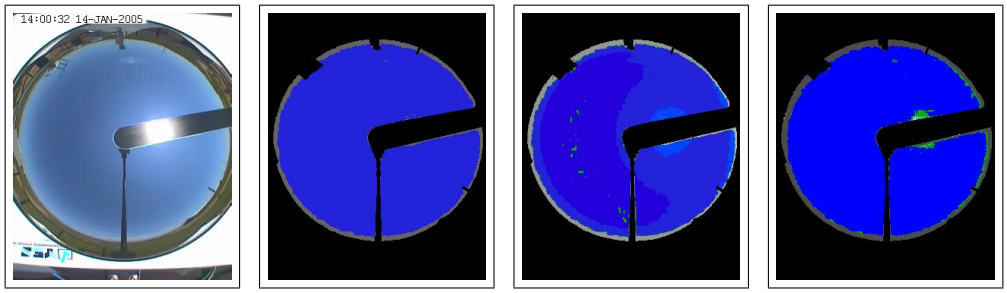
Figure A.158 - Sky images generated from 0501141215 to 0501141315.



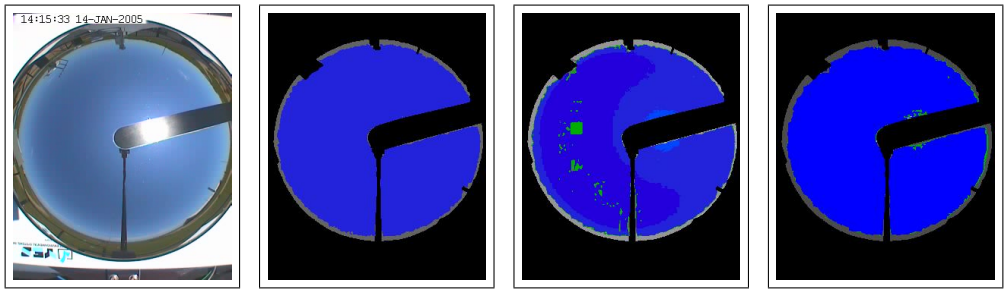
(i) 0501141330 (ii) 0501141330 Long (iii) 0501141330 EGD (iv) 0501141330 MAHA



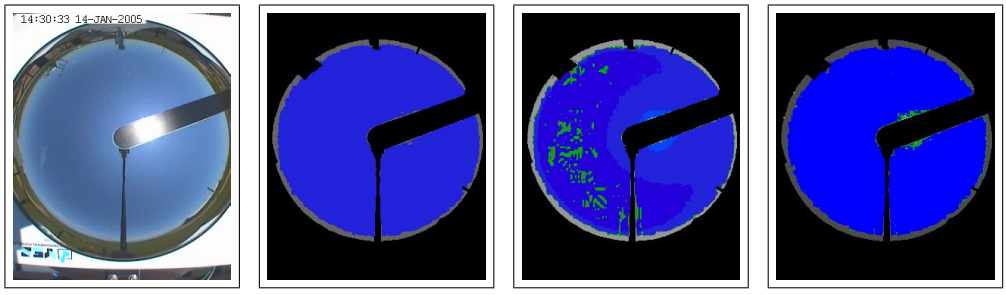
(v) 0501141345 (vi) 0501141345 Long (vii) 0501141345 EGD (viii) 0501141345 MAHA



(ix) 0501141400 (x) 0501141400 Long (xi) 0501141400 EGD (xii) 0501141400 MAHA

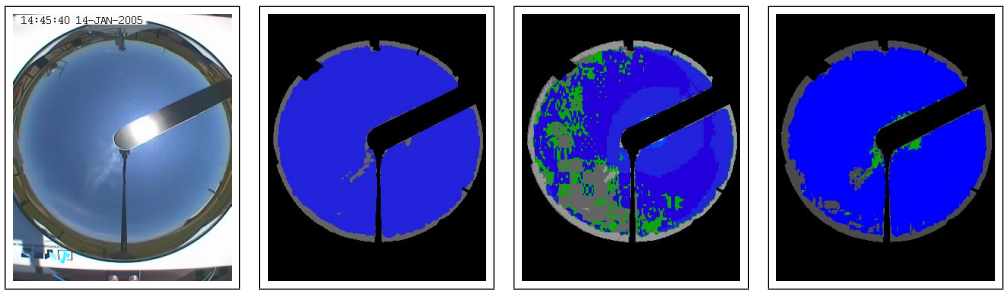


(xiii) 0501141415 (xiv) 0501141415 Long (xv) 0501141415 EGD (xvi) 0501141415 MAHA

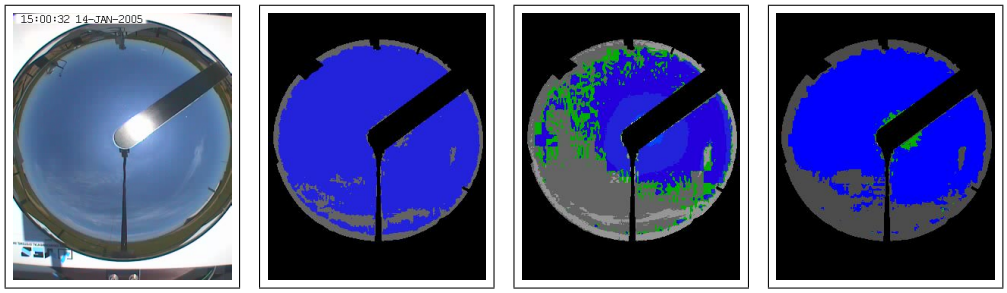


(xvii) 0501141430 (xviii) 0501141430 Long (xix) 0501141430 EGD (xx) 0501141430 MAHA

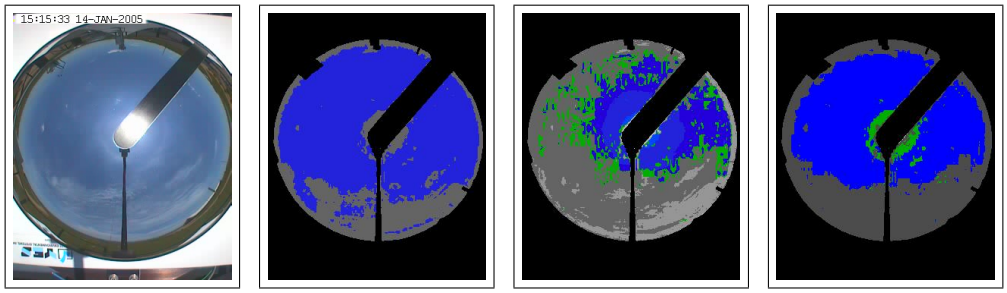
Figure A.159 - Sky images generated from 0501141330 to 0501141430.



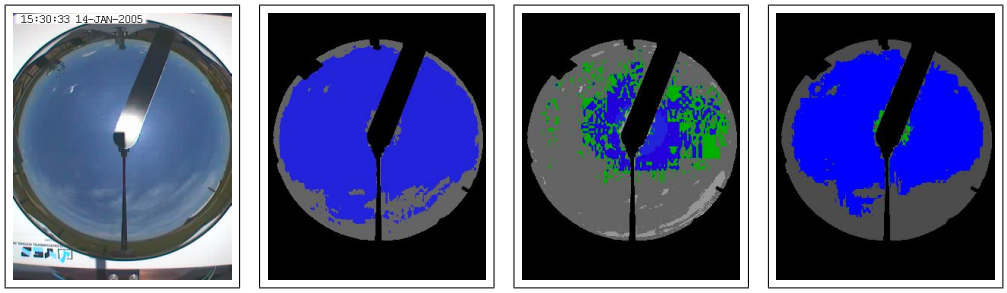
(i) 0501141445 (ii) 0501141445 Long (iii) 0501141445 EGD (iv) 0501141445 MAHA



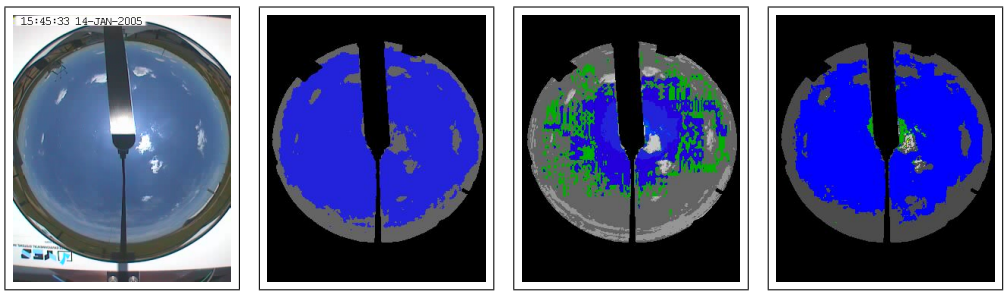
(v) 0501141500 (vi) 0501141500 Long (vii) 0501141500 EGD (viii) 0501141500 MAHA



(ix) 0501141515 (x) 0501141515 Long (xi) 0501141515 EGD (xii) 0501141515 MAHA

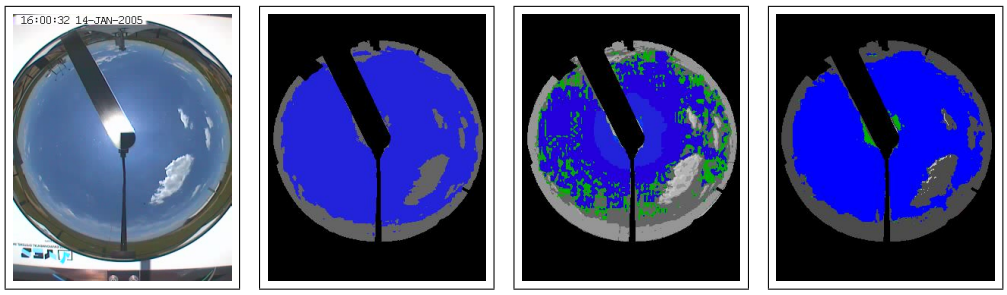


(xiii) 0501141530 (xiv) 0501141530 Long (xv) 0501141530 EGD (xvi) 0501141530 MAHA

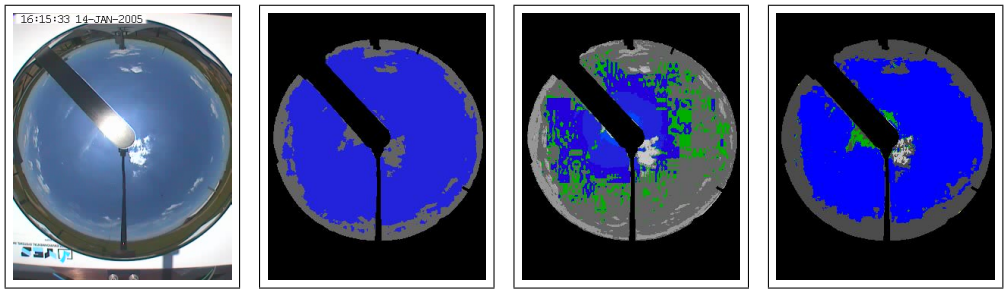


(xvii) 0501141545 (xviii) 0501141545 Long (xix) 0501141545 EGD (xx) 0501141545 MAHA

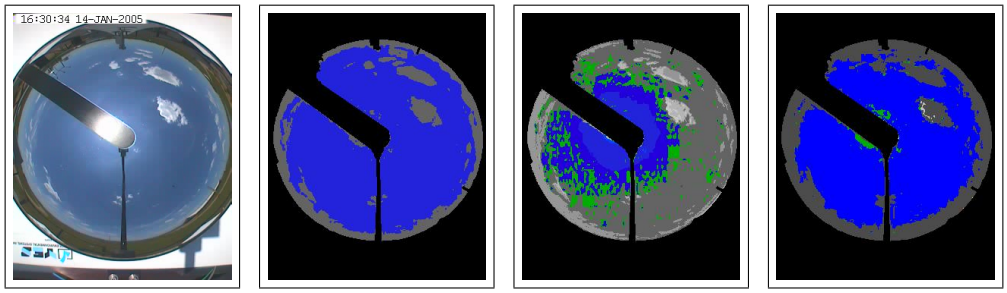
Figure A.160 - Sky images generated from 0501141445 to 0501141545.



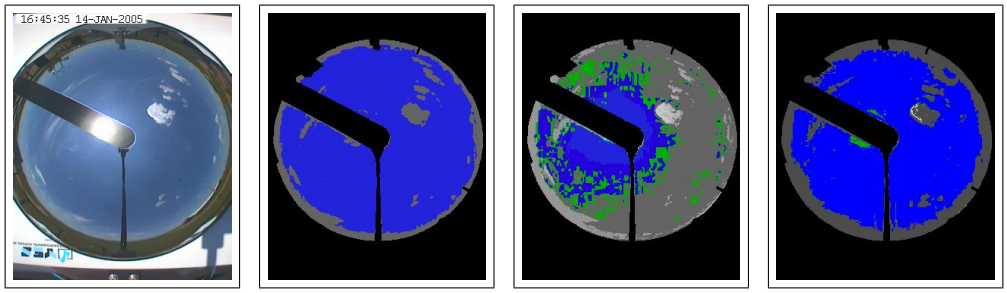
(i) 0501141600 (ii) 0501141600 Long (iii) 0501141600 EGD (iv) 0501141600 MAHA



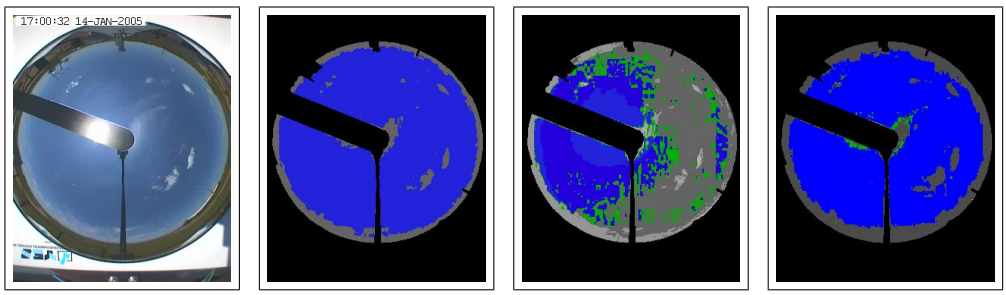
(v) 0501141615 (vi) 0501141615 Long (vii) 0501141615 EGD (viii) 0501141615 MAHA



(ix) 0501141630 (x) 0501141630 Long (xi) 0501141630 EGD (xii) 0501141630 MAHA

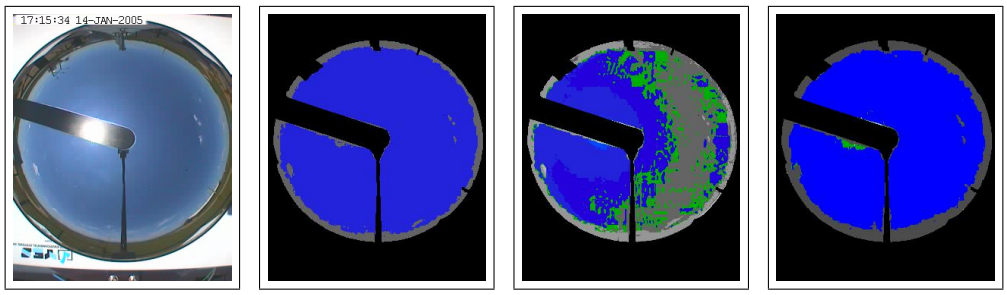


(xiii) 0501141645 (xiv) 0501141645 Long (xv) 0501141645 EGD (xvi) 0501141645 MAHA

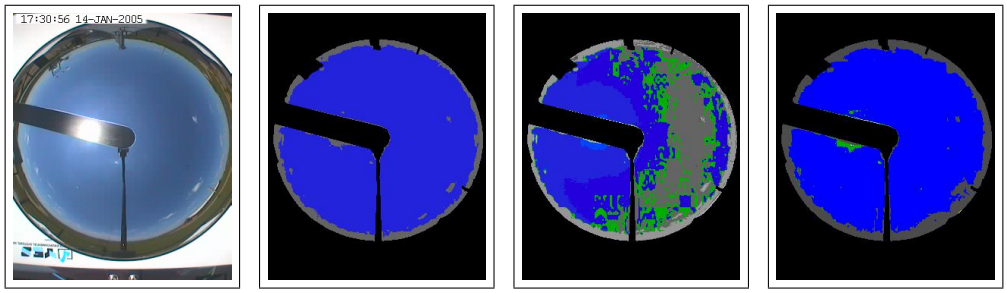


(xvii) 0501141700 (xviii) 0501141700 Long (xix) 0501141700 EGD (xx) 0501141700 MAHA

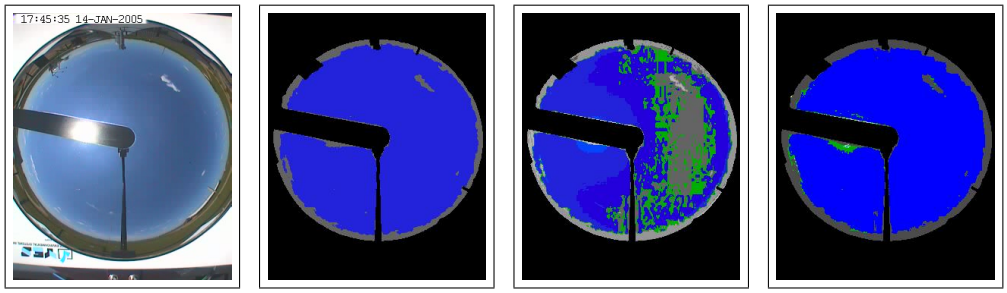
Figure A.161 - Sky images generated from 0501141600 to 0501141700.



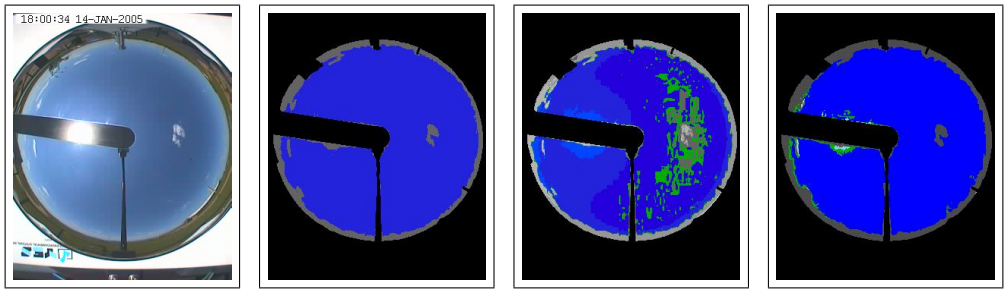
(i) 0501141715 (ii) 0501141715 Long (iii) 0501141715 EGD (iv) 0501141715 MAHA



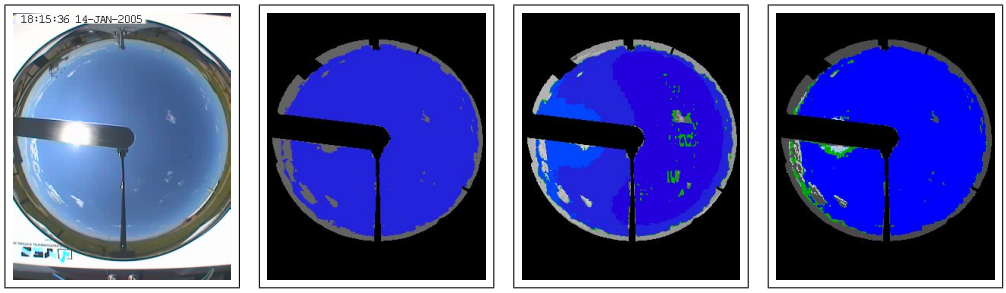
(v) 0501141730 (vi) 0501141730 Long (vii) 0501141730 EGD (viii) 0501141730 MAHA



(ix) 0501141745 (x) 0501141745 Long (xi) 0501141745 EGD (xii) 0501141745 MAHA

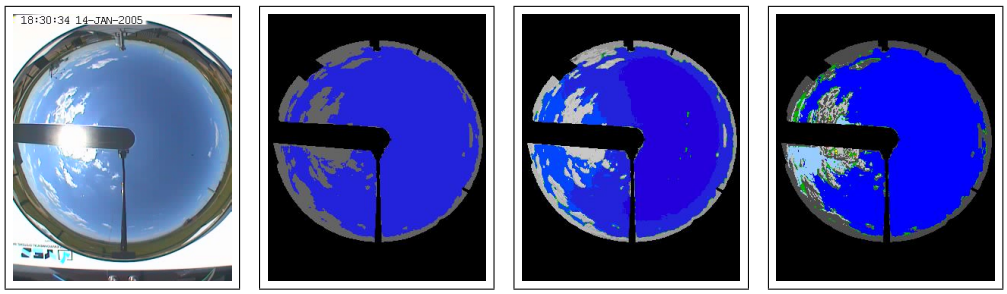


(xiii) 0501141800 (xiv) 0501141800 Long (xv) 0501141800 EGD (xvi) 0501141800 MAHA

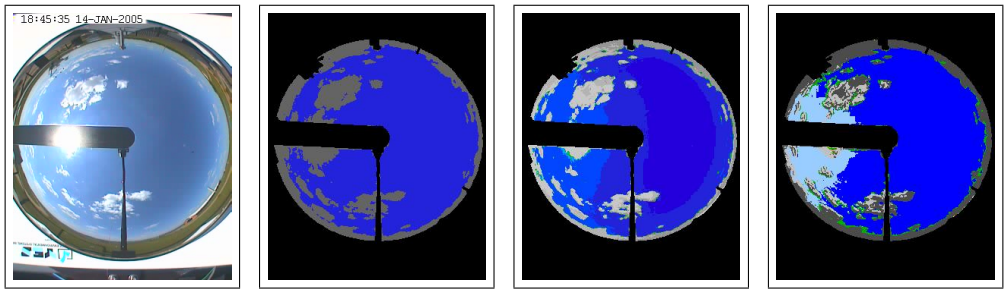


(xvii) 0501141815 (xviii) 0501141815 Long (xix) 0501141815 EGD (xx) 0501141815 MAHA

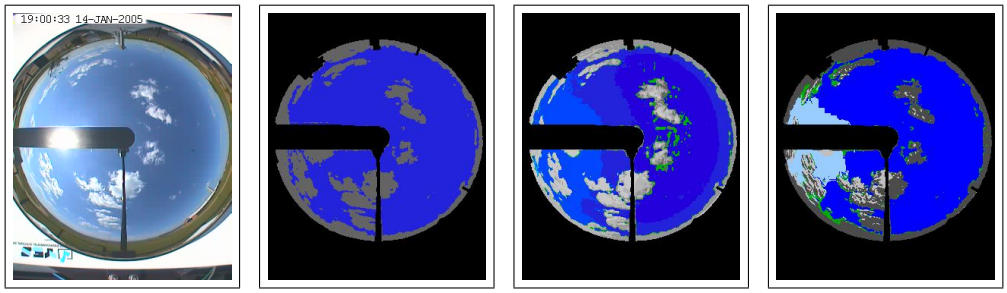
Figure A.162 - Sky images generated from 0501141715 to 0501141815.



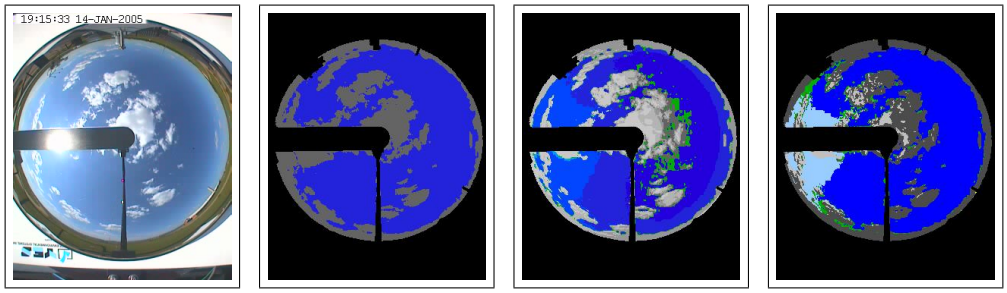
(i) 0501141830 (ii) 0501141830 Long (iii) 0501141830 EGD (iv) 0501141830 MAHA



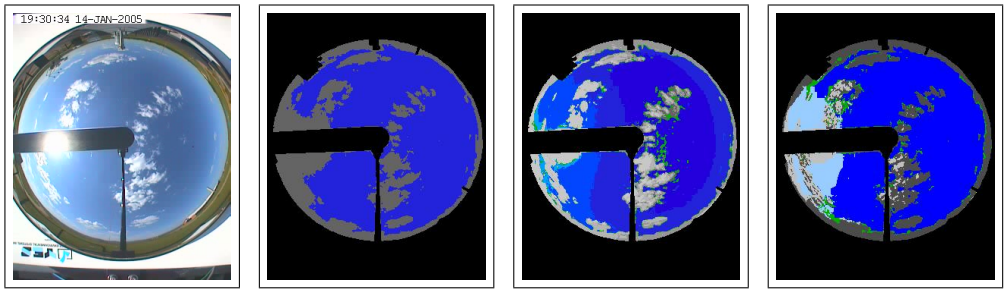
(v) 0501141845 (vi) 0501141845 Long (vii) 0501141845 EGD (viii) 0501141845 MAHA



(ix) 0501141900 (x) 0501141900 Long (xi) 0501141900 EGD (xii) 0501141900 MAHA

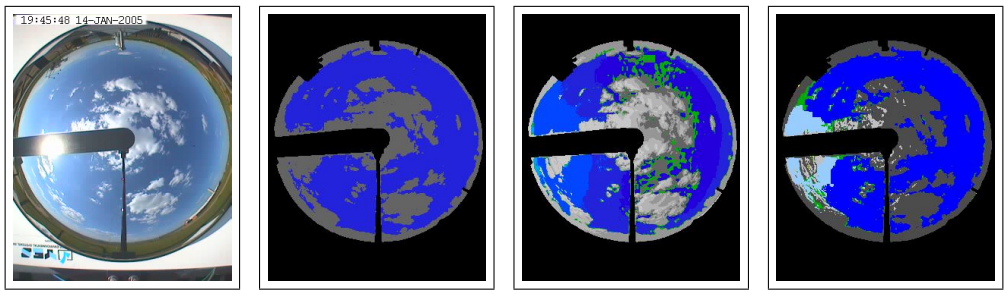


(xiii) 0501141915 (xiv) 0501141915 Long (xv) 0501141915 EGD (xvi) 0501141915 MAHA

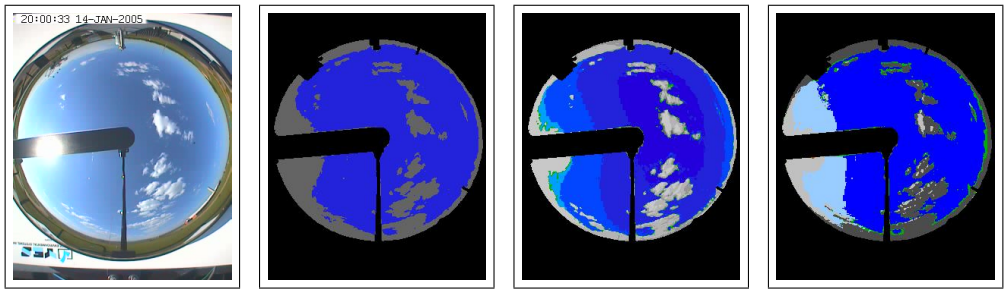


(xvii) 0501141930 (xviii) 0501141930 Long (xix) 0501141930 EGD (xx) 0501141930 MAHA

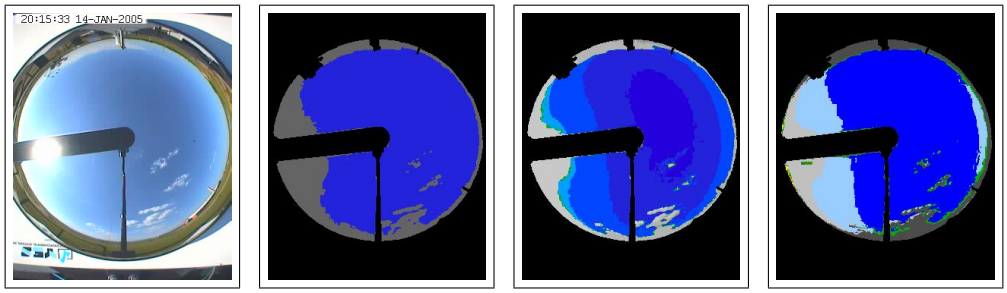
Figure A.163 - Sky images generated from 0501141830 to 0501141930.



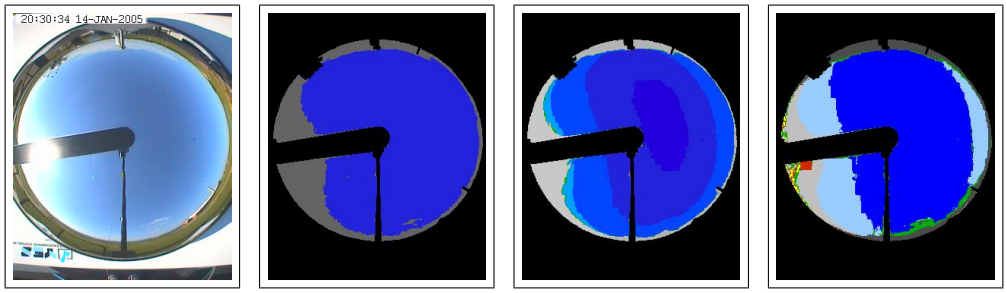
(i) 0501141945 (ii) 0501141945 Long (iii) 0501141945 EGD (iv) 0501141945 MAHA



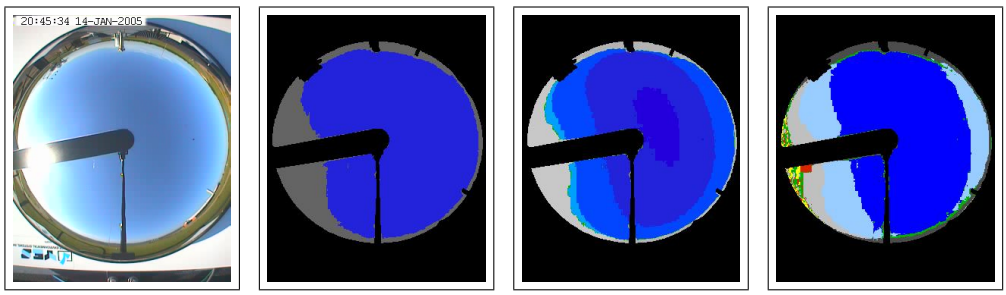
(v) 0501142000 (vi) 0501142000 Long (vii) 0501142000 EGD (viii) 0501142000 MAHA



(ix) 0501142015 (x) 0501142015 Long (xi) 0501142015 EGD (xii) 0501142015 MAHA

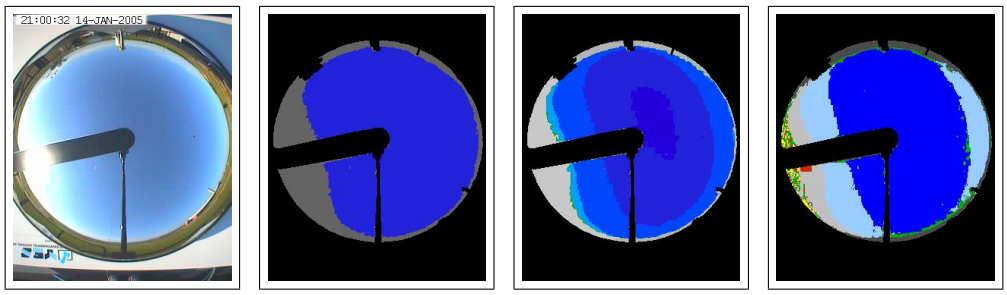


(xiii) 0501142030 (xiv) 0501142030 Long (xv) 0501142030 EGD (xvi) 0501142030 MAHA

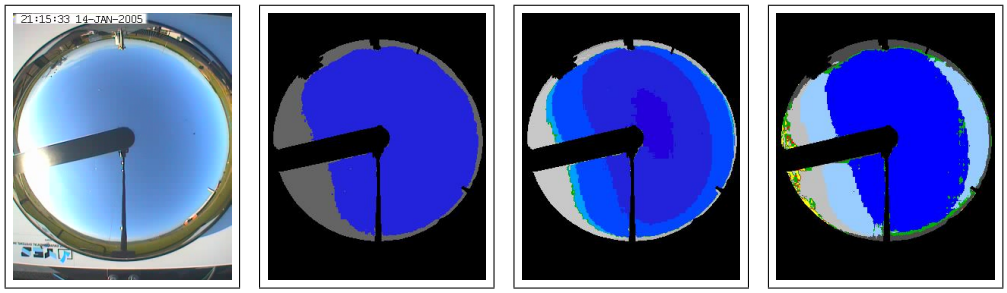


(xvii) 0501142045 (xviii) 0501142045 Long (xix) 0501142045 EGD (xx) 0501142045 MAHA

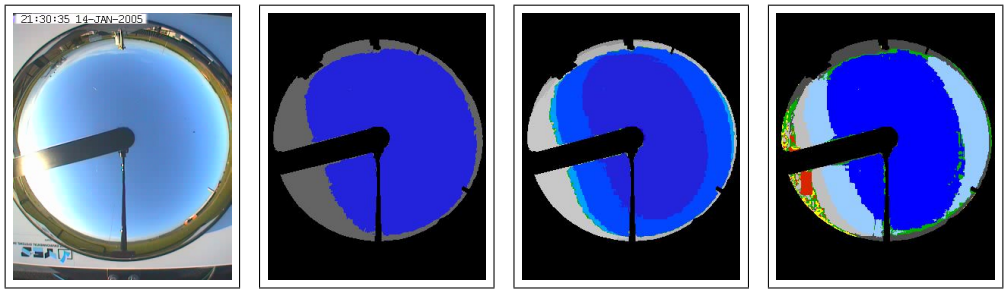
Figure A.164 - Sky images generated from 0501141945 to 0501142045.



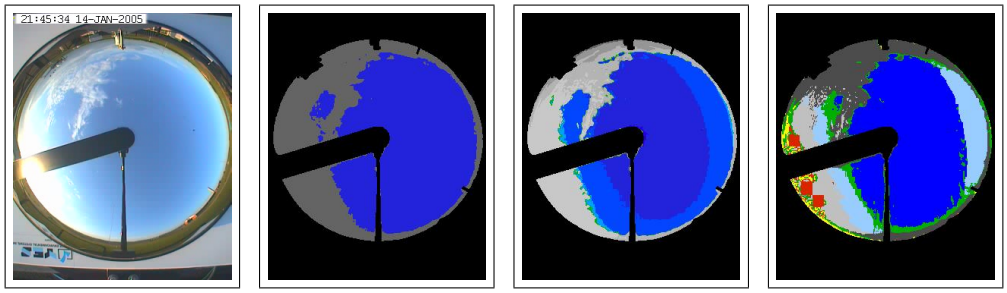
(i) 0501142100 (ii) 0501142100 Long (iii) 0501142100 EGD (iv) 0501142100 MAHA



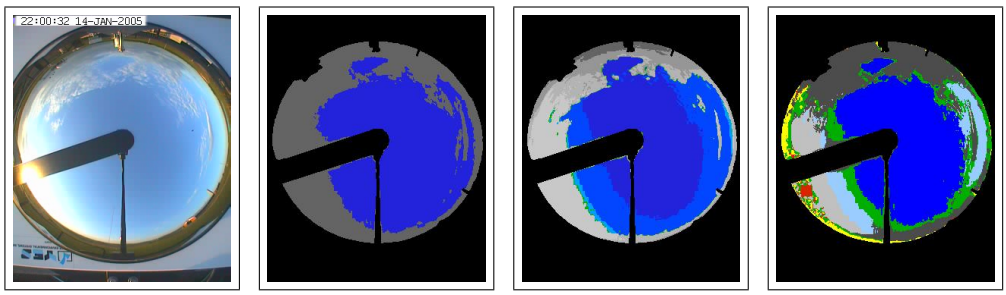
(v) 0501142115 (vi) 0501142115 Long (vii) 0501142115 EGD (viii) 0501142115 MAHA



(ix) 0501142130 (x) 0501142130 Long (xi) 0501142130 EGD (xii) 0501142130 MAHA

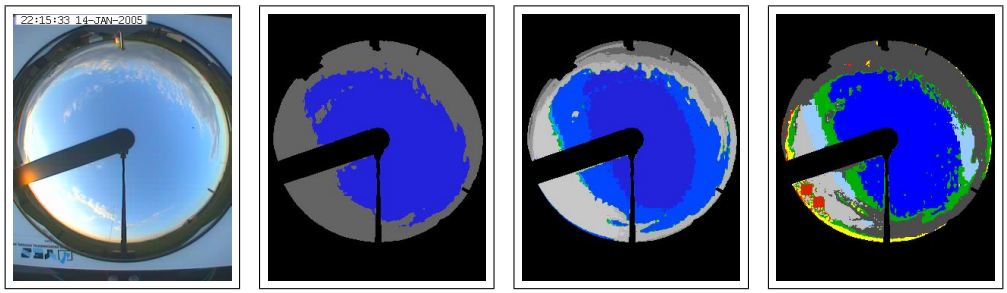


(xiii) 0501142145 (xiv) 0501142145 Long (xv) 0501142145 EGD (xvi) 0501142145 MAHA

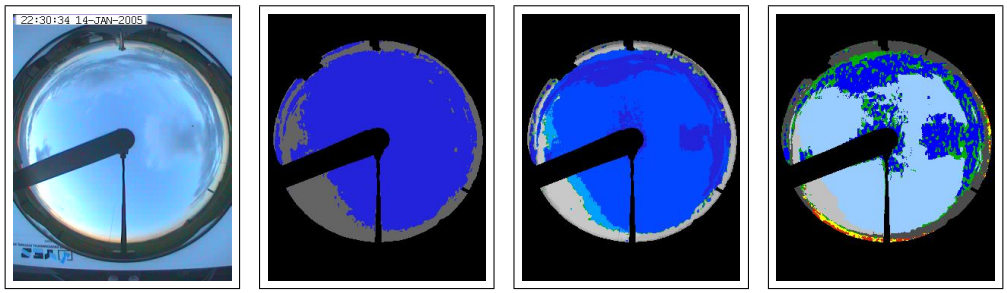


(xvii) 0501142200 (xviii) 0501142200 Long (xix) 0501142200 EGD (xx) 0501142200 MAHA

Figure A.165 - Sky images generated from 0501142100 to 0501142200.



(i) 0501142215 (ii) 0501142215 Long (iii) 0501142215 EGD (iv) 0501142215 MAHA

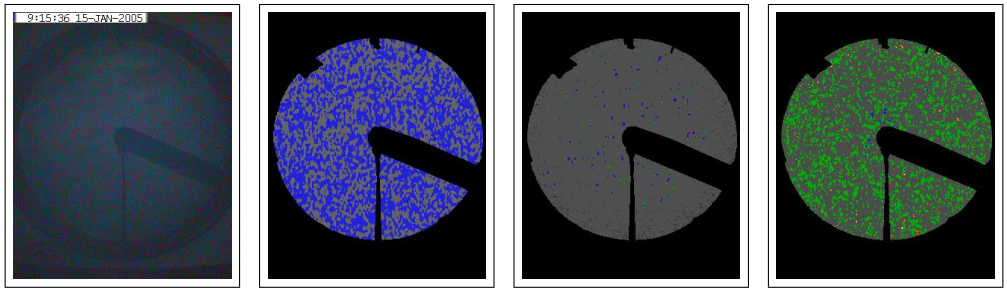


(v) 0501142230 (vi) 0501142230 Long (vii) 0501142230 EGD (viii) 0501142230 MAHA

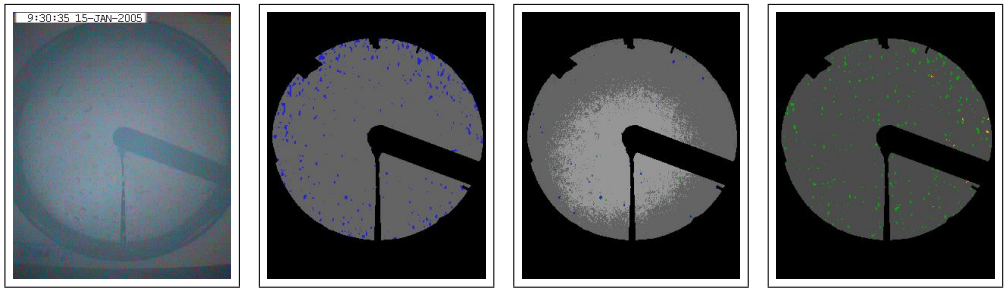


(ix) 0501142245

Figure A.166 - Sky images generated from 0501142215 to 0501142245.

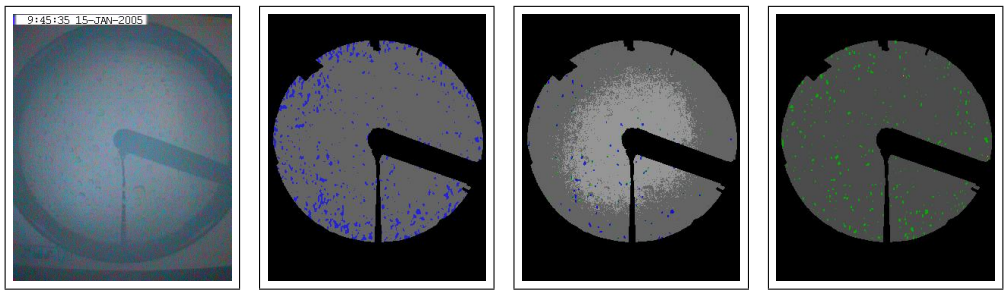


(i) 0501150915 (ii) 0501150915 Long (iii) 0501150915 EGD (iv) 0501150915 MAHA

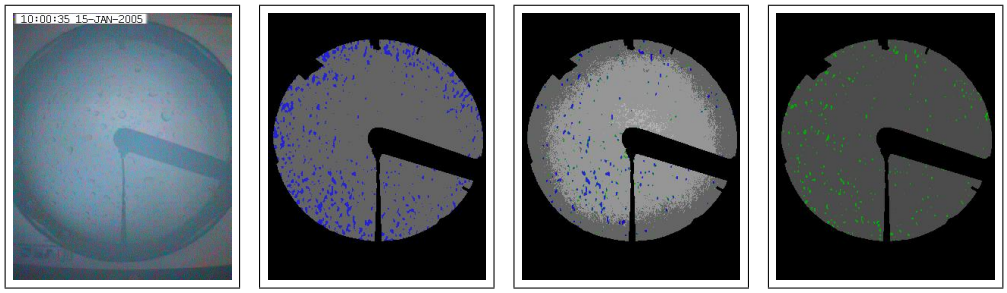


(v) 0501150930 (vi) 0501150930 Long (vii) 0501150930 EGD (viii) 0501150930 MAHA

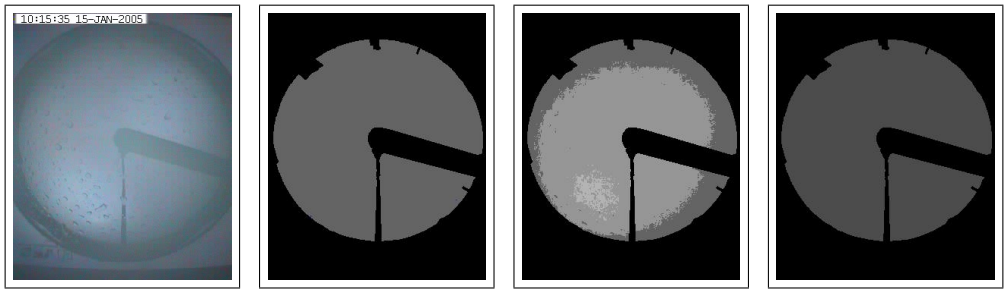
Figure A.167 - Sky images generated from 0501150915 to 0501150930.



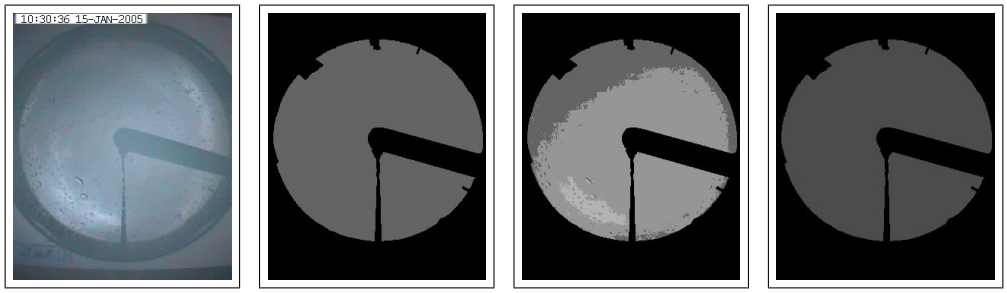
(i) 0501150945 (ii) 0501150945 Long (iii) 0501150945 EGD (iv) 0501150945 MAHA



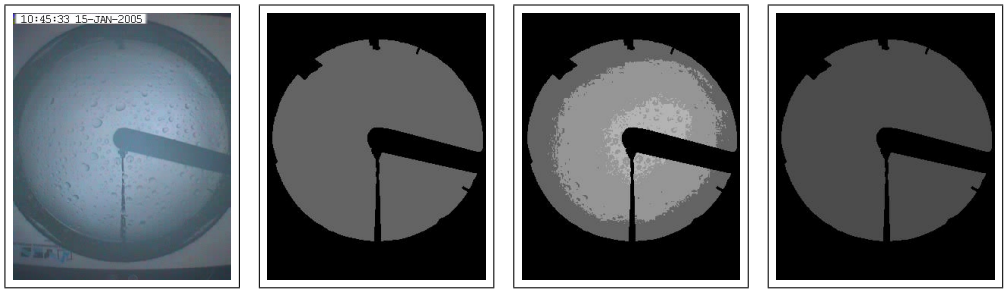
(v) 050115000 (vi) 050115000 Long (vii) 050115000 EGD (viii) 050115000 MAHA



(ix) 0501151015 (x) 0501151015 Long (xi) 0501151015 EGD (xii) 0501151015 MAHA

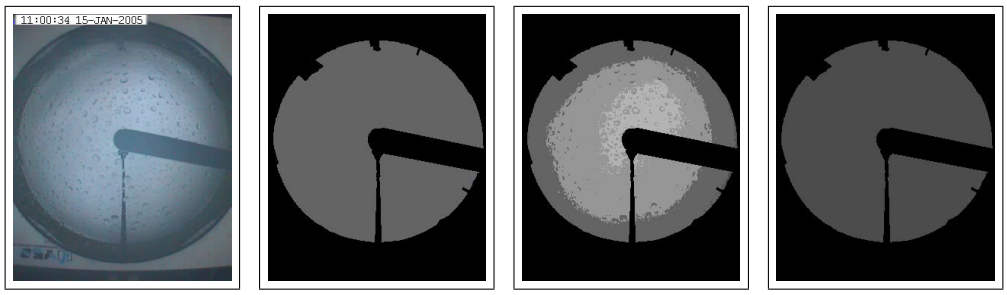


(xiii) 0501151030 (xiv) 0501151030 Long (xv) 0501151030 EGD (xvi) 0501151030 MAHA

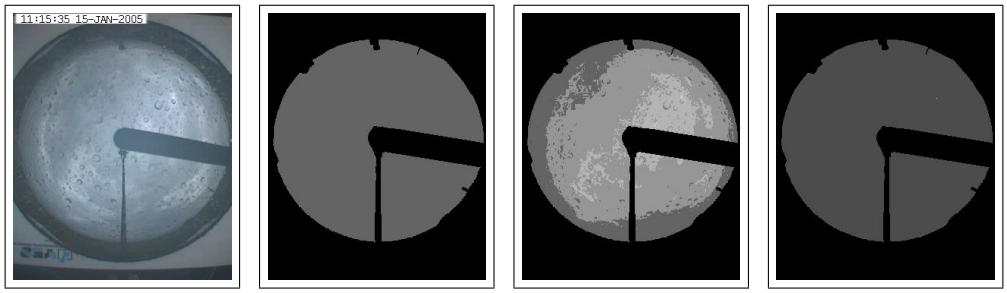


(xvii) 0501151045 (xviii) 0501151045 Long (xix) 0501151045 EGD (xx) 0501151045 MAHA

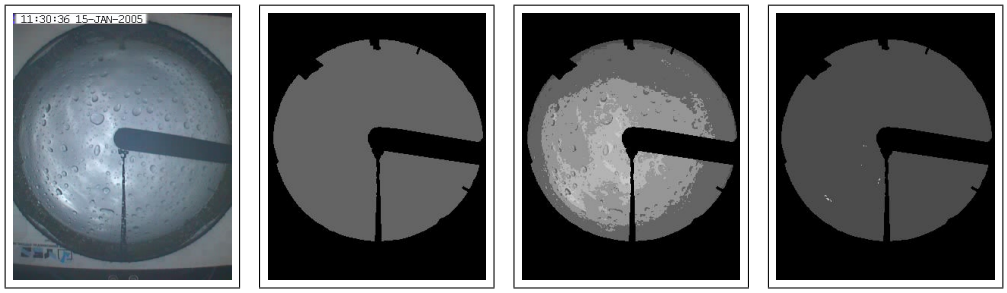
Figure A.168 - Sky images generated from 0501150945 to 0501151045.



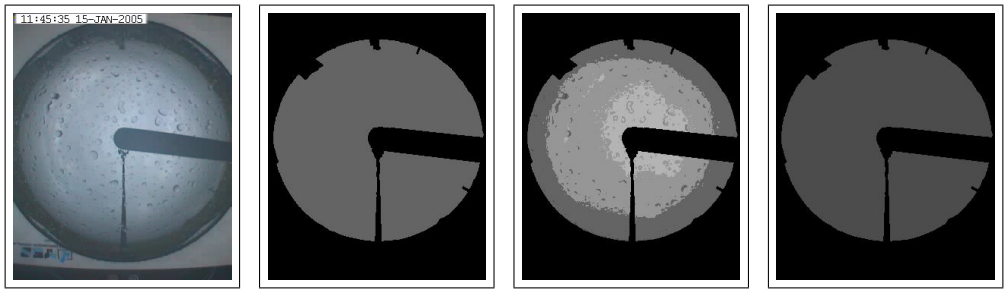
(i) 0501151100 (ii) 0501151100 Long (iii) 0501151100 EGD (iv) 0501151100 MAHA



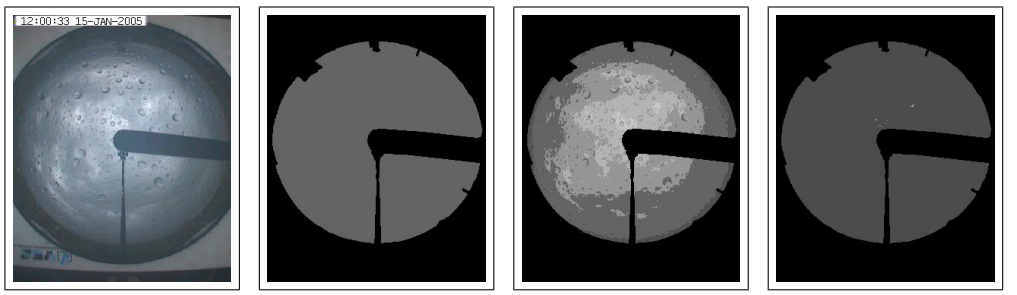
(v) 0501151115 (vi) 0501151115 Long (vii) 0501151115 EGD (viii) 0501151115 MAHA



(ix) 0501151130 (x) 0501151130 Long (xi) 0501151130 EGD (xii) 0501151130 MAHA

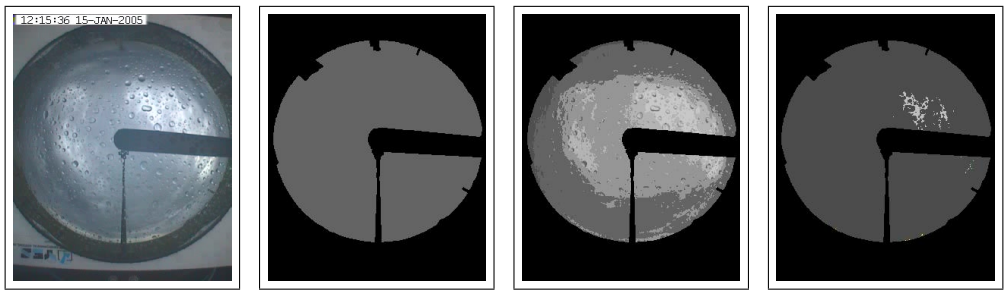


(xiii) 0501151145 (xiv) 0501151145 Long (xv) 0501151145 EGD (xvi) 0501151145 MAHA

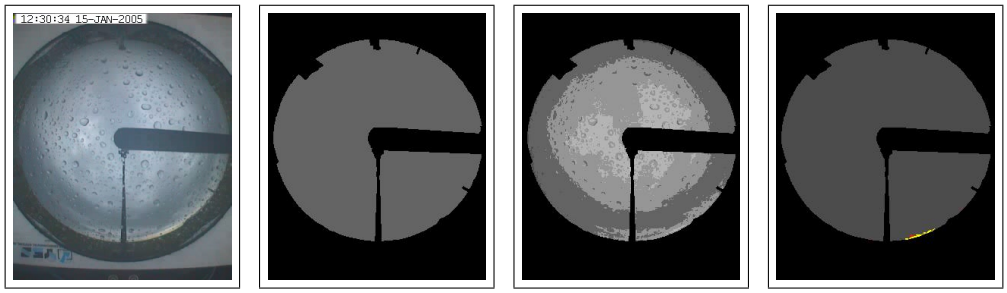


(xvii) 0501151200 (xviii) 0501151200 Long (xix) 0501151200 EGD (xx) 0501151200 MAHA

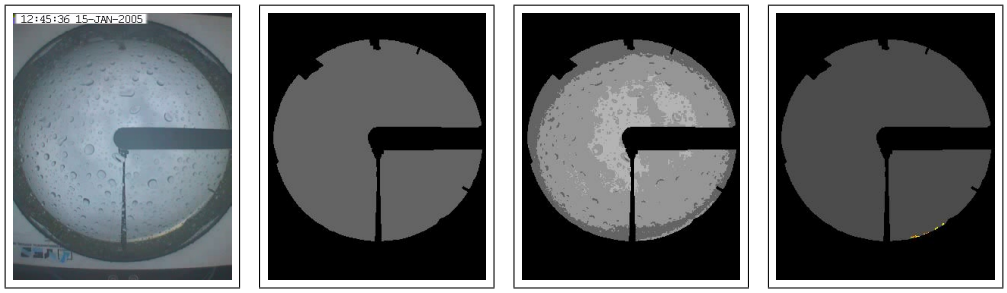
Figure A.169 - Sky images generated from 050115100 to 0501151200.



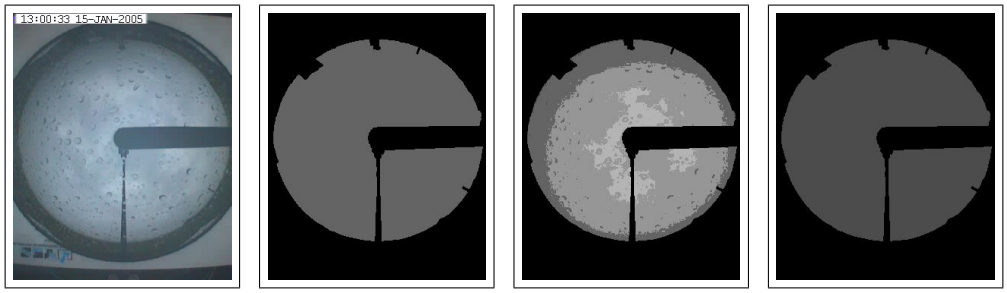
(i) 0501151215 (ii) 0501151215 Long (iii) 0501151215 EGD (iv) 0501151215 MAHA



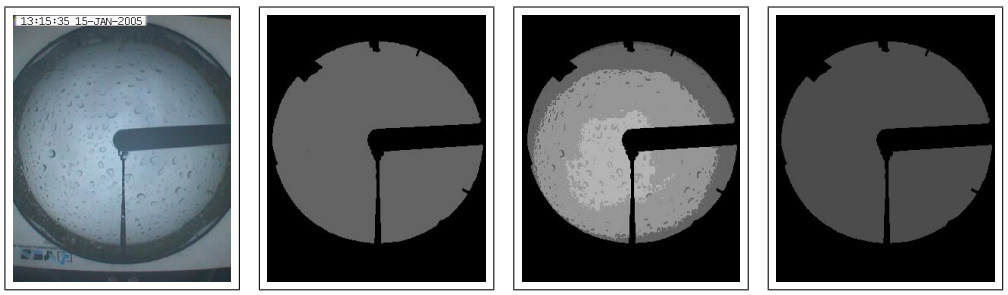
(v) 0501151230 (vi) 0501151230 Long (vii) 0501151230 EGD (viii) 0501151230 MAHA



(ix) 0501151245 (x) 0501151245 Long (xi) 0501151245 EGD (xii) 0501151245 MAHA

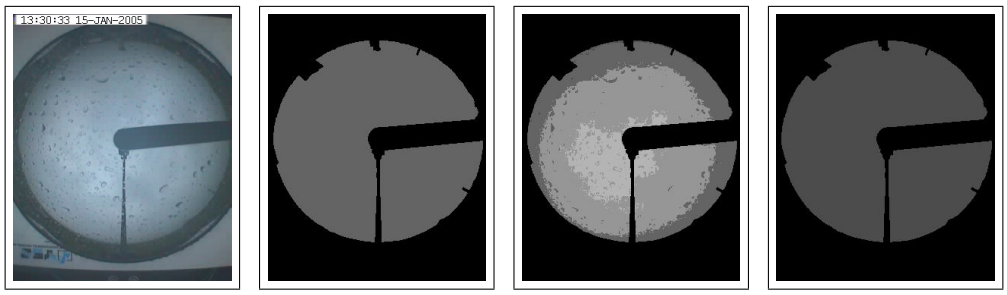


(xiii) 0501151300 (xiv) 0501151300 Long (xv) 0501151300 EGD (xvi) 0501151300 MAHA

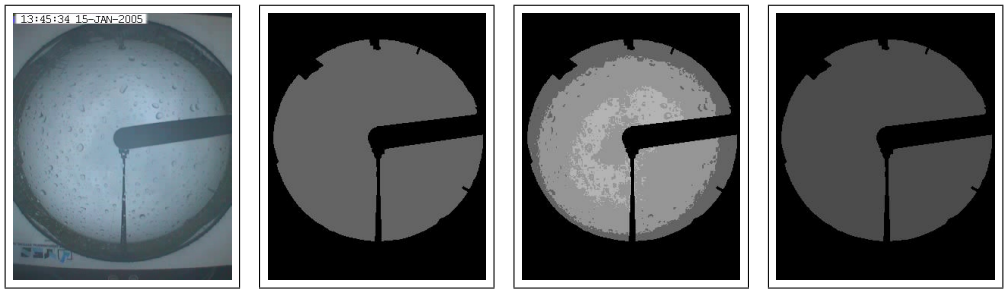


(xvii) 0501151315 (xviii) 0501151315 Long (xix) 0501151315 EGD (xx) 0501151315 MAHA

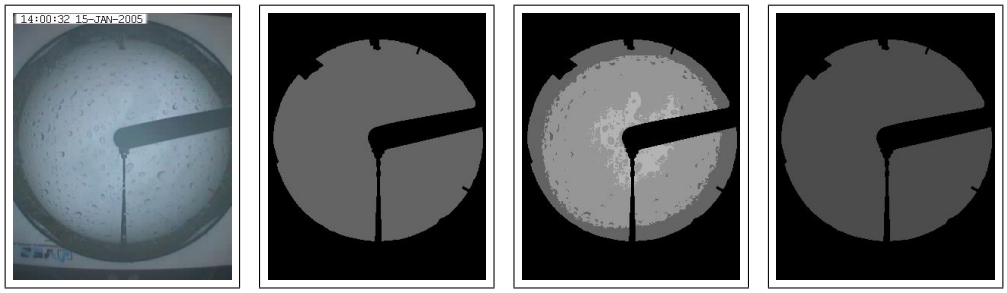
Figure A.170 - Sky images generated from 0501151215 to 0501151315.



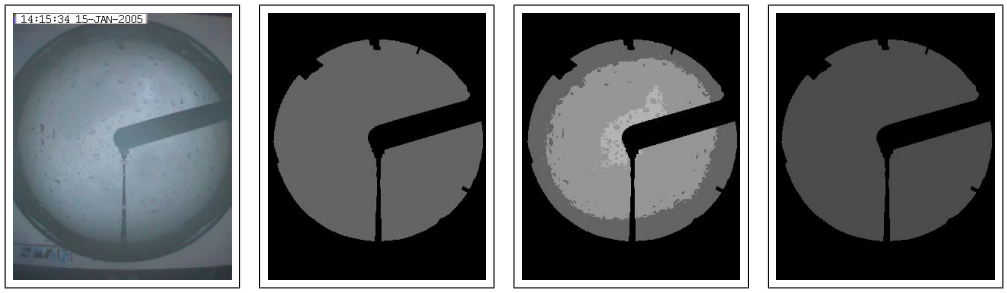
(i) 0501151330 (ii) 0501151330 Long (iii) 0501151330 EGD (iv) 0501151330 MAHA



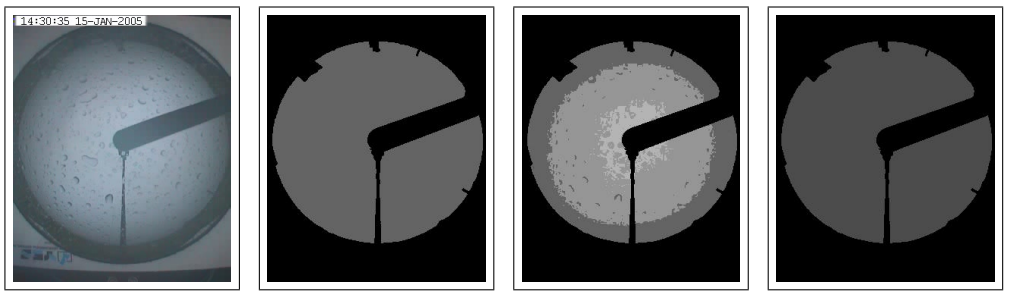
(v) 0501151345 (vi) 0501151345 Long (vii) 0501151345 EGD (viii) 0501151345 MAHA



(ix) 0501151400 (x) 0501151400 Long (xi) 0501151400 EGD (xii) 0501151400 MAHA

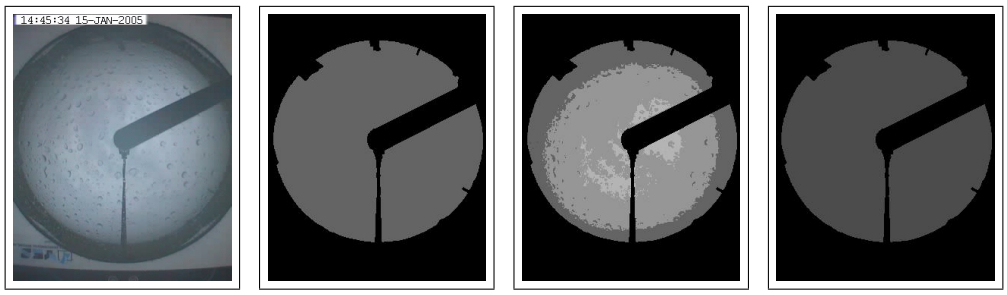


(xiii) 0501151415 (xiv) 0501151415 Long (xv) 0501151415 EGD (xvi) 0501151415 MAHA

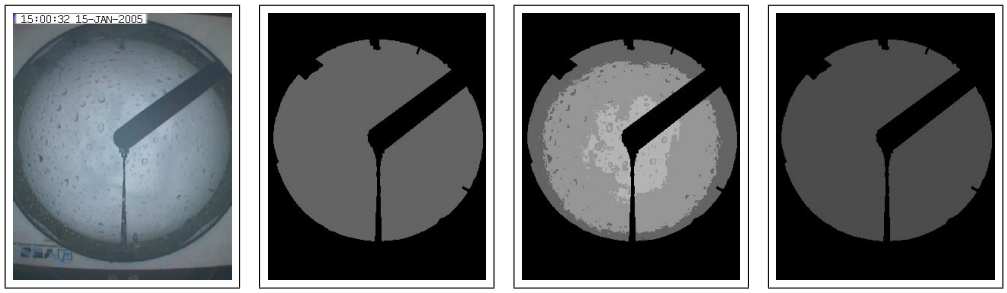


(xvii) 0501151430 (xviii) 0501151430 Long (xix) 0501151430 EGD (xx) 0501151430 MAHA

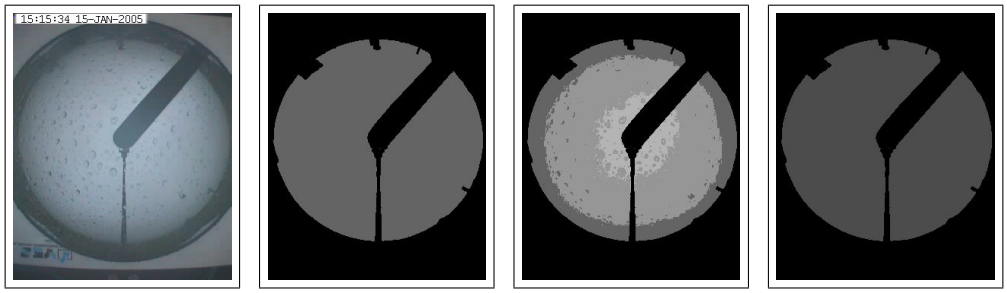
Figure A.171 - Sky images generated from 0501151330 to 0501151430.



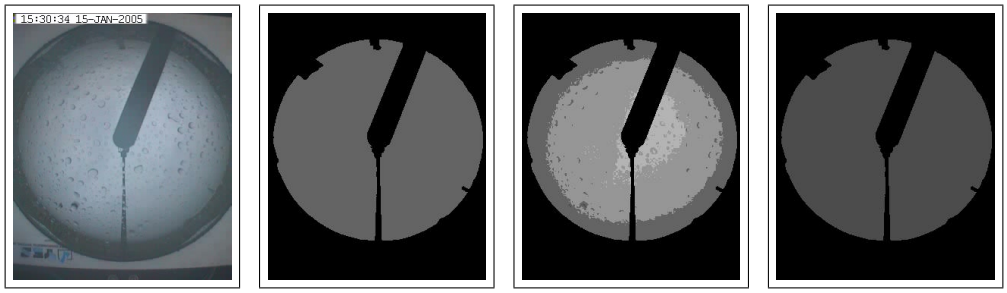
(i) 0501151445 (ii) 0501151445 Long (iii) 0501151445 EGD (iv) 0501151445 MAHA



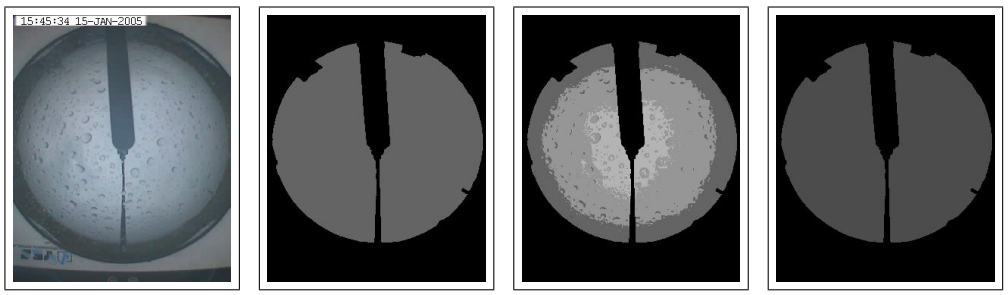
(v) 0501151500 (vi) 0501151500 Long (vii) 0501151500 EGD (viii) 0501151500 MAHA



(ix) 0501151515 (x) 0501151515 Long (xi) 0501151515 EGD (xii) 0501151515 MAHA

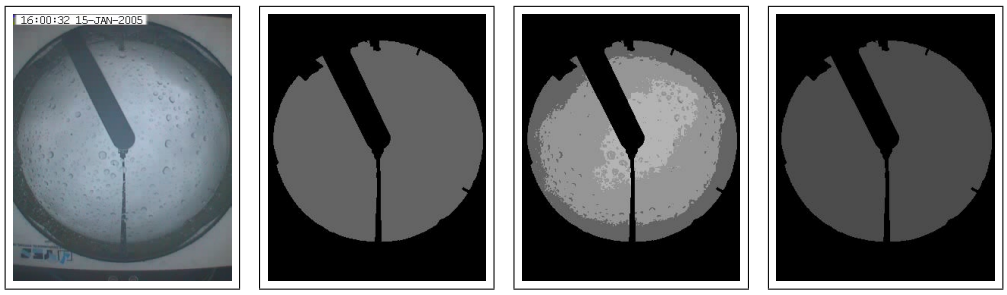


(xiii) 0501151530 (xiv) 0501151530 Long (xv) 0501151530 EGD (xvi) 0501151530 MAHA

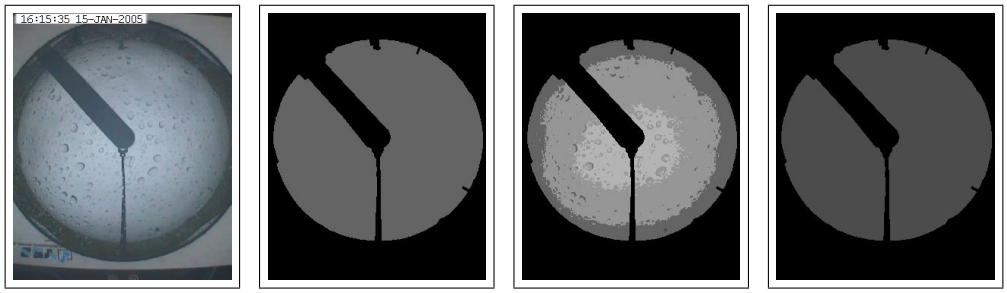


(xvii) 0501151545 (xviii) 0501151545 Long (xix) 0501151545 EGD (xx) 0501151545 MAHA

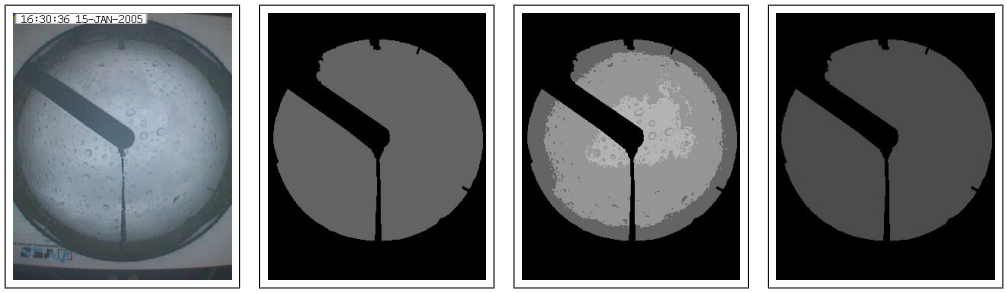
Figure A.172 - Sky images generated from 0501151445 to 0501151545.



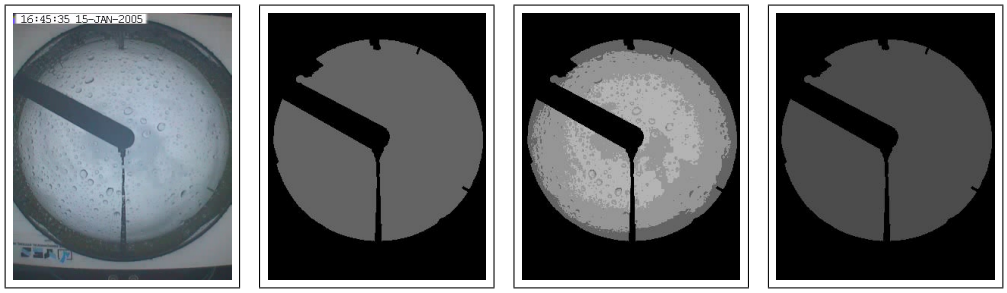
(i) 0501151600 (ii) 0501151600 Long (iii) 0501151600 EGD (iv) 0501151600 MAHA



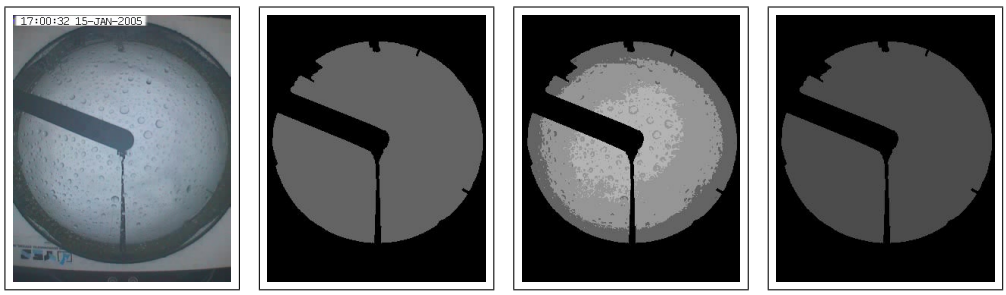
(v) 0501151615 (vi) 0501151615 Long (vii) 0501151615 EGD (viii) 0501151615 MAHA



(ix) 0501151630 (x) 0501151630 Long (xi) 0501151630 EGD (xii) 0501151630 MAHA

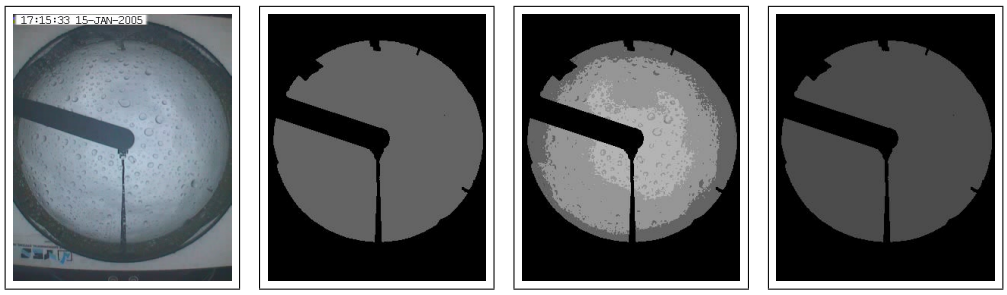


(xiii) 0501151645 (xiv) 0501151645 Long (xv) 0501151645 EGD (xvi) 0501151645 MAHA

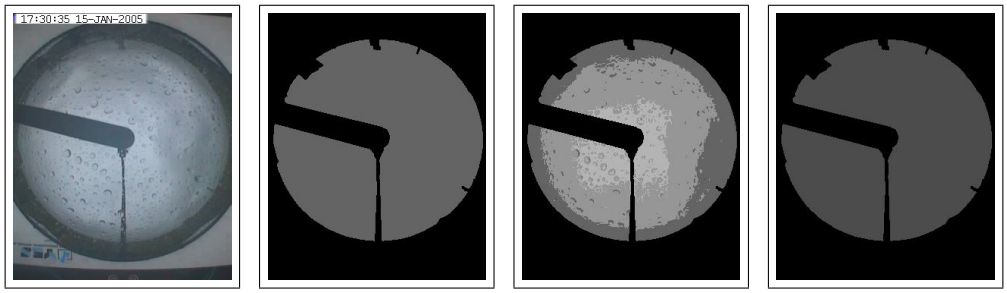


(xvii) 0501151700 (xviii) 0501151700 Long (xix) 0501151700 EGD (xx) 0501151700 MAHA

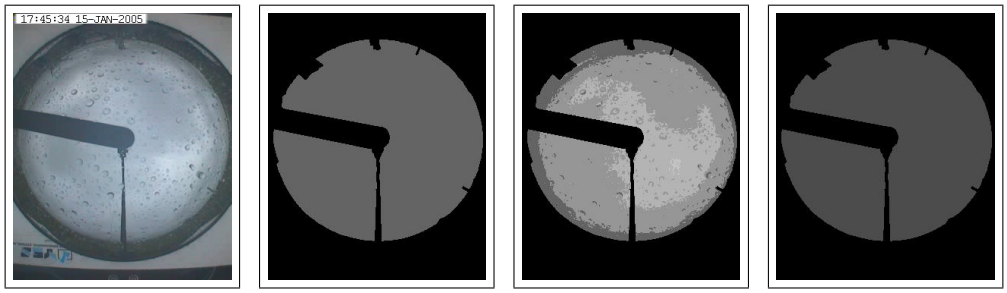
Figure A.173 - Sky images generated from 0501151600 to 0501151700.



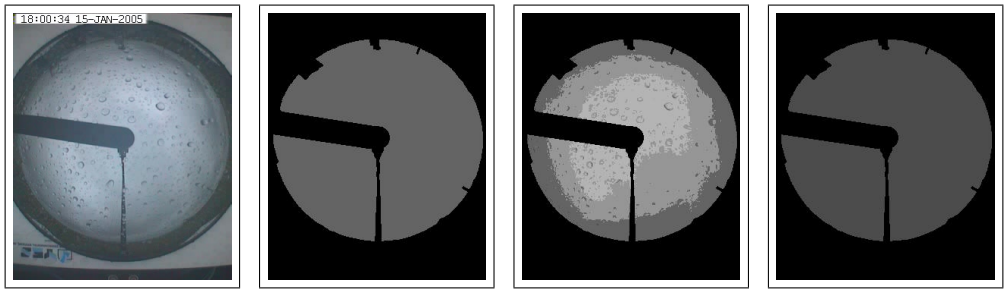
(i) 0501151715 (ii) 0501151715 Long (iii) 0501151715 EGD (iv) 0501151715 MAHA



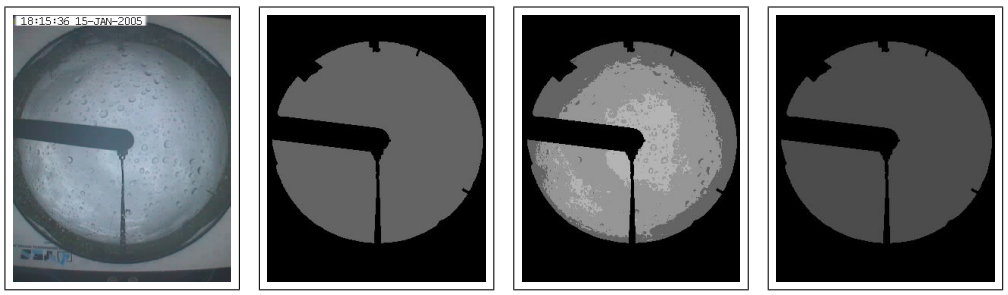
(v) 0501151730 (vi) 0501151730 Long (vii) 0501151730 EGD (viii) 0501151730 MAHA



(ix) 0501151745 (x) 0501151745 Long (xi) 0501151745 EGD (xii) 0501151745 MAHA

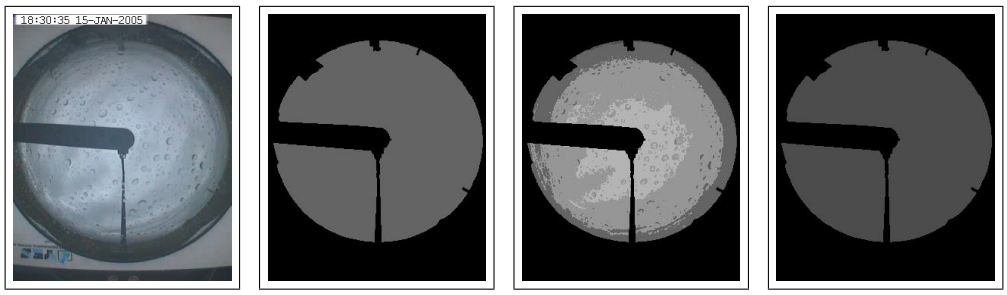


(xiii) 0501151800 (xiv) 0501151800 Long (xv) 0501151800 EGD (xvi) 0501151800 MAHA

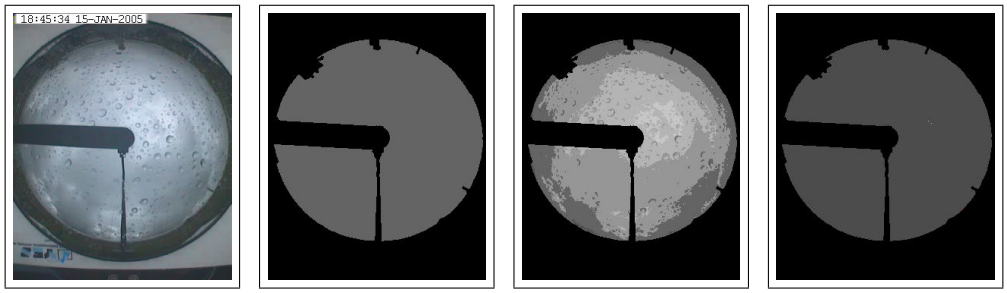


(xvii) 0501151815 (xviii) 0501151815 Long (xix) 0501151815 EGD (xx) 0501151815 MAHA

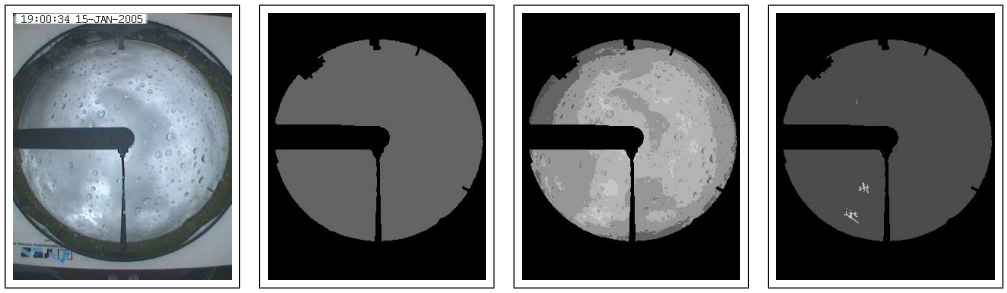
Figure A.174 - Sky images generated from 0501151715 to 0501151815.



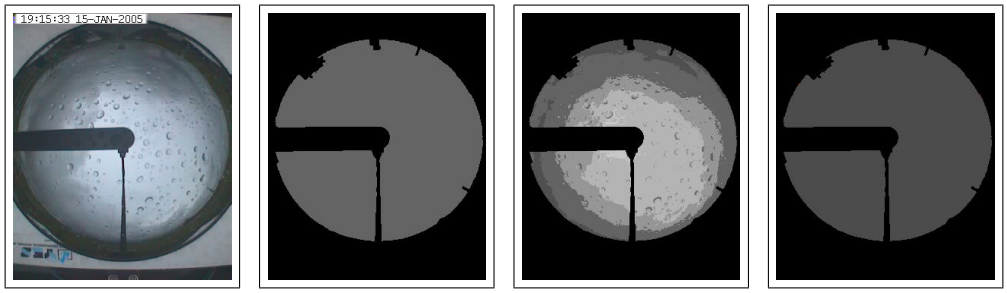
(i) 0501151830 (ii) 0501151830 Long (iii) 0501151830 EGD (iv) 0501151830 MAHA



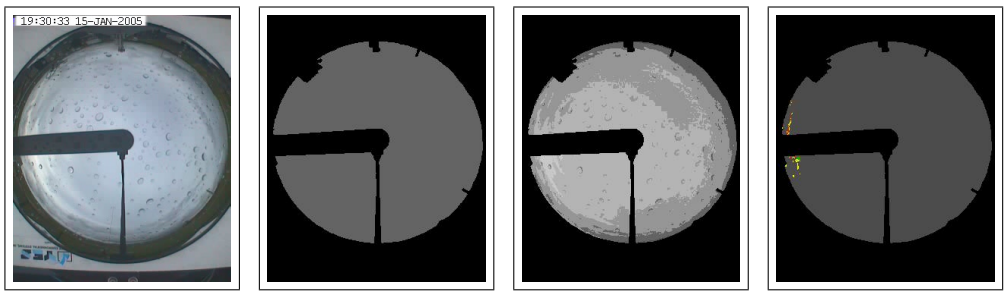
(v) 0501151845 (vi) 0501151845 Long (vii) 0501151845 EGD (viii) 0501151845 MAHA



(ix) 0501151900 (x) 0501151900 Long (xi) 0501151900 EGD (xii) 0501151900 MAHA

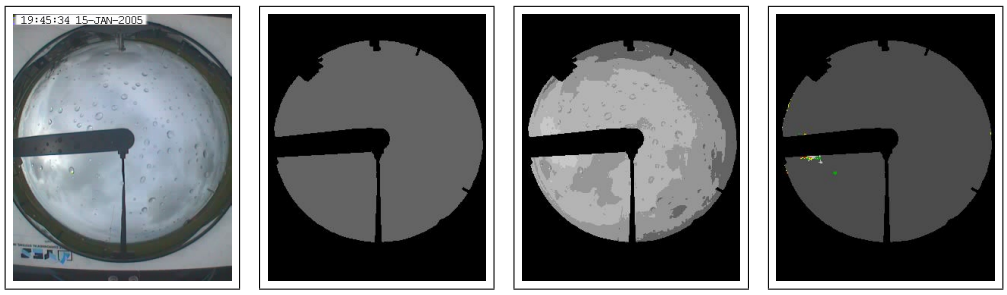


(xiii) 0501151915 (xiv) 0501151915 Long (xv) 0501151915 EGD (xvi) 0501151915 MAHA

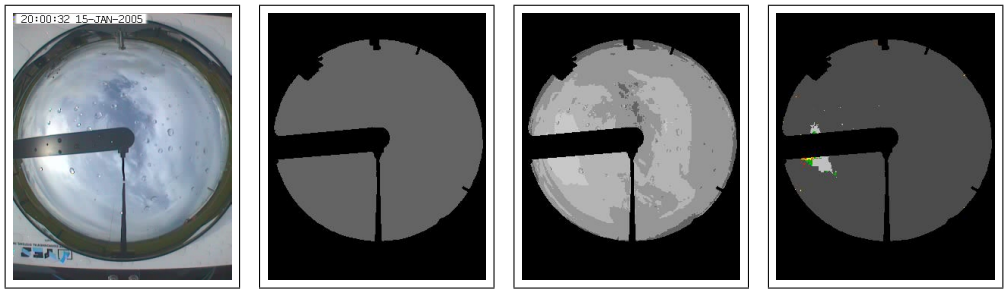


(xvii) 0501151930 (xviii) 0501151930 Long (xix) 0501151930 EGD (xx) 0501151930 MAHA

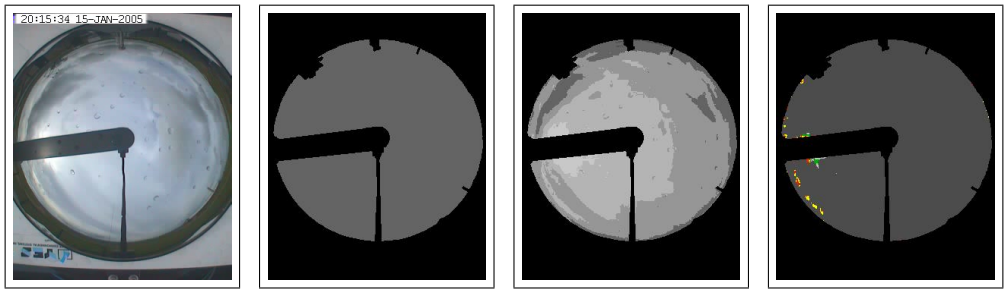
Figure A.175 - Sky images generated from 0501151830 to 0501151930.



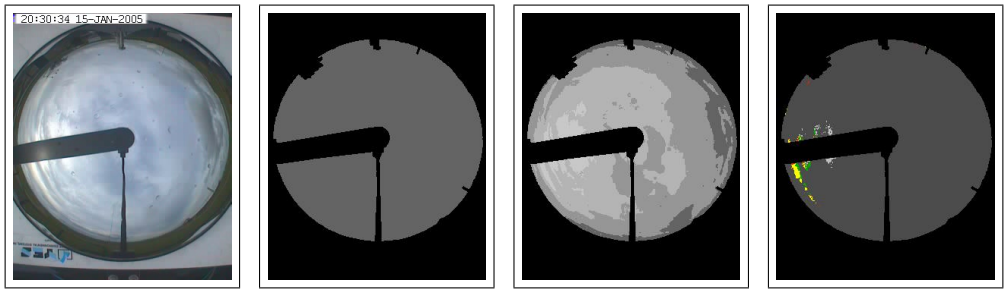
(i) 0501151945 (ii) 0501151945 Long (iii) 0501151945 EGD (iv) 0501151945 MAHA



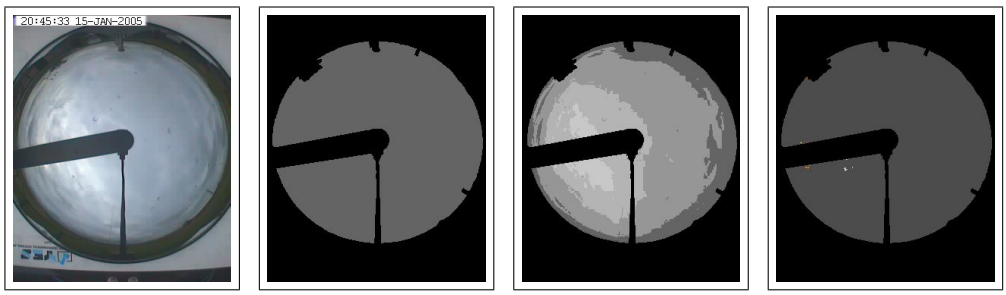
(v) 0501152000 (vi) 0501152000 Long (vii) 0501152000 EGD (viii) 0501152000 MAHA



(ix) 0501152015 (x) 0501152015 Long (xi) 0501152015 EGD (xii) 0501152015 MAHA

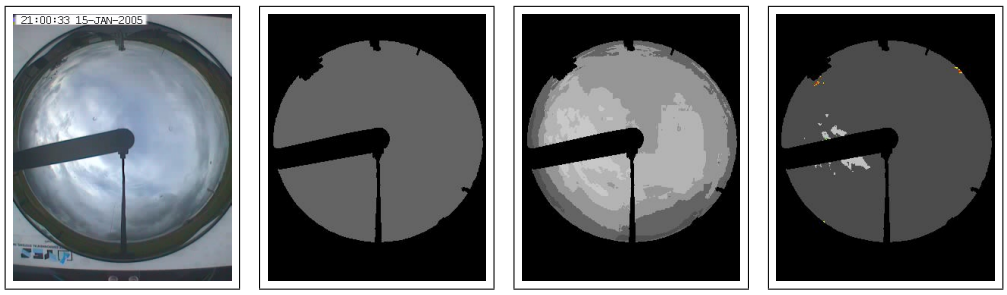


(xiii) 0501152030 (xiv) 0501152030 Long (xv) 0501152030 EGD (xvi) 0501152030 MAHA

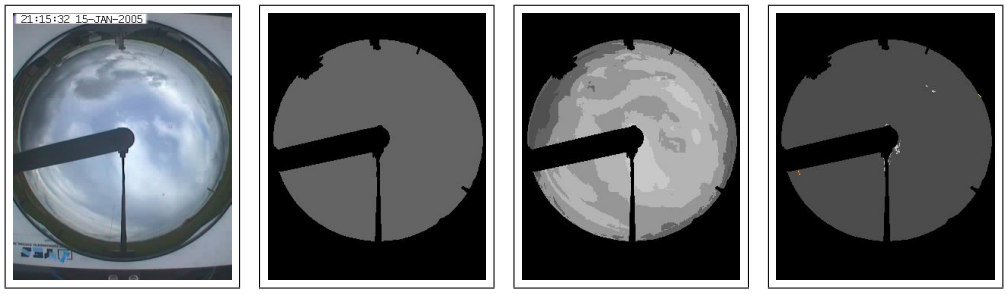


(xvii) 0501152045 (xviii) 0501152045 Long (xix) 0501152045 EGD (xx) 0501152045 MAHA

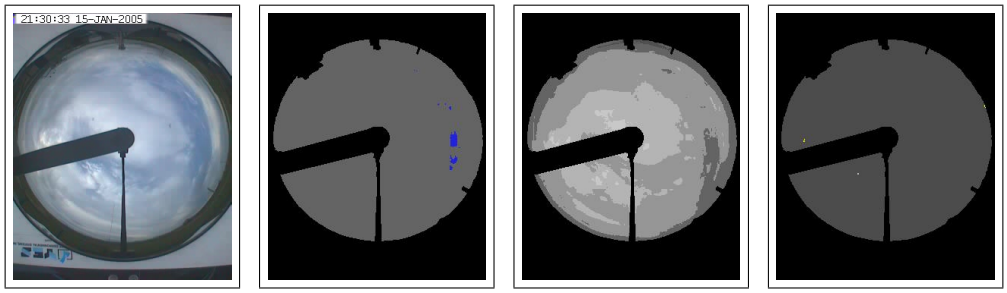
Figure A.176 - Sky images generated from 0501151945 to 0501152045.



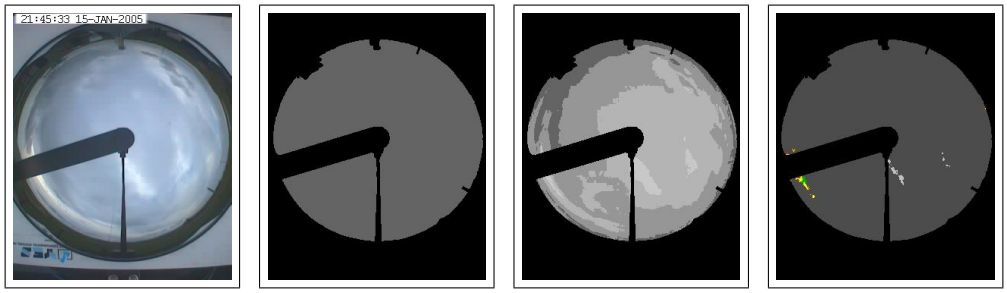
(i) 0501152100 (ii) 0501152100 Long (iii) 0501152100 EGD (iv) 0501152100 MAHA



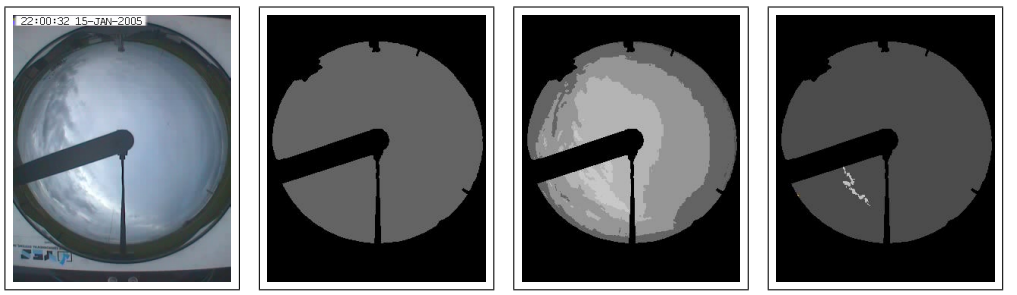
(v) 0501152115 (vi) 0501152115 Long (vii) 0501152115 EGD (viii) 0501152115 MAHA



(ix) 0501152130 (x) 0501152130 Long (xi) 0501152130 EGD (xii) 0501152130 MAHA

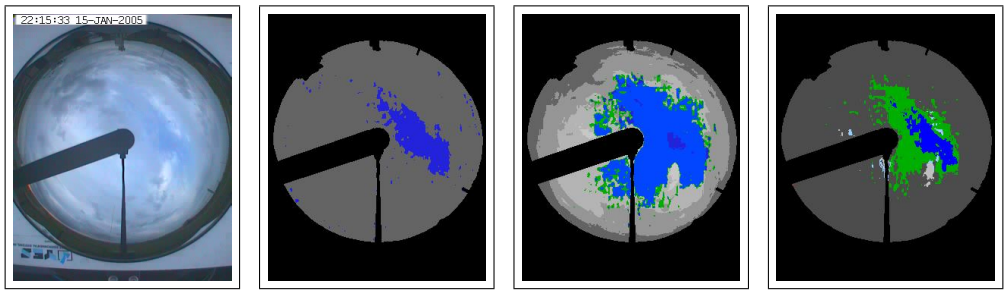


(xiii) 0501152145 (xiv) 0501152145 Long (xv) 0501152145 EGD (xvi) 0501152145 MAHA

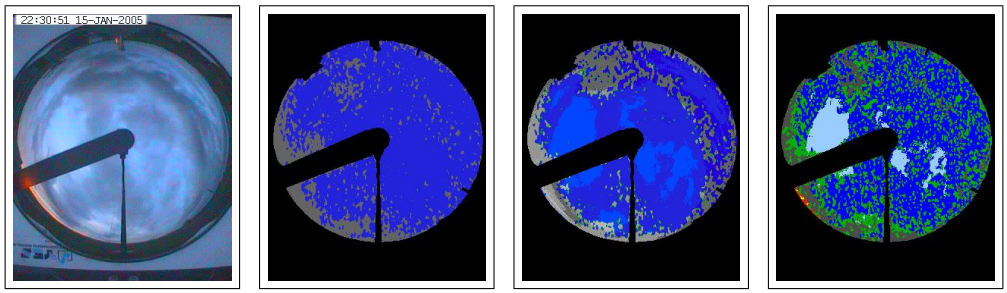


(xvii) 0501152200 (xviii) 0501152200 Long (xix) 0501152200 EGD (xx) 0501152200 MAHA

Figure A.177 - Sky images generated from 0501152100 to 0501152200.



(i) 0501152215 (ii) 0501152215 Long (iii) 0501152215 EGD (iv) 0501152215 MAHA

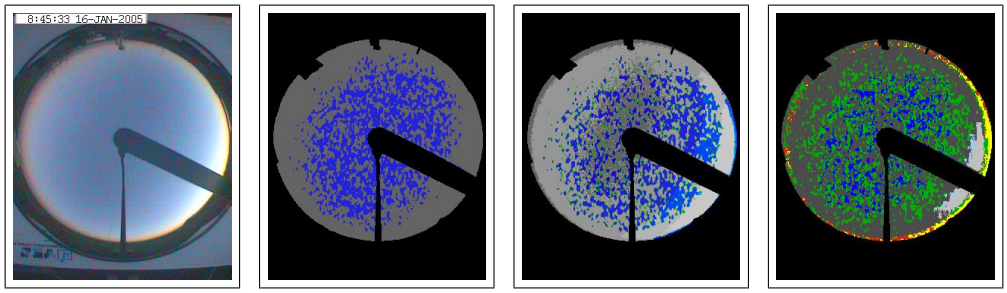


(v) 0501152230 (vi) 0501152230 Long (vii) 0501152230 EGD (viii) 0501152230 MAHA

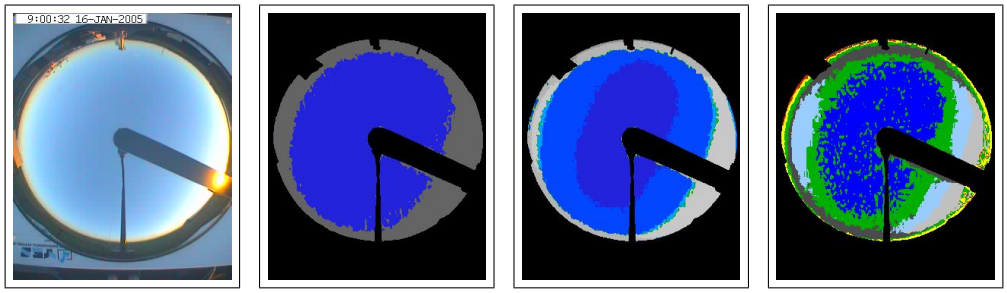


(ix) 0501152245

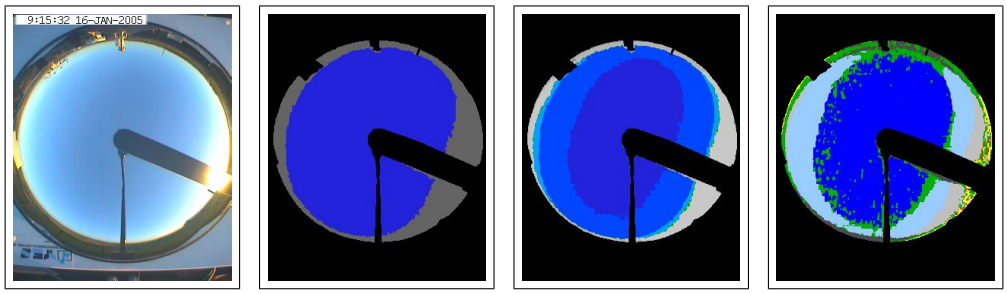
Figure A.178 - Sky images generated from 0501151600 to 0501152245.



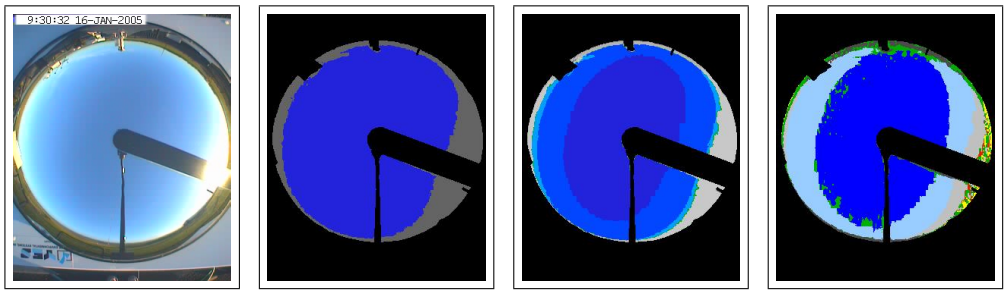
(i) 0501160845 (ii) 0501160845 Long (iii) 0501160845 EGD (iv) 0501160845 MAHA



(v) 0501160900 (vi) 0501160900 Long (vii) 0501160900 EGD (viii) 0501160900 MAHA

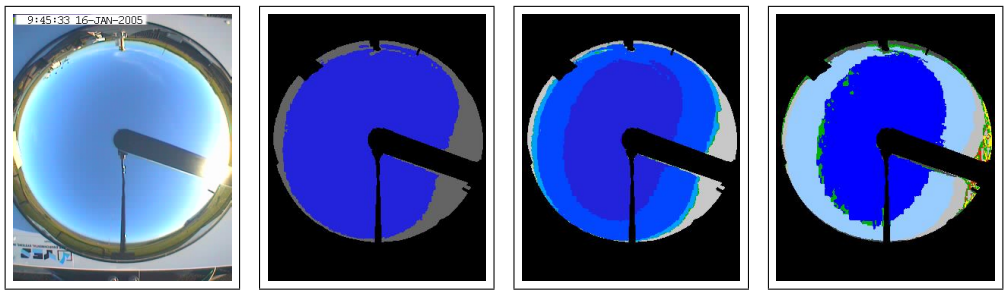


(ix) 0501160915 (x) 0501160915 Long (xi) 0501160915 EGD (xii) 0501160915 MAHA

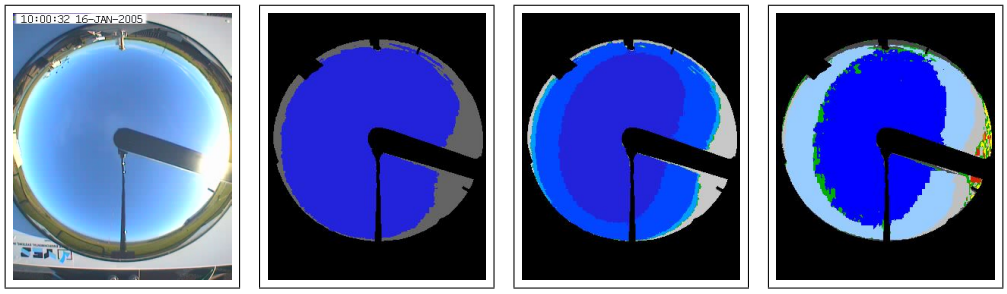


(xiii) 0501160930 (xiv) 0501160930 Long (xv) 0501160930 EGD (xvi) 0501160930 MAHA

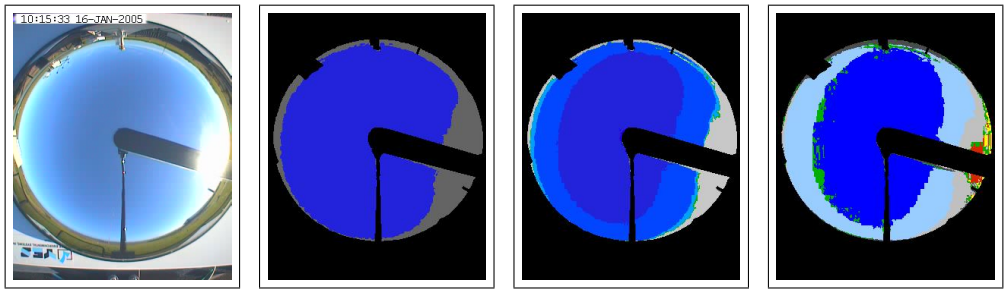
Figure A.179 - Sky images generated from 0501160845 to 0501160930.



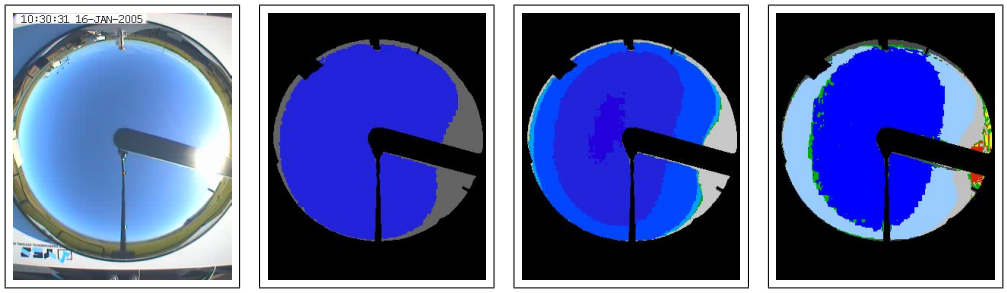
(i) 0501160945 (ii) 0501160945 Long (iii) 0501160945 EGD (iv) 0501160945 MAHA



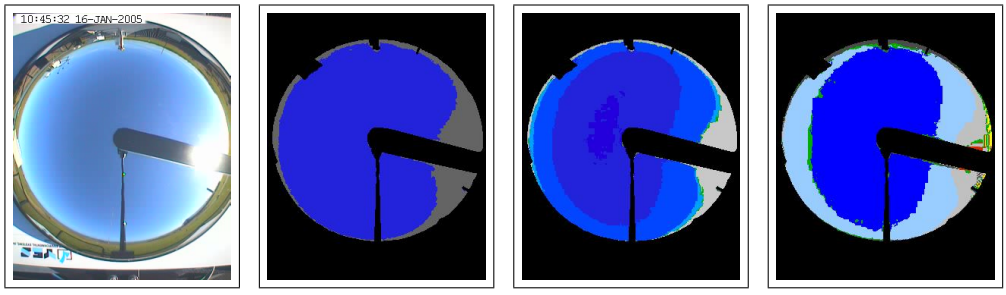
(v) 050116000 (vi) 050116000 Long (vii) 050116000 EGD (viii) 050116000 MAHA



(ix) 0501161015 (x) 0501161015 Long (xi) 0501161015 EGD (xii) 0501161015 MAHA

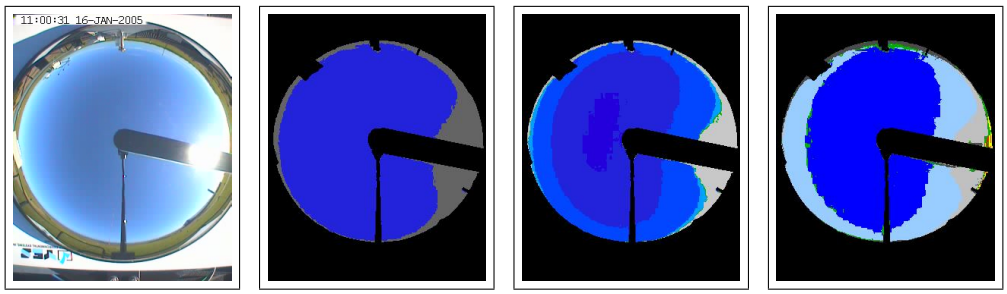


(xiii) 0501161030 (xiv) 0501161030 Long (xv) 0501161030 EGD (xvi) 0501161030 MAHA

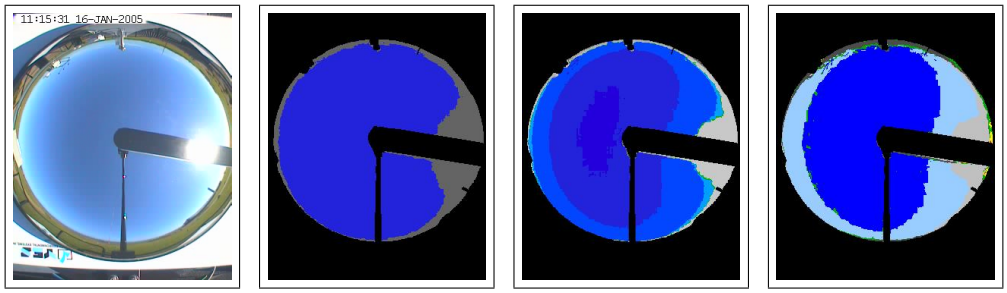


(xvii) 0501161045 (xviii) 0501161045 Long (xix) 0501161045 EGD (xx) 0501161045 MAHA

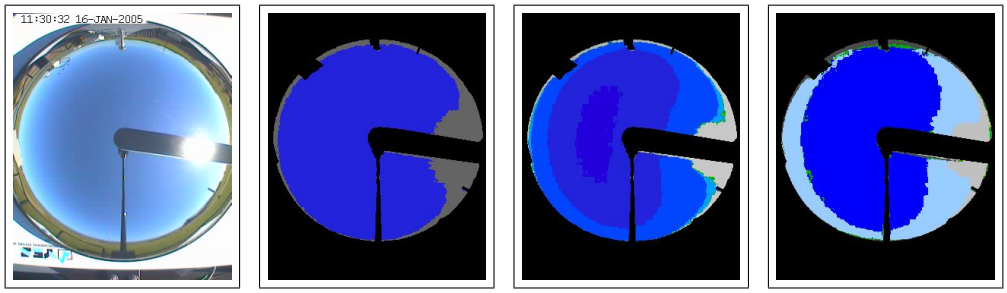
Figure A.180 - Sky images generated from 0501160945 to 0501161045.



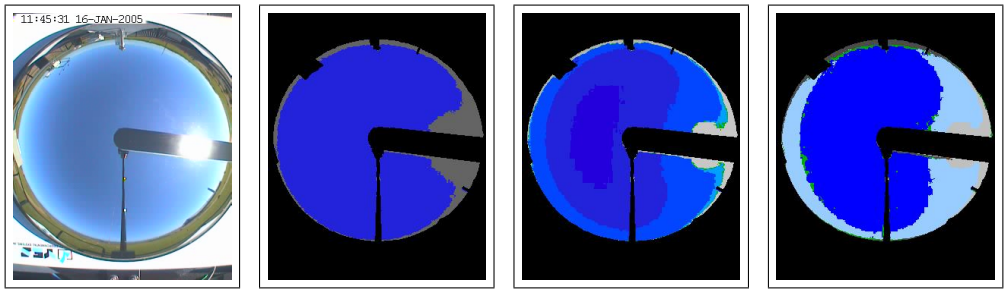
(i) 0501161100 (ii) 0501161100 Long (iii) 0501161100 EGD (iv) 0501161100 MAHA



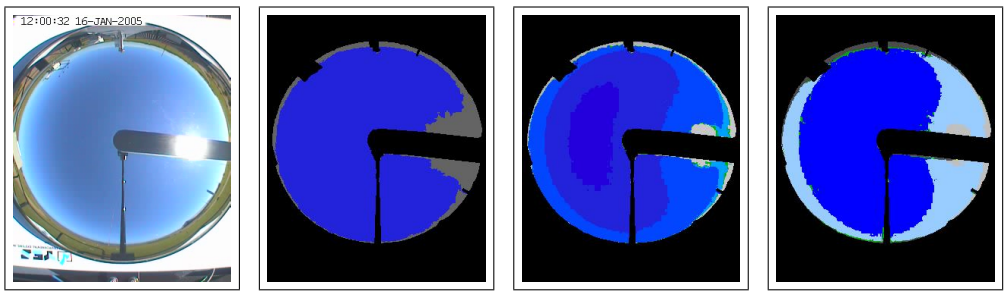
(v) 0501161115 (vi) 0501161115 Long (vii) 0501161115 EGD (viii) 0501161115 MAHA



(ix) 0501161130 (x) 0501161130 Long (xi) 0501161130 EGD (xii) 0501161130 MAHA

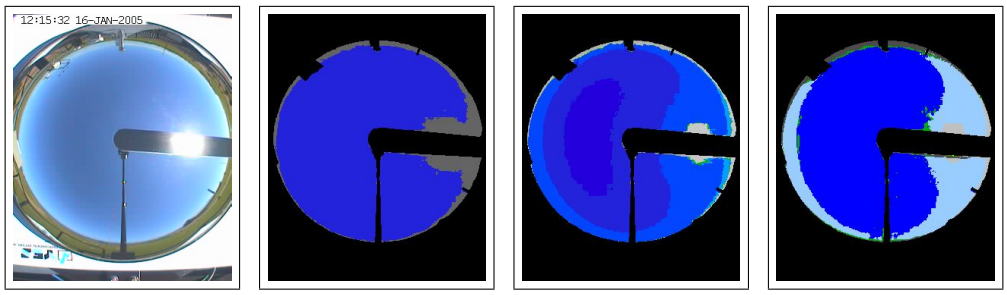


(xiii) 0501161145 (xiv) 0501161145 Long (xv) 0501161145 EGD (xvi) 0501161145 MAHA

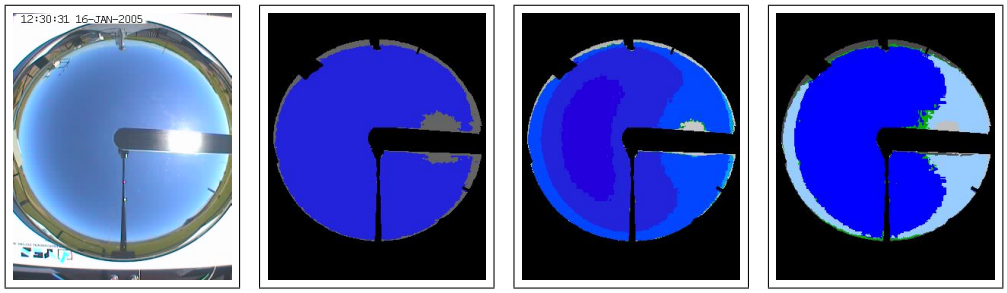


(xvii) 0501161200 (xviii) 0501161200 Long (xix) 0501161200 EGD (xx) 0501161200 MAHA

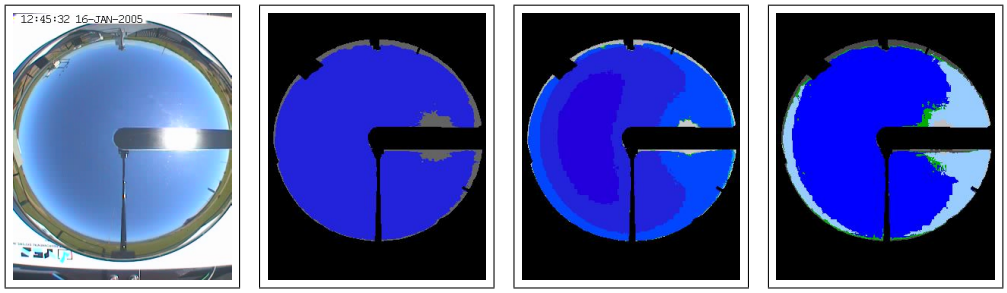
Figure A.181 - Sky images generated from 050116100 to 0501161200.



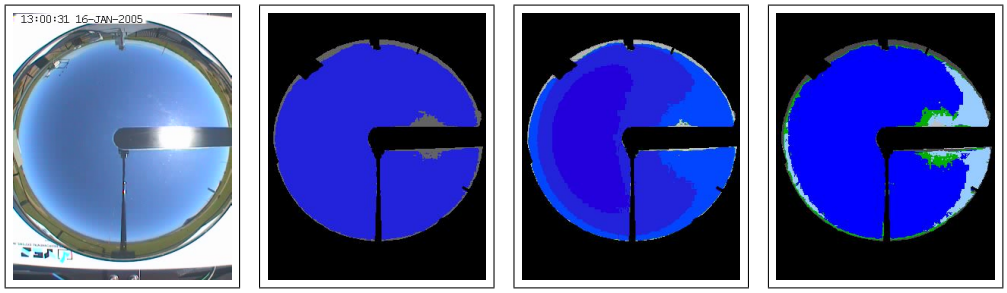
(i) 0501161215 (ii) 0501161215 Long (iii) 0501161215 EGD (iv) 0501161215 MAHA



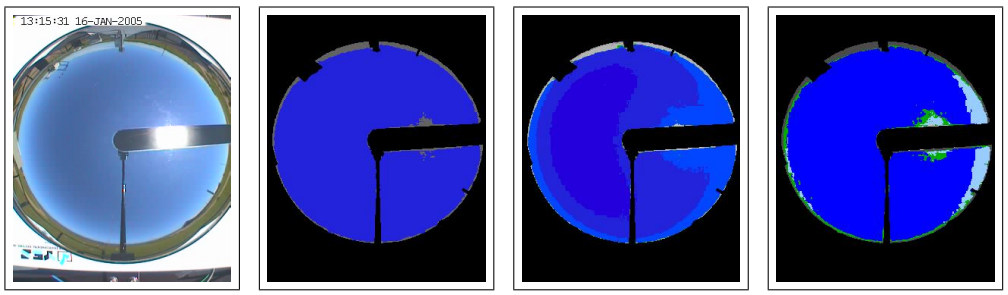
(v) 0501161230 (vi) 0501161230 Long (vii) 0501161230 EGD (viii) 0501161230 MAHA



(ix) 0501161245 (x) 0501161245 Long (xi) 0501161245 EGD (xii) 0501161245 MAHA

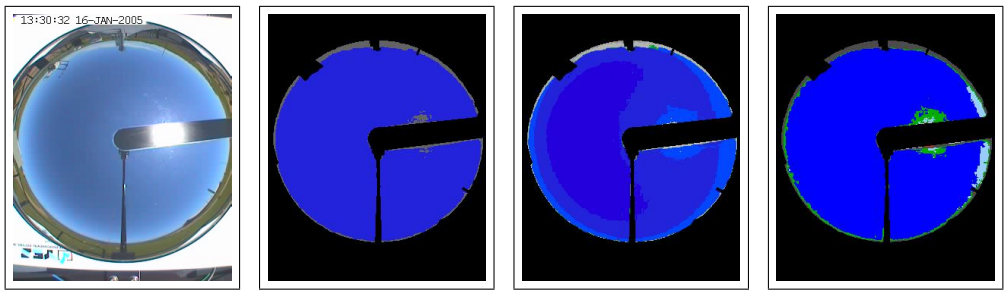


(xiii) 0501161300 (xiv) 0501161300 Long (xv) 0501161300 EGD (xvi) 0501161300 MAHA

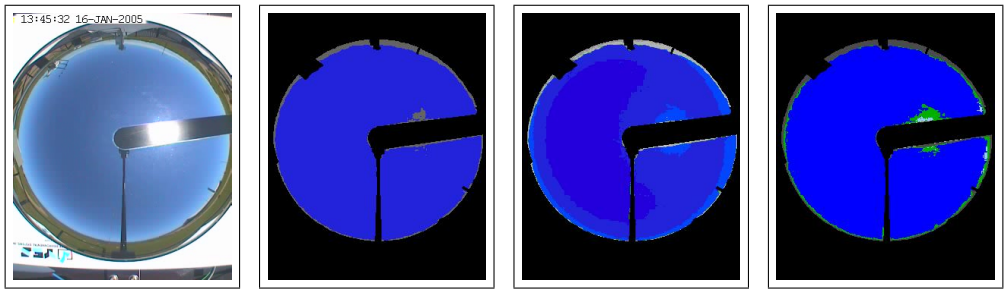


(xvii) 0501161315 (xviii) 0501161315 Long (xix) 0501161315 EGD (xx) 0501161315 MAHA

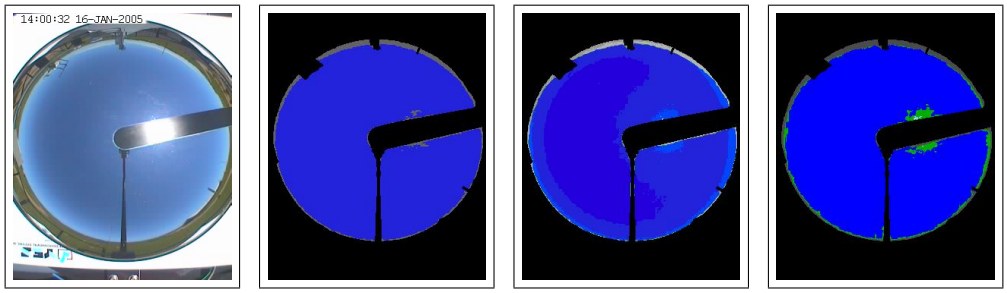
Figure A.182 - Sky images generated from 0501161215 to 0501161315.



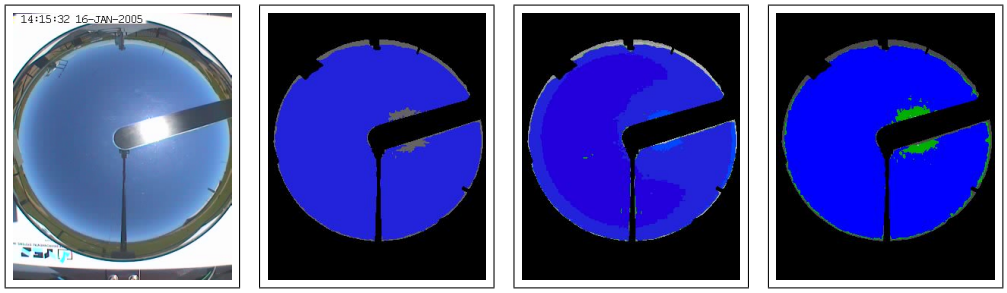
(i) 0501161330 (ii) 0501161330 Long (iii) 0501161330 EGD (iv) 0501161330 MAHA



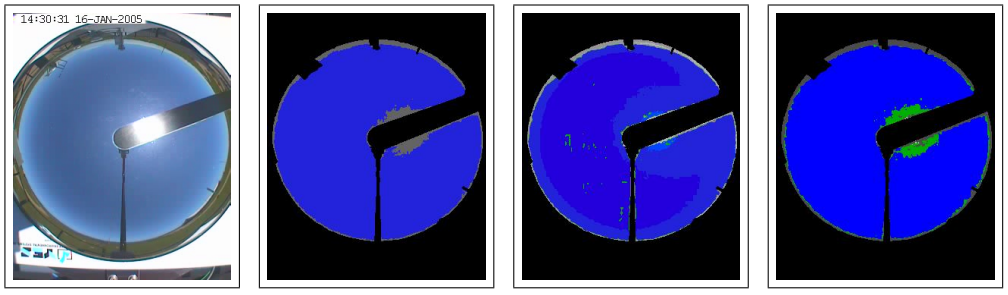
(v) 0501161345 (vi) 0501161345 Long (vii) 0501161345 EGD (viii) 0501161345 MAHA



(ix) 0501161400 (x) 0501161400 Long (xi) 0501161400 EGD (xii) 0501161400 MAHA

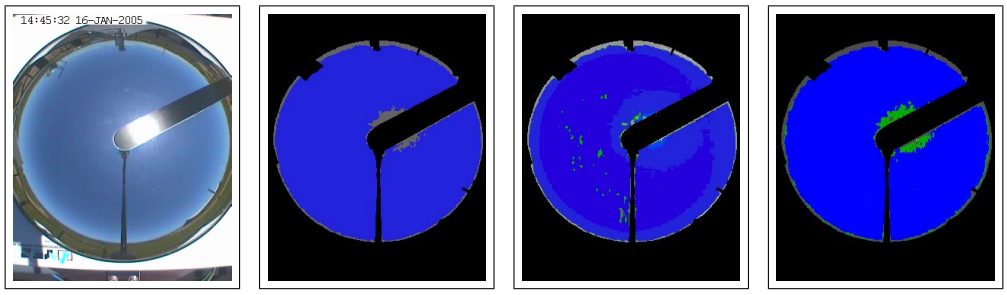


(xiii) 0501161415 (xiv) 0501161415 Long (xv) 0501161415 EGD (xvi) 0501161415 MAHA

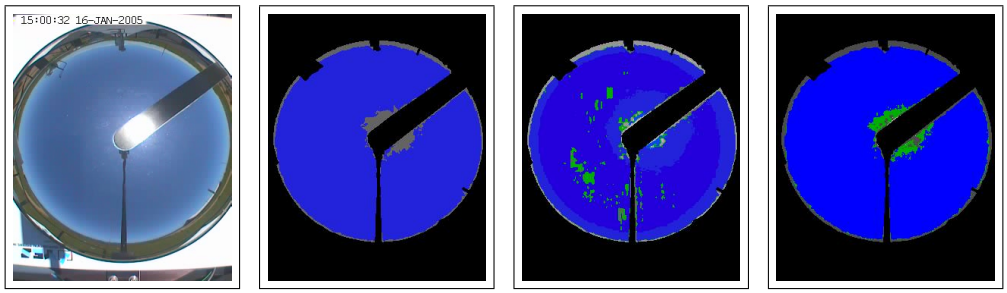


(xvii) 0501161430 (xviii) 0501161430 Long (xix) 0501161430 EGD (xx) 0501161430 MAHA

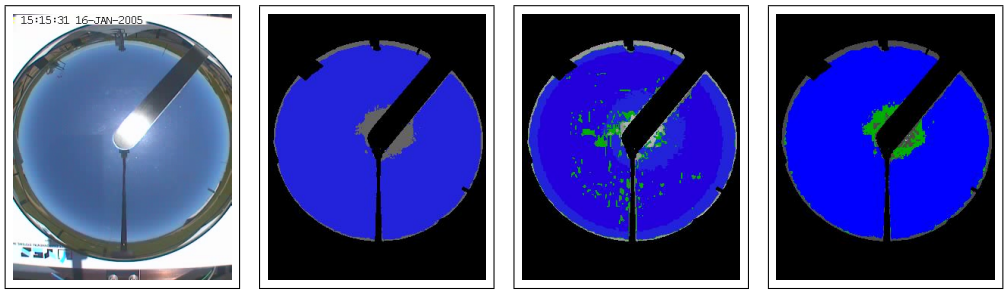
Figure A.183 - Sky images generated from 0501161330 to 0501161430.



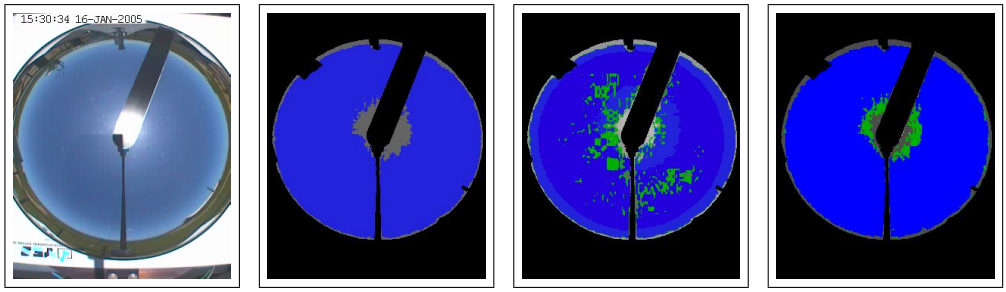
(i) 0501161445 (ii) 0501161445 Long (iii) 0501161445 EGD (iv) 0501161445 MAHA



(v) 0501161500 (vi) 0501161500 Long (vii) 0501161500 EGD (viii) 0501161500 MAHA

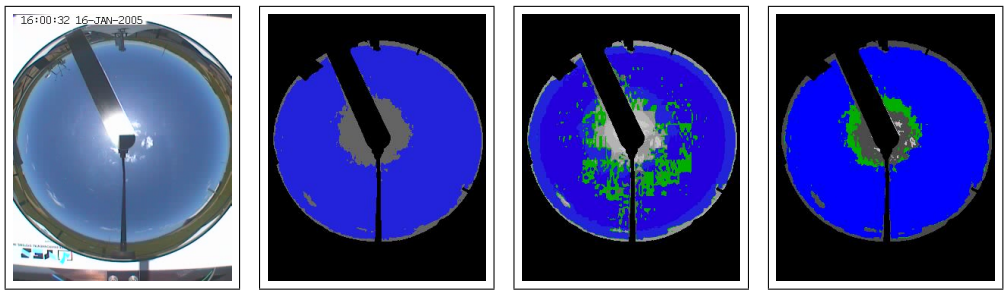


(ix) 0501161515 (x) 0501161515 Long (xi) 0501161515 EGD (xii) 0501161515 MAHA

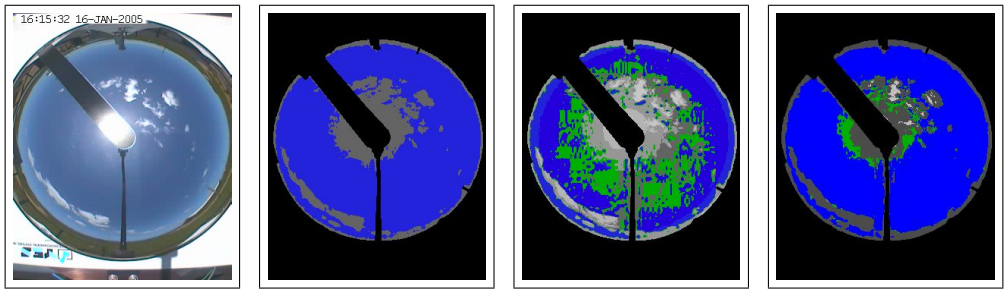


(xiii) 0501161530 (xiv) 0501161530 Long (xv) 0501161530 EGD (xvi) 0501161530 MAHA

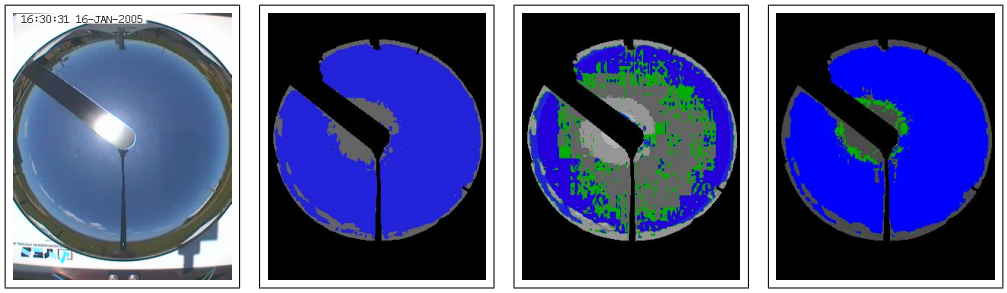
Figure A.184 - Sky images generated from 0501161445 to 0501161530.



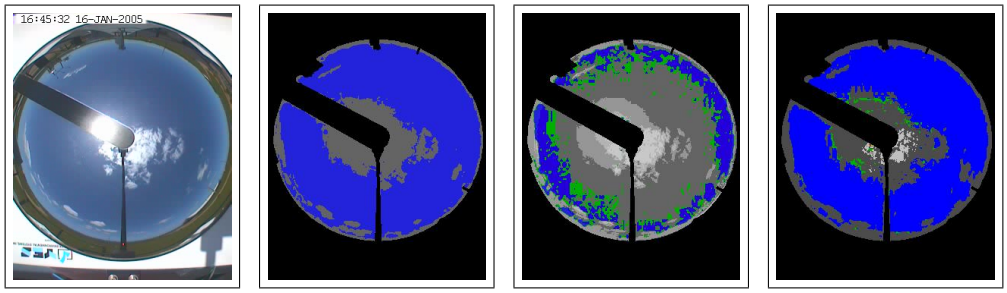
(i) 0501161600 (ii) 0501161600 Long (iii) 0501161600 EGD (iv) 0501161600 MAHA



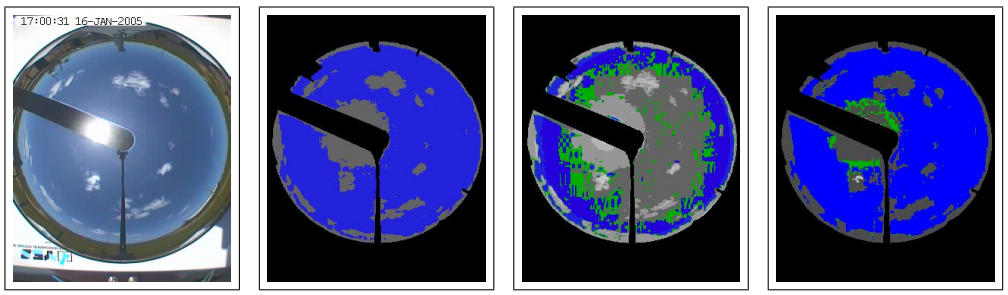
(v) 0501161615 (vi) 0501161615 Long (vii) 0501161615 EGD (viii) 0501161615 MAHA



(ix) 0501161630 (x) 0501161630 Long (xi) 0501161630 EGD (xii) 0501161630 MAHA

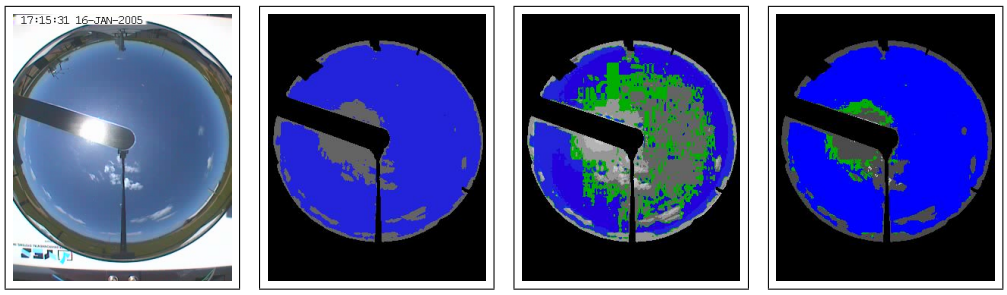


(xiii) 0501161645 (xiv) 0501161645 Long (xv) 0501161645 EGD (xvi) 0501161645 MAHA

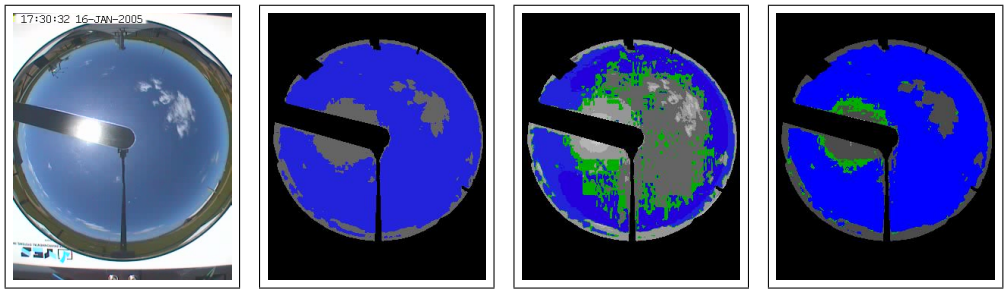


(xvii) 0501161700 (xviii) 0501161700 Long (xix) 0501161700 EGD (xx) 0501161700 MAHA

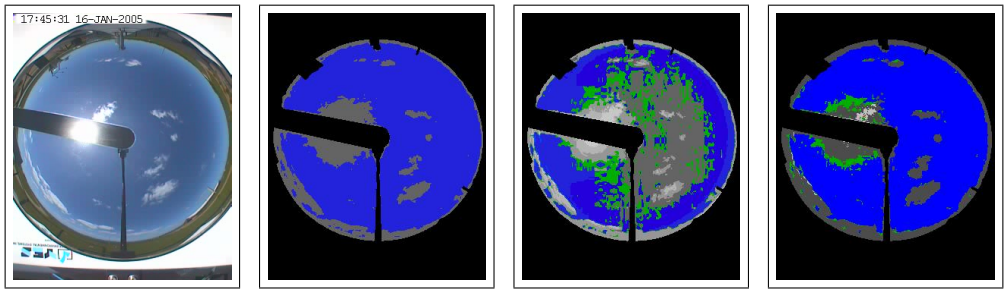
Figure A.185 - Sky images generated from 0501161600 to 0501161700.



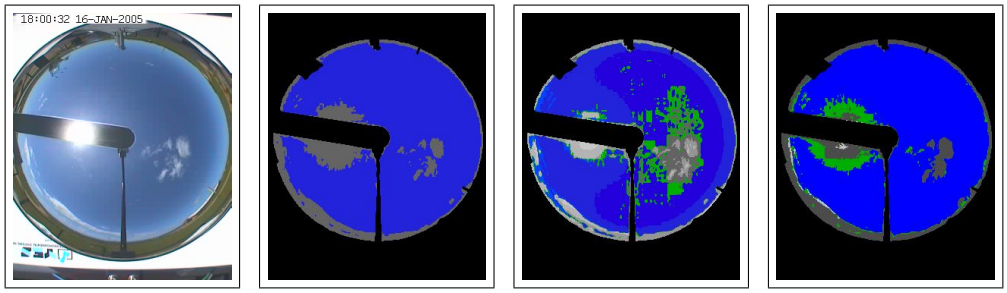
(i) 0501161715 (ii) 0501161715 Long (iii) 0501161715 EGD (iv) 0501161715 MAHA



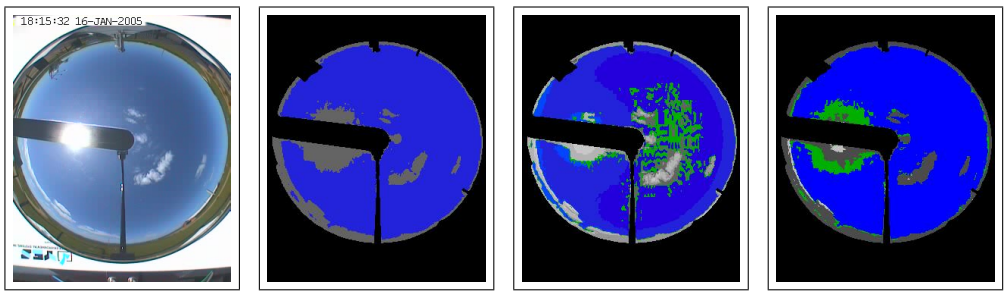
(v) 0501161730 (vi) 0501161730 Long (vii) 0501161730 EGD (viii) 0501161730 MAHA



(ix) 0501161745 (x) 0501161745 Long (xi) 0501161745 EGD (xii) 0501161745 MAHA

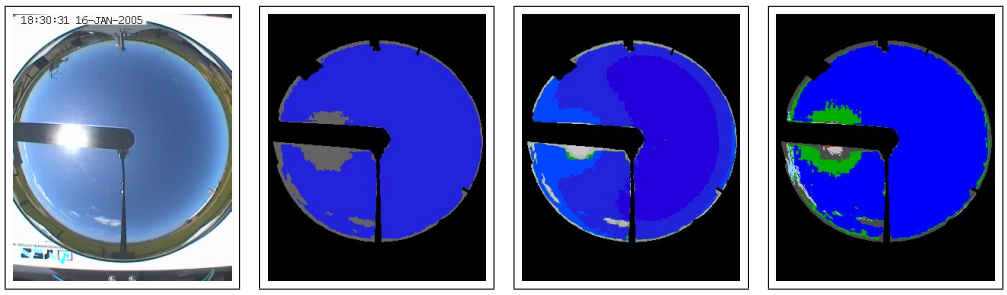


(xiii) 0501161800 (xiv) 0501161800 Long (xv) 0501161800 EGD (xvi) 0501161800 MAHA

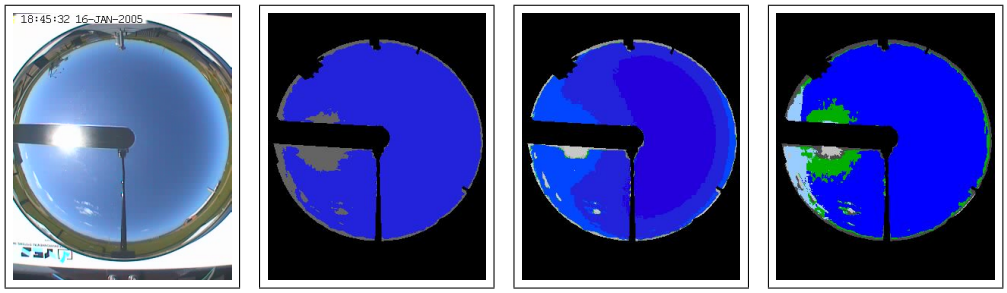


(xvii) 0501161815 (xviii) 0501161815 Long (xix) 0501161815 EGD (xx) 0501161815 MAHA

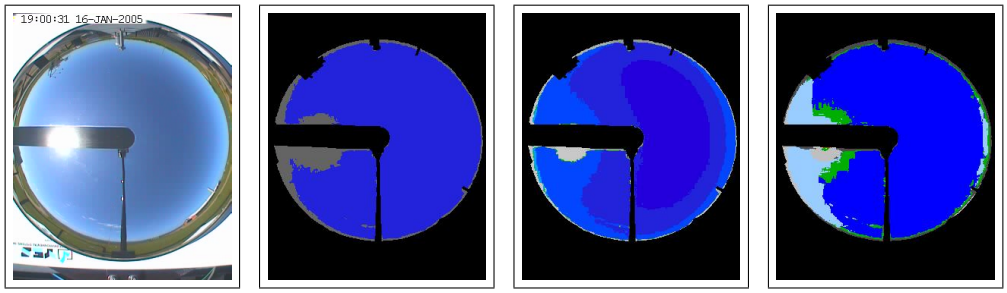
Figure A.186 - Sky images generated from 0501161715 to 0501161815.



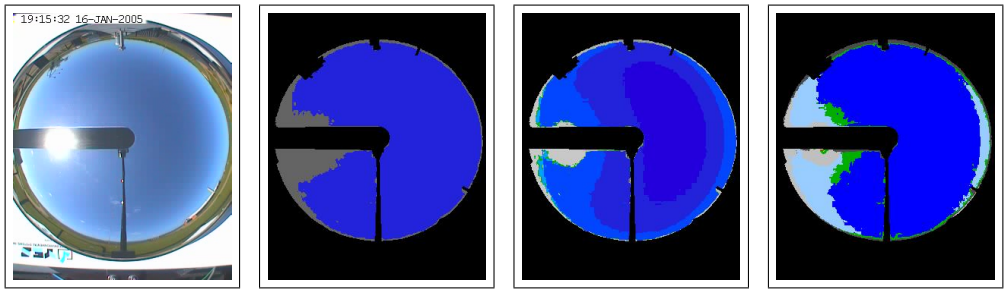
(i) 0501161830 (ii) 0501161830 Long (iii) 0501161830 EGD (iv) 0501161830 MAHA



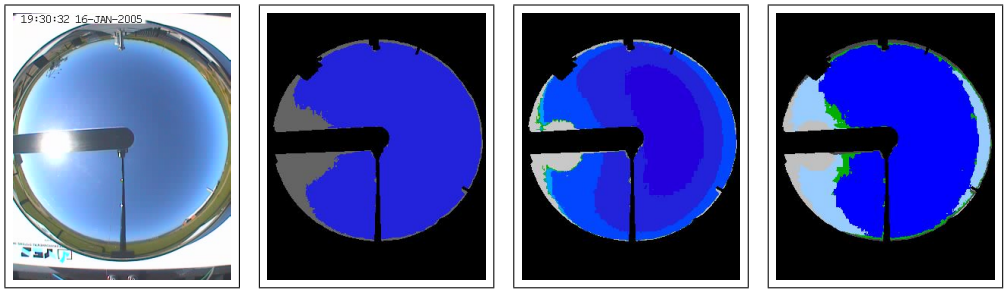
(v) 0501161845 (vi) 0501161845 Long (vii) 0501161845 EGD (viii) 0501161845 MAHA



(ix) 0501161900 (x) 0501161900 Long (xi) 0501161900 EGD (xii) 0501161900 MAHA

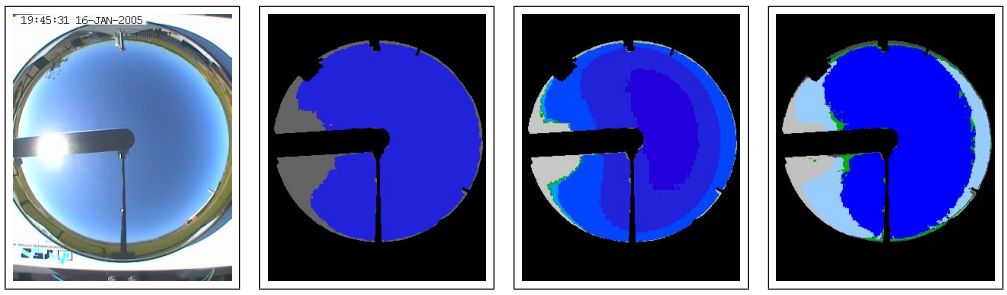


(xiii) 0501161915 (xiv) 0501161915 Long (xv) 0501161915 EGD (xvi) 0501161915 MAHA

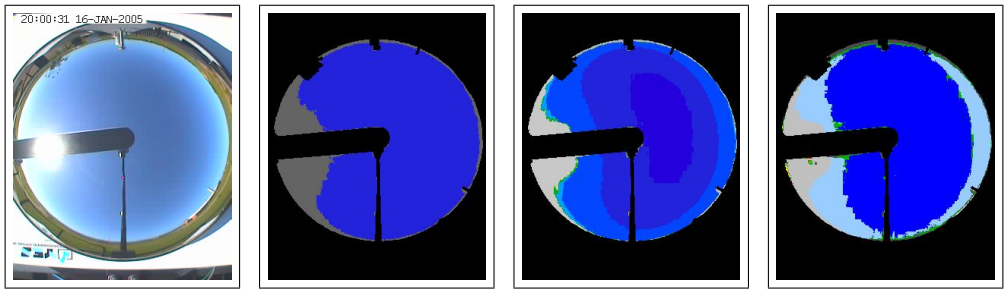


(xvii) 0501161930 (xviii) 0501161930 Long (xix) 0501161930 EGD (xx) 0501161930 MAHA

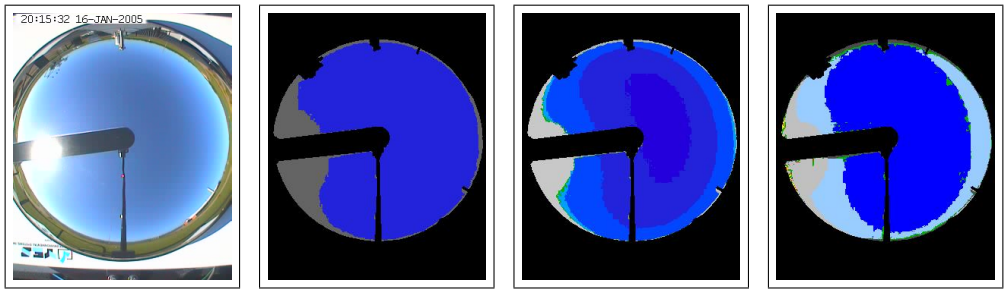
Figure A.187 - Sky images generated from 0501161830 to 0501161930.



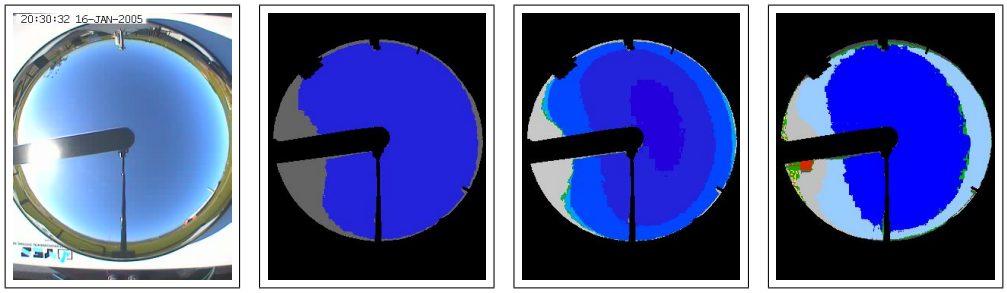
(i) 0501161945 (ii) 0501161945 Long (iii) 0501161945 EGD (iv) 0501161945 MAHA



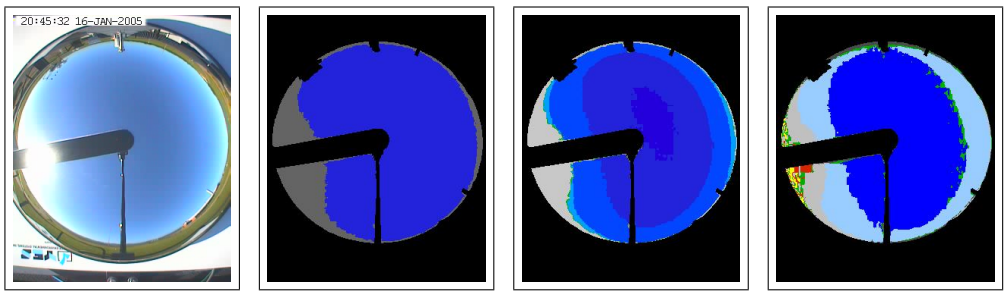
(v) 0501162000 (vi) 0501162000 Long (vii) 0501162000 EGD (viii) 0501162000 MAHA



(ix) 0501162015 (x) 0501162015 Long (xi) 0501162015 EGD (xii) 0501162015 MAHA

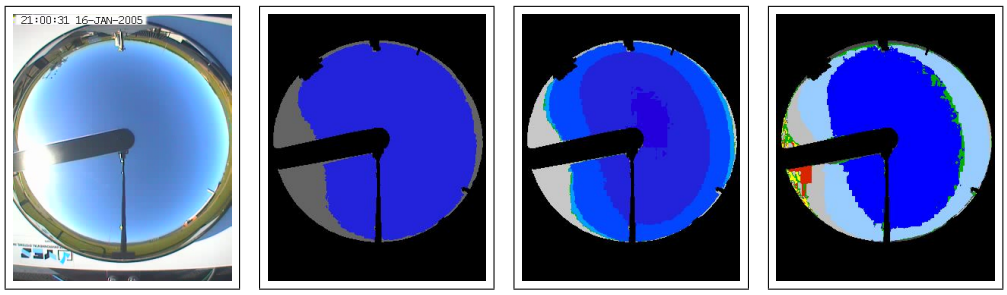


(xiii) 0501162030 (xiv) 0501162030 Long (xv) 0501162030 EGD (xvi) 0501162030 MAHA

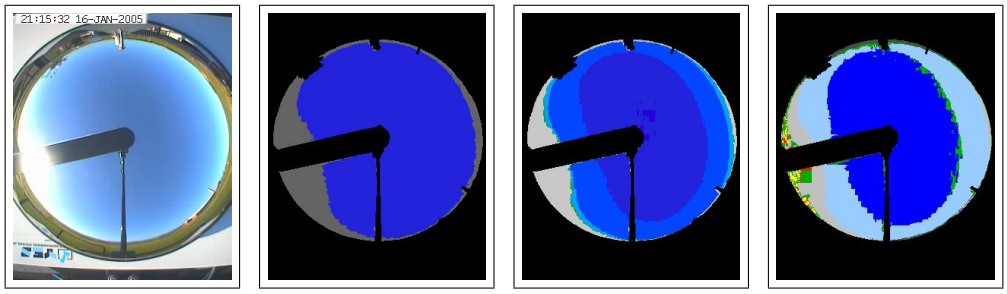


(xvii) 0501162045 (xviii) 0501162045 Long (xix) 0501162045 EGD (xx) 0501162045 MAHA

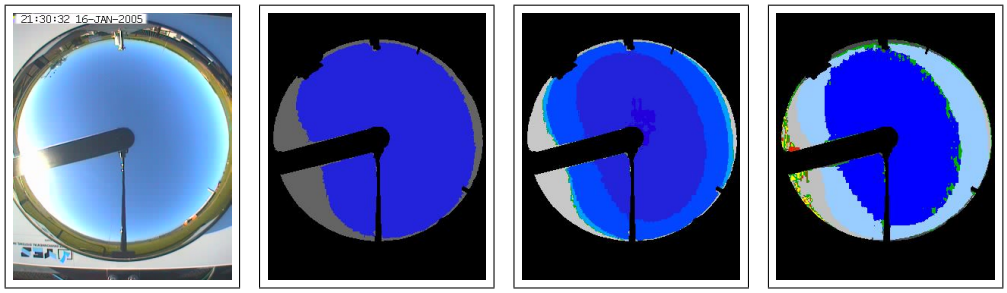
Figure A.188 - Sky images generated from 0501161945 to 0501162045.



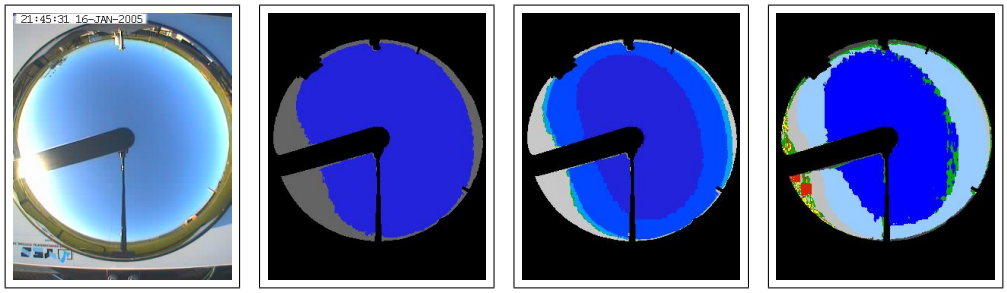
(i) 0501162100 (ii) 0501162100 Long (iii) 0501162100 EGD (iv) 0501162100 MAHA



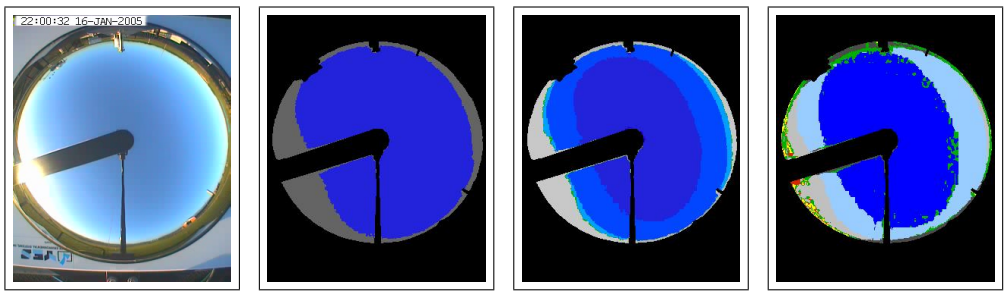
(v) 0501162115 (vi) 0501162115 Long (vii) 0501162115 EGD (viii) 0501162115 MAHA



(ix) 0501162130 (x) 0501162130 Long (xi) 0501162130 EGD (xii) 0501162130 MAHA

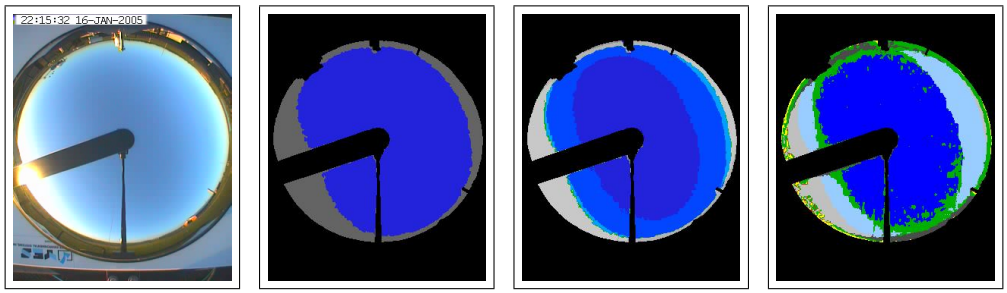


(xiii) 0501162145 (xiv) 0501162145 Long (xv) 0501162145 EGD (xvi) 0501162145 MAHA

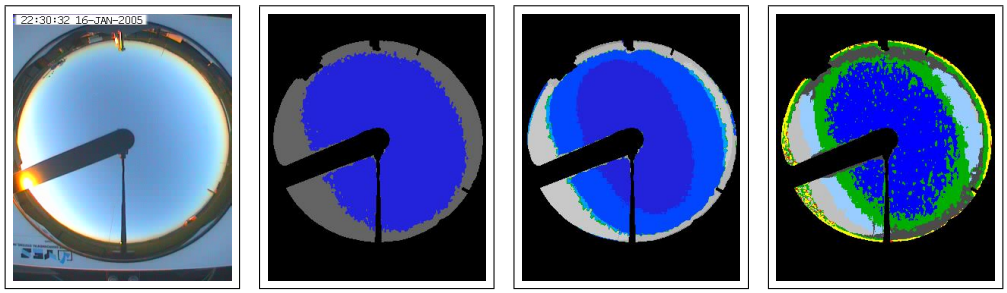


(xvii) 0501162200 (xviii) 0501162200 Long (xix) 0501162200 EGD (xx) 0501162200 MAHA

Figure A.189 - Sky images generated from 0501162100 to 0501162200.



(i) 0501162215 (ii) 0501162215 Long (iii) 0501162215 EGD (iv) 0501162215 MAHA

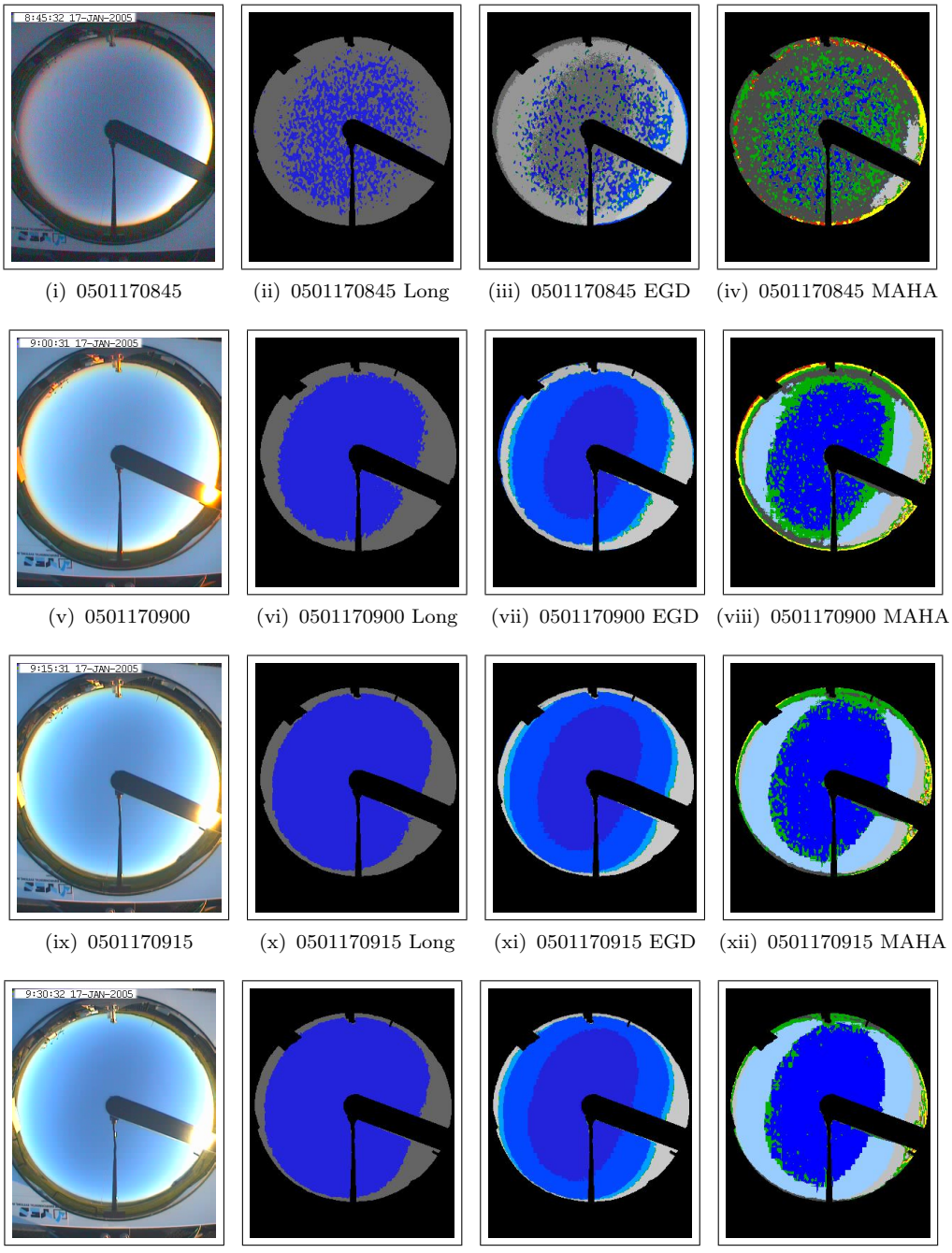


(v) 0501162230 (vi) 0501162230 Long (vii) 0501162230 EGD (viii) 0501162230 MAHA



(ix) 0501162245

Figure A.190 - Sky images generated from 0501161600 to 0501162245.



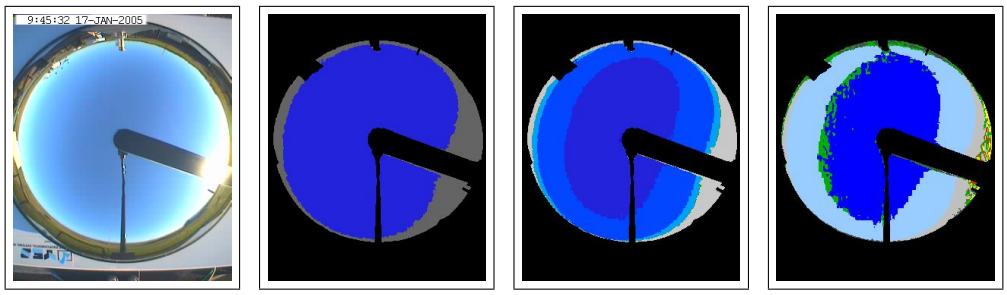
(i) 0501170845 (ii) 0501170845 Long (iii) 0501170845 EGD (iv) 0501170845 MAHA

(v) 0501170900 (vi) 0501170900 Long (vii) 0501170900 EGD (viii) 0501170900 MAHA

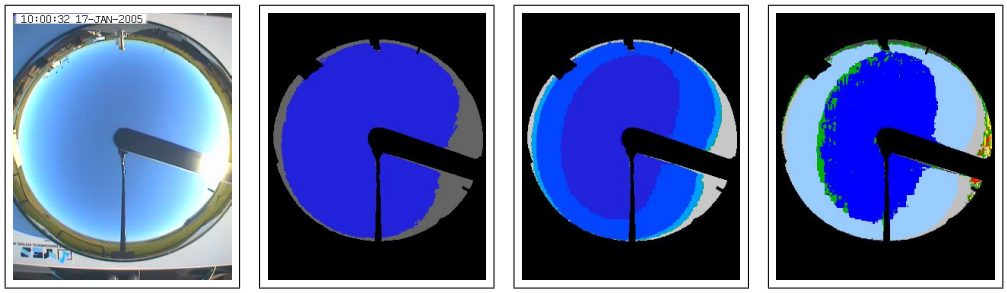
(ix) 0501170915 (x) 0501170915 Long (xi) 0501170915 EGD (xii) 0501170915 MAHA

(xiii) 0501170930 (xiv) 0501170930 Long (xv) 0501170930 EGD (xvi) 0501170930 MAHA

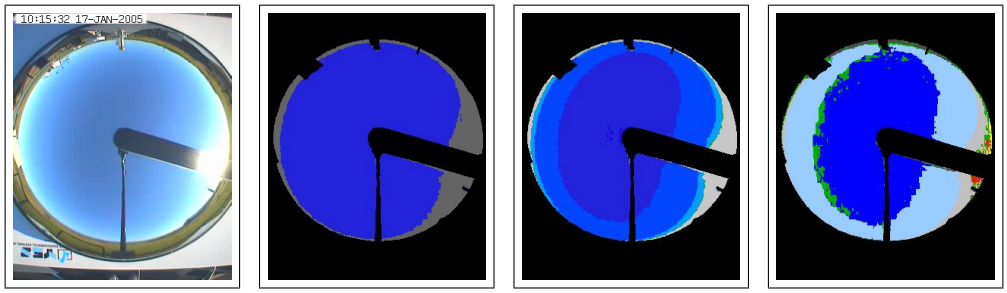
Figure A.191 - Sky images generated from 0501170845 to 0501170930.



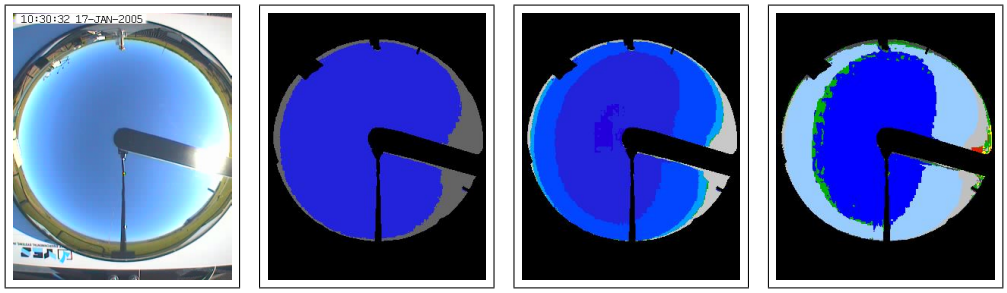
(i) 0501170945 (ii) 0501170945 Long (iii) 0501170945 EGD (iv) 0501170945 MAHA



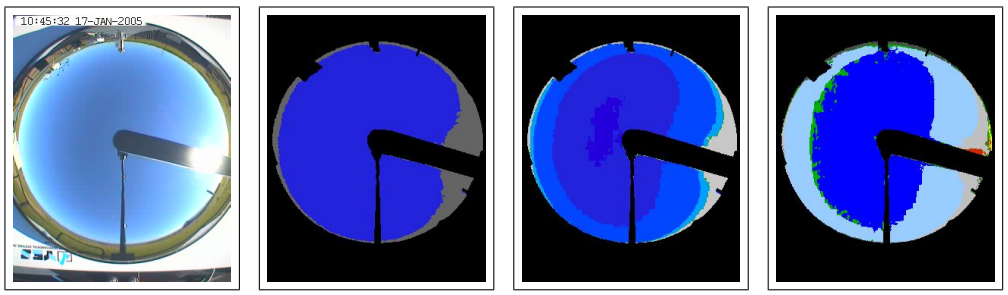
(v) 0501171000 (vi) 0501171000 Long (vii) 0501171000 EGD (viii) 0501171000 MAHA



(ix) 0501171015 (x) 0501171015 Long (xi) 0501171015 EGD (xii) 0501171015 MAHA

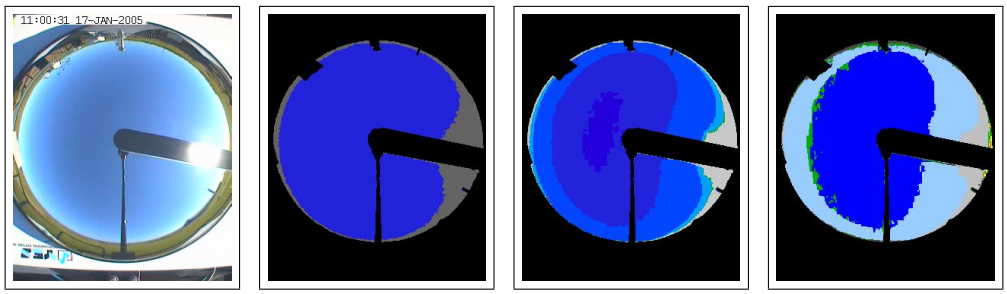


(xiii) 0501171030 (xiv) 0501171030 Long (xv) 0501171030 EGD (xvi) 0501171030 MAHA

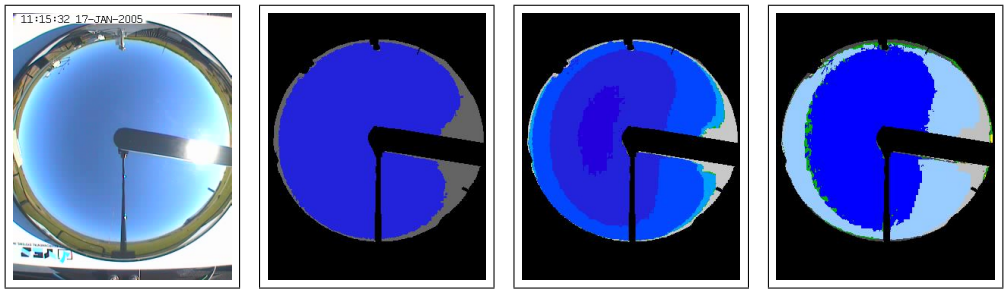


(xvii) 0501171045 (xviii) 0501171045 Long (xix) 0501171045 EGD (xx) 0501171045 MAHA

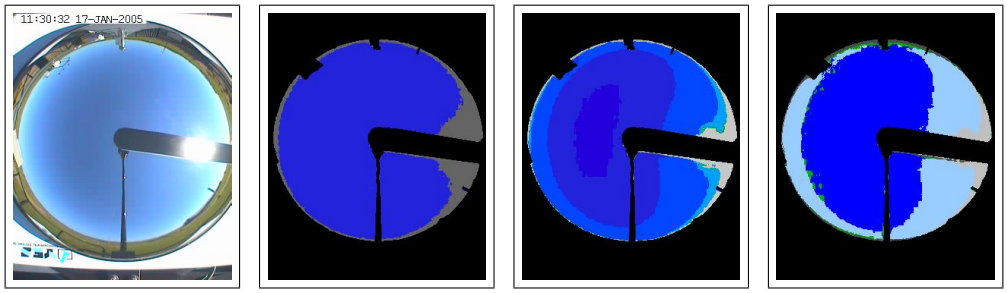
Figure A.192 - Sky images generated from 0501170945 to 0501171045.



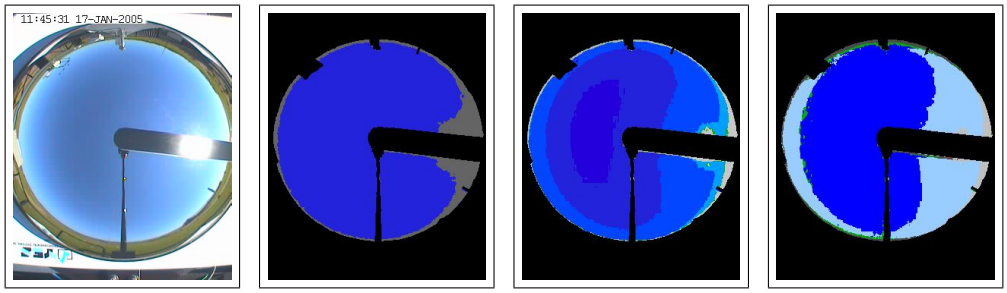
(i) 0501171100 (ii) 0501171100 Long (iii) 0501171100 EGD (iv) 0501171100 MAHA



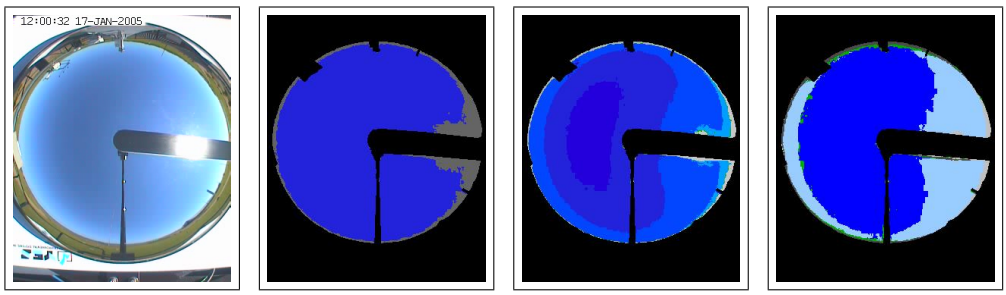
(v) 0501171115 (vi) 0501171115 Long (vii) 0501171115 EGD (viii) 0501171115 MAHA



(ix) 0501171130 (x) 0501171130 Long (xi) 0501171130 EGD (xii) 0501171130 MAHA

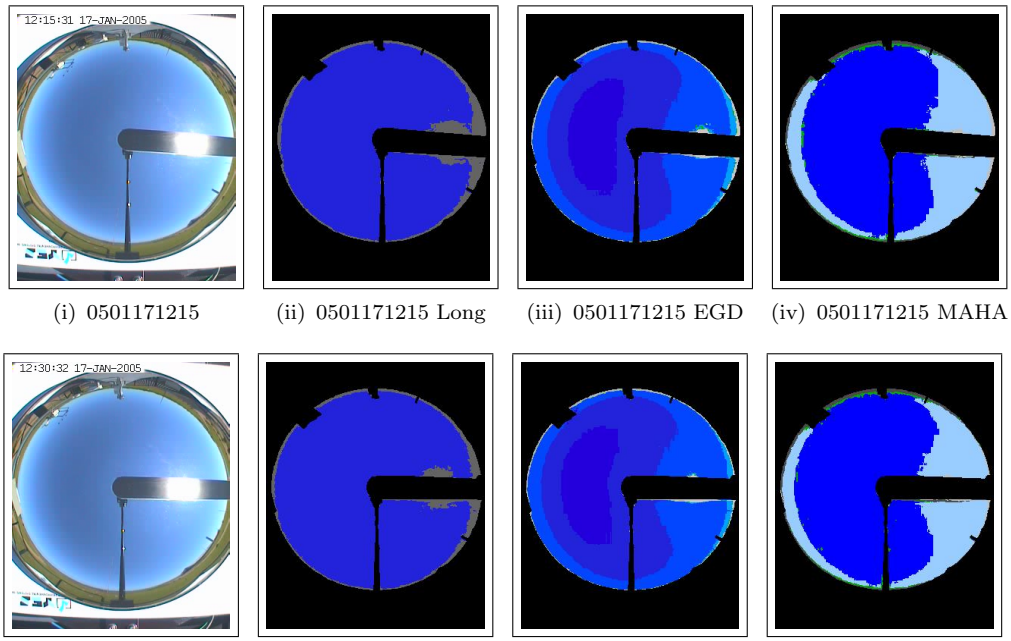


(xiii) 0501171145 (xiv) 0501171145 Long (xv) 0501171145 EGD (xvi) 0501171145 MAHA



(xvii) 0501171200 (xviii) 0501171200 Long (xix) 0501171200 EGD (xx) 0501171200 MAHA

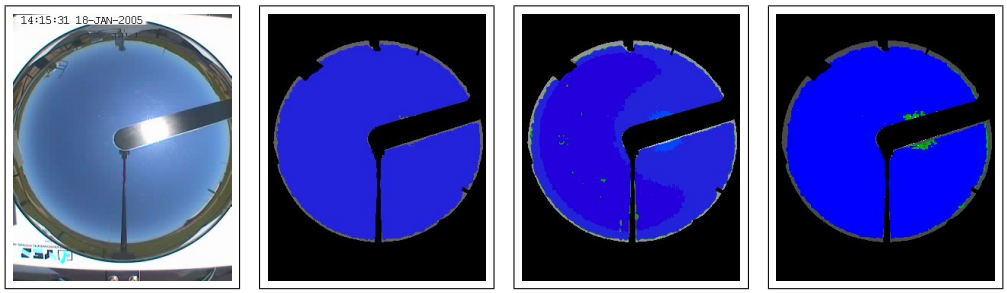
Figure A.193 - Sky images generated from 050117100 to 0501171200.



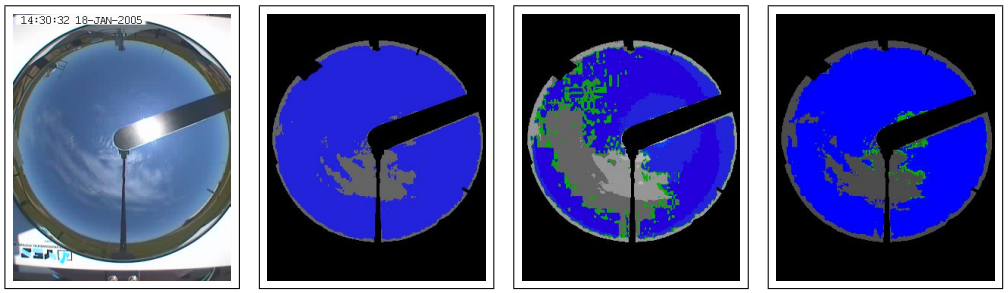
(i) 0501171215 (ii) 0501171215 Long (iii) 0501171215 EGD (iv) 0501171215 MAHA

(v) 0501171230 (vi) 0501171230 Long (vii) 0501171230 EGD (viii) 0501171230 MAHA

Figure A.194 - Sky images generated from 0501171215 to 0501171230.

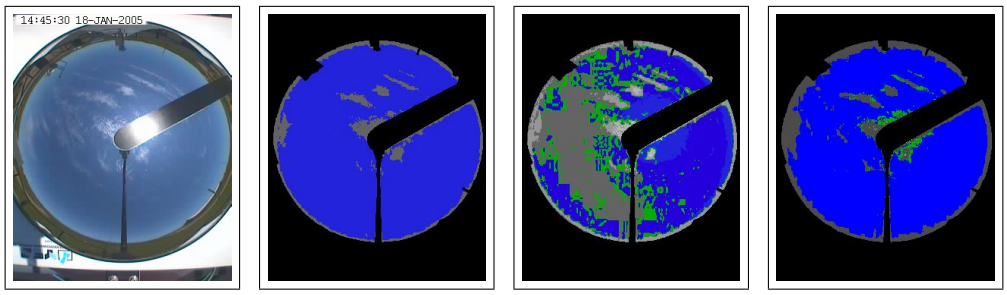


(i) 0501181415 (ii) 0501181415 Long (iii) 0501181415 EGD (iv) 0501181415 MAHA

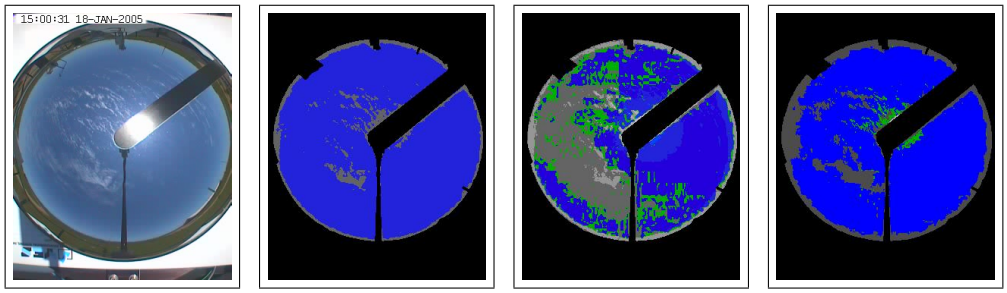


(v) 0501181430 (vi) 0501181430 Long (vii) 0501181430 EGD (viii) 0501181430 MAHA

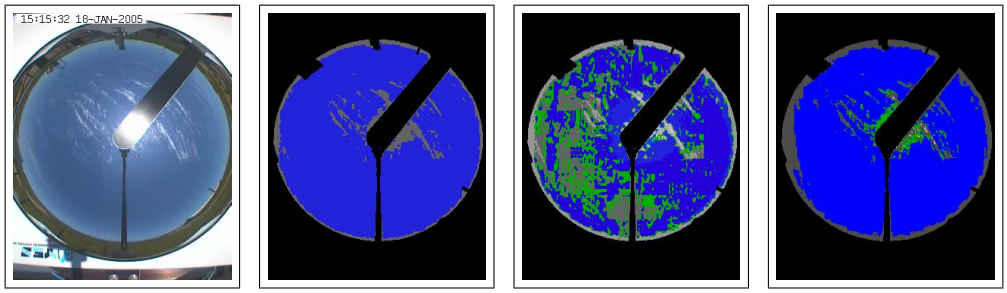
Figure A.195 - Sky images generated from 0501181415 to 0501181430.



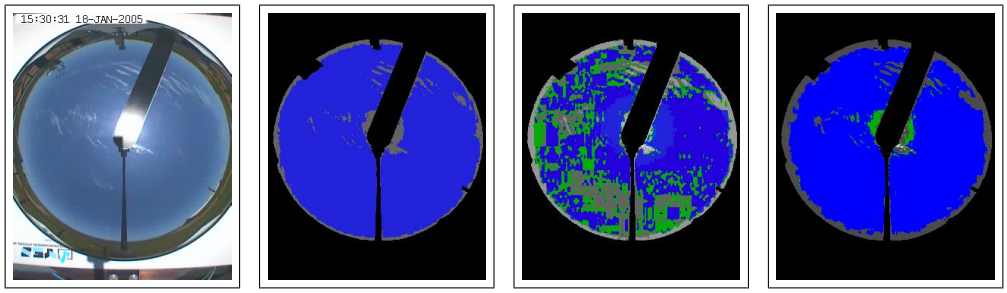
(i) 0501181445 (ii) 0501181445 Long (iii) 0501181445 EGD (iv) 0501181445 MAHA



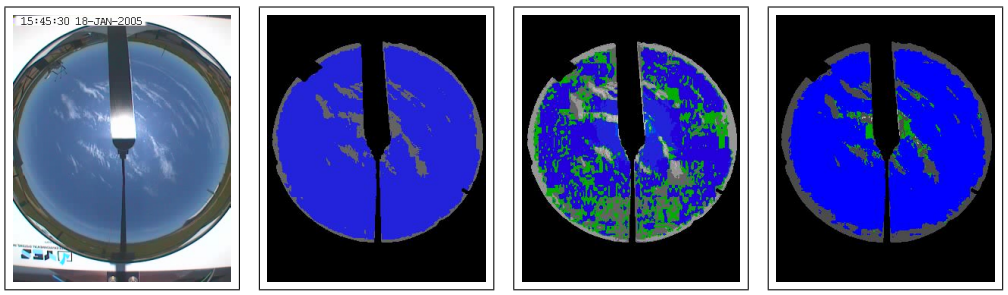
(v) 0501181500 (vi) 0501181500 Long (vii) 0501181500 EGD (viii) 0501181500 MAHA



(ix) 0501181515 (x) 0501181515 Long (xi) 0501181515 EGD (xii) 0501181515 MAHA

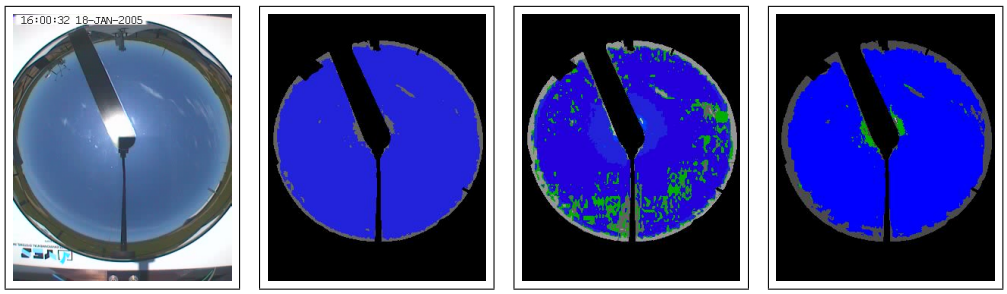


(xiii) 0501181530 (xiv) 0501181530 Long (xv) 0501181530 EGD (xvi) 0501181530 MAHA

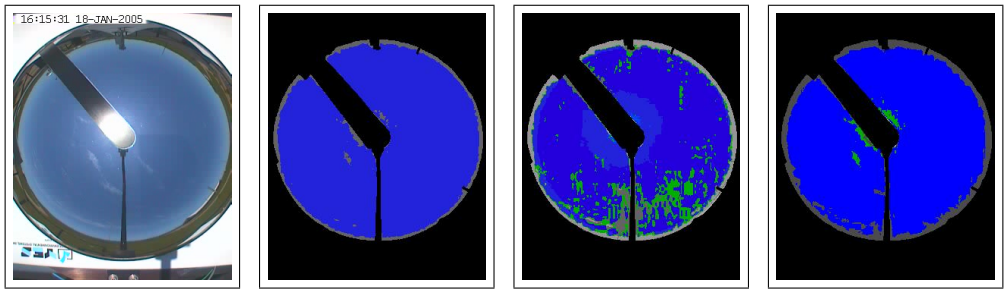


(xvii) 0501181545 (xviii) 0501181545 Long (xix) 0501181545 EGD (xx) 0501181545 MAHA

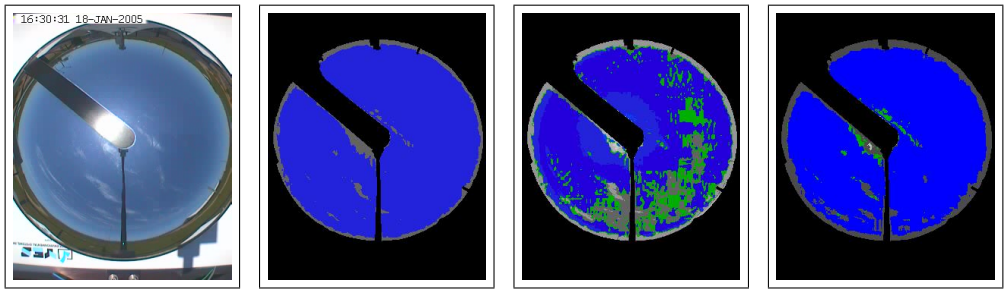
Figure A.196 - Sky images generated from 0501181445 to 0501181545.



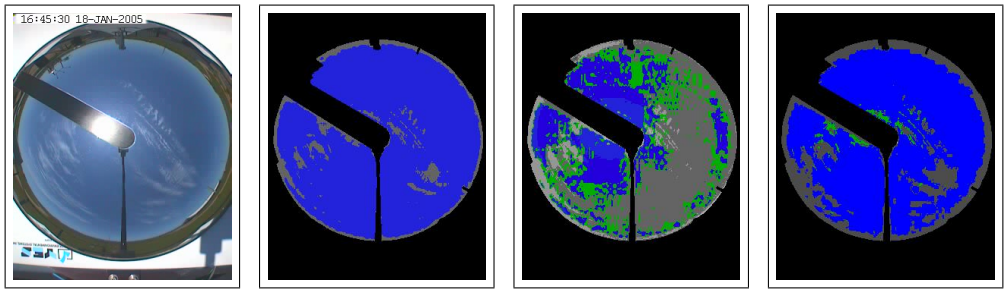
(i) 0501181600 (ii) 0501181600 Long (iii) 0501181600 EGD (iv) 0501181600 MAHA



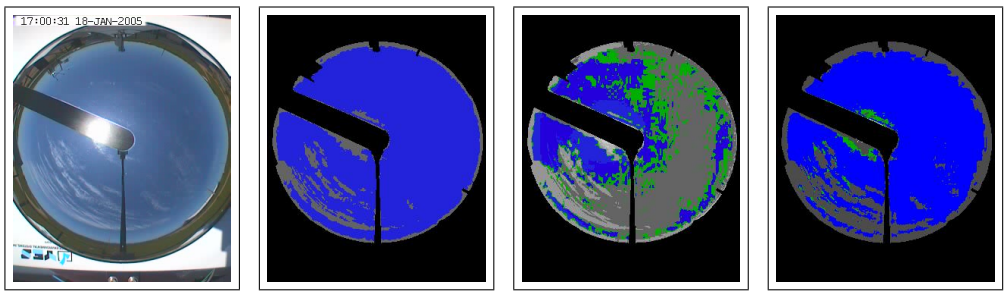
(v) 0501181615 (vi) 0501181615 Long (vii) 0501181615 EGD (viii) 0501181615 MAHA



(ix) 0501181630 (x) 0501181630 Long (xi) 0501181630 EGD (xii) 0501181630 MAHA

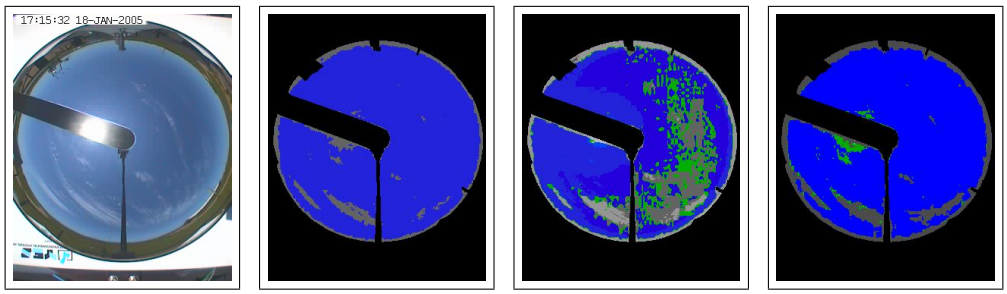


(xiii) 0501181645 (xiv) 0501181645 Long (xv) 0501181645 EGD (xvi) 0501181645 MAHA

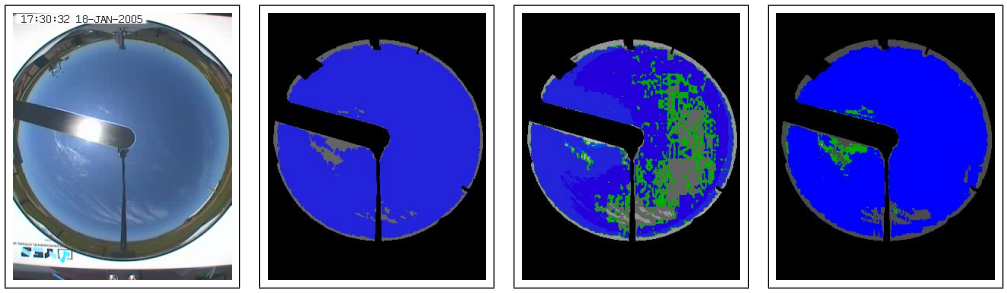


(xvii) 0501181700 (xviii) 0501181700 Long (xix) 0501181700 EGD (xx) 0501181700 MAHA

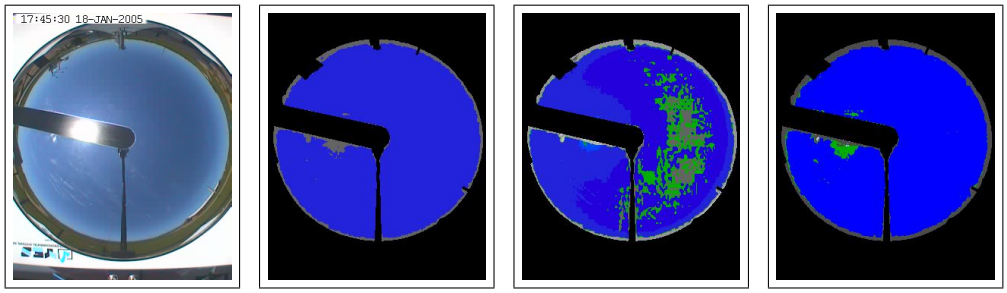
Figure A.197 - Sky images generated from 0501181600 to 0501181700.



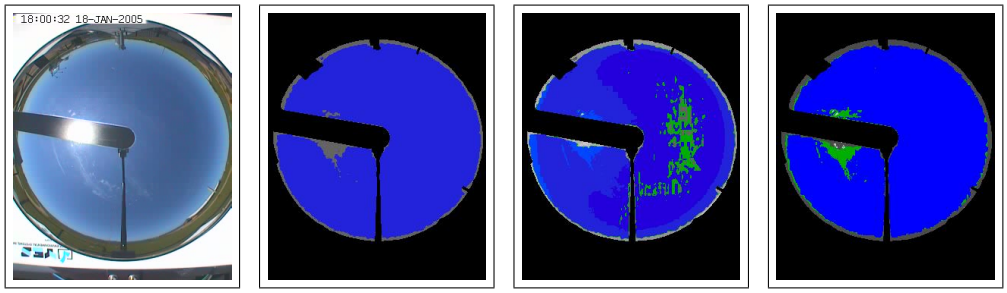
(i) 0501181715 (ii) 0501181715 Long (iii) 0501181715 EGD (iv) 0501181715 MAHA



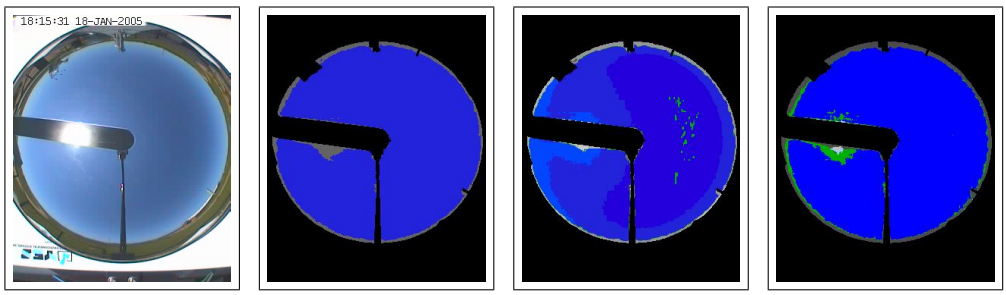
(v) 0501181730 (vi) 0501181730 Long (vii) 0501181730 EGD (viii) 0501181730 MAHA



(ix) 0501181745 (x) 0501181745 Long (xi) 0501181745 EGD (xii) 0501181745 MAHA

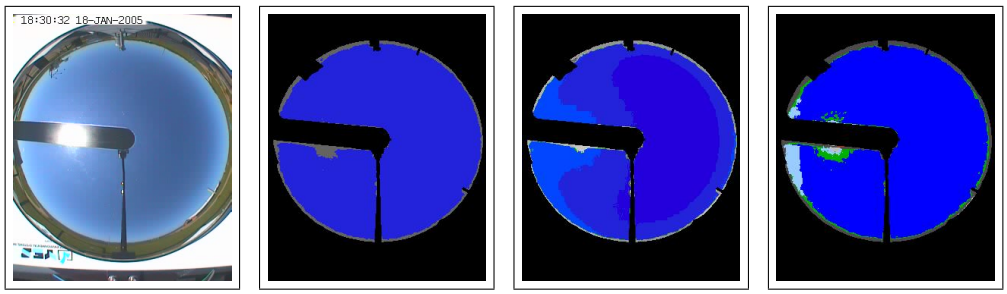


(xiii) 0501181800 (xiv) 0501181800 Long (xv) 0501181800 EGD (xvi) 0501181800 MAHA

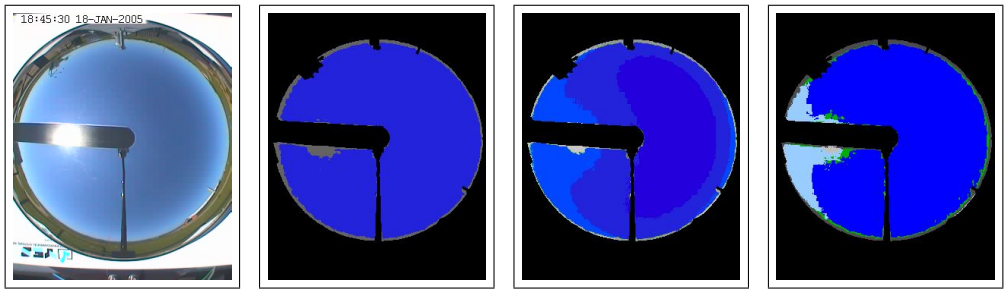


(xvii) 0501181815 (xviii) 0501181815 Long (xix) 0501181815 EGD (xx) 0501181815 MAHA

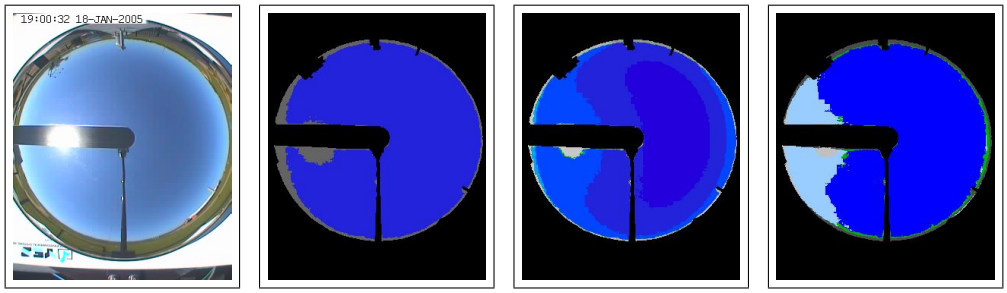
Figure A.198 - Sky images generated from 0501181715 to 0501181815.



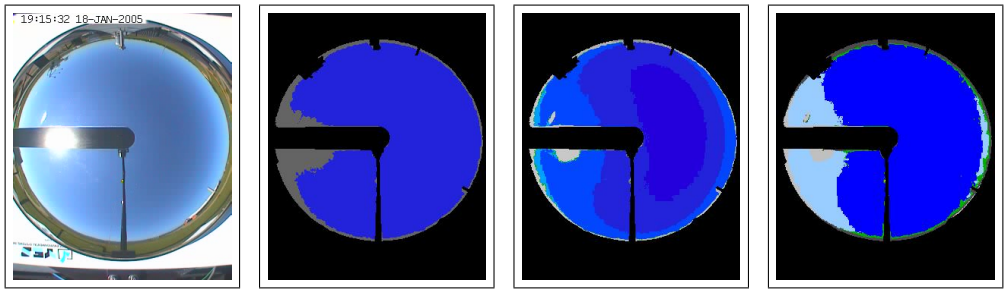
(i) 0501181830 (ii) 0501181830 Long (iii) 0501181830 EGD (iv) 0501181830 MAHA



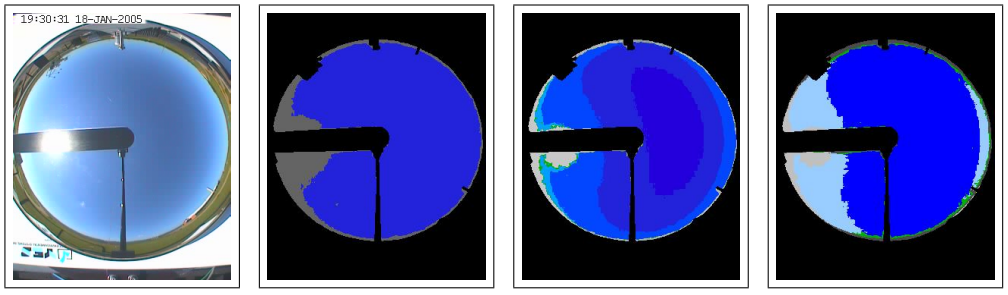
(v) 0501181845 (vi) 0501181845 Long (vii) 0501181845 EGD (viii) 0501181845 MAHA



(ix) 0501181900 (x) 0501181900 Long (xi) 0501181900 EGD (xii) 0501181900 MAHA

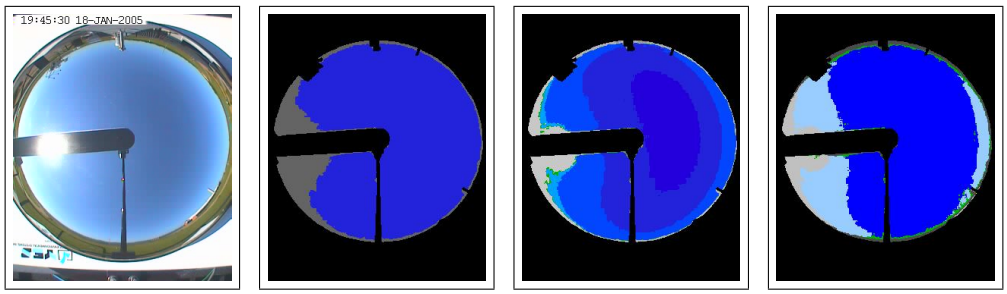


(xiii) 0501181915 (xiv) 0501181915 Long (xv) 0501181915 EGD (xvi) 0501181915 MAHA

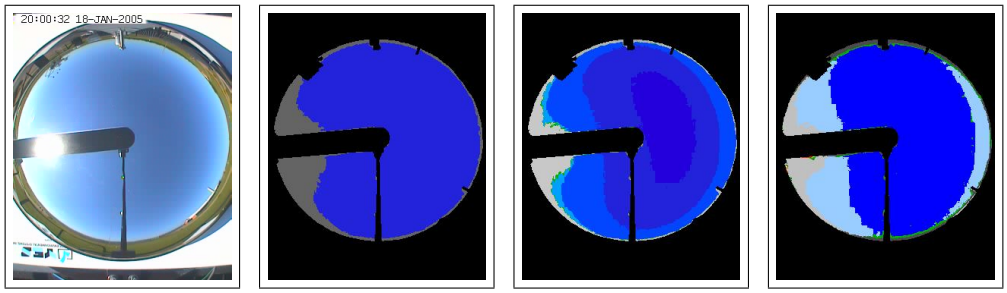


(xvii) 0501181930 (xviii) 0501181930 Long (xix) 0501181930 EGD (xx) 0501181930 MAHA

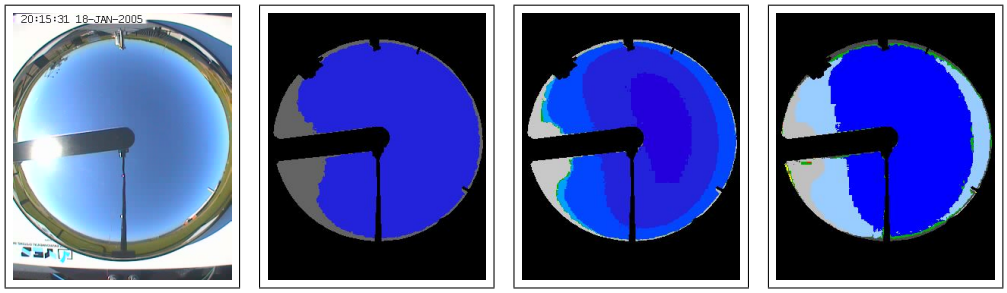
Figure A.199 - Sky images generated from 0501181830 to 0501181930.



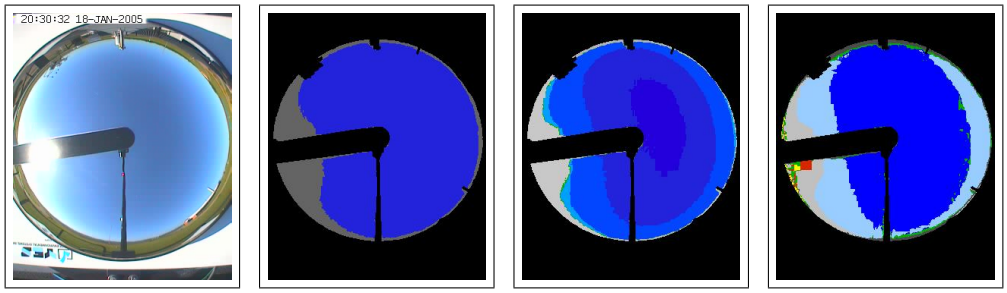
(i) 0501181945 (ii) 0501181945 Long (iii) 0501181945 EGD (iv) 0501181945 MAHA



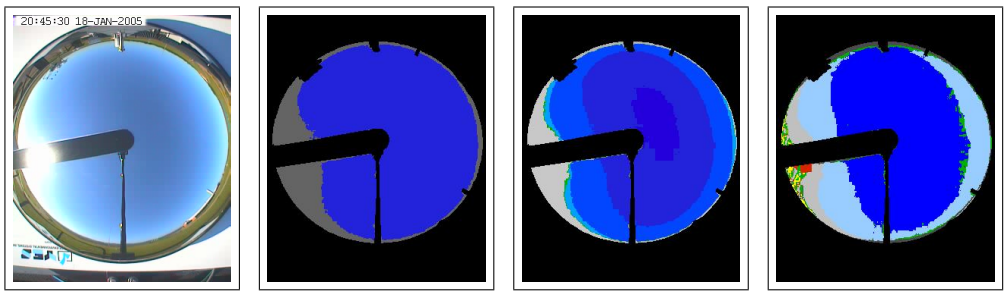
(v) 0501182000 (vi) 0501182000 Long (vii) 0501182000 EGD (viii) 0501182000 MAHA



(ix) 0501182015 (x) 0501182015 Long (xi) 0501182015 EGD (xii) 0501182015 MAHA

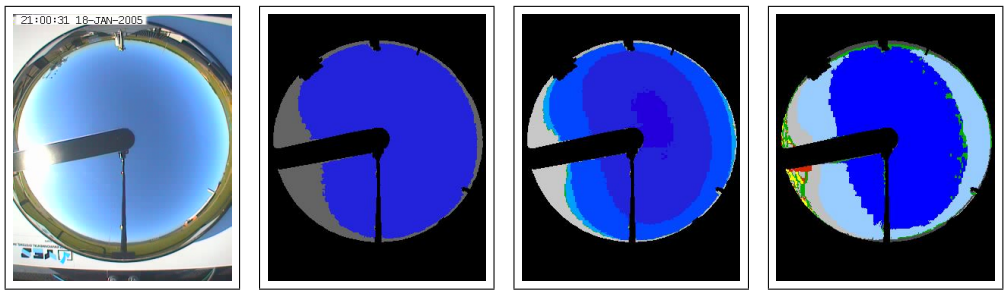


(xiii) 0501182030 (xiv) 0501182030 Long (xv) 0501182030 EGD (xvi) 0501182030 MAHA

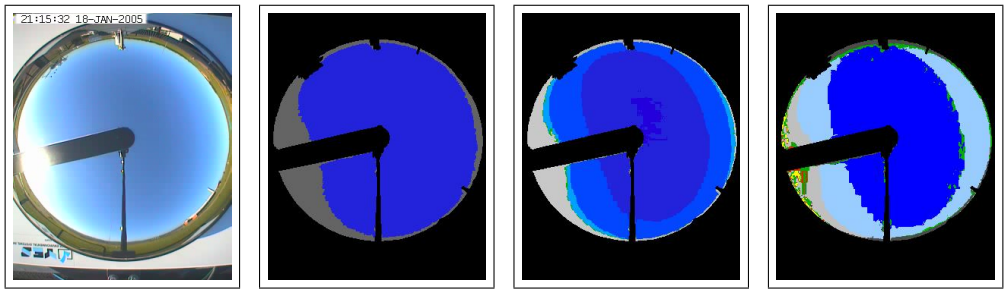


(xvii) 0501182045 (xviii) 0501182045 Long (xix) 0501182045 EGD (xx) 0501182045 MAHA

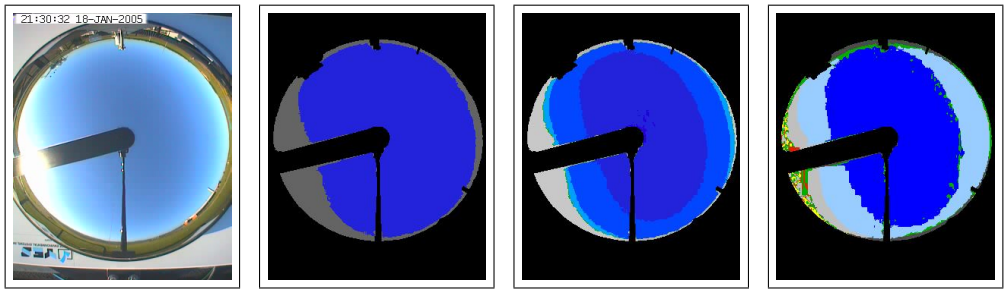
Figure A.200 - Sky images generated from 0501181945 to 0501182045.



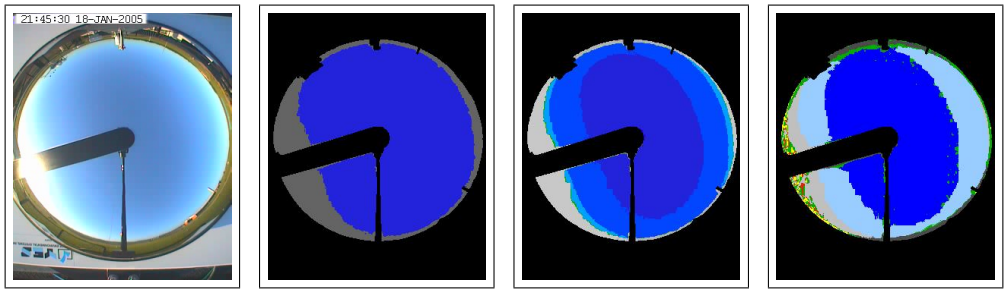
(i) 0501182100 (ii) 0501182100 Long (iii) 0501182100 EGD (iv) 0501182100 MAHA



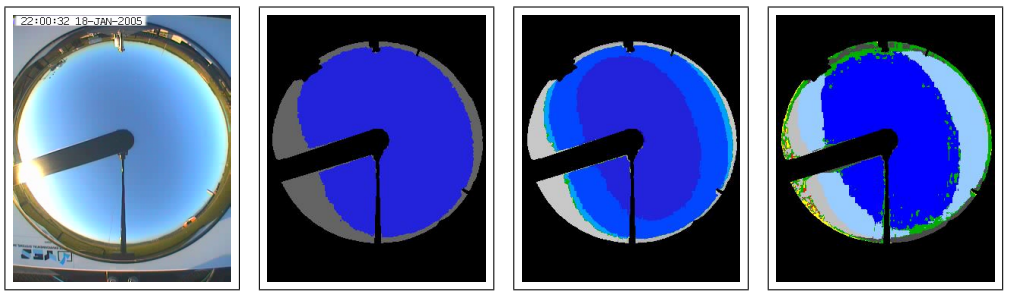
(v) 0501182115 (vi) 0501182115 Long (vii) 0501182115 EGD (viii) 0501182115 MAHA



(ix) 0501182130 (x) 0501182130 Long (xi) 0501182130 EGD (xii) 0501182130 MAHA

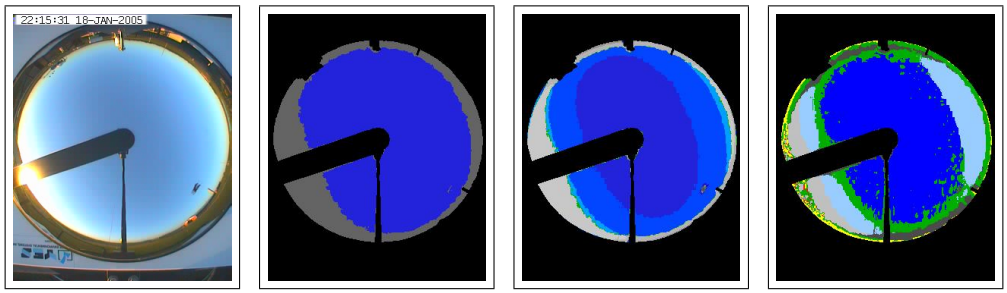


(xiii) 0501182145 (xiv) 0501182145 Long (xv) 0501182145 EGD (xvi) 0501182145 MAHA

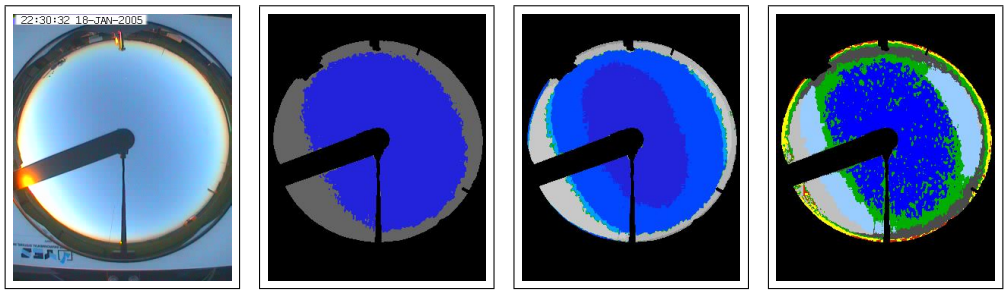


(xvii) 0501182200 (xviii) 0501182200 Long (xix) 0501182200 EGD (xx) 0501182200 MAHA

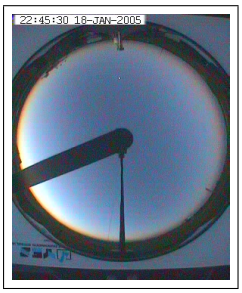
Figure A.201 - Sky images generated from 0501182100 to 0501182200.



(i) 0501182215 (ii) 0501182215 Long (iii) 0501182215 EGD (iv) 0501182215 MAHA

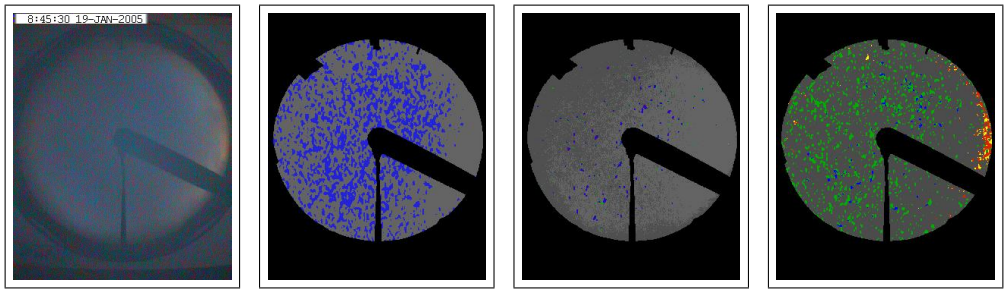


(v) 0501182230 (vi) 0501182230 Long (vii) 0501182230 EGD (viii) 0501182230 MAHA

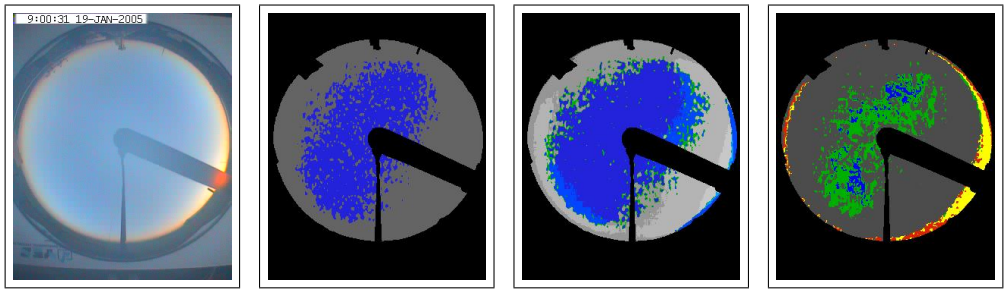


(ix) 0501182245

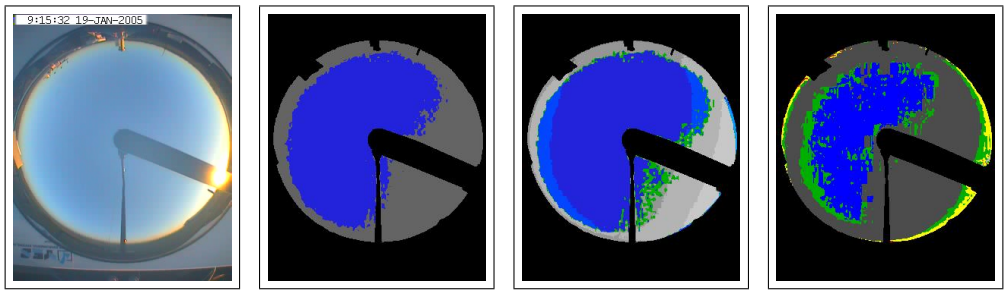
Figure A.202 - Sky images generated from 0501181600 to 0501182245.



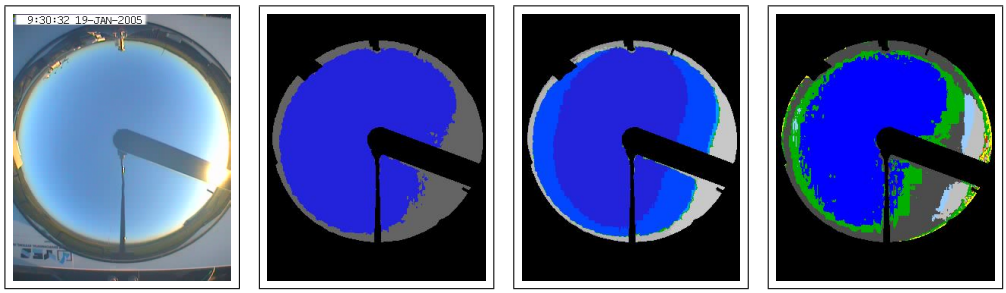
(i) 0501190845 (ii) 0501190845 Long (iii) 0501190845 EGD (iv) 0501190845 MAHA



(v) 0501190900 (vi) 0501190900 Long (vii) 0501190900 EGD (viii) 0501190900 MAHA

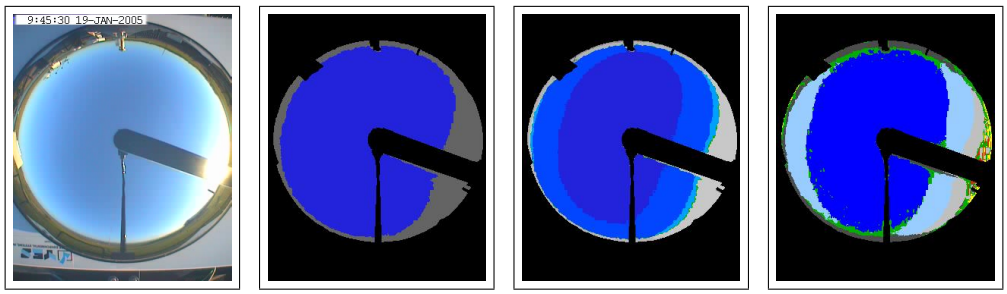


(ix) 0501190915 (x) 0501190915 Long (xi) 0501190915 EGD (xii) 0501190915 MAHA

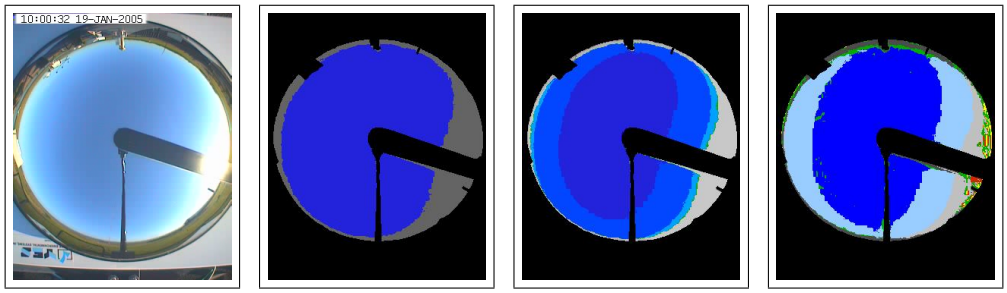


(xiii) 0501190930 (xiv) 0501190930 Long (xv) 0501190930 EGD (xvi) 0501190930 MAHA

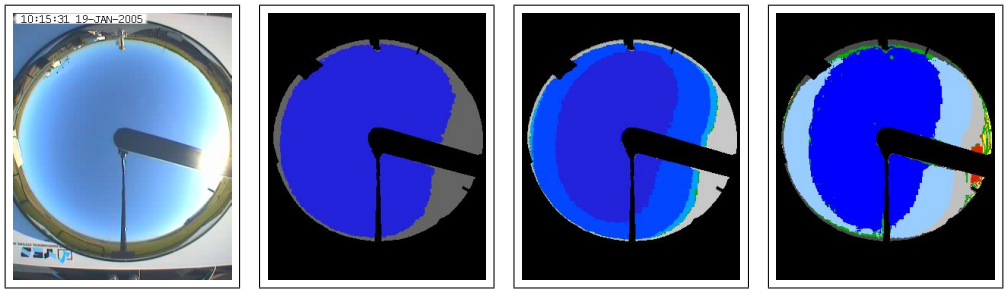
Figure A.203 - Sky images generated from 0501190845 to 0501190930.



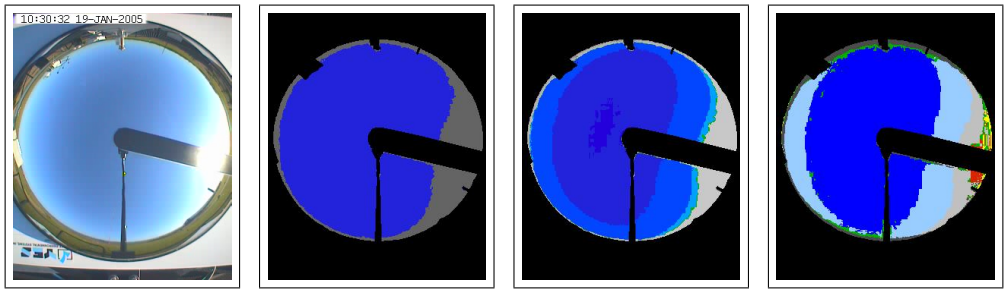
(i) 0501190945 (ii) 0501190945 Long (iii) 0501190945 EGD (iv) 0501190945 MAHA



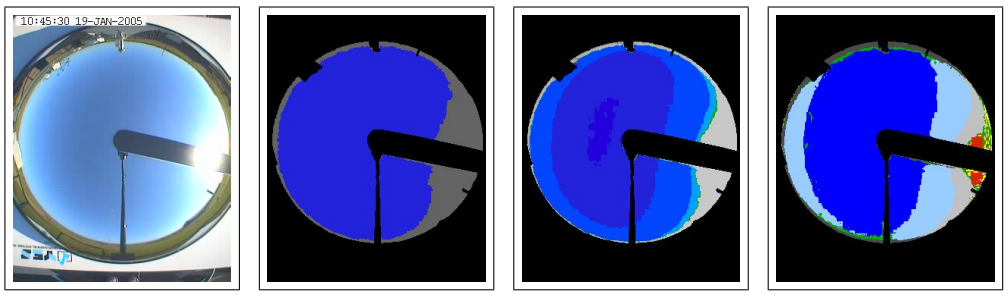
(v) 050119000 (vi) 050119000 Long (vii) 050119000 EGD (viii) 050119000 MAHA



(ix) 0501191015 (x) 0501191015 Long (xi) 0501191015 EGD (xii) 0501191015 MAHA

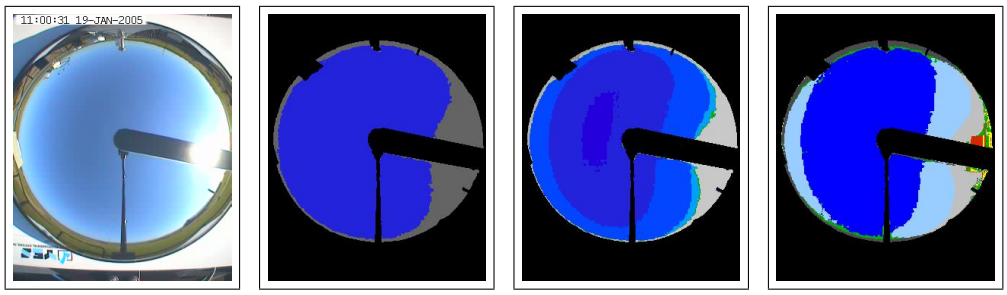


(xiii) 0501191030 (xiv) 0501191030 Long (xv) 0501191030 EGD (xvi) 0501191030 MAHA

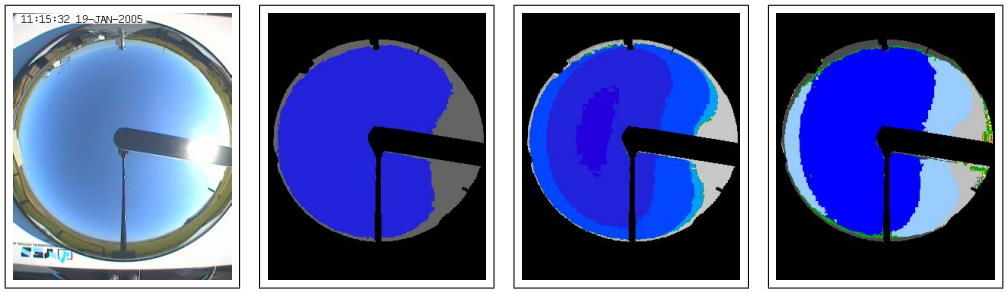


(xvii) 0501191045 (xviii) 0501191045 Long (xix) 0501191045 EGD (xx) 0501191045 MAHA

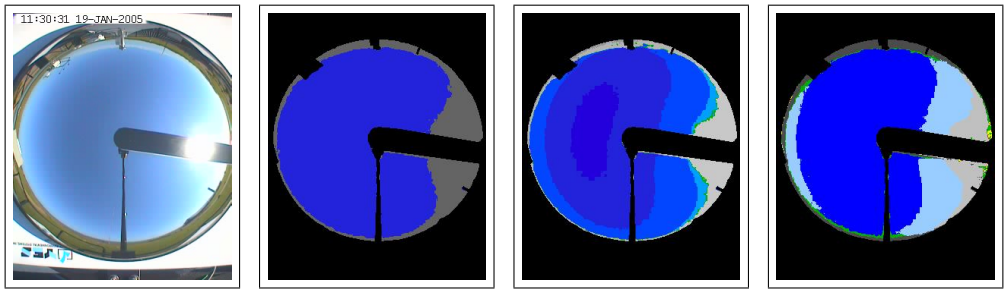
Figure A.204 - Sky images generated from 0501190945 to 0501191045.



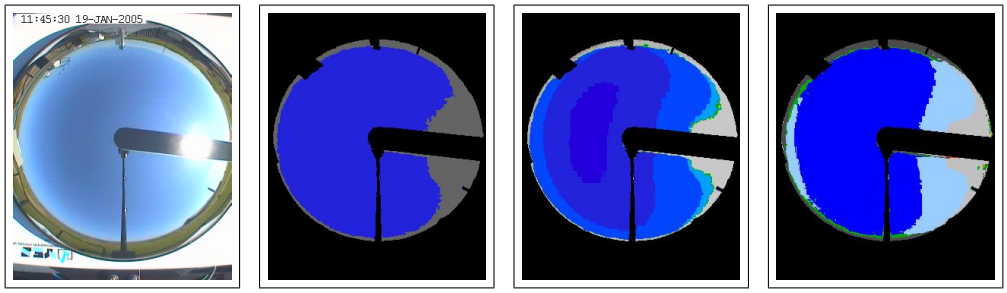
(i) 0501191100 (ii) 0501191100 Long (iii) 0501191100 EGD (iv) 0501191100 MAHA



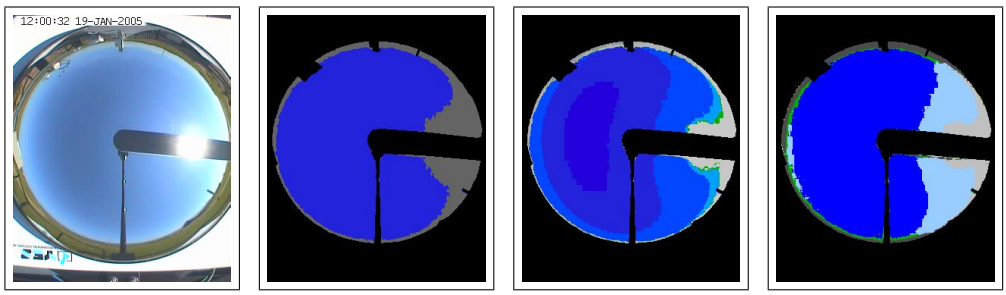
(v) 0501191115 (vi) 0501191115 Long (vii) 0501191115 EGD (viii) 0501191115 MAHA



(ix) 0501191130 (x) 0501191130 Long (xi) 0501191130 EGD (xii) 0501191130 MAHA

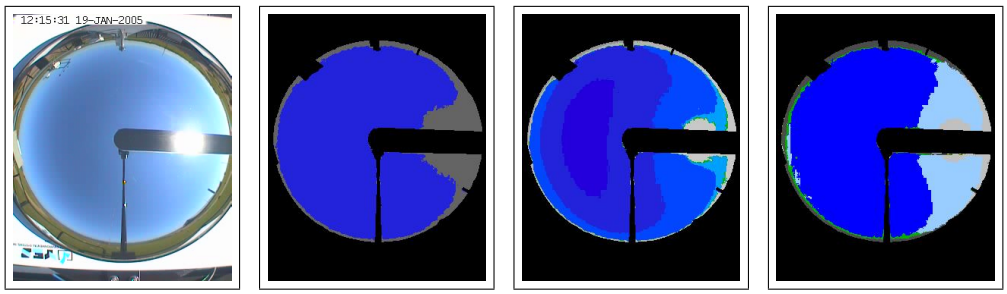


(xiii) 0501191145 (xiv) 0501191145 Long (xv) 0501191145 EGD (xvi) 0501191145 MAHA

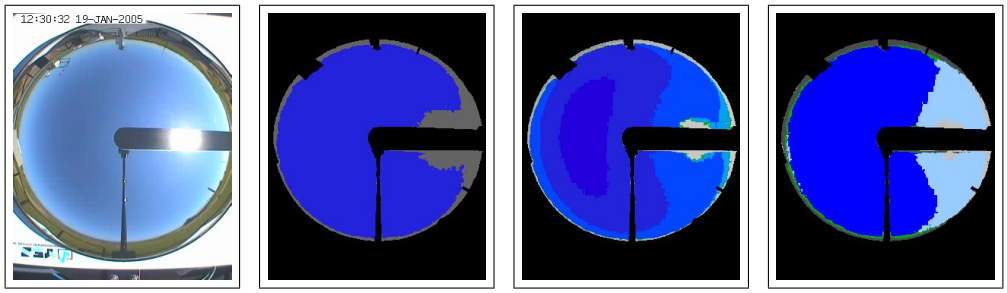


(xvii) 0501191200 (xviii) 0501191200 Long (xix) 0501191200 EGD (xx) 0501191200 MAHA

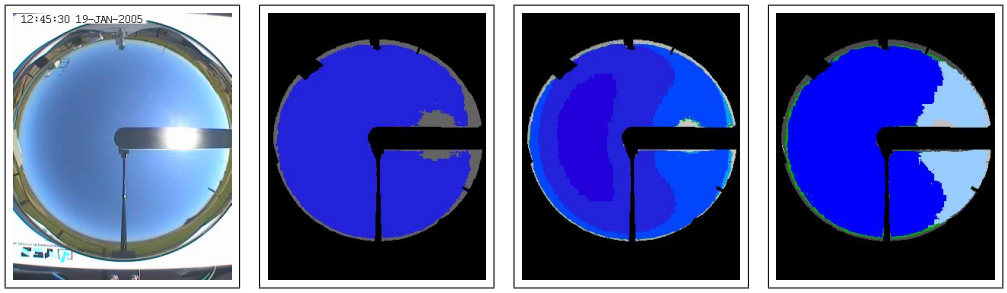
Figure A.205 - Sky images generated from 050119100 to 0501191200.



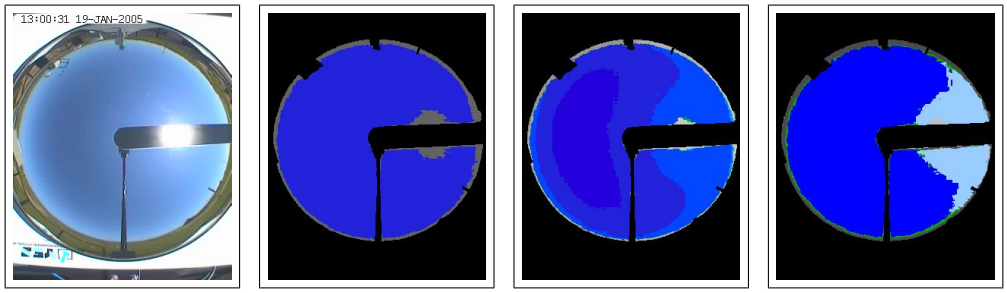
(i) 0501191215 (ii) 0501191215 Long (iii) 0501191215 EGD (iv) 0501191215 MAHA



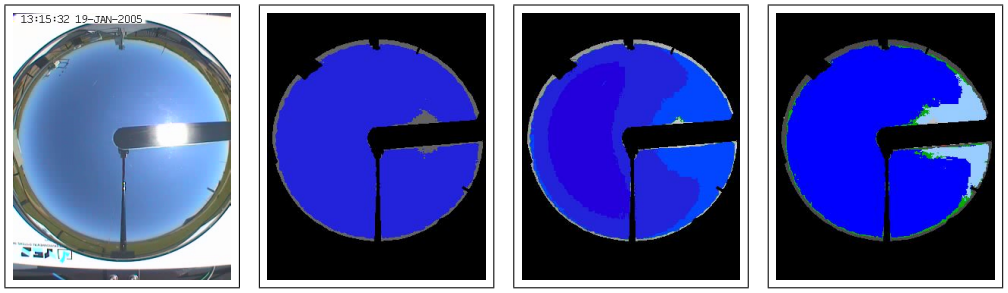
(v) 0501191230 (vi) 0501191230 Long (vii) 0501191230 EGD (viii) 0501191230 MAHA



(ix) 0501191245 (x) 0501191245 Long (xi) 0501191245 EGD (xii) 0501191245 MAHA

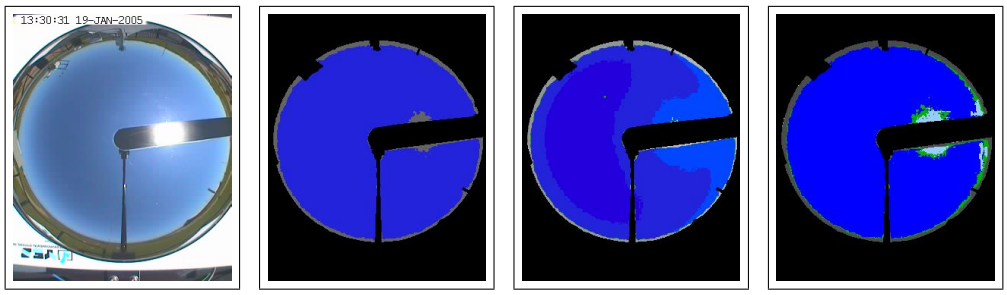


(xiii) 0501191300 (xiv) 0501191300 Long (xv) 0501191300 EGD (xvi) 0501191300 MAHA

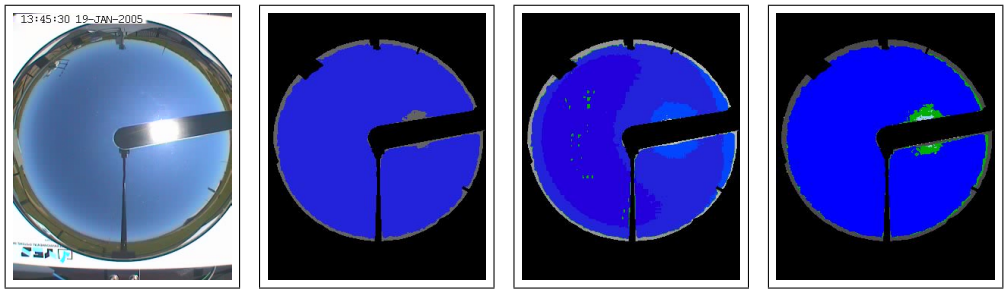


(xvii) 0501191315 (xviii) 0501191315 Long (xix) 0501191315 EGD (xx) 0501191315 MAHA

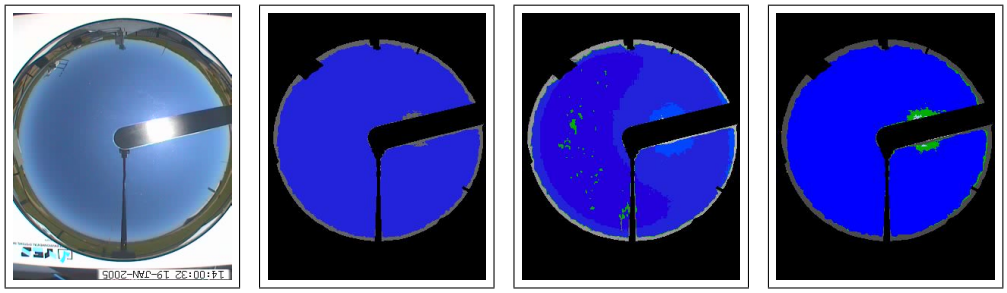
Figure A.206 - Sky images generated from 0501191215 to 0501191315.



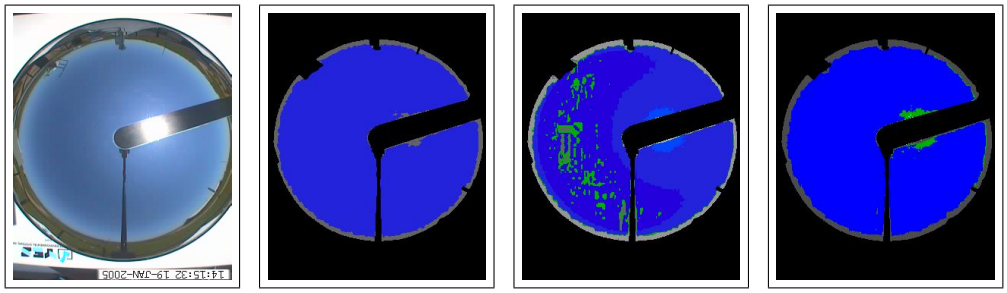
(i) 0501191330 (ii) 0501191330 Long (iii) 0501191330 EGD (iv) 0501191330 MAHA



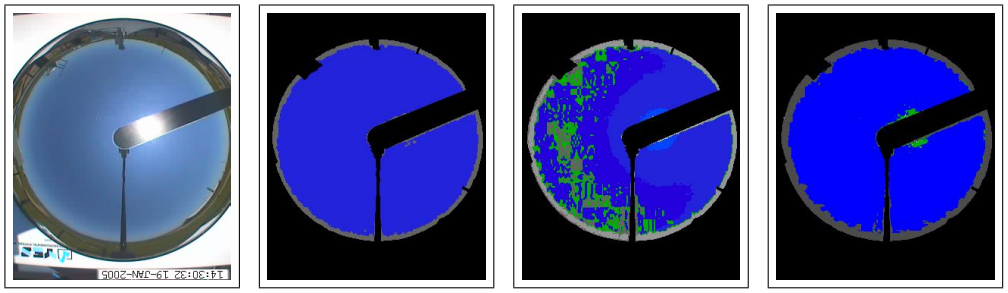
(v) 0501191345 (vi) 0501191345 Long (vii) 0501191345 EGD (viii) 0501191345 MAHA



(ix) 0501191400 (x) 0501191400 Long (xi) 0501191400 EGD (xii) 0501191400 MAHA

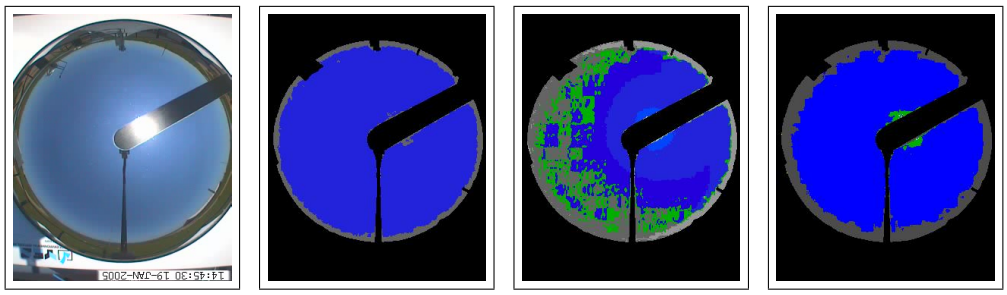


(xiii) 0501191415 (xiv) 0501191415 Long (xv) 0501191415 EGD (xvi) 0501191415 MAHA

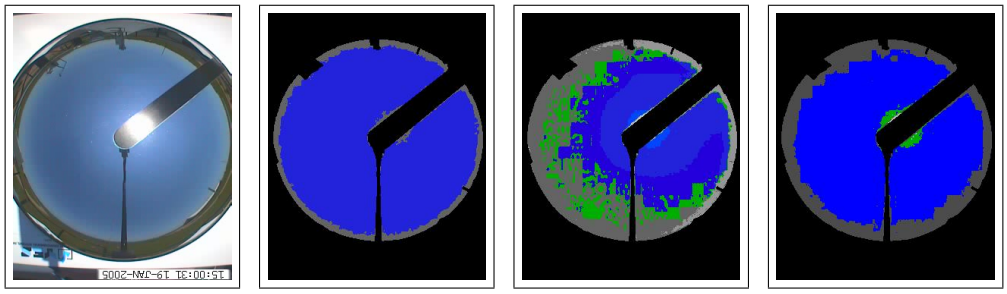


(xvii) 0501191430 (xviii) 0501191430 Long (xix) 0501191430 EGD (xx) 0501191430 MAHA

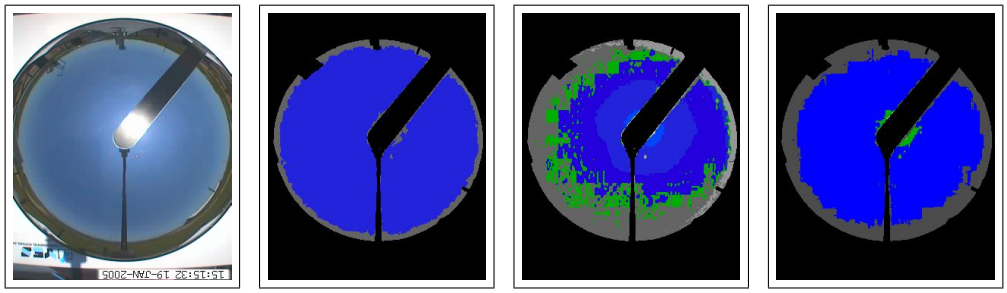
Figure A.207 - Sky images generated from 0501191330 to 0501191430.



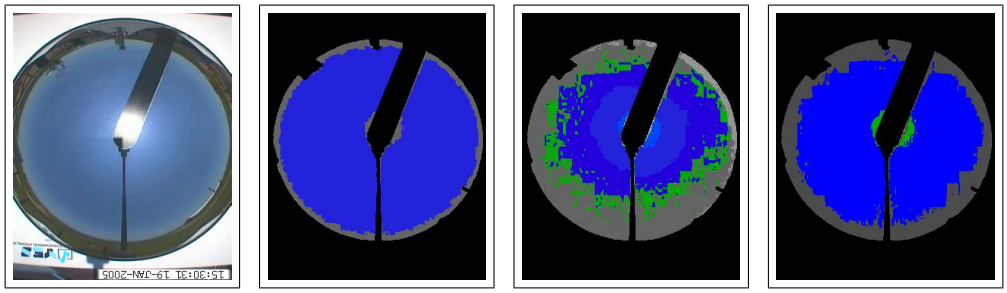
(i) 0501191445 (ii) 0501191445 Long (iii) 0501191445 EGD (iv) 0501191445 MAHA



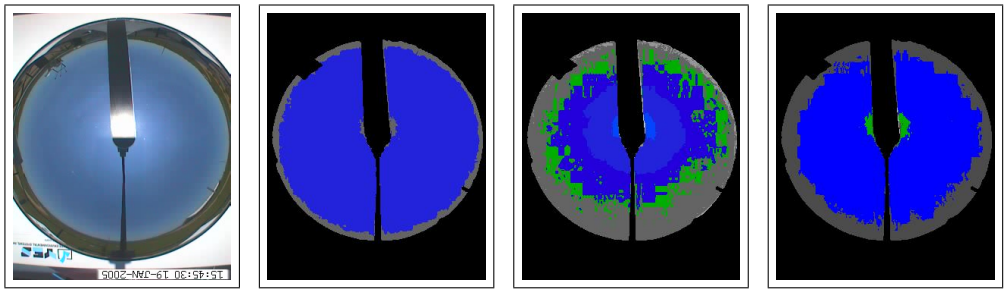
(v) 0501191500 (vi) 0501191500 Long (vii) 0501191500 EGD (viii) 0501191500 MAHA



(ix) 0501191515 (x) 0501191515 Long (xi) 0501191515 EGD (xii) 0501191515 MAHA

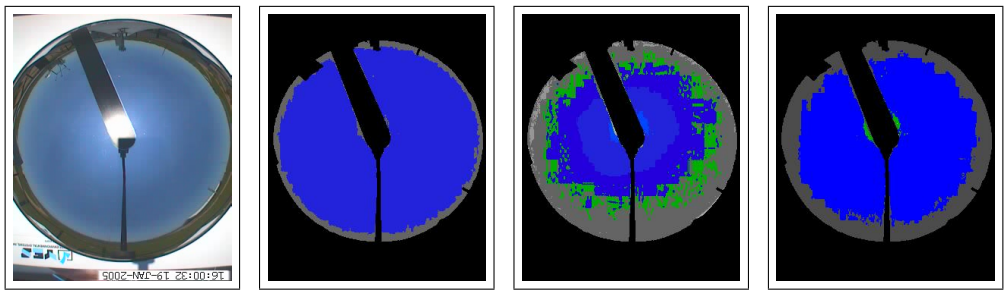


(xiii) 0501191530 (xiv) 0501191530 Long (xv) 0501191530 EGD (xvi) 0501191530 MAHA

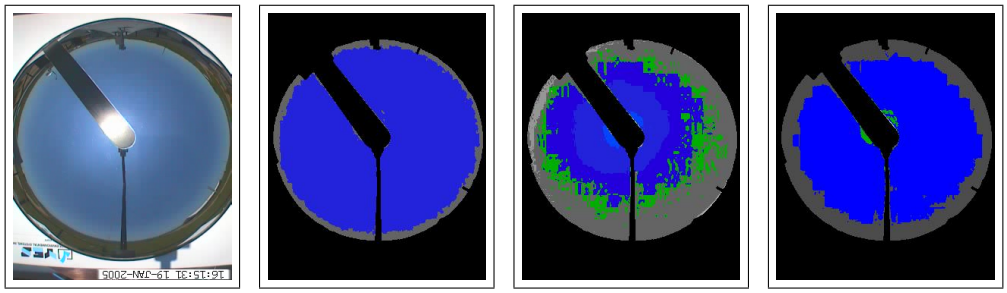


(xvii) 0501191545 (xviii) 0501191545 Long (xix) 0501191545 EGD (xx) 0501191545 MAHA

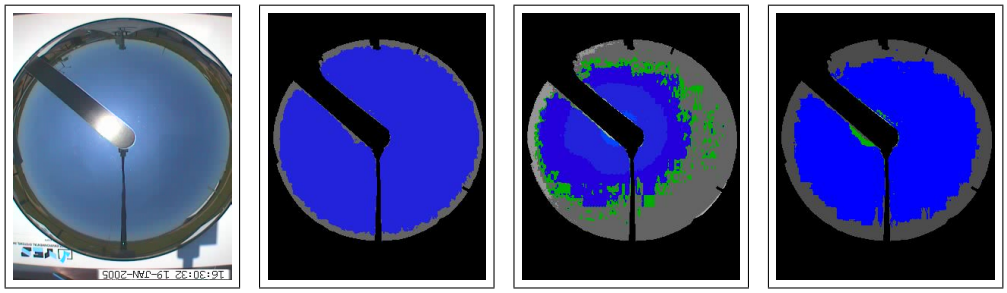
Figure A.208 - Sky images generated from 0501191445 to 0501191545.



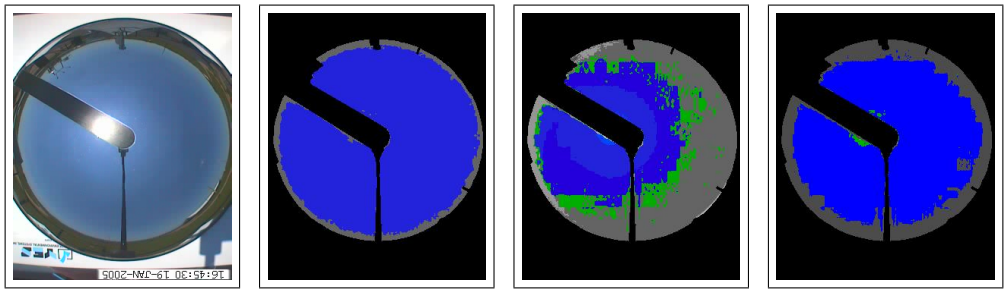
(i) 0501191600 (ii) 0501191600 Long (iii) 0501191600 EGD (iv) 0501191600 MAHA



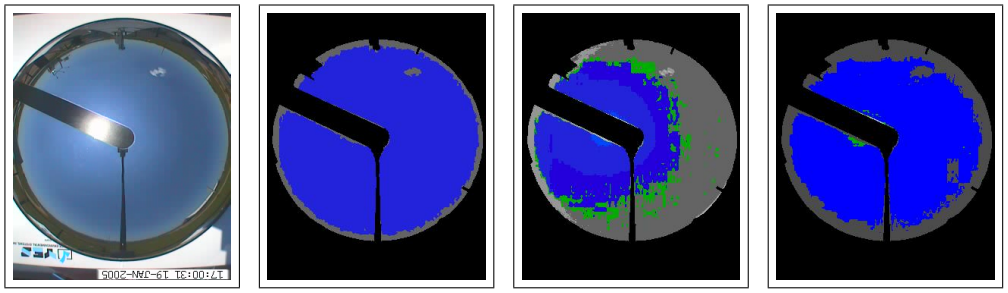
(v) 0501191615 (vi) 0501191615 Long (vii) 0501191615 EGD (viii) 0501191615 MAHA



(ix) 0501191630 (x) 0501191630 Long (xi) 0501191630 EGD (xii) 0501191630 MAHA

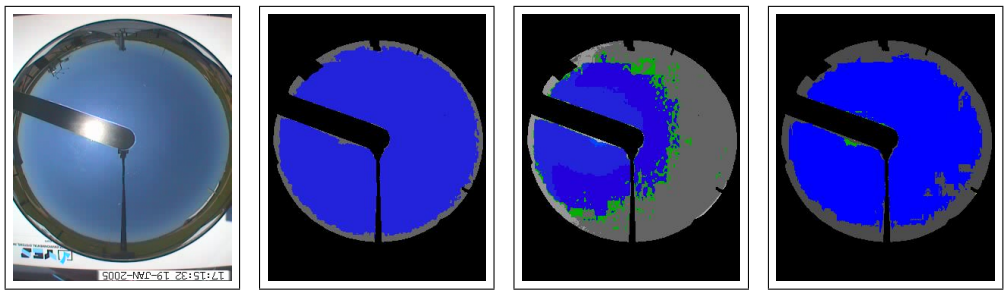


(xiii) 0501191645 (xiv) 0501191645 Long (xv) 0501191645 EGD (xvi) 0501191645 MAHA

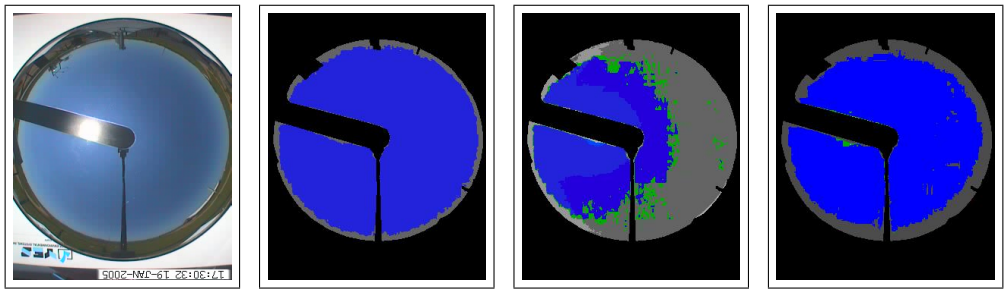


(xvii) 0501191700 (xviii) 0501191700 Long (xix) 0501191700 EGD (xx) 0501191700 MAHA

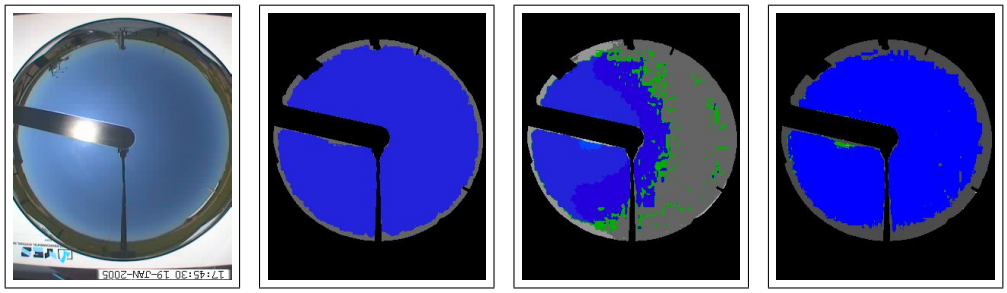
Figure A.209 - Sky images generated from 0501191600 to 0501191700.



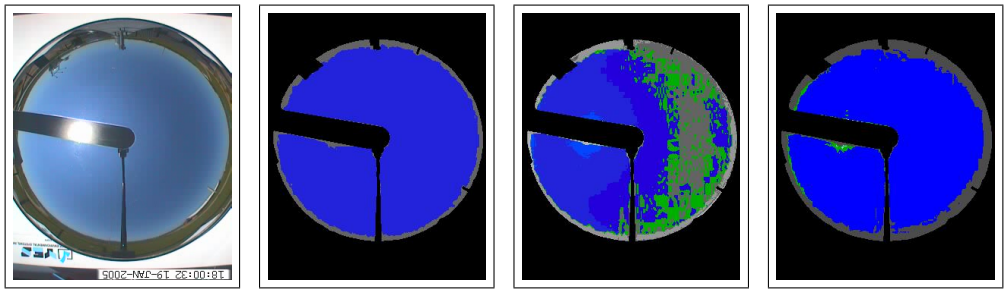
(i) 0501191715 (ii) 0501191715 Long (iii) 0501191715 EGD (iv) 0501191715 MAHA



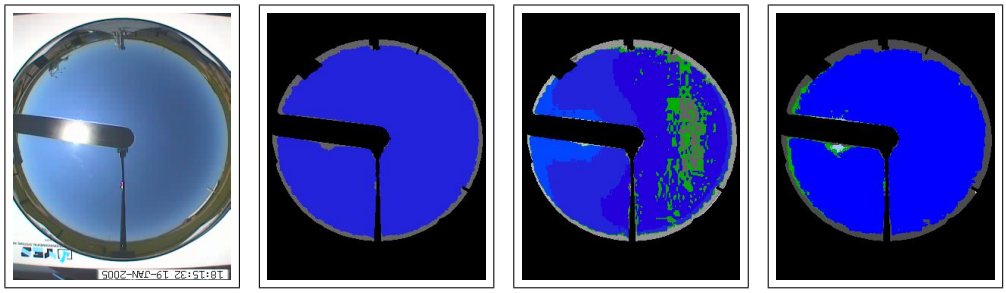
(v) 0501191730 (vi) 0501191730 Long (vii) 0501191730 EGD (viii) 0501191730 MAHA



(ix) 0501191745 (x) 0501191745 Long (xi) 0501191745 EGD (xii) 0501191745 MAHA

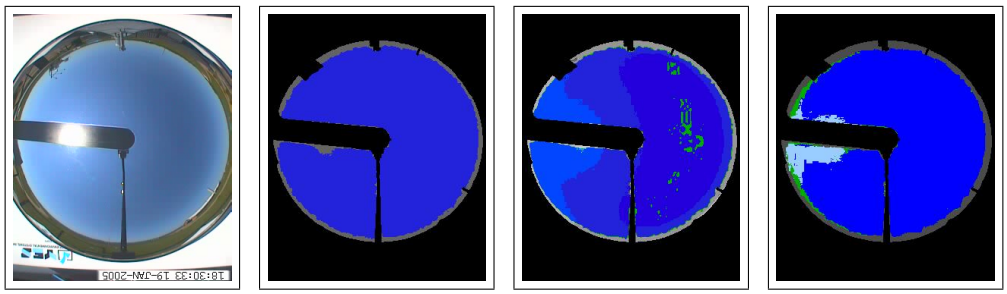


(xiii) 0501191800 (xiv) 0501191800 Long (xv) 0501191800 EGD (xvi) 0501191800 MAHA

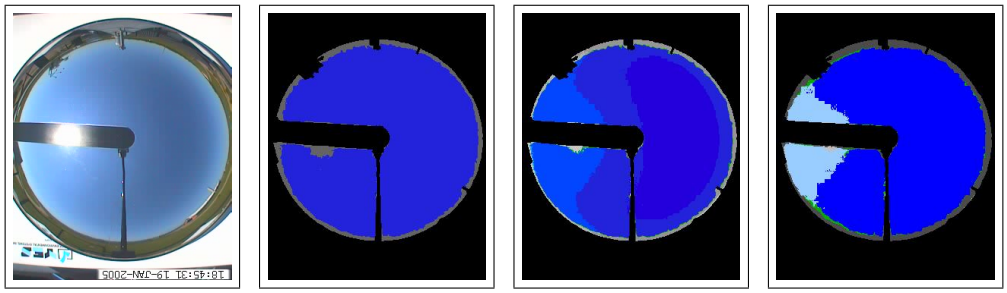


(xvii) 0501191815 (xviii) 0501191815 Long (xix) 0501191815 EGD (xx) 0501191815 MAHA

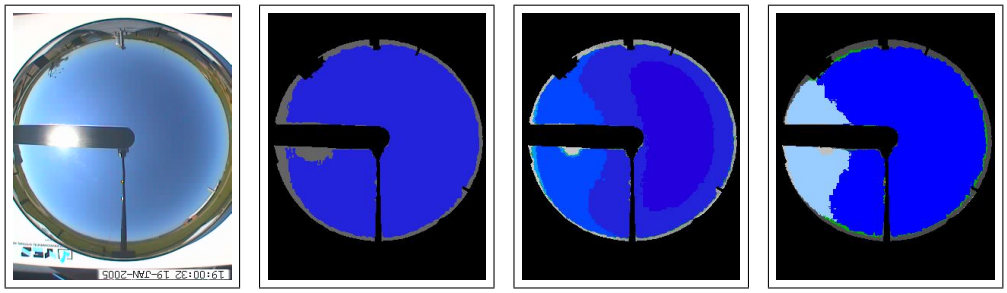
Figure A.210 - Sky images generated from 0501191715 to 0501191815.



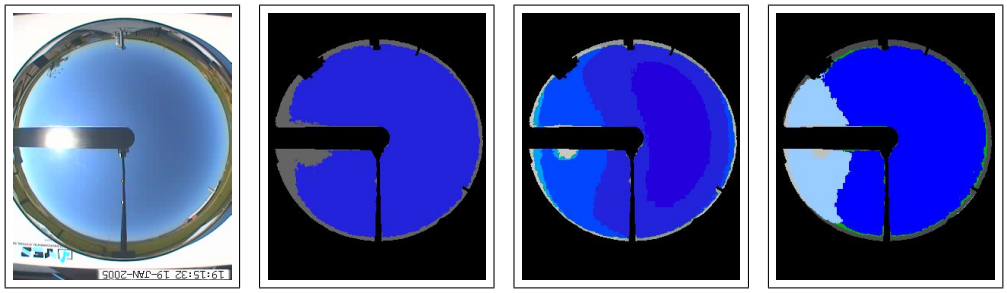
(i) 0501191830 (ii) 0501191830 Long (iii) 0501191830 EGD (iv) 0501191830 MAHA



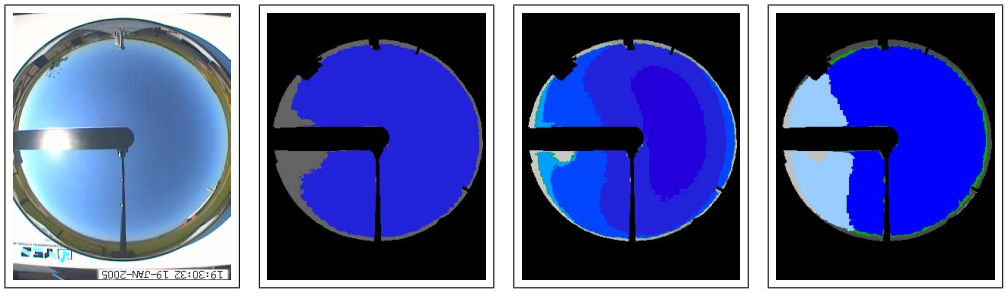
(v) 0501191845 (vi) 0501191845 Long (vii) 0501191845 EGD (viii) 0501191845 MAHA



(ix) 0501191900 (x) 0501191900 Long (xi) 0501191900 EGD (xii) 0501191900 MAHA

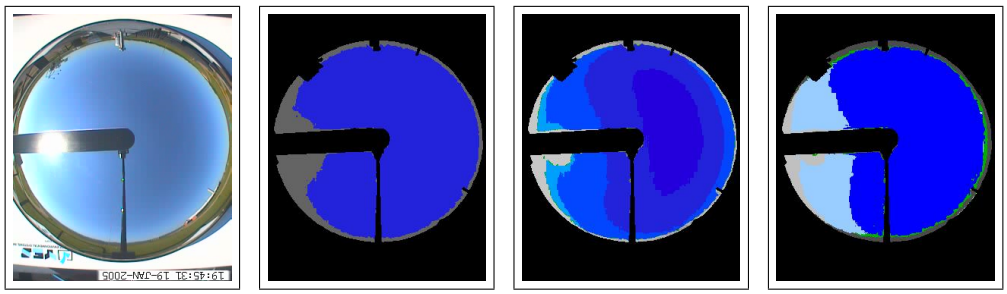


(xiii) 0501191915 (xiv) 0501191915 Long (xv) 0501191915 EGD (xvi) 0501191915 MAHA

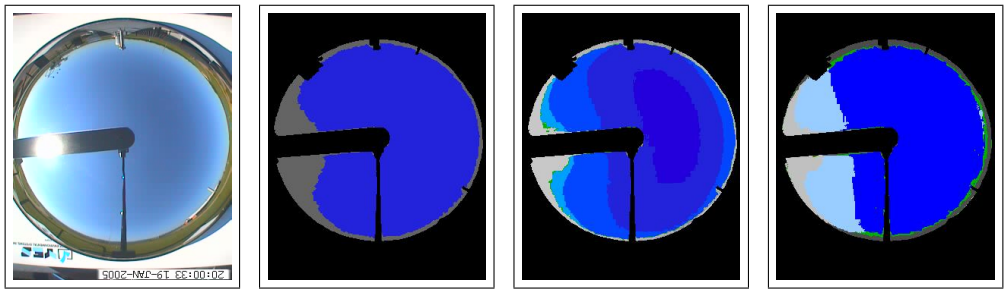


(xvii) 0501191930 (xviii) 0501191930 Long (xix) 0501191930 EGD (xx) 0501191930 MAHA

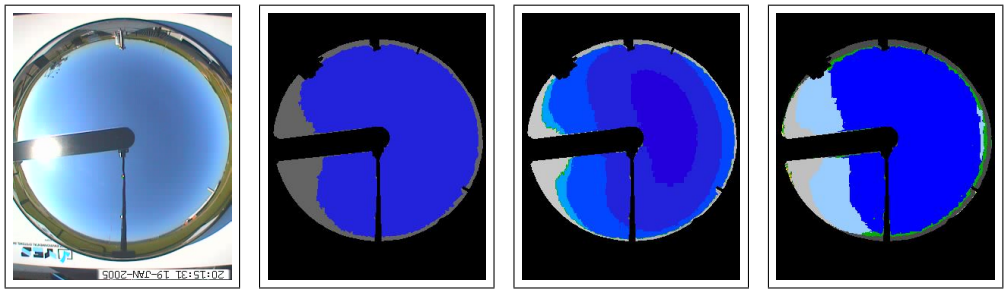
Figure A.211 - Sky images generated from 0501191830 to 0501191930.



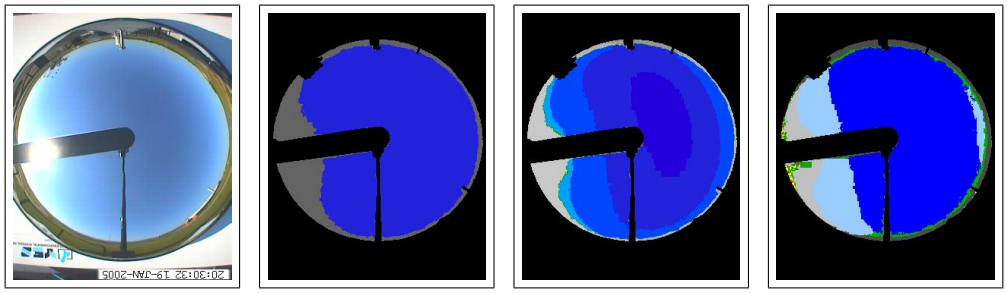
(i) 0501191945 (ii) 0501191945 Long (iii) 0501191945 EGD (iv) 0501191945 MAHA



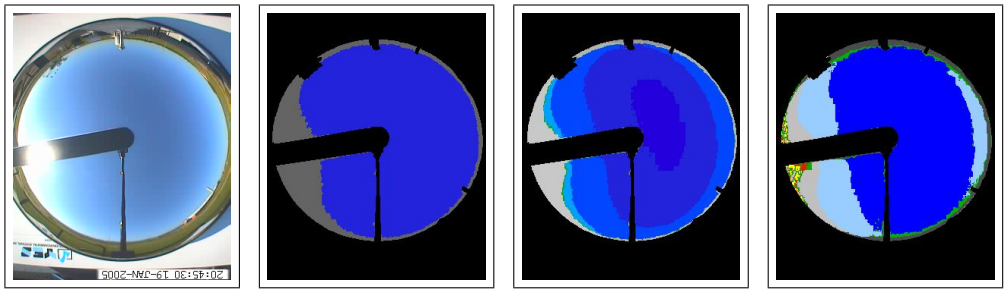
(v) 0501192000 (vi) 0501192000 Long (vii) 0501192000 EGD (viii) 0501192000 MAHA



(ix) 0501192015 (x) 0501192015 Long (xi) 0501192015 EGD (xii) 0501192015 MAHA

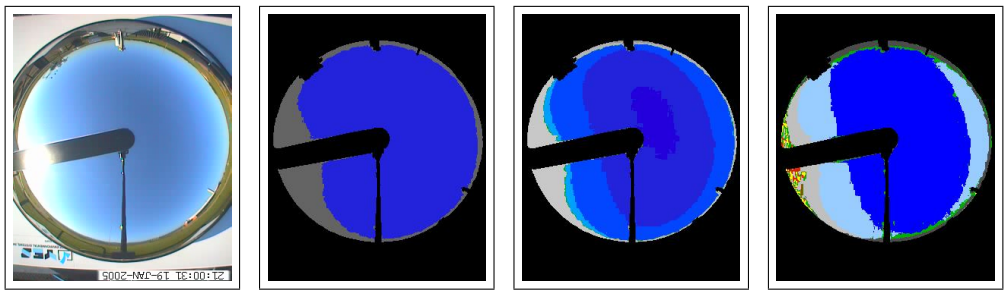


(xiii) 0501192030 (xiv) 0501192030 Long (xv) 0501192030 EGD (xvi) 0501192030 MAHA

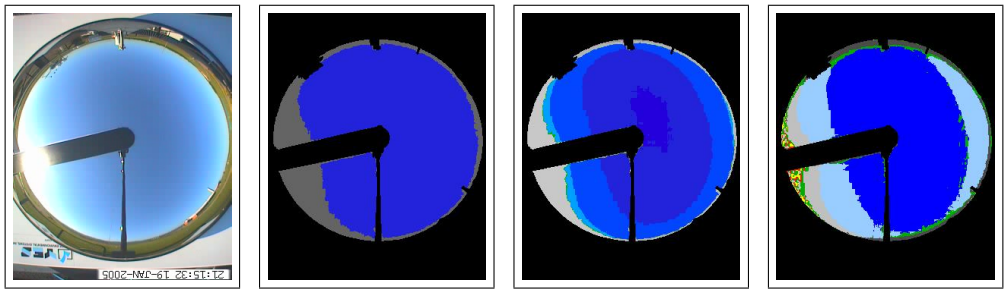


(xvii) 0501192045 (xviii) 0501192045 Long (xix) 0501192045 EGD (xx) 0501192045 MAHA

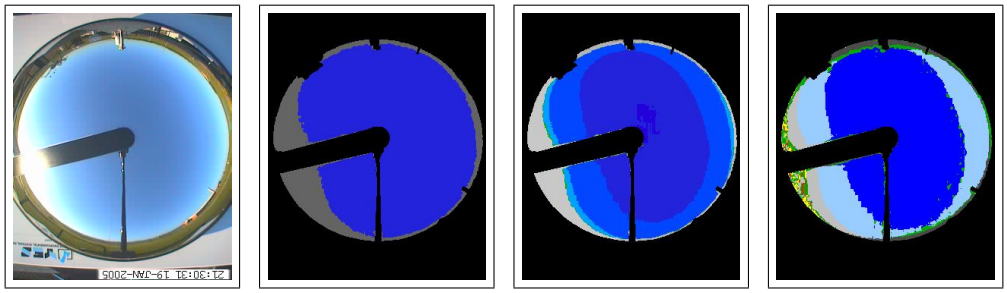
Figure A.212 - Sky images generated from 0501191945 to 0501192045.



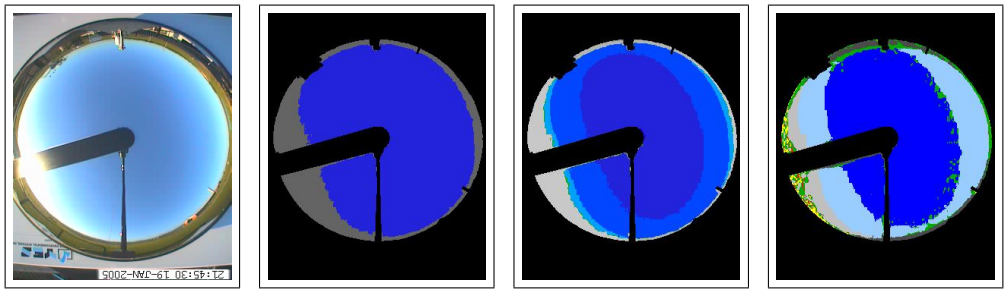
(i) 0501192100 (ii) 0501192100 Long (iii) 0501192100 EGD (iv) 0501192100 MAHA



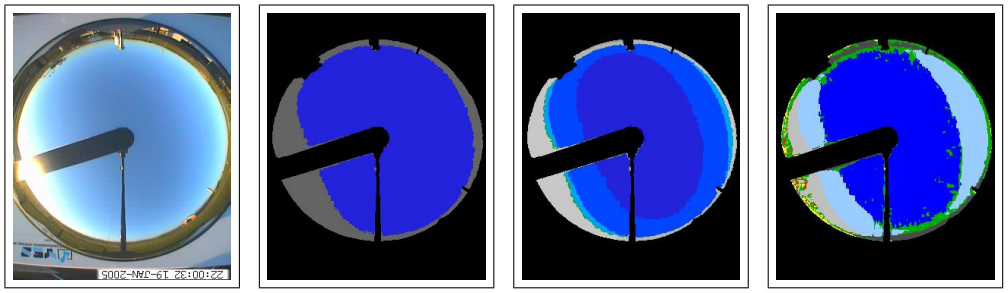
(v) 0501192115 (vi) 0501192115 Long (vii) 0501192115 EGD (viii) 0501192115 MAHA



(ix) 0501192130 (x) 0501192130 Long (xi) 0501192130 EGD (xii) 0501192130 MAHA

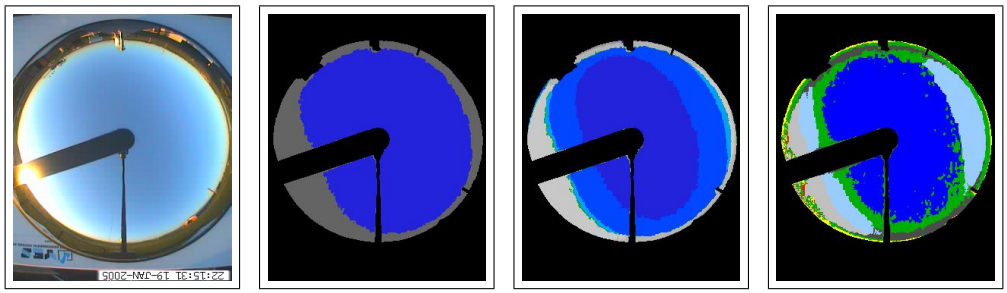


(xiii) 0501192145 (xiv) 0501192145 Long (xv) 0501192145 EGD (xvi) 0501192145 MAHA

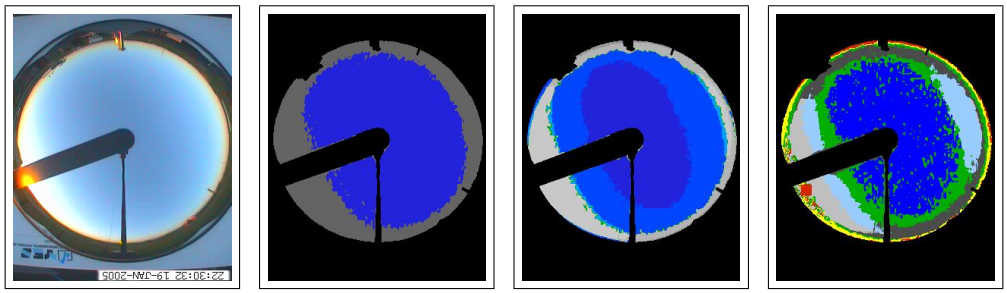


(xvii) 0501192200 (xviii) 0501192200 Long (xix) 0501192200 EGD (xx) 0501192200 MAHA

Figure A.213 - Sky images generated from 0501192100 to 0501192200.



(i) 0501192215 (ii) 0501192215 Long (iii) 0501192215 EGD (iv) 0501192215 MAHA

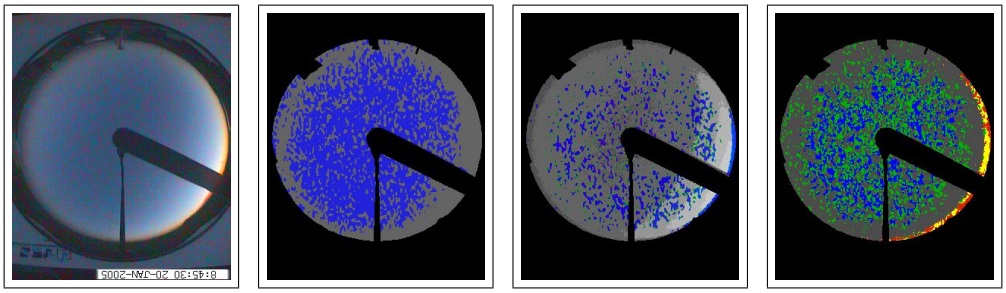


(v) 0501192230 (vi) 0501192230 Long (vii) 0501192230 EGD (viii) 0501192230 MAHA

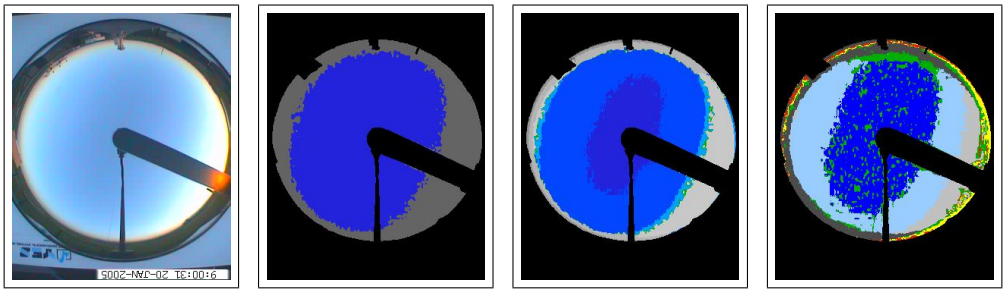


(ix) 0501192245

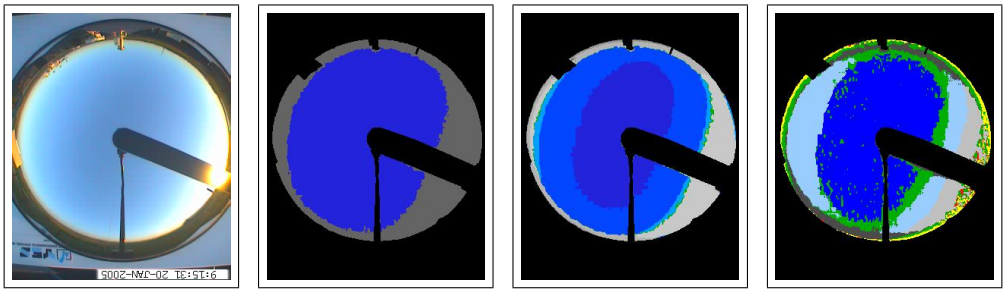
Figure A.214 - Sky images generated from 0501191600 to 0501192245.



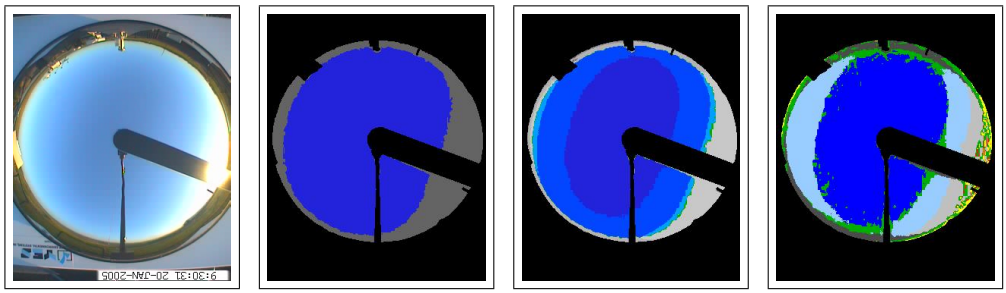
(i) 0501200845 (ii) 0501200845 Long (iii) 0501200845 EGD (iv) 0501200845 MAHA



(v) 0501200900 (vi) 0501200900 Long (vii) 0501200900 EGD (viii) 0501200900 MAHA

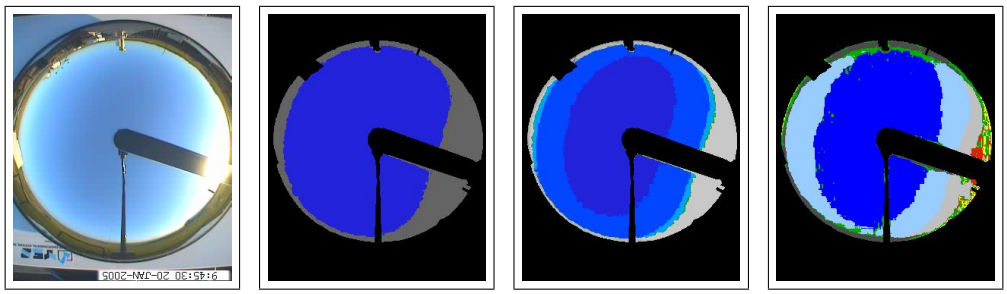


(ix) 0501200915 (x) 0501200915 Long (xi) 0501200915 EGD (xii) 0501200915 MAHA

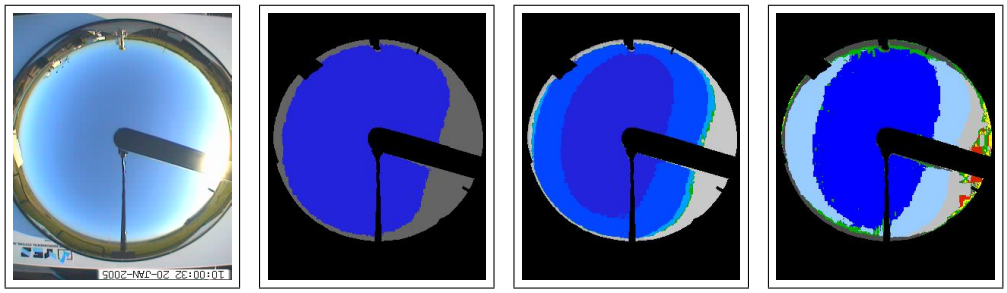


(xiii) 0501200930 (xiv) 0501200930 Long (xv) 0501200930 EGD (xvi) 0501200930 MAHA

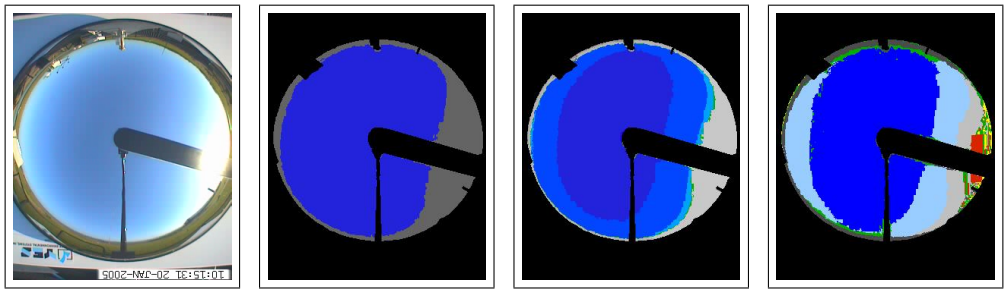
Figure A.215 - Sky images generated from 0501200845 to 0501200930.



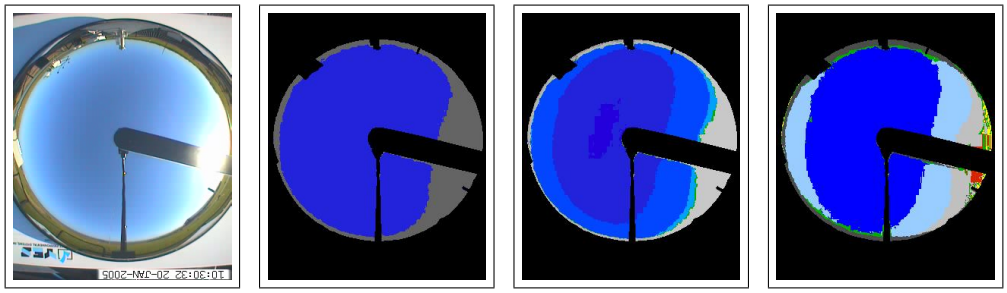
(i) 0501200945 (ii) 0501200945 Long (iii) 0501200945 EGD (iv) 0501200945 MAHA



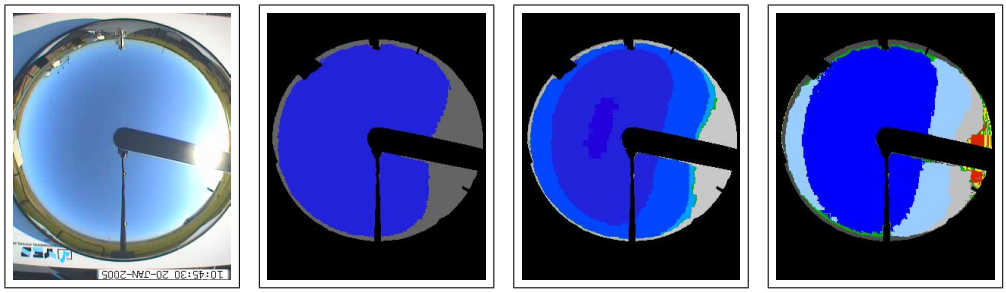
(v) 050120000 (vi) 050120000 Long (vii) 050120000 EGD (viii) 050120000 MAHA



(ix) 0501201015 (x) 0501201015 Long (xi) 0501201015 EGD (xii) 0501201015 MAHA

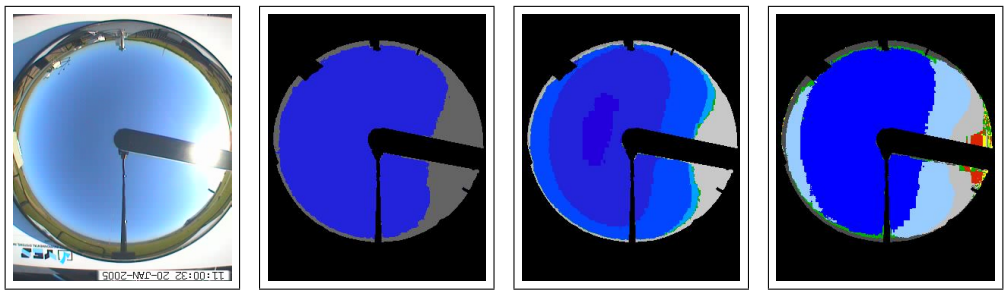


(xiii) 0501201030 (xiv) 0501201030 Long (xv) 0501201030 EGD (xvi) 0501201030 MAHA

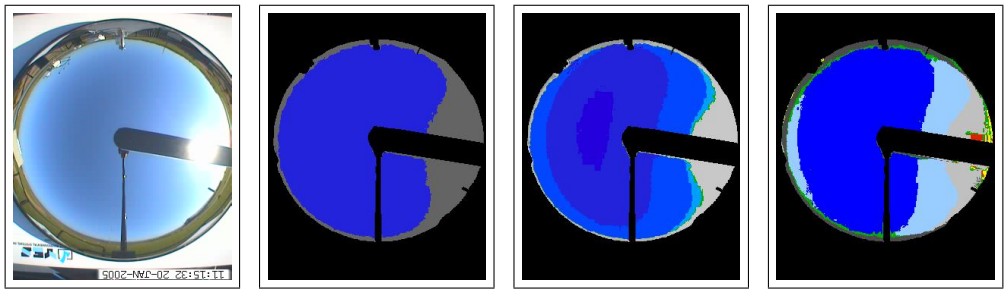


(xvii) 0501201045 (xviii) 0501201045 Long (xix) 0501201045 EGD (xx) 0501201045 MAHA

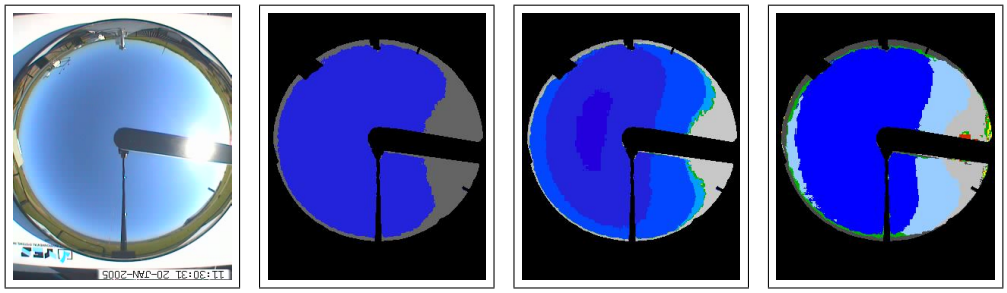
Figure A.216 - Sky images generated from 0501200945 to 0501201045.



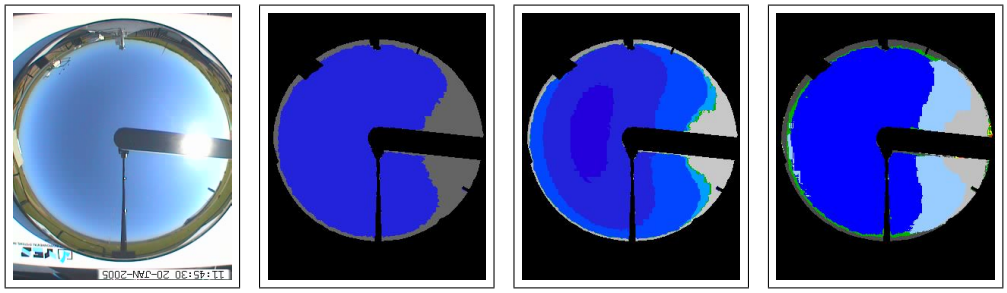
(i) 0501201100 (ii) 0501201100 Long (iii) 0501201100 EGD (iv) 0501201100 MAHA



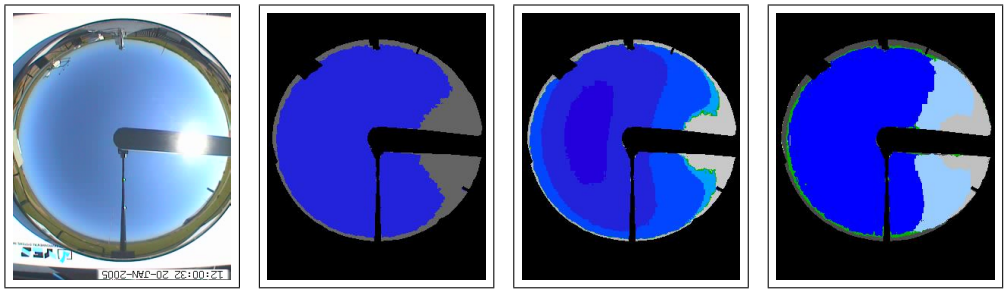
(v) 0501201115 (vi) 0501201115 Long (vii) 0501201115 EGD (viii) 0501201115 MAHA



(ix) 0501201130 (x) 0501201130 Long (xi) 0501201130 EGD (xii) 0501201130 MAHA

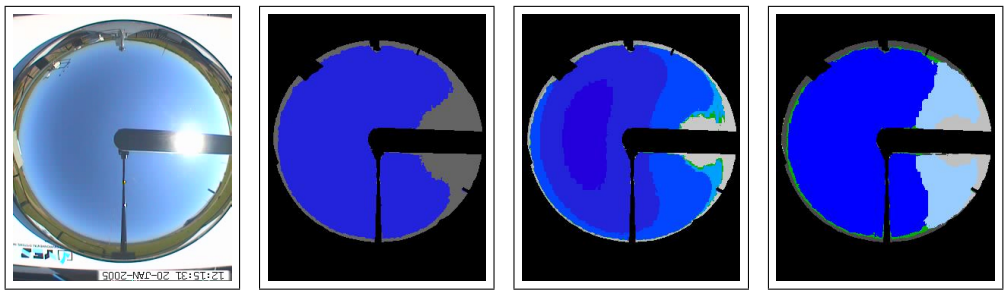


(xiii) 0501201145 (xiv) 0501201145 Long (xv) 0501201145 EGD (xvi) 0501201145 MAHA

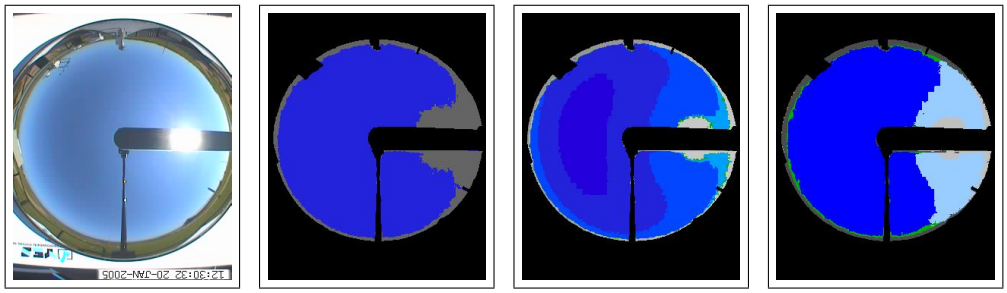


(xvii) 0501201200 (xviii) 0501201200 Long (xix) 0501201200 EGD (xx) 0501201200 MAHA

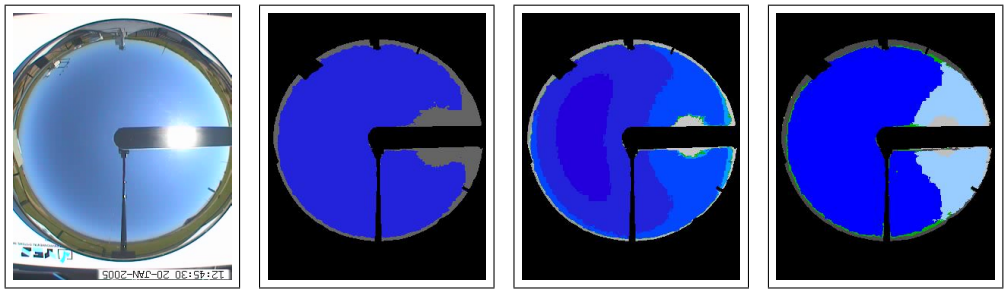
Figure A.217 - Sky images generated from 050120100 to 0501201200.



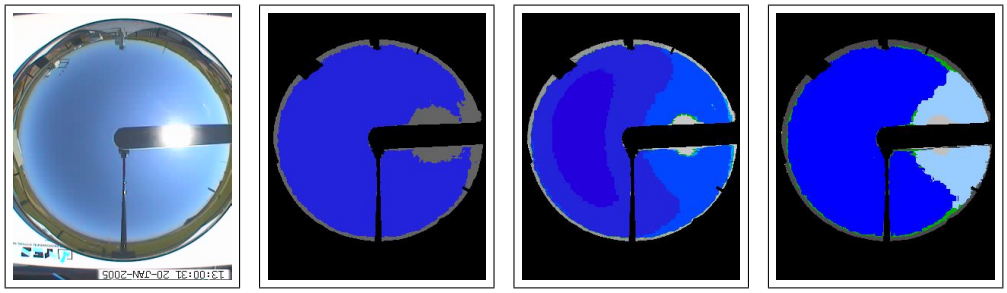
(i) 0501201215 (ii) 0501201215 Long (iii) 0501201215 EGD (iv) 0501201215 MAHA



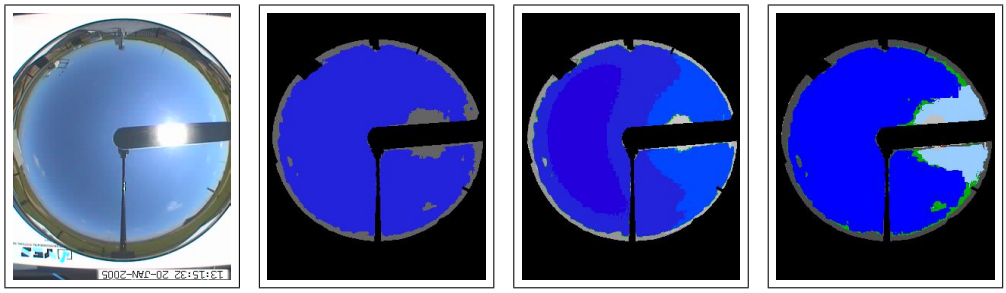
(v) 0501201230 (vi) 0501201230 Long (vii) 0501201230 EGD (viii) 0501201230 MAHA



(ix) 0501201245 (x) 0501201245 Long (xi) 0501201245 EGD (xii) 0501201245 MAHA

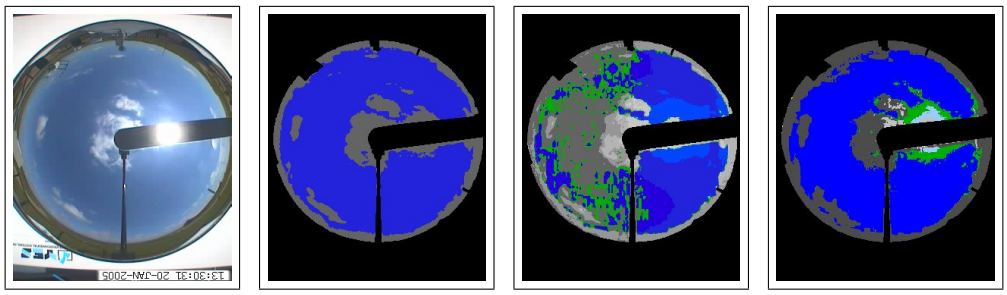


(xiii) 0501201300 (xiv) 0501201300 Long (xv) 0501201300 EGD (xvi) 0501201300 MAHA

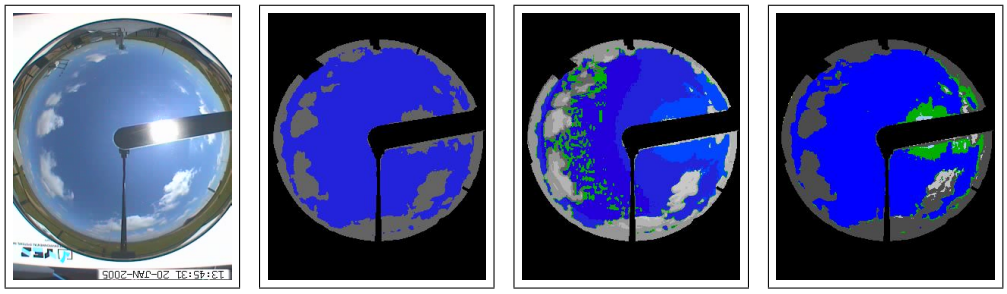


(xvii) 0501201315 (xviii) 0501201315 Long (xix) 0501201315 EGD (xx) 0501201315 MAHA

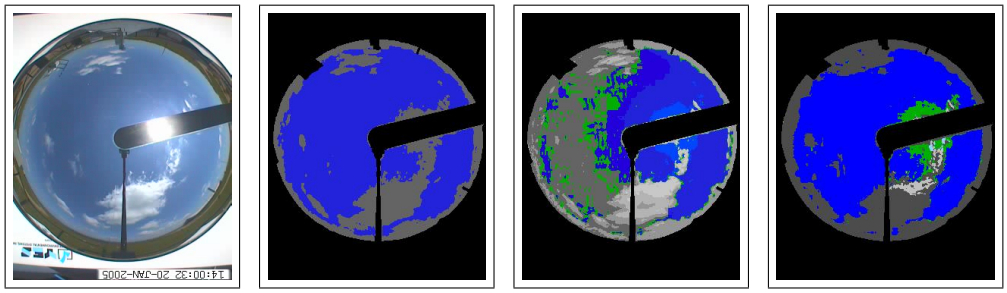
Figure A.218 - Sky images generated from 0501201215 to 0501201315.



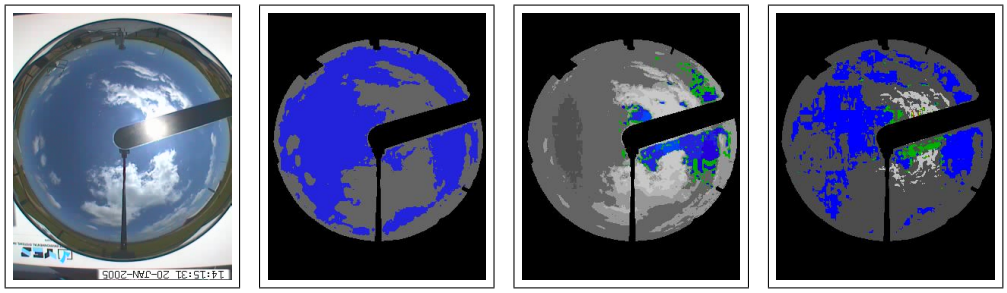
(i) 0501201330 (ii) 0501201330 Long (iii) 0501201330 EGD (iv) 0501201330 MAHA



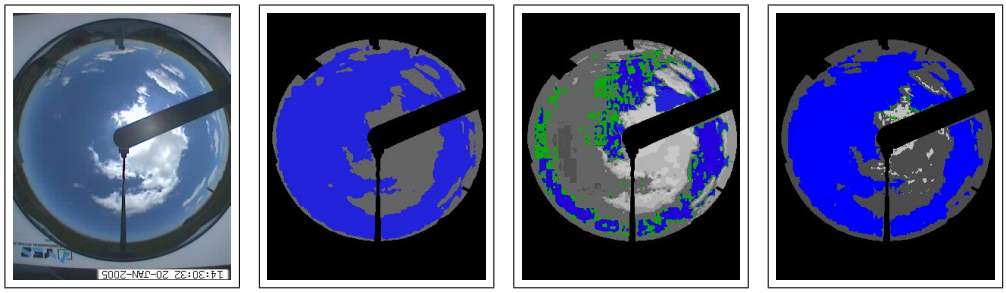
(v) 0501201345 (vi) 0501201345 Long (vii) 0501201345 EGD (viii) 0501201345 MAHA



(ix) 0501201400 (x) 0501201400 Long (xi) 0501201400 EGD (xii) 0501201400 MAHA

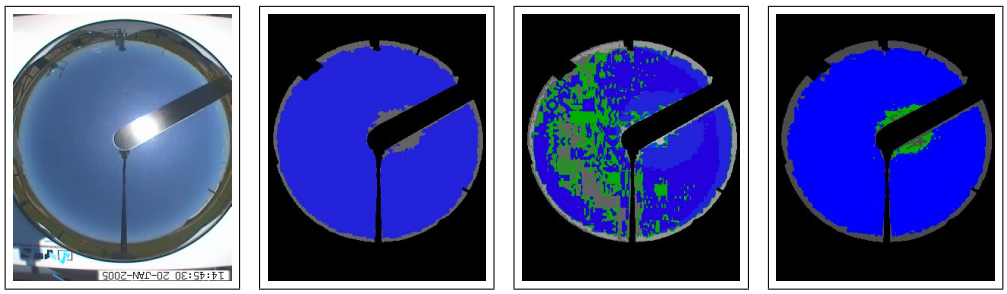


(xiii) 0501201415 (xiv) 0501201415 Long (xv) 0501201415 EGD (xvi) 0501201415 MAHA

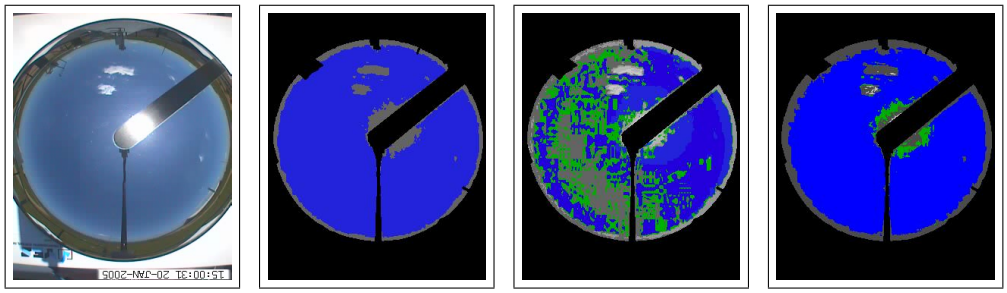


(xvii) 0501201430 (xviii) 0501201430 Long (xix) 0501201430 EGD (xx) 0501201430 MAHA

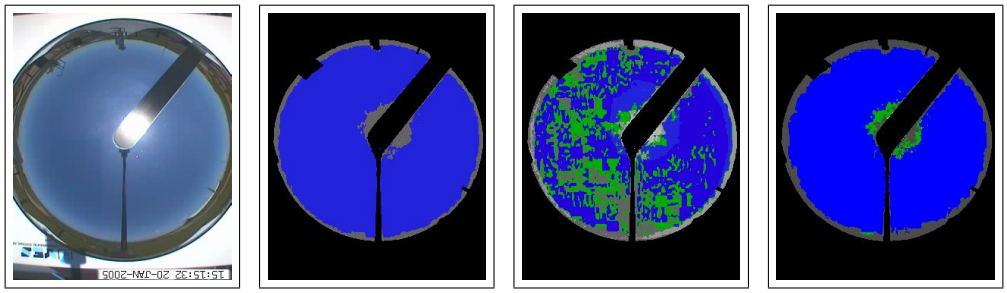
Figure A.219 - Sky images generated from 0501201330 to 0501201430.



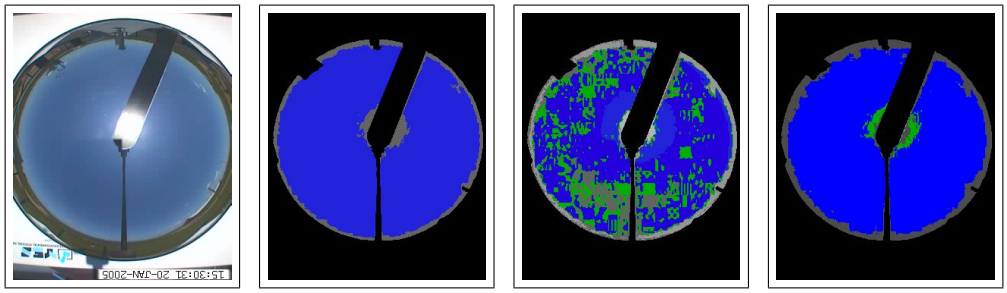
(i) 0501201445 (ii) 0501201445 Long (iii) 0501201445 EGD (iv) 0501201445 MAHA



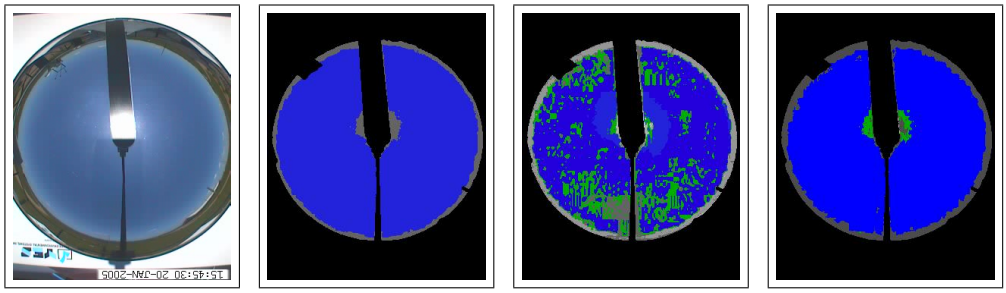
(v) 0501201500 (vi) 0501201500 Long (vii) 0501201500 EGD (viii) 0501201500 MAHA



(ix) 0501201515 (x) 0501201515 Long (xi) 0501201515 EGD (xii) 0501201515 MAHA

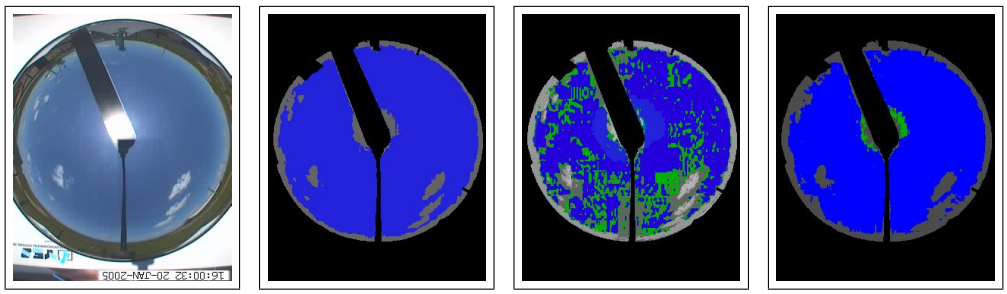


(xiii) 0501201530 (xiv) 0501201530 Long (xv) 0501201530 EGD (xvi) 0501201530 MAHA

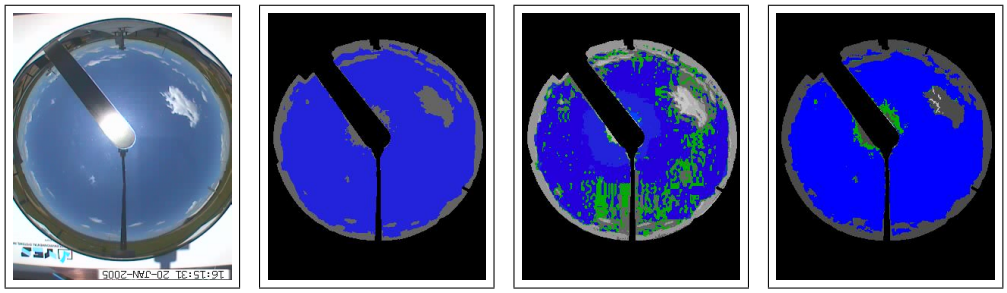


(xvii) 0501201545 (xviii) 0501201545 Long (xix) 0501201545 EGD (xx) 0501201545 MAHA

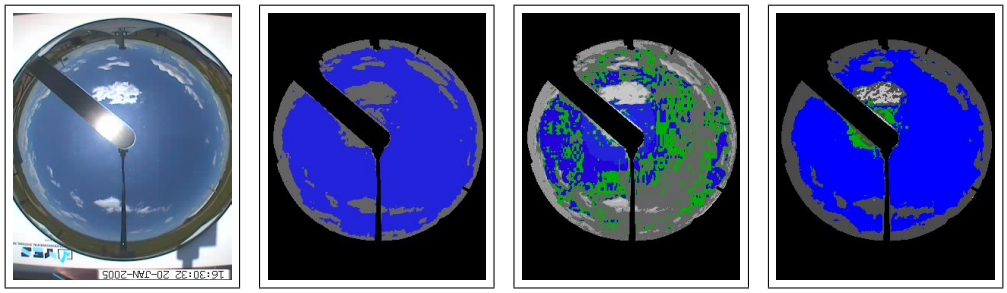
Figure A.220 - Sky images generated from 0501201445 to 0501201545.



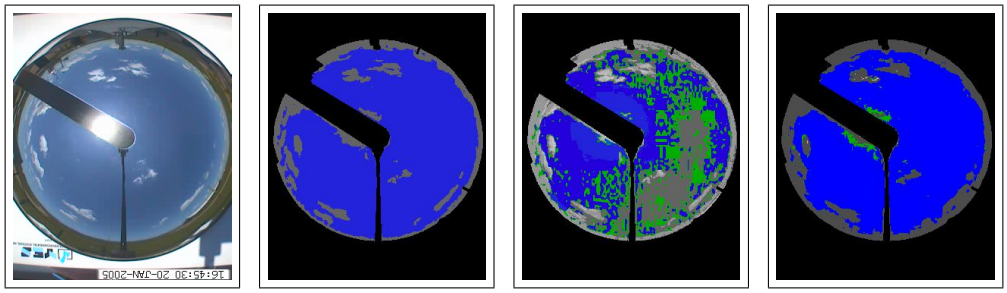
(i) 0501201600 (ii) 0501201600 Long (iii) 0501201600 EGD (iv) 0501201600 MAHA



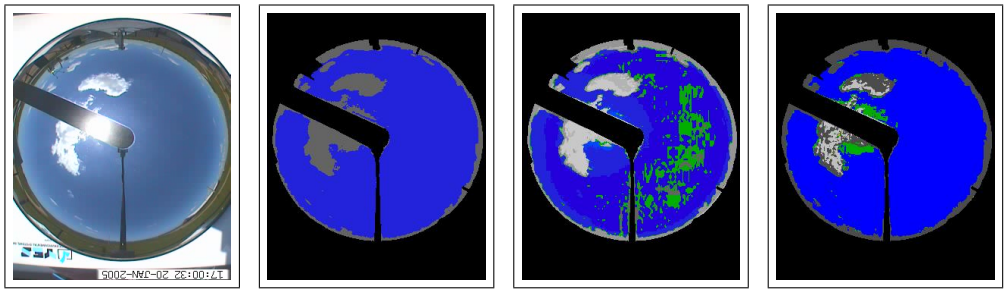
(v) 0501201615 (vi) 0501201615 Long (vii) 0501201615 EGD (viii) 0501201615 MAHA



(ix) 0501201630 (x) 0501201630 Long (xi) 0501201630 EGD (xii) 0501201630 MAHA

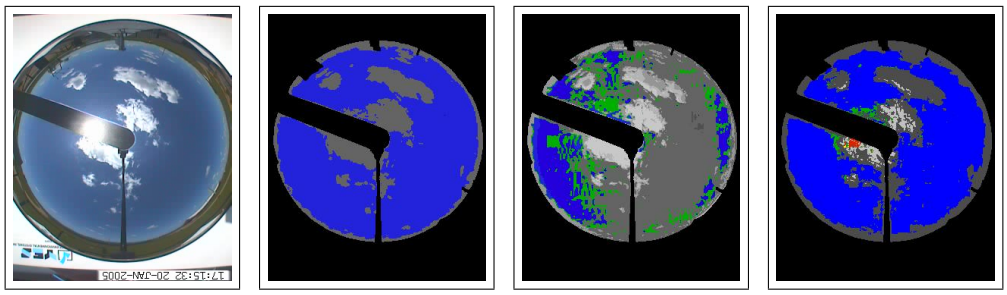


(xiii) 0501201645 (xiv) 0501201645 Long (xv) 0501201645 EGD (xvi) 0501201645 MAHA

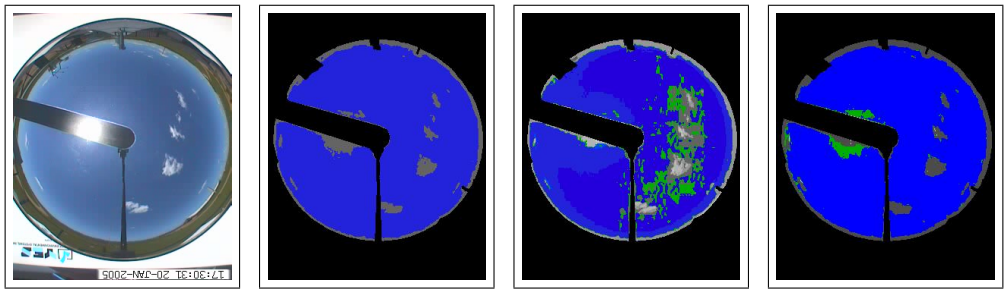


(xvii) 0501201700 (xviii) 0501201700 Long (xix) 0501201700 EGD (xx) 0501201700 MAHA

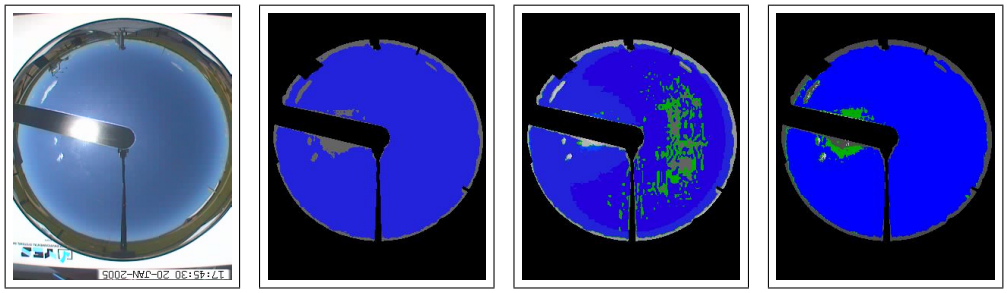
Figure A.221 - Sky images generated from 0501201600 to 0501201700.



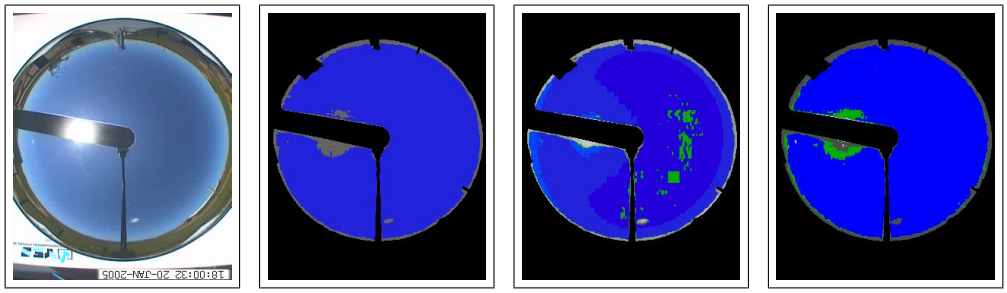
(i) 0501201715 (ii) 0501201715 Long (iii) 0501201715 EGD (iv) 0501201715 MAHA



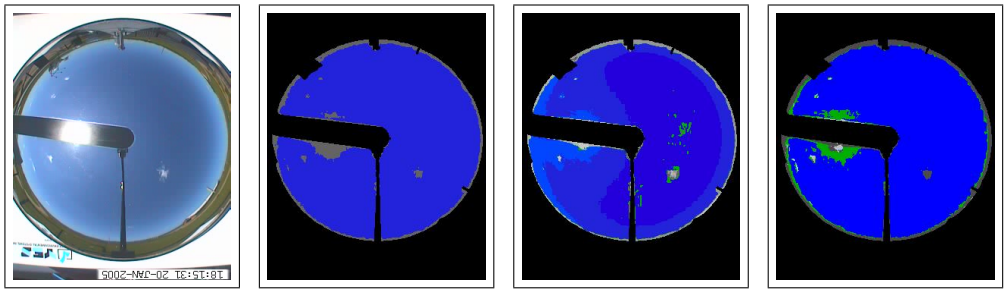
(v) 0501201730 (vi) 0501201730 Long (vii) 0501201730 EGD (viii) 0501201730 MAHA



(ix) 0501201745 (x) 0501201745 Long (xi) 0501201745 EGD (xii) 0501201745 MAHA

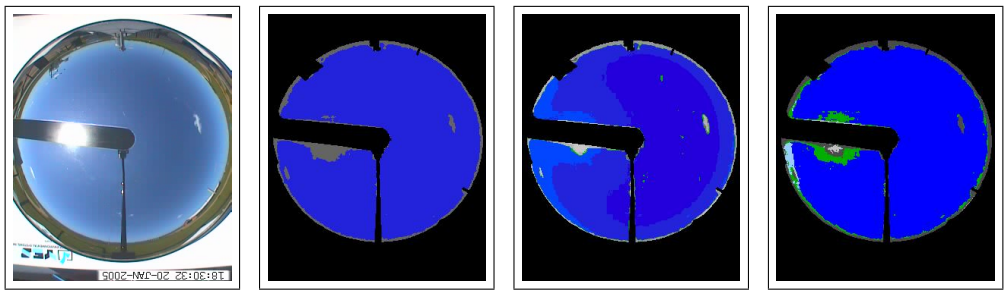


(xiii) 0501201800 (xiv) 0501201800 Long (xv) 0501201800 EGD (xvi) 0501201800 MAHA

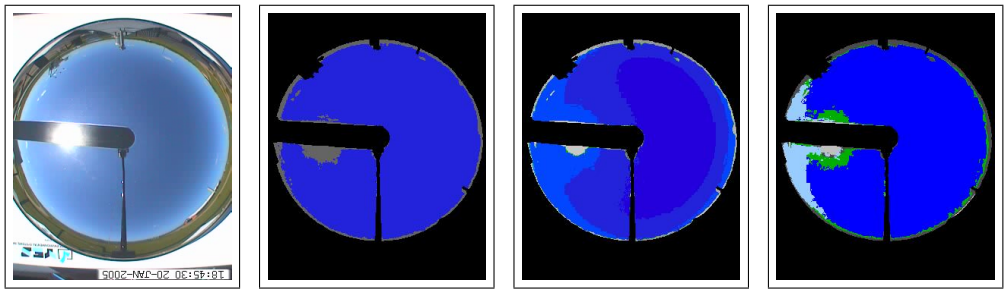


(xvii) 0501201815 (xviii) 0501201815 Long (xix) 0501201815 EGD (xx) 0501201815 MAHA

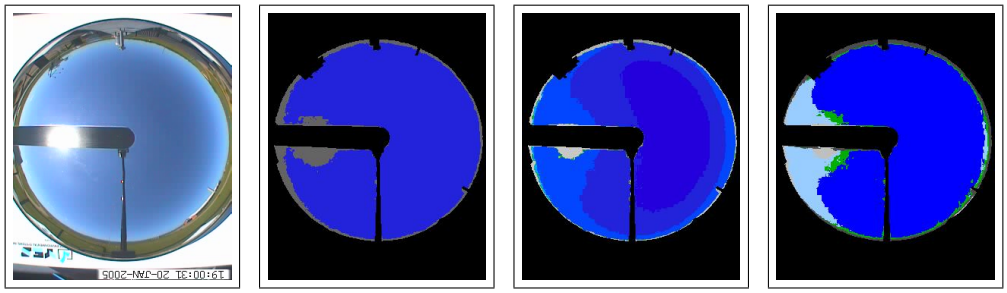
Figure A.222 - Sky images generated from 0501201715 to 0501201815.



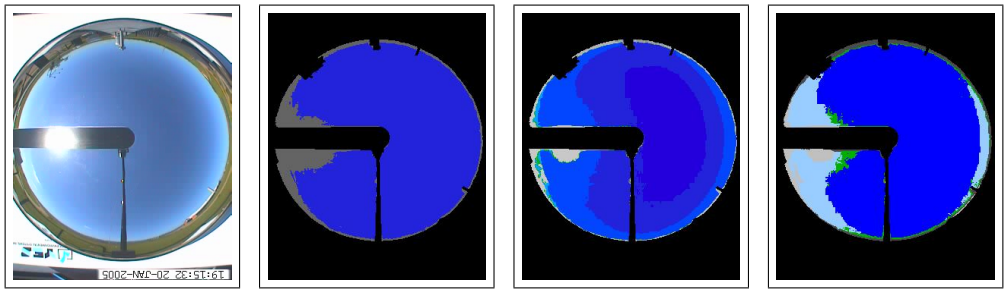
(i) 0501201830 (ii) 0501201830 Long (iii) 0501201830 EGD (iv) 0501201830 MAHA



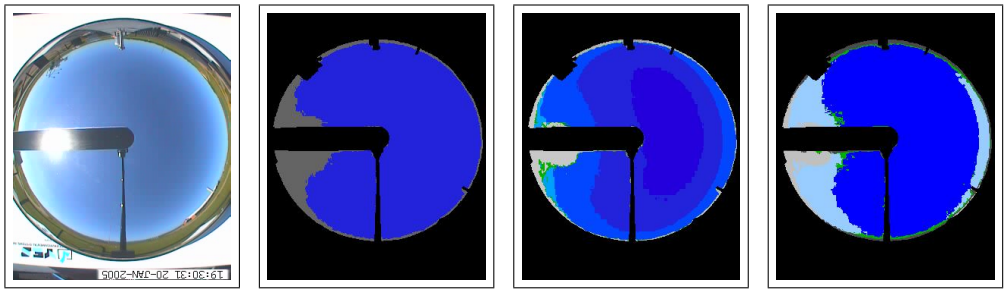
(v) 0501201845 (vi) 0501201845 Long (vii) 0501201845 EGD (viii) 0501201845 MAHA



(ix) 0501201900 (x) 0501201900 Long (xi) 0501201900 EGD (xii) 0501201900 MAHA

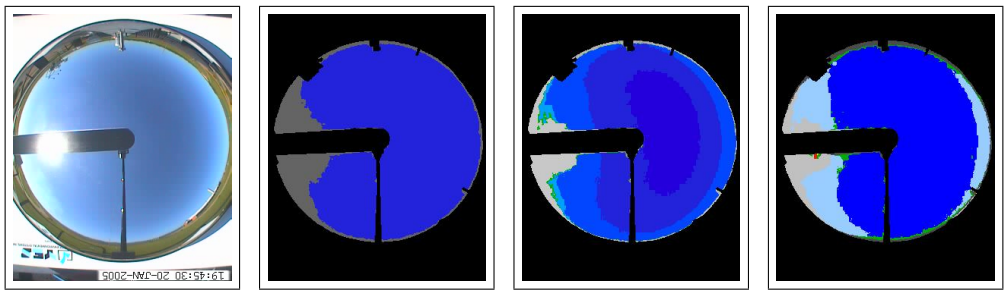


(xiii) 0501201915 (xiv) 0501201915 Long (xv) 0501201915 EGD (xvi) 0501201915 MAHA

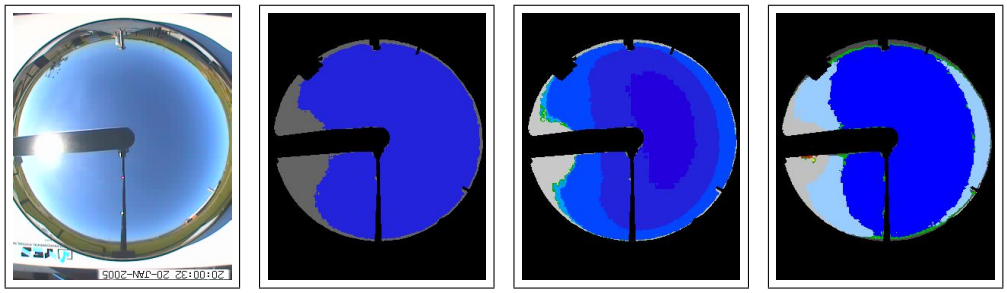


(xvii) 0501201930 (xviii) 0501201930 Long (xix) 0501201930 EGD (xx) 0501201930 MAHA

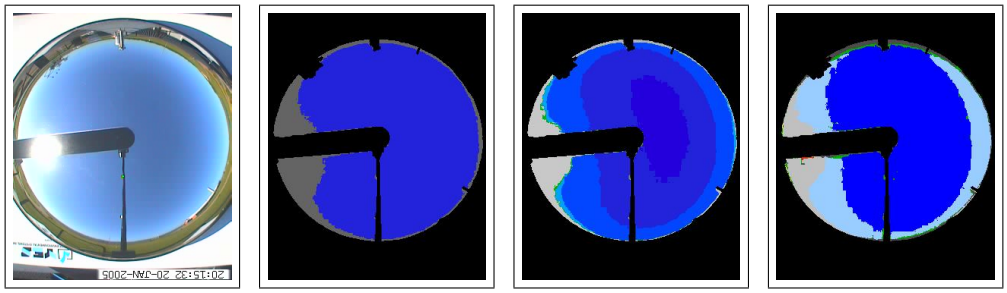
Figure A.223 - Sky images generated from 0501201830 to 0501201930.



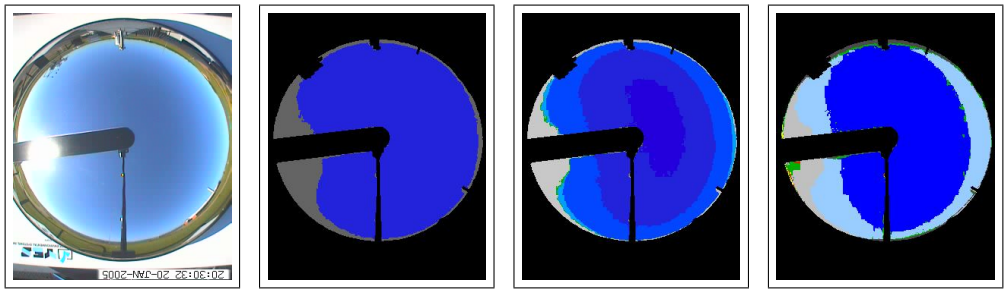
(i) 0501201945 (ii) 0501201945 Long (iii) 0501201945 EGD (iv) 0501201945 MAHA



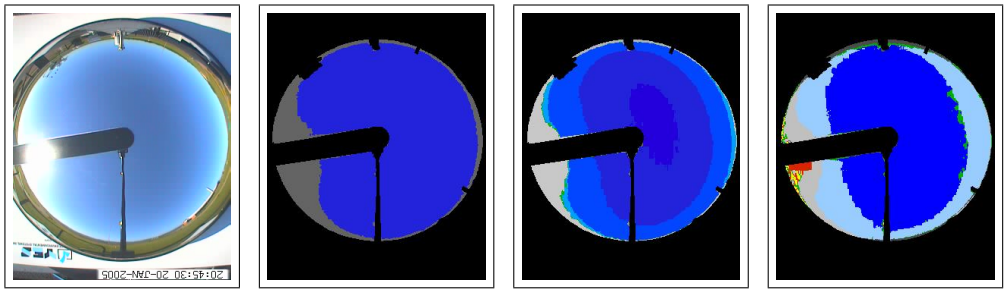
(v) 0501202000 (vi) 0501202000 Long (vii) 0501202000 EGD (viii) 0501202000 MAHA



(ix) 0501202015 (x) 0501202015 Long (xi) 0501202015 EGD (xii) 0501202015 MAHA

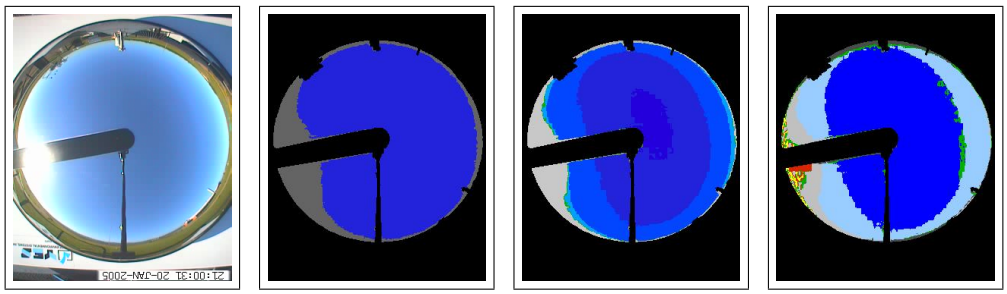


(xiii) 0501202030 (xiv) 0501202030 Long (xv) 0501202030 EGD (xvi) 0501202030 MAHA

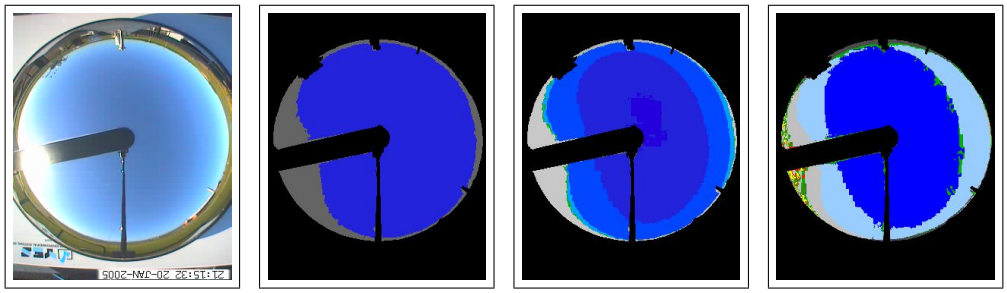


(xvii) 0501202045 (xviii) 0501202045 Long (xix) 0501202045 EGD (xx) 0501202045 MAHA

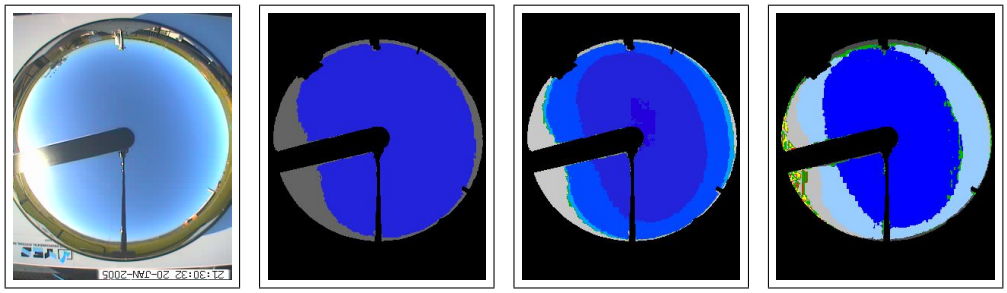
Figure A.224 - Sky images generated from 0501201945 to 0501202045.



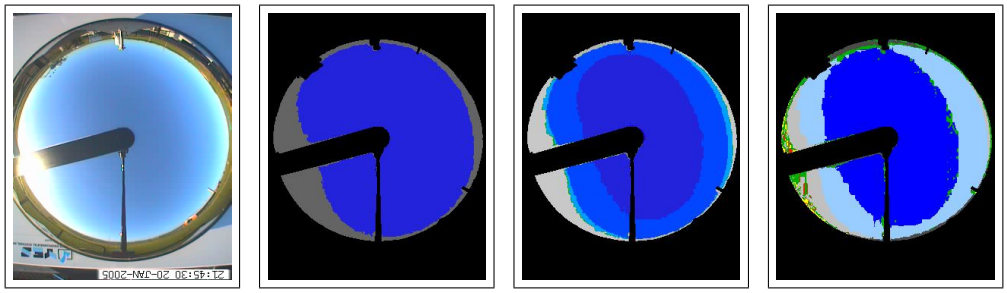
(i) 0501202100 (ii) 0501202100 Long (iii) 0501202100 EGD (iv) 0501202100 MAHA



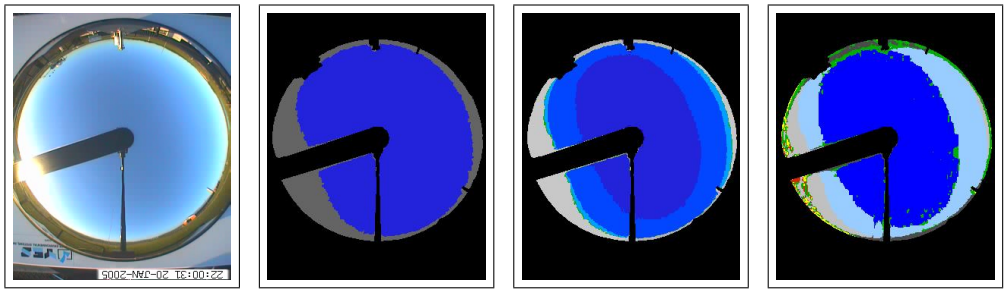
(v) 0501202115 (vi) 0501202115 Long (vii) 0501202115 EGD (viii) 0501202115 MAHA



(ix) 0501202130 (x) 0501202130 Long (xi) 0501202130 EGD (xii) 0501202130 MAHA

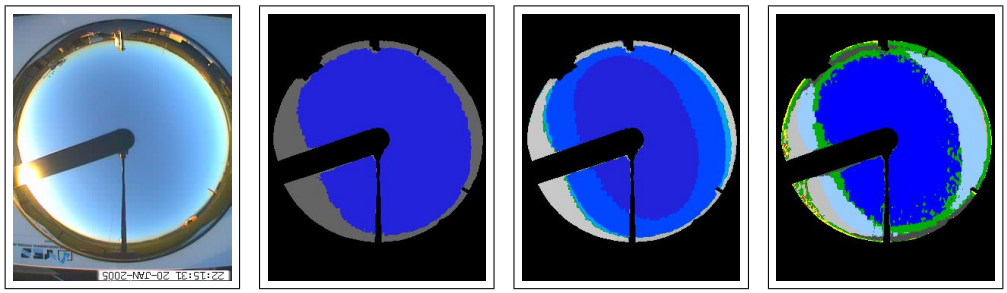


(xiii) 0501202145 (xiv) 0501202145 Long (xv) 0501202145 EGD (xvi) 0501202145 MAHA

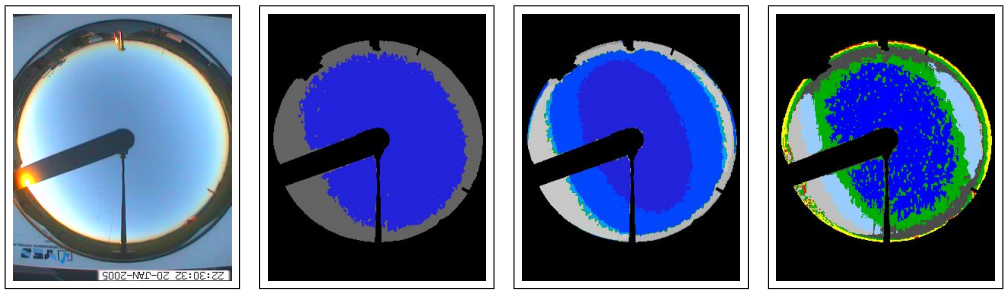


(xvii) 0501202200 (xviii) 0501202200 Long (xix) 0501202200 EGD (xx) 0501202200 MAHA

Figure A.225 - Sky images generated from 0501202100 to 0501202200.



(i) 0501202215 (ii) 0501202215 Long (iii) 0501202215 EGD (iv) 0501202215 MAHA

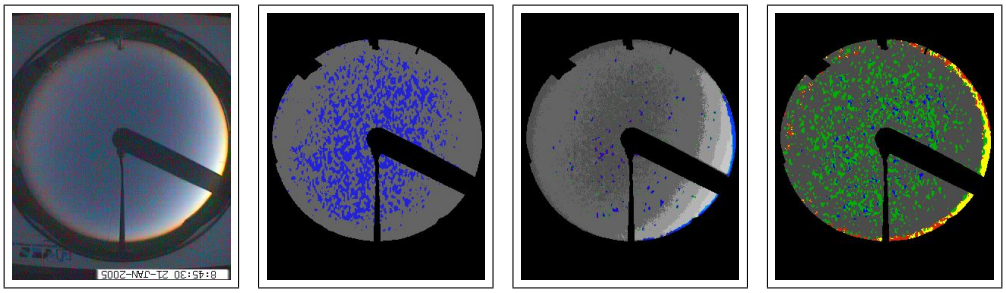


(v) 0501202230 (vi) 0501202230 Long (vii) 0501202230 EGD (viii) 0501202230 MAHA

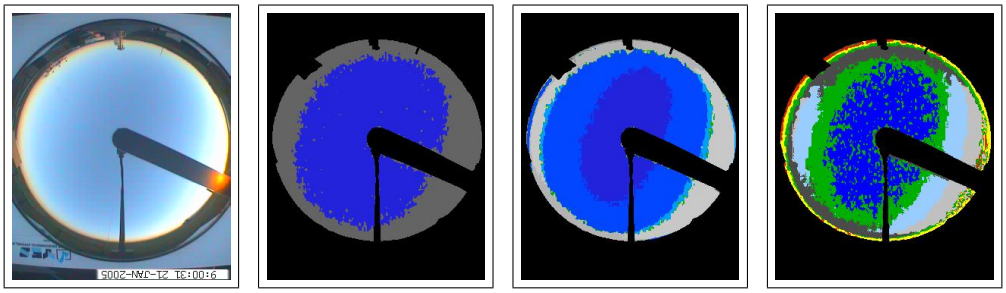


(ix) 0501202245

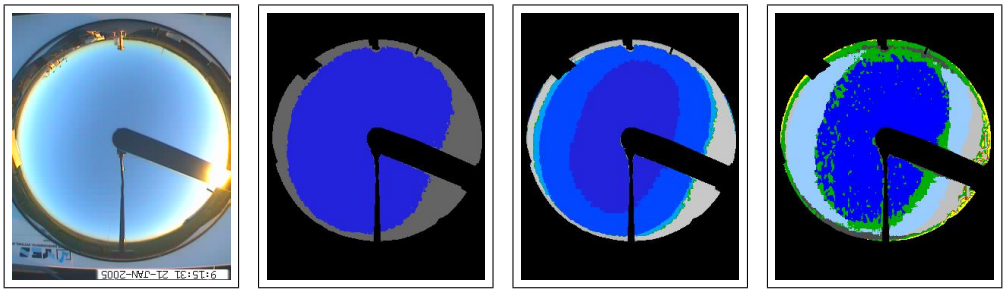
Figure A.226 - Sky images generated from 0501201600 to 0501202245.



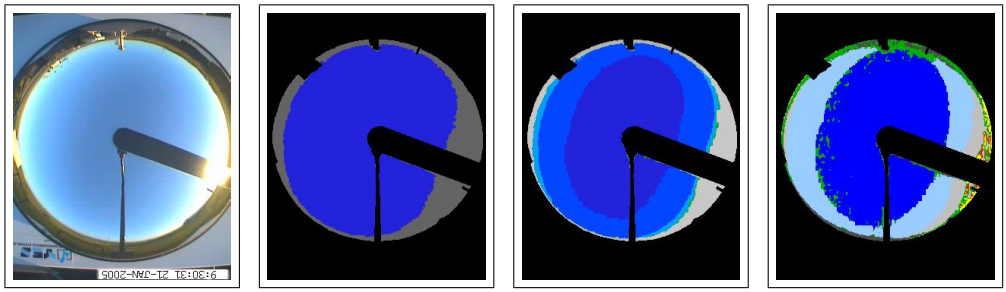
(i) 0501210845 (ii) 0501210845 Long (iii) 0501210845 EGD (iv) 0501210845 MAHA



(v) 0501210900 (vi) 0501210900 Long (vii) 0501210900 EGD (viii) 0501210900 MAHA

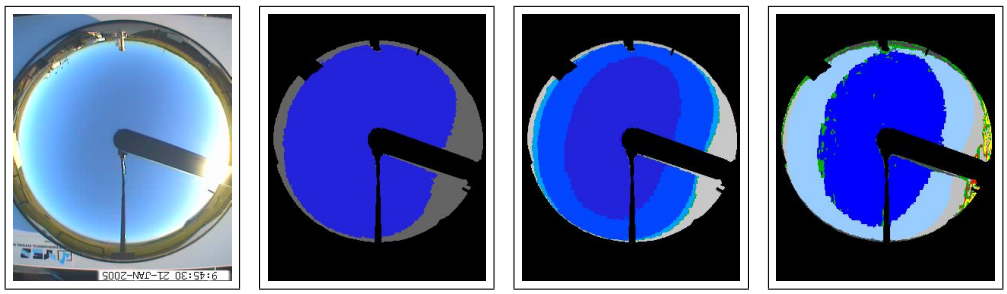


(ix) 0501210915 (x) 0501210915 Long (xi) 0501210915 EGD (xii) 0501210915 MAHA

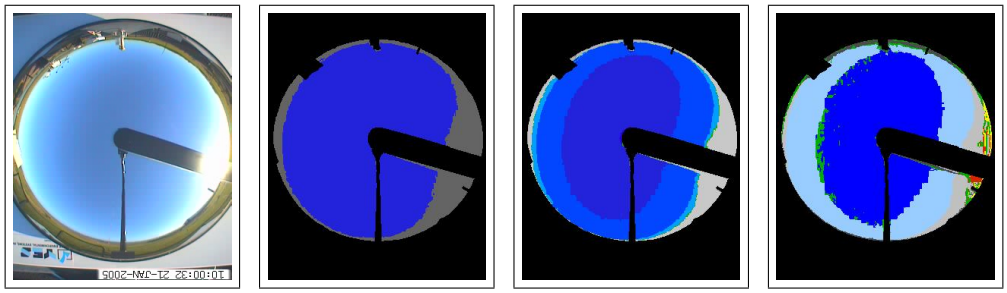


(xiii) 0501210930 (xiv) 0501210930 Long (xv) 0501210930 EGD (xvi) 0501210930 MAHA

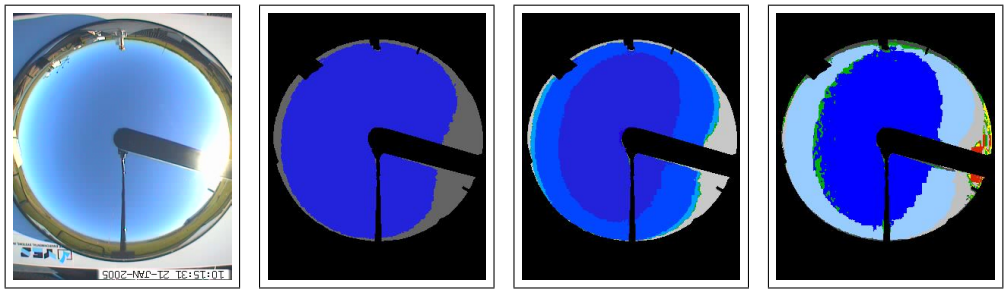
Figure A.227 - Sky images generated from 0501210845 to 0501210930.



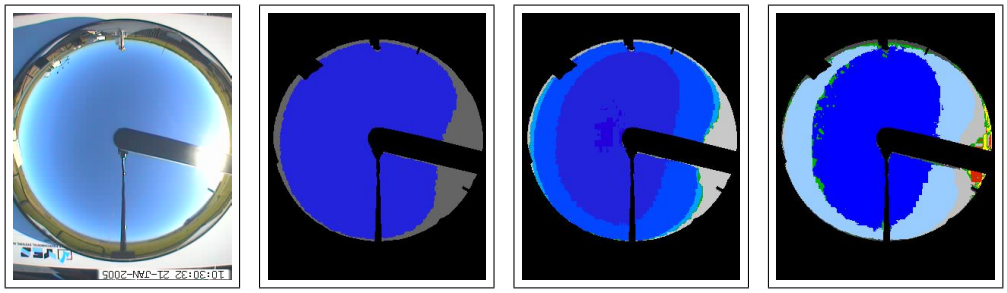
(i) 0501210945 (ii) 0501210945 Long (iii) 0501210945 EGD (iv) 0501210945 MAHA



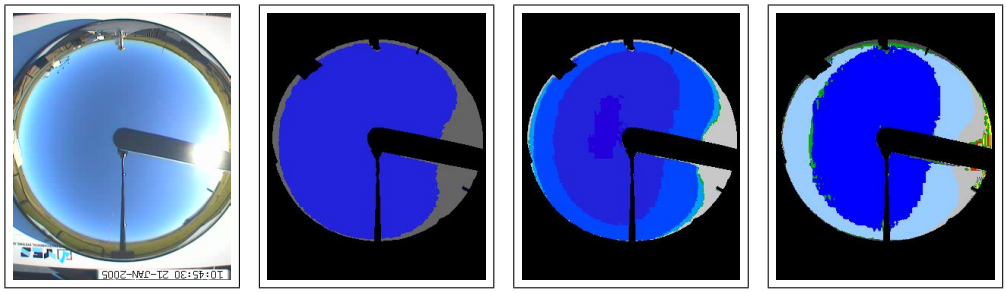
(v) 050121000 (vi) 050121000 Long (vii) 050121000 EGD (viii) 050121000 MAHA



(ix) 0501211015 (x) 0501211015 Long (xi) 0501211015 EGD (xii) 0501211015 MAHA

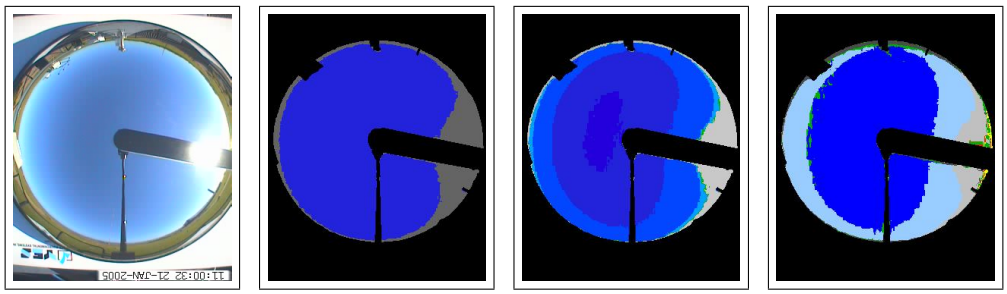


(xiii) 0501211030 (xiv) 0501211030 Long (xv) 0501211030 EGD (xvi) 0501211030 MAHA

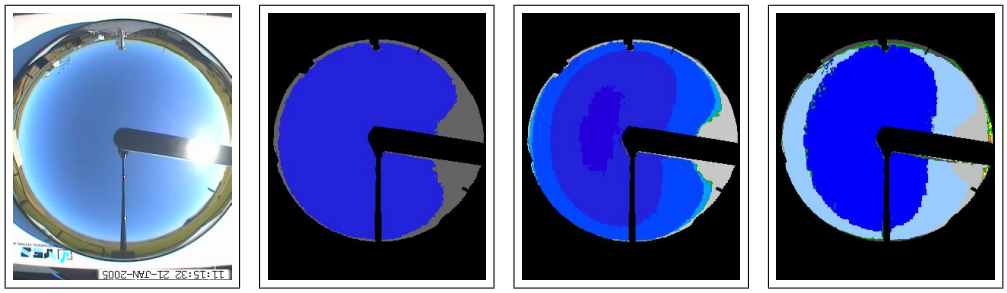


(xvii) 0501211045 (xviii) 0501211045 Long (xix) 0501211045 EGD (xx) 0501211045 MAHA

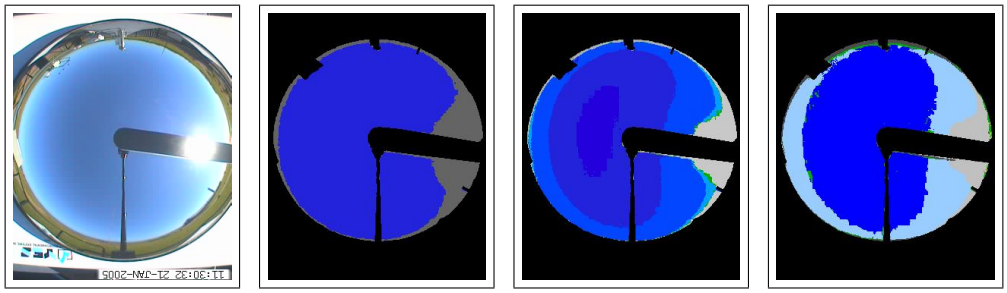
Figure A.228 - Sky images generated from 0501210945 to 0501211045.



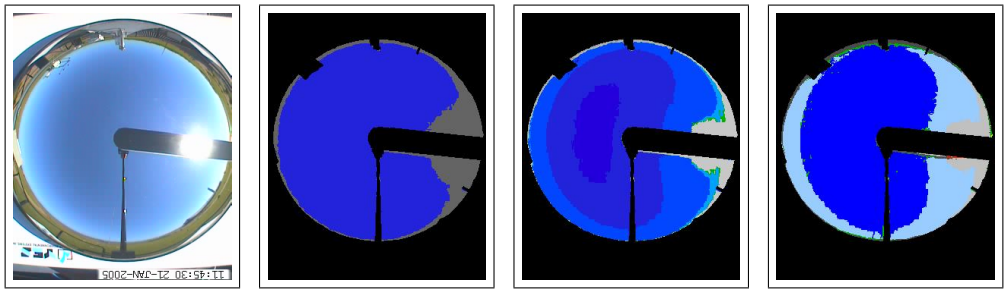
(i) 0501211100 (ii) 0501211100 Long (iii) 0501211100 EGD (iv) 0501211100 MAHA



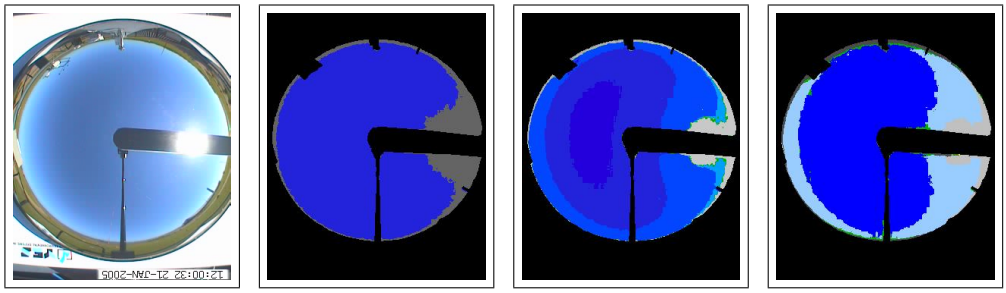
(v) 0501211115 (vi) 0501211115 Long (vii) 0501211115 EGD (viii) 0501211115 MAHA



(ix) 0501211130 (x) 0501211130 Long (xi) 0501211130 EGD (xii) 0501211130 MAHA

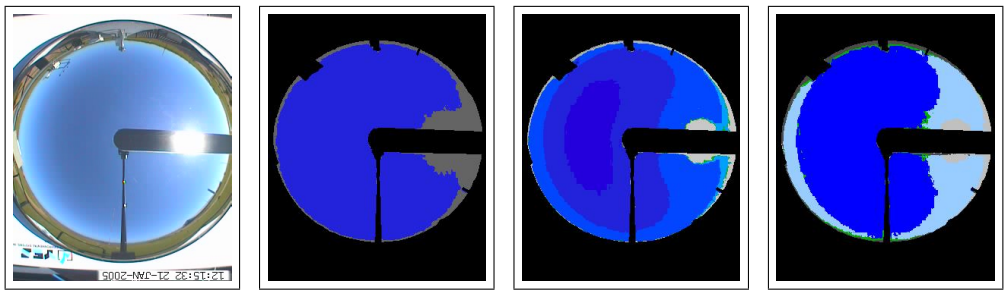


(xiii) 0501211145 (xiv) 0501211145 Long (xv) 0501211145 EGD (xvi) 0501211145 MAHA

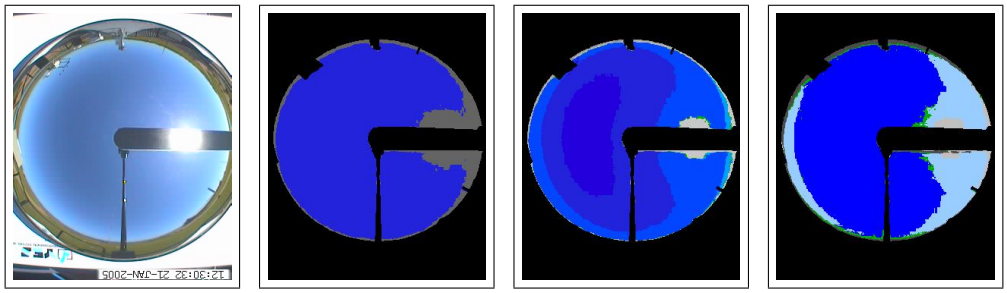


(xvii) 0501211200 (xviii) 0501211200 Long (xix) 0501211200 EGD (xx) 0501211200 MAHA

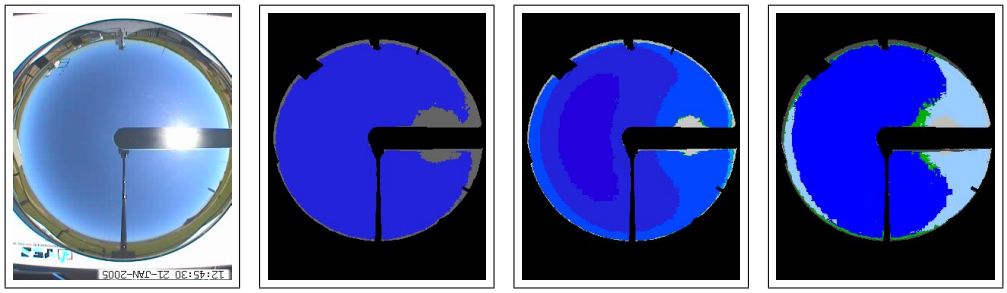
Figure A.229 - Sky images generated from 050121100 to 0501211200.



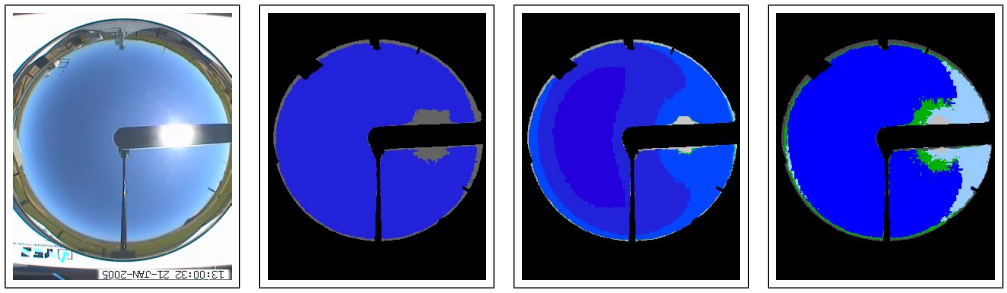
(i) 0501211215 (ii) 0501211215 Long (iii) 0501211215 EGD (iv) 0501211215 MAHA



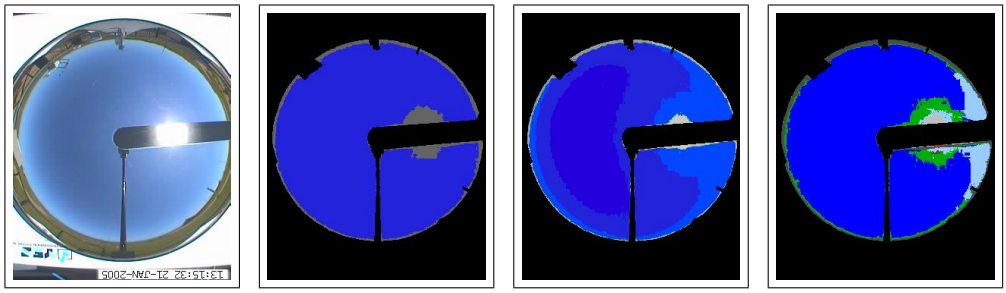
(v) 0501211230 (vi) 0501211230 Long (vii) 0501211230 EGD (viii) 0501211230 MAHA



(ix) 0501211245 (x) 0501211245 Long (xi) 0501211245 EGD (xii) 0501211245 MAHA

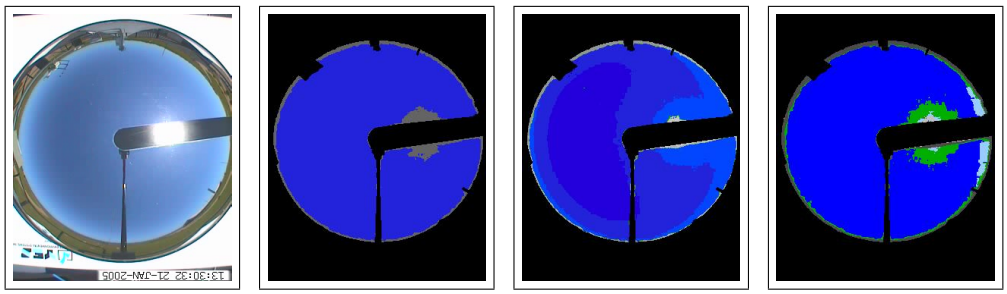


(xiii) 0501211300 (xiv) 0501211300 Long (xv) 0501211300 EGD (xvi) 0501211300 MAHA

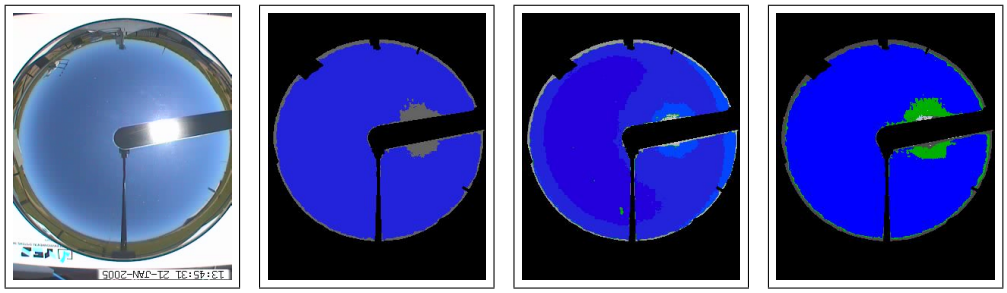


(xvii) 0501211315 (xviii) 0501211315 Long (xix) 0501211315 EGD (xx) 0501211315 MAHA

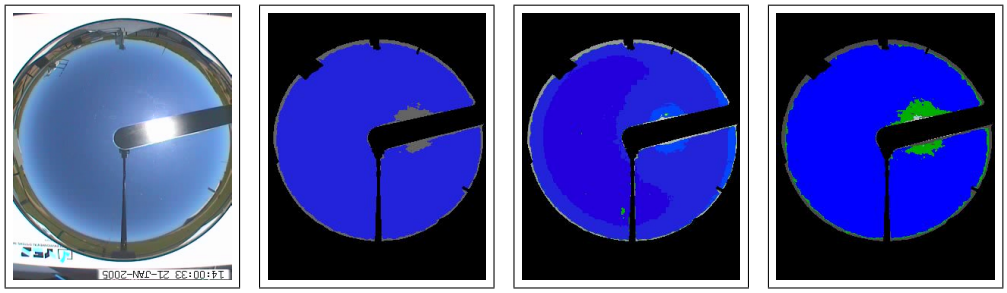
Figure A.230 - Sky images generated from 0501211215 to 0501211315.



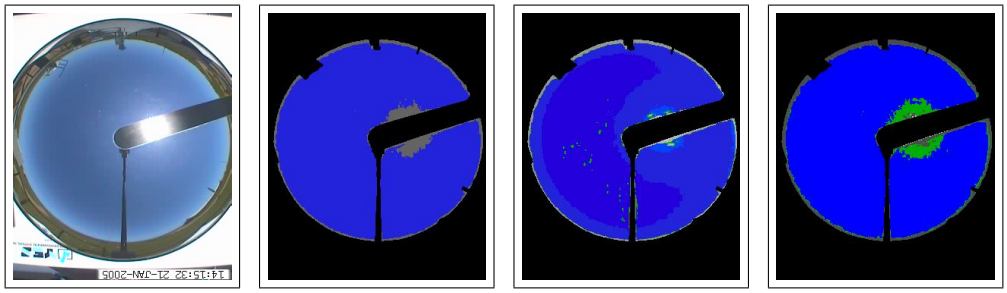
(i) 0501211330 (ii) 0501211330 Long (iii) 0501211330 EGD (iv) 0501211330 MAHA



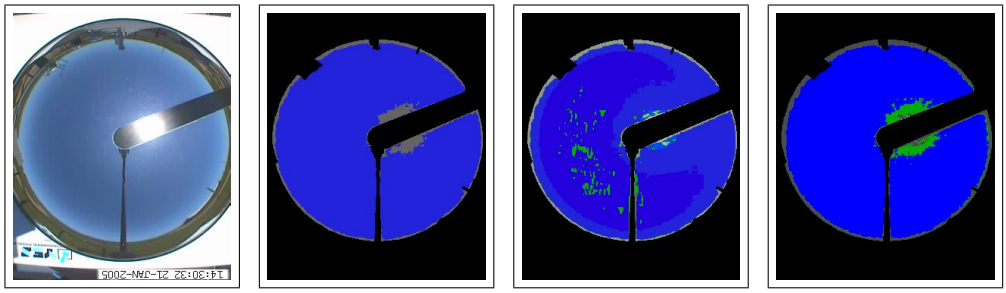
(v) 0501211345 (vi) 0501211345 Long (vii) 0501211345 EGD (viii) 0501211345 MAHA



(ix) 0501211400 (x) 0501211400 Long (xi) 0501211400 EGD (xii) 0501211400 MAHA

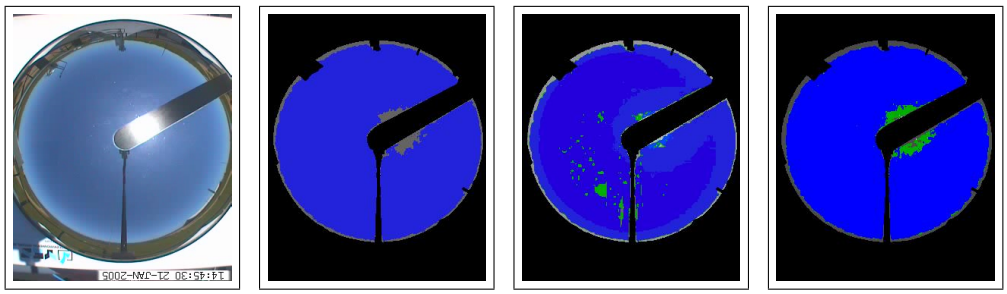


(xiii) 0501211415 (xiv) 0501211415 Long (xv) 0501211415 EGD (xvi) 0501211415 MAHA

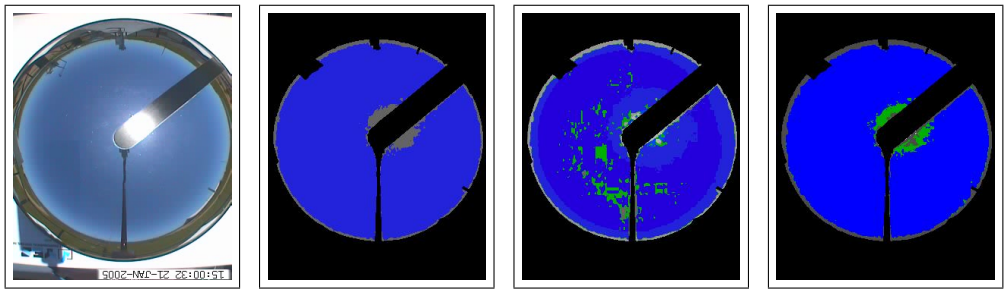


(xvii) 0501211430 (xviii) 0501211430 Long (xix) 0501211430 EGD (xx) 0501211430 MAHA

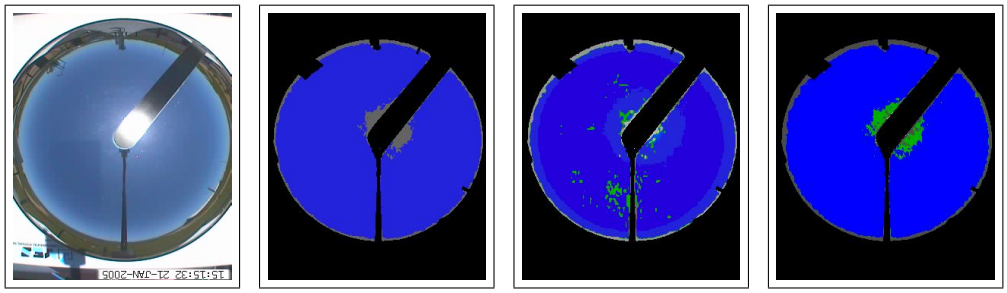
Figure A.231 - Sky images generated from 0501211330 to 0501211430.



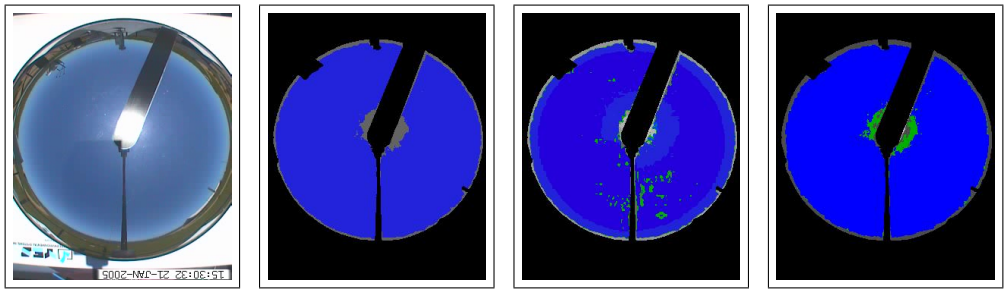
(i) 0501211445 (ii) 0501211445 Long (iii) 0501211445 EGD (iv) 0501211445 MAHA



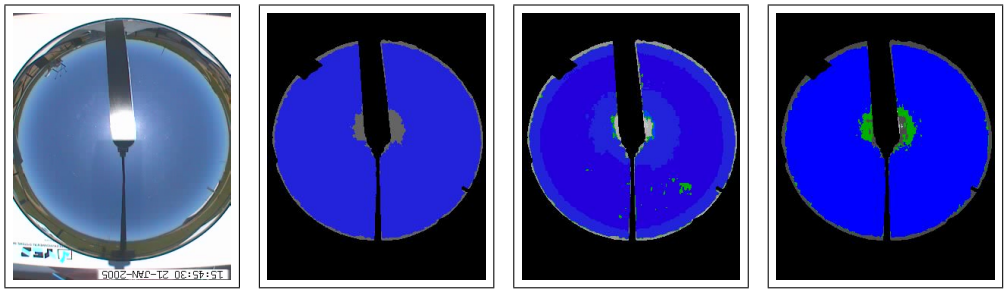
(v) 0501211500 (vi) 0501211500 Long (vii) 0501211500 EGD (viii) 0501211500 MAHA



(ix) 0501211515 (x) 0501211515 Long (xi) 0501211515 EGD (xii) 0501211515 MAHA

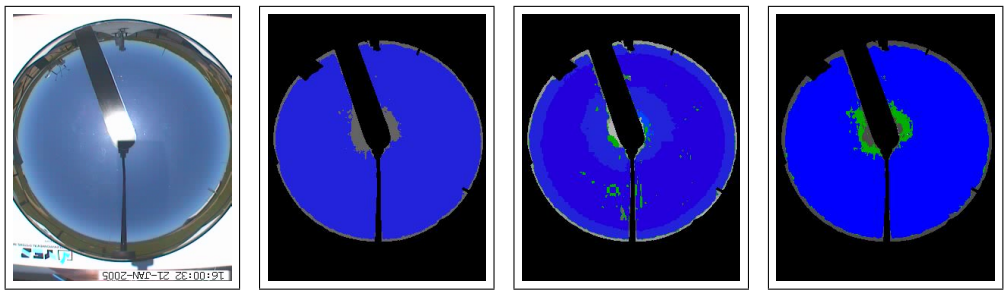


(xiii) 0501211530 (xiv) 0501211530 Long (xv) 0501211530 EGD (xvi) 0501211530 MAHA

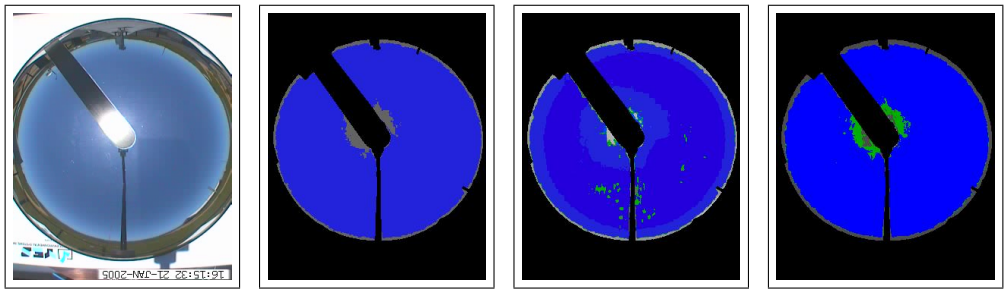


(xvii) 0501211545 (xviii) 0501211545 Long (xix) 0501211545 EGD (xx) 0501211545 MAHA

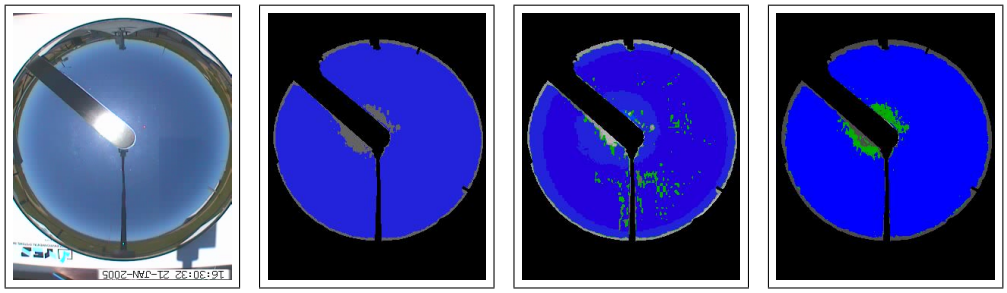
Figure A.232 - Sky images generated from 0501211445 to 0501211545.



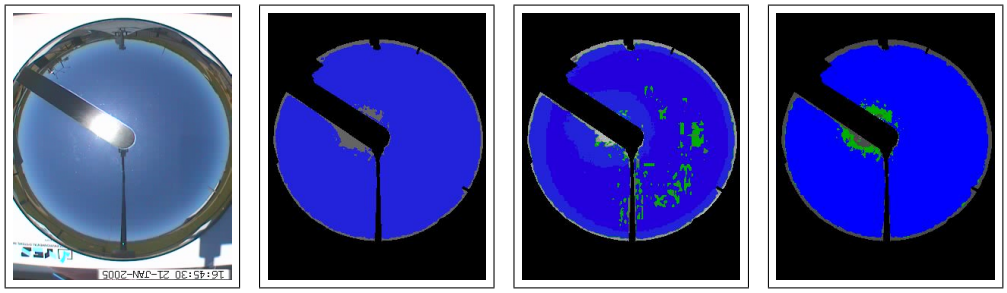
(i) 0501211600 (ii) 0501211600 Long (iii) 0501211600 EGD (iv) 0501211600 MAHA



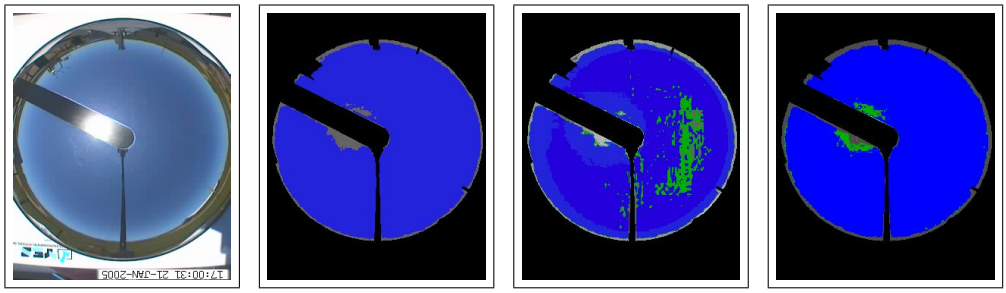
(v) 0501211615 (vi) 0501211615 Long (vii) 0501211615 EGD (viii) 0501211615 MAHA



(ix) 0501211630 (x) 0501211630 Long (xi) 0501211630 EGD (xii) 0501211630 MAHA

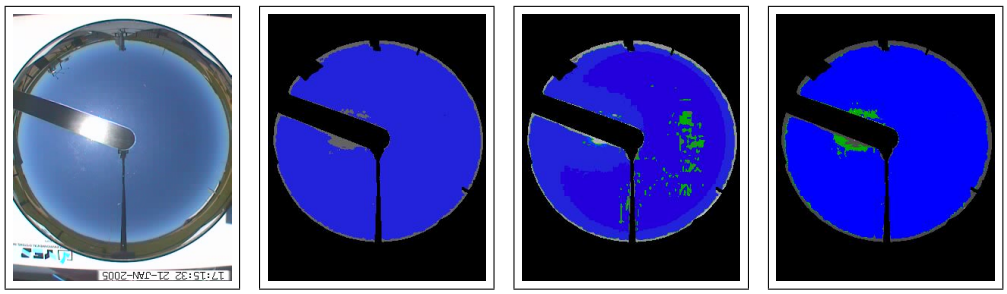


(xiii) 0501211645 (xiv) 0501211645 Long (xv) 0501211645 EGD (xvi) 0501211645 MAHA

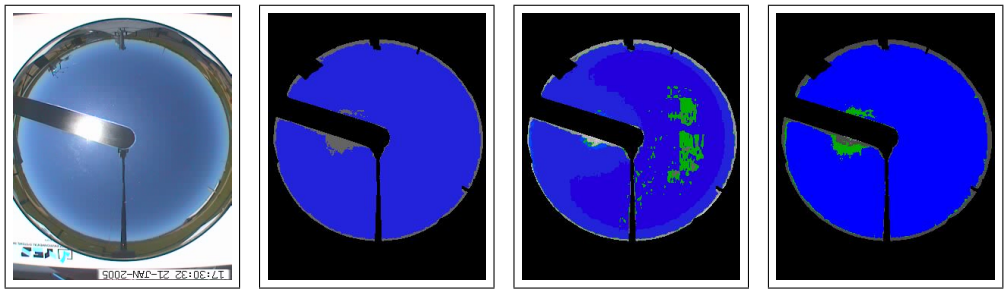


(xvii) 0501211700 (xviii) 0501211700 Long (xix) 0501211700 EGD (xx) 0501211700 MAHA

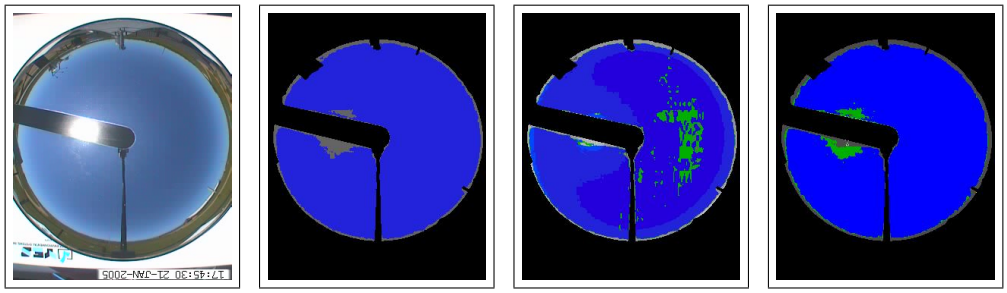
Figure A.233 - Sky images generated from 0501211600 to 0501211700.



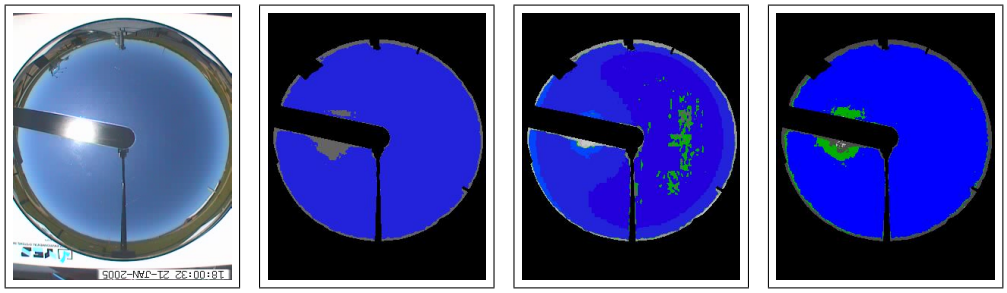
(i) 0501211715 (ii) 0501211715 Long (iii) 0501211715 EGD (iv) 0501211715 MAHA



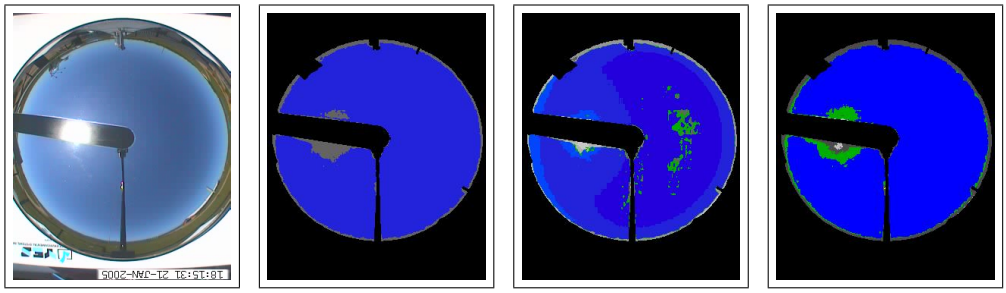
(v) 0501211730 (vi) 0501211730 Long (vii) 0501211730 EGD (viii) 0501211730 MAHA



(ix) 0501211745 (x) 0501211745 Long (xi) 0501211745 EGD (xii) 0501211745 MAHA

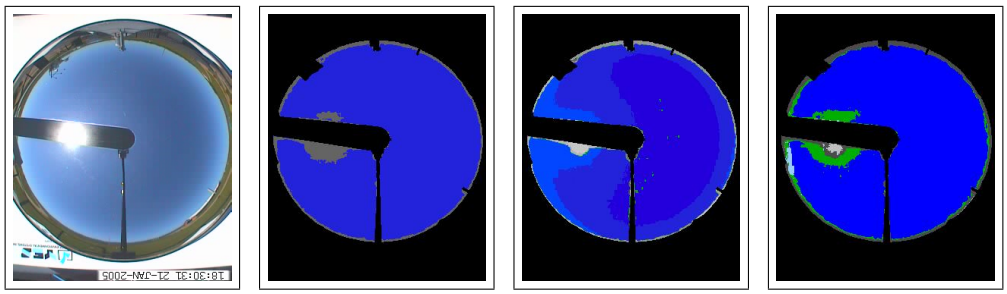


(xiii) 0501211800 (xiv) 0501211800 Long (xv) 0501211800 EGD (xvi) 0501211800 MAHA

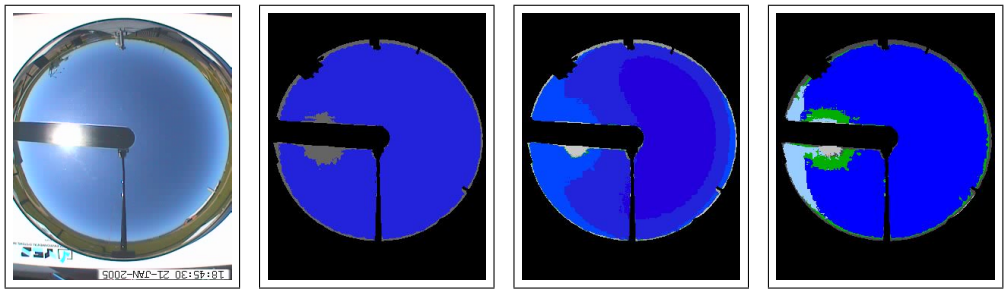


(xvii) 0501211815 (xviii) 0501211815 Long (xix) 0501211815 EGD (xx) 0501211815 MAHA

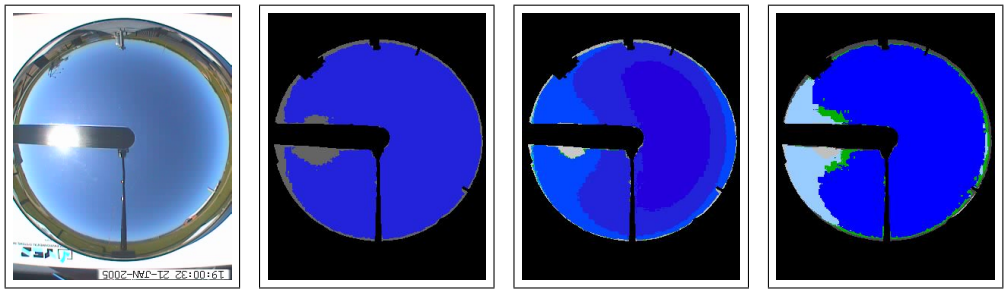
Figure A.234 - Sky images generated from 0501211715 to 0501211815.



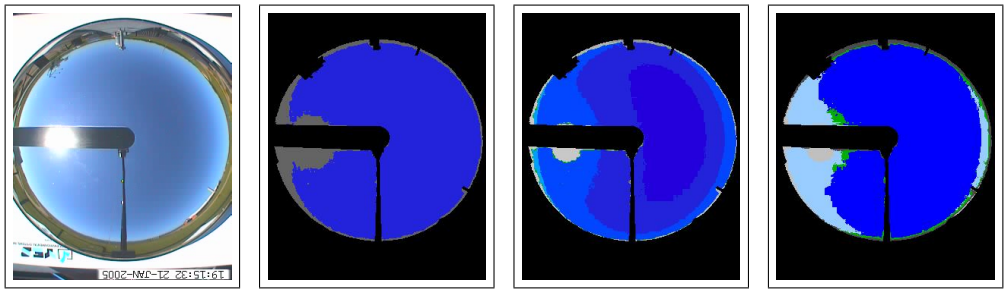
(i) 0501211830 (ii) 0501211830 Long (iii) 0501211830 EGD (iv) 0501211830 MAHA



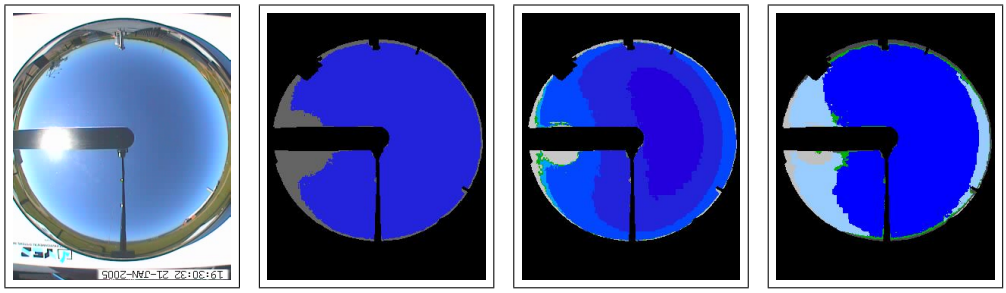
(v) 0501211845 (vi) 0501211845 Long (vii) 0501211845 EGD (viii) 0501211845 MAHA



(ix) 0501211900 (x) 0501211900 Long (xi) 0501211900 EGD (xii) 0501211900 MAHA

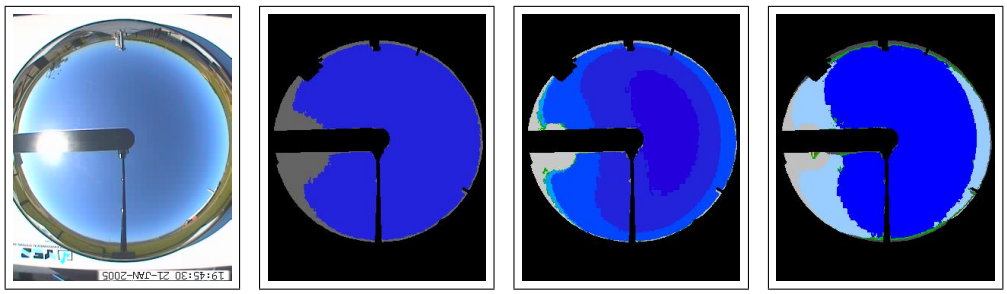


(xiii) 0501211915 (xiv) 0501211915 Long (xv) 0501211915 EGD (xvi) 0501211915 MAHA

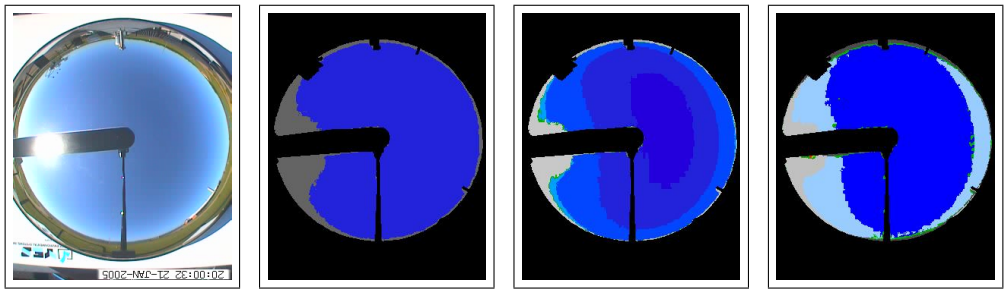


(xvii) 0501211930 (xviii) 0501211930 Long (xix) 0501211930 EGD (xx) 0501211930 MAHA

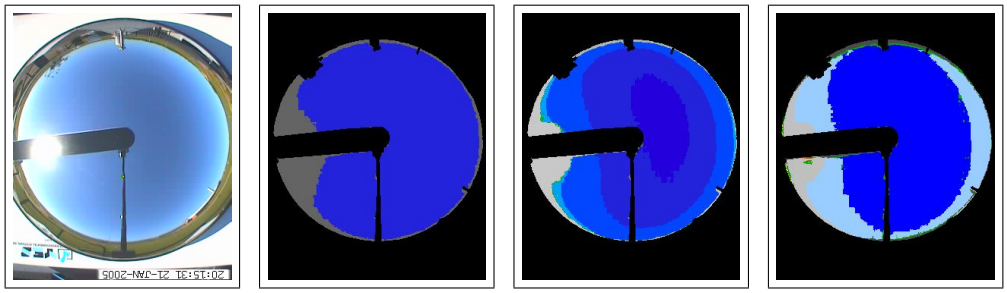
Figure A.235 - Sky images generated from 0501211830 to 0501211930.



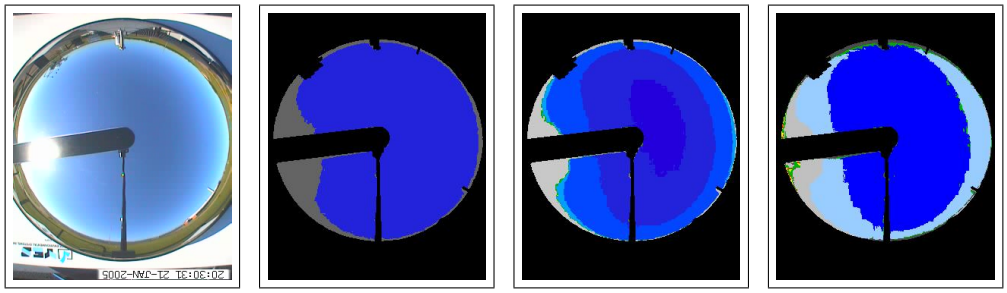
(i) 0501211945 (ii) 0501211945 Long (iii) 0501211945 EGD (iv) 0501211945 MAHA



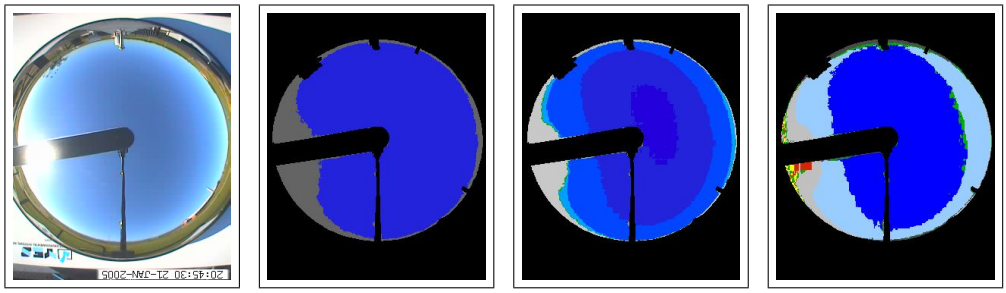
(v) 0501212000 (vi) 0501212000 Long (vii) 0501212000 EGD (viii) 0501212000 MAHA



(ix) 0501212015 (x) 0501212015 Long (xi) 0501212015 EGD (xii) 0501212015 MAHA

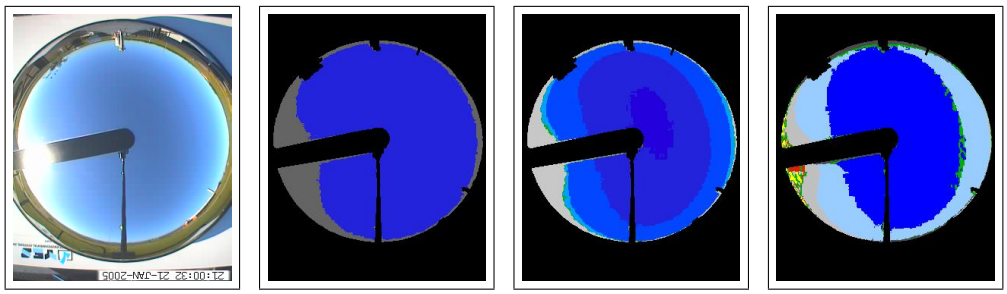


(xiii) 0501212030 (xiv) 0501212030 Long (xv) 0501212030 EGD (xvi) 0501212030 MAHA

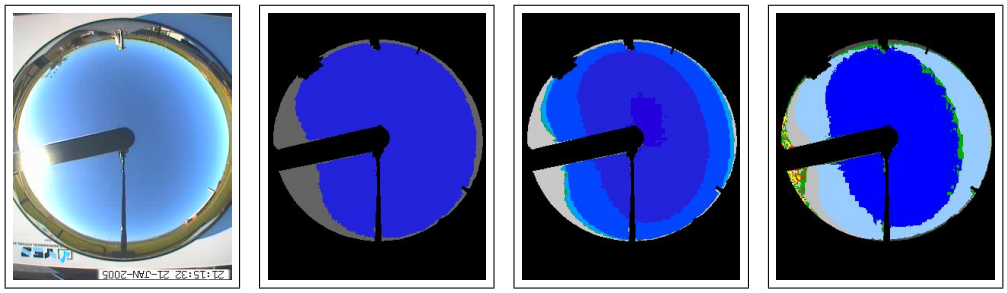


(xvii) 0501212045 (xviii) 0501212045 Long (xix) 0501212045 EGD (xx) 0501212045 MAHA

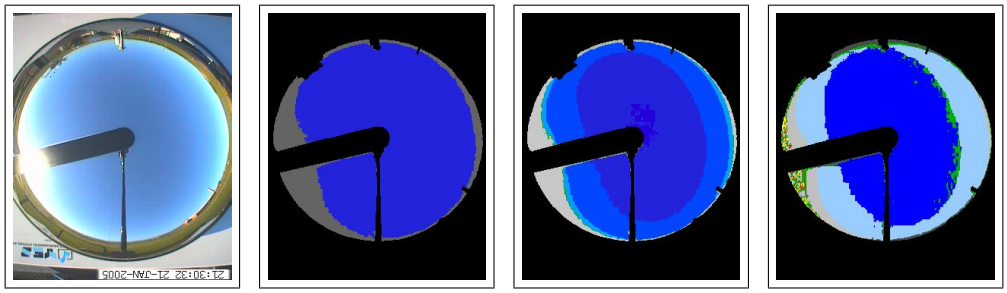
Figure A.236 - Sky images generated from 0501211945 to 0501212045.



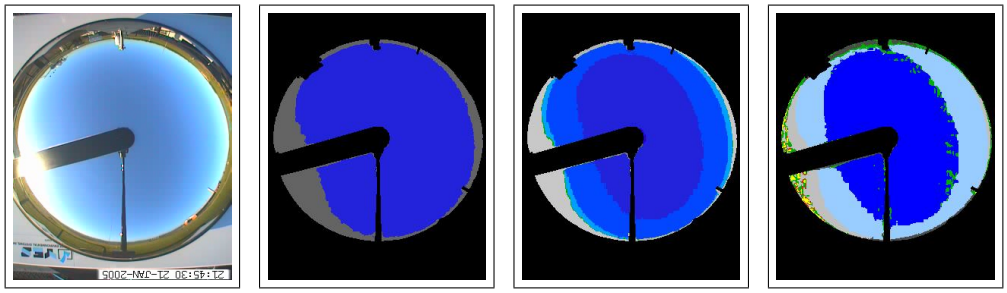
(i) 0501212100 (ii) 0501212100 Long (iii) 0501212100 EGD (iv) 0501212100 MAHA



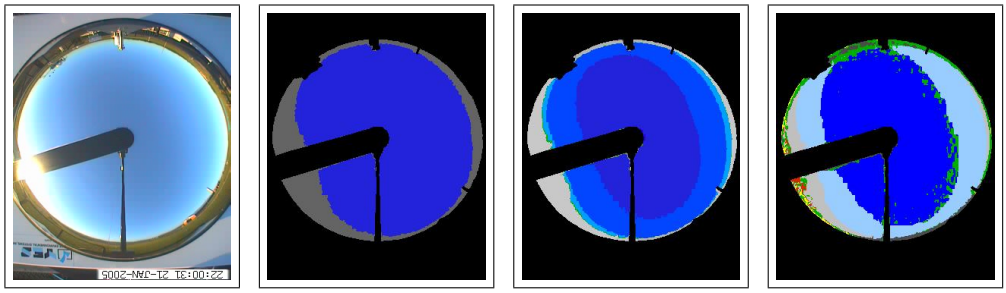
(v) 0501212115 (vi) 0501212115 Long (vii) 0501212115 EGD (viii) 0501212115 MAHA



(ix) 0501212130 (x) 0501212130 Long (xi) 0501212130 EGD (xii) 0501212130 MAHA

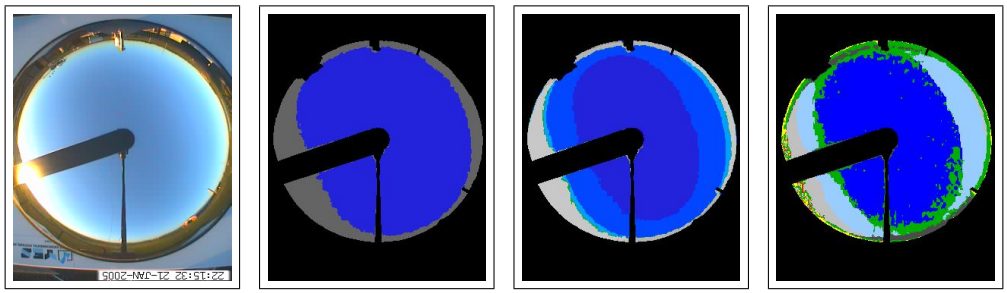


(xiii) 0501212145 (xiv) 0501212145 Long (xv) 0501212145 EGD (xvi) 0501212145 MAHA

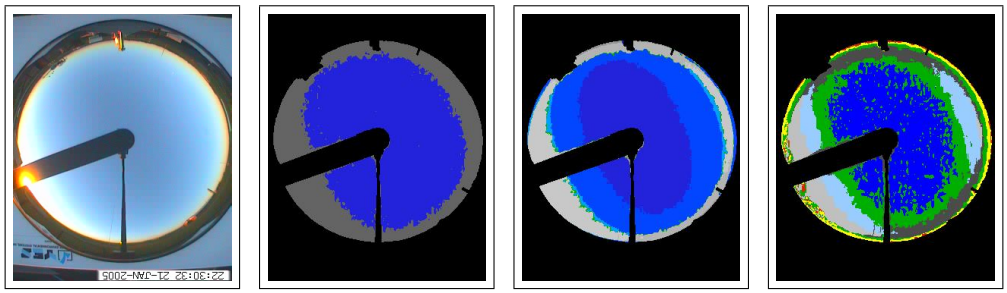


(xvii) 0501212200 (xviii) 0501212200 Long (xix) 0501212200 EGD (xx) 0501212200 MAHA

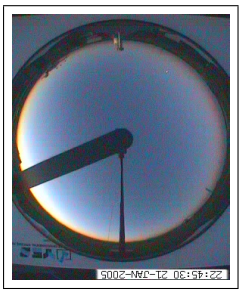
Figure A.237 - Sky images generated from 0501212100 to 0501212200.



(i) 0501212215 (ii) 0501212215 Long (iii) 0501212215 EGD (iv) 0501212215 MAHA

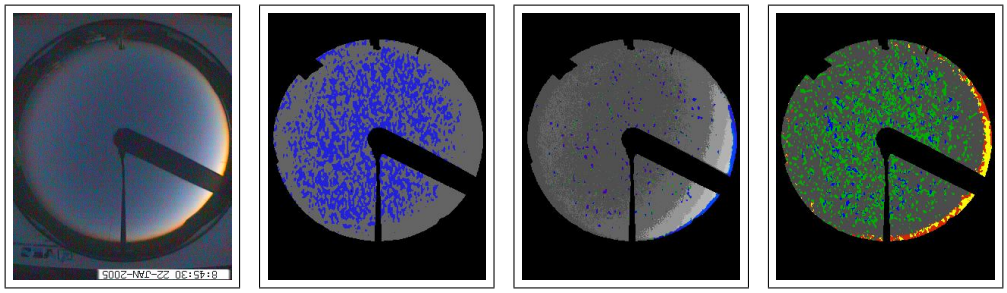


(v) 0501212230 (vi) 0501212230 Long (vii) 0501212230 EGD (viii) 0501212230 MAHA

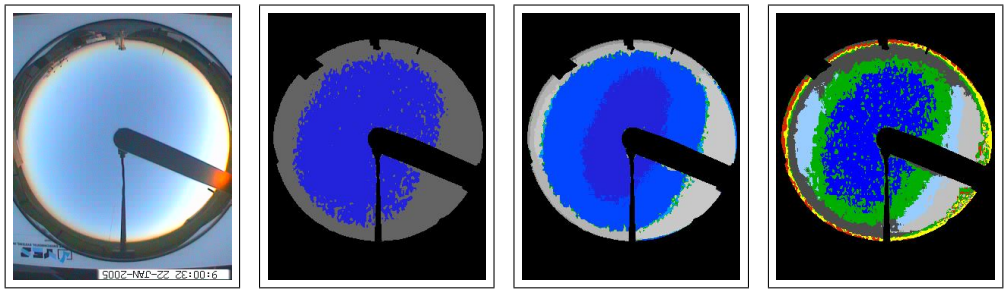


(ix) 0501212245

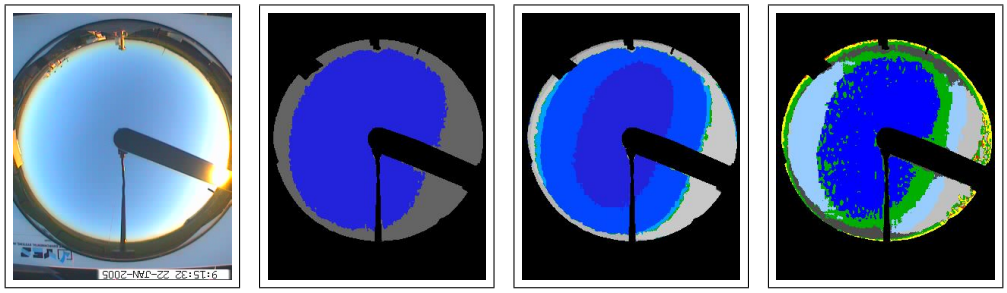
Figure A.238 - Sky images generated from 0501211600 to 0501212245.



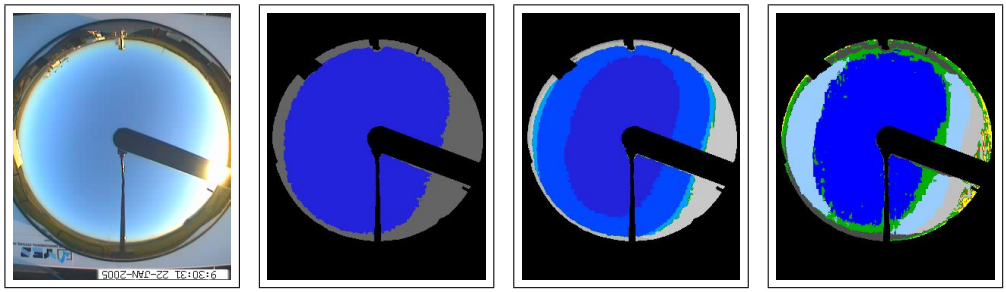
(i) 0501220845 (ii) 0501220845 Long (iii) 0501220845 EGD (iv) 0501220845 MAHA



(v) 0501220900 (vi) 0501220900 Long (vii) 0501220900 EGD (viii) 0501220900 MAHA

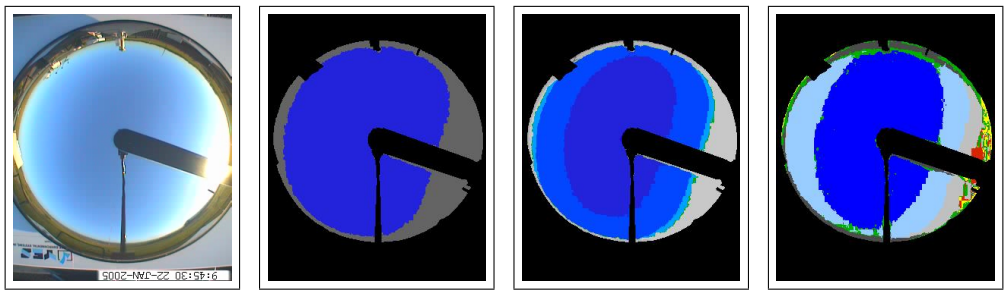


(ix) 0501220915 (x) 0501220915 Long (xi) 0501220915 EGD (xii) 0501220915 MAHA

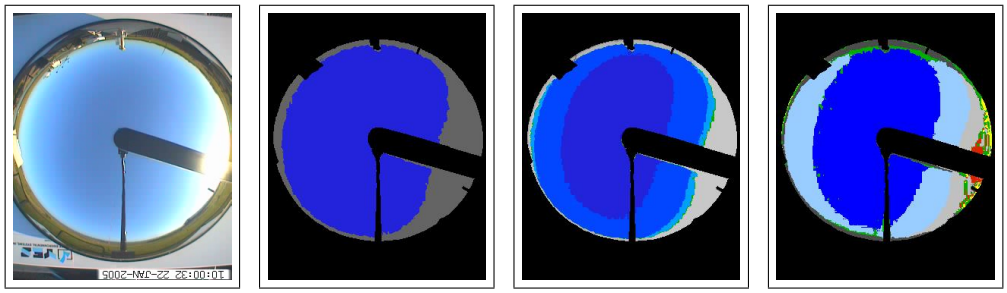


(xiii) 0501220930 (xiv) 0501220930 Long (xv) 0501220930 EGD (xvi) 0501220930 MAHA

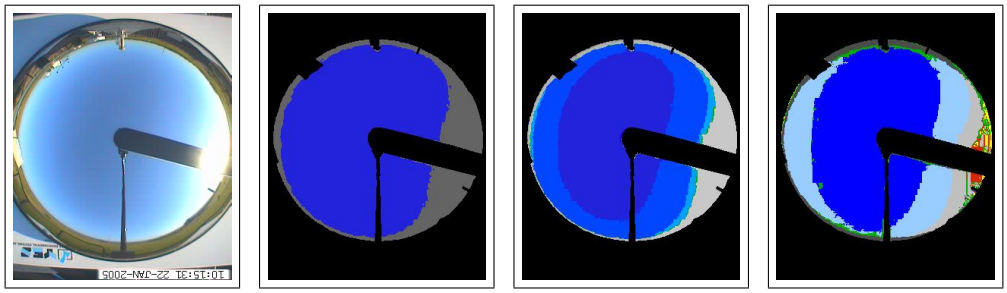
Figure A.239 - Sky images generated from 0501220830 to 0501220930.



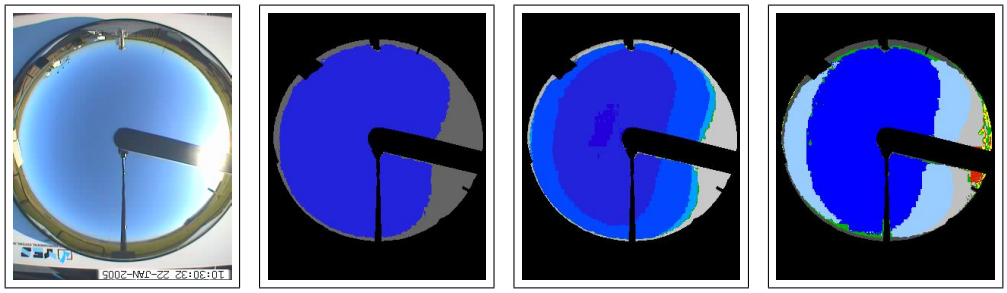
(i) 0501220945 (ii) 0501220945 Long (iii) 0501220945 EGD (iv) 0501220945 MAHA



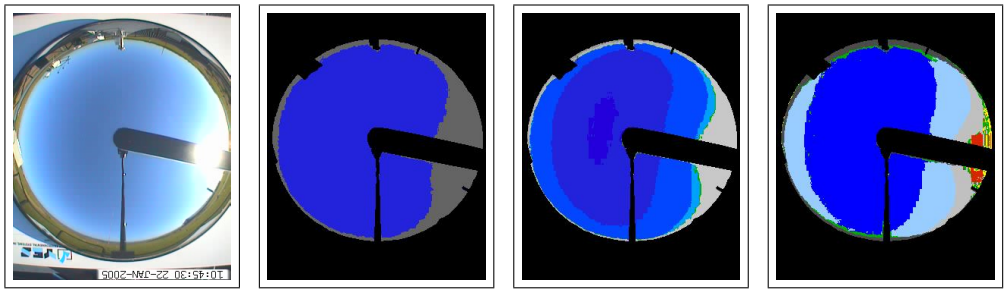
(v) 050122000 (vi) 050122000 Long (vii) 050122000 EGD (viii) 050122000 MAHA



(ix) 0501221015 (x) 0501221015 Long (xi) 0501221015 EGD (xii) 0501221015 MAHA

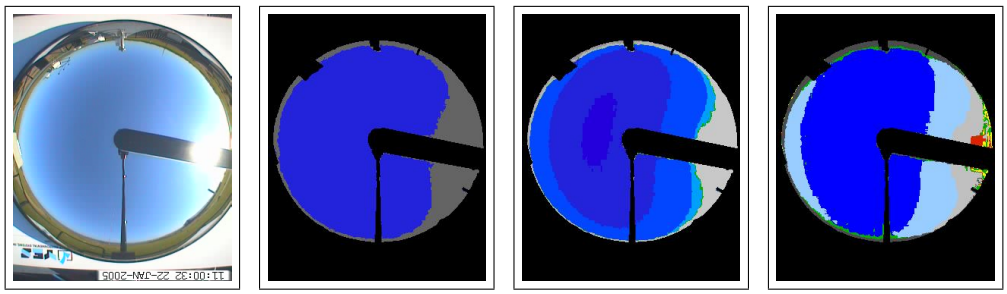


(xiii) 0501221030 (xiv) 0501221030 Long (xv) 0501221030 EGD (xvi) 0501221030 MAHA

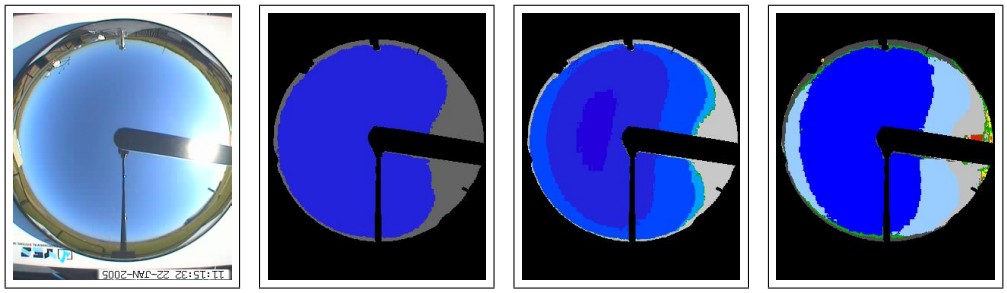


(xvii) 0501221045 (xviii) 0501221045 Long (xix) 0501221045 EGD (xx) 0501221045 MAHA

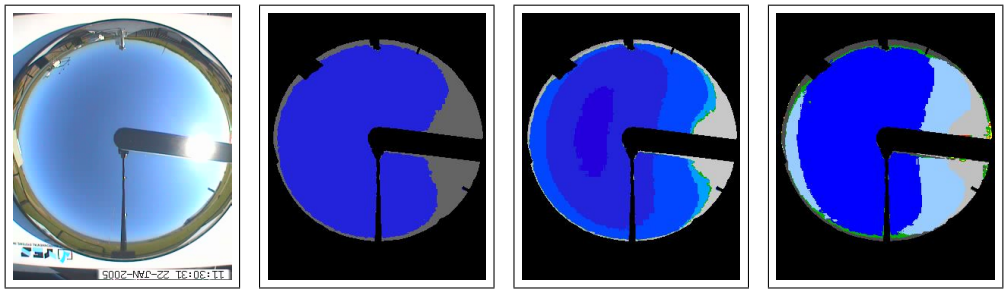
Figure A.240 - Sky images generated from 0501220945 to 0501221045.



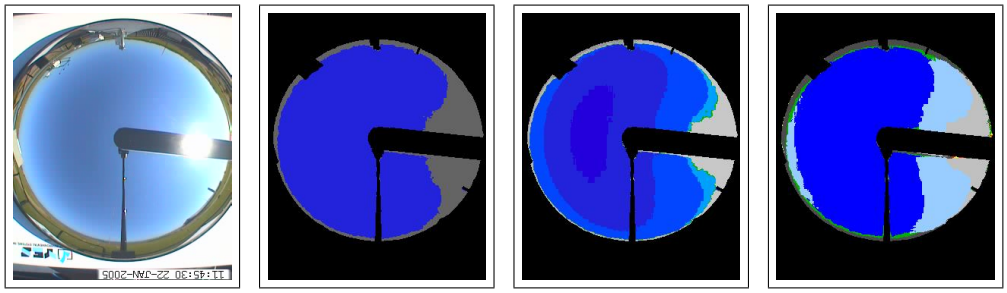
(i) 0501221100 (ii) 0501221100 Long (iii) 0501221100 EGD (iv) 0501221100 MAHA



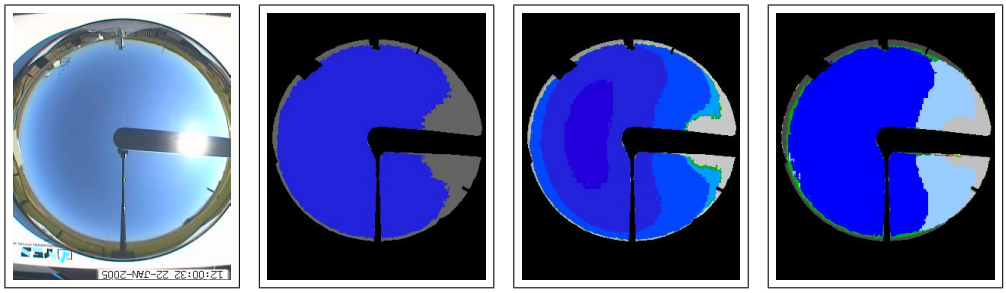
(v) 0501221115 (vi) 0501221115 Long (vii) 0501221115 EGD (viii) 0501221115 MAHA



(ix) 0501221130 (x) 0501221130 Long (xi) 0501221130 EGD (xii) 0501221130 MAHA

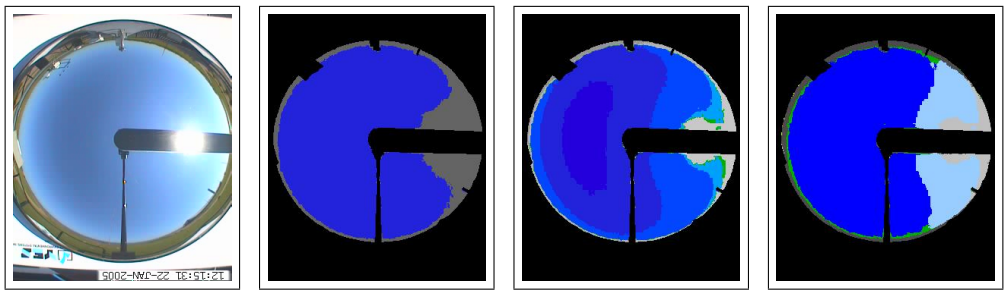


(xiii) 0501221145 (xiv) 0501221145 Long (xv) 0501221145 EGD (xvi) 0501221145 MAHA

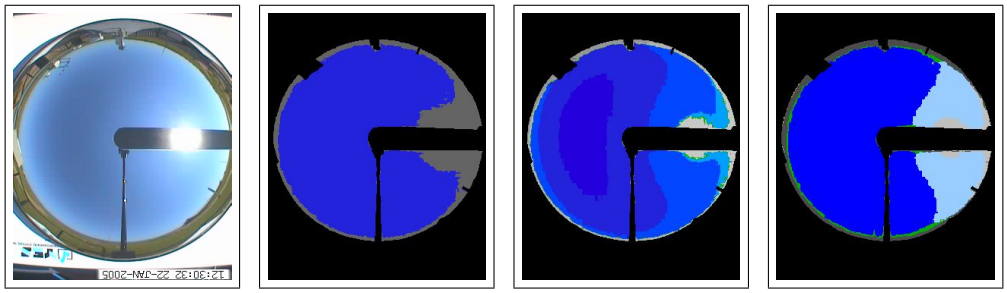


(xvii) 0501221200 (xviii) 0501221200 Long (xix) 0501221200 EGD (xx) 0501221200 MAHA

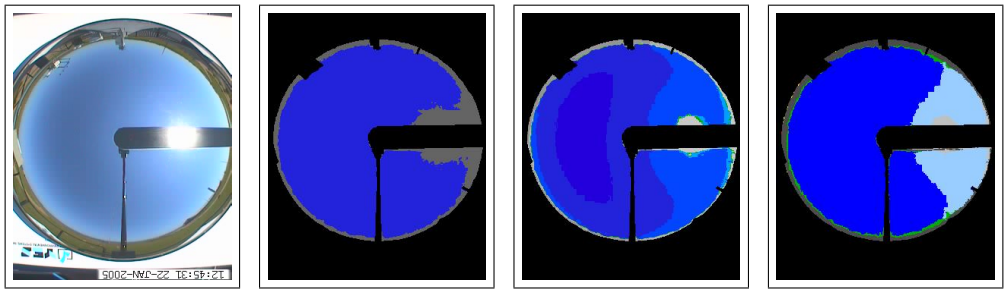
Figure A.241 - Sky images generated from 050122100 to 0501221200.



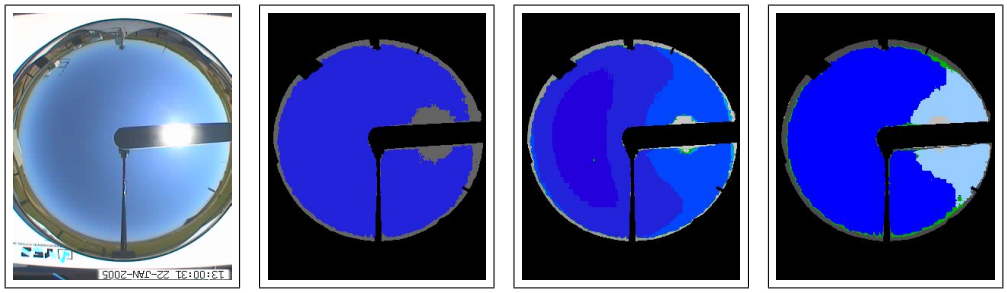
(i) 0501221215 (ii) 0501221215 Long (iii) 0501221215 EGD (iv) 0501221215 MAHA



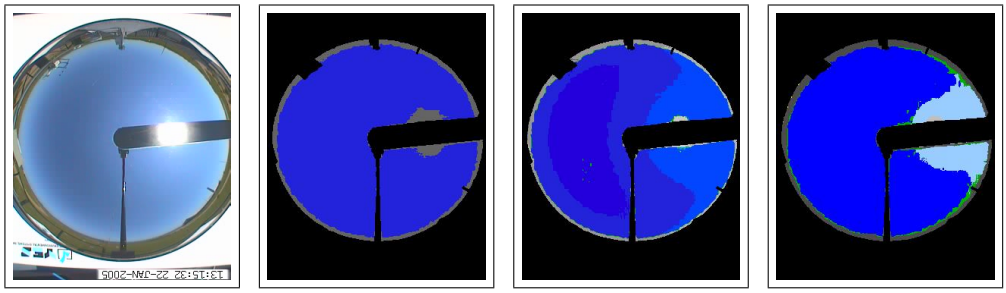
(v) 0501221230 (vi) 0501221230 Long (vii) 0501221230 EGD (viii) 0501221230 MAHA



(ix) 0501221245 (x) 0501221245 Long (xi) 0501221245 EGD (xii) 0501221245 MAHA

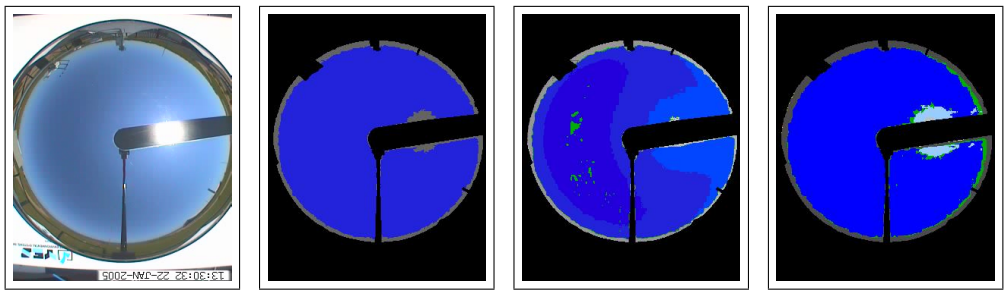


(xiii) 0501221300 (xiv) 0501221300 Long (xv) 0501221300 EGD (xvi) 0501221300 MAHA

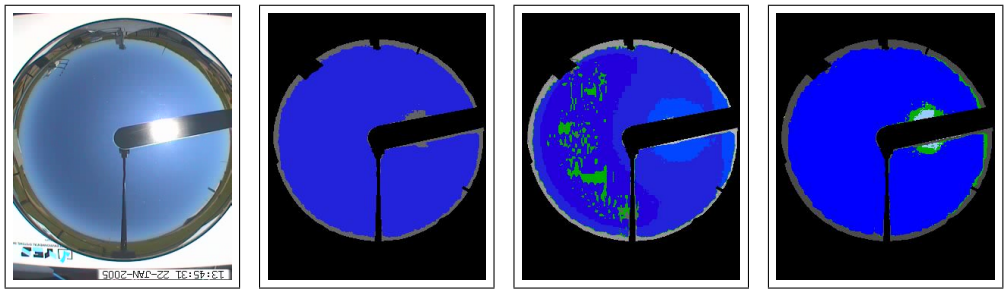


(xvii) 0501221315 (xviii) 0501221315 Long (xix) 0501221315 EGD (xx) 0501221315 MAHA

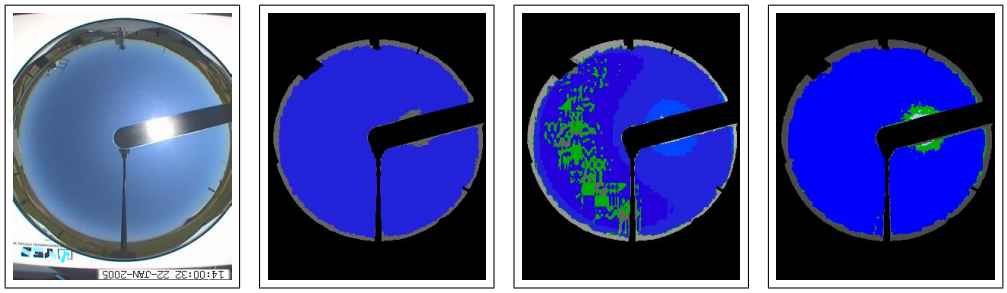
Figure A.242 - Sky images generated from 0501221215 to 0501221315.



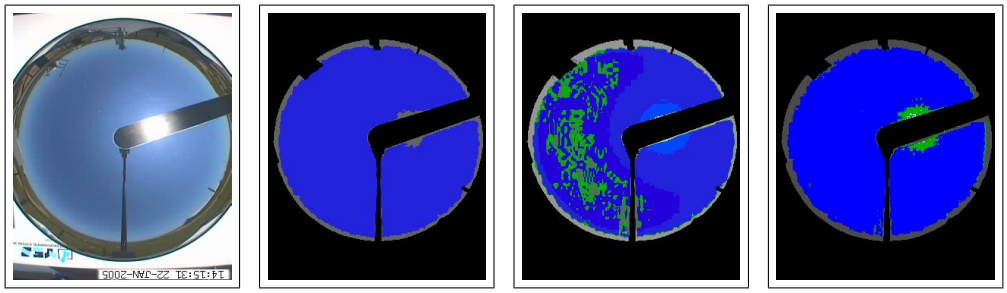
(i) 0501221330 (ii) 0501221330 Long (iii) 0501221330 EGD (iv) 0501221330 MAHA



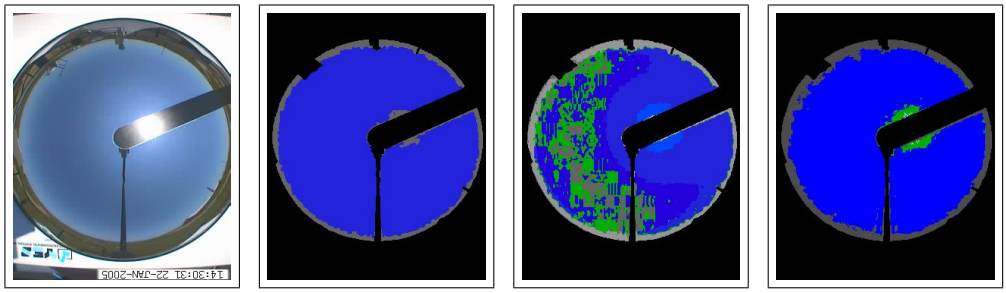
(v) 0501221345 (vi) 0501221345 Long (vii) 0501221345 EGD (viii) 0501221345 MAHA



(ix) 0501221400 (x) 0501221400 Long (xi) 0501221400 EGD (xii) 0501221400 MAHA

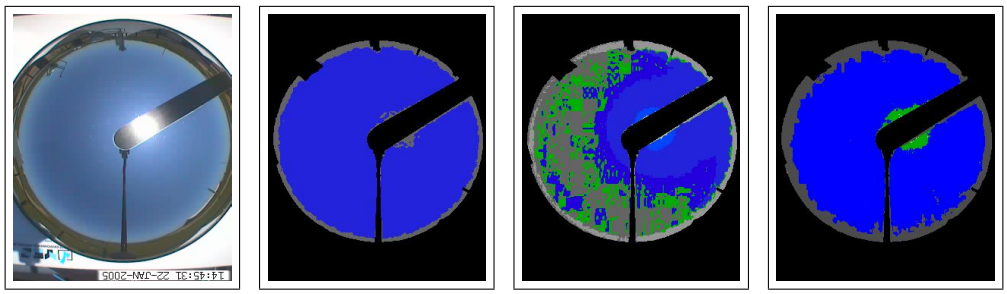


(xiii) 0501221415 (xiv) 0501221415 Long (xv) 0501221415 EGD (xvi) 0501221415 MAHA

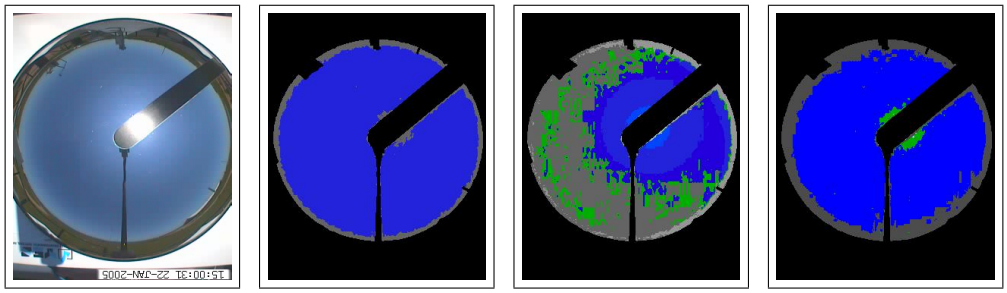


(xvii) 0501221430 (xviii) 0501221430 Long (xix) 0501221430 EGD (xx) 0501221430 MAHA

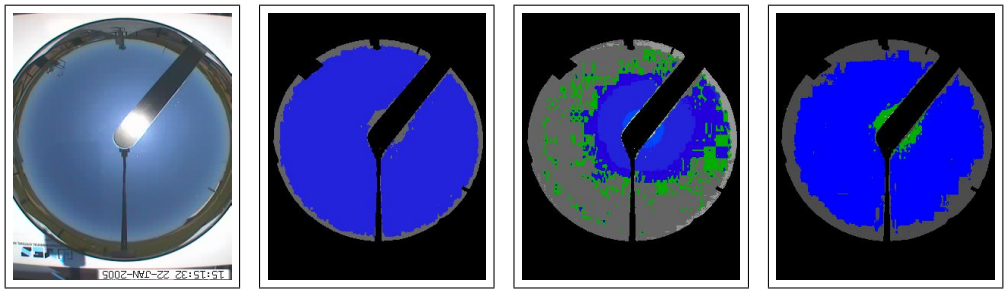
Figure A.243 - Sky images generated from 0501221330 to 0501221430.



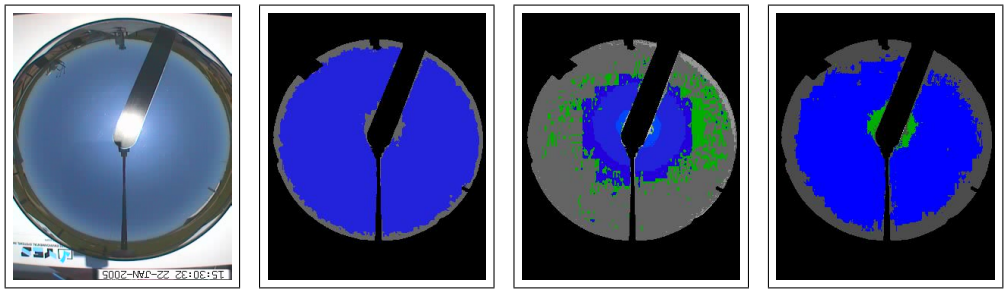
(i) 0501221445 (ii) 0501221445 Long (iii) 0501221445 EGD (iv) 0501221445 MAHA



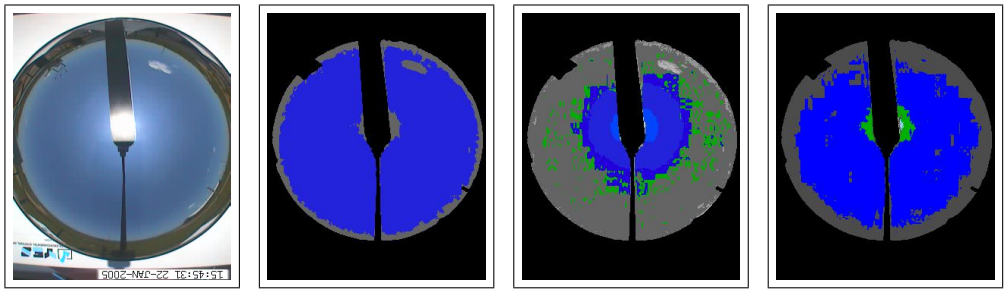
(v) 0501221500 (vi) 0501221500 Long (vii) 0501221500 EGD (viii) 0501221500 MAHA



(ix) 0501221515 (x) 0501221515 Long (xi) 0501221515 EGD (xii) 0501221515 MAHA

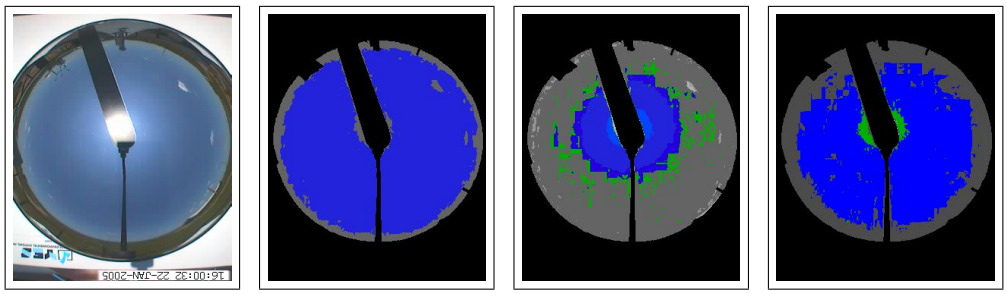


(xiii) 0501221530 (xiv) 0501221530 Long (xv) 0501221530 EGD (xvi) 0501221530 MAHA

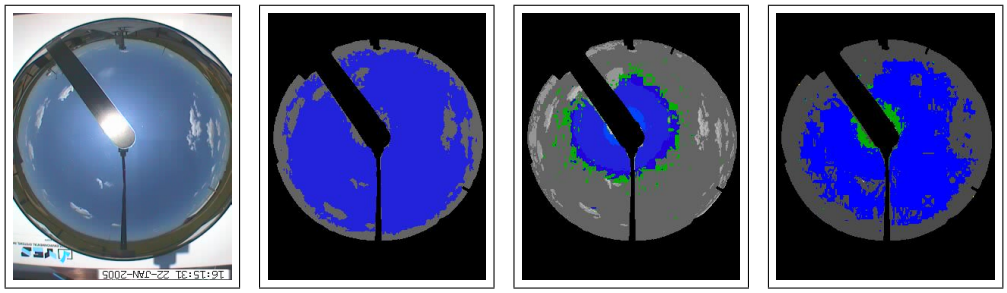


(xvii) 0501221545 (xviii) 0501221545 Long (xix) 0501221545 EGD (xx) 0501221545 MAHA

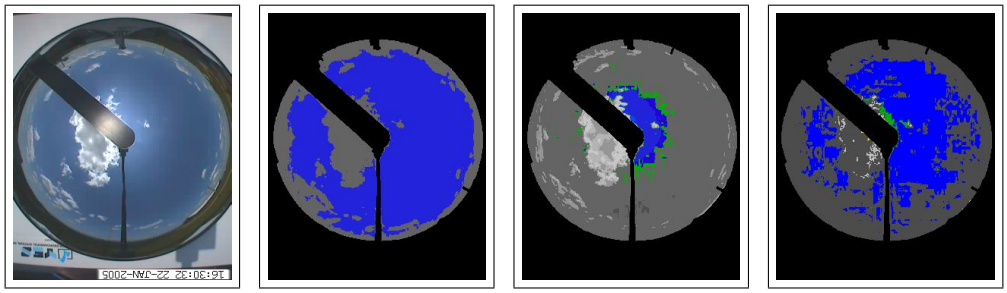
Figure A.244 - Sky images generated from 0501221445 to 0501221545.



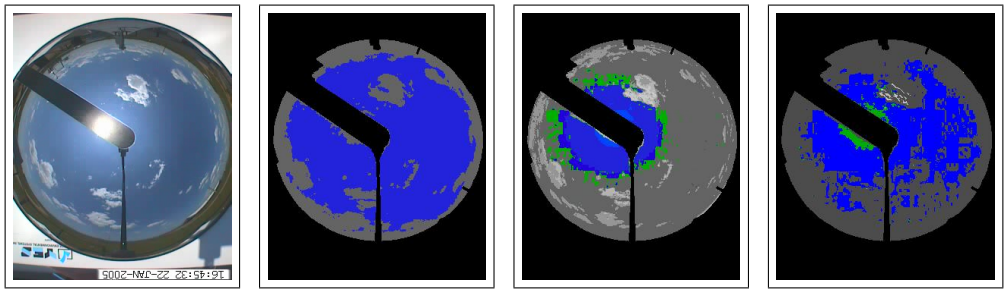
(i) 0501221600 (ii) 0501221600 Long (iii) 0501221600 EGD (iv) 0501221600 MAHA



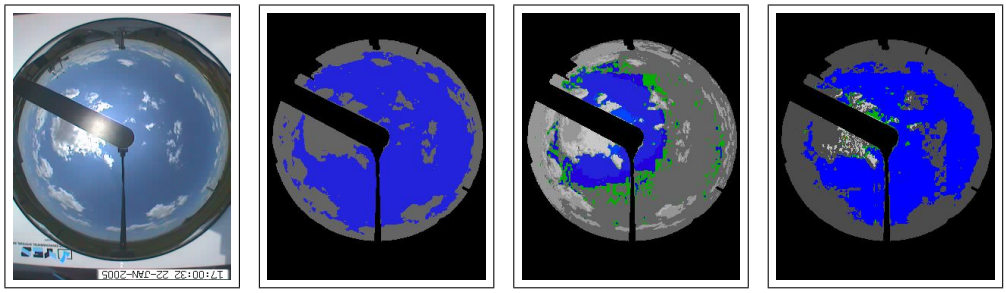
(v) 0501221615 (vi) 0501221615 Long (vii) 0501221615 EGD (viii) 0501221615 MAHA



(ix) 0501221630 (x) 0501221630 Long (xi) 0501221630 EGD (xii) 0501221630 MAHA

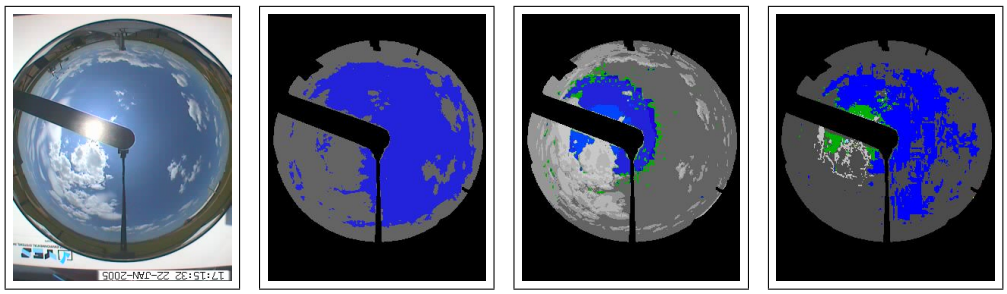


(xiii) 0501221645 (xiv) 0501221645 Long (xv) 0501221645 EGD (xvi) 0501221645 MAHA

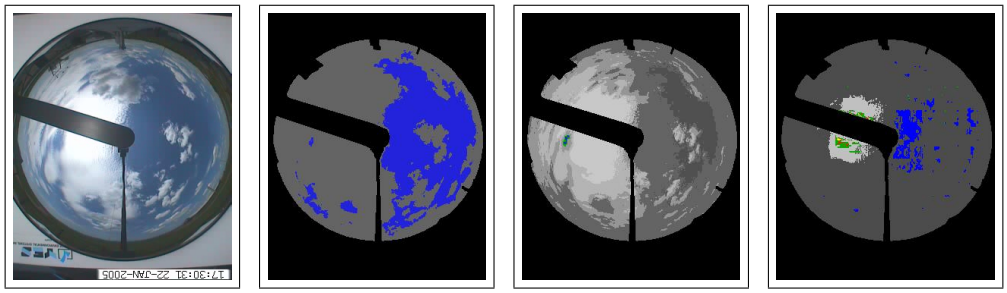


(xvii) 0501221700 (xviii) 0501221700 Long (xix) 0501221700 EGD (xx) 0501221700 MAHA

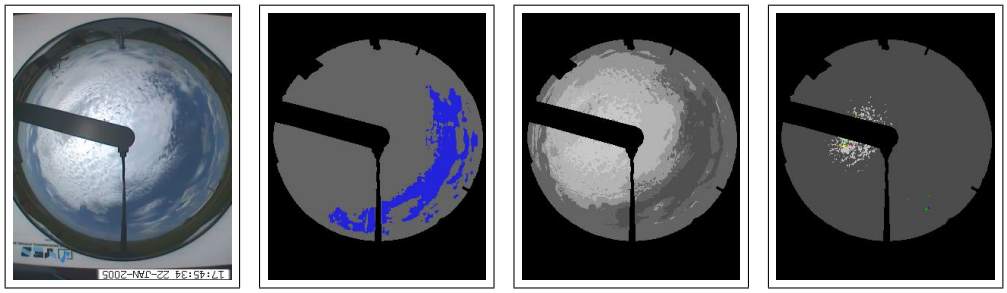
Figure A.245 - Sky images generated from 0501221600 to 0501221700.



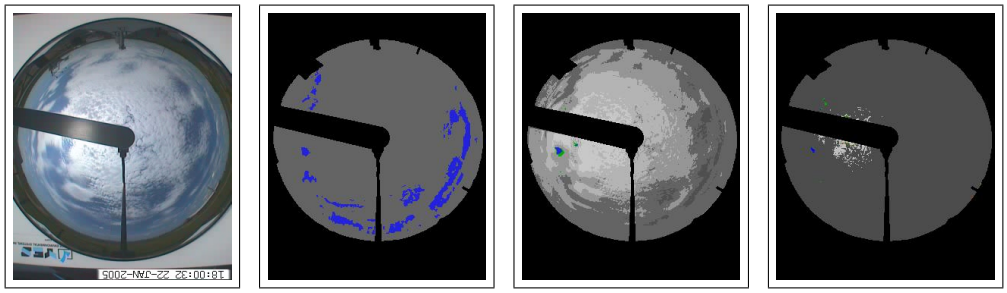
(i) 0501221715 (ii) 0501221715 Long (iii) 0501221715 EGD (iv) 0501221715 MAHA



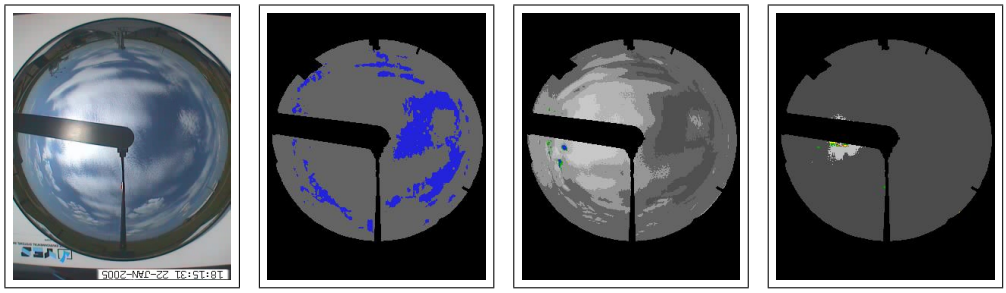
(v) 0501221730 (vi) 0501221730 Long (vii) 0501221730 EGD (viii) 0501221730 MAHA



(ix) 0501221745 (x) 0501221745 Long (xi) 0501221745 EGD (xii) 0501221745 MAHA

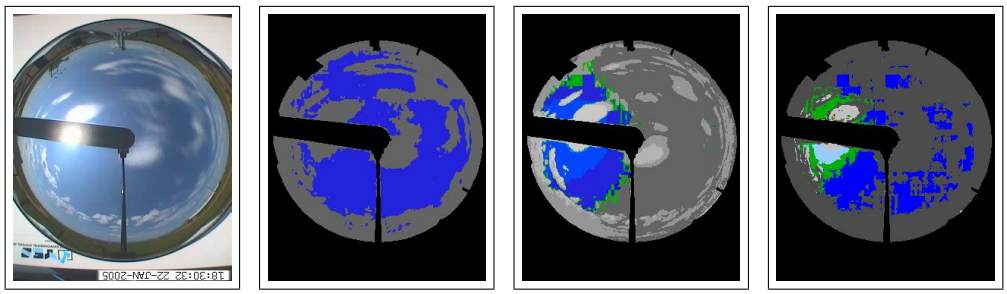


(xiii) 0501221800 (xiv) 0501221800 Long (xv) 0501221800 EGD (xvi) 0501221800 MAHA

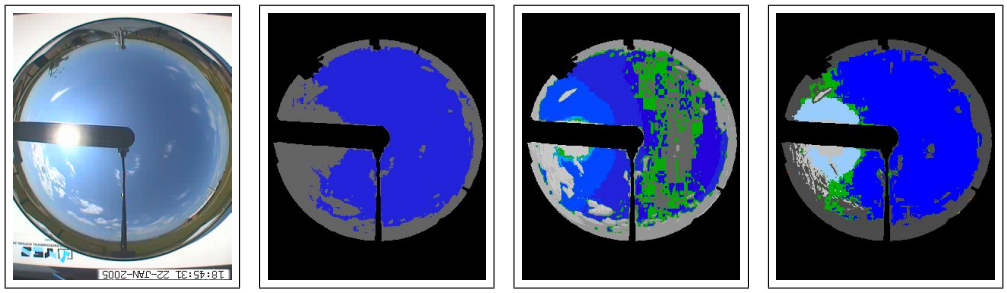


(xvii) 0501221815 (xviii) 0501221815 Long (xix) 0501221815 EGD (xx) 0501221815 MAHA

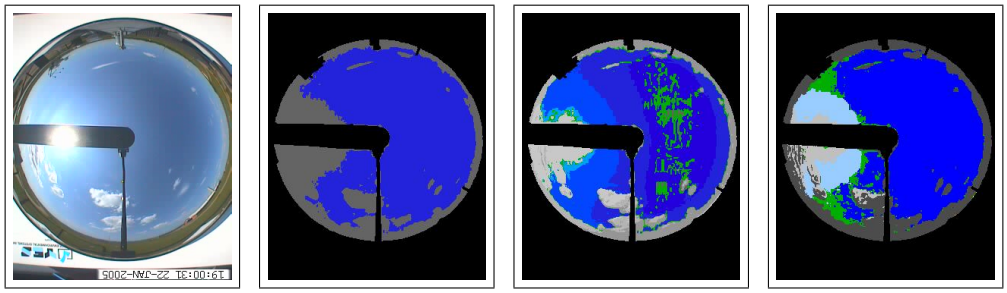
Figure A.246 - Sky images generated from 0501221715 to 0501221815.



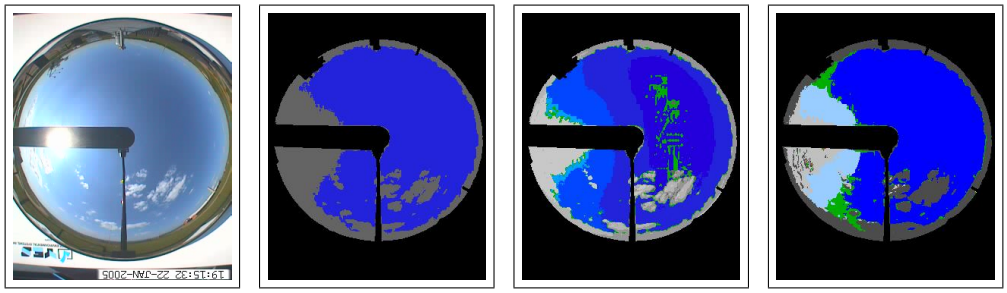
(i) 0501221830 (ii) 0501221830 Long (iii) 0501221830 EGD (iv) 0501221830 MAHA



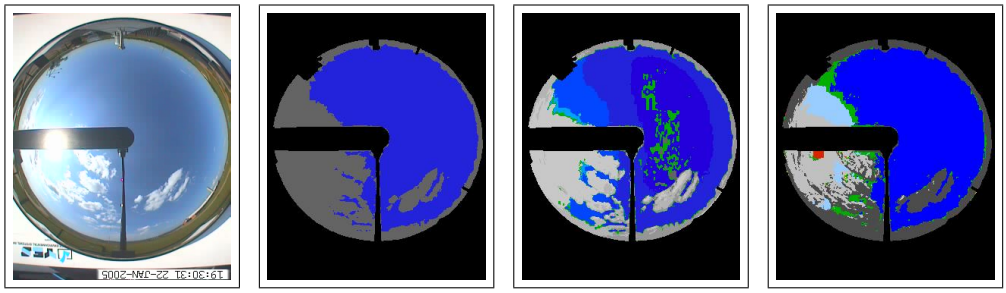
(v) 0501221845 (vi) 0501221845 Long (vii) 0501221845 EGD (viii) 0501221845 MAHA



(ix) 0501221900 (x) 0501221900 Long (xi) 0501221900 EGD (xii) 0501221900 MAHA

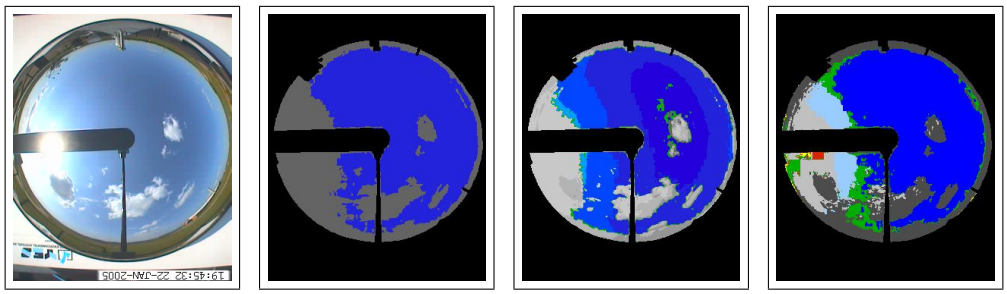


(xiii) 0501221915 (xiv) 0501221915 Long (xv) 0501221915 EGD (xvi) 0501221915 MAHA

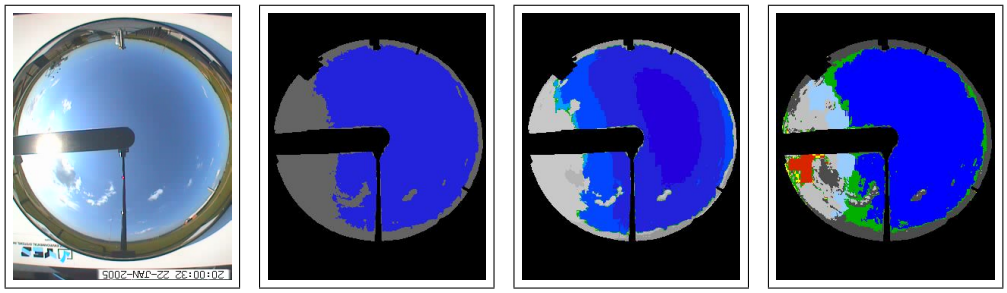


(xvii) 0501221930 (xviii) 0501221930 Long (xix) 0501221930 EGD (xx) 0501221930 MAHA

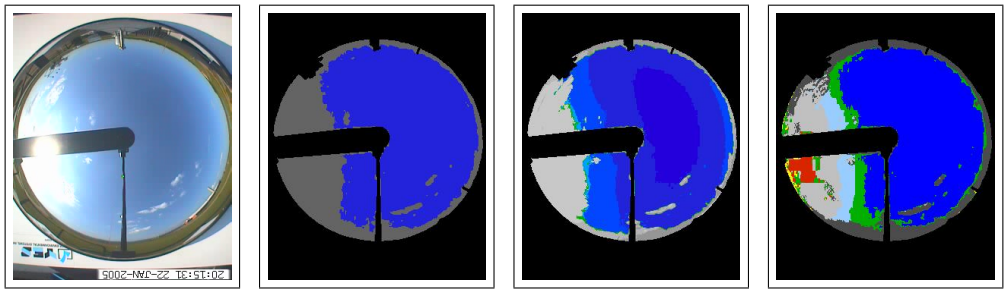
Figure A.247 - Sky images generated from 0501221830 to 0501221930.



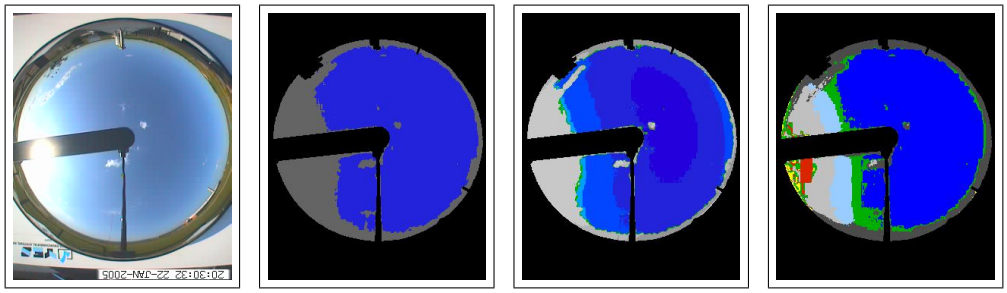
(i) 0501221945 (ii) 0501221945 Long (iii) 0501221945 EGD (iv) 0501221945 MAHA



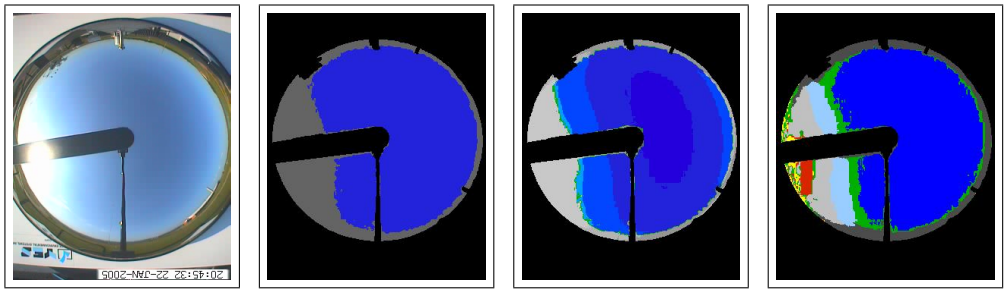
(v) 0501222000 (vi) 0501222000 Long (vii) 0501222000 EGD (viii) 0501222000 MAHA



(ix) 0501222015 (x) 0501222015 Long (xi) 0501222015 EGD (xii) 0501222015 MAHA

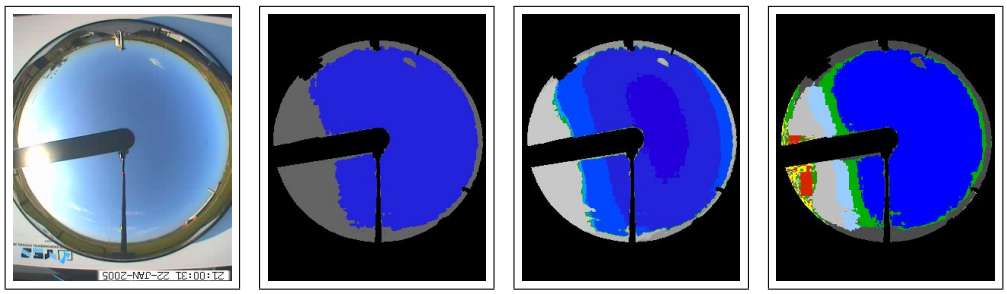


(xiii) 0501222030 (xiv) 0501222030 Long (xv) 0501222030 EGD (xvi) 0501222030 MAHA

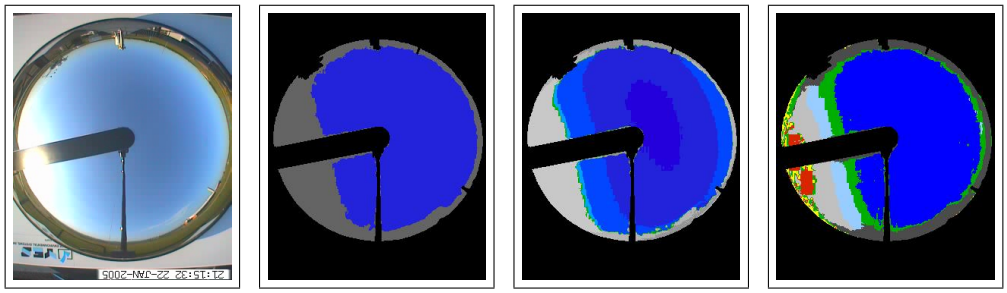


(xvii) 0501222045 (xviii) 0501222045 Long (xix) 0501222045 EGD (xx) 0501222045 MAHA

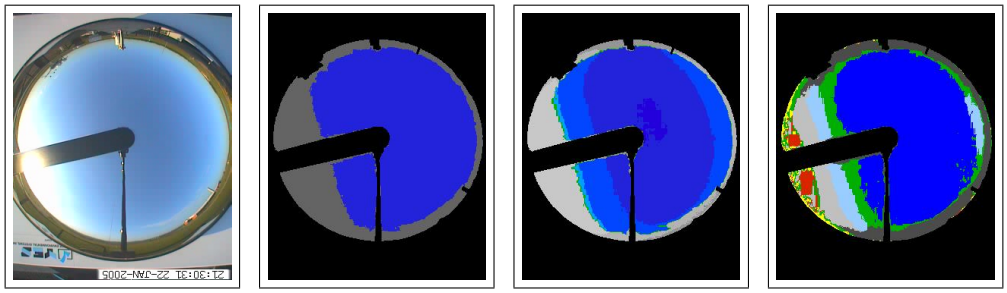
Figure A.248 - Sky images generated from 0501221945 to 0501222045.



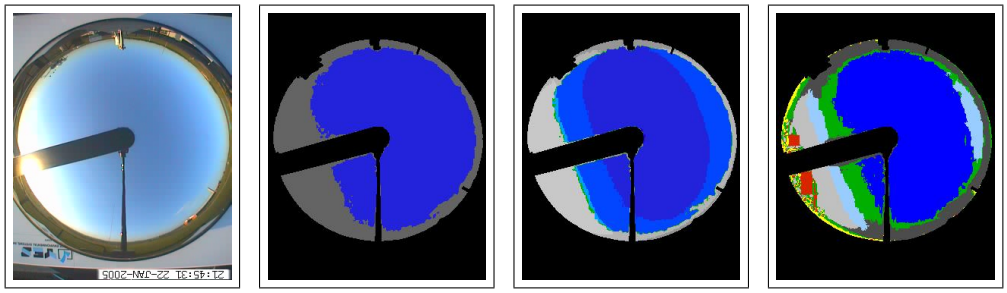
(i) 0501222100 (ii) 0501222100 Long (iii) 0501222100 EGD (iv) 0501222100 MAHA



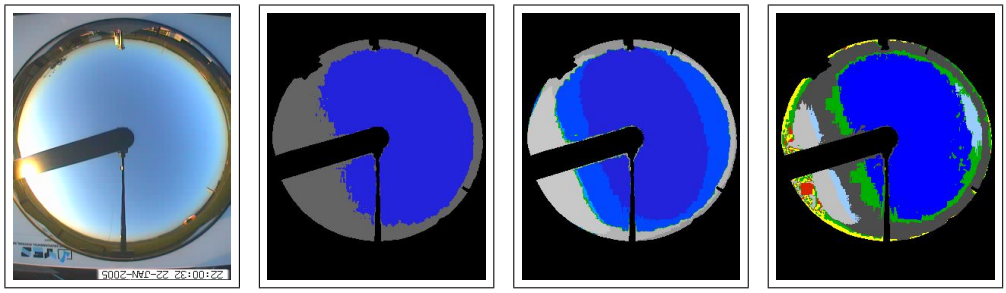
(v) 0501222115 (vi) 0501222115 Long (vii) 0501222115 EGD (viii) 0501222115 MAHA



(ix) 0501222130 (x) 0501222130 Long (xi) 0501222130 EGD (xii) 0501222130 MAHA

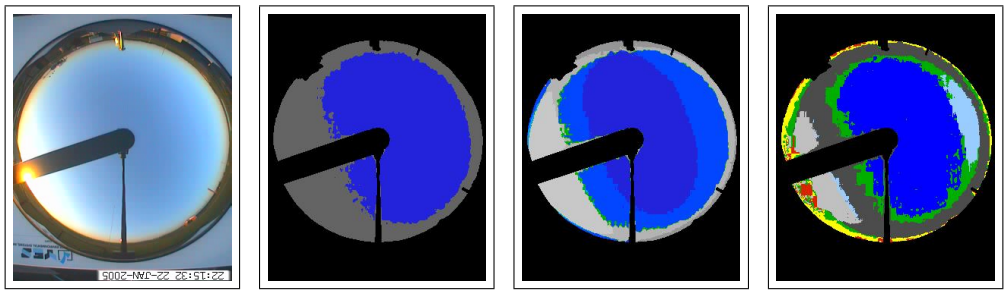


(xiii) 0501222145 (xiv) 0501222145 Long (xv) 0501222145 EGD (xvi) 0501222145 MAHA

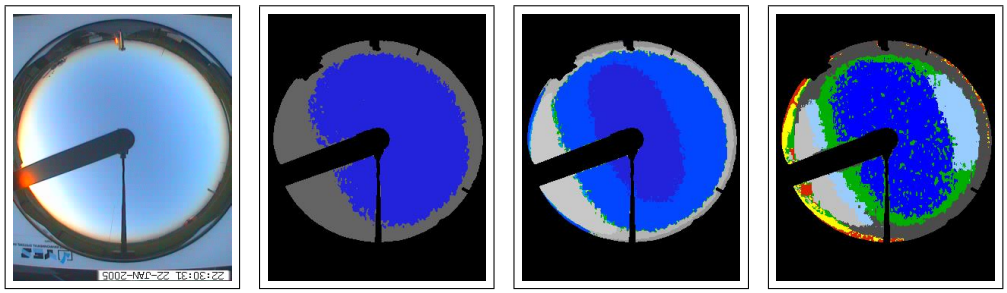


(xvii) 0501222200 (xviii) 0501222200 Long (xix) 0501222200 EGD (xx) 0501222200 MAHA

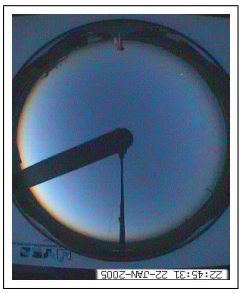
Figure A.249 - Sky images generated from 0501222100 to 0501222200.



(i) 0501222215 (ii) 0501222215 Long (iii) 0501222215 EGD (iv) 0501222215 MAHA

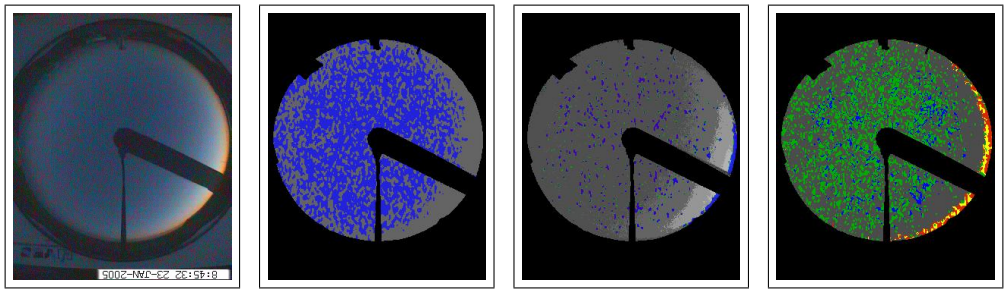


(v) 0501222230 (vi) 0501222230 Long (vii) 0501222230 EGD (viii) 0501222230 MAHA

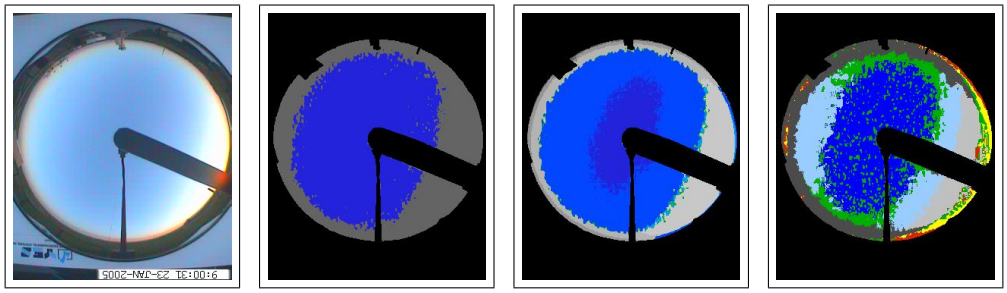


(ix) 0501222245

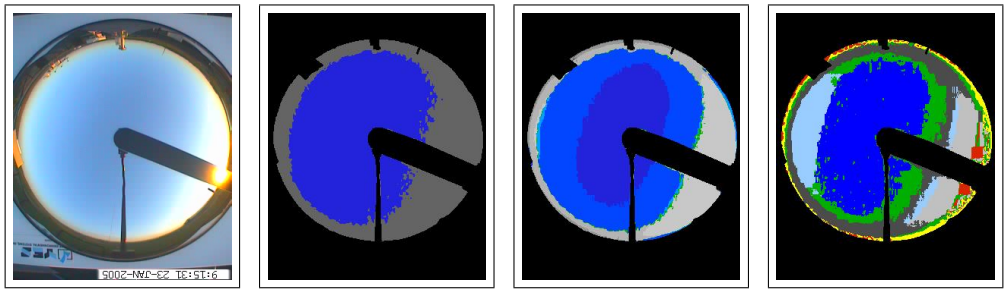
Figure A.250 - Sky images generated from 0501221600 to 0501222245.



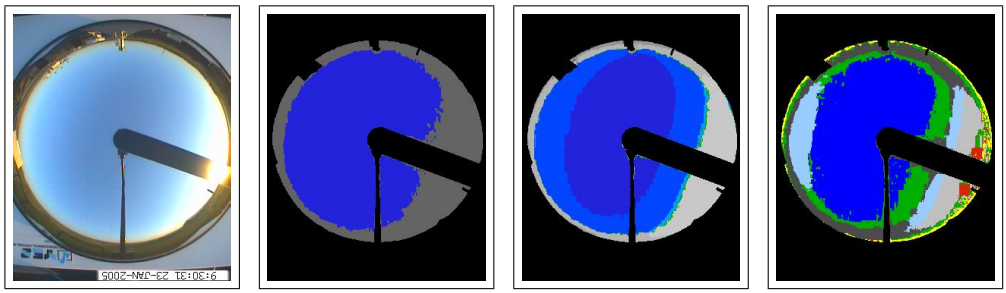
(i) 0501230845 (ii) 0501230845 Long (iii) 0501230845 EGD (iv) 0501230845 MAHA



(v) 0501230900 (vi) 0501230900 Long (vii) 0501230900 EGD (viii) 0501230900 MAHA

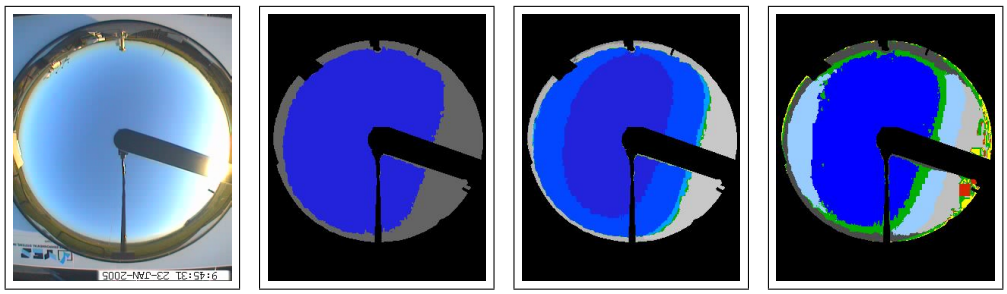


(ix) 0501230915 (x) 0501230915 Long (xi) 0501230915 EGD (xii) 0501230915 MAHA

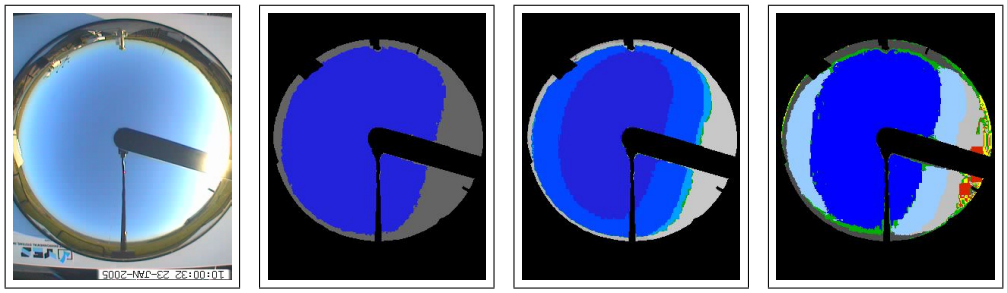


(xiii) 0501230930 (xiv) 0501230930 Long (xv) 0501230930 EGD (xvi) 0501230930 MAHA

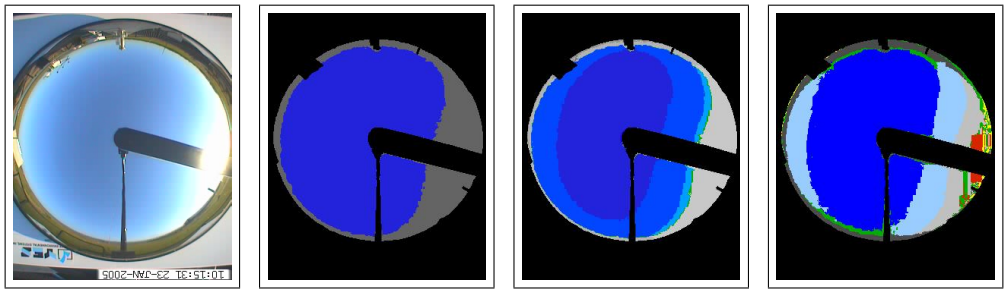
Figure A.251 - Sky images generated from 0501230845 to 0501230930.



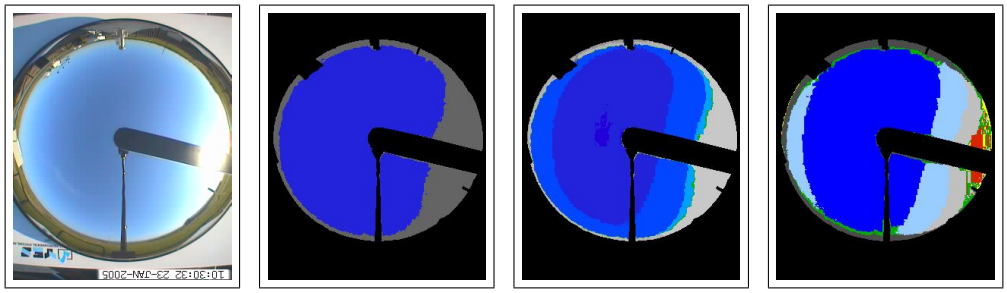
(i) 0501230945 (ii) 0501230945 Long (iii) 0501230945 EGD (iv) 0501230945 MAHA



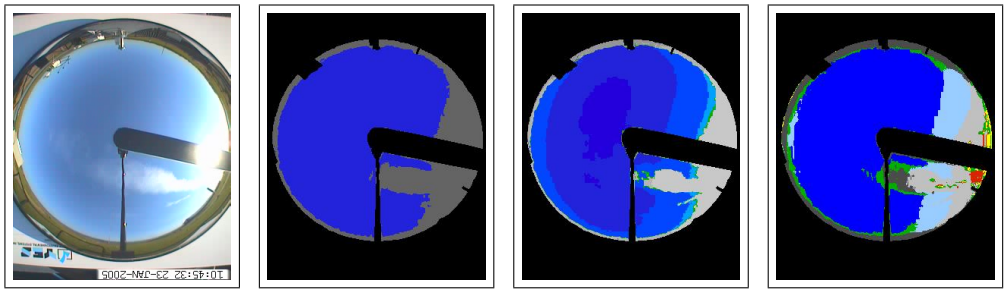
(v) 050123000 (vi) 050123000 Long (vii) 050123000 EGD (viii) 050123000 MAHA



(ix) 0501231015 (x) 0501231015 Long (xi) 0501231015 EGD (xii) 0501231015 MAHA

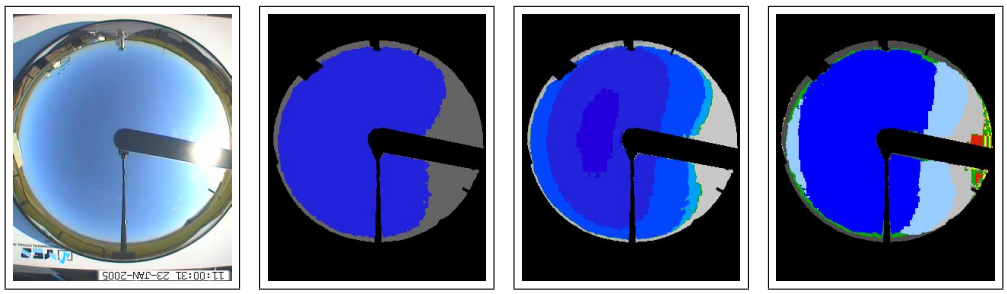


(xiii) 0501231030 (xiv) 0501231030 Long (xv) 0501231030 EGD (xvi) 0501231030 MAHA

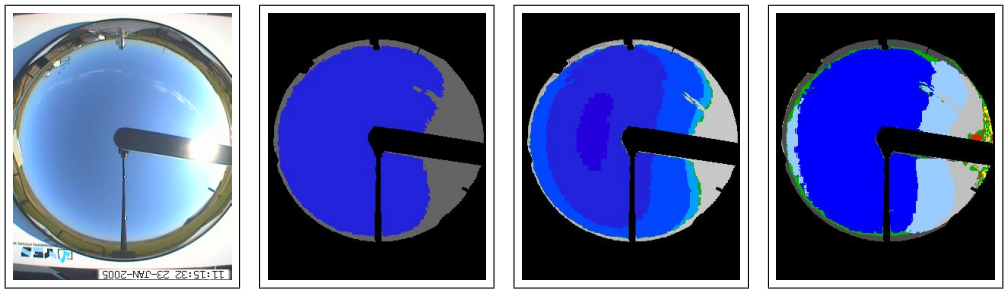


(xvii) 0501231045 (xviii) 0501231045 Long (xix) 0501231045 EGD (xx) 0501231045 MAHA

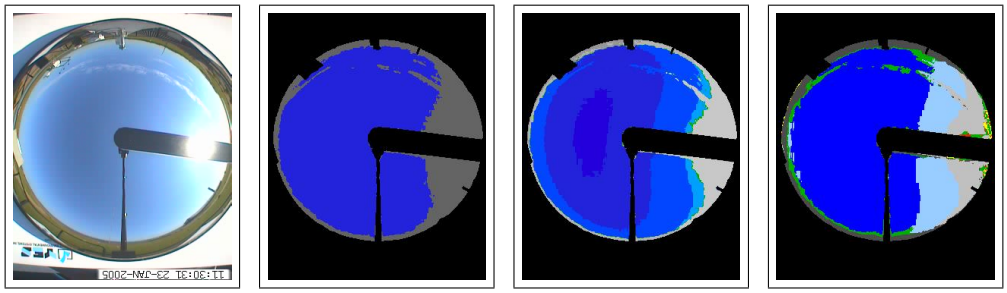
Figure A.252 - Sky images generated from 0501230945 to 0501231045.



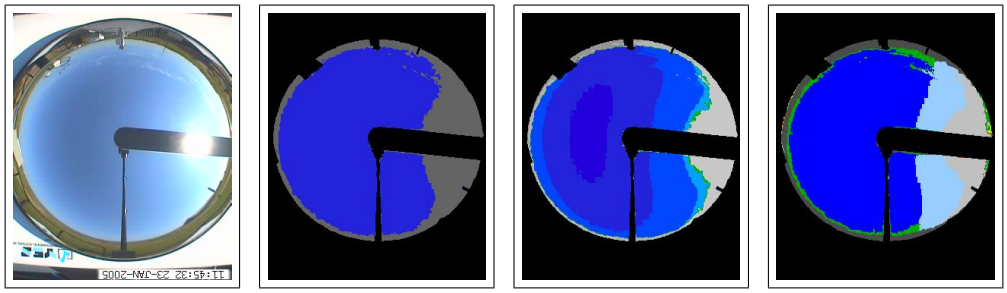
(i) 0501231100 (ii) 0501231100 Long (iii) 0501231100 EGD (iv) 0501231100 MAHA



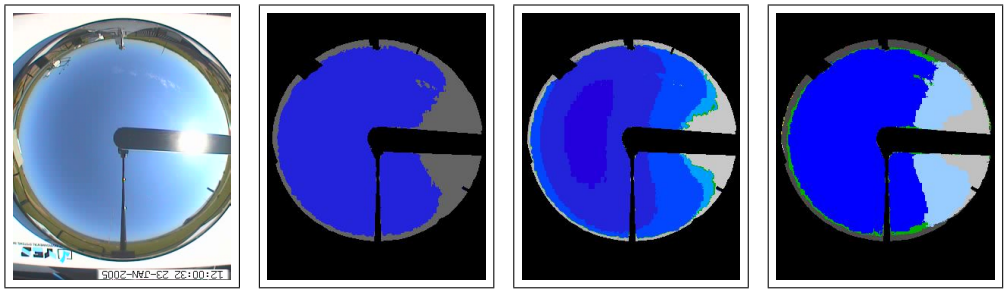
(v) 0501231115 (vi) 0501231115 Long (vii) 0501231115 EGD (viii) 0501231115 MAHA



(ix) 0501231130 (x) 0501231130 Long (xi) 0501231130 EGD (xii) 0501231130 MAHA

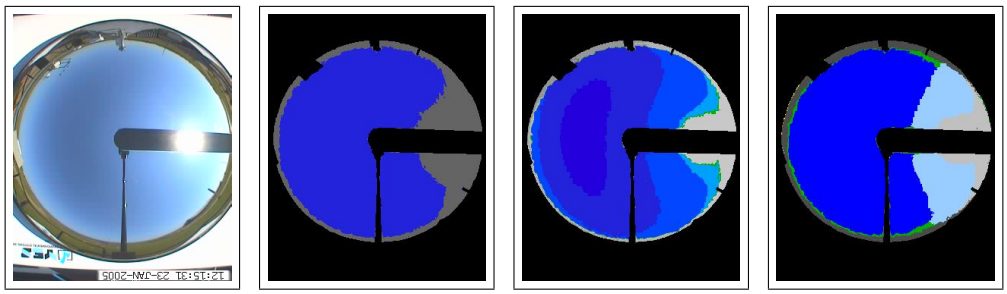


(xiii) 0501231145 (xiv) 0501231145 Long (xv) 0501231145 EGD (xvi) 0501231145 MAHA

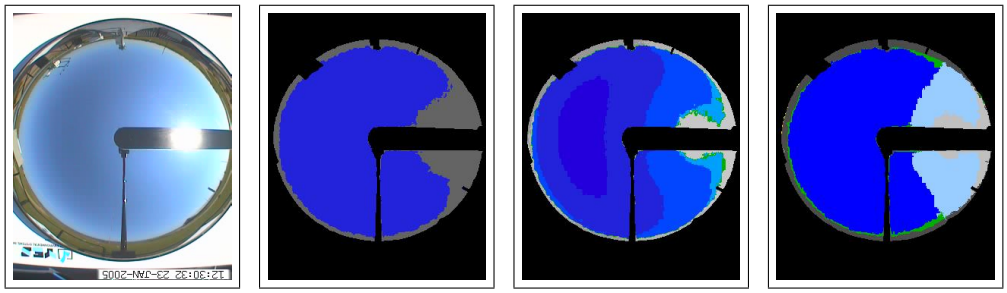


(xvii) 0501231200 (xviii) 0501231200 Long (xix) 0501231200 EGD (xx) 0501231200 MAHA

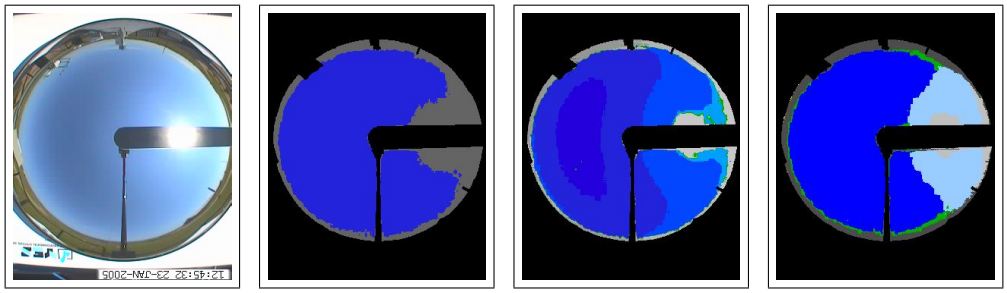
Figure A.253 - Sky images generated from 050123100 to 0501231200.



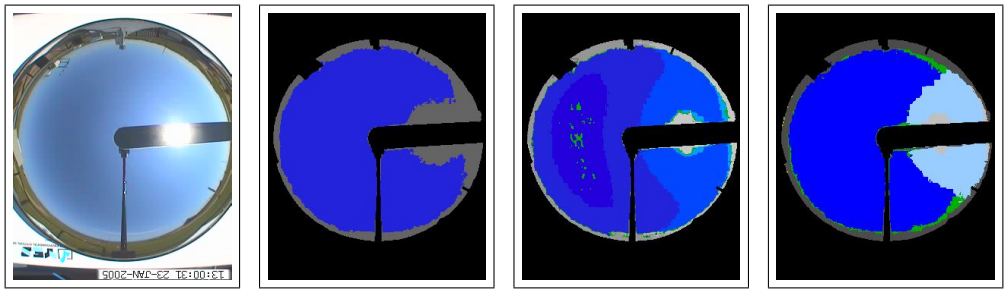
(i) 0501231215 (ii) 0501231215 Long (iii) 0501231215 EGD (iv) 0501231215 MAHA



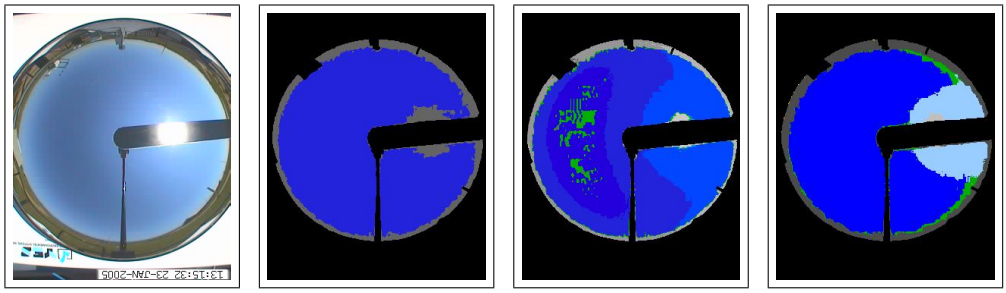
(v) 0501231230 (vi) 0501231230 Long (vii) 0501231230 EGD (viii) 0501231230 MAHA



(ix) 0501231245 (x) 0501231245 Long (xi) 0501231245 EGD (xii) 0501231245 MAHA

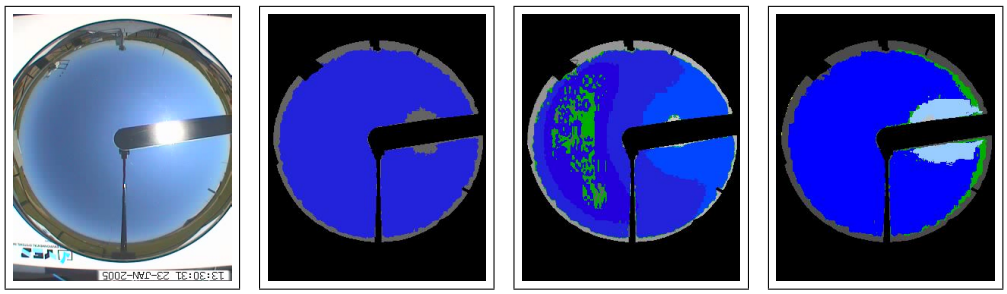


(xiii) 0501231300 (xiv) 0501231300 Long (xv) 0501231300 EGD (xvi) 0501231300 MAHA

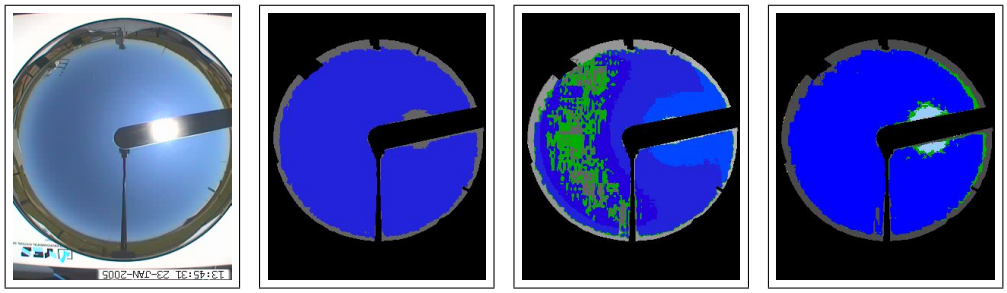


(xvii) 0501231315 (xviii) 0501231315 Long (xix) 0501231315 EGD (xx) 0501231315 MAHA

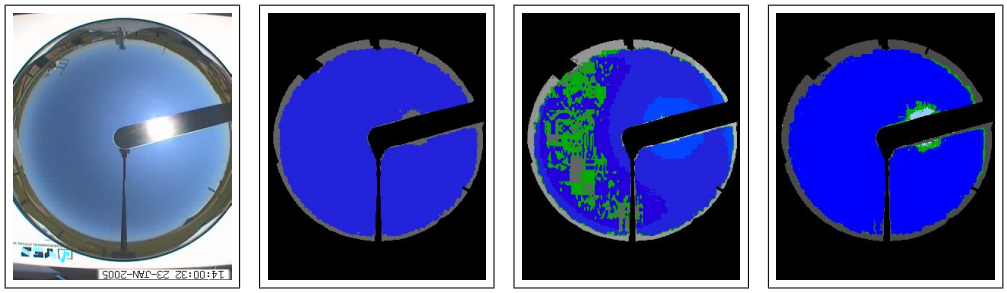
Figure A.254 - Sky images generated from 0501231215 to 0501231315.



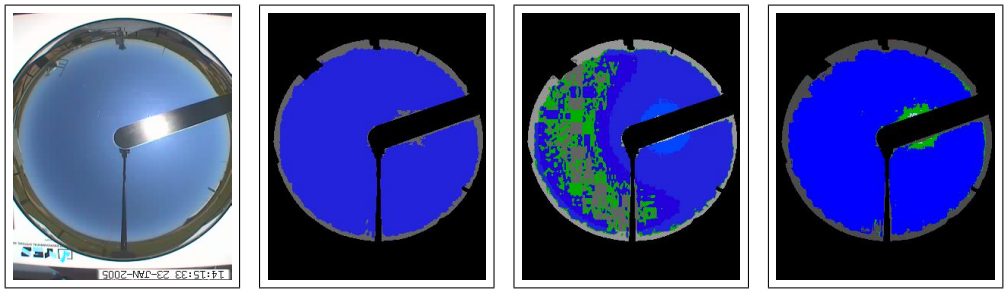
(i) 0501231330 (ii) 0501231330 Long (iii) 0501231330 EGD (iv) 0501231330 MAHA



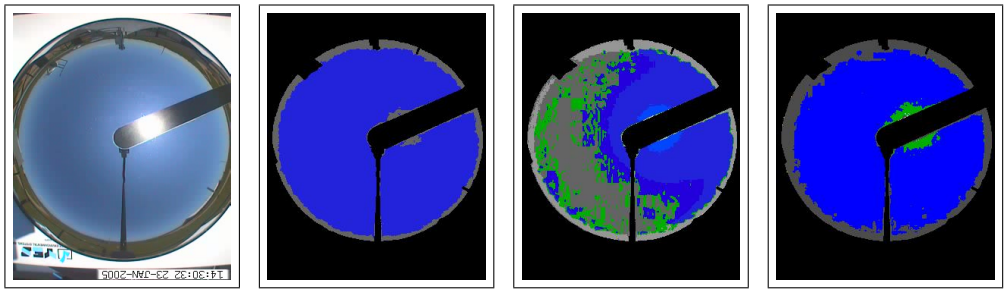
(v) 0501231345 (vi) 0501231345 Long (vii) 0501231345 EGD (viii) 0501231345 MAHA



(ix) 0501231400 (x) 0501231400 Long (xi) 0501231400 EGD (xii) 0501231400 MAHA

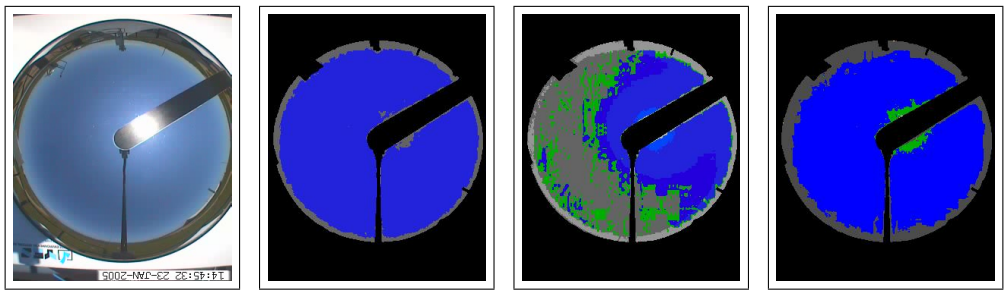


(xiii) 0501231415 (xiv) 0501231415 Long (xv) 0501231415 EGD (xvi) 0501231415 MAHA

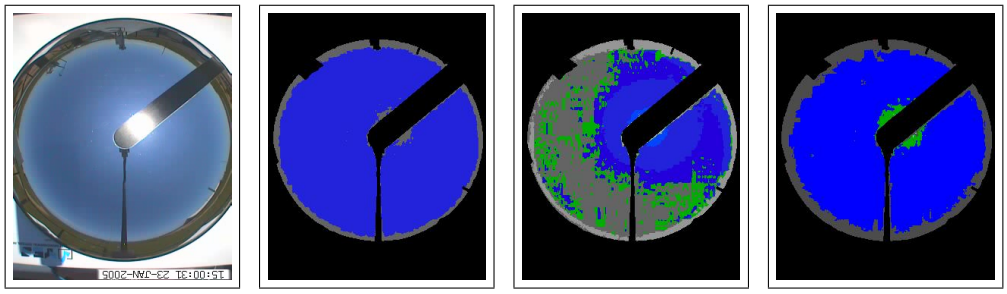


(xvii) 0501231430 (xviii) 0501231430 Long (xix) 0501231430 EGD (xx) 0501231430 MAHA

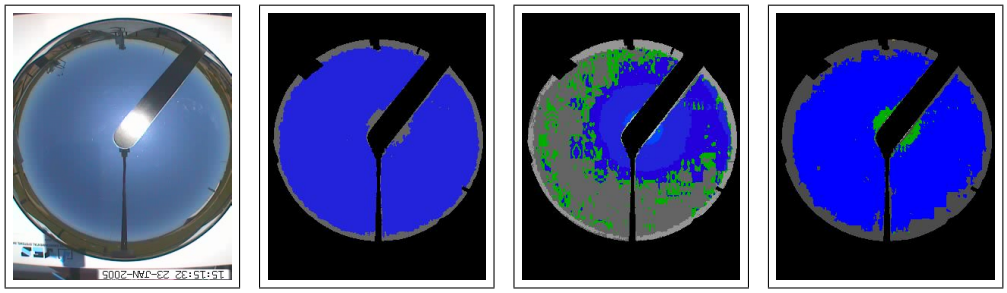
Figure A.255 - Sky images generated from 0501231330 to 0501231430.



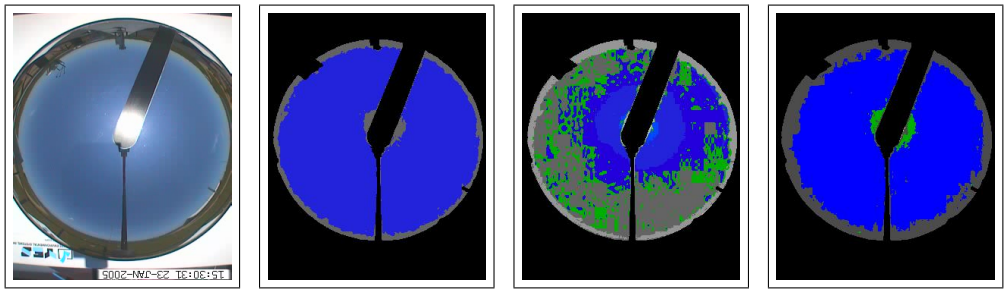
(i) 0501231445 (ii) 0501231445 Long (iii) 0501231445 EGD (iv) 0501231445 MAHA



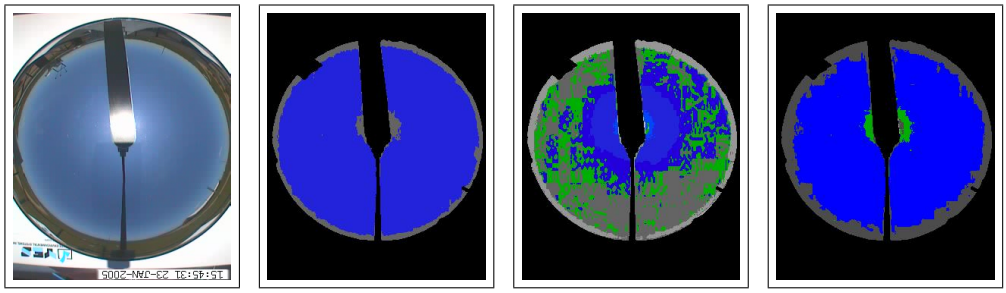
(v) 0501231500 (vi) 0501231500 Long (vii) 0501231500 EGD (viii) 0501231500 MAHA



(ix) 0501231515 (x) 0501231515 Long (xi) 0501231515 EGD (xii) 0501231515 MAHA

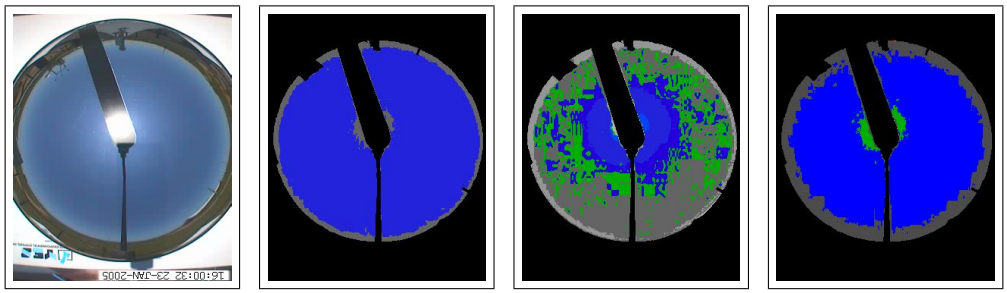


(xiii) 0501231530 (xiv) 0501231530 Long (xv) 0501231530 EGD (xvi) 0501231530 MAHA

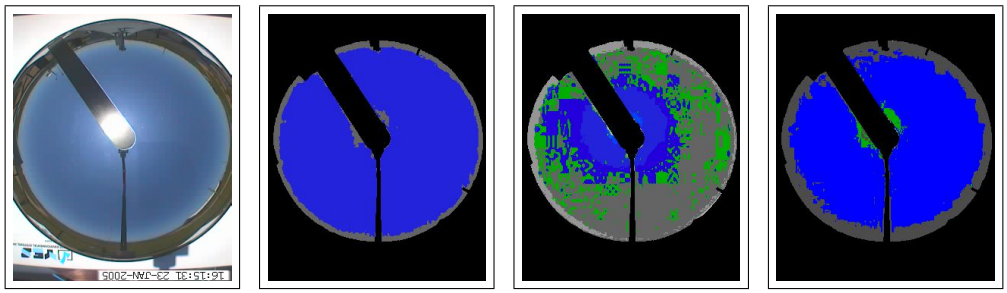


(xvii) 0501231545 (xviii) 0501231545 Long (xix) 0501231545 EGD (xx) 0501231545 MAHA

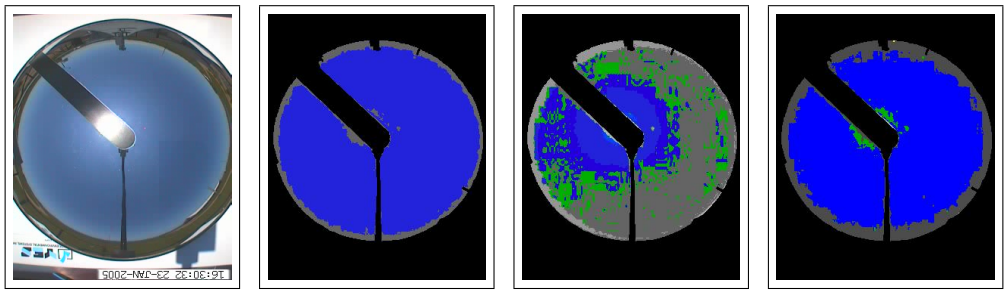
Figure A.256 - Sky images generated from 0501231445 to 0501231545.



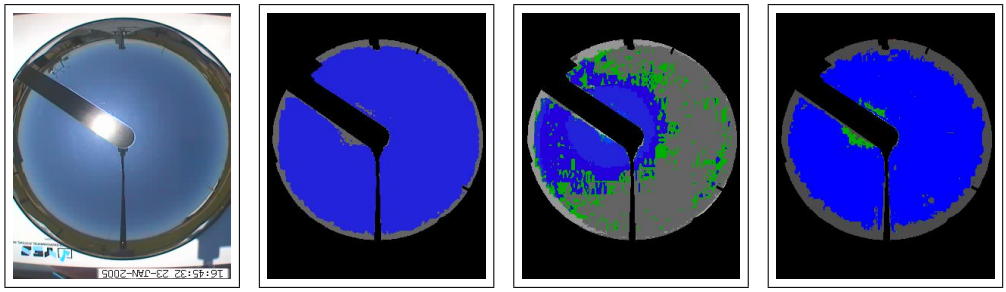
(i) 0501231600 (ii) 0501231600 Long (iii) 0501231600 EGD (iv) 0501231600 MAHA



(v) 0501231615 (vi) 0501231615 Long (vii) 0501231615 EGD (viii) 0501231615 MAHA

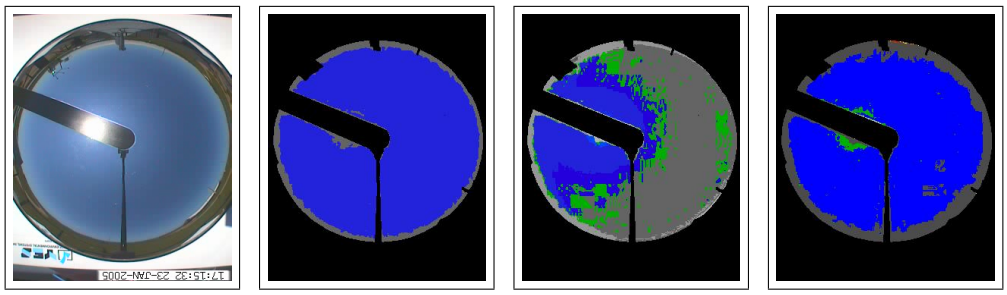


(ix) 0501231630 (x) 0501231630 Long (xi) 0501231630 EGD (xii) 0501231630 MAHA

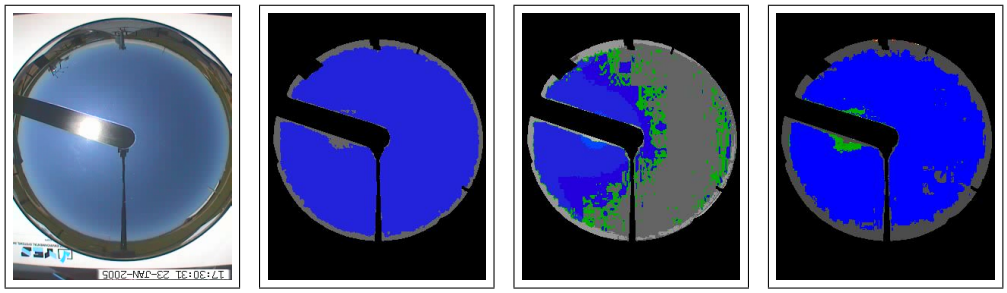


(xiii) 0501231645 (xiv) 0501231645 Long (xv) 0501231645 EGD (xvi) 0501231645 MAHA

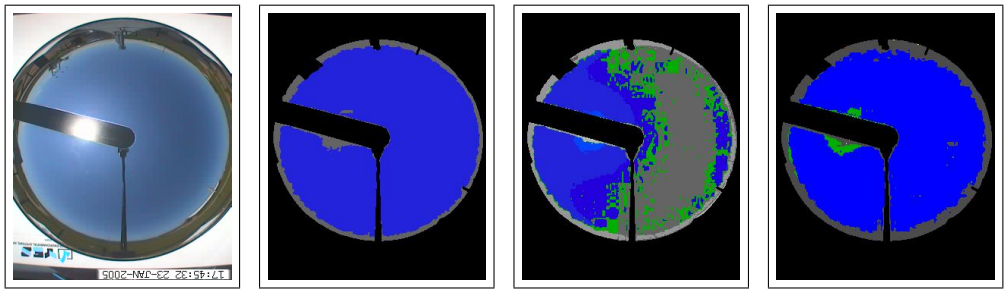
Figure A.257 - Sky images generated from 0501231600 to 0501231645.



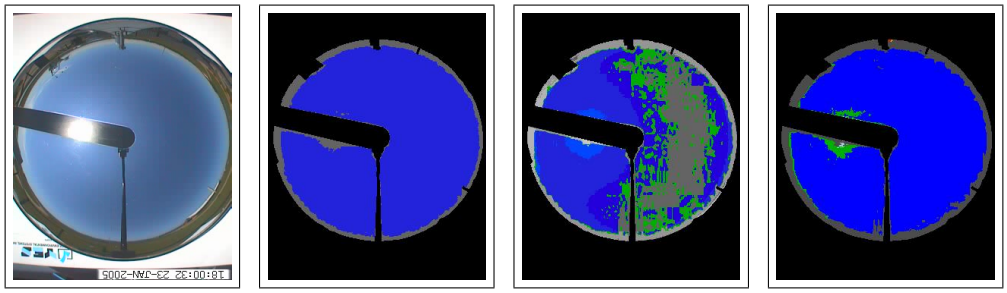
(i) 0501231715 (ii) 0501231715 Long (iii) 0501231715 EGD (iv) 0501231715 MAHA



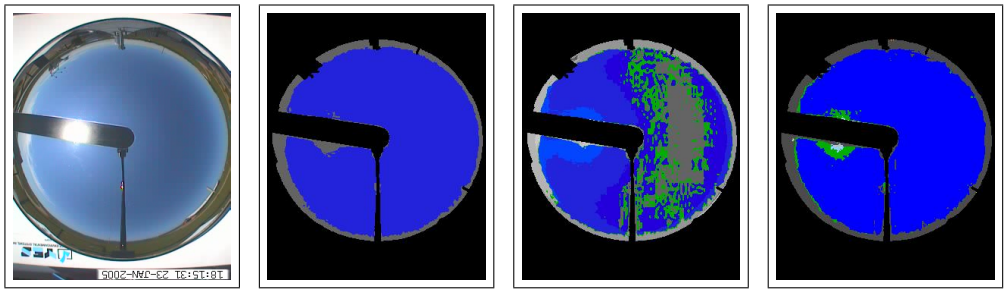
(v) 0501231730 (vi) 0501231730 Long (vii) 0501231730 EGD (viii) 0501231730 MAHA



(ix) 0501231745 (x) 0501231745 Long (xi) 0501231745 EGD (xii) 0501231745 MAHA

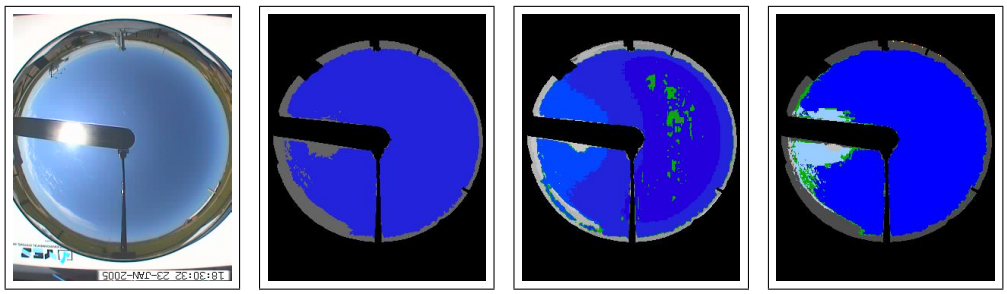


(xiii) 0501231800 (xiv) 0501231800 Long (xv) 0501231800 EGD (xvi) 0501231800 MAHA

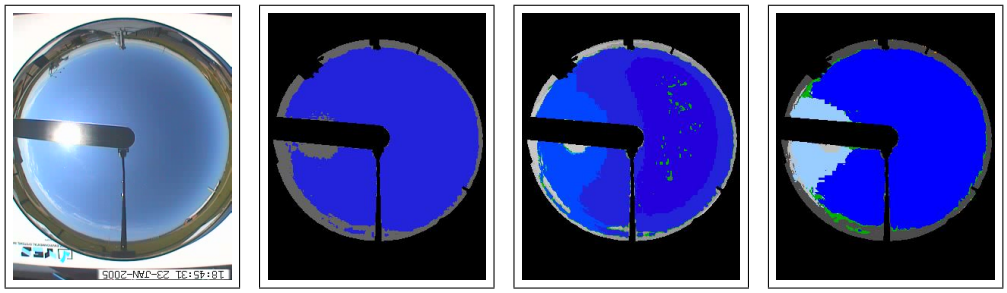


(xvii) 0501231815 (xviii) 0501231815 Long (xix) 0501231815 EGD (xx) 0501231815 MAHA

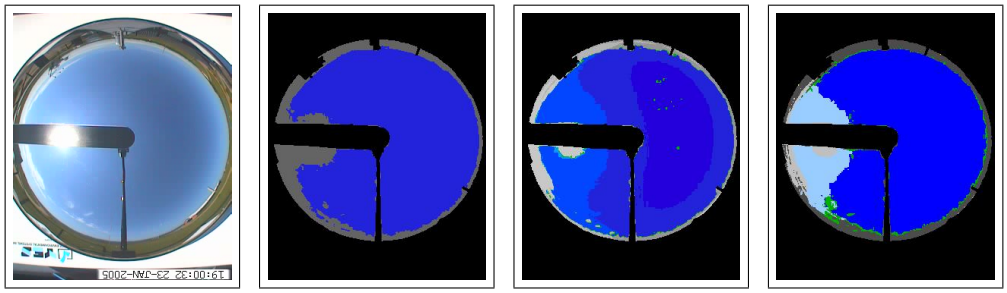
Figure A.258 - Sky images generated from 0501231715 to 0501231815.



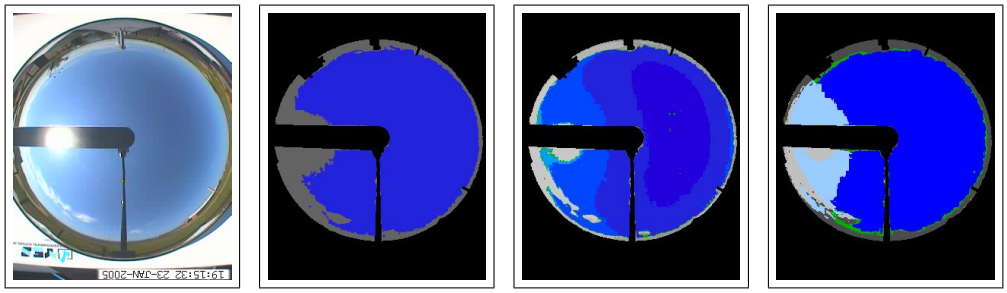
(i) 0501231830 (ii) 0501231830 Long (iii) 0501231830 EGD (iv) 0501231830 MAHA



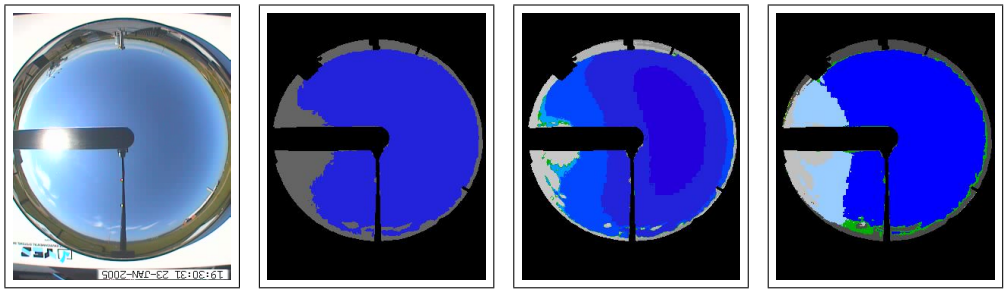
(v) 0501231845 (vi) 0501231845 Long (vii) 0501231845 EGD (viii) 0501231845 MAHA



(ix) 0501231900 (x) 0501231900 Long (xi) 0501231900 EGD (xii) 0501231900 MAHA

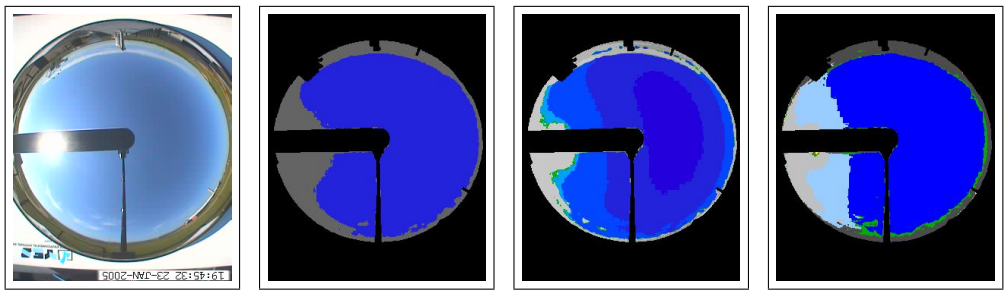


(xiii) 0501231915 (xiv) 0501231915 Long (xv) 0501231915 EGD (xvi) 0501231915 MAHA

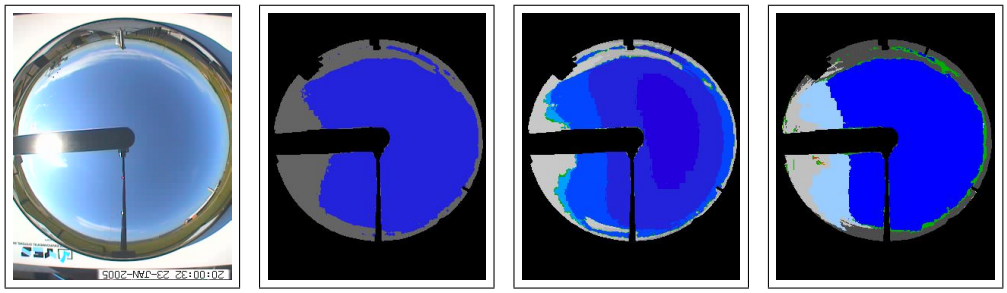


(xvii) 0501231930 (xviii) 0501231930 Long (xix) 0501231930 EGD (xx) 0501231930 MAHA

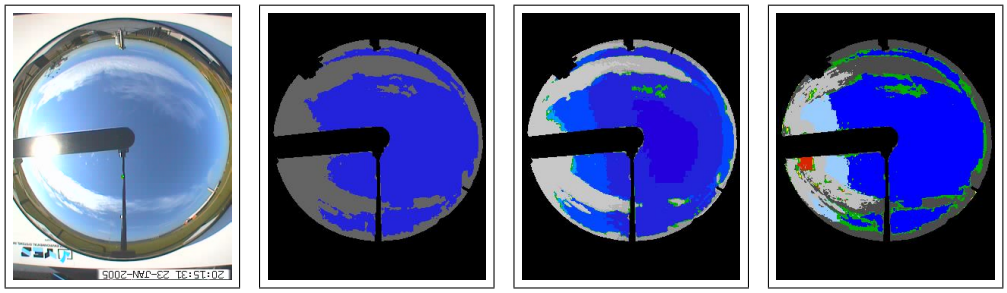
Figure A.259 - Sky images generated from 0501231830 to 0501231930.



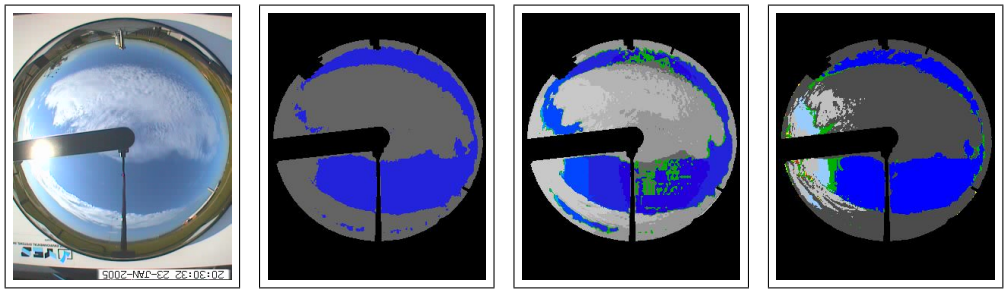
(i) 0501231945 (ii) 0501231945 Long (iii) 0501231945 EGD (iv) 0501231945 MAHA



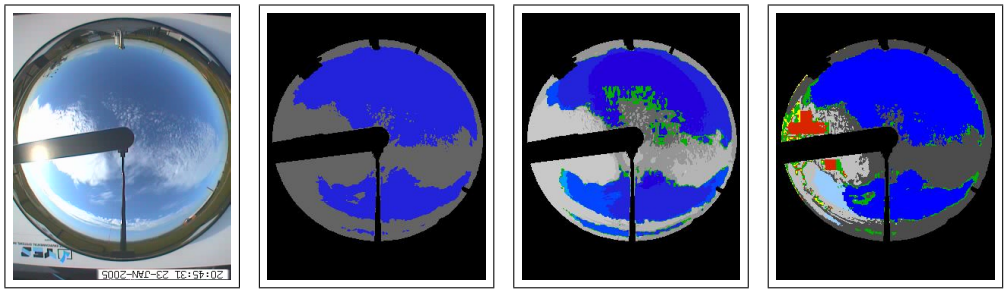
(v) 0501232000 (vi) 0501232000 Long (vii) 0501232000 EGD (viii) 0501232000 MAHA



(ix) 0501232015 (x) 0501232015 Long (xi) 0501232015 EGD (xii) 0501232015 MAHA

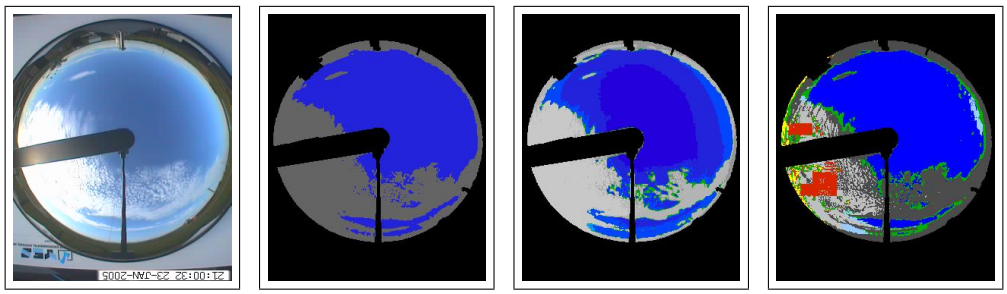


(xiii) 0501232030 (xiv) 0501232030 Long (xv) 0501232030 EGD (xvi) 0501232030 MAHA

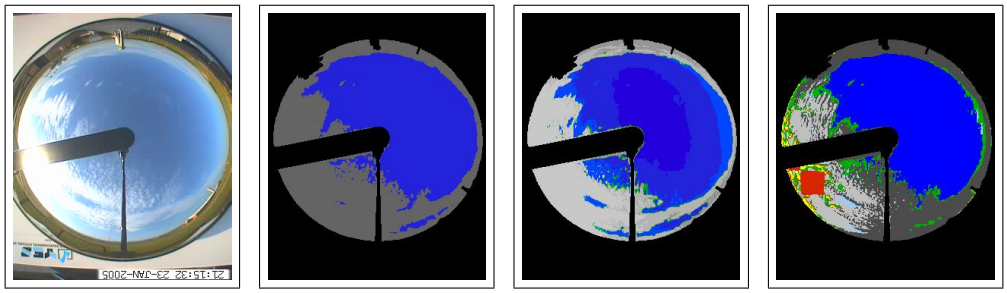


(xvii) 0501232045 (xviii) 0501232045 Long (xix) 0501232045 EGD (xx) 0501232045 MAHA

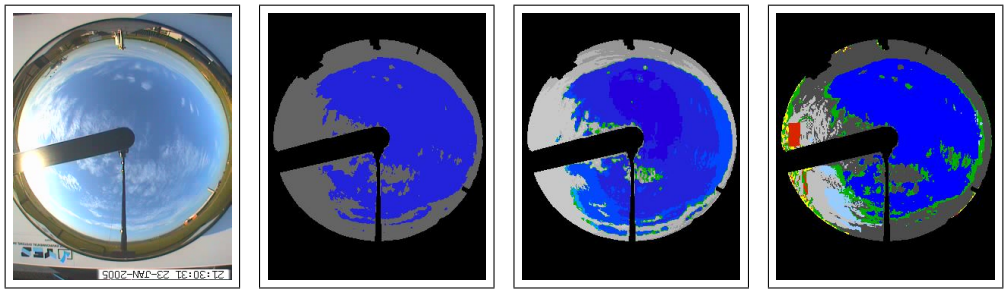
Figure A.260 - Sky images generated from 0501231945 to 0501232045.



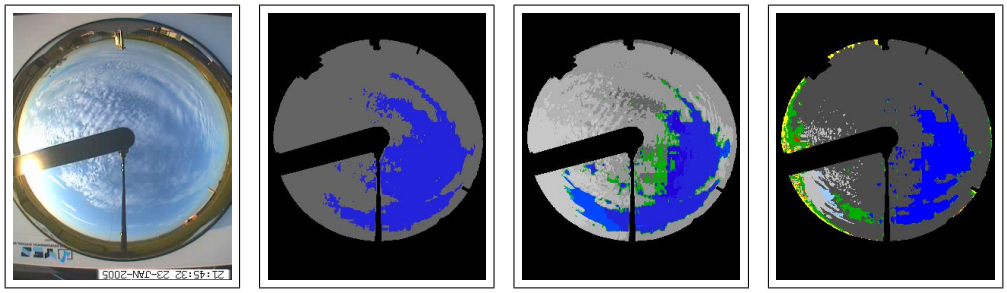
(i) 0501232100 (ii) 0501232100 Long (iii) 0501232100 EGD (iv) 0501232100 MAHA



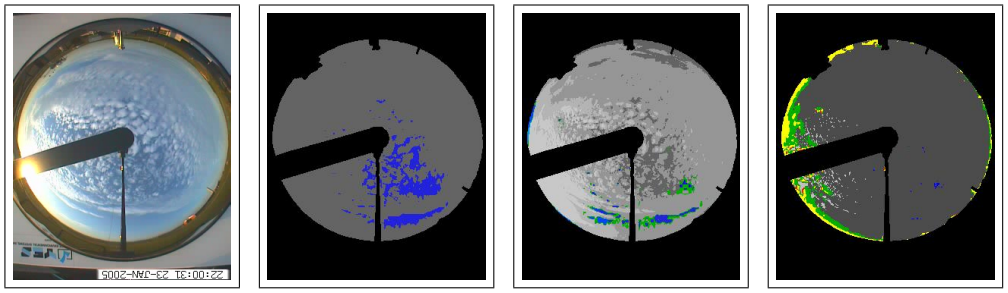
(v) 0501232115 (vi) 0501232115 Long (vii) 0501232115 EGD (viii) 0501232115 MAHA



(ix) 0501232130 (x) 0501232130 Long (xi) 0501232130 EGD (xii) 0501232130 MAHA

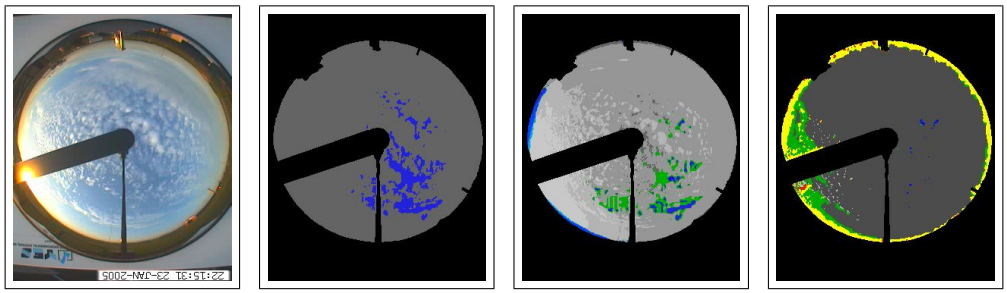


(xiii) 0501232145 (xiv) 0501232145 Long (xv) 0501232145 EGD (xvi) 0501232145 MAHA

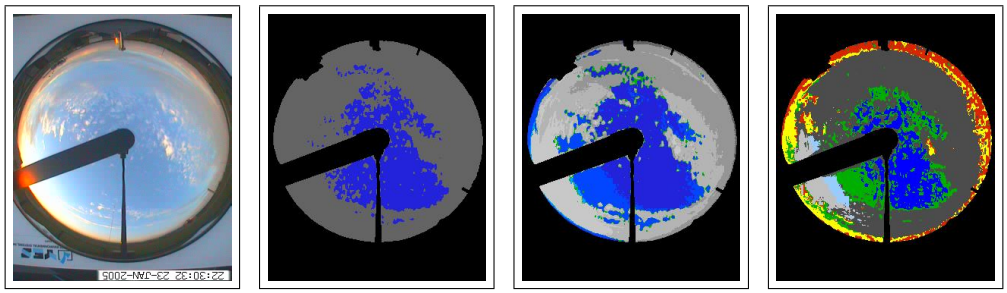


(xvii) 0501232200 (xviii) 0501232200 Long (xix) 0501232200 EGD (xx) 0501232200 MAHA

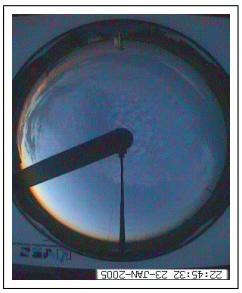
Figure A.261 - Sky images generated from 0501232100 to 0501232200.



(i) 0501232215 (ii) 0501232215 Long (iii) 0501232215 EGD (iv) 0501232215 MAHA

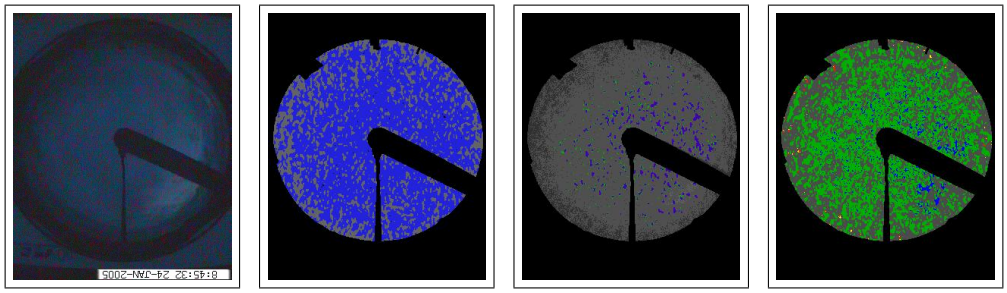


(v) 0501232230 (vi) 0501232230 Long (vii) 0501232230 EGD (viii) 0501232230 MAHA

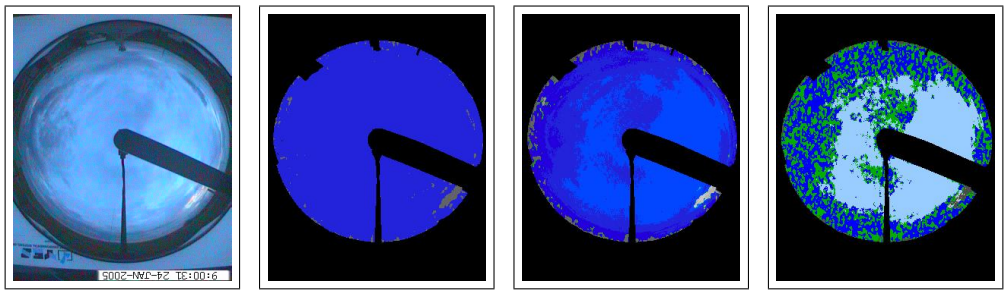


(ix) 0501232245

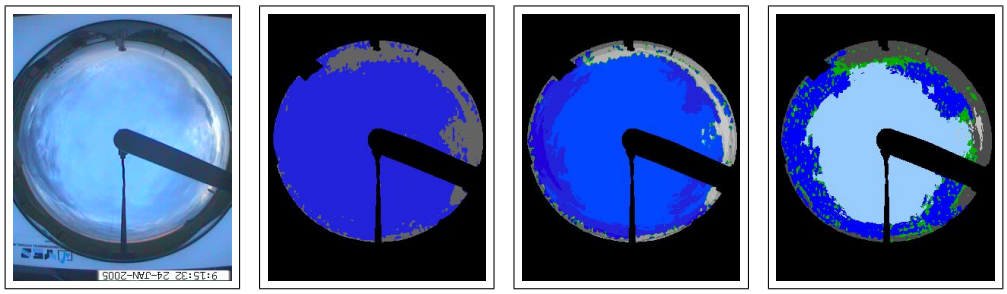
Figure A.262 - Sky images generated from 0501231600 to 0501232245.



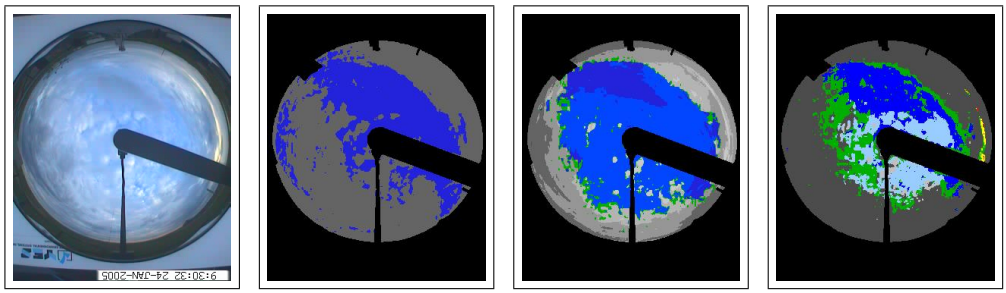
(i) 0501240845 (ii) 0501240845 Long (iii) 0501240845 EGD (iv) 0501240845 MAHA



(v) 0501240900 (vi) 0501240900 Long (vii) 0501240900 EGD (viii) 0501240900 MAHA

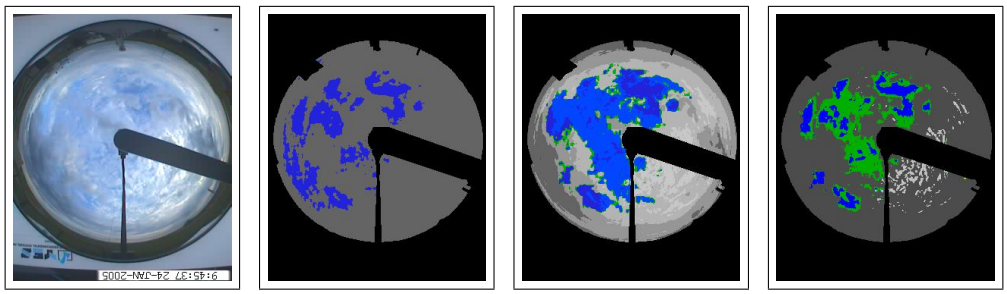


(ix) 0501240915 (x) 0501240915 Long (xi) 0501240915 EGD (xii) 0501240915 MAHA

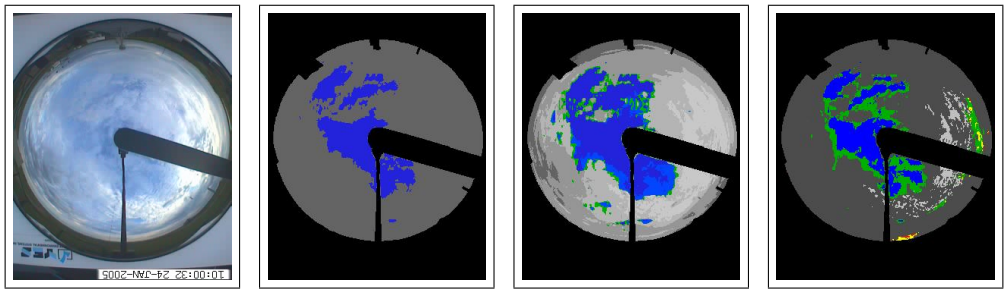


(xiii) 0501240930 (xiv) 0501240930 Long (xv) 0501240930 EGD (xvi) 0501240930 MAHA

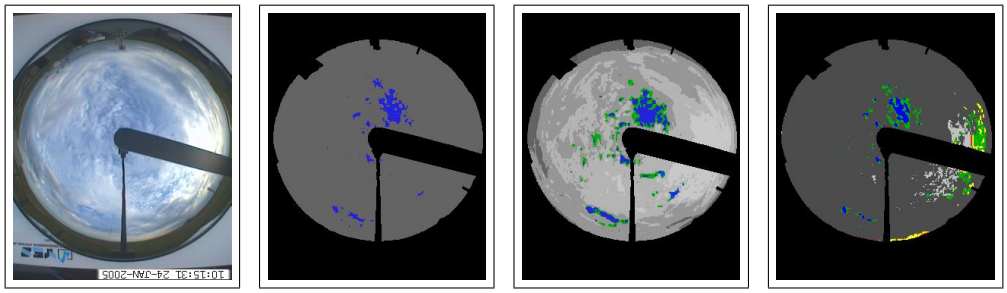
Figure A.263 - Sky images generated from 0501240845 to 0501240930.



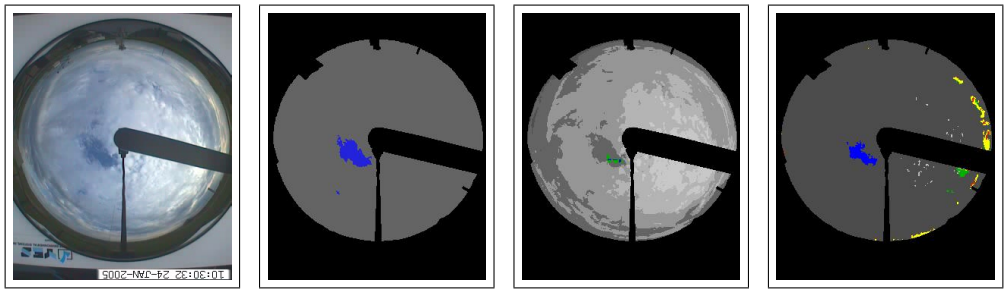
(i) 0501240945 (ii) 0501240945 Long (iii) 0501240945 EGD (iv) 0501240945 MAHA



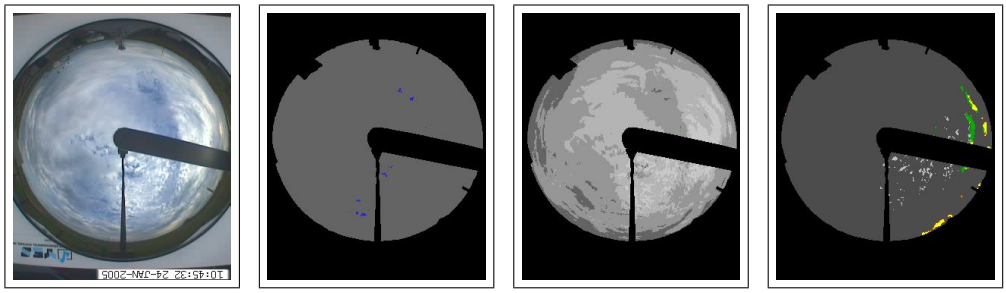
(v) 050124000 (vi) 050124000 Long (vii) 050124000 EGD (viii) 050124000 MAHA



(ix) 0501241015 (x) 0501241015 Long (xi) 0501241015 EGD (xii) 0501241015 MAHA

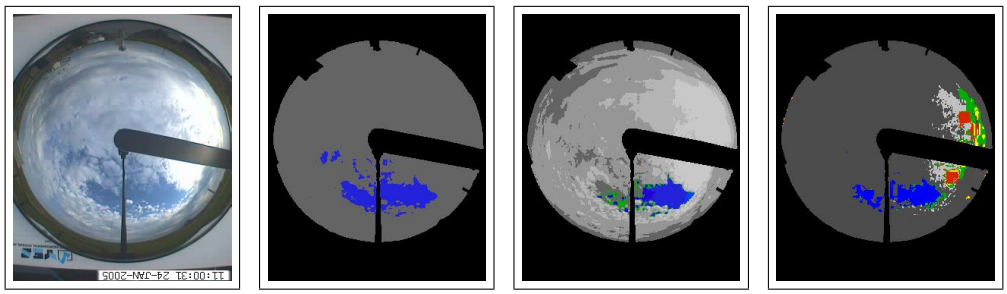


(xiii) 0501241030 (xiv) 0501241030 Long (xv) 0501241030 EGD (xvi) 0501241030 MAHA

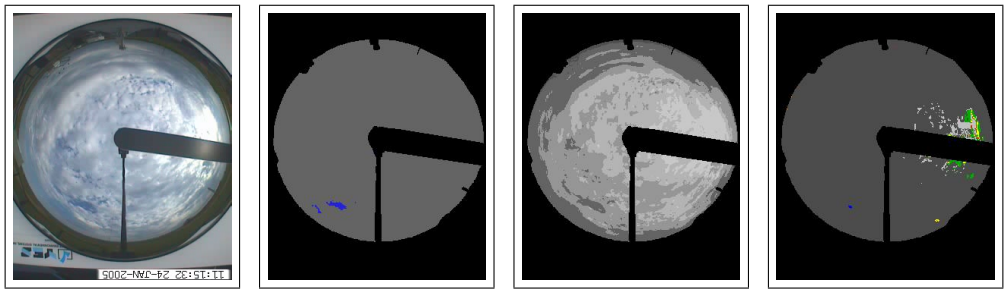


(xvii) 0501241045 (xviii) 0501241045 Long (xix) 0501241045 EGD (xx) 0501241045 MAHA

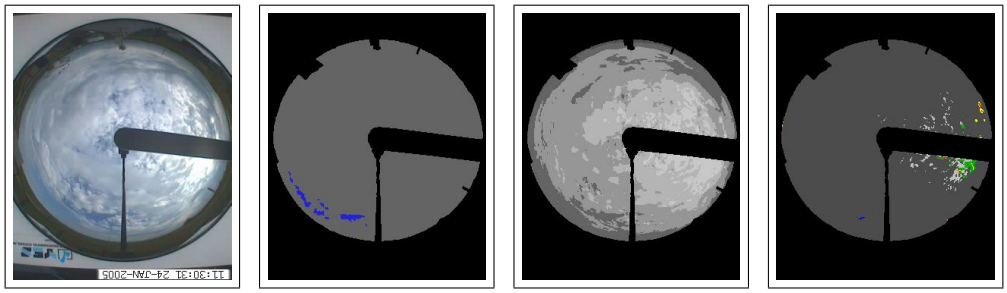
Figure A.264 - Sky images generated from 0501240945 to 0501241045.



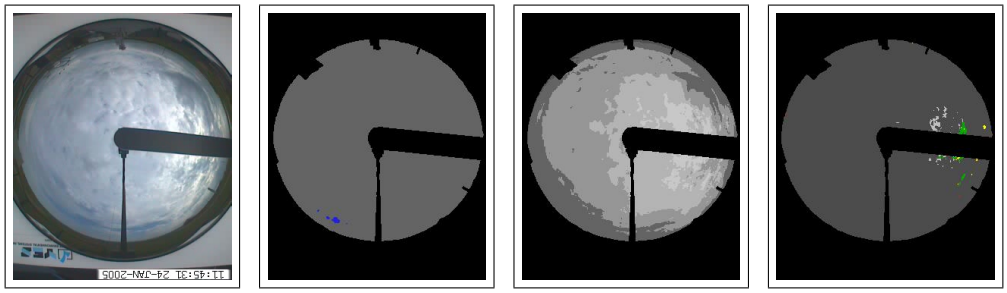
(i) 0501241100 (ii) 0501241100 Long (iii) 0501241100 EGD (iv) 0501241100 MAHA



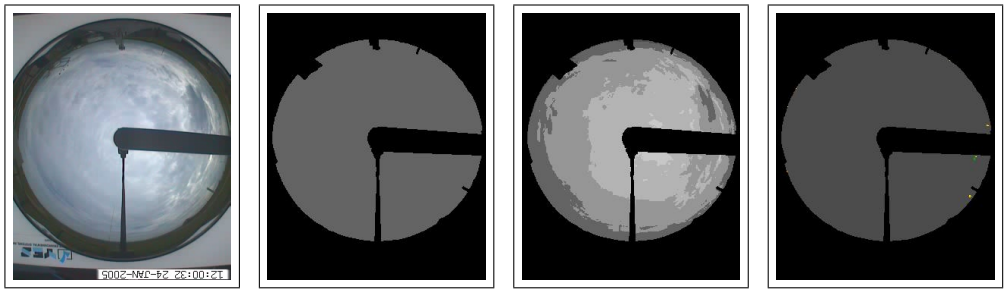
(v) 0501241115 (vi) 0501241115 Long (vii) 0501241115 EGD (viii) 0501241115 MAHA



(ix) 0501241130 (x) 0501241130 Long (xi) 0501241130 EGD (xii) 0501241130 MAHA

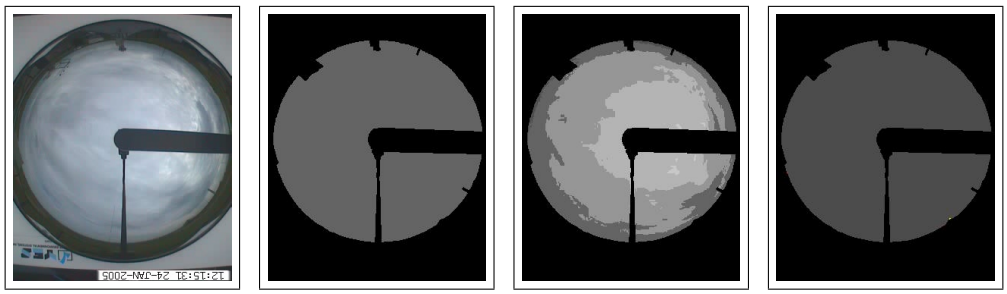


(xiii) 0501241145 (xiv) 0501241145 Long (xv) 0501241145 EGD (xvi) 0501241145 MAHA

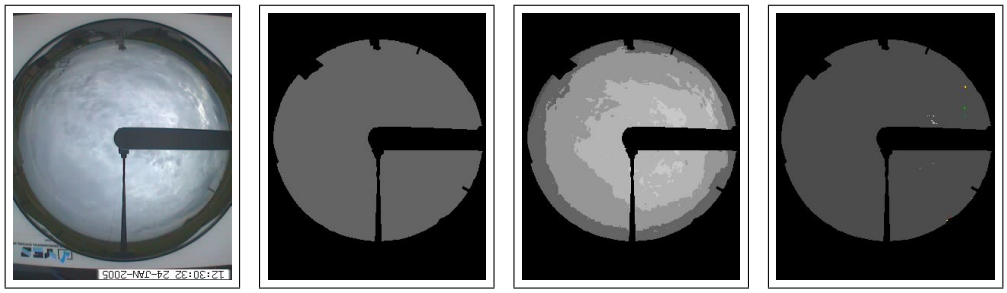


(xvii) 0501241200 (xviii) 0501241200 Long (xix) 0501241200 EGD (xx) 0501241200 MAHA

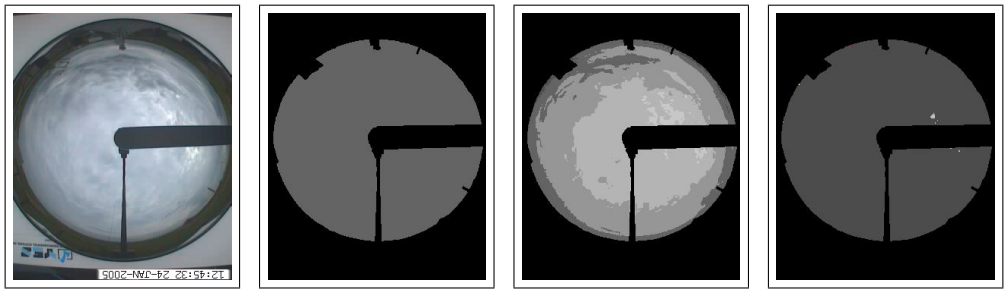
Figure A.265 - Sky images generated from 050124100 to 0501241200.



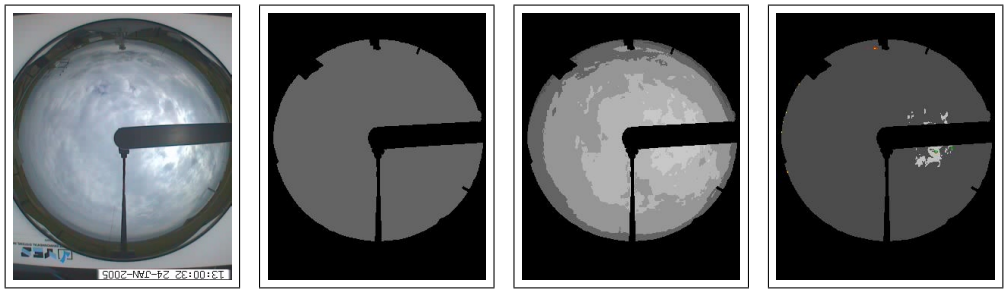
(i) 0501241215 (ii) 0501241215 Long (iii) 0501241215 EGD (iv) 0501241215 MAHA



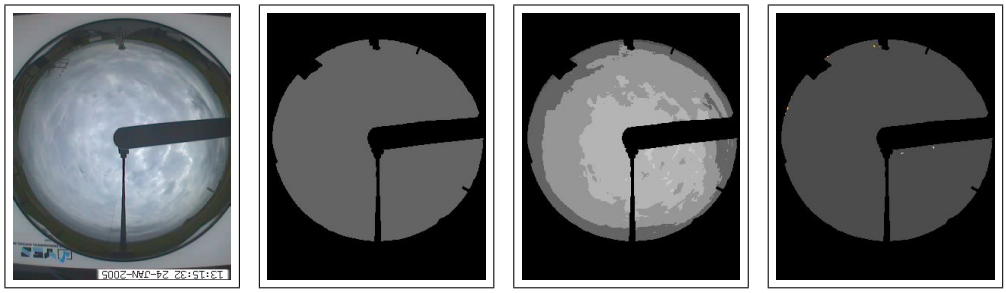
(v) 0501241230 (vi) 0501241230 Long (vii) 0501241230 EGD (viii) 0501241230 MAHA



(ix) 0501241245 (x) 0501241245 Long (xi) 0501241245 EGD (xii) 0501241245 MAHA

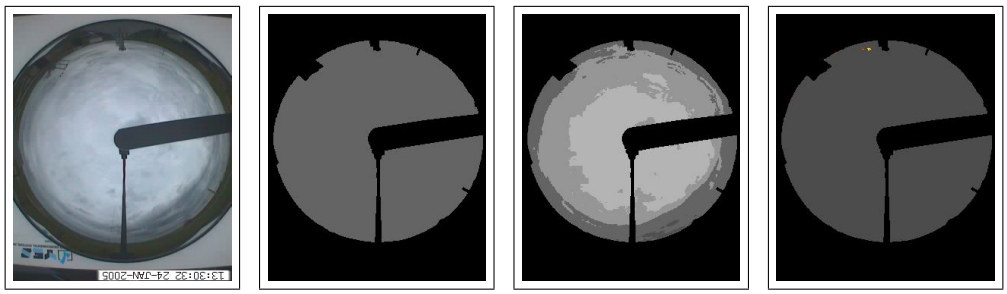


(xiii) 0501241300 (xiv) 0501241300 Long (xv) 0501241300 EGD (xvi) 0501241300 MAHA

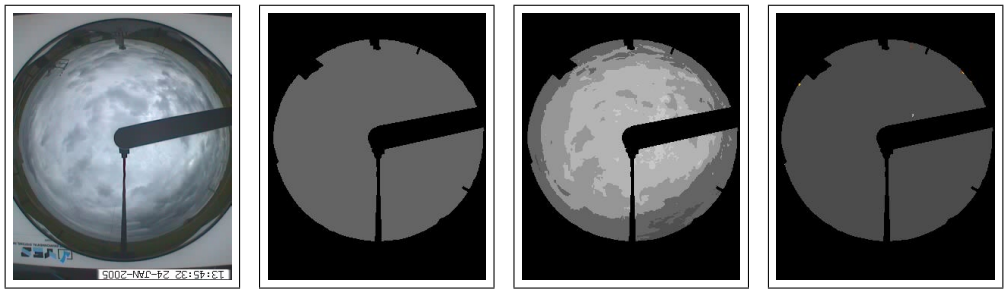


(xvii) 0501241315 (xviii) 0501241315 Long (xix) 0501241315 EGD (xx) 0501241315 MAHA

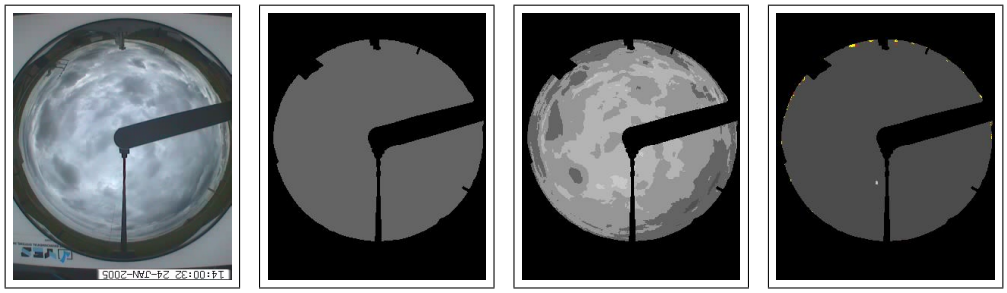
Figure A.266 - Sky images generated from 0501241215 to 0501241315.



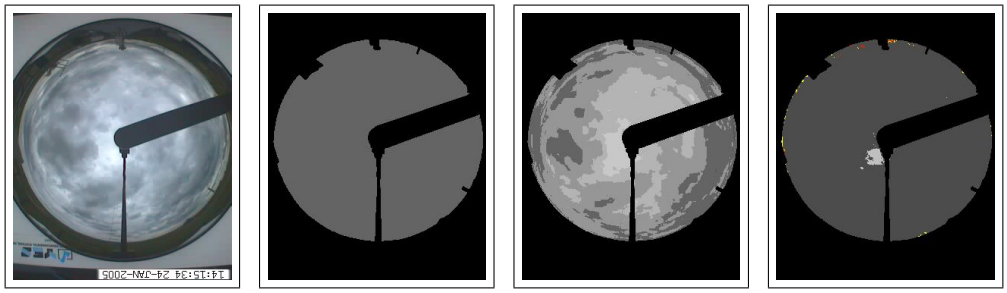
(i) 0501241330 (ii) 0501241330 Long (iii) 0501241330 EGD (iv) 0501241330 MAHA



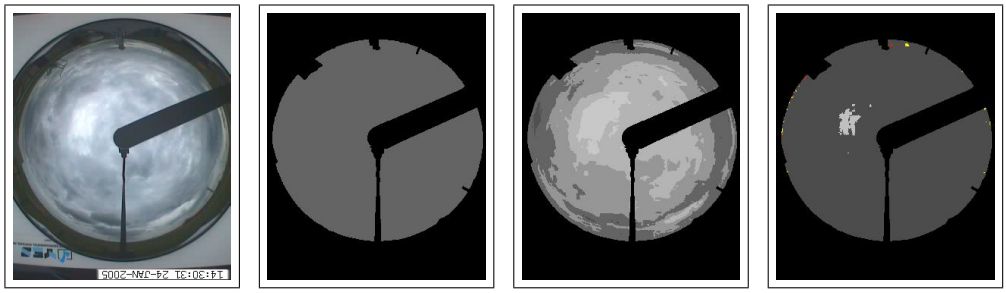
(v) 0501241345 (vi) 0501241345 Long (vii) 0501241345 EGD (viii) 0501241345 MAHA



(ix) 0501241400 (x) 0501241400 Long (xi) 0501241400 EGD (xii) 0501241400 MAHA



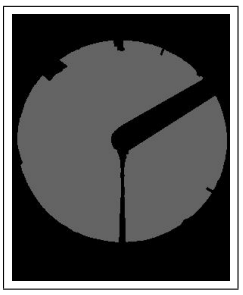
(xiii) 0501241415 (xiv) 0501241415 Long (xv) 0501241415 EGD (xvi) 0501241415 MAHA

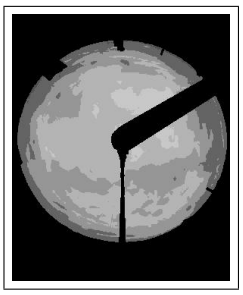


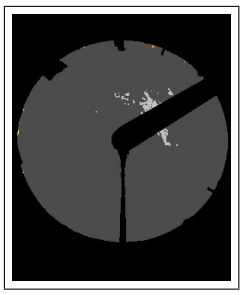
(xvii) 0501241430 (xviii) 0501241430 Long (xix) 0501241430 EGD (xx) 0501241430 MAHA

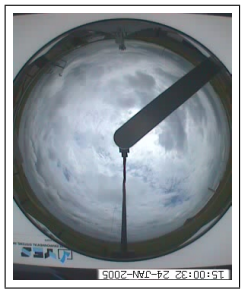
Figure A.267 - Sky images generated from 0501241330 to 0501241430.

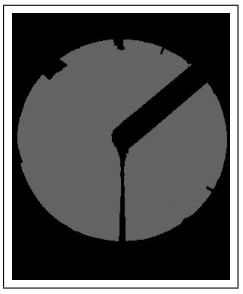

(i) 0501241445

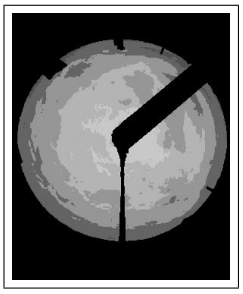

(ii) 0501241445 Long

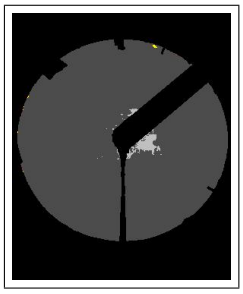

(iii) 0501241445 EGD

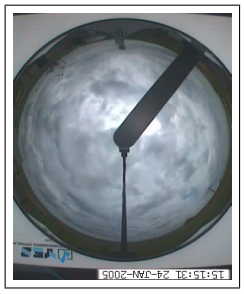

(iv) 0501241445 MAHA

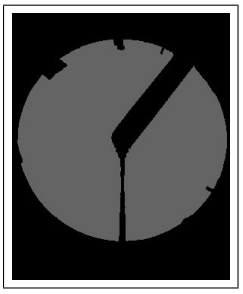

(v) 0501241500

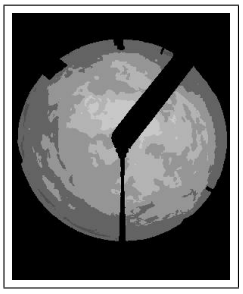

(vi) 0501241500 Long

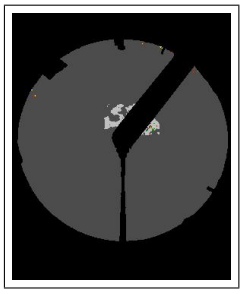

(vii) 0501241500 EGD

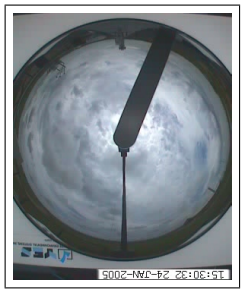

(viii) 0501241500 MAHA

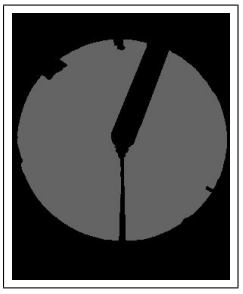

(ix) 0501241515

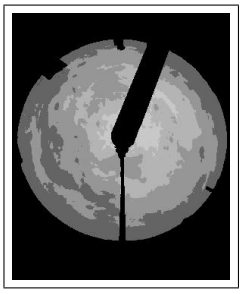

(x) 0501241515 Long


(xi) 0501241515 EGD

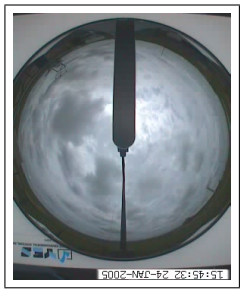

(xii) 0501241515 MAHA

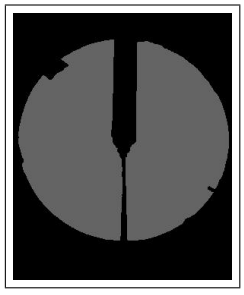

(xiii) 0501241530

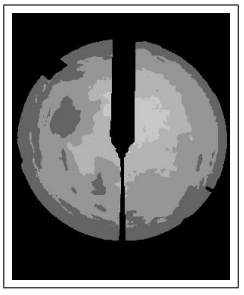

(xiv) 0501241530 Long


(xv) 0501241530 EGD


(xvi) 0501241530 MAHA

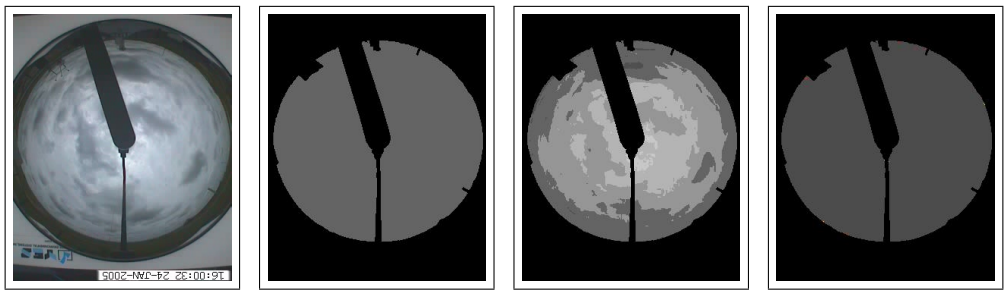

(xvii) 0501241545


(xviii) 0501241545 Long

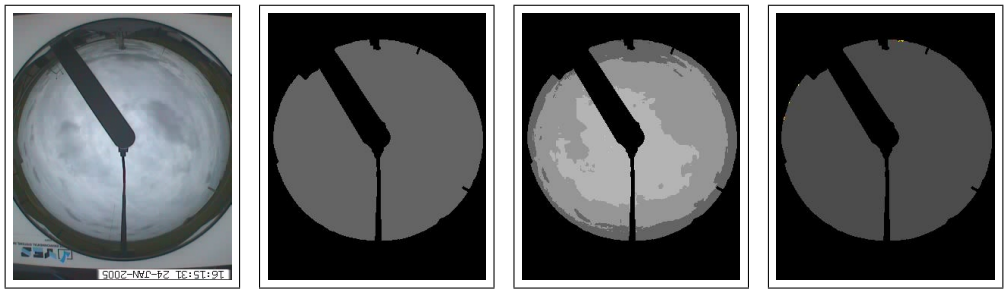

(xix) 0501241545 EGD


(xx) 0501241545 MAHA

Figure A.268 - Sky images generated from 0501241445 to 0501241545.



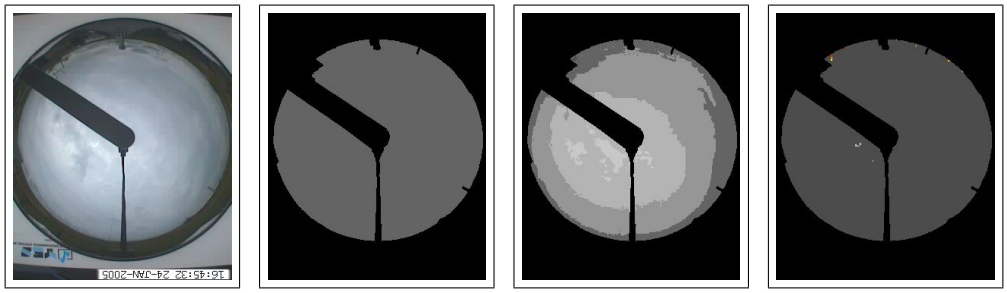
(i) 0501241600 (ii) 0501241600 Long (iii) 0501241600 EGD (iv) 0501241600 MAHA



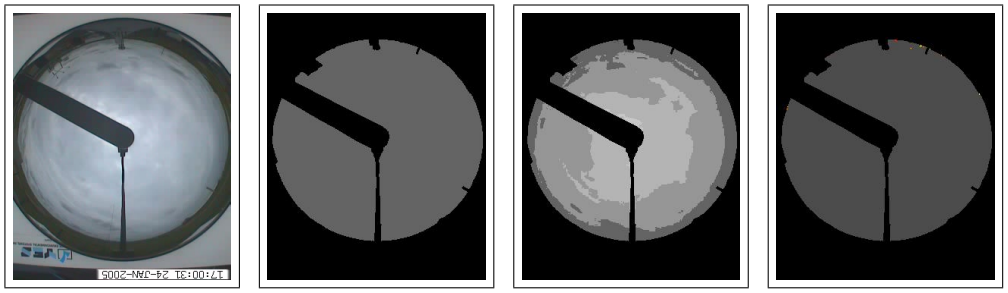
(v) 0501241615 (vi) 0501241615 Long (vii) 0501241615 EGD (viii) 0501241615 MAHA



(ix) 0501241630 (x) 0501241630 Long (xi) 0501241630 EGD (xii) 0501241630 MAHA

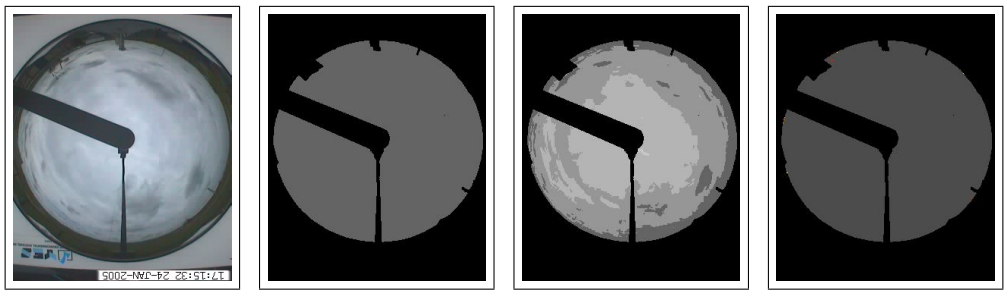


(xiii) 0501241645 (xiv) 0501241645 Long (xv) 0501241645 EGD (xvi) 0501241645 MAHA

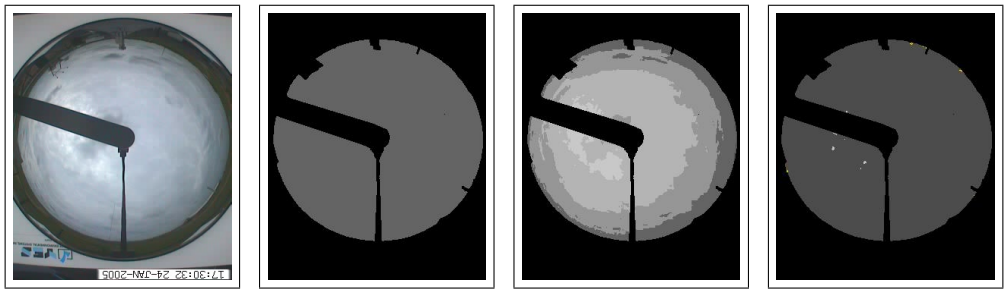


(xvii) 0501241700 (xviii) 0501241700 Long (xix) 0501241700 EGD (xx) 0501241700 MAHA

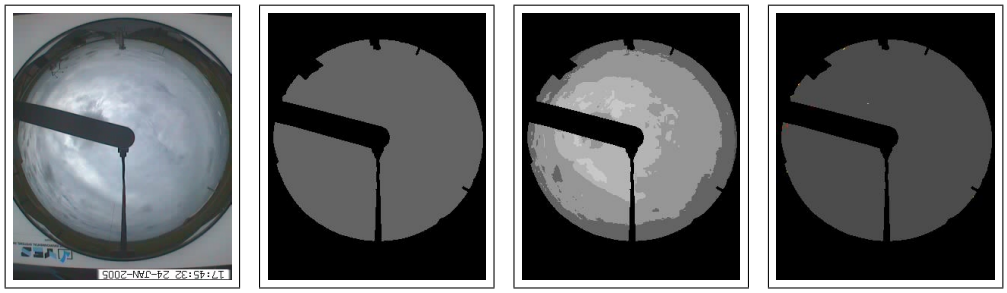
Figure A.269 - Sky images generated from 0501241600 to 0501241700.



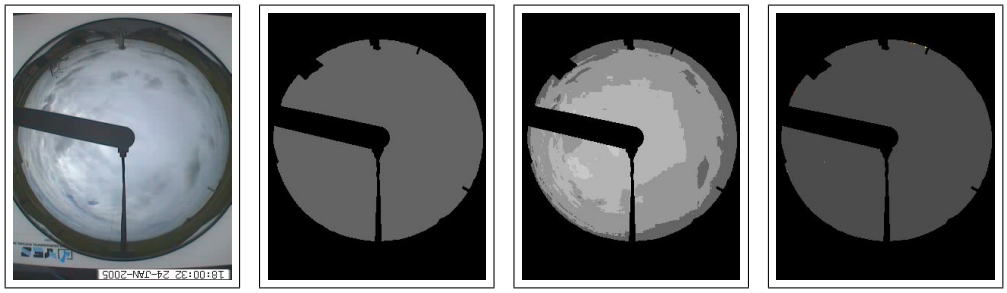
(i) 0501241715 (ii) 0501241715 Long (iii) 0501241715 EGD (iv) 0501241715 MAHA



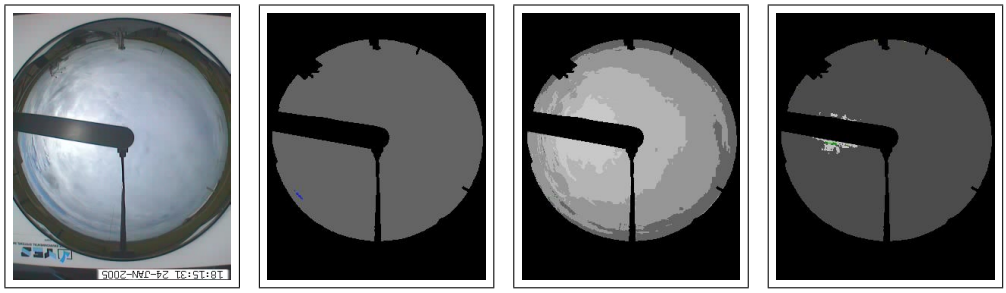
(v) 0501241730 (vi) 0501241730 Long (vii) 0501241730 EGD (viii) 0501241730 MAHA



(ix) 0501241745 (x) 0501241745 Long (xi) 0501241745 EGD (xii) 0501241745 MAHA

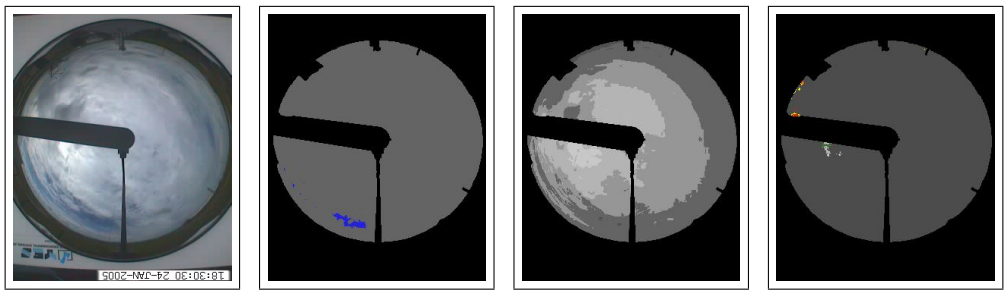


(xiii) 0501241800 (xiv) 0501241800 Long (xv) 0501241800 EGD (xvi) 0501241800 MAHA

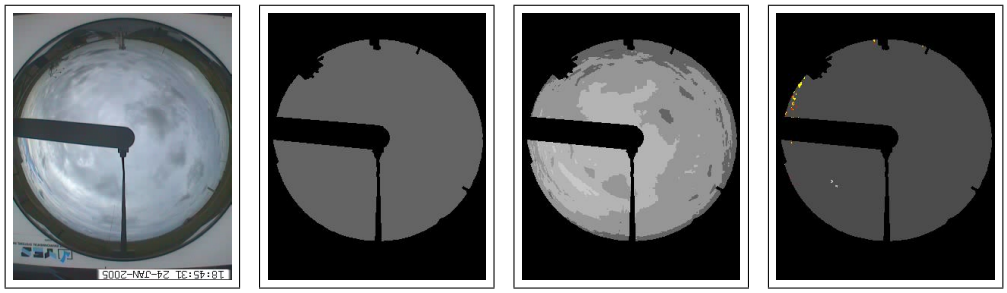


(xvii) 0501241815 (xviii) 0501241815 Long (xix) 0501241815 EGD (xx) 0501241815 MAHA

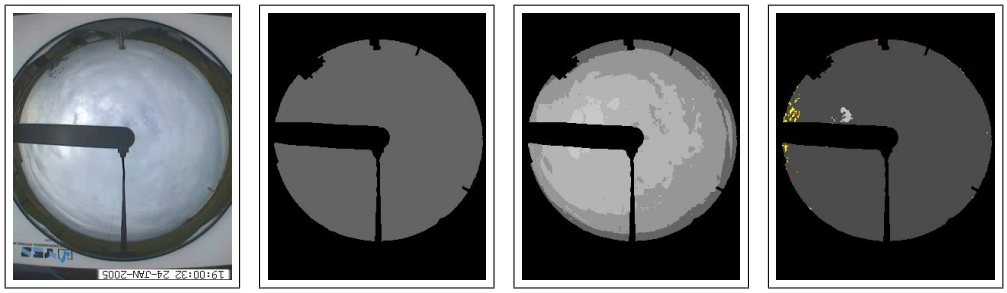
Figure A.270 - Sky images generated from 0501241715 to 0501241815.



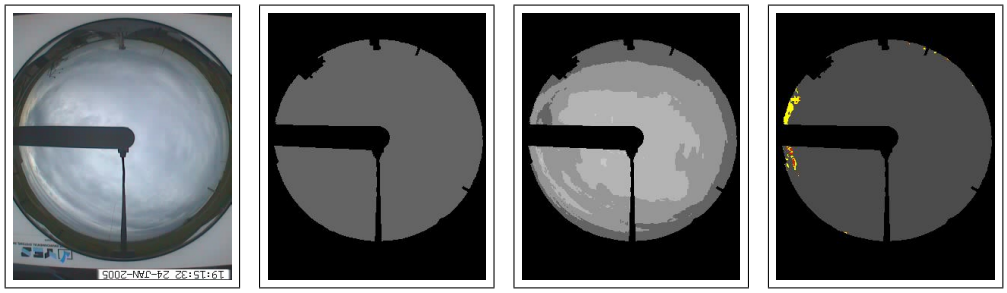
(i) 0501241830 (ii) 0501241830 Long (iii) 0501241830 EGD (iv) 0501241830 MAHA



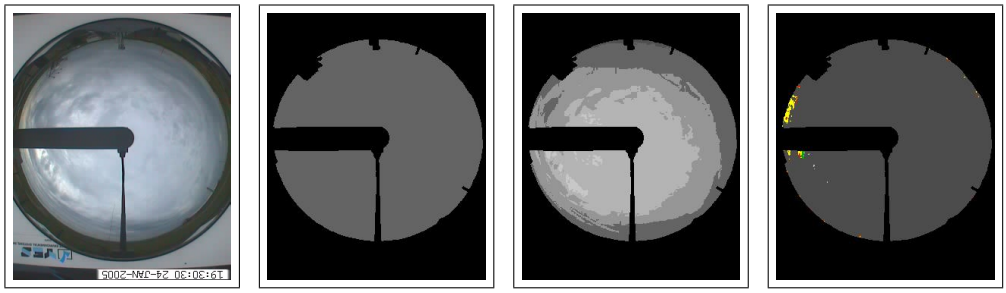
(v) 0501241845 (vi) 0501241845 Long (vii) 0501241845 EGD (viii) 0501241845 MAHA



(ix) 0501241900 (x) 0501241900 Long (xi) 0501241900 EGD (xii) 0501241900 MAHA

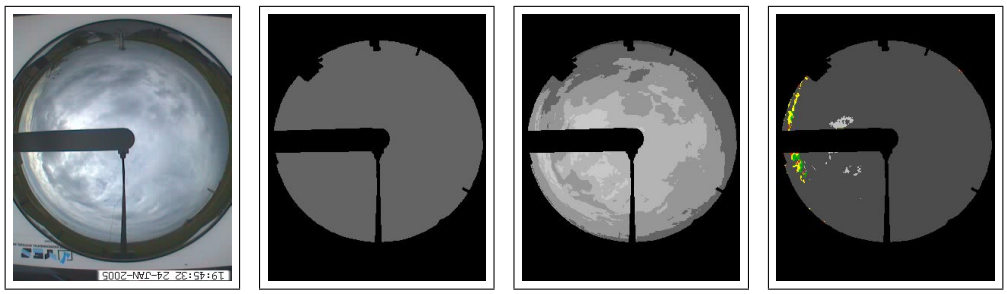


(xiii) 0501241915 (xiv) 0501241915 Long (xv) 0501241915 EGD (xvi) 0501241915 MAHA

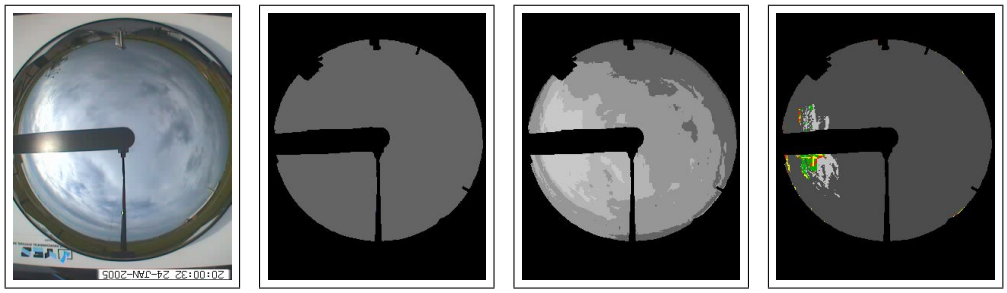


(xvii) 0501241930 (xviii) 0501241930 Long (xix) 0501241930 EGD (xx) 0501241930 MAHA

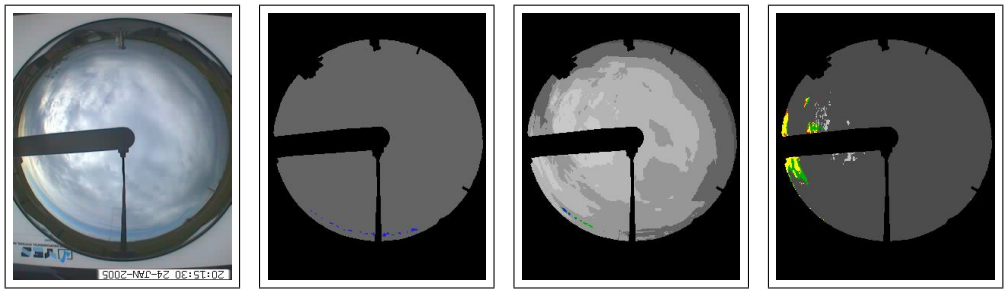
Figure A.271 - Sky images generated from 0501241830 to 0501241930.



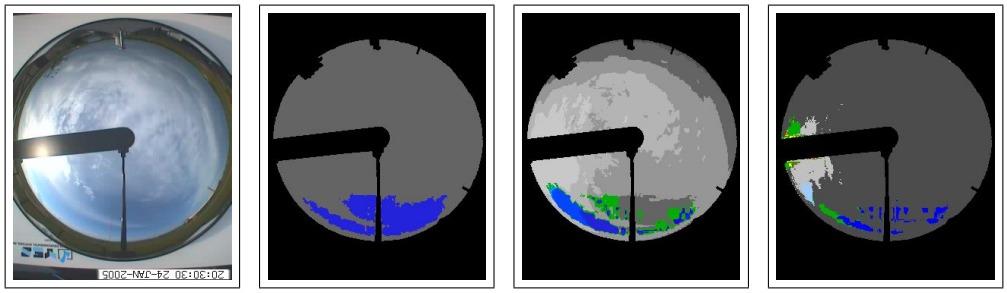
(i) 0501241945 (ii) 0501241945 Long (iii) 0501241945 EGD (iv) 0501241945 MAHA



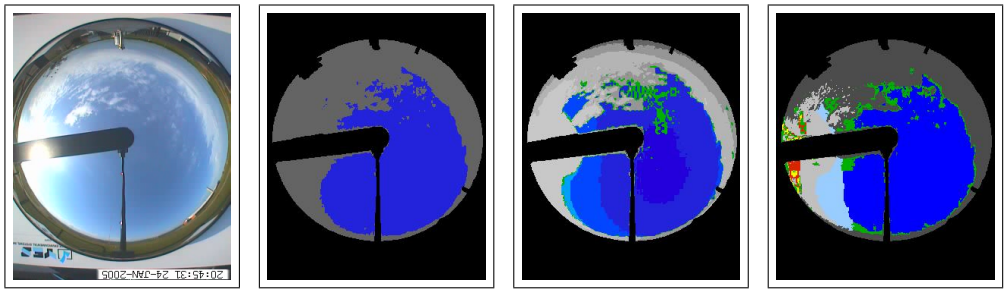
(v) 0501242000 (vi) 0501242000 Long (vii) 0501242000 EGD (viii) 0501242000 MAHA



(ix) 0501242015 (x) 0501242015 Long (xi) 0501242015 EGD (xii) 0501242015 MAHA

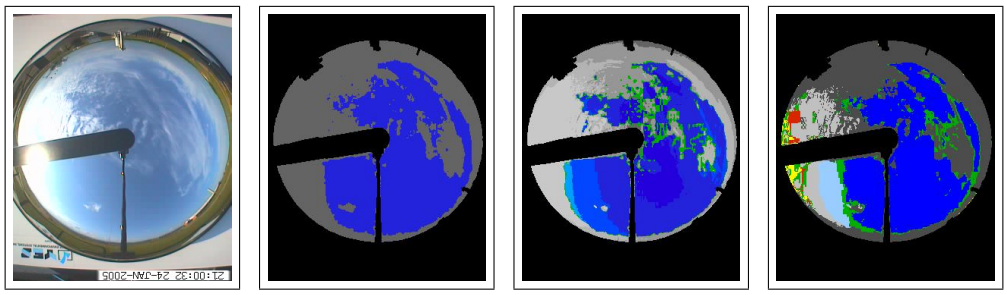


(xiii) 0501242030 (xiv) 0501242030 Long (xv) 0501242030 EGD (xvi) 0501242030 MAHA

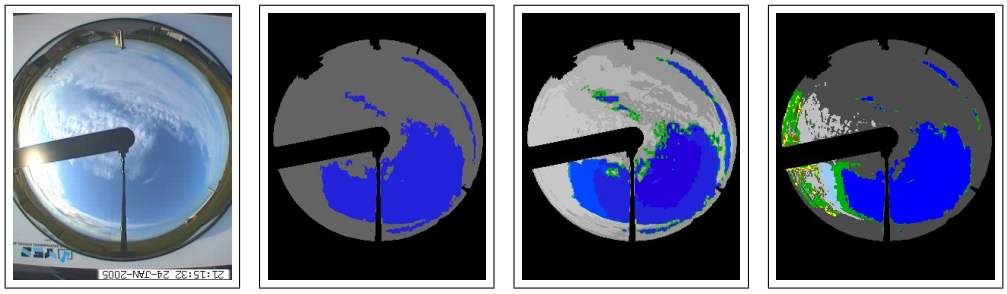


(xvii) 0501242045 (xviii) 0501242045 Long (xix) 0501242045 EGD (xx) 0501242045 MAHA

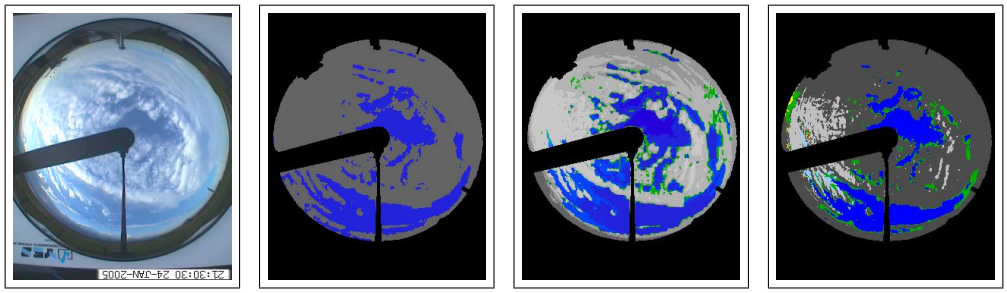
Figure A.272 - Sky images generated from 0501241945 to 0501242045.



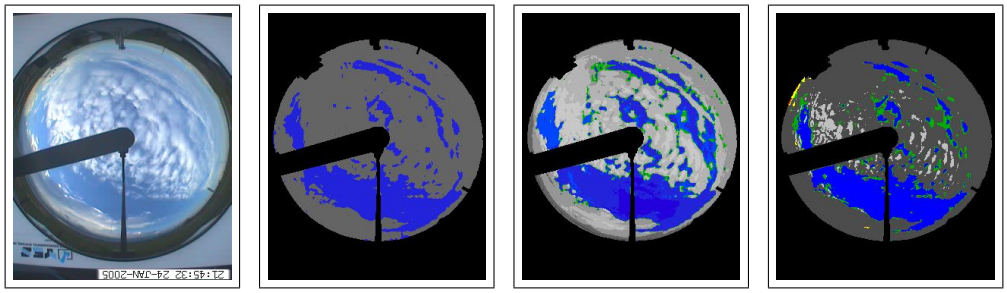
(i) 0501242100 (ii) 0501242100 Long (iii) 0501242100 EGD (iv) 0501242100 MAHA



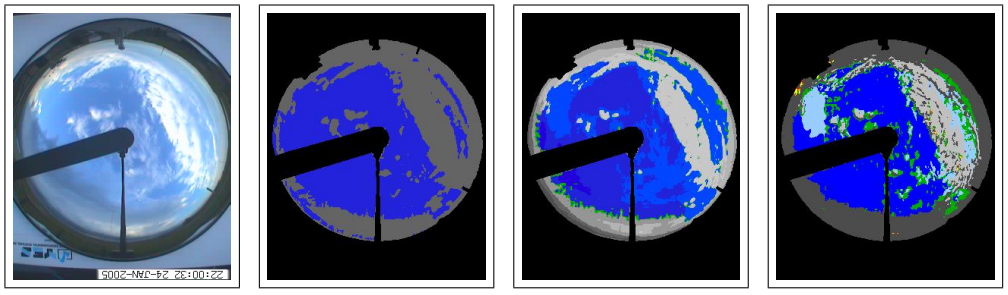
(v) 0501242115 (vi) 0501242115 Long (vii) 0501242115 EGD (viii) 0501242115 MAHA



(ix) 0501242130 (x) 0501242130 Long (xi) 0501242130 EGD (xii) 0501242130 MAHA

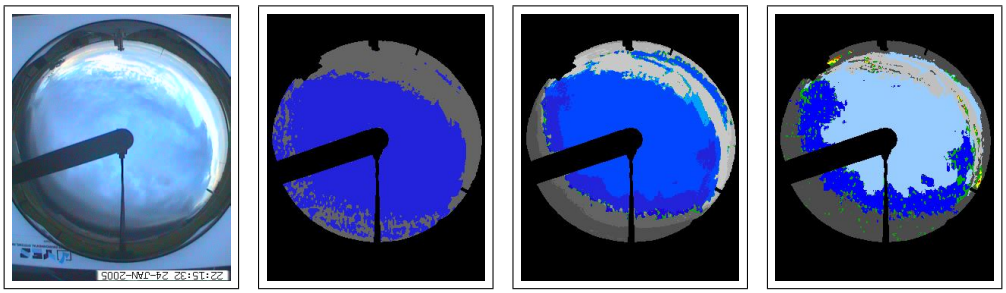


(xiii) 0501242145 (xiv) 0501242145 Long (xv) 0501242145 EGD (xvi) 0501242145 MAHA

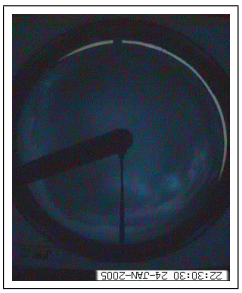


(xvii) 0501242200 (xviii) 0501242200 Long (xix) 0501242200 EGD (xx) 0501242200 MAHA

Figure A.273 - Sky images generated from 0501242100 to 0501242200.

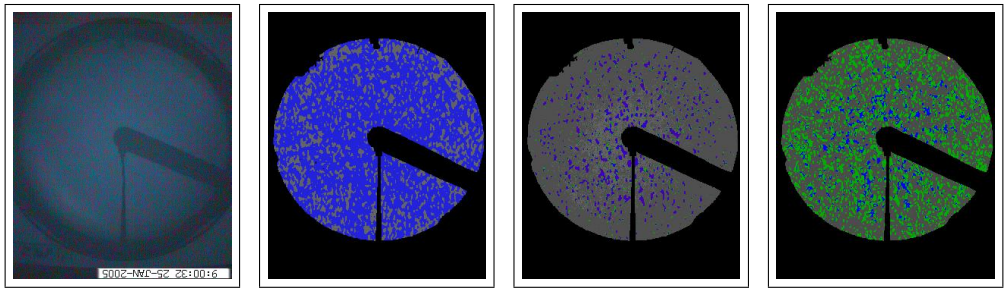


(i) 0501242215 (ii) 0501242215 Long (iii) 0501242215 EGD (iv) 0501242215 MAHA

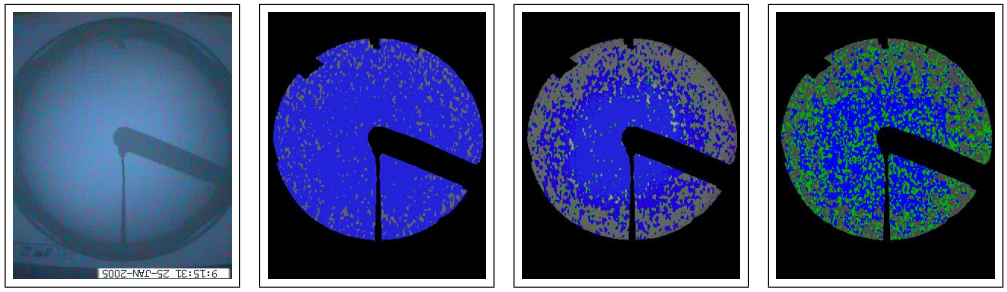


(v) 0501242230

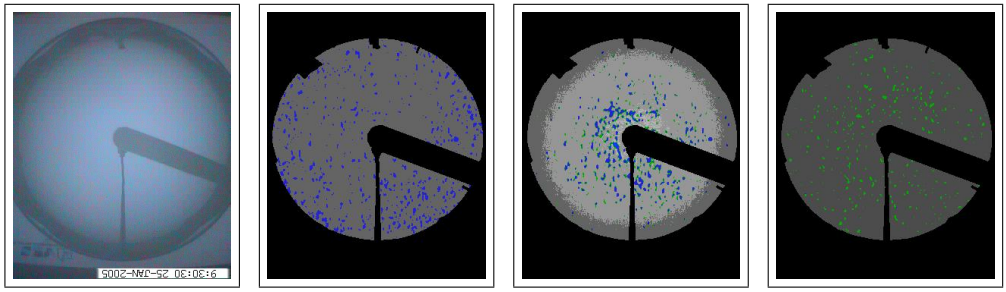
Figure A.274 - Sky images generated from 0501241600 to 0501242245.



(i) 0501250900 (ii) 0501250900 Long (iii) 0501250900 EGD (iv) 0501250900 MAHA

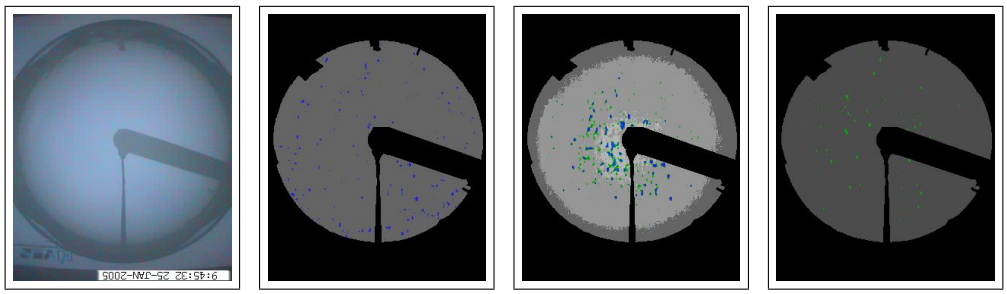


(v) 0501250915 (vi) 0501250915 Long (vii) 0501250915 EGD (viii) 0501250915 MAHA

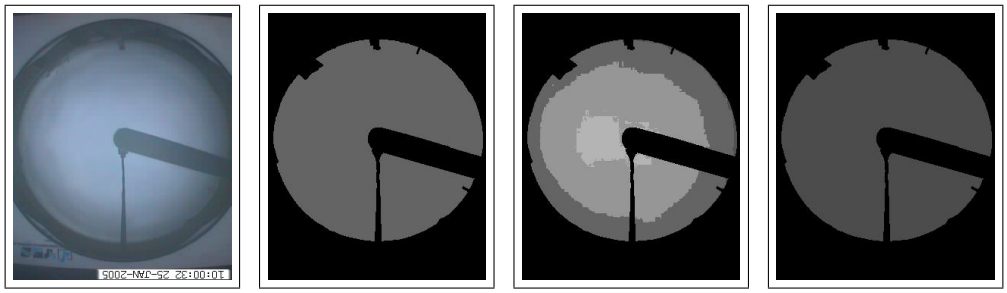


(ix) 0501250930 (x) 0501250930 Long (xi) 0501250930 EGD (xii) 0501250930 MAHA

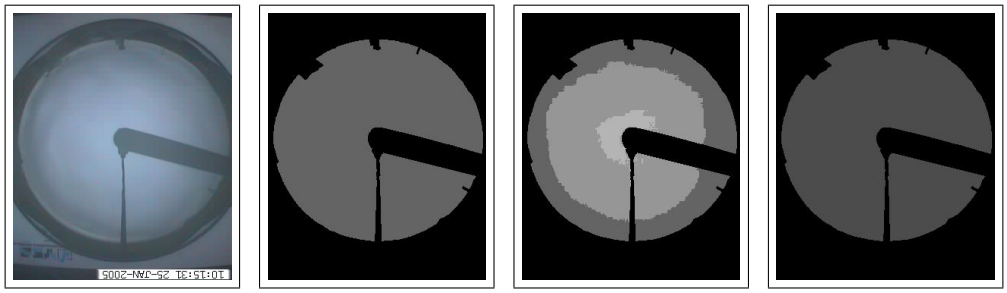
Figure A.275 - Sky images generated from 0501250900 to 0501250930.



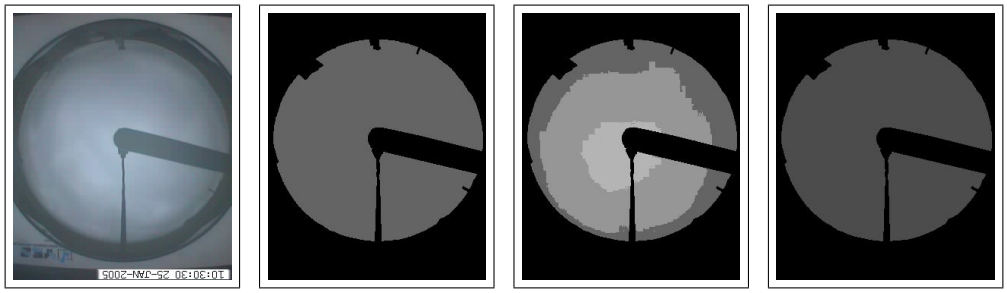
(i) 0501250945 (ii) 0501250945 Long (iii) 0501250945 EGD (iv) 0501250945 MAHA



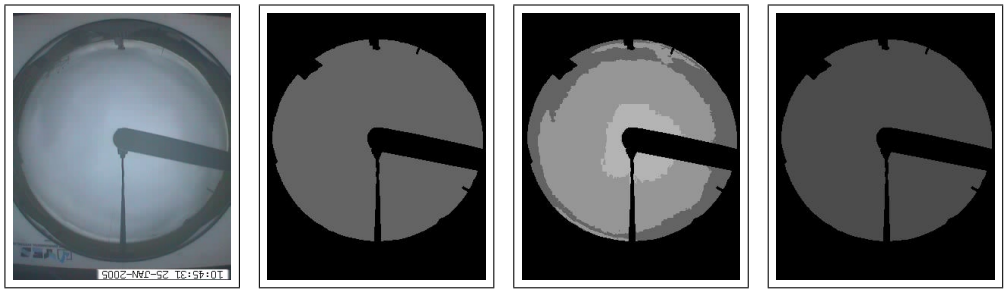
(v) 050125000 (vi) 050125000 Long (vii) 050125000 EGD (viii) 050125000 MAHA



(ix) 0501251015 (x) 0501251015 Long (xi) 0501251015 EGD (xii) 0501251015 MAHA

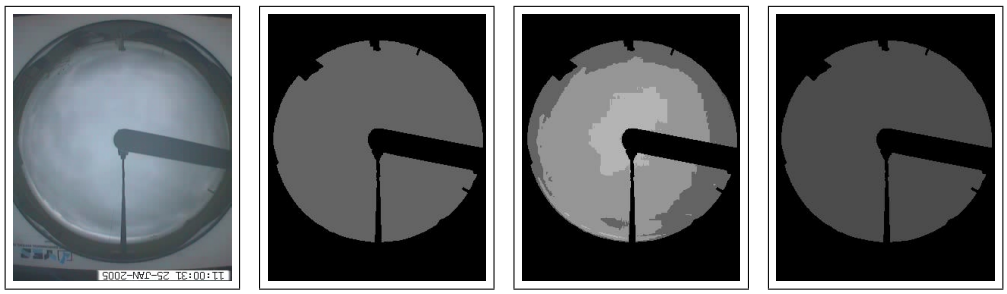


(xiii) 0501251030 (xiv) 0501251030 Long (xv) 0501251030 EGD (xvi) 0501251030 MAHA

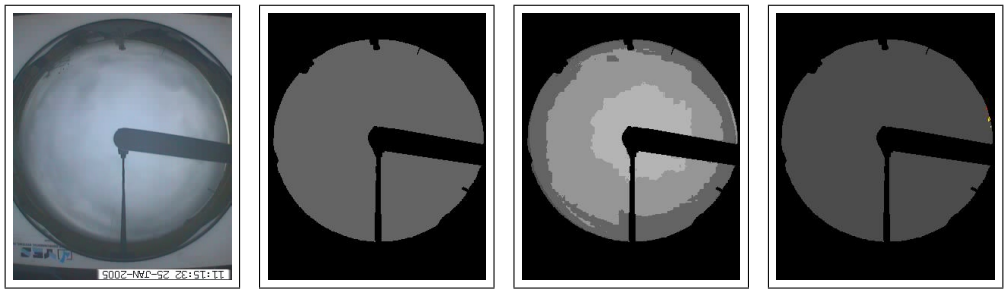


(xvii) 0501251045 (xviii) 0501251045 Long (xix) 0501251045 EGD (xx) 0501251045 MAHA

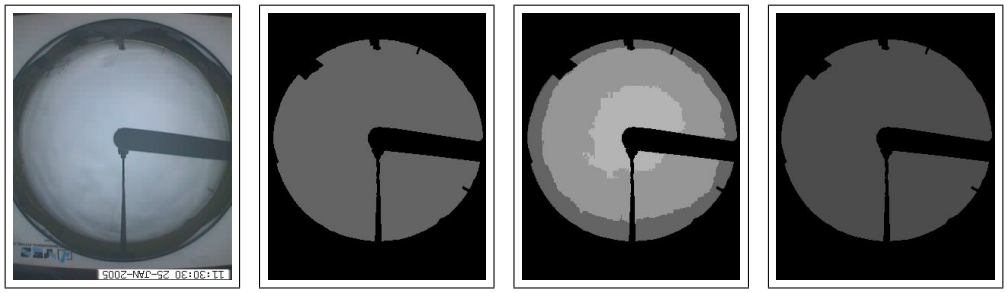
Figure A.276 - Sky images generated from 0501250945 to 0501251045.



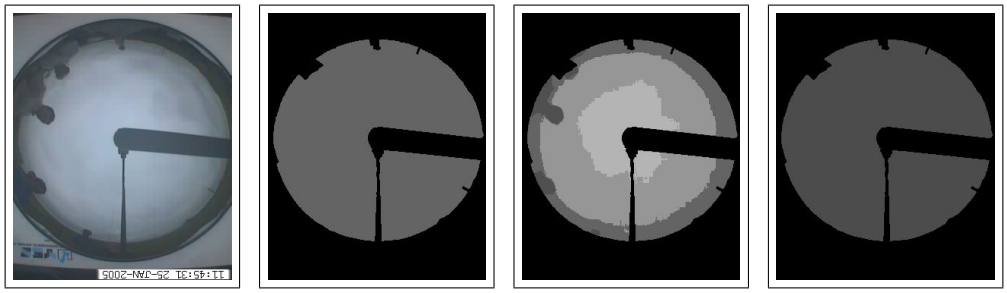
(i) 0501251100 (ii) 0501251100 Long (iii) 0501251100 EGD (iv) 0501251100 MAHA



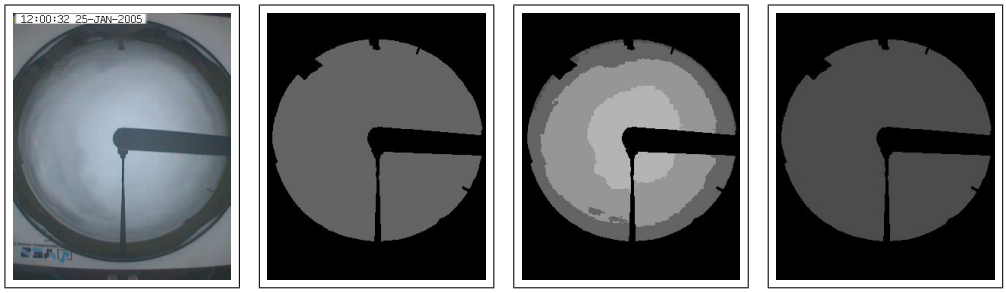
(v) 0501251115 (vi) 0501251115 Long (vii) 0501251115 EGD (viii) 0501251115 MAHA



(ix) 0501251130 (x) 0501251130 Long (xi) 0501251130 EGD (xii) 0501251130 MAHA

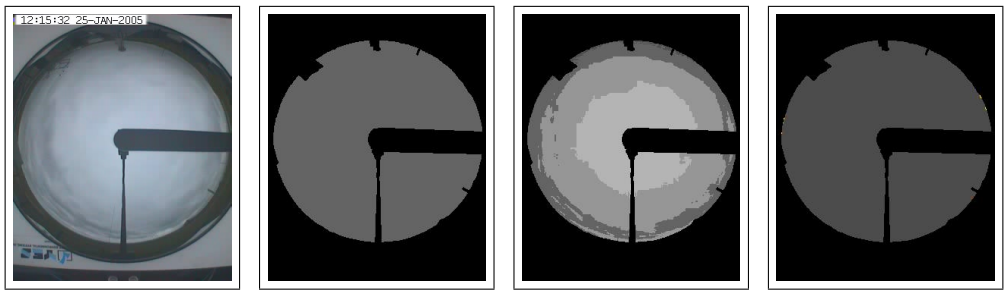


(xiii) 0501251145 (xiv) 0501251145 Long (xv) 0501251145 EGD (xvi) 0501251145 MAHA

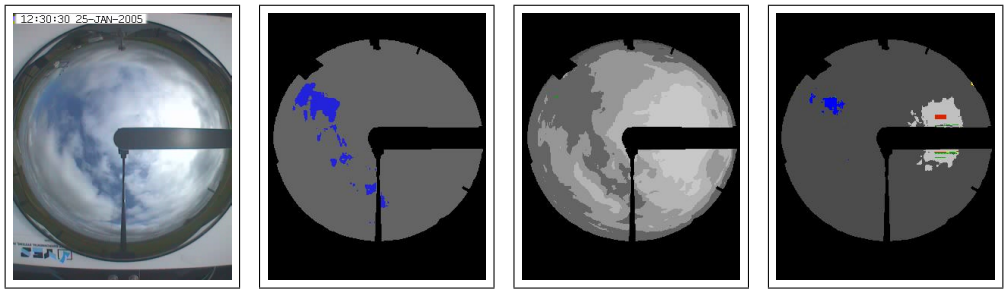


(xvii) 0501251200 (xviii) 0501251200 Long (xix) 0501251200 EGD (xx) 0501251200 MAHA

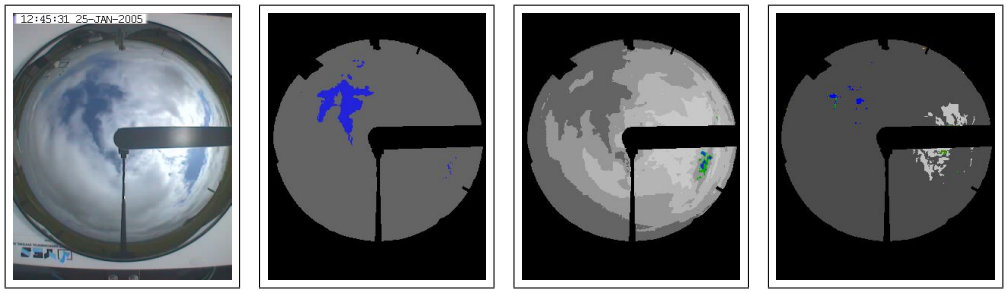
Figure A.277 - Sky images generated from 050125100 to 0501251200.



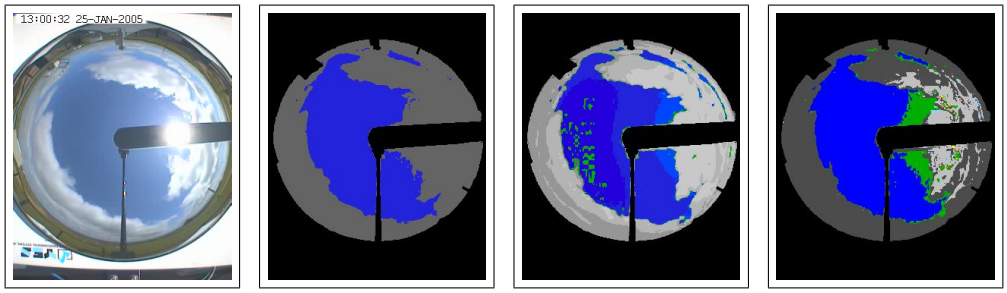
(i) 0501251215 (ii) 0501251215 Long (iii) 0501251215 EGD (iv) 0501251215 MAHA



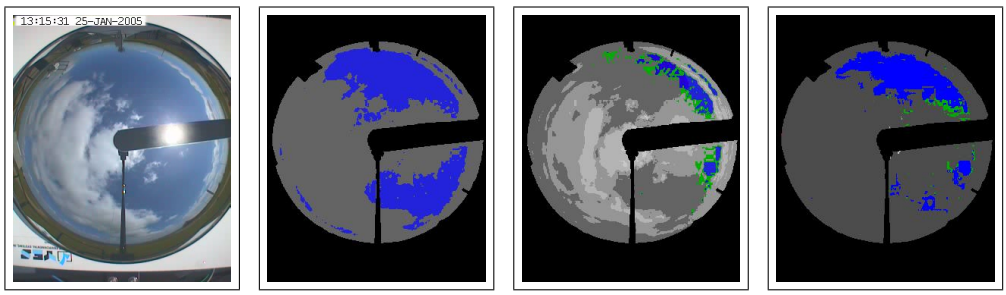
(v) 0501251230 (vi) 0501251230 Long (vii) 0501251230 EGD (viii) 0501251230 MAHA



(ix) 0501251245 (x) 0501251245 Long (xi) 0501251245 EGD (xii) 0501251245 MAHA

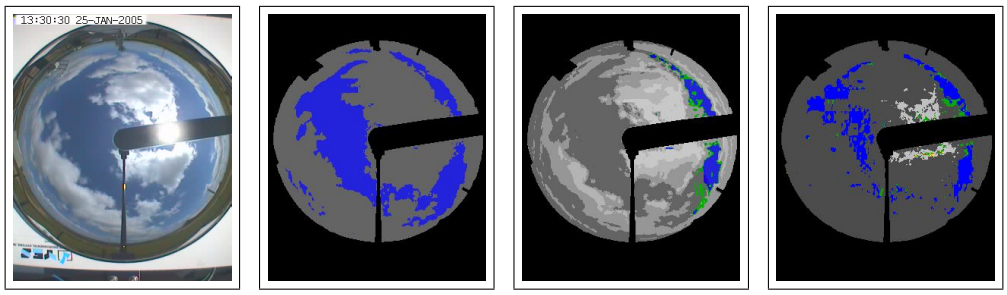


(xiii) 0501251300 (xiv) 0501251300 Long (xv) 0501251300 EGD (xvi) 0501251300 MAHA

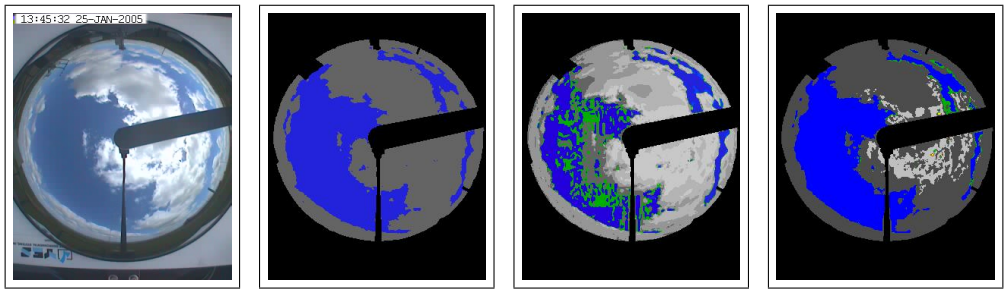


(xvii) 0501251315 (xviii) 0501251315 Long (xix) 0501251315 EGD (xx) 0501251315 MAHA

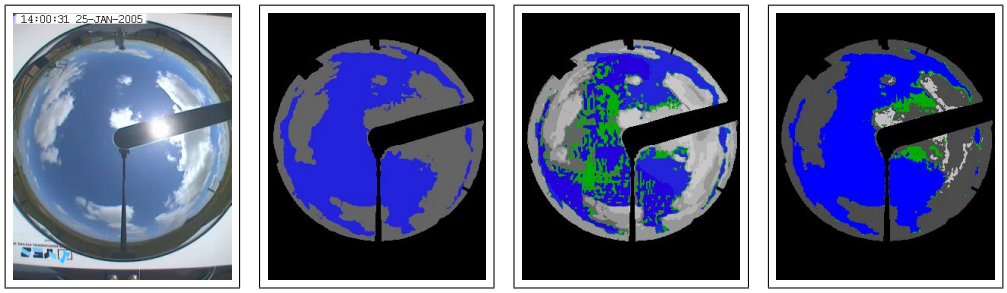
Figure A.278 - Sky images generated from 0501251215 to 0501251315.



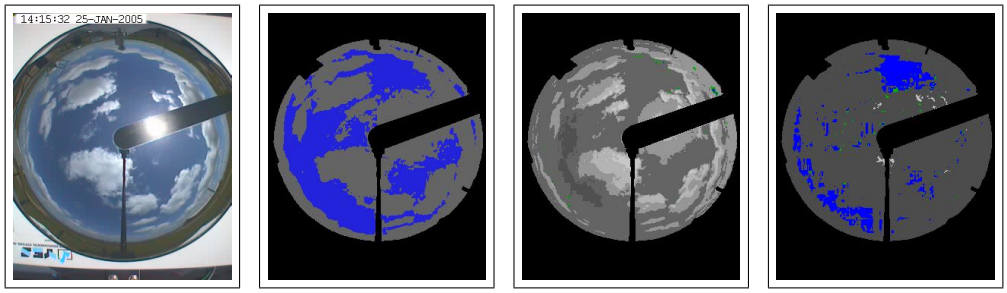
(i) 0501251330 (ii) 0501251330 Long (iii) 0501251330 EGD (iv) 0501251330 MAHA



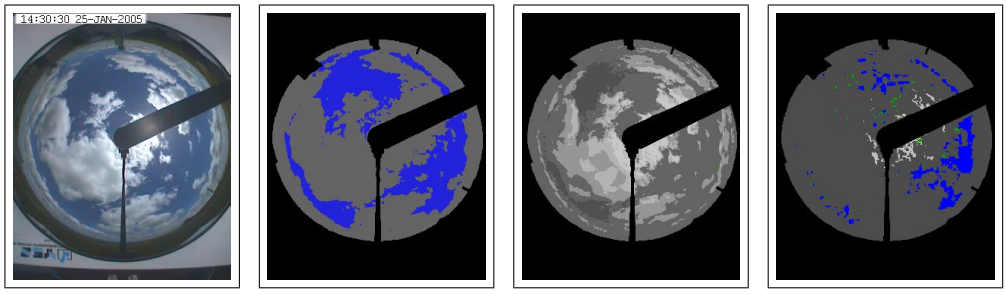
(v) 0501251345 (vi) 0501251345 Long (vii) 0501251345 EGD (viii) 0501251345 MAHA



(ix) 0501251400 (x) 0501251400 Long (xi) 0501251400 EGD (xii) 0501251400 MAHA

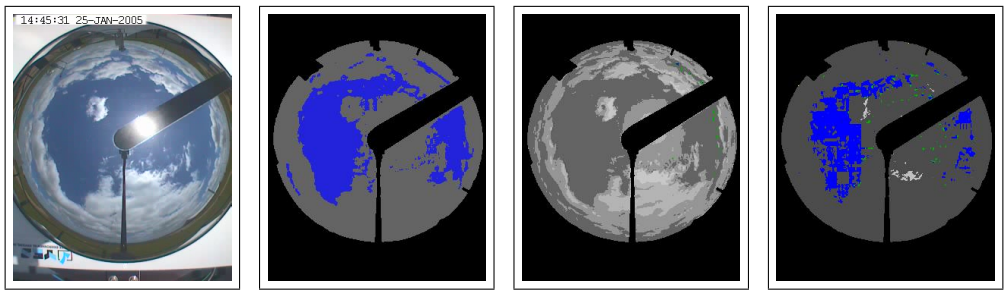


(xiii) 0501251415 (xiv) 0501251415 Long (xv) 0501251415 EGD (xvi) 0501251415 MAHA

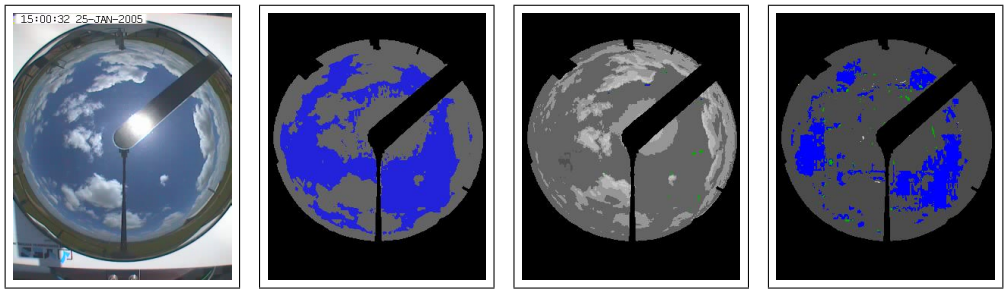


(xvii) 0501251430 (xviii) 0501251430 Long (xix) 0501251430 EGD (xx) 0501251430 MAHA

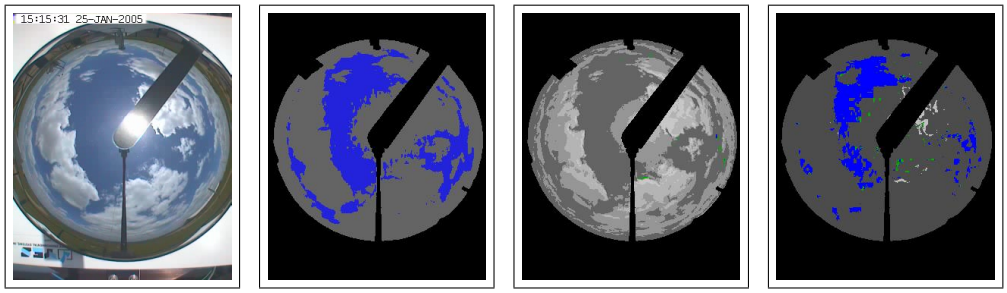
Figure A.279 - Sky images generated from 0501251330 to 0501251430.



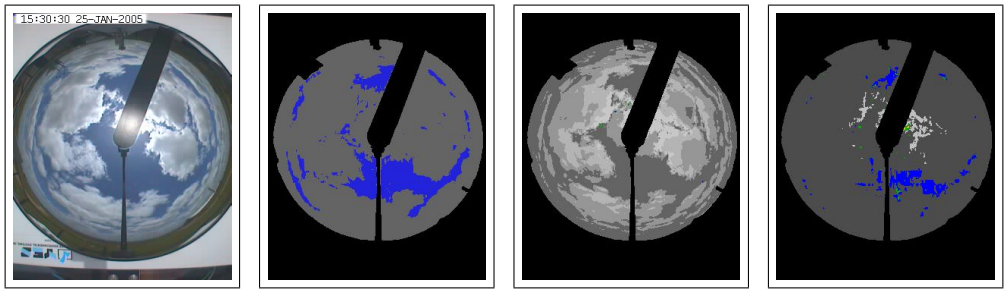
(i) 0501251445 (ii) 0501251445 Long (iii) 0501251445 EGD (iv) 0501251445 MAHA



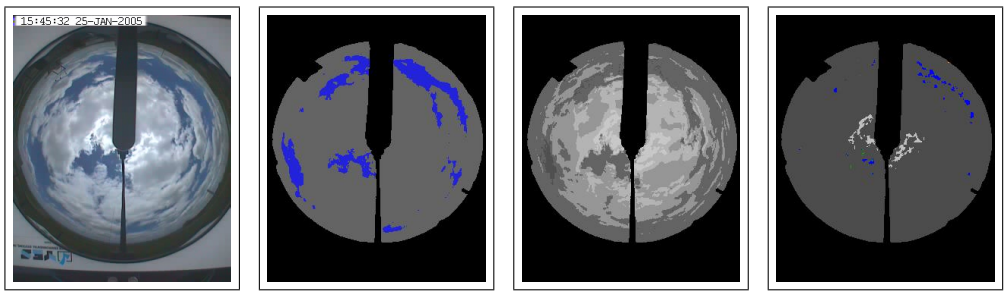
(v) 0501251500 (vi) 0501251500 Long (vii) 0501251500 EGD (viii) 0501251500 MAHA



(ix) 0501251515 (x) 0501251515 Long (xi) 0501251515 EGD (xii) 0501251515 MAHA

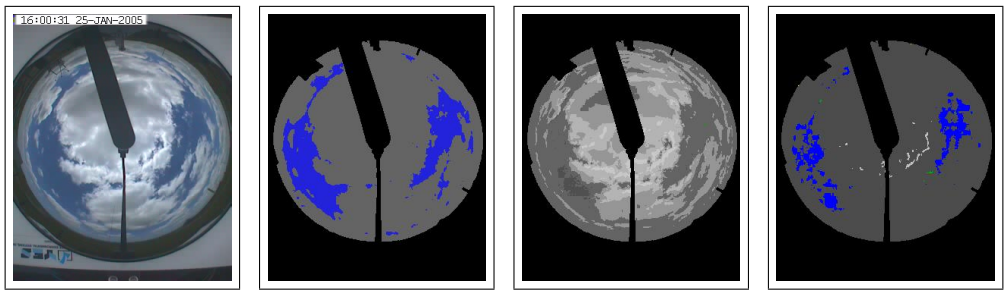


(xiii) 0501251530 (xiv) 0501251530 Long (xv) 0501251530 EGD (xvi) 0501251530 MAHA

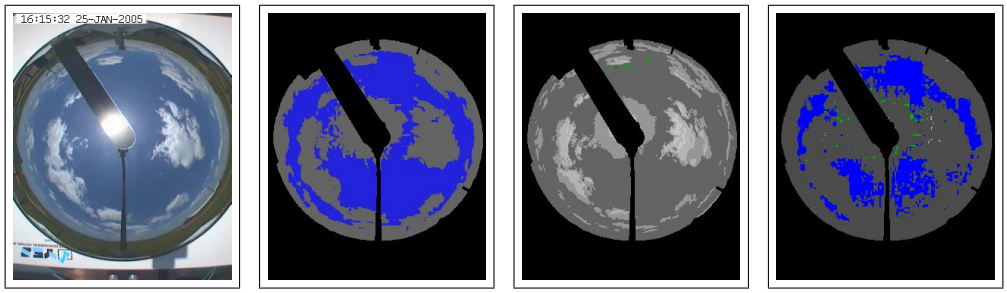


(xvii) 0501251545 (xviii) 0501251545 Long (xix) 0501251545 EGD (xx) 0501251545 MAHA

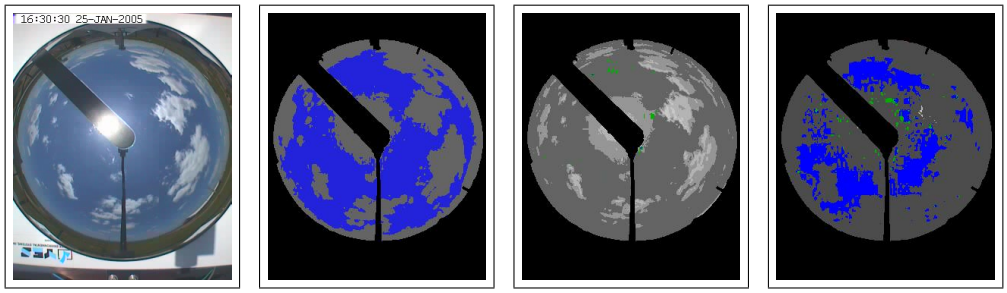
Figure A.280 - Sky images generated from 0501251445 to 0501251545.



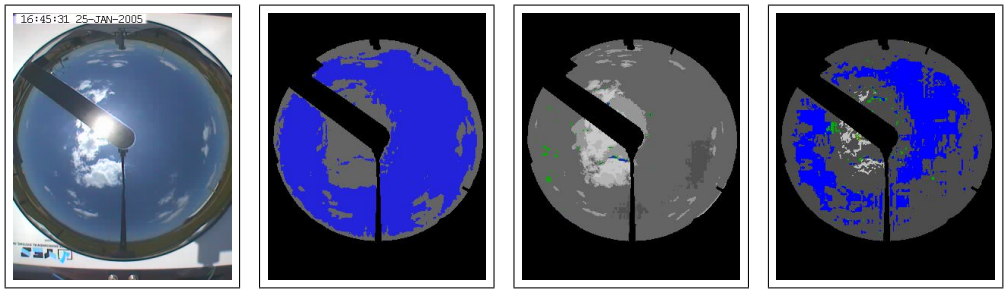
(i) 0501251600 (ii) 0501251600 Long (iii) 0501251600 EGD (iv) 0501251600 MAHA



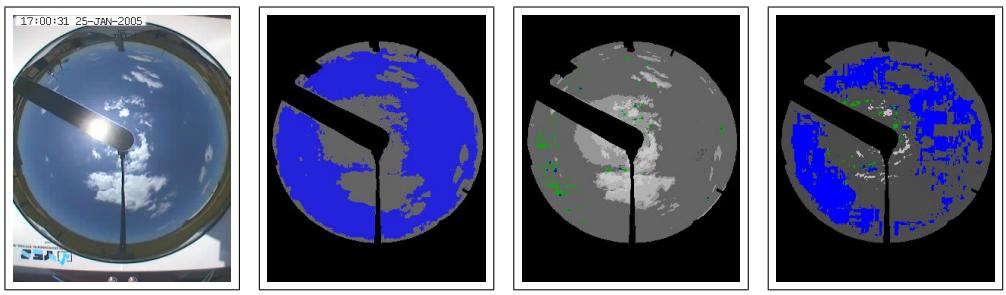
(v) 0501251615 (vi) 0501251615 Long (vii) 0501251615 EGD (viii) 0501251615 MAHA



(ix) 0501251630 (x) 0501251630 Long (xi) 0501251630 EGD (xii) 0501251630 MAHA

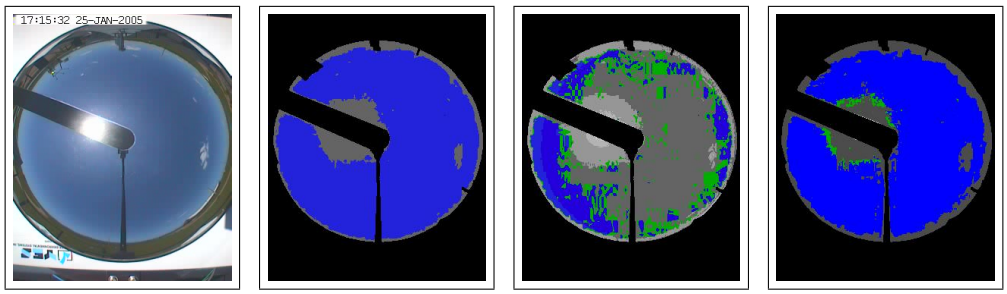


(xiii) 0501251645 (xiv) 0501251645 Long (xv) 0501251645 EGD (xvi) 0501251645 MAHA

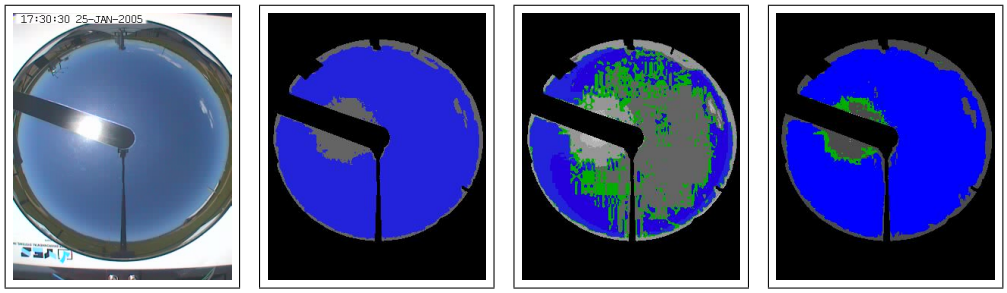


(xvii) 0501251700 (xviii) 0501251700 Long (xix) 0501251700 EGD (xx) 0501251700 MAHA

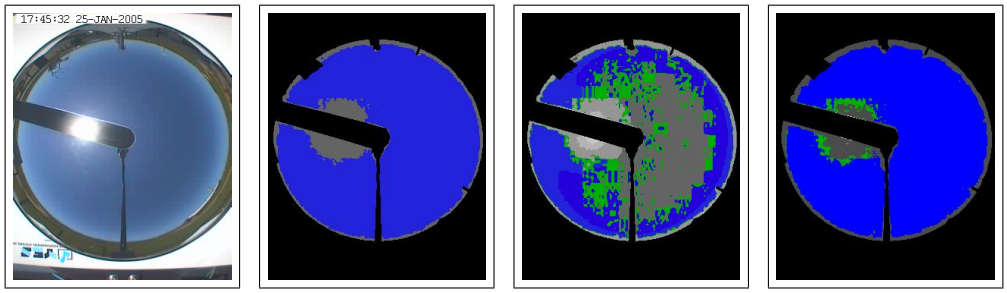
Figure A.281 - Sky images generated from 0501251600 to 0501251700.



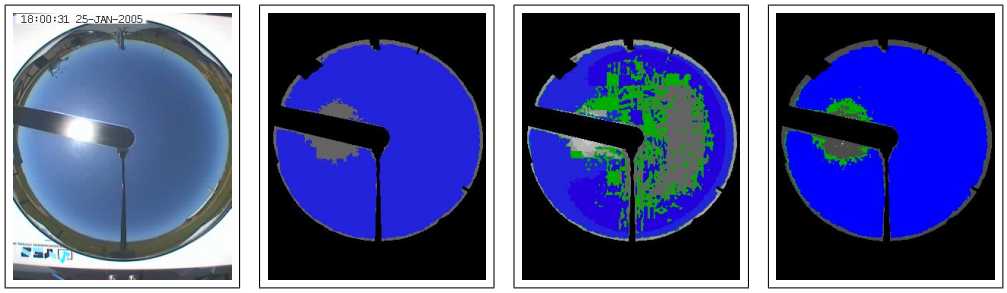
(i) 0501251715 (ii) 0501251715 Long (iii) 0501251715 EGD (iv) 0501251715 MAHA



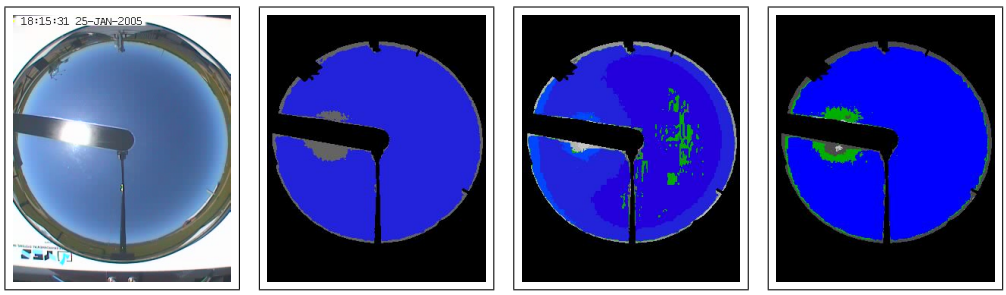
(v) 0501251730 (vi) 0501251730 Long (vii) 0501251730 EGD (viii) 0501251730 MAHA



(ix) 0501251745 (x) 0501251745 Long (xi) 0501251745 EGD (xii) 0501251745 MAHA

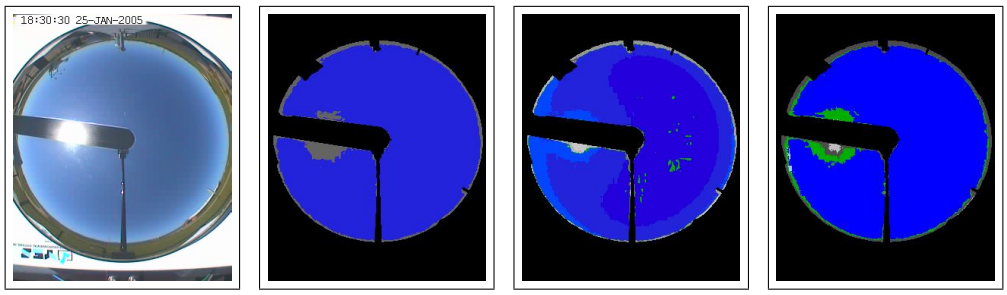


(xiii) 0501251800 (xiv) 0501251800 Long (xv) 0501251800 EGD (xvi) 0501251800 MAHA

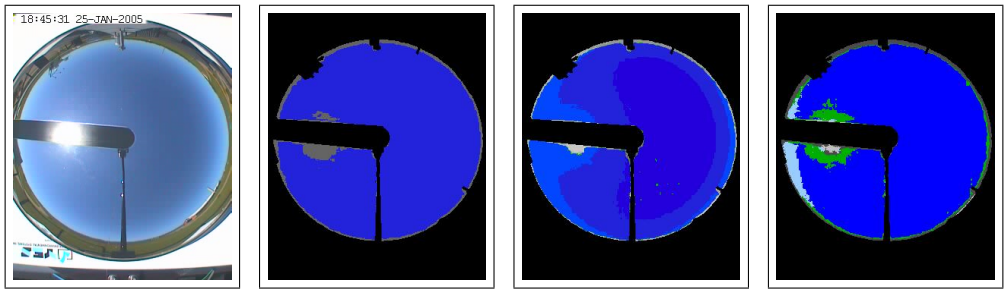


(xvii) 0501251815 (xviii) 0501251815 Long (xix) 0501251815 EGD (xx) 0501251815 MAHA

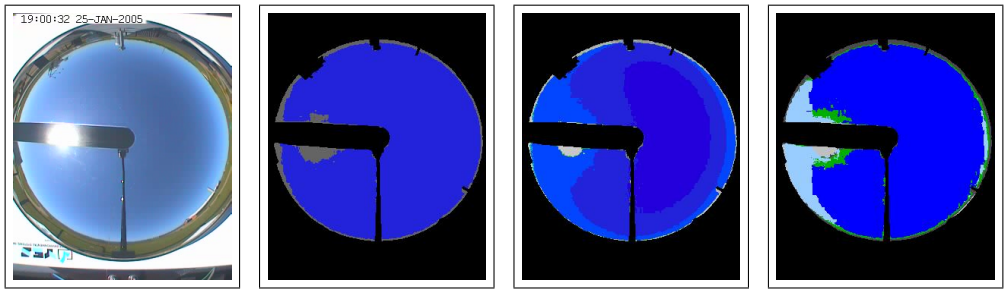
Figure A.282 - Sky images generated from 0501251715 to 0501251815.



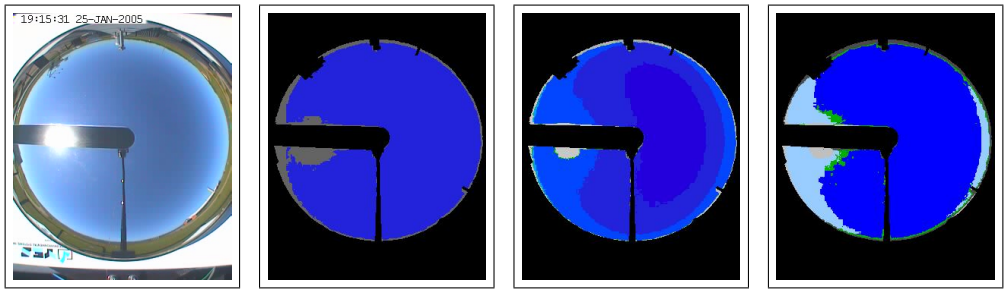
(i) 0501251830 (ii) 0501251830 Long (iii) 0501251830 EGD (iv) 0501251830 MAHA



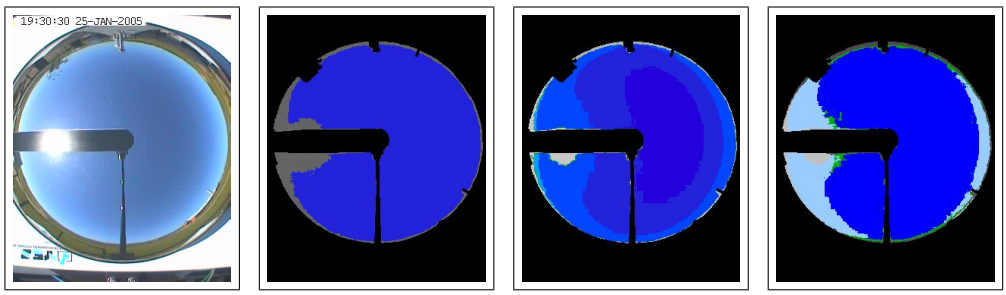
(v) 0501251845 (vi) 0501251845 Long (vii) 0501251845 EGD (viii) 0501251845 MAHA



(ix) 0501251900 (x) 0501251900 Long (xi) 0501251900 EGD (xii) 0501251900 MAHA

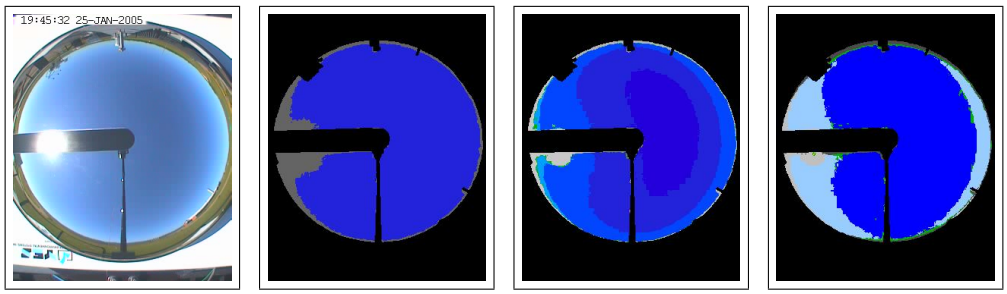


(xiii) 0501251915 (xiv) 0501251915 Long (xv) 0501251915 EGD (xvi) 0501251915 MAHA

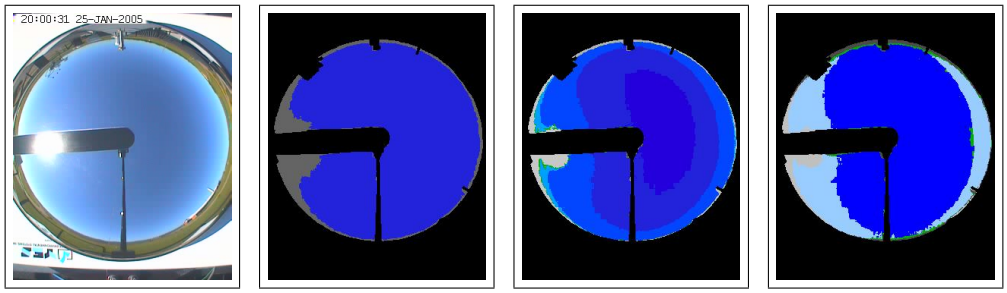


(xvii) 0501251930 (xviii) 0501251930 Long (xix) 0501251930 EGD (xx) 0501251930 MAHA

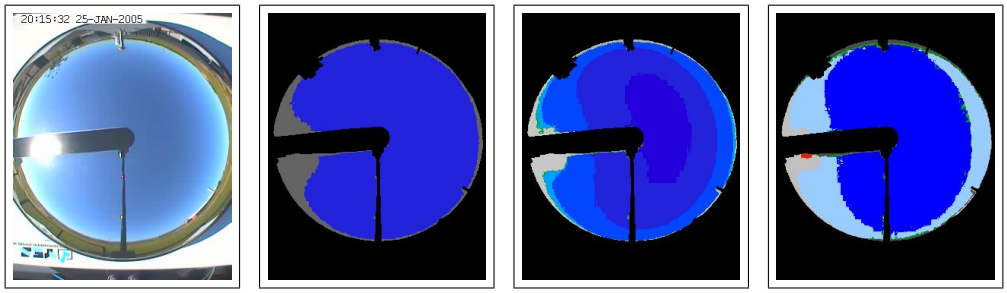
Figure A.283 - Sky images generated from 0501251830 to 0501251930.



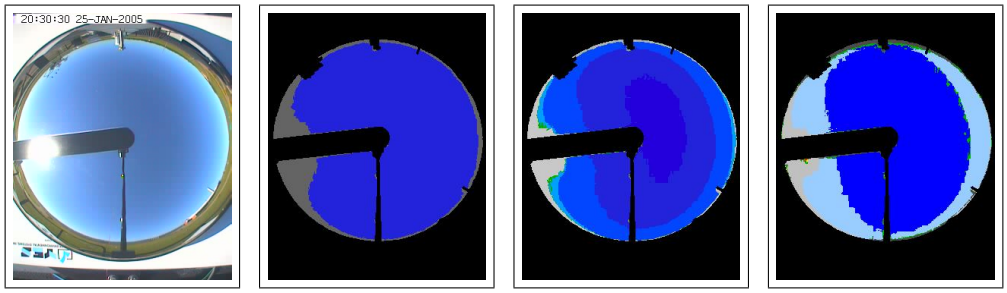
(i) 0501251945 (ii) 0501251945 Long (iii) 0501251945 EGD (iv) 0501251945 MAHA



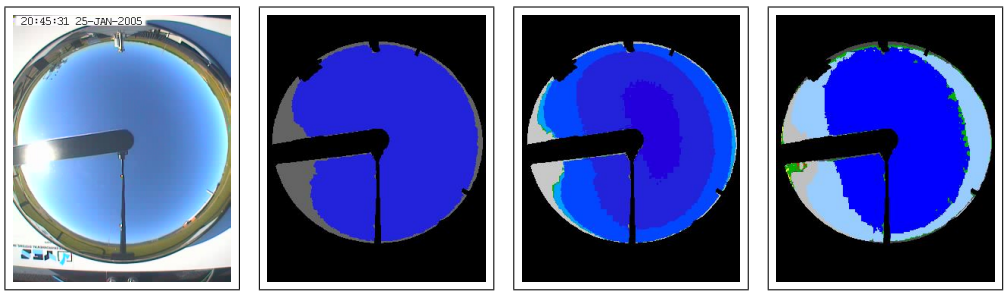
(v) 0501252000 (vi) 0501252000 Long (vii) 0501252000 EGD (viii) 0501252000 MAHA



(ix) 0501252015 (x) 0501252015 Long (xi) 0501252015 EGD (xii) 0501252015 MAHA

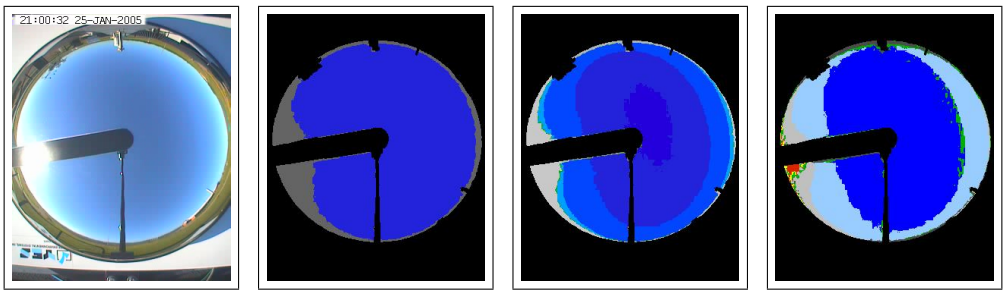


(xiii) 0501252030 (xiv) 0501252030 Long (xv) 0501252030 EGD (xvi) 0501252030 MAHA

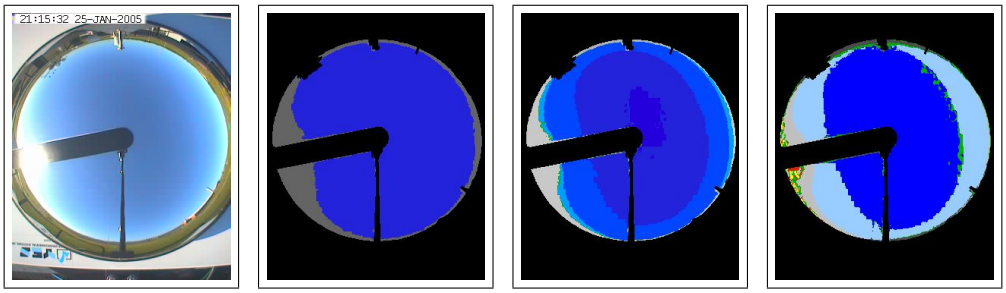


(xvii) 0501252045 (xviii) 0501252045 Long (xix) 0501252045 EGD (xx) 0501252045 MAHA

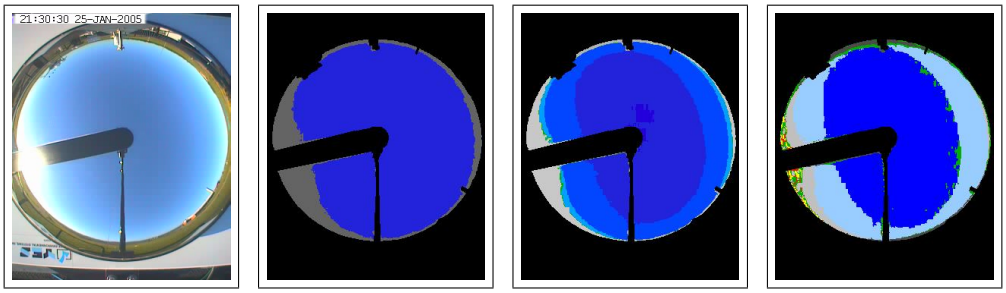
Figure A.284 - Sky images generated from 0501251945 to 0501252045.



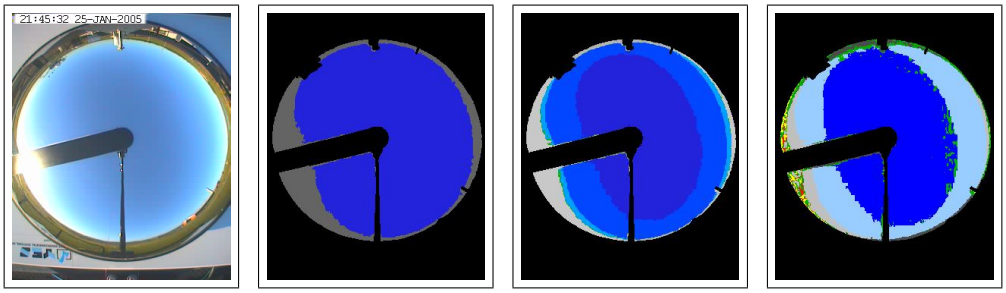
(i) 0501252100 (ii) 0501252100 Long (iii) 0501252100 EGD (iv) 0501252100 MAHA



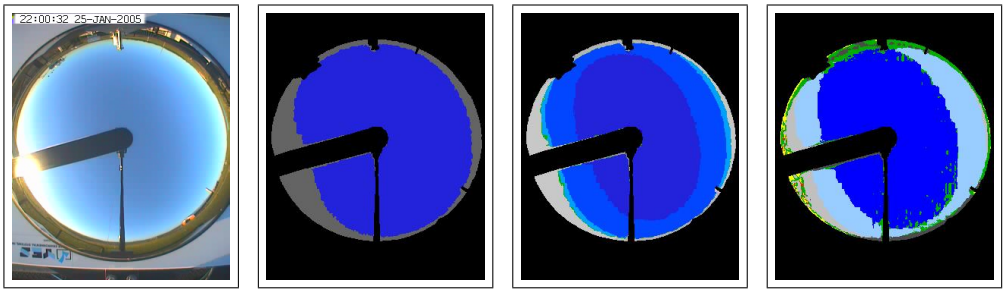
(v) 0501252115 (vi) 0501252115 Long (vii) 0501252115 EGD (viii) 0501252115 MAHA



(ix) 0501252130 (x) 0501252130 Long (xi) 0501252130 EGD (xii) 0501252130 MAHA

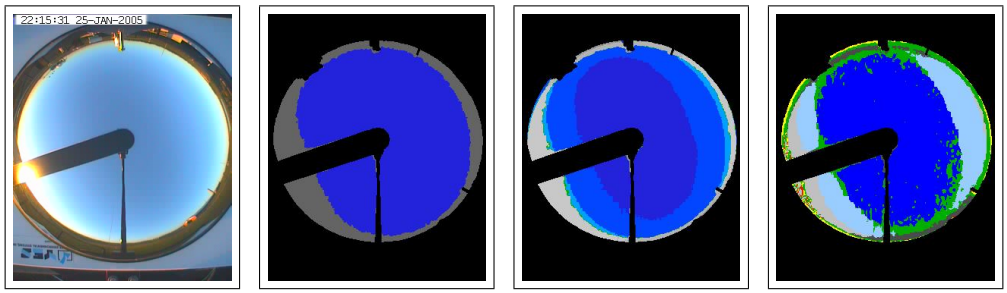


(xiii) 0501252145 (xiv) 0501252145 Long (xv) 0501252145 EGD (xvi) 0501252145 MAHA

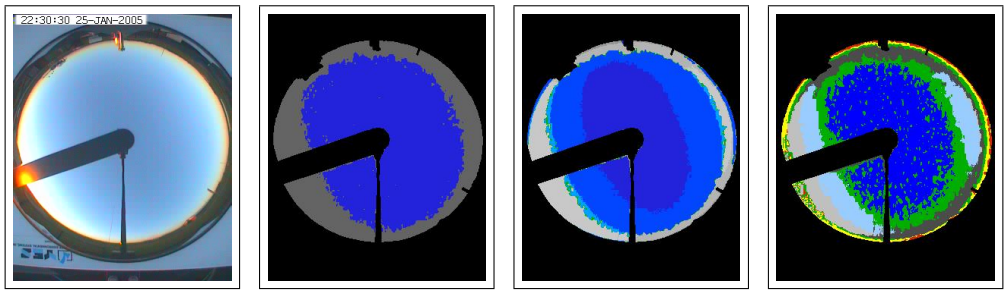


(xvii) 0501252200 (xviii) 0501252200 Long (xix) 0501252200 EGD (xx) 0501252200 MAHA

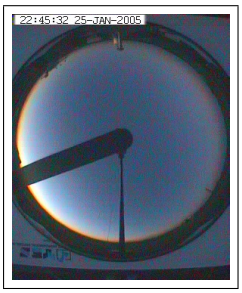
Figure A.285 - Sky images generated from 0501252100 to 0501252200.



(i) 0501252215 (ii) 0501252215 Long (iii) 0501252215 EGD (iv) 0501252215 MAHA

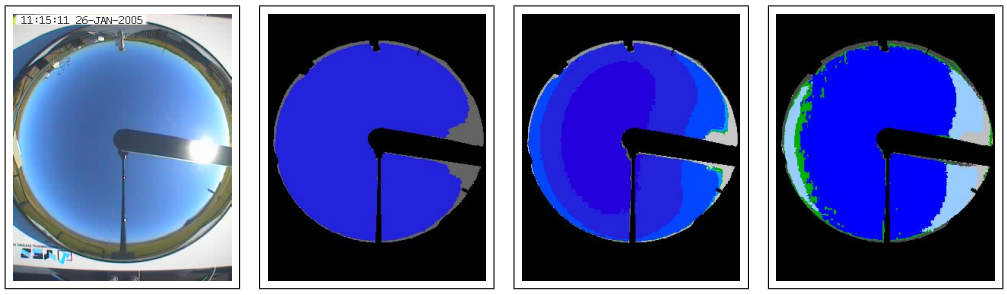


(v) 0501252230 (vi) 0501252230 Long (vii) 0501252230 EGD (viii) 0501252230 MAHA

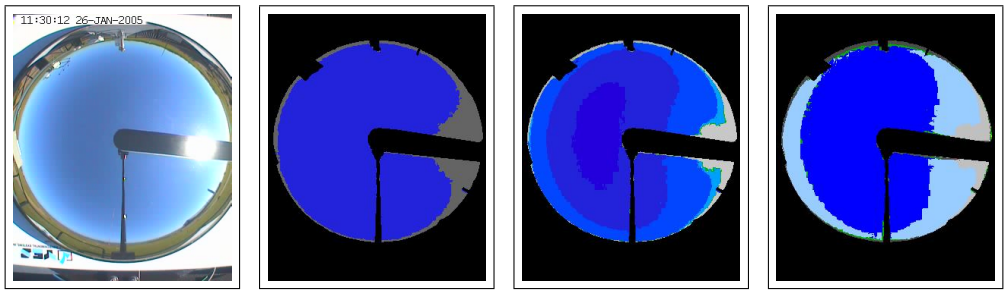


(ix) 0501252245

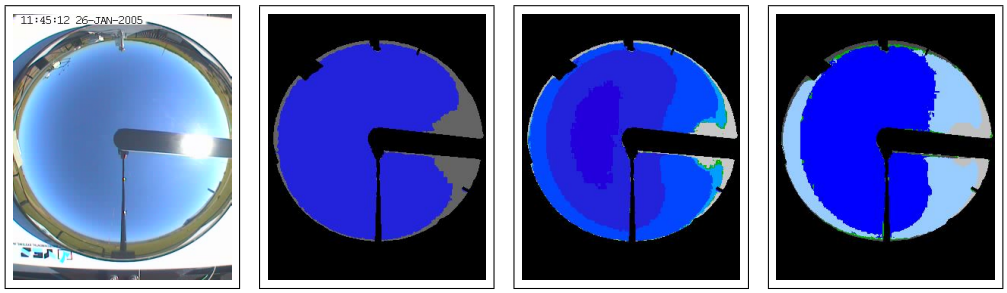
Figure A.286 - Sky images generated from 0501251600 to 0501252245.



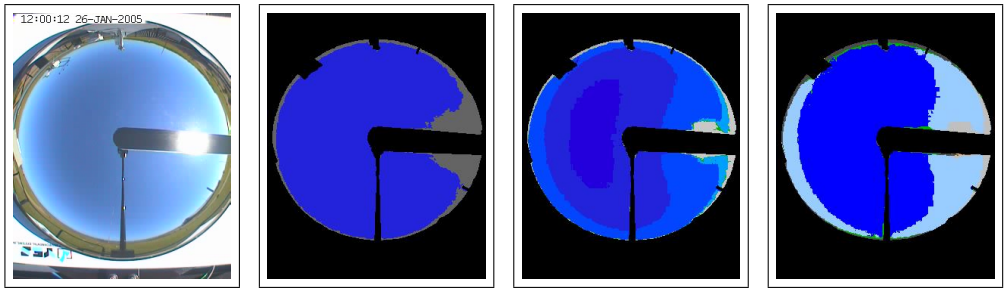
(i) 0501261115 (ii) 0501261115 Long (iii) 0501261115 EGD (iv) 0501261115 MAHA



(v) 0501261130 (vi) 0501261130 Long (vii) 0501261130 EGD (viii) 0501261130 MAHA

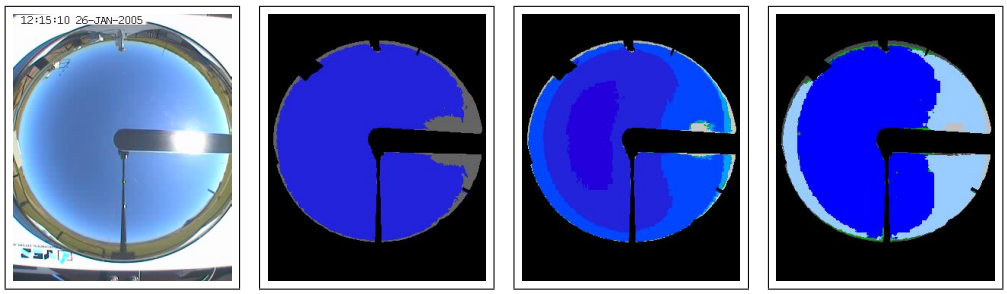


(ix) 0501261145 (x) 0501261145 Long (xi) 0501261145 EGD (xii) 0501261145 MAHA

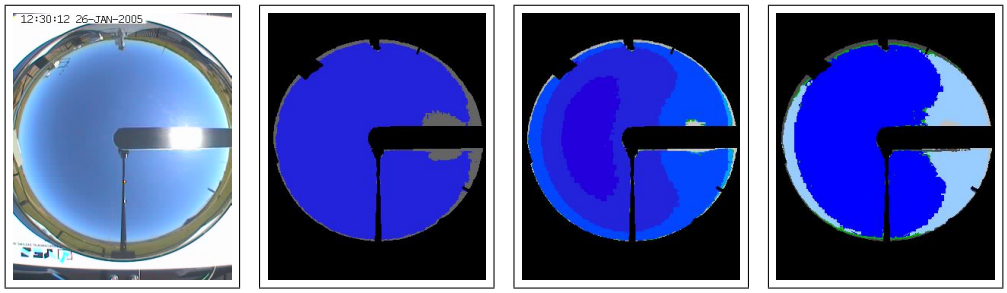


(xiii) 0501261200 (xiv) 0501261200 Long (xv) 0501261200 EGD (xvi) 0501261200 MAHA

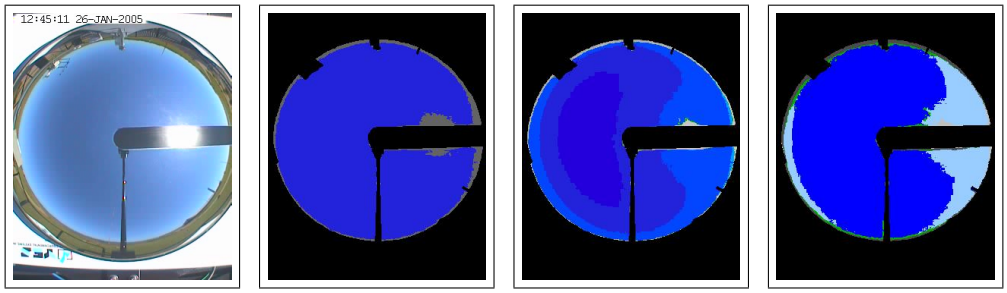
Figure A.287 - Sky images generated from 0501261115 to 0501261200.



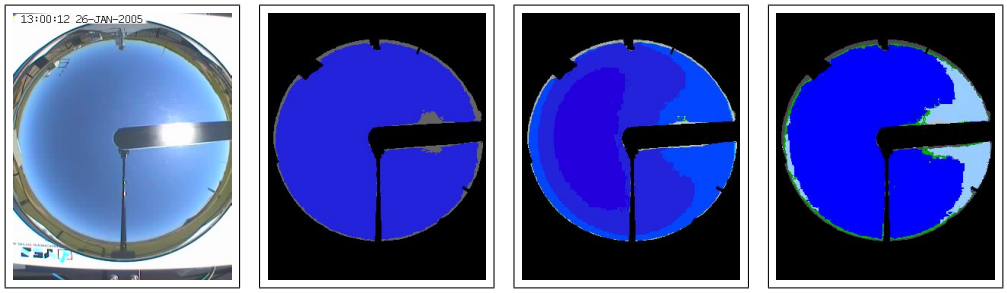
(i) 0501261215 (ii) 0501261215 Long (iii) 0501261215 EGD (iv) 0501261215 MAHA



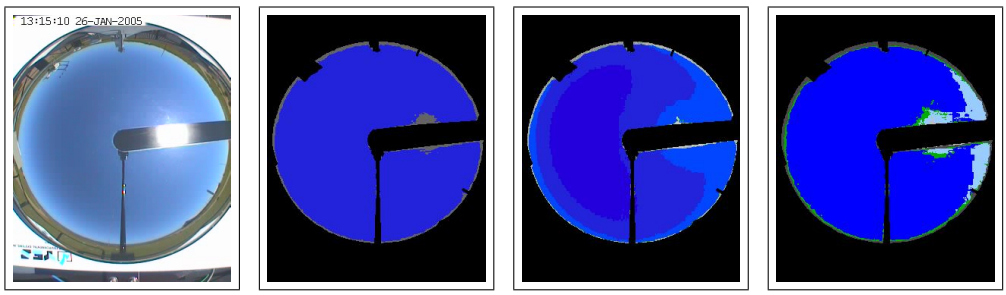
(v) 0501261230 (vi) 0501261230 Long (vii) 0501261230 EGD (viii) 0501261230 MAHA



(ix) 0501261245 (x) 0501261245 Long (xi) 0501261245 EGD (xii) 0501261245 MAHA

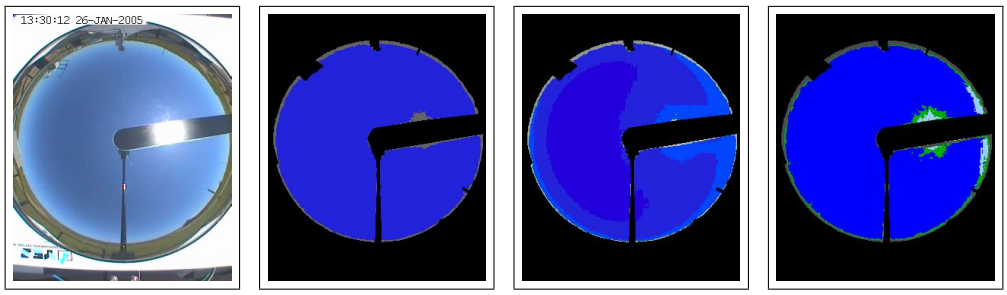


(xiii) 0501261300 (xiv) 0501261300 Long (xv) 0501261300 EGD (xvi) 0501261300 MAHA

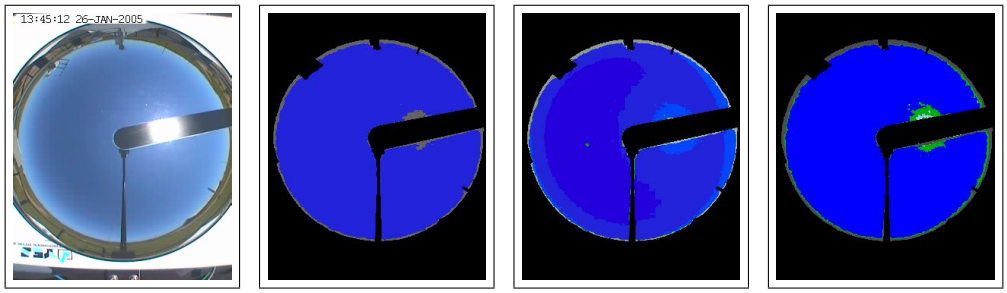


(xvii) 0501261315 (xviii) 0501261315 Long (xix) 0501261315 EGD (xx) 0501261315 MAHA

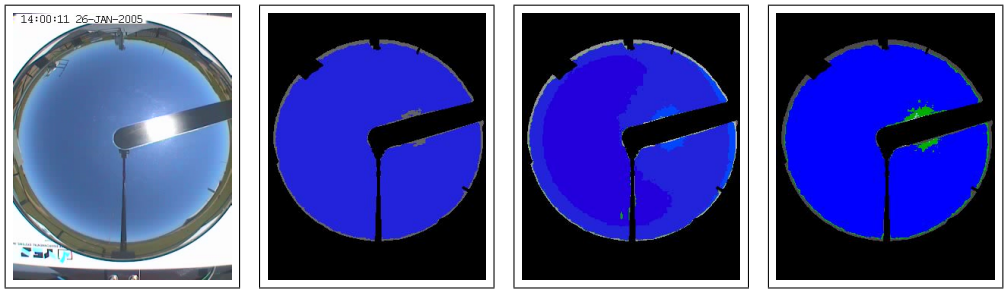
Figure A.288 - Sky images generated from 0501261215 to 0501261315.



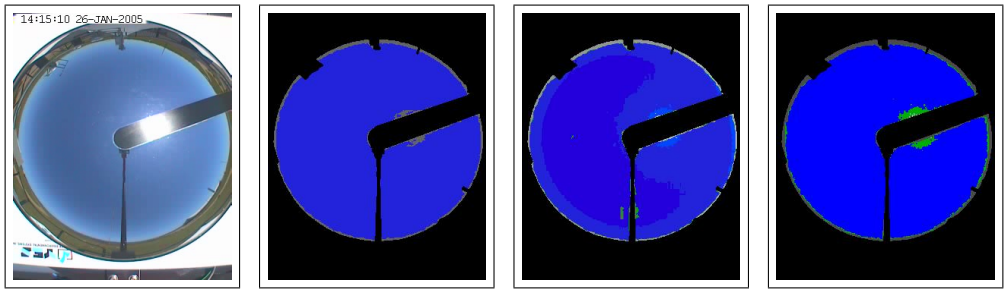
(i) 0501261330 (ii) 0501261330 Long (iii) 0501261330 EGD (iv) 0501261330 MAHA



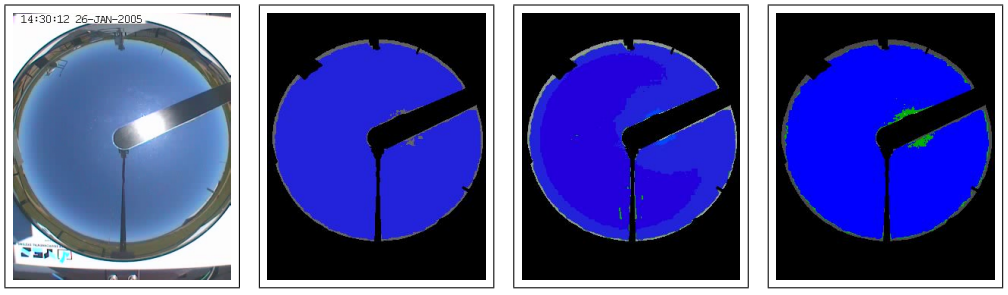
(v) 0501261345 (vi) 0501261345 Long (vii) 0501261345 EGD (viii) 0501261345 MAHA



(ix) 0501261400 (x) 0501261400 Long (xi) 0501261400 EGD (xii) 0501261400 MAHA

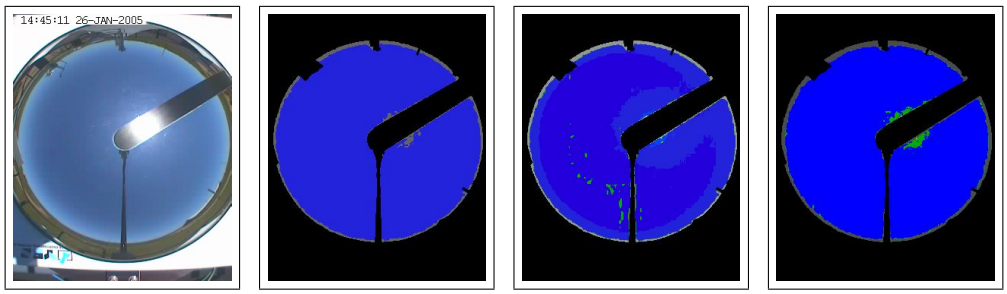


(xiii) 0501261415 (xiv) 0501261415 Long (xv) 0501261415 EGD (xvi) 0501261415 MAHA

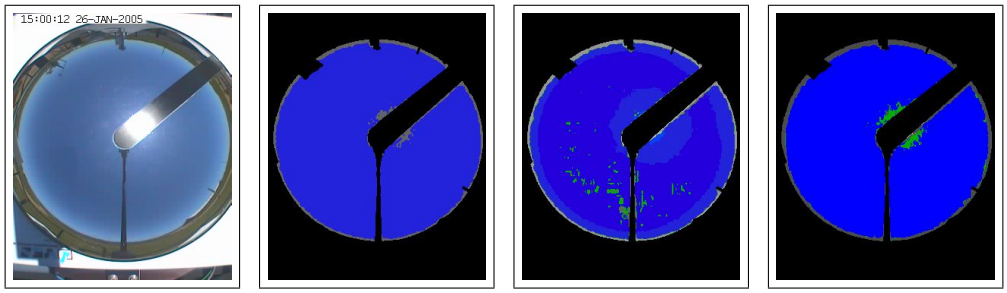


(xvii) 0501261430 (xviii) 0501261430 Long (xix) 0501261430 EGD (xx) 0501261430 MAHA

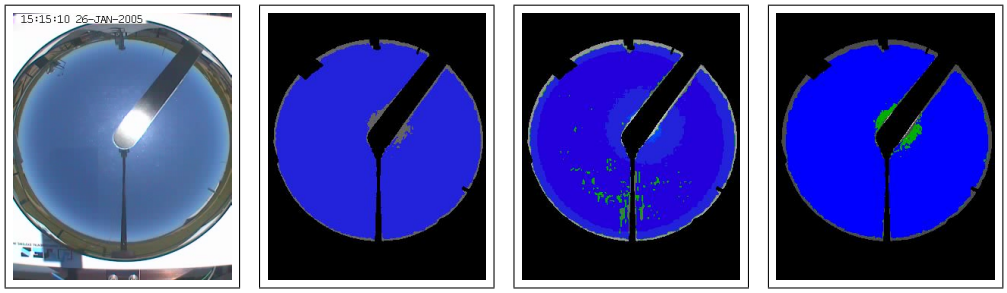
Figure A.289 - Sky images generated from 0501261330 to 0501261430.



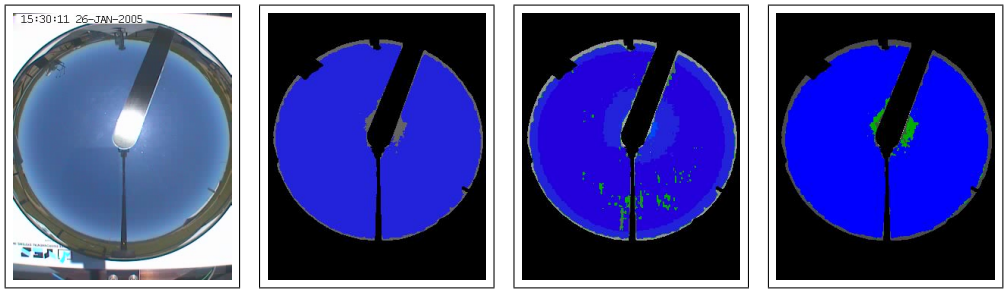
(i) 0501261445 (ii) 0501261445 Long (iii) 0501261445 EGD (iv) 0501261445 MAHA



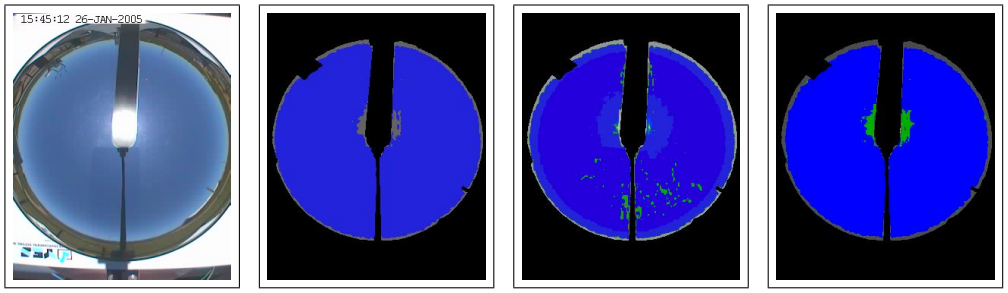
(v) 0501261500 (vi) 0501261500 Long (vii) 0501261500 EGD (viii) 0501261500 MAHA



(ix) 0501261515 (x) 0501261515 Long (xi) 0501261515 EGD (xii) 0501261515 MAHA

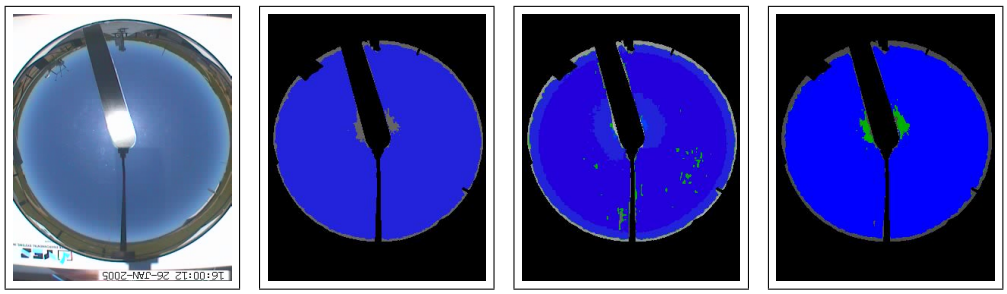


(xiii) 0501261530 (xiv) 0501261530 Long (xv) 0501261530 EGD (xvi) 0501261530 MAHA

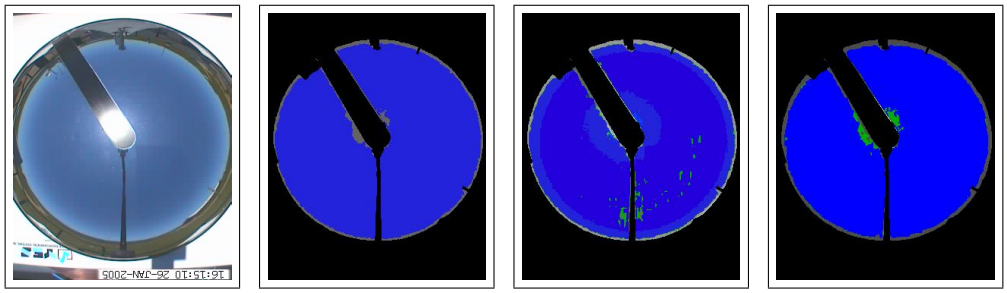


(xvii) 0501261545 (xviii) 0501261545 Long (xix) 0501261545 EGD (xx) 0501261545 MAHA

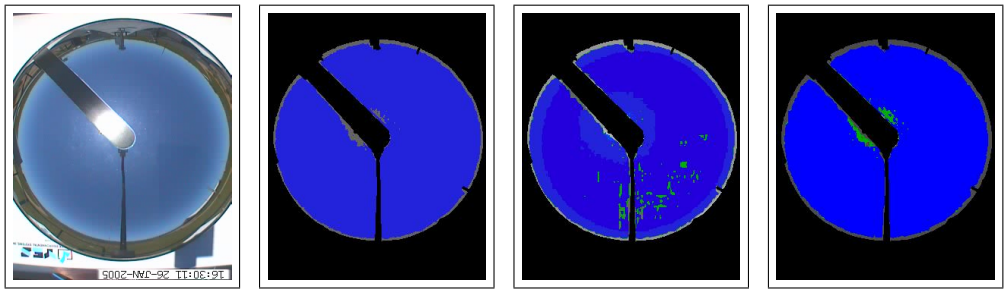
Figure A.290 - Sky images generated from 0501261445 to 0501261545.



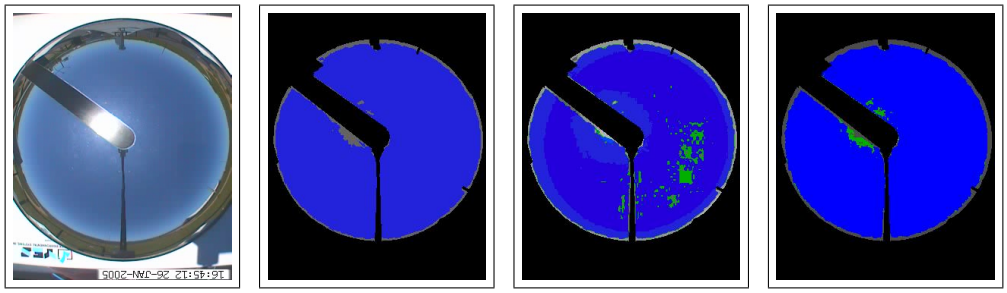
(i) 0501261600 (ii) 0501261600 Long (iii) 0501261600 EGD (iv) 0501261600 MAHA



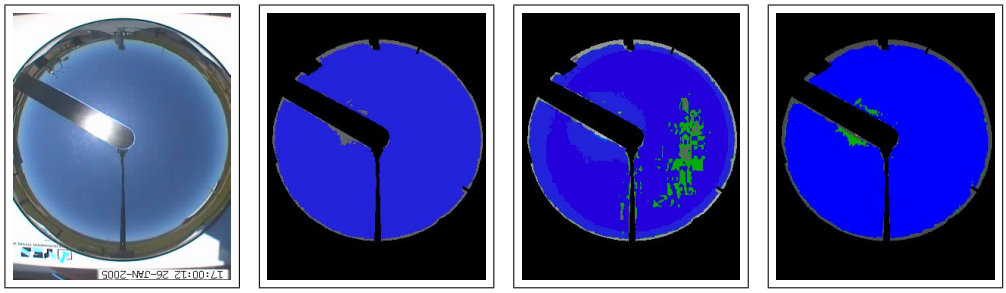
(v) 0501261615 (vi) 0501261615 Long (vii) 0501261615 EGD (viii) 0501261615 MAHA



(ix) 0501261630 (x) 0501261630 Long (xi) 0501261630 EGD (xii) 0501261630 MAHA

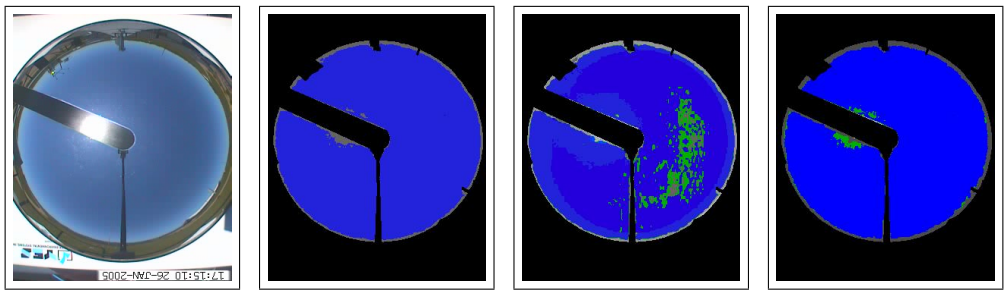


(xiii) 0501261645 (xiv) 0501261645 Long (xv) 0501261645 EGD (xvi) 0501261645 MAHA

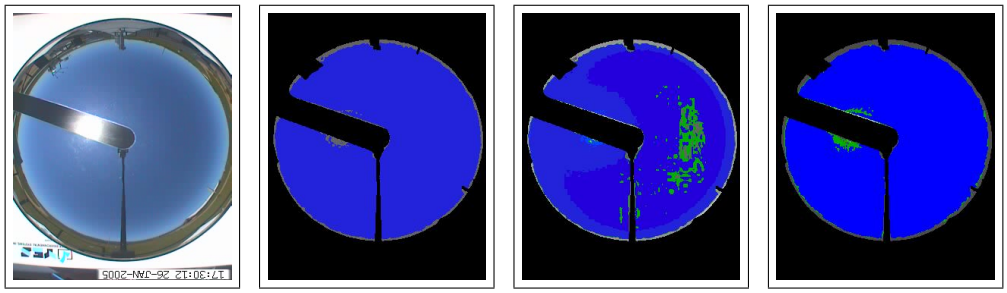


(xvii) 0501261700 (xviii) 0501261700 Long (xix) 0501261700 EGD (xx) 0501261700 MAHA

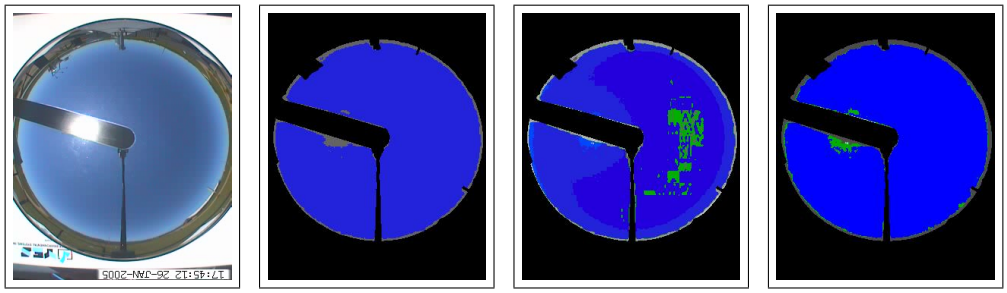
Figure A.291 - Sky images generated from 0501261600 to 0501261700.



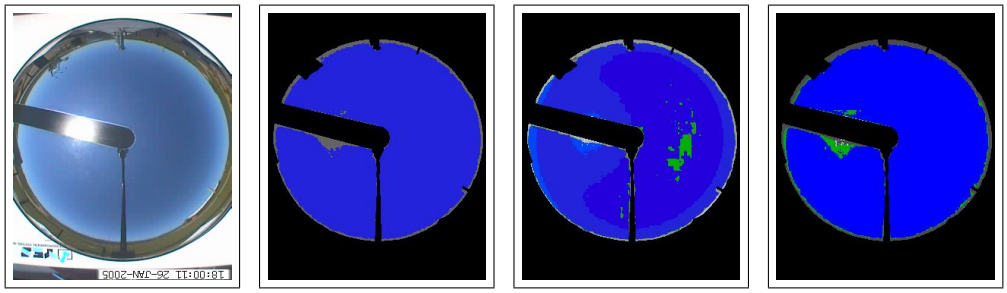
(i) 0501261715 (ii) 0501261715 Long (iii) 0501261715 EGD (iv) 0501261715 MAHA



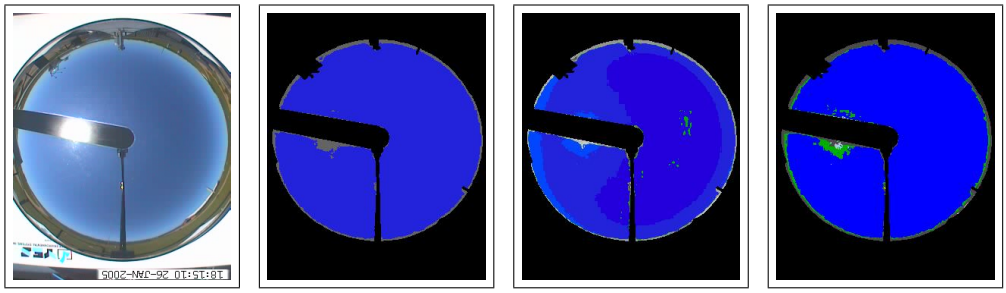
(v) 0501261730 (vi) 0501261730 Long (vii) 0501261730 EGD (viii) 0501261730 MAHA



(ix) 0501261745 (x) 0501261745 Long (xi) 0501261745 EGD (xii) 0501261745 MAHA

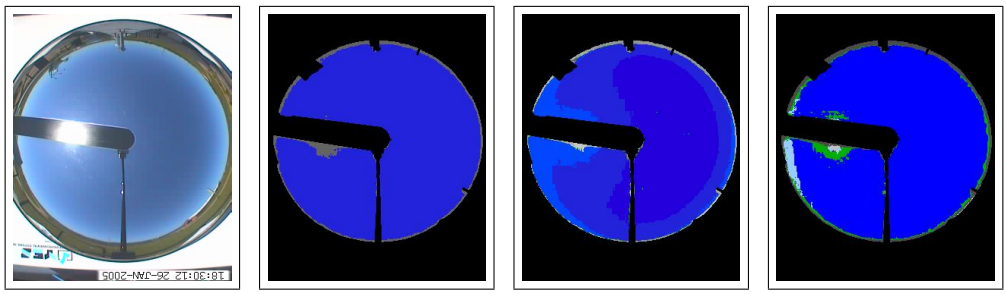


(xiii) 0501261800 (xiv) 0501261800 Long (xv) 0501261800 EGD (xvi) 0501261800 MAHA

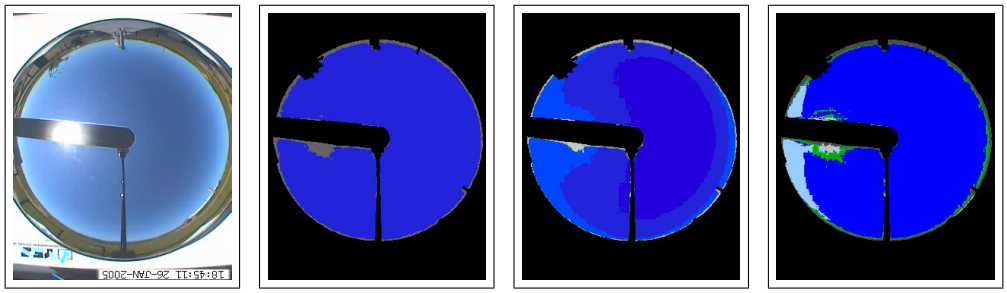


(xvii) 0501261815 (xviii) 0501261815 Long (xix) 0501261815 EGD (xx) 0501261815 MAHA

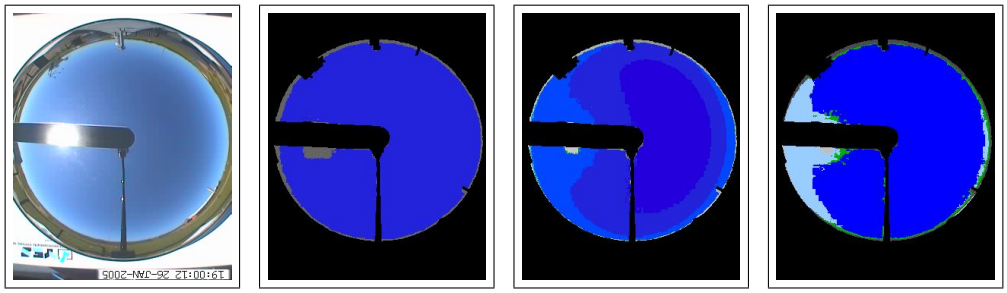
Figure A.292 - Sky images generated from 0501261715 to 0501261815.



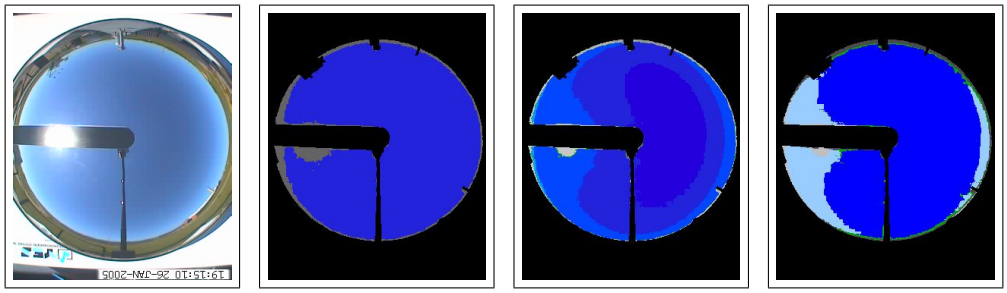
(i) 0501261830 (ii) 0501261830 Long (iii) 0501261830 EGD (iv) 0501261830 MAHA



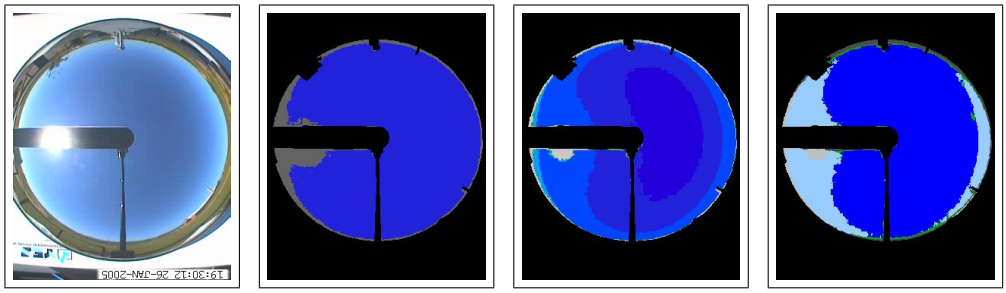
(v) 0501261845 (vi) 0501261845 Long (vii) 0501261845 EGD (viii) 0501261845 MAHA



(ix) 0501261900 (x) 0501261900 Long (xi) 0501261900 EGD (xii) 0501261900 MAHA

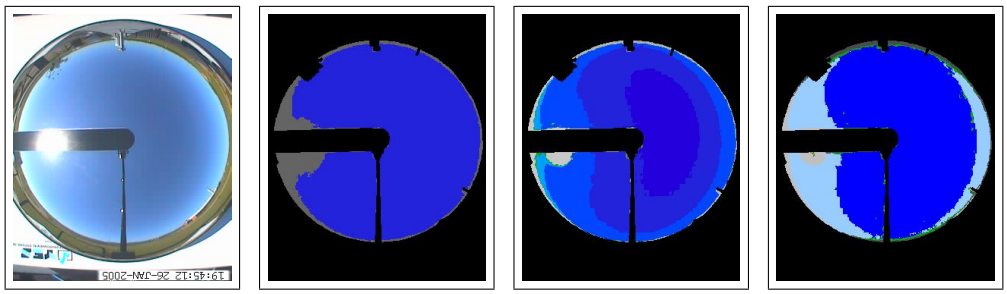


(xiii) 0501261915 (xiv) 0501261915 Long (xv) 0501261915 EGD (xvi) 0501261915 MAHA

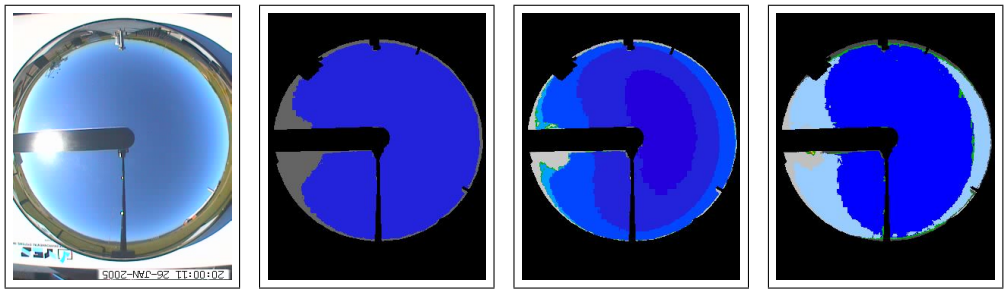


(xvii) 0501261930 (xviii) 0501261930 Long (xix) 0501261930 EGD (xx) 0501261930 MAHA

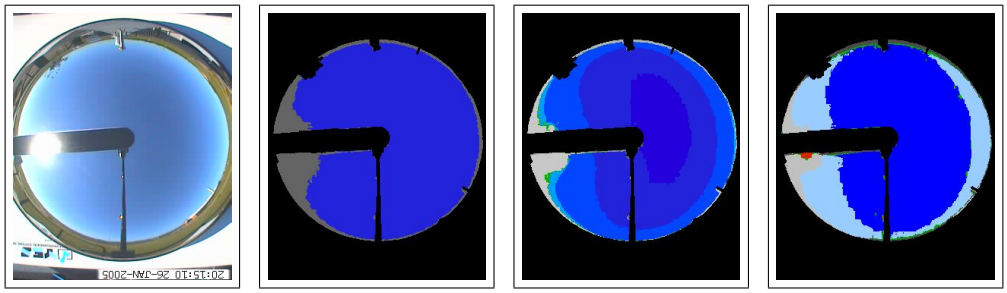
Figure A.293 - Sky images generated from 0501261830 to 0501261930.



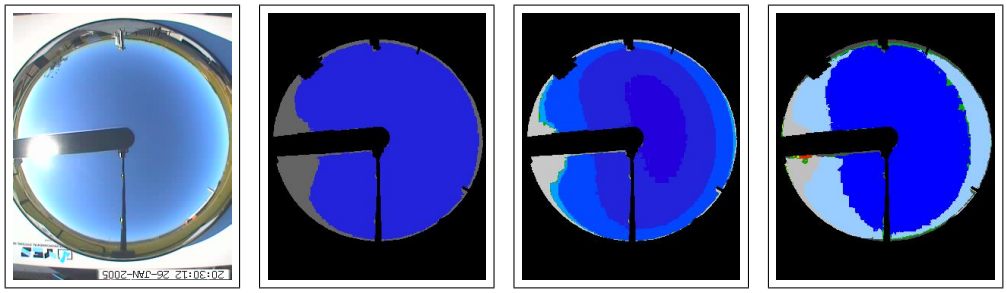
(i) 0501261945 (ii) 0501261945 Long (iii) 0501261945 EGD (iv) 0501261945 MAHA



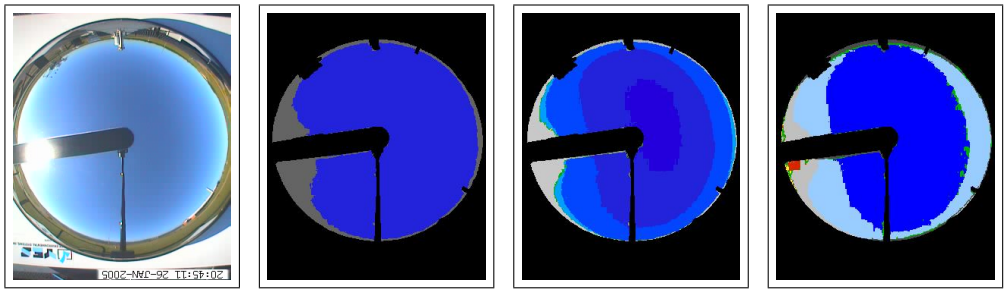
(v) 0501262000 (vi) 0501262000 Long (vii) 0501262000 EGD (viii) 0501262000 MAHA



(ix) 0501262015 (x) 0501262015 Long (xi) 0501262015 EGD (xii) 0501262015 MAHA

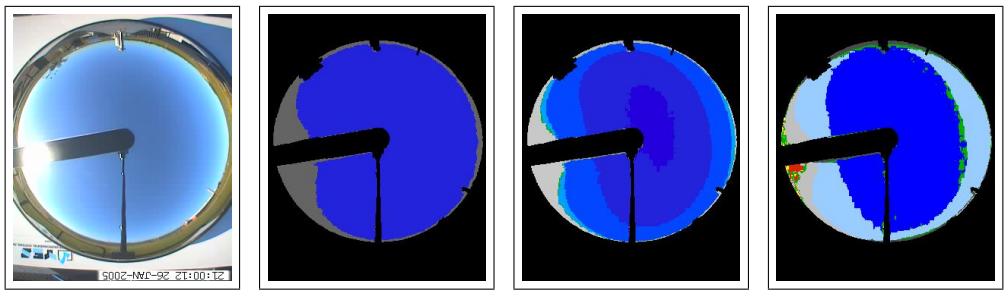


(xiii) 0501262030 (xiv) 0501262030 Long (xv) 0501262030 EGD (xvi) 0501262030 MAHA

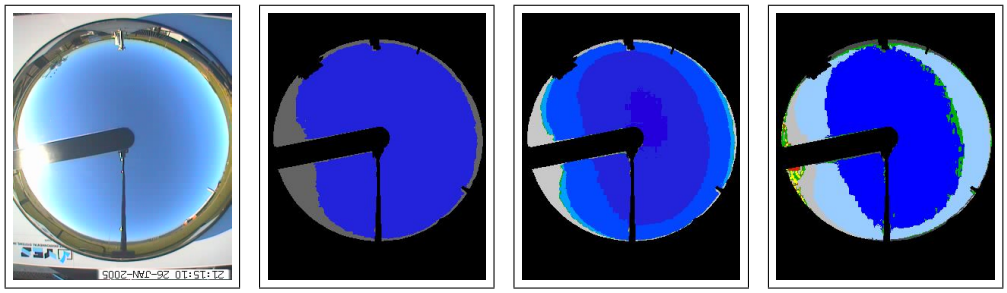


(xvii) 0501262045 (xviii) 0501262045 Long (xix) 0501262045 EGD (xx) 0501262045 MAHA

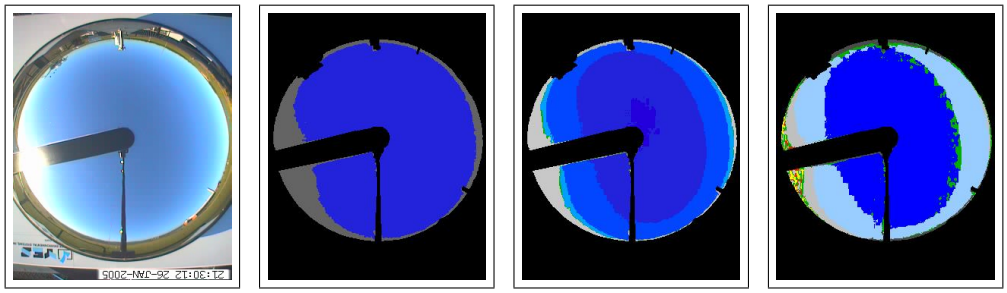
Figure A.294 - Sky images generated from 0501261945 to 0501262045.



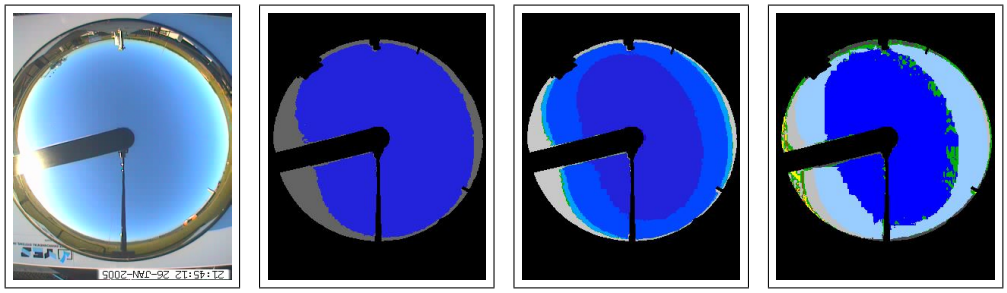
(i) 0501262100 (ii) 0501262100 Long (iii) 0501262100 EGD (iv) 0501262100 MAHA



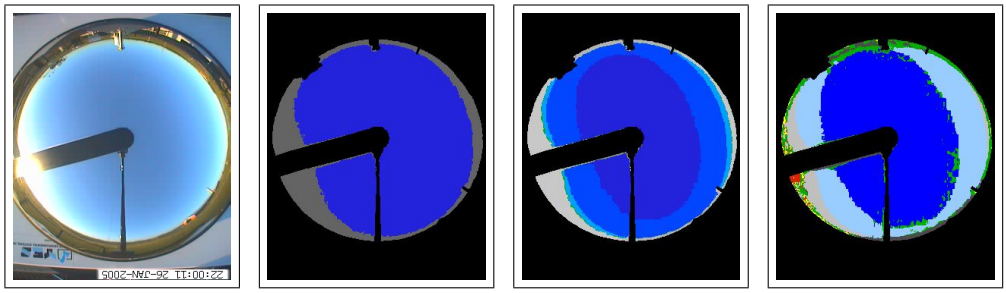
(v) 0501262115 (vi) 0501262115 Long (vii) 0501262115 EGD (viii) 0501262115 MAHA



(ix) 0501262130 (x) 0501262130 Long (xi) 0501262130 EGD (xii) 0501262130 MAHA

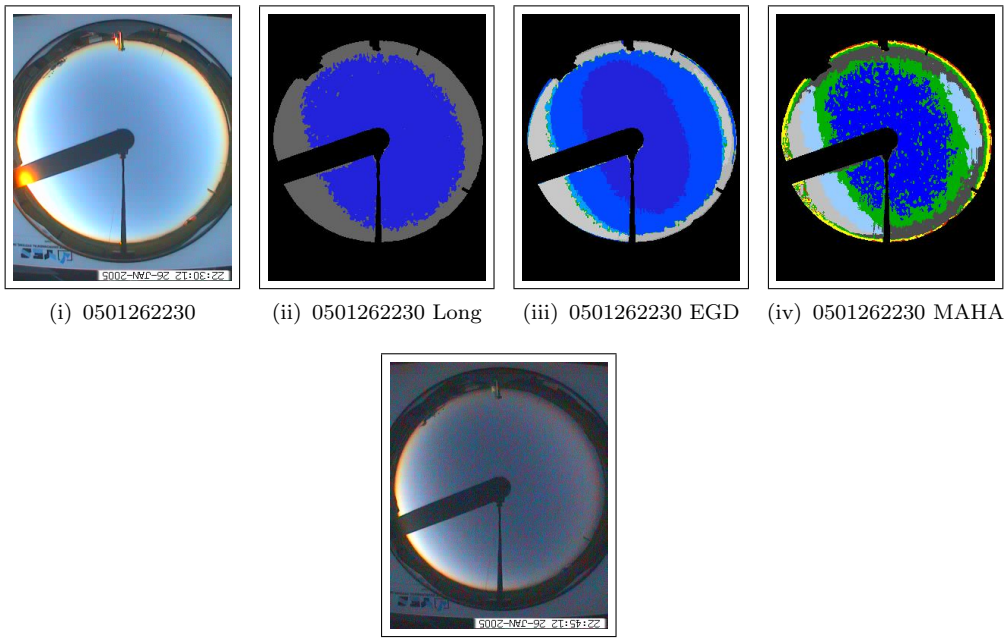


(xiii) 0501262145 (xiv) 0501262145 Long (xv) 0501262145 EGD (xvi) 0501262145 MAHA



(xvii) 0501262200 (xviii) 0501262200 Long (xix) 0501262200 EGD (xx) 0501262200 MAHA

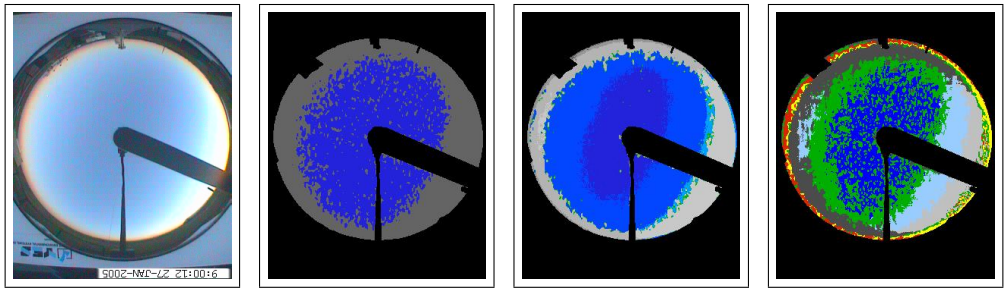
Figure A.295 - Sky images generated from 0501262100 to 0501262200.



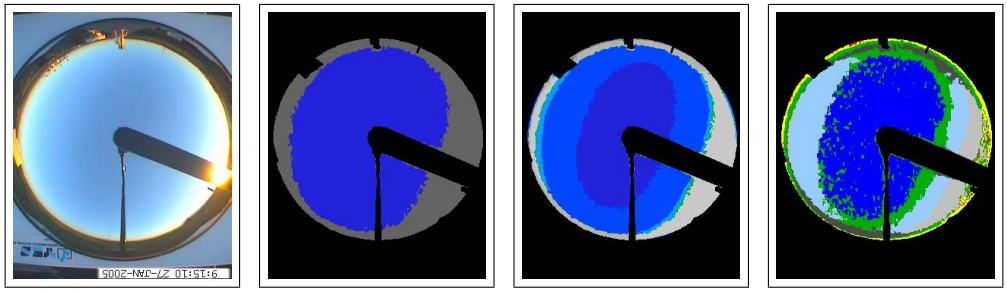
(i) 0501262230 (ii) 0501262230 Long (iii) 0501262230 EGD (iv) 0501262230 MAHA

(v) 0501262245

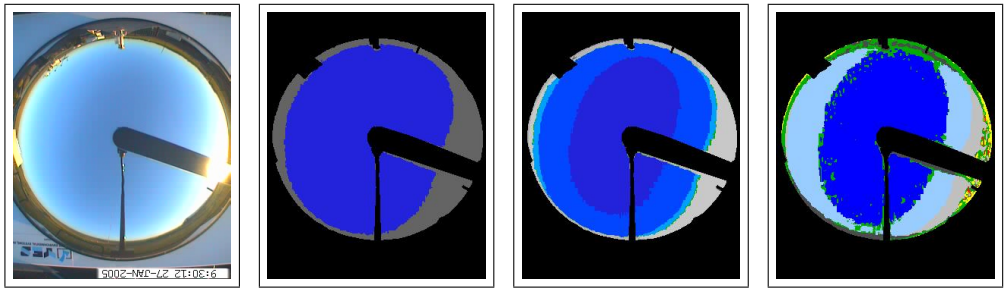
Figure A.296 - Sky images generated for 0501262230.



(i) 0501270900 (ii) 0501270900 Long (iii) 0501270900 EGD (iv) 0501270900 MAHA

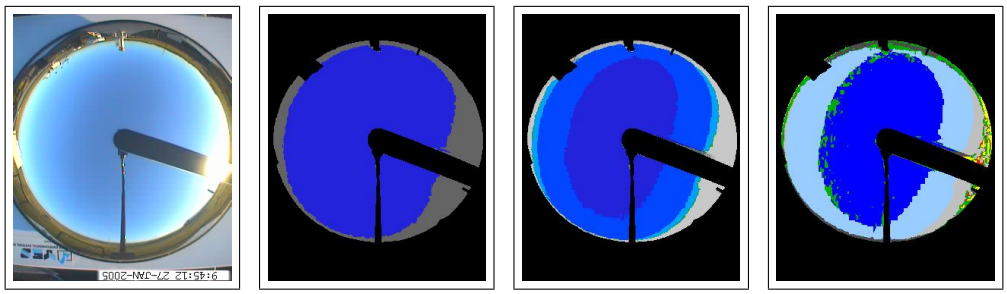


(v) 0501270915 (vi) 0501270915 Long (vii) 0501270915 EGD (viii) 0501270915 MAHA

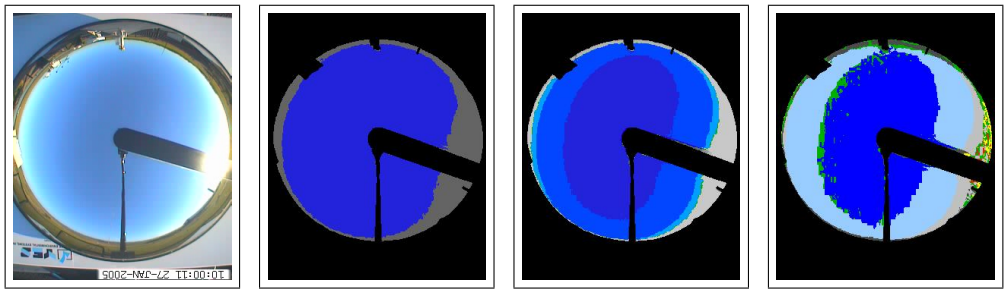


(ix) 0501270930 (x) 0501270930 Long (xi) 0501270930 EGD (xii) 0501270930 MAHA

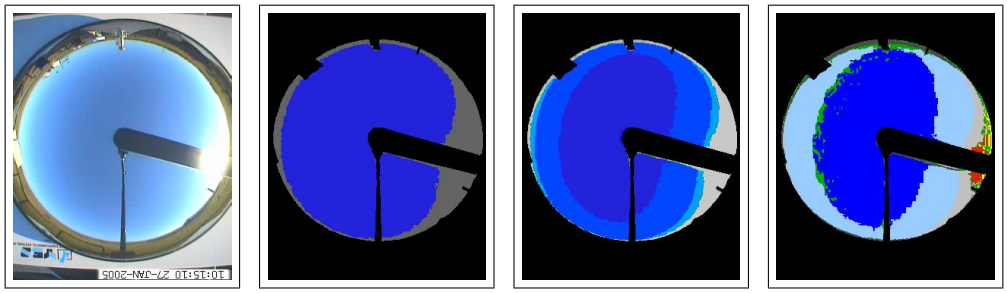
Figure A.297 - Sky images generated from 0501270900 to 0501270930.



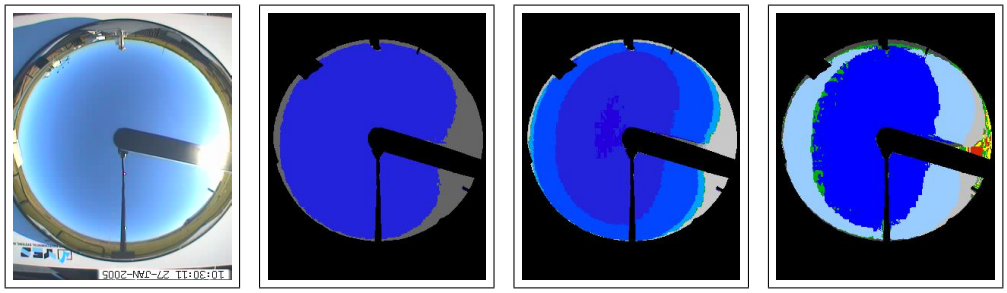
(i) 0501270945 (ii) 0501270945 Long (iii) 0501270945 EGD (iv) 0501270945 MAHA



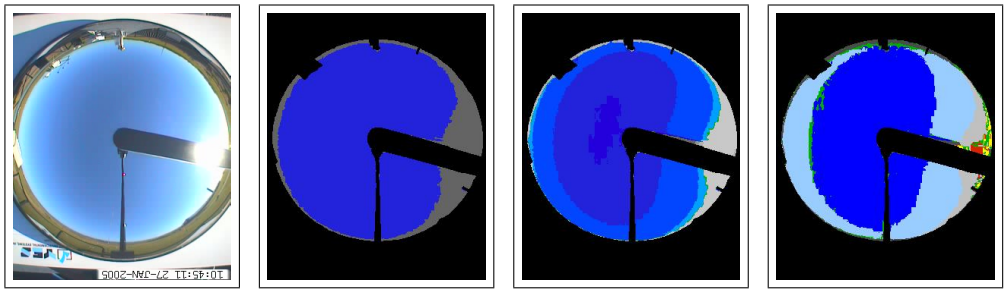
(v) 050127000 (vi) 050127000 Long (vii) 050127000 EGD (viii) 050127000 MAHA



(ix) 0501271015 (x) 0501271015 Long (xi) 0501271015 EGD (xii) 0501271015 MAHA

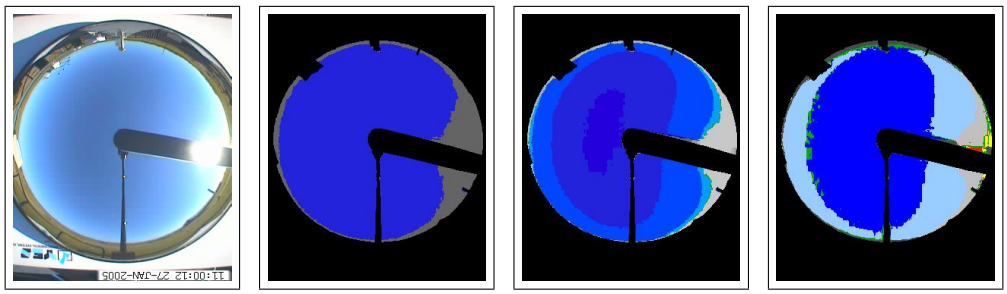


(xiii) 0501271030 (xiv) 0501271030 Long (xv) 0501271030 EGD (xvi) 0501271030 MAHA

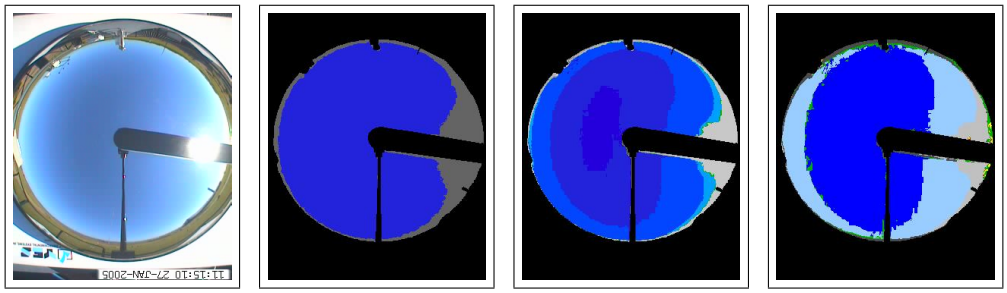


(xvii) 0501271045 (xviii) 0501271045 Long (xix) 0501271045 EGD (xx) 0501271045 MAHA

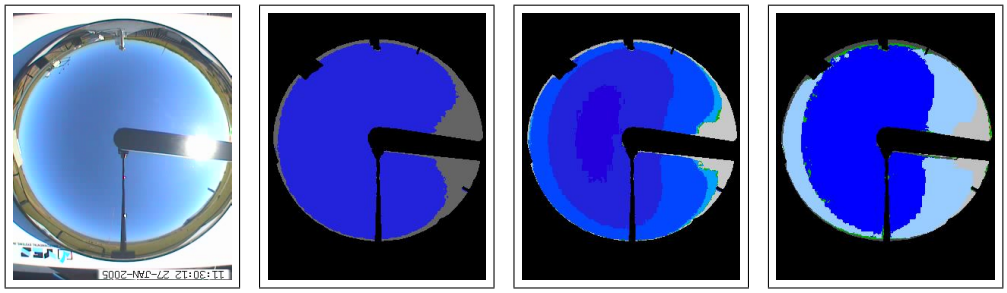
Figure A.298 - Sky images generated from 0501270945 to 0501271045.



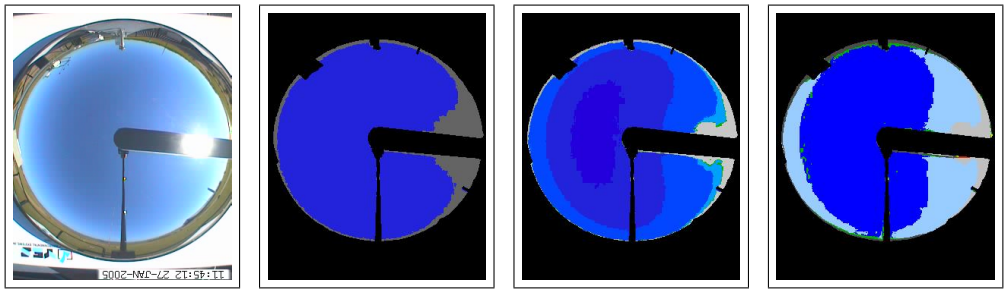
(i) 0501271100 (ii) 0501271100 Long (iii) 0501271100 EGD (iv) 0501271100 MAHA



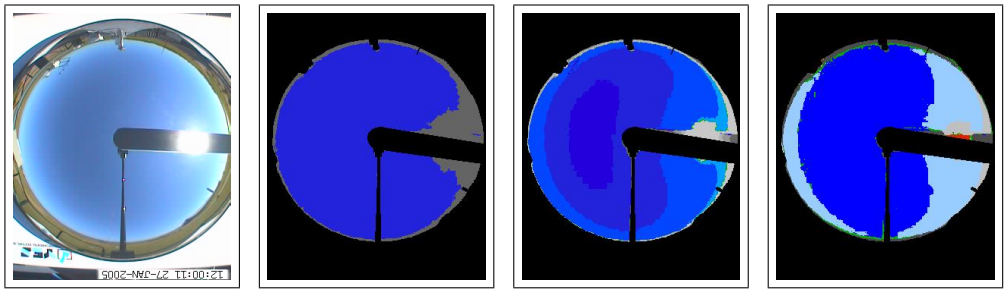
(v) 0501271115 (vi) 0501271115 Long (vii) 0501271115 EGD (viii) 0501271115 MAHA



(ix) 0501271130 (x) 0501271130 Long (xi) 0501271130 EGD (xii) 0501271130 MAHA

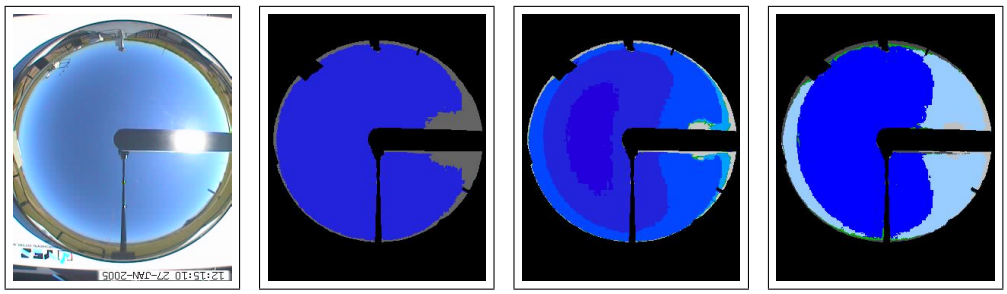


(xiii) 0501271145 (xiv) 0501271145 Long (xv) 0501271145 EGD (xvi) 0501271145 MAHA

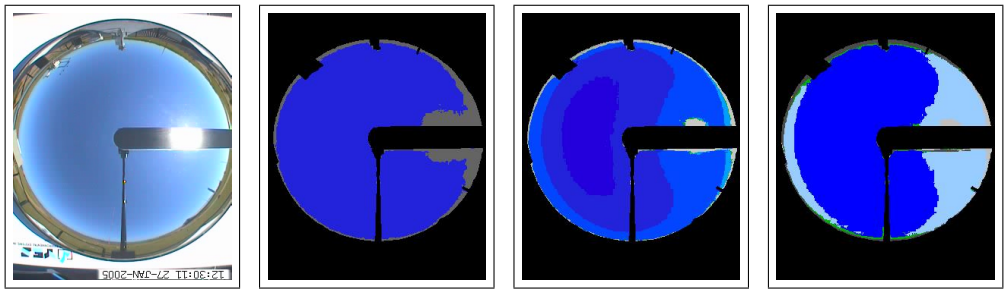


(xvii) 0501271200 (xviii) 0501271200 Long (xix) 0501271200 EGD (xx) 0501271200 MAHA

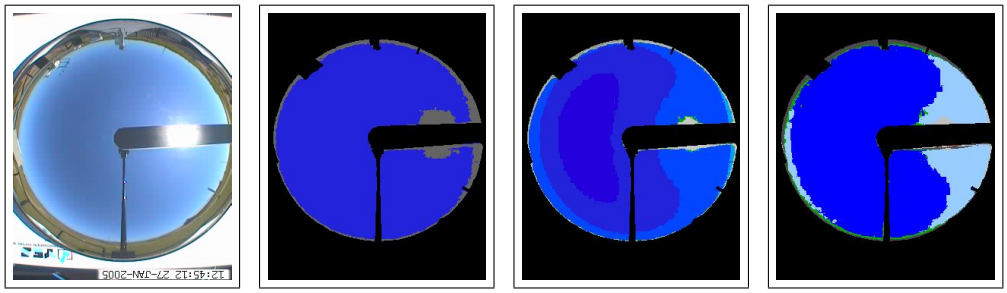
Figure A.299 - Sky images generated from 050127100 to 0501271200.



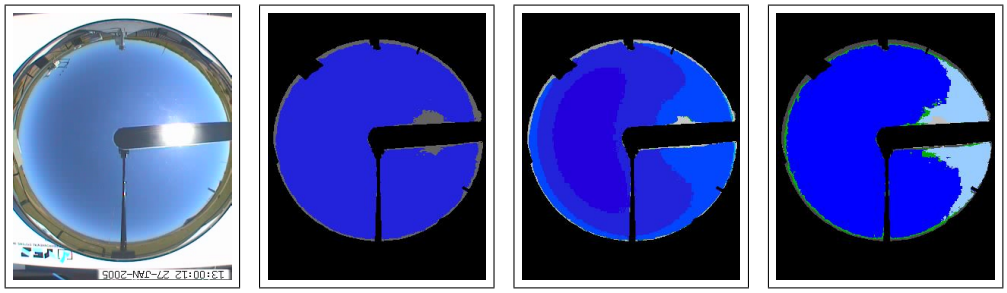
(i) 0501271215 (ii) 0501271215 Long (iii) 0501271215 EGD (iv) 0501271215 MAHA



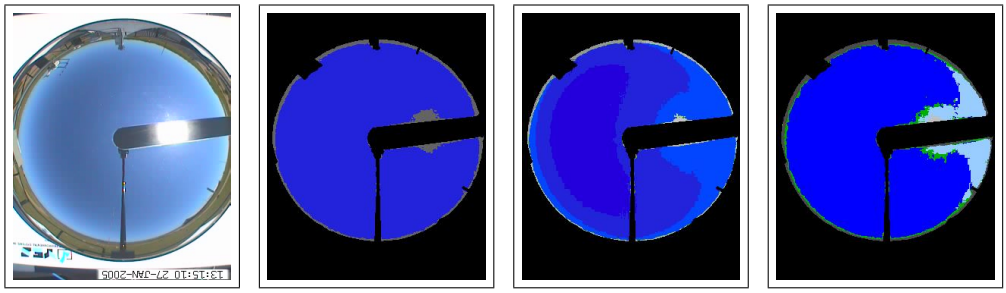
(v) 0501271230 (vi) 0501271230 Long (vii) 0501271230 EGD (viii) 0501271230 MAHA



(ix) 0501271245 (x) 0501271245 Long (xi) 0501271245 EGD (xii) 0501271245 MAHA

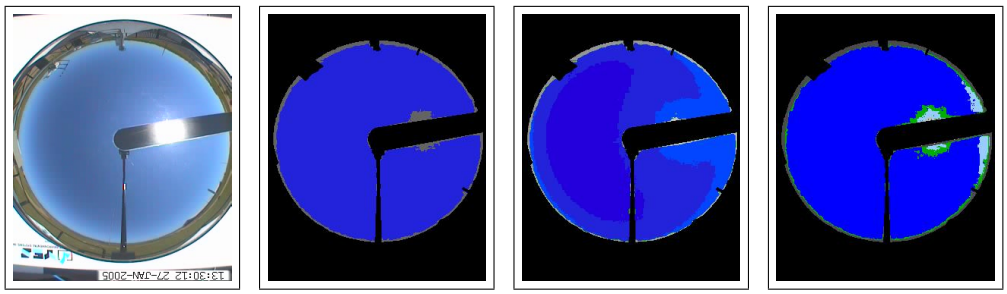


(xiii) 0501271300 (xiv) 0501271300 Long (xv) 0501271300 EGD (xvi) 0501271300 MAHA

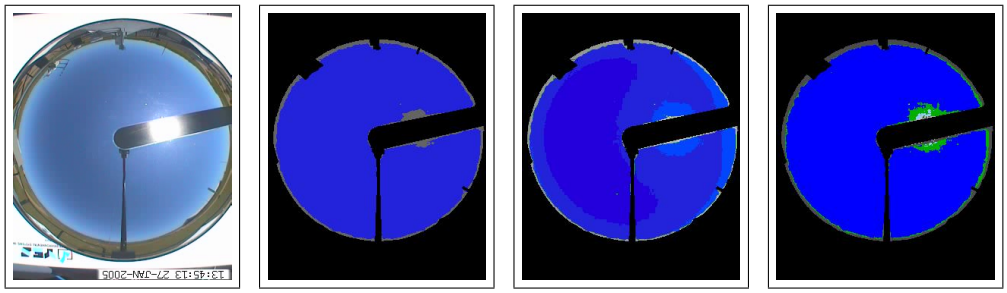


(xvii) 0501271315 (xviii) 0501271315 Long (xix) 0501271315 EGD (xx) 0501271315 MAHA

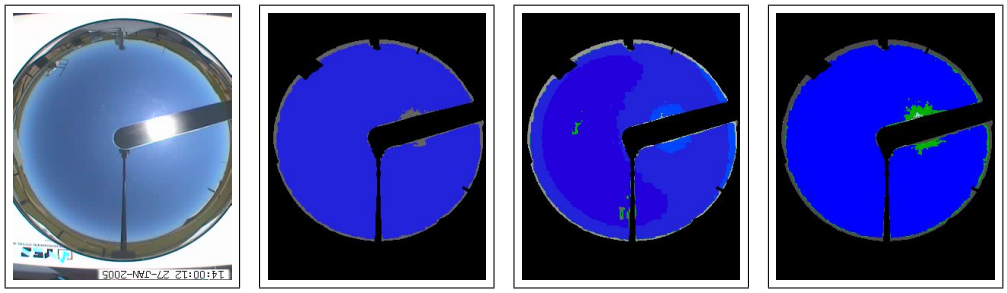
Figure A.300 - Sky images generated from 0501271215 to 0501271315.



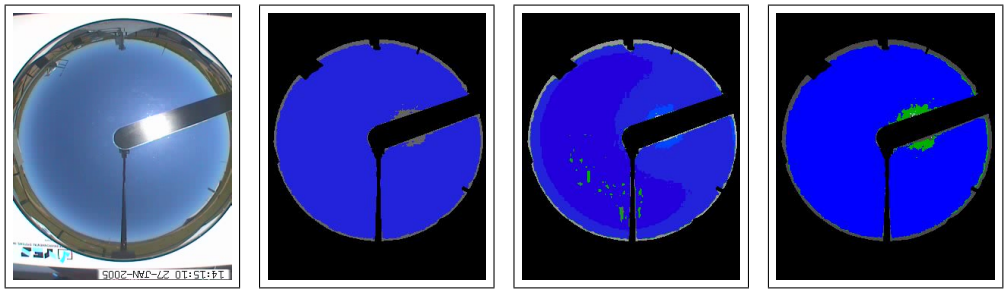
(i) 0501271330 (ii) 0501271330 Long (iii) 0501271330 EGD (iv) 0501271330 MAHA



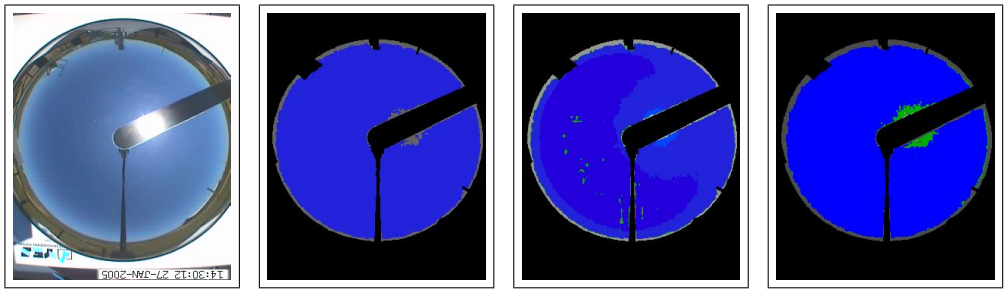
(v) 0501271345 (vi) 0501271345 Long (vii) 0501271345 EGD (viii) 0501271345 MAHA



(ix) 0501271400 (x) 0501271400 Long (xi) 0501271400 EGD (xii) 0501271400 MAHA

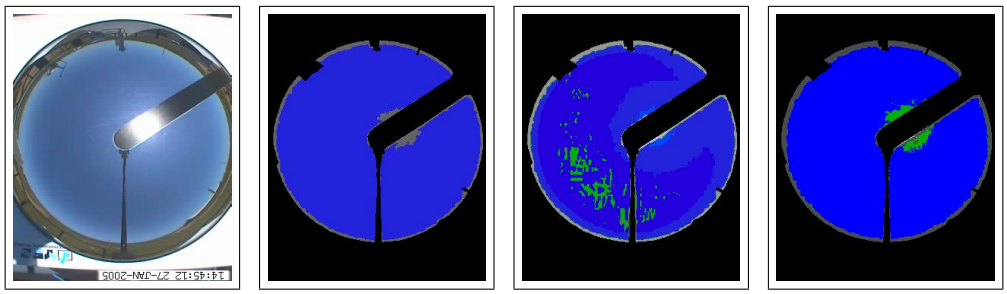


(xiii) 0501271415 (xiv) 0501271415 Long (xv) 0501271415 EGD (xvi) 0501271415 MAHA

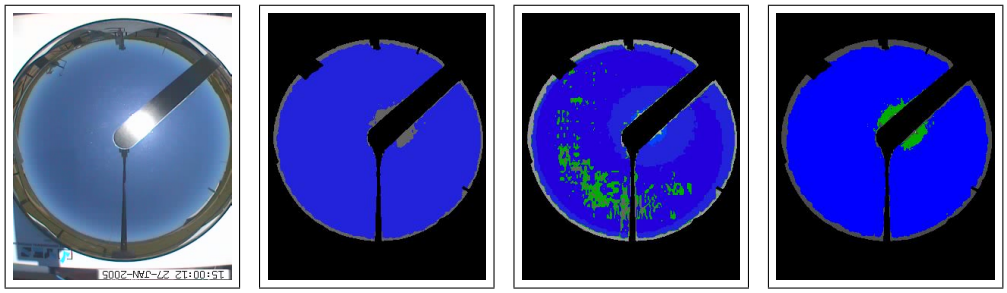


(xvii) 0501271430 (xviii) 0501271430 Long (xix) 0501271430 EGD (xx) 0501271430 MAHA

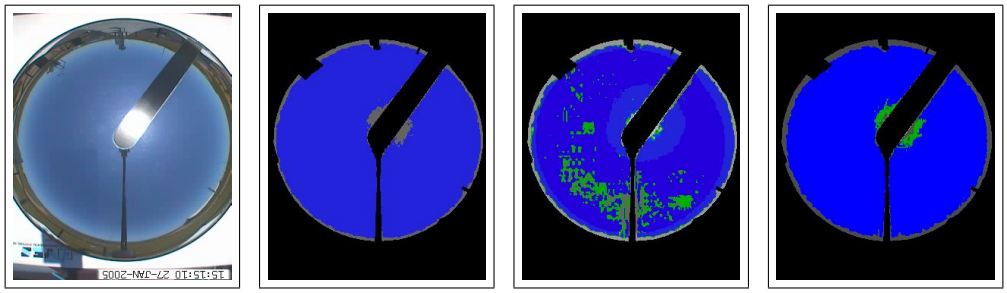
Figure A.301 - Sky images generated from 0501271330 to 0501271430.



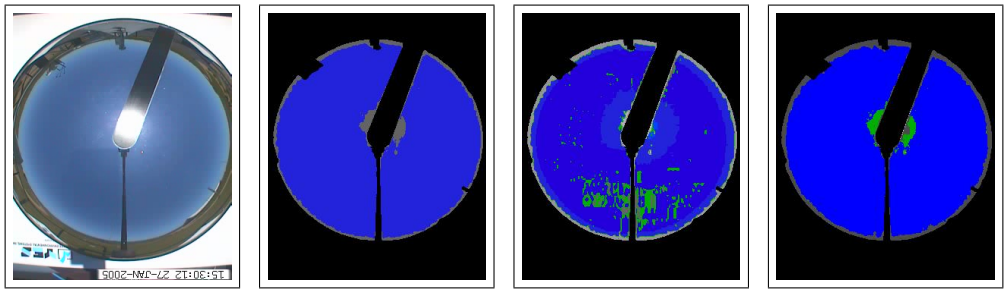
(i) 0501271445 (ii) 0501271445 Long (iii) 0501271445 EGD (iv) 0501271445 MAHA



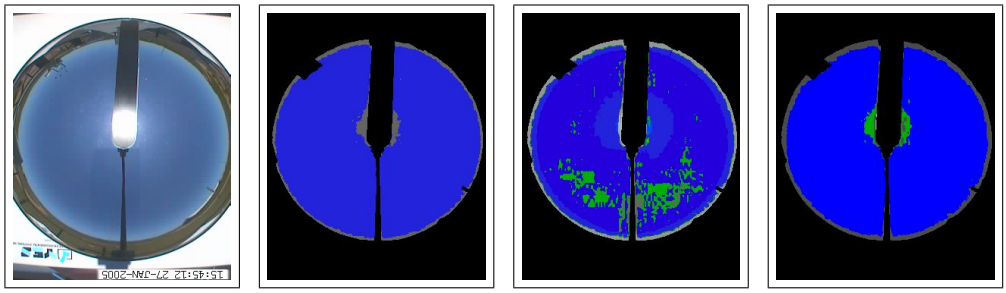
(v) 0501271500 (vi) 0501271500 Long (vii) 0501271500 EGD (viii) 0501271500 MAHA



(ix) 0501271515 (x) 0501271515 Long (xi) 0501271515 EGD (xii) 0501271515 MAHA

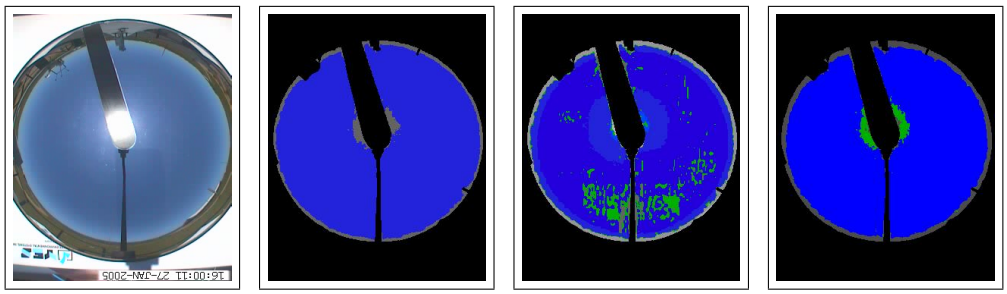


(xiii) 0501271530 (xiv) 0501271530 Long (xv) 0501271530 EGD (xvi) 0501271530 MAHA

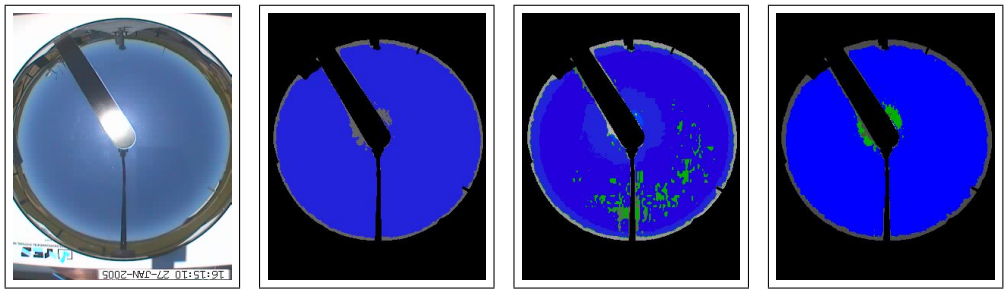


(xvii) 0501271545 (xviii) 0501271545 Long (xix) 0501271545 EGD (xx) 0501271545 MAHA

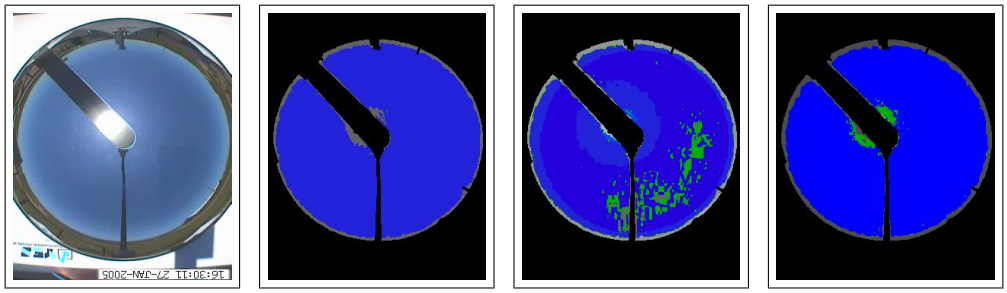
Figure A.302 - Sky images generated from 0501271445 to 0501271545.



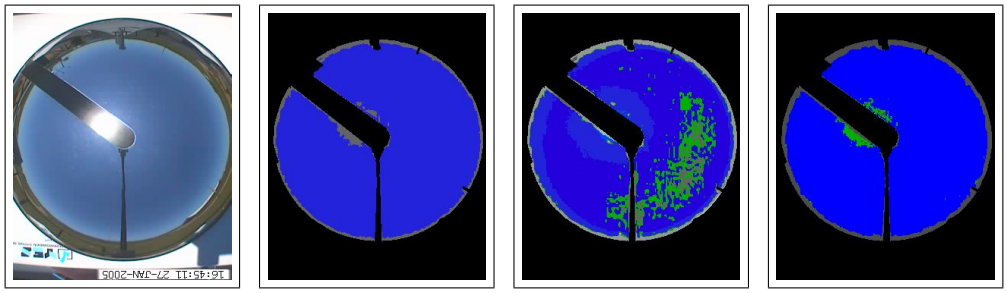
(i) 0501271600 (ii) 0501271600 Long (iii) 0501271600 EGD (iv) 0501271600 MAHA



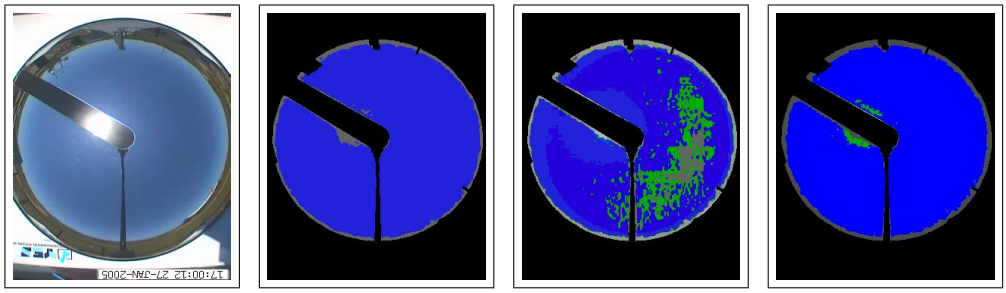
(v) 0501271615 (vi) 0501271615 Long (vii) 0501271615 EGD (viii) 0501271615 MAHA



(ix) 0501271630 (x) 0501271630 Long (xi) 0501271630 EGD (xii) 0501271630 MAHA

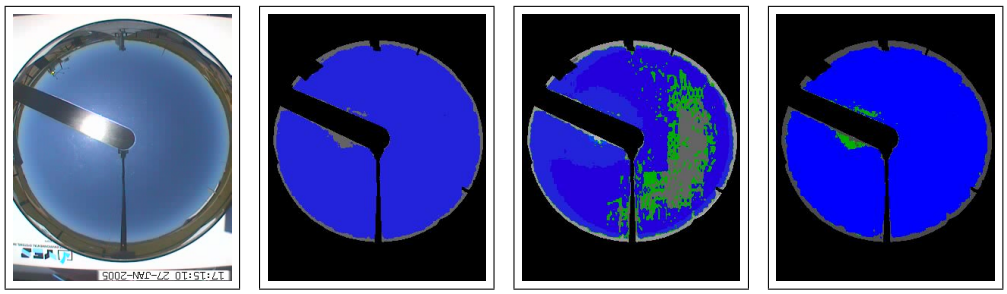


(xiii) 0501271645 (xiv) 0501271645 Long (xv) 0501271645 EGD (xvi) 0501271645 MAHA

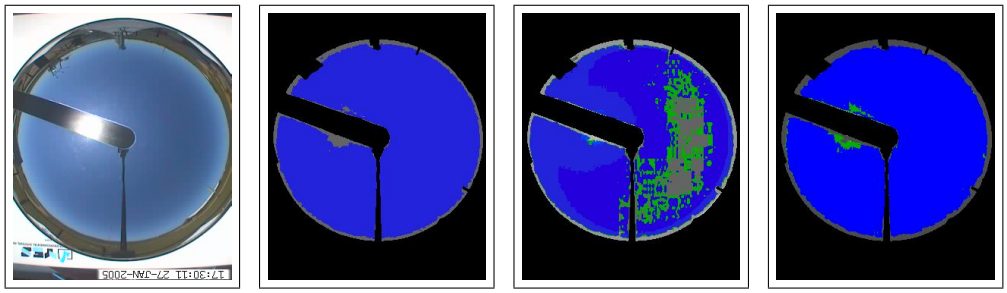


(xvii) 0501271700 (xviii) 0501271700 Long (xix) 0501271700 EGD (xx) 0501271700 MAHA

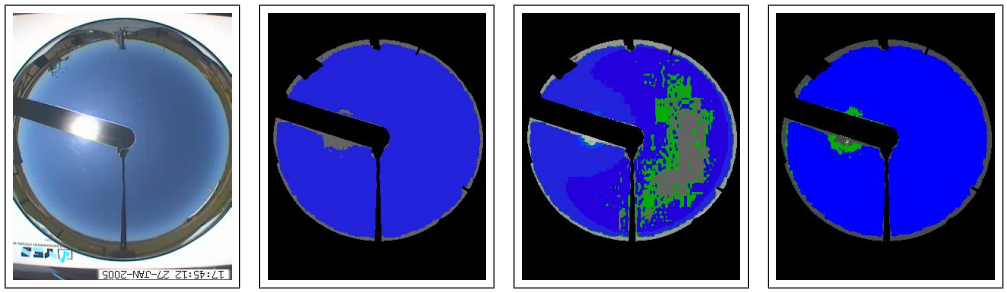
Figure A.303 - Sky images generated from 0501271600 to 0501271700.



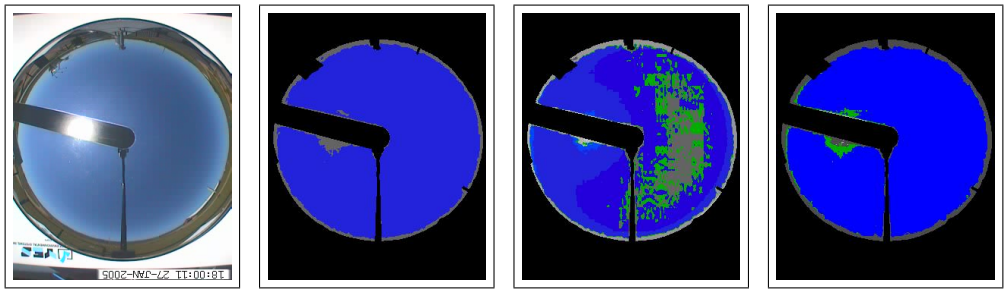
(i) 0501271715 (ii) 0501271715 Long (iii) 0501271715 EGD (iv) 0501271715 MAHA



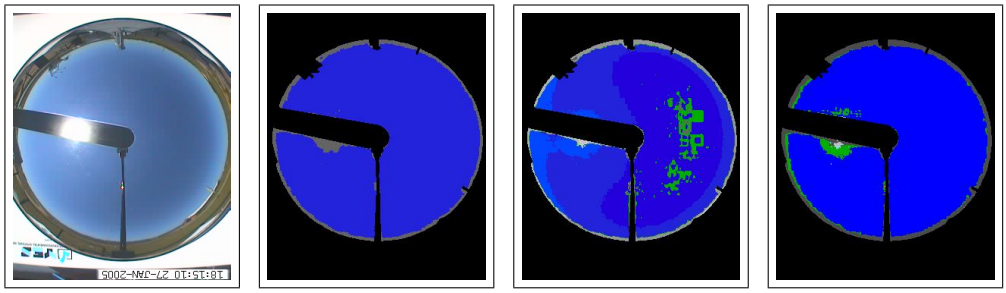
(v) 0501271730 (vi) 0501271730 Long (vii) 0501271730 EGD (viii) 0501271730 MAHA



(ix) 0501271745 (x) 0501271745 Long (xi) 0501271745 EGD (xii) 0501271745 MAHA

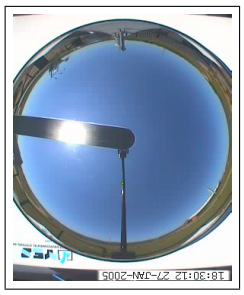


(xiii) 0501271800 (xiv) 0501271800 Long (xv) 0501271800 EGD (xvi) 0501271800 MAHA

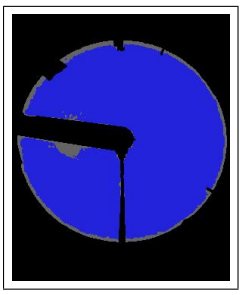


(xvii) 0501271815 (xviii) 0501271815 Long (xix) 0501271815 EGD (xx) 0501271815 MAHA

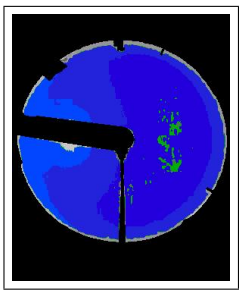
Figure A.304 - Sky images generated from 0501271715 to 0501271815.



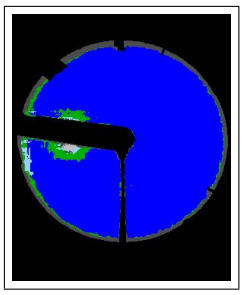
(i) 0501271830



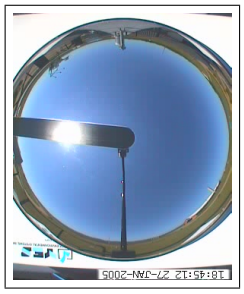
(ii) 0501271830 Long



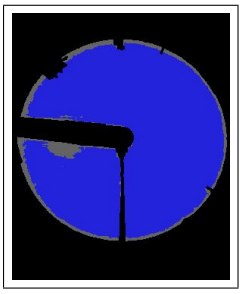
(iii) 0501271830 EGD



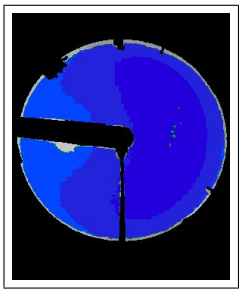
(iv) 0501271830 MAHA



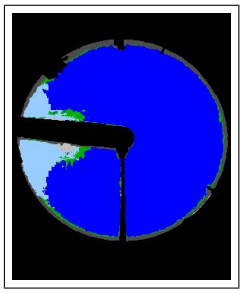
(v) 0501271845



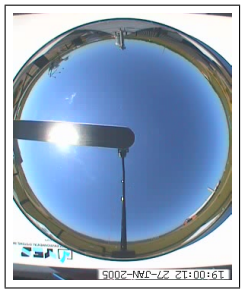
(vi) 0501271845 Long



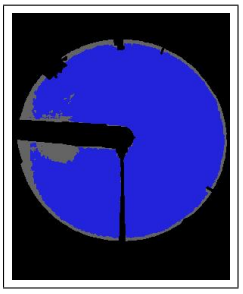
(vii) 0501271845 EGD



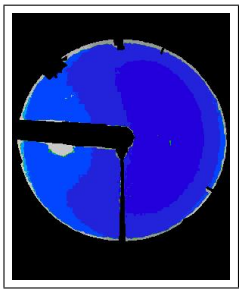
(viii) 0501271845 MAHA



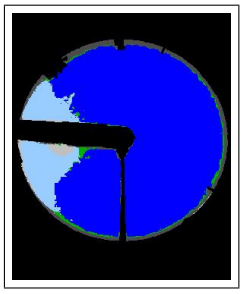
(ix) 0501271900



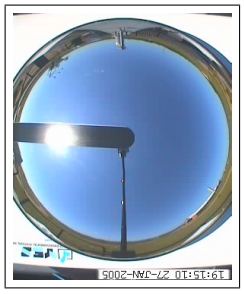
(x) 0501271900 Long



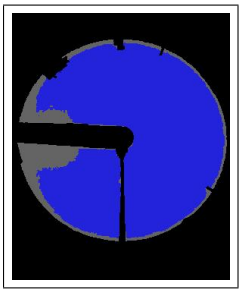
(xi) 0501271900 EGD



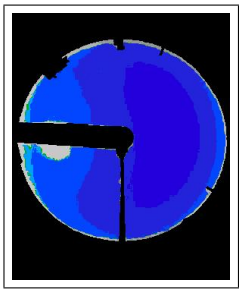
(xii) 0501271900 MAHA



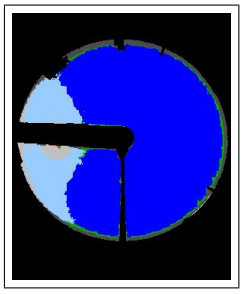
(xiii) 0501271915



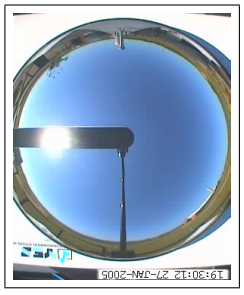
(xiv) 0501271915 Long



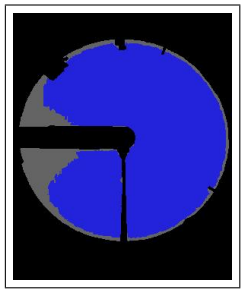
(xv) 0501271915 EGD



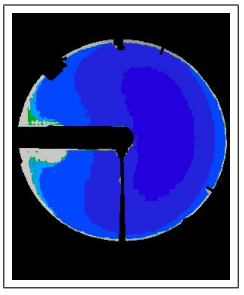
(xvi) 0501271915 MAHA



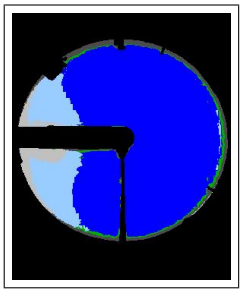
(xvii) 0501271930



(xviii) 0501271930 Long

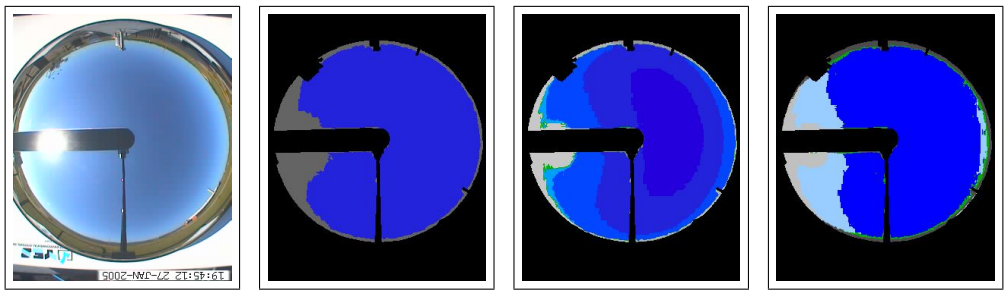


(xix) 0501271930 EGD

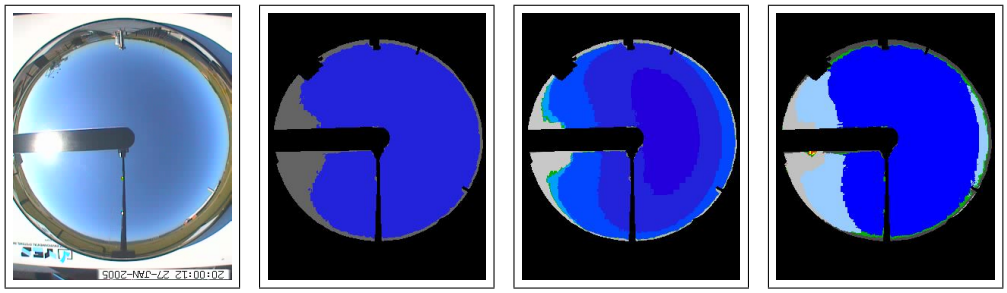


(xx) 0501271930 MAHA

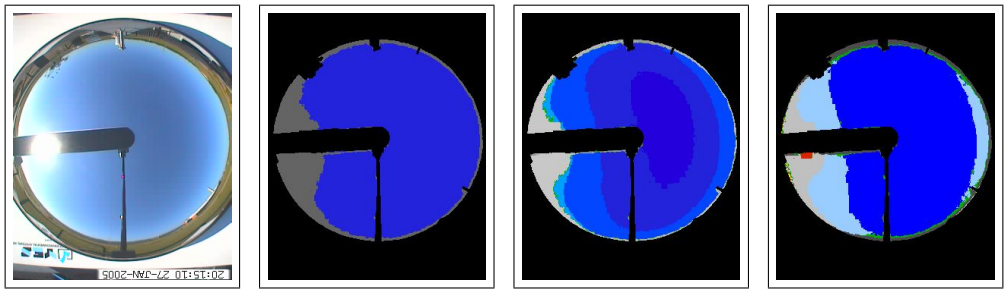
Figure A.305 - Sky images generated from 0501271830 to 0501271930.



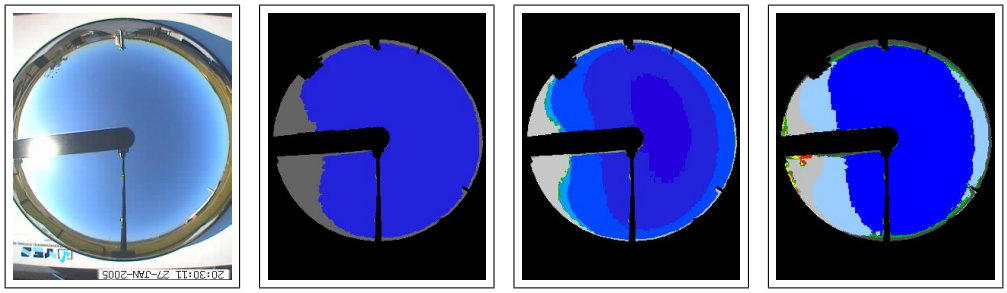
(i) 0501271945 (ii) 0501271945 Long (iii) 0501271945 EGD (iv) 0501271945 MAHA



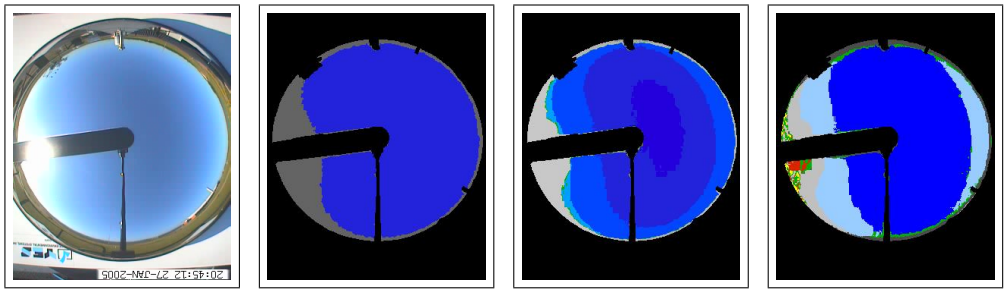
(v) 0501272000 (vi) 0501272000 Long (vii) 0501272000 EGD (viii) 0501272000 MAHA



(ix) 0501272015 (x) 0501272015 Long (xi) 0501272015 EGD (xii) 0501272015 MAHA

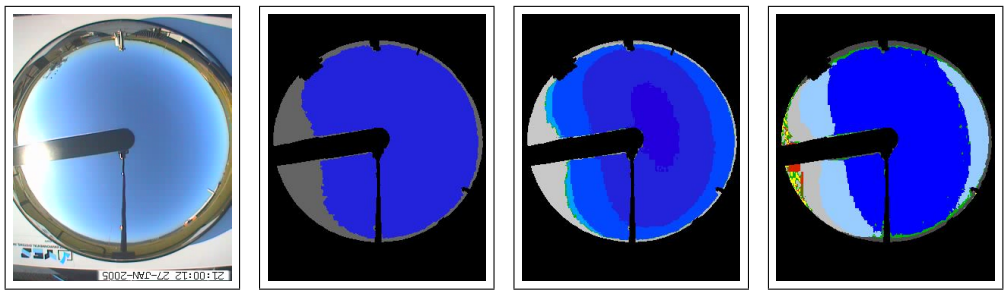


(xiii) 0501272030 (xiv) 0501272030 Long (xv) 0501272030 EGD (xvi) 0501272030 MAHA

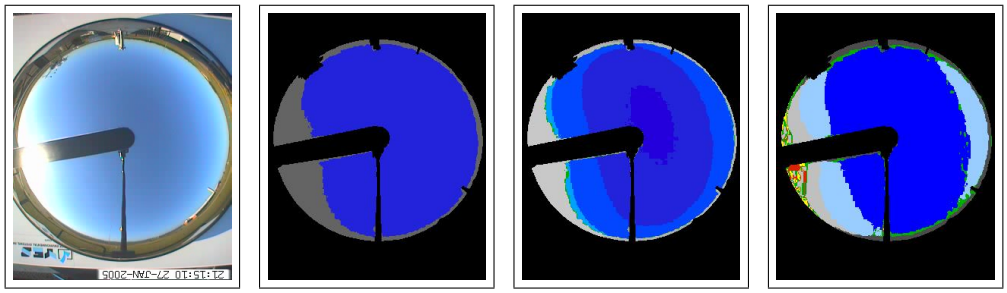


(xvii) 0501272045 (xviii) 0501272045 Long (xix) 0501272045 EGD (xx) 0501272045 MAHA

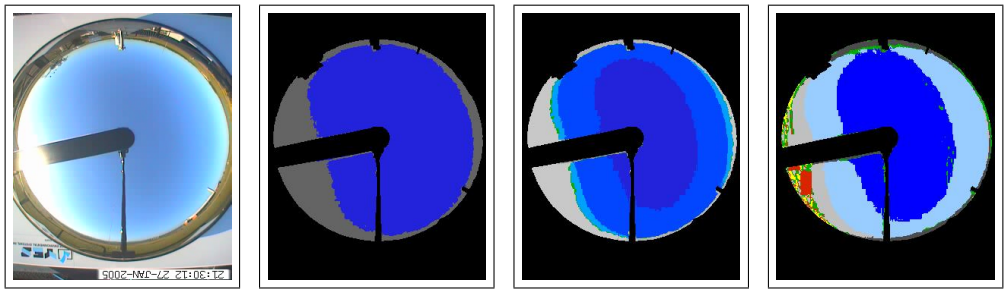
Figure A.306 - Sky images generated from 0501271945 to 0501272045.



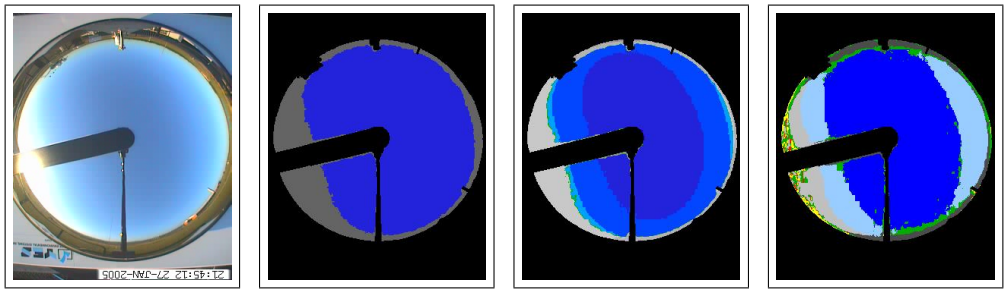
(i) 0501272100 (ii) 0501272100 Long (iii) 0501272100 EGD (iv) 0501272100 MAHA



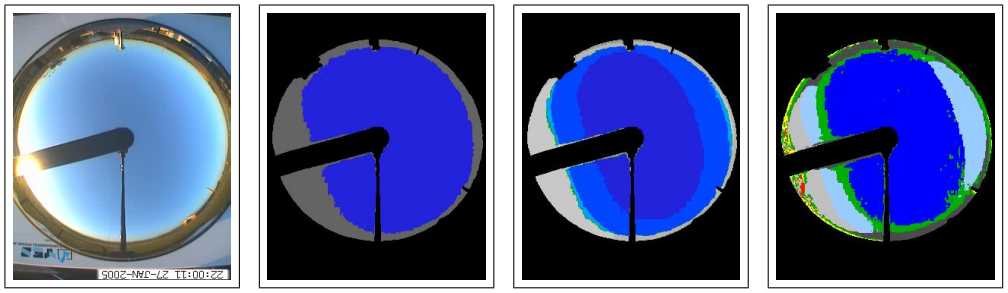
(v) 0501272115 (vi) 0501272115 Long (vii) 0501272115 EGD (viii) 0501272115 MAHA



(ix) 0501272130 (x) 0501272130 Long (xi) 0501272130 EGD (xii) 0501272130 MAHA

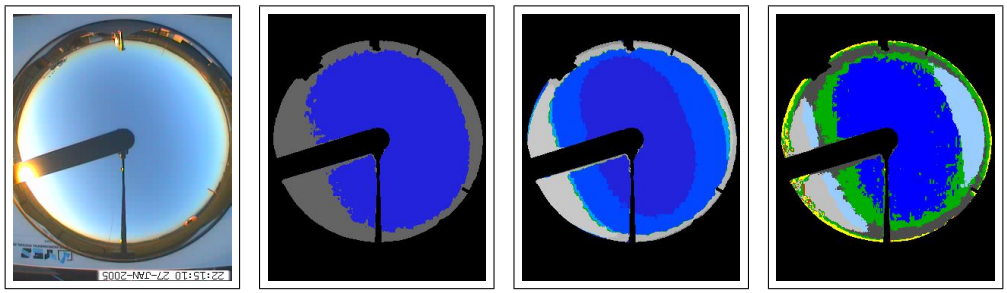


(xiii) 0501272145 (xiv) 0501272145 Long (xv) 0501272145 EGD (xvi) 0501272145 MAHA

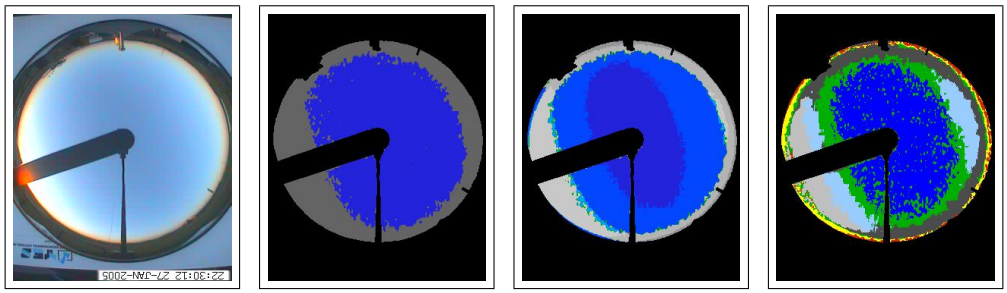


(xvii) 0501272200 (xviii) 0501272200 Long (xix) 0501272200 EGD (xx) 0501272200 MAHA

Figure A.307 - Sky images generated from 0501272100 to 0501272200.



(i) 0501272215 (ii) 0501272215 Long (iii) 0501272215 EGD (iv) 0501272215 MAHA

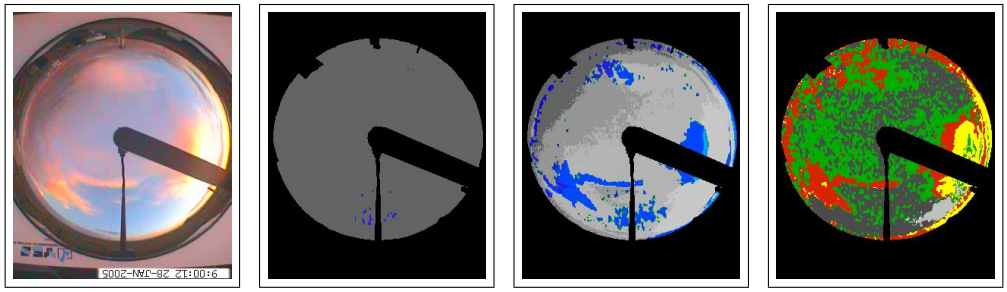


(v) 0501272230 (vi) 0501272230 Long (vii) 0501272230 EGD (viii) 0501272230 MAHA

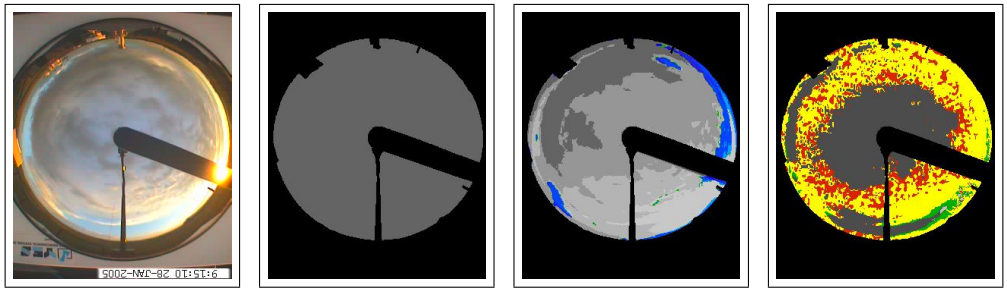


(ix) 0501272245

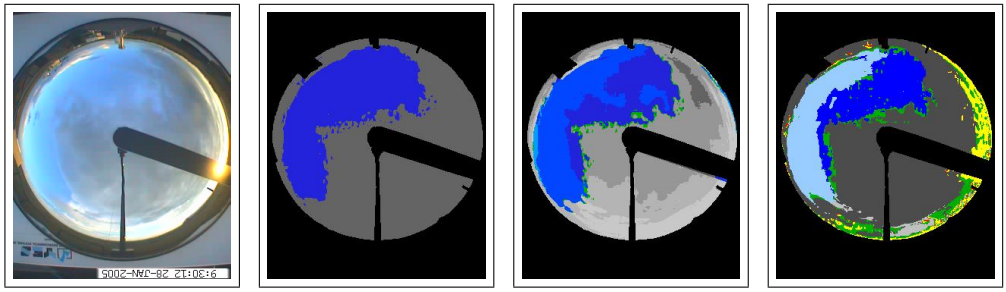
Figure A.308 - Sky images generated from 0501271600 to 0501272245.



(i) 0501280900 (ii) 0501280900 Long (iii) 0501280900 EGD (iv) 0501280900 MAHA

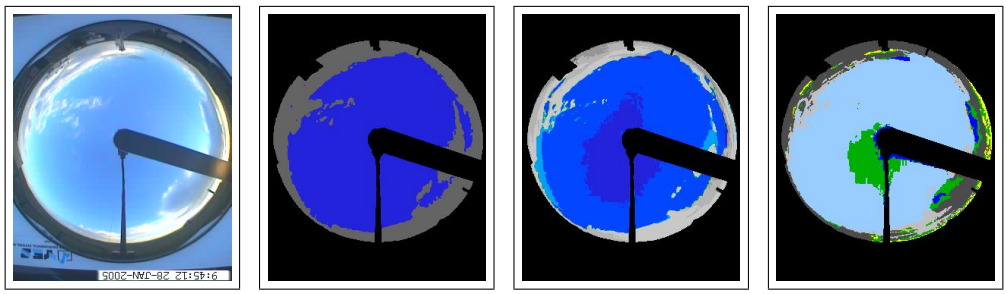


(v) 0501280915 (vi) 0501280915 Long (vii) 0501280915 EGD (viii) 0501280915 MAHA

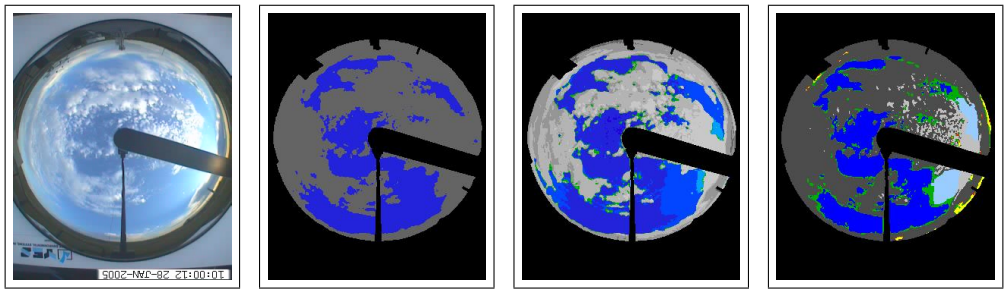


(ix) 0501280930 (x) 0501280930 Long (xi) 0501280930 EGD (xii) 0501280930 MAHA

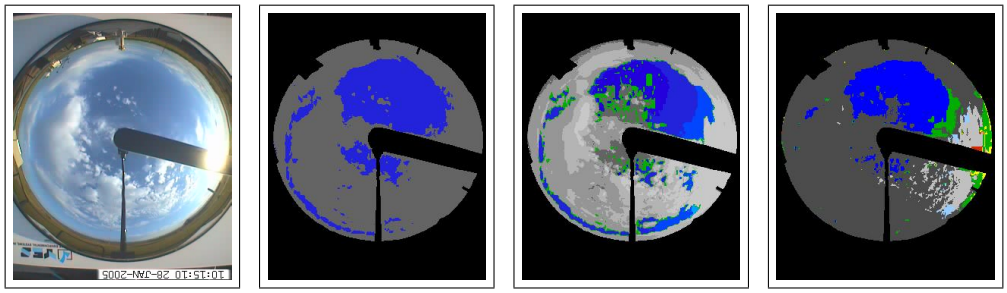
Figure A.309 - Sky images generated from 0501280900 to 0501280930.



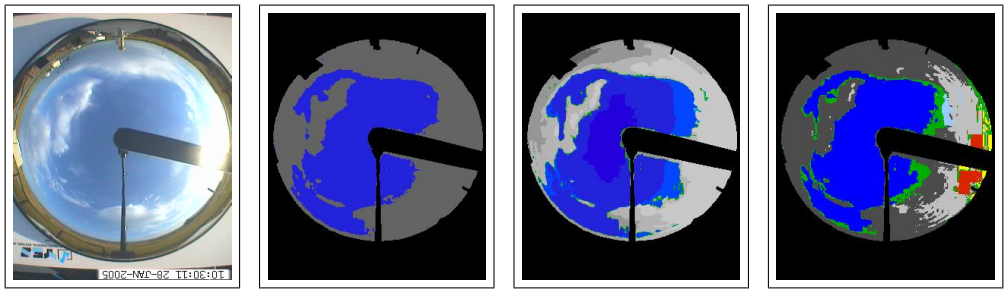
(i) 0501280945 (ii) 0501280945 Long (iii) 0501280945 EGD (iv) 0501280945 MAHA



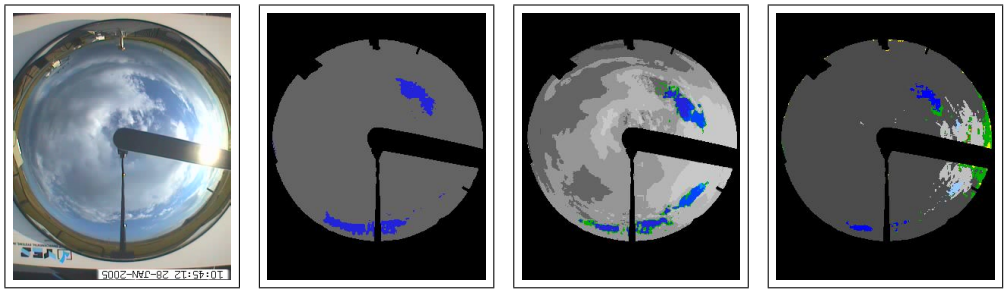
(v) 050128000 (vi) 050128000 Long (vii) 050128000 EGD (viii) 050128000 MAHA



(ix) 0501281015 (x) 0501281015 Long (xi) 0501281015 EGD (xii) 0501281015 MAHA

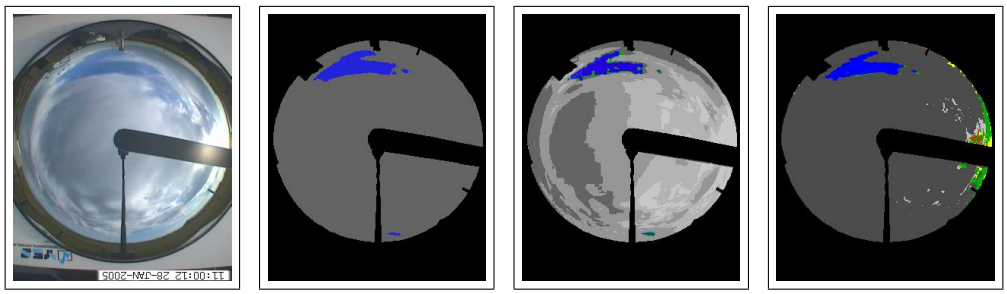


(xiii) 0501281030 (xiv) 0501281030 Long (xv) 0501281030 EGD (xvi) 0501281030 MAHA

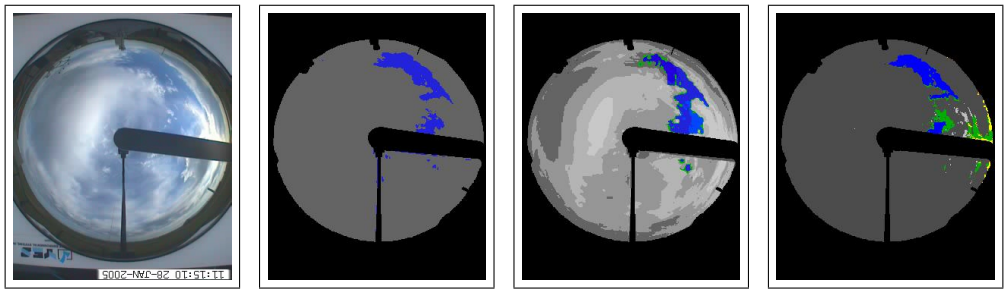


(xvii) 0501281045 (xviii) 0501281045 Long (xix) 0501281045 EGD (xx) 0501281045 MAHA

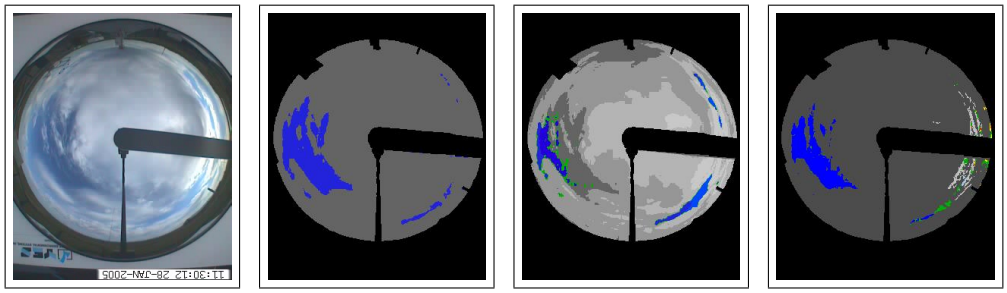
Figure A.310 - Sky images generated from 0501280945 to 0501281045.



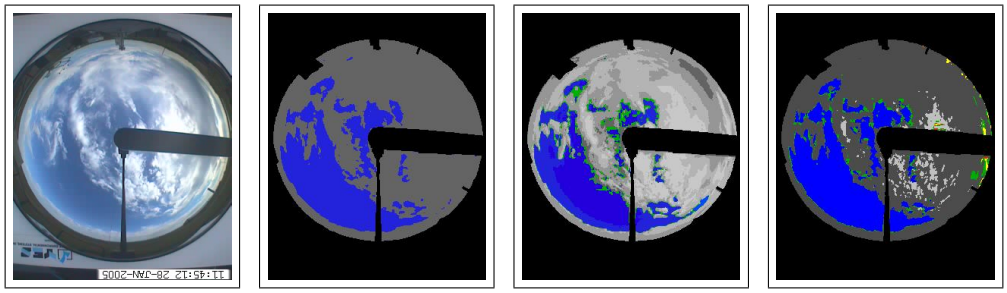
(i) 0501281100 (ii) 0501281100 Long (iii) 0501281100 EGD (iv) 0501281100 MAHA



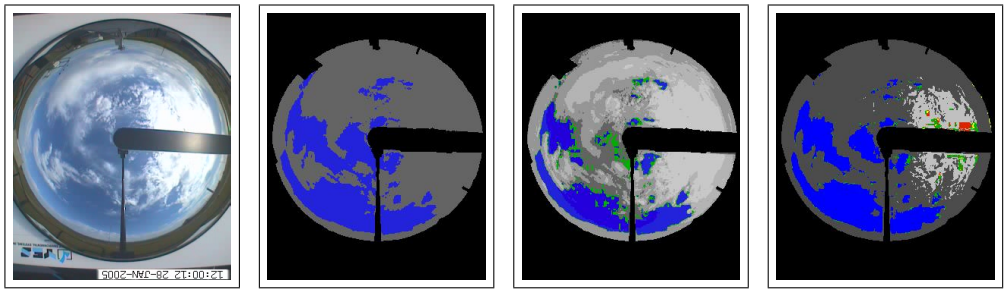
(v) 0501281115 (vi) 0501281115 Long (vii) 0501281115 EGD (viii) 0501281115 MAHA



(ix) 0501281130 (x) 0501281130 Long (xi) 0501281130 EGD (xii) 0501281130 MAHA

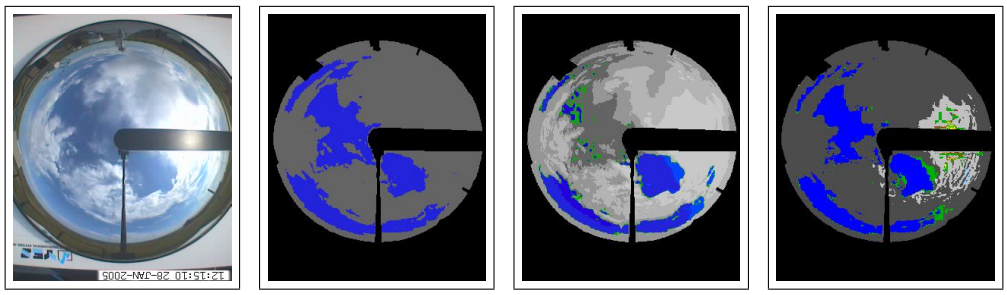


(xiii) 0501281145 (xiv) 0501281145 Long (xv) 0501281145 EGD (xvi) 0501281145 MAHA

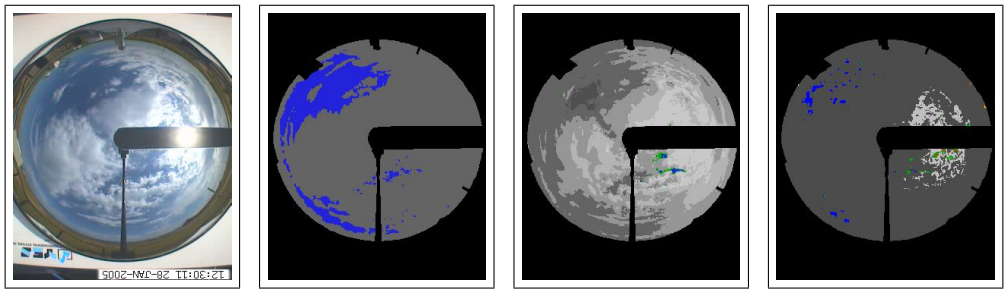


(xvii) 0501281200 (xviii) 0501281200 Long (xix) 0501281200 EGD (xx) 0501281200 MAHA

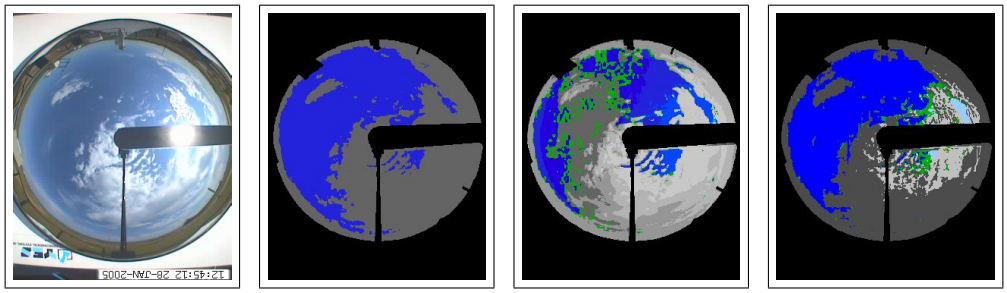
Figure A.311 - Sky images generated from 050128100 to 0501281200.



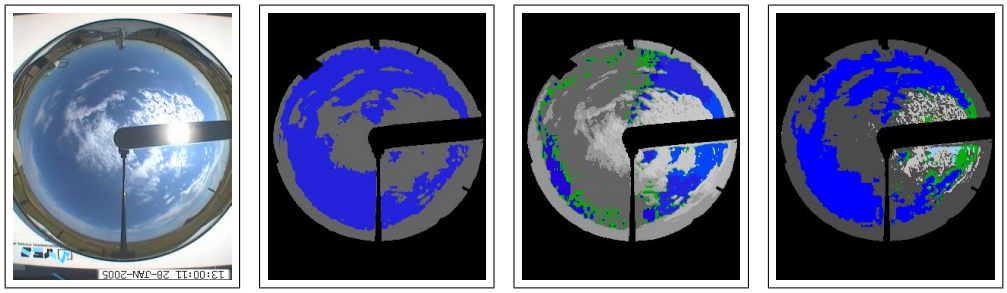
(i) 0501281215 (ii) 0501281215 Long (iii) 0501281215 EGD (iv) 0501281215 MAHA



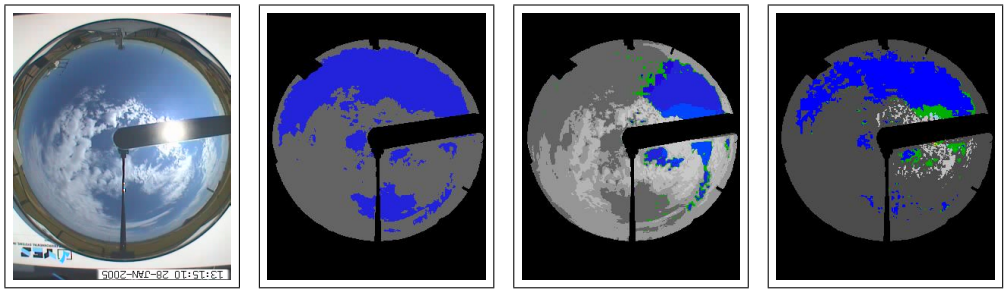
(v) 0501281230 (vi) 0501281230 Long (vii) 0501281230 EGD (viii) 0501281230 MAHA



(ix) 0501281245 (x) 0501281245 Long (xi) 0501281245 EGD (xii) 0501281245 MAHA

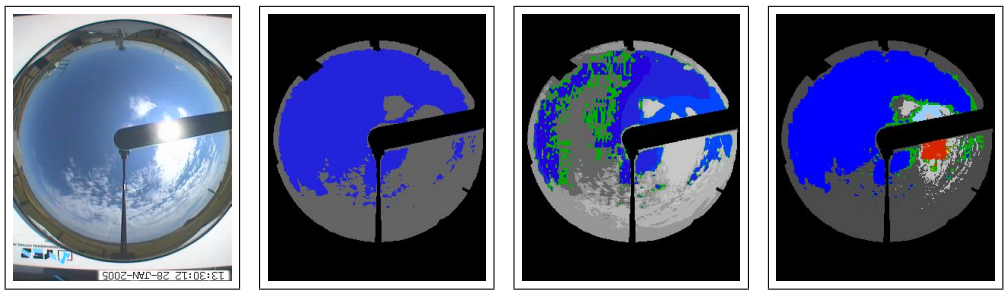


(xiii) 0501281300 (xiv) 0501281300 Long (xv) 0501281300 EGD (xvi) 0501281300 MAHA

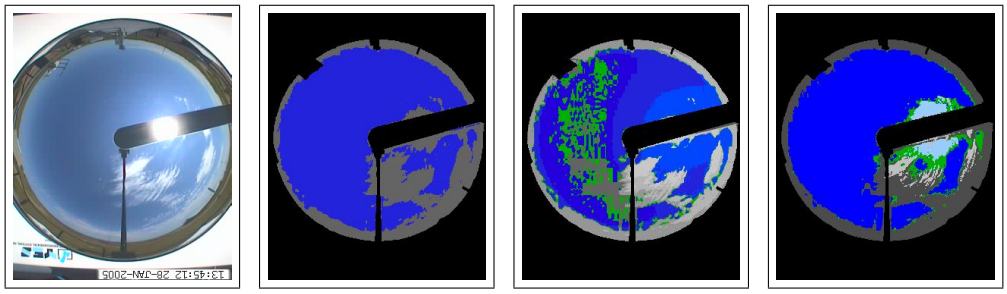


(xvii) 0501281315 (xviii) 0501281315 Long (xix) 0501281315 EGD (xx) 0501281315 MAHA

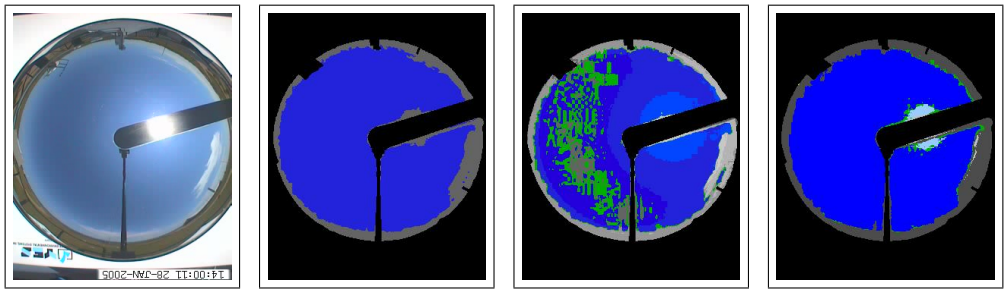
Figure A.312 - Sky images generated from 0501281215 to 0501281315.



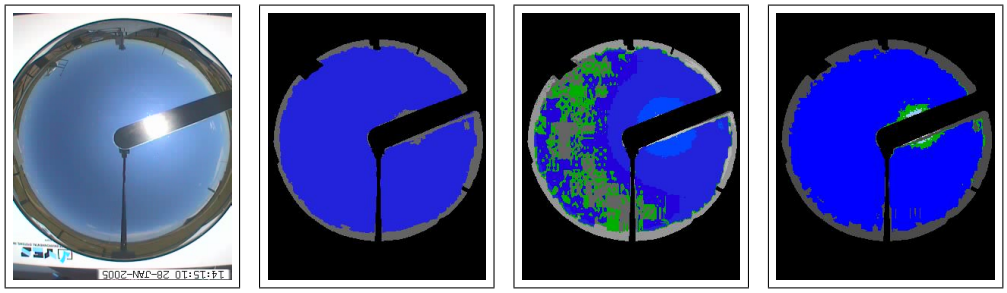
(i) 0501281330 (ii) 0501281330 Long (iii) 0501281330 EGD (iv) 0501281330 MAHA



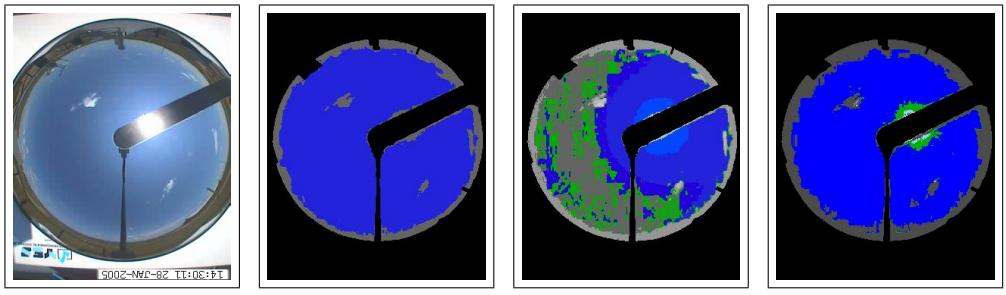
(v) 0501281345 (vi) 0501281345 Long (vii) 0501281345 EGD (viii) 0501281345 MAHA



(ix) 0501281400 (x) 0501281400 Long (xi) 0501281400 EGD (xii) 0501281400 MAHA

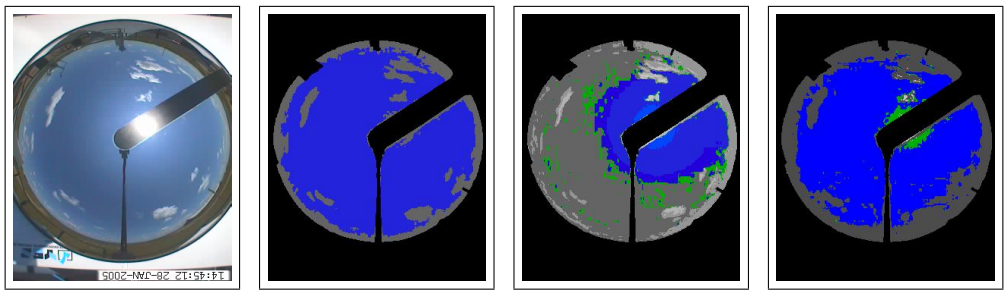


(xiii) 0501281415 (xiv) 0501281415 Long (xv) 0501281415 EGD (xvi) 0501281415 MAHA

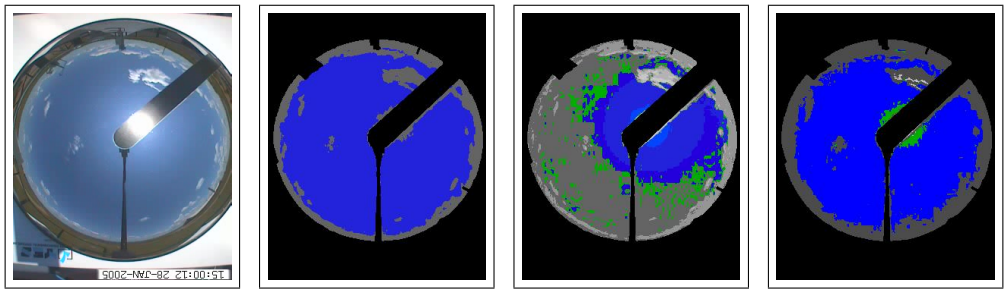


(xvii) 0501281430 (xviii) 0501281430 Long (xix) 0501281430 EGD (xx) 0501281430 MAHA

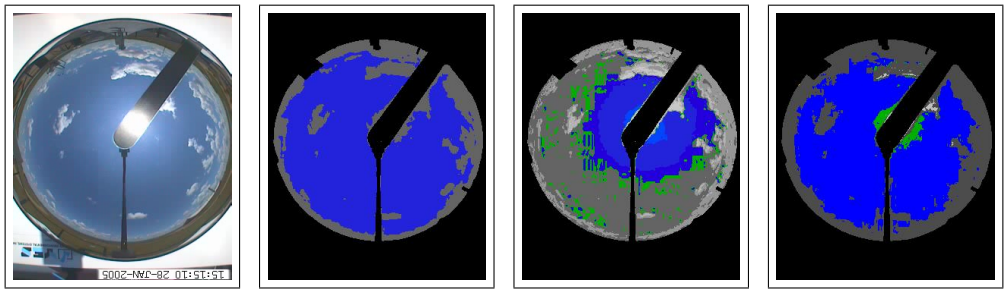
Figure A.313 - Sky images generated from 0501281330 to 0501281430.



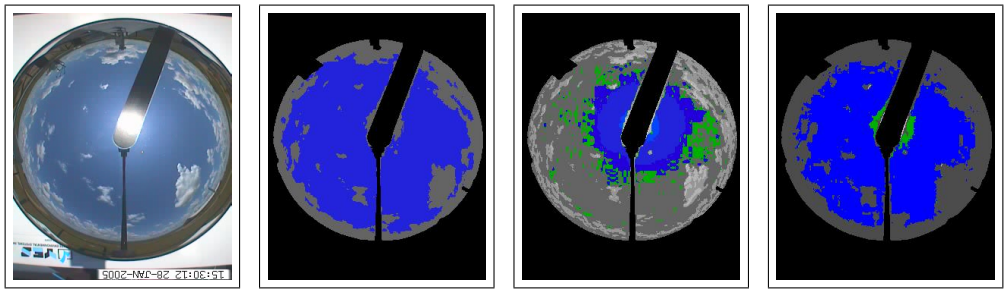
(i) 0501281445 (ii) 0501281445 Long (iii) 0501281445 EGD (iv) 0501281445 MAHA



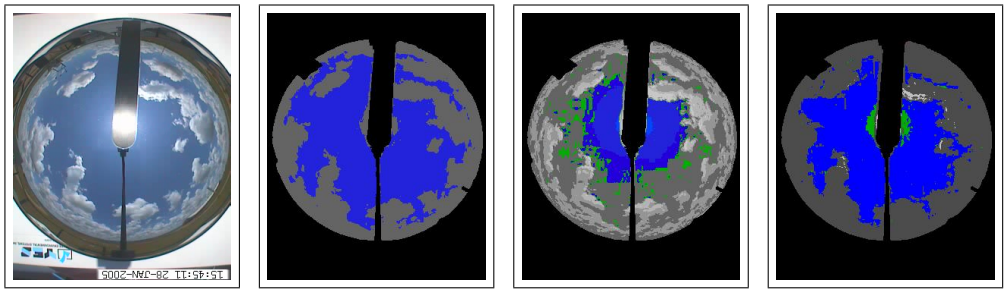
(v) 0501281500 (vi) 0501281500 Long (vii) 0501281500 EGD (viii) 0501281500 MAHA



(ix) 0501281515 (x) 0501281515 Long (xi) 0501281515 EGD (xii) 0501281515 MAHA

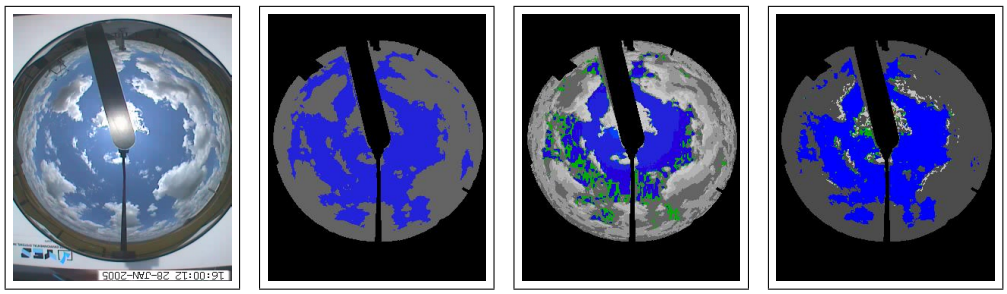


(xiii) 0501281530 (xiv) 0501281530 Long (xv) 0501281530 EGD (xvi) 0501281530 MAHA

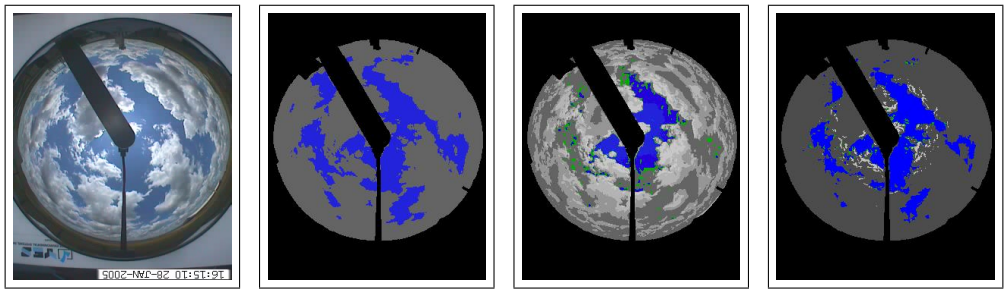


(xvii) 0501281545 (xviii) 0501281545 Long (xix) 0501281545 EGD (xx) 0501281545 MAHA

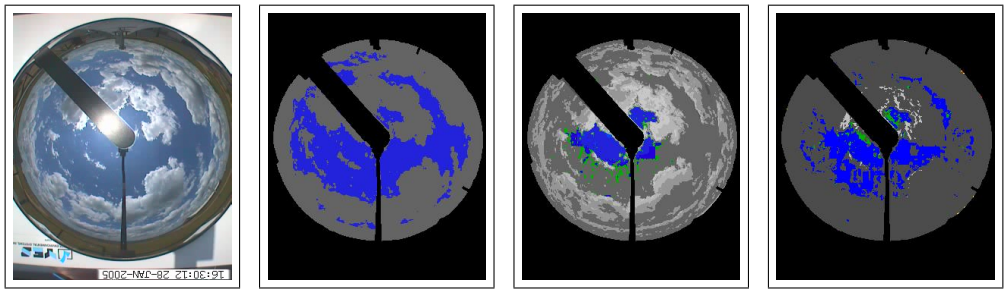
Figure A.314 - Sky images generated from 0501281445 to 0501281545.



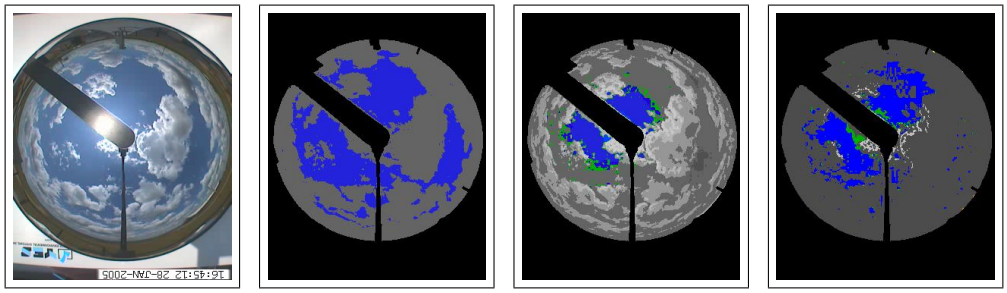
(i) 0501281600 (ii) 0501281600 Long (iii) 0501281600 EGD (iv) 0501281600 MAHA



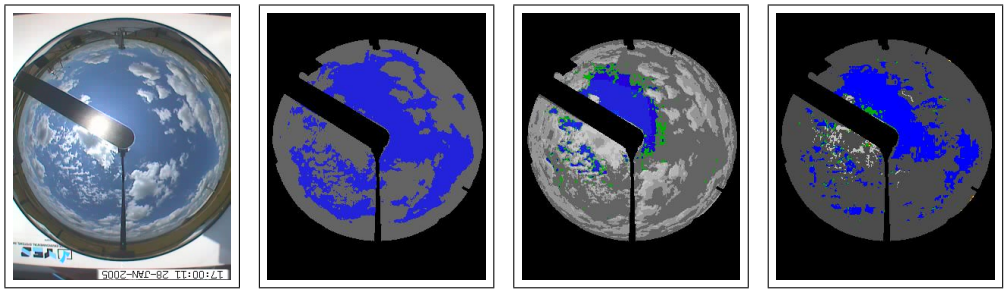
(v) 0501281615 (vi) 0501281615 Long (vii) 0501281615 EGD (viii) 0501281615 MAHA



(ix) 0501281630 (x) 0501281630 Long (xi) 0501281630 EGD (xii) 0501281630 MAHA

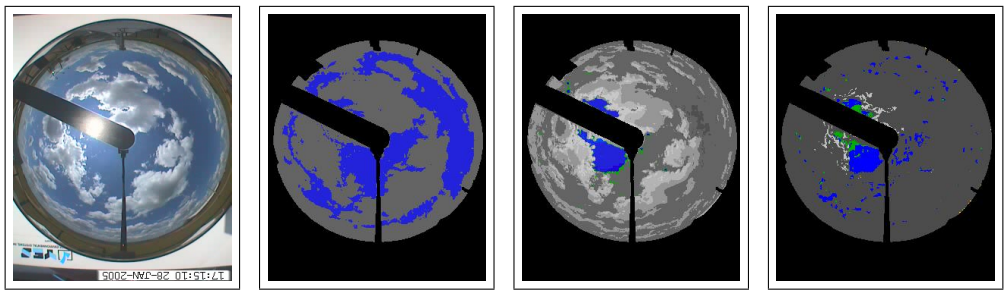


(xiii) 0501281645 (xiv) 0501281645 Long (xv) 0501281645 EGD (xvi) 0501281645 MAHA

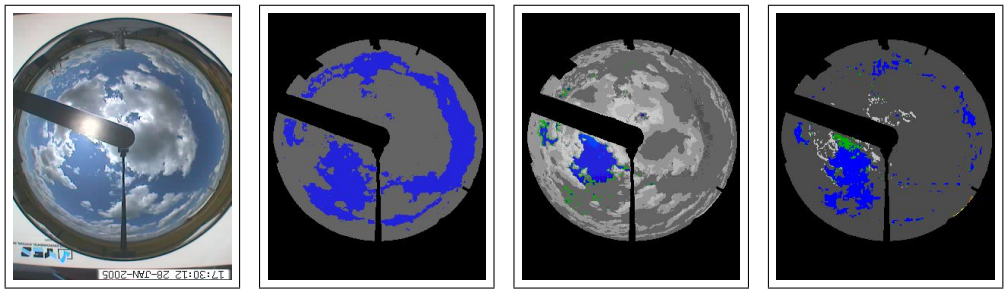


(xvii) 0501281700 (xviii) 0501281700 Long (xix) 0501281700 EGD (xx) 0501281700 MAHA

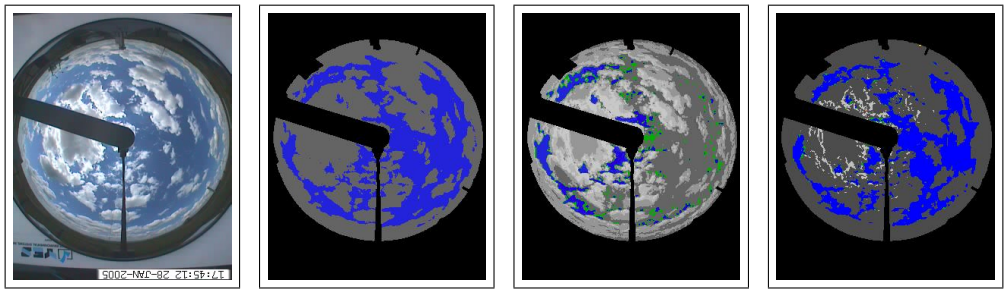
Figure A.315 - Sky images generated from 0501281600 to 0501281700.



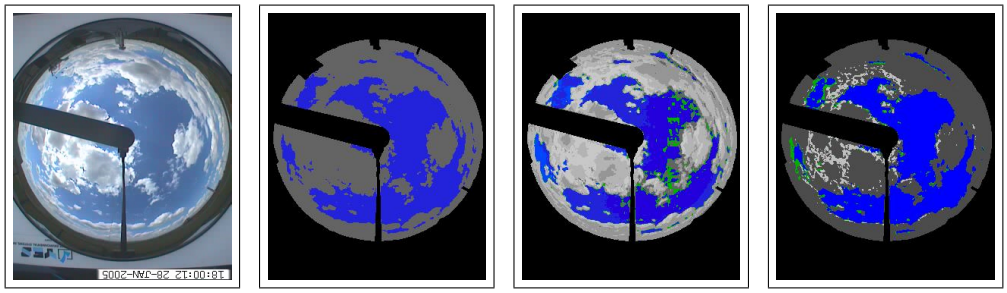
(i) 0501281715 (ii) 0501281715 Long (iii) 0501281715 EGD (iv) 0501281715 MAHA



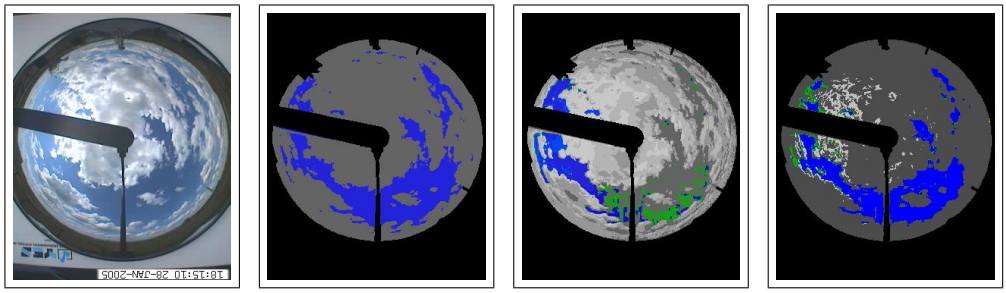
(v) 0501281730 (vi) 0501281730 Long (vii) 0501281730 EGD (viii) 0501281730 MAHA



(ix) 0501281745 (x) 0501281745 Long (xi) 0501281745 EGD (xii) 0501281745 MAHA

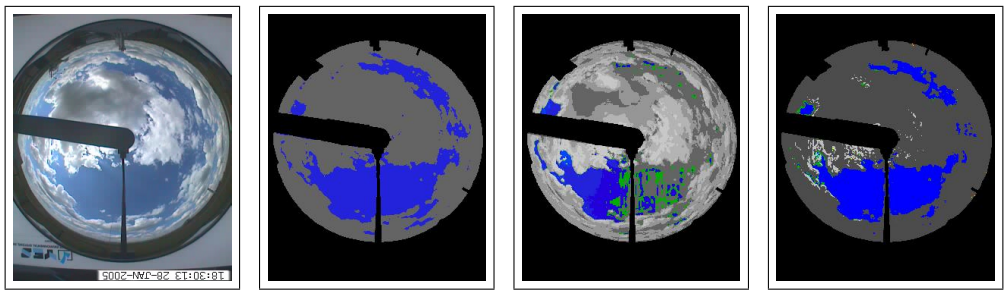


(xiii) 0501281800 (xiv) 0501281800 Long (xv) 0501281800 EGD (xvi) 0501281800 MAHA

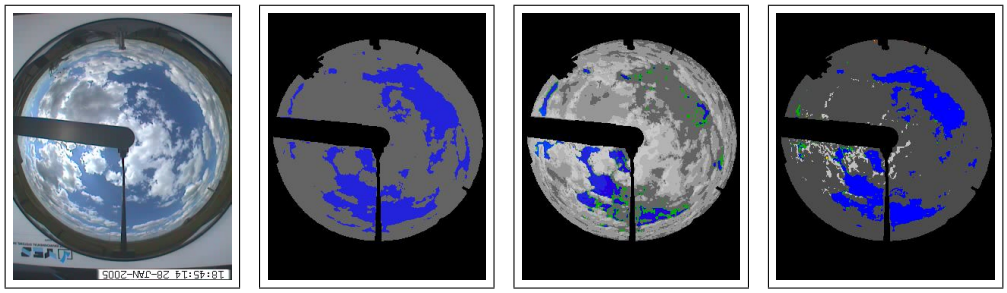


(xvii) 0501281815 (xviii) 0501281815 Long (xix) 0501281815 EGD (xx) 0501281815 MAHA

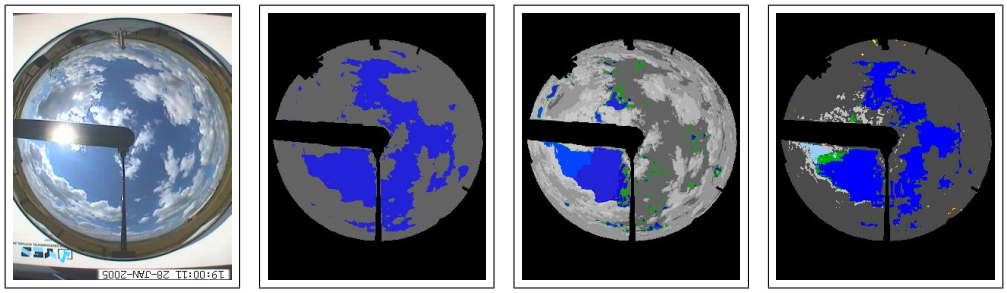
Figure A.316 - Sky images generated from 0501281715 to 0501281815.



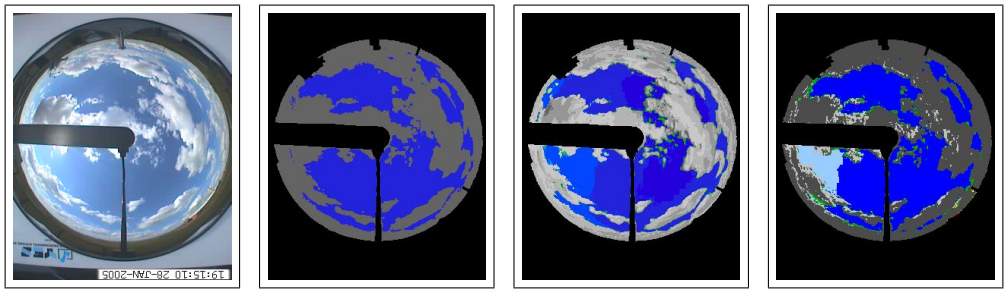
(i) 0501281830 (ii) 0501281830 Long (iii) 0501281830 EGD (iv) 0501281830 MAHA



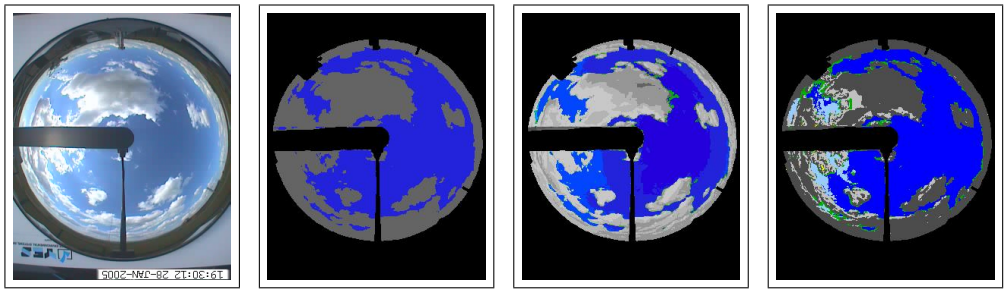
(v) 0501281845 (vi) 0501281845 Long (vii) 0501281845 EGD (viii) 0501281845 MAHA



(ix) 0501281900 (x) 0501281900 Long (xi) 0501281900 EGD (xii) 0501281900 MAHA

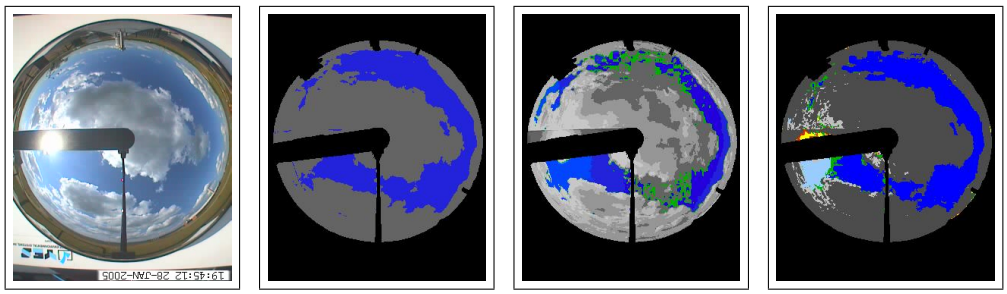


(xiii) 0501281915 (xiv) 0501281915 Long (xv) 0501281915 EGD (xvi) 0501281915 MAHA

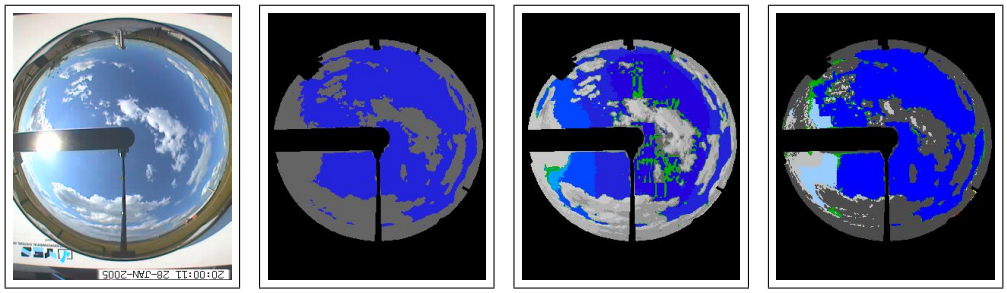


(xvii) 0501281930 (xviii) 0501281930 Long (xix) 0501281930 EGD (xx) 0501281930 MAHA

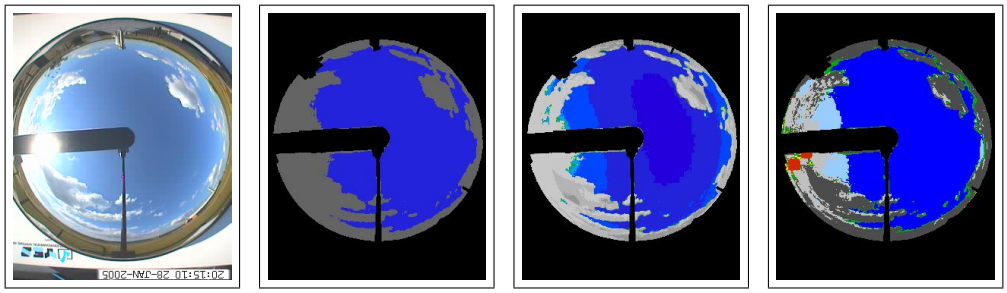
Figure A.317 - Sky images generated from 0501281830 to 0501281930.



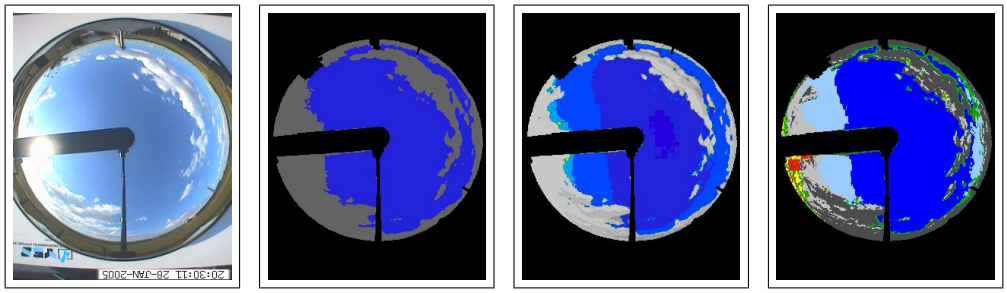
(i) 0501281945 (ii) 0501281945 Long (iii) 0501281945 EGD (iv) 0501281945 MAHA



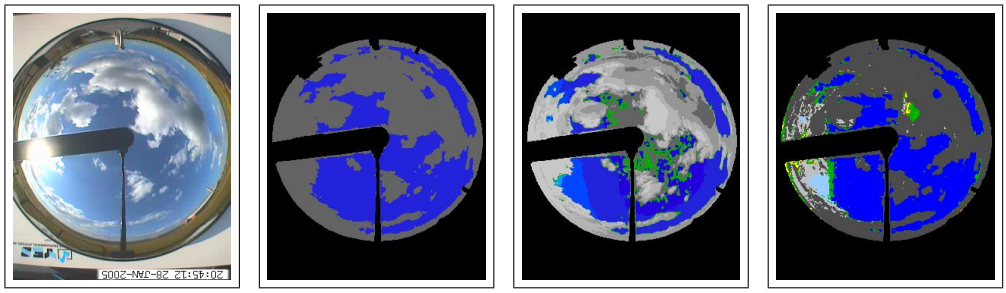
(v) 0501282000 (vi) 0501282000 Long (vii) 0501282000 EGD (viii) 0501282000 MAHA



(ix) 0501282015 (x) 0501282015 Long (xi) 0501282015 EGD (xii) 0501282015 MAHA

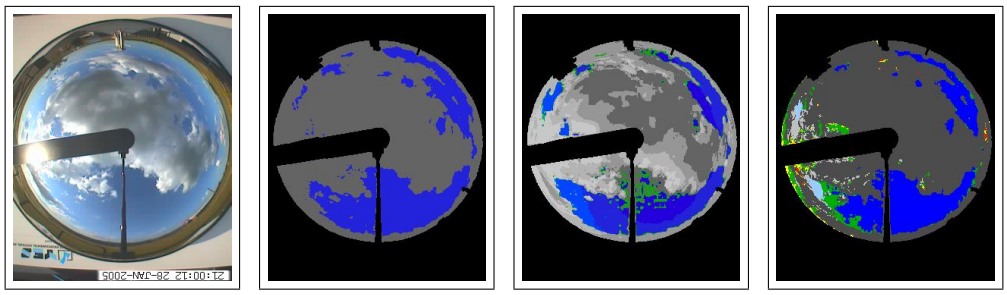


(xiii) 0501282030 (xiv) 0501282030 Long (xv) 0501282030 EGD (xvi) 0501282030 MAHA

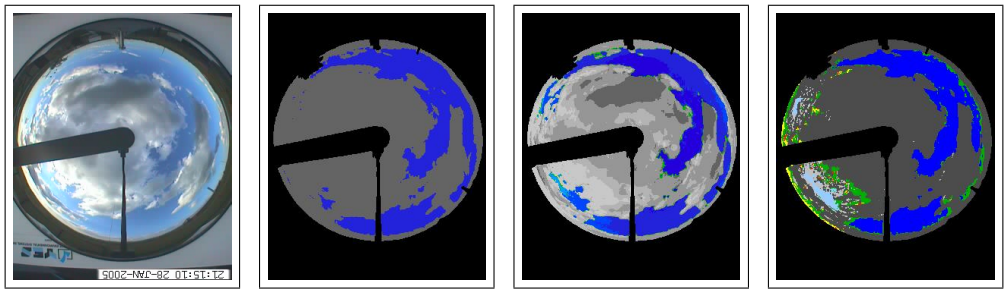


(xvii) 0501282045 (xviii) 0501282045 Long (xix) 0501282045 EGD (xx) 0501282045 MAHA

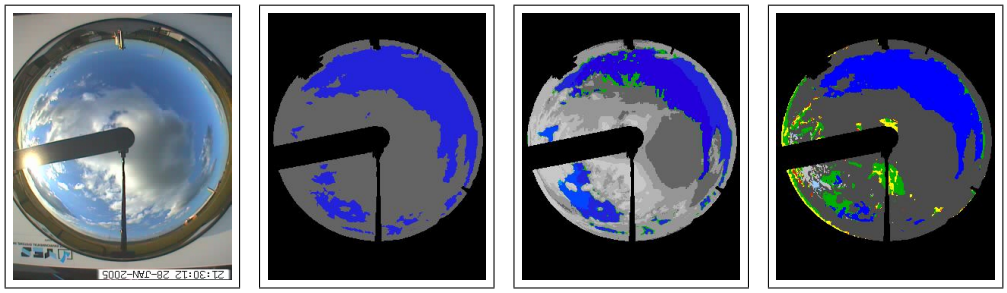
Figure A.318 - Sky images generated from 0501281945 to 0501282045.



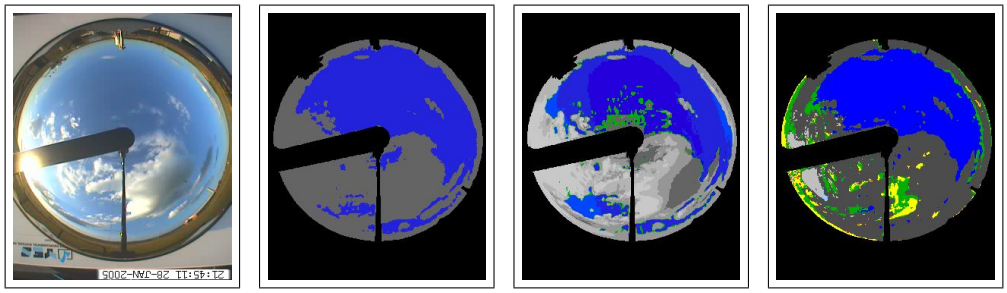
(i) 0501282100 (ii) 0501282100 Long (iii) 0501282100 EGD (iv) 0501282100 MAHA



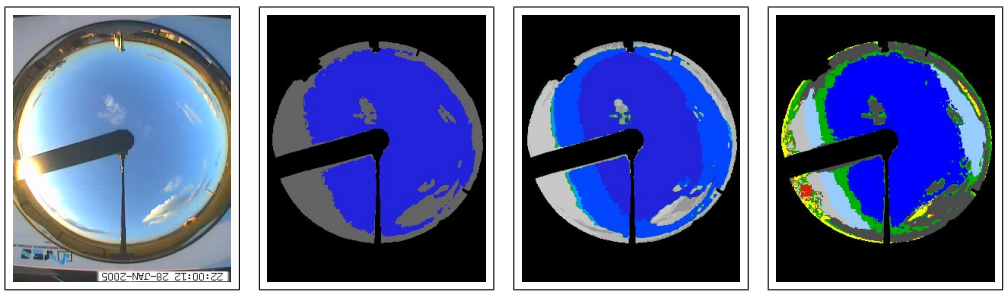
(v) 0501282115 (vi) 0501282115 Long (vii) 0501282115 EGD (viii) 0501282115 MAHA



(ix) 0501282130 (x) 0501282130 Long (xi) 0501282130 EGD (xii) 0501282130 MAHA

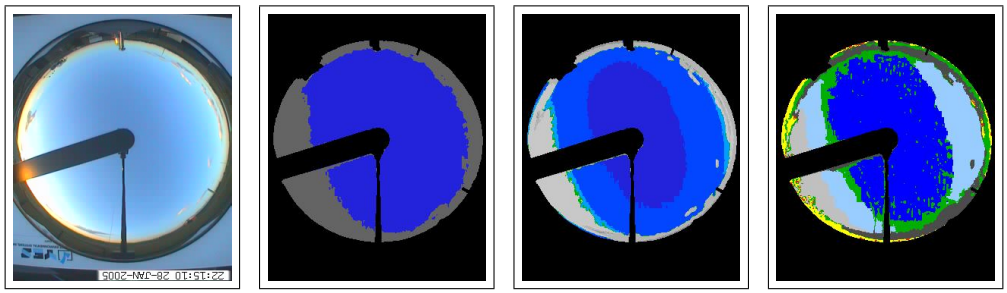


(xiii) 0501282145 (xiv) 0501282145 Long (xv) 0501282145 EGD (xvi) 0501282145 MAHA

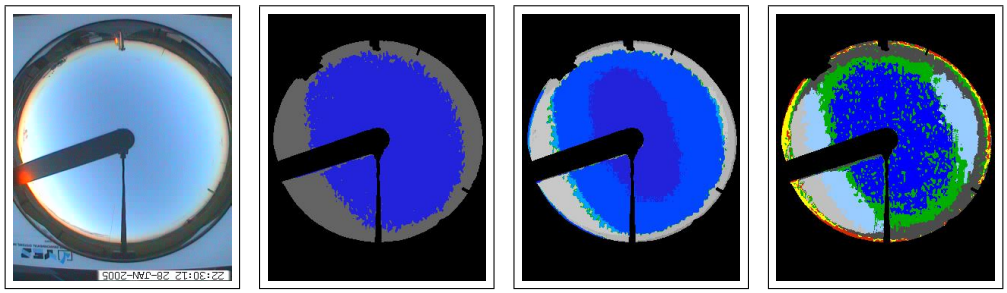


(xvii) 0501282200 (xviii) 0501282200 Long (xix) 0501282200 EGD (xx) 0501282200 MAHA

Figure A.319 - Sky images generated from 0501282100 to 0501282200.



(i) 0501282215 (ii) 0501282215 Long (iii) 0501282215 EGD (iv) 0501282215 MAHA

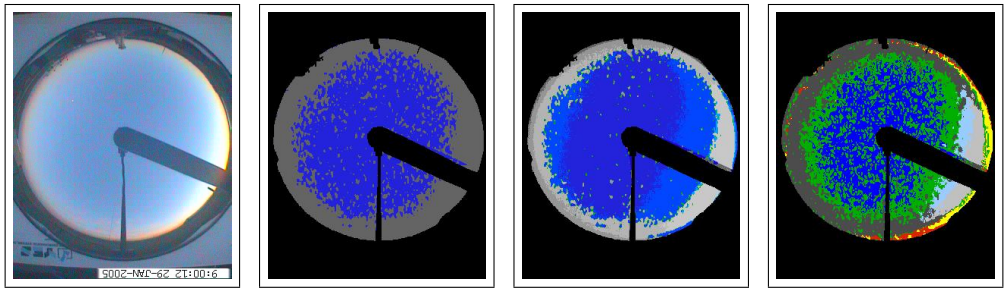


(v) 0501282230 (vi) 0501282230 Long (vii) 0501282230 EGD (viii) 0501282230 MAHA

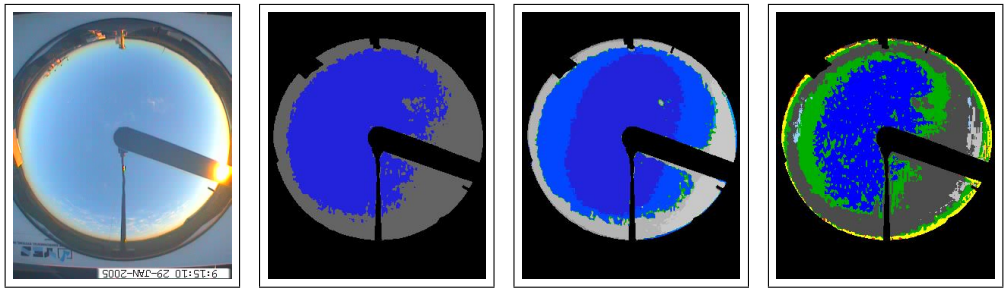


(ix) 0501282245

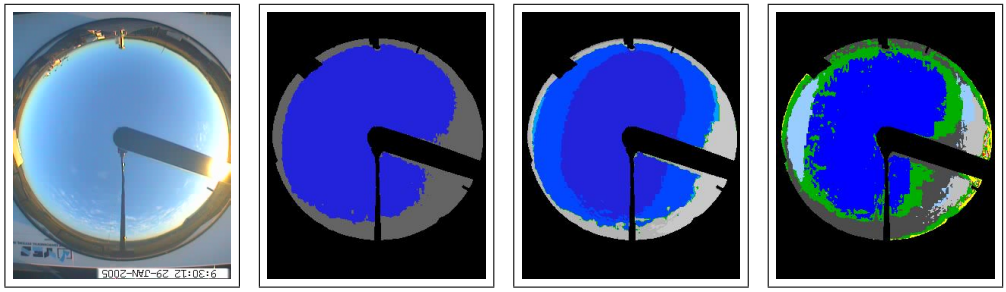
Figure A.320 - Sky images generated from 0501281600 to 0501282245.



(i) 0501290900 (ii) 0501290900 Long (iii) 0501290900 EGD (iv) 0501290900 MAHA

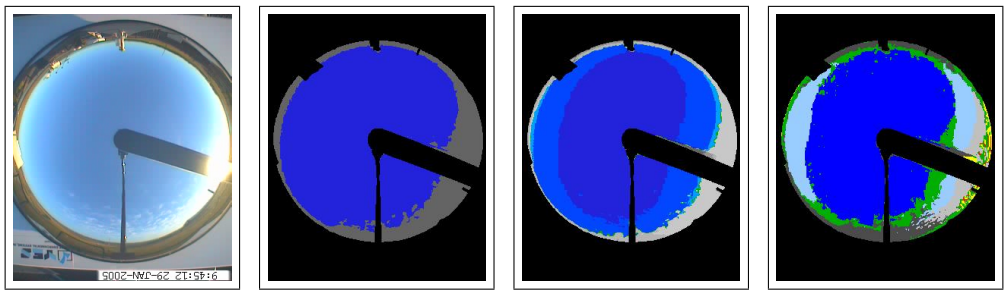


(v) 0501290915 (vi) 0501290915 Long (vii) 0501290915 EGD (viii) 0501290915 MAHA

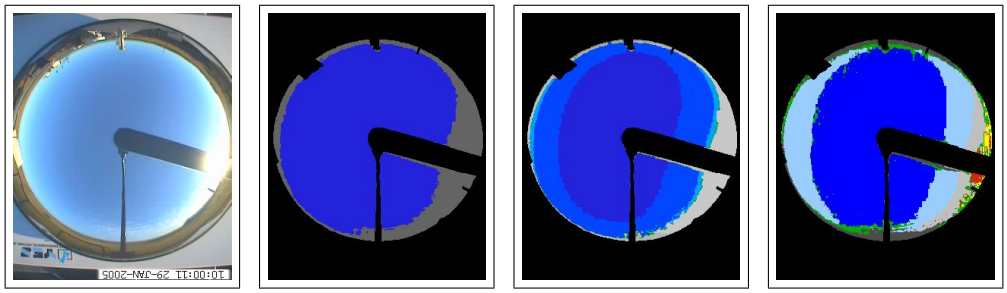


(ix) 0501290930 (x) 0501290930 Long (xi) 0501290930 EGD (xii) 0501290930 MAHA

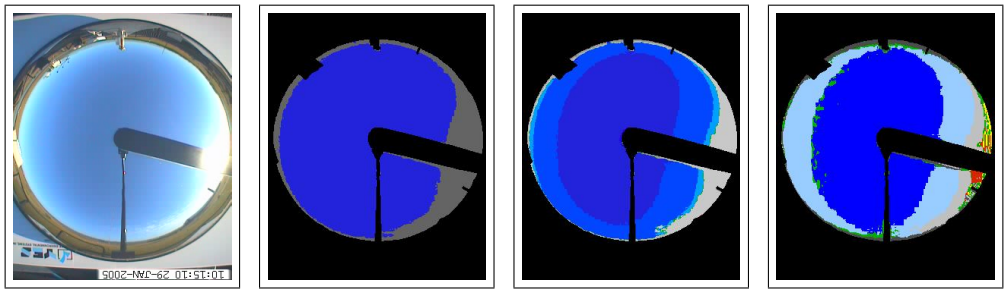
Figure A.321 - Sky images generated from 0501290845 to 0501290930.



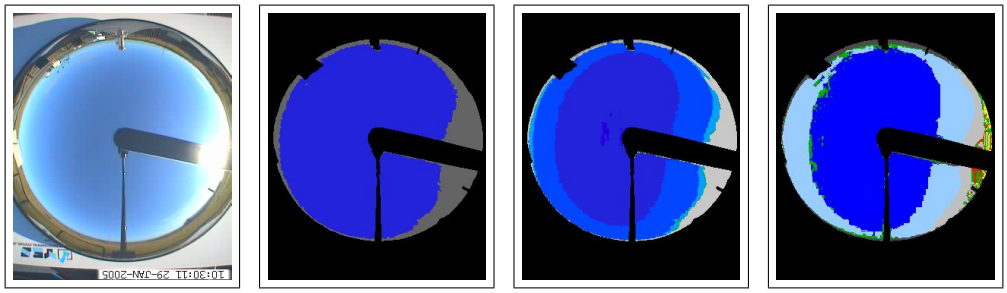
(i) 0501290945 (ii) 0501290945 Long (iii) 0501290945 EGD (iv) 0501290945 MAHA



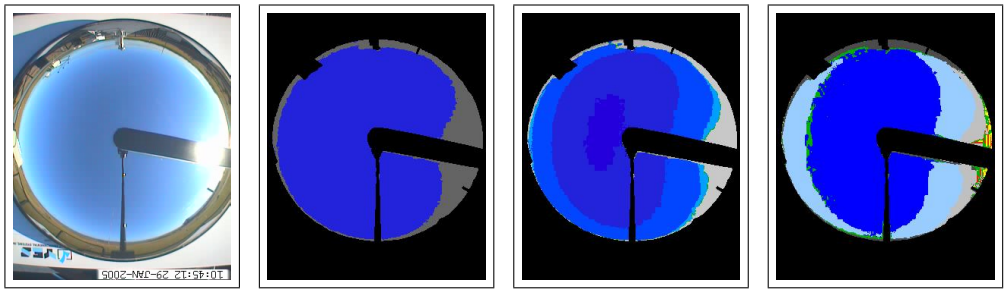
(v) 050129000 (vi) 050129000 Long (vii) 050129000 EGD (viii) 050129000 MAHA



(ix) 0501291015 (x) 0501291015 Long (xi) 0501291015 EGD (xii) 0501291015 MAHA

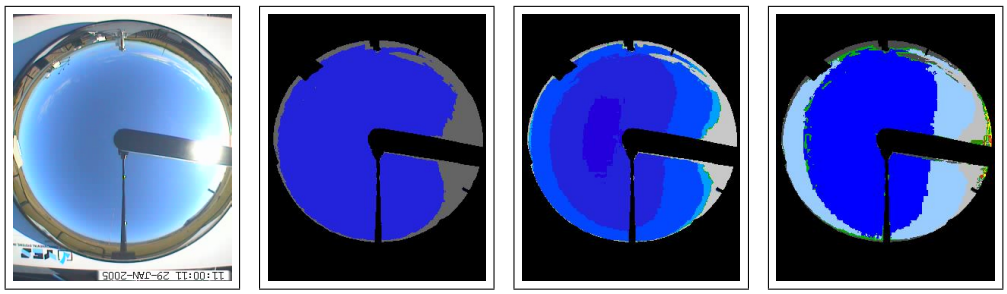


(xiii) 0501291030 (xiv) 0501291030 Long (xv) 0501291030 EGD (xvi) 0501291030 MAHA

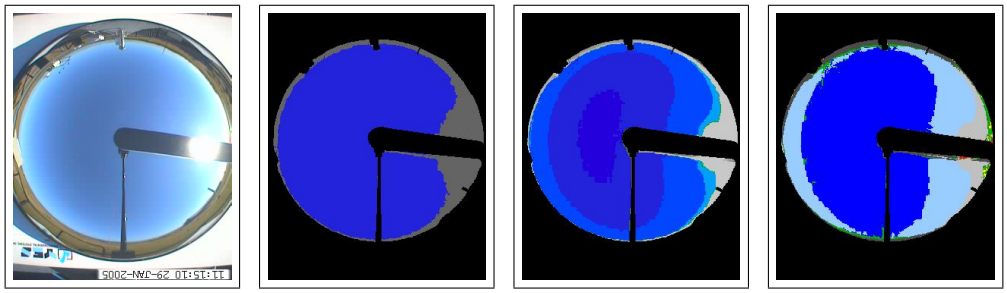


(xvii) 0501291045 (xviii) 0501291045 Long (xix) 0501291045 EGD (xx) 0501291045 MAHA

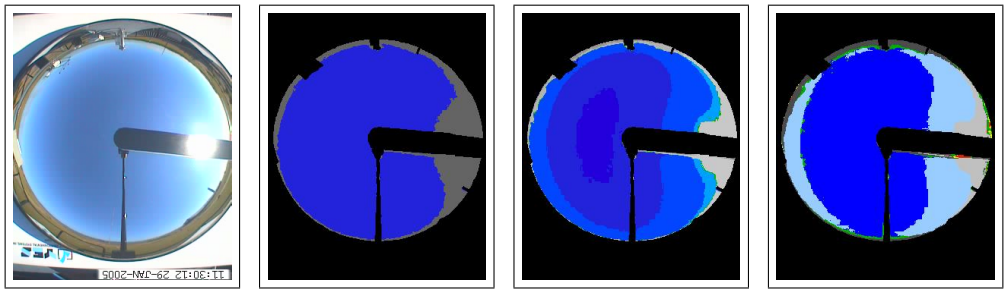
Figure A.322 - Sky images generated from 0501290945 to 0501291045.



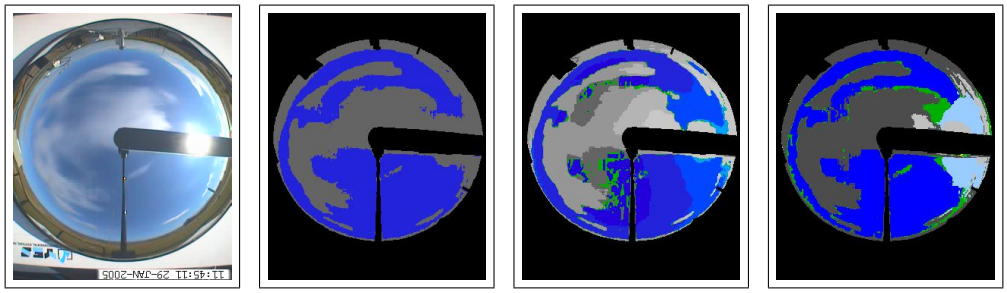
(i) 0501291100 (ii) 0501291100 Long (iii) 0501291100 EGD (iv) 0501291100 MAHA



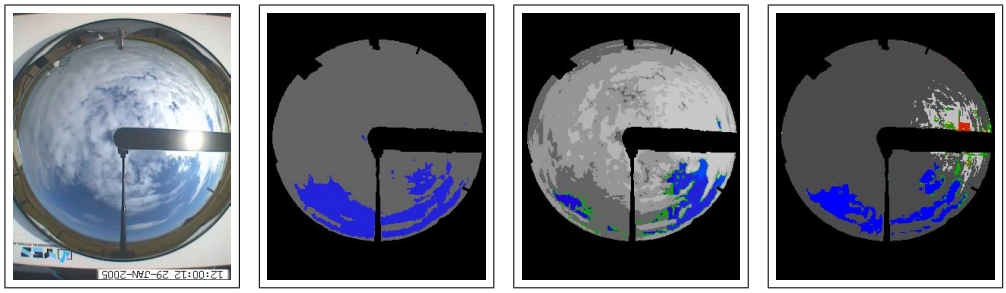
(v) 0501291115 (vi) 0501291115 Long (vii) 0501291115 EGD (viii) 0501291115 MAHA



(ix) 0501291130 (x) 0501291130 Long (xi) 0501291130 EGD (xii) 0501291130 MAHA

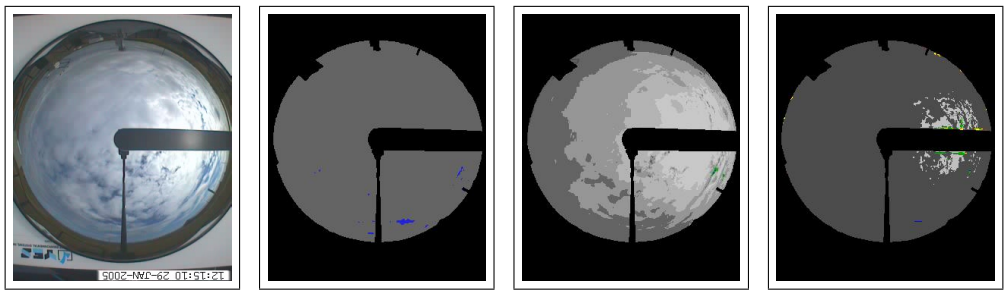


(xiii) 0501291145 (xiv) 0501291145 Long (xv) 0501291145 EGD (xvi) 0501291145 MAHA

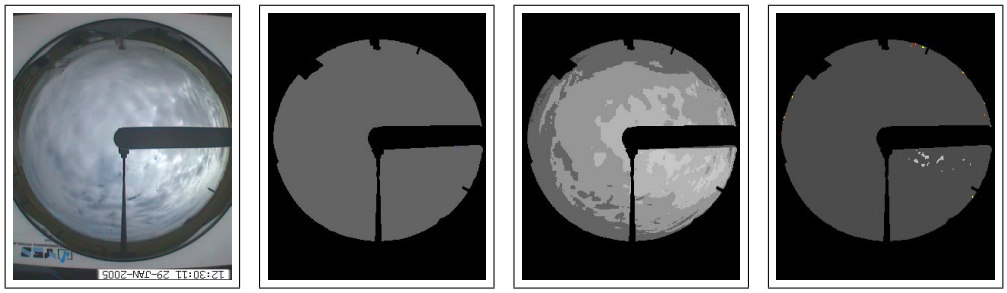


(xvii) 0501291200 (xviii) 0501291200 Long (xix) 0501291200 EGD (xx) 0501291200 MAHA

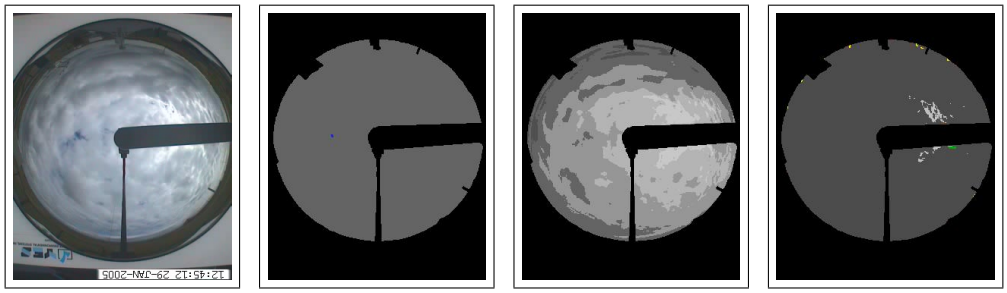
Figure A.323 - Sky images generated from 050129100 to 0501291200.



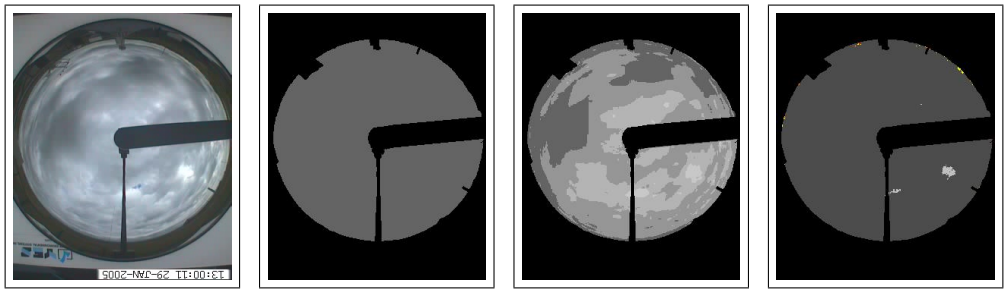
(i) 0501291215 (ii) 0501291215 Long (iii) 0501291215 EGD (iv) 0501291215 MAHA



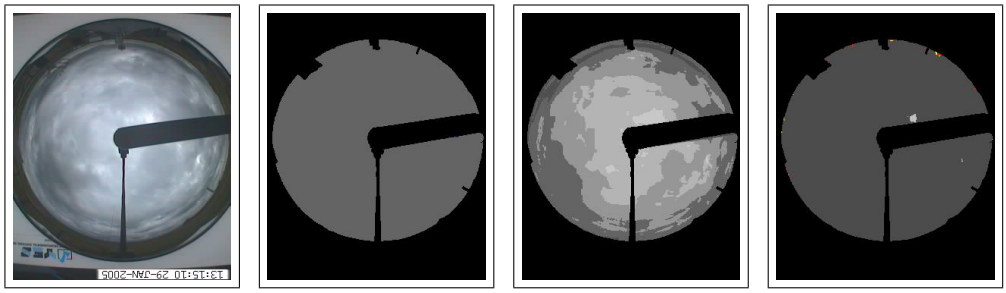
(v) 0501291230 (vi) 0501291230 Long (vii) 0501291230 EGD (viii) 0501291230 MAHA



(ix) 0501291245 (x) 0501291245 Long (xi) 0501291245 EGD (xii) 0501291245 MAHA

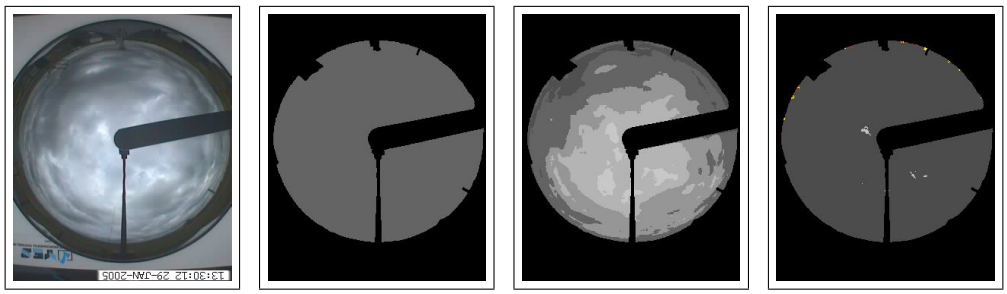


(xiii) 0501291300 (xiv) 0501291300 Long (xv) 0501291300 EGD (xvi) 0501291300 MAHA

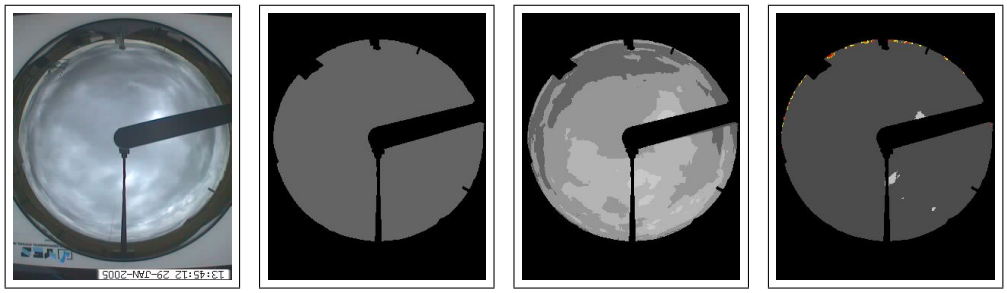


(xvii) 0501291315 (xviii) 0501291315 Long (xix) 0501291315 EGD (xx) 0501291315 MAHA

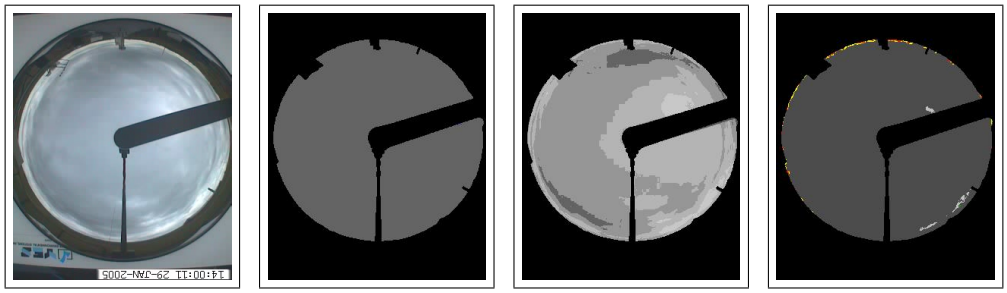
Figure A.324 - Sky images generated from 0501291215 to 0501291315.



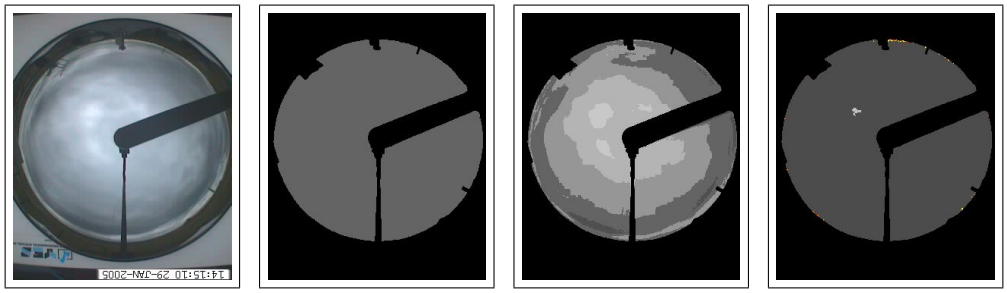
(i) 0501291330 (ii) 0501291330 Long (iii) 0501291330 EGD (iv) 0501291330 MAHA



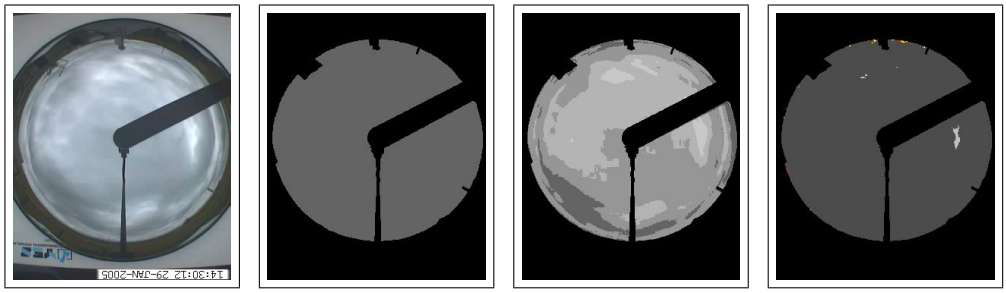
(v) 0501291345 (vi) 0501291345 Long (vii) 0501291345 EGD (viii) 0501291345 MAHA



(ix) 0501291400 (x) 0501291400 Long (xi) 0501291400 EGD (xii) 0501291400 MAHA

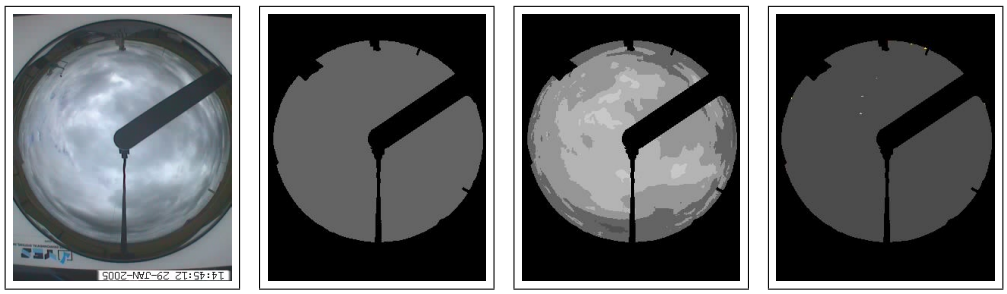


(xiii) 0501291415 (xiv) 0501291415 Long (xv) 0501291415 EGD (xvi) 0501291415 MAHA

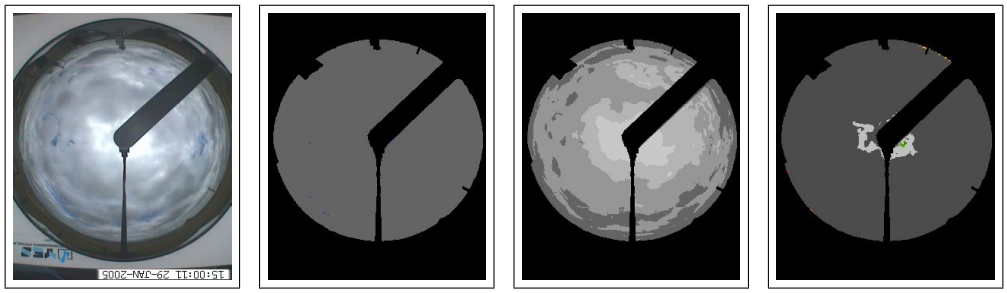


(xvii) 0501291430 (xviii) 0501291430 Long (xix) 0501291430 EGD (xx) 0501291430 MAHA

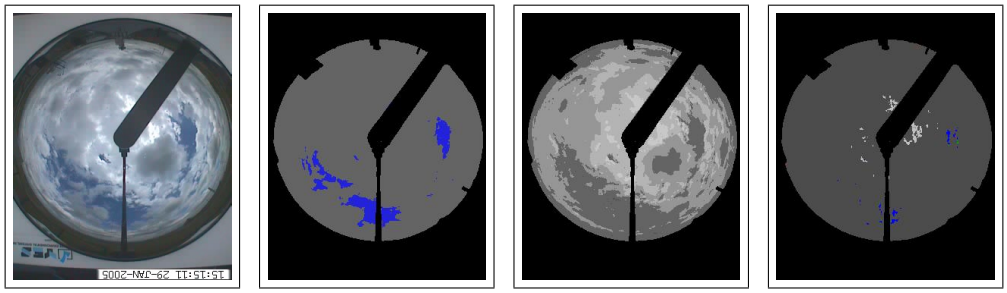
Figure A.325 - Sky images generated from 0501291330 to 0501291430.



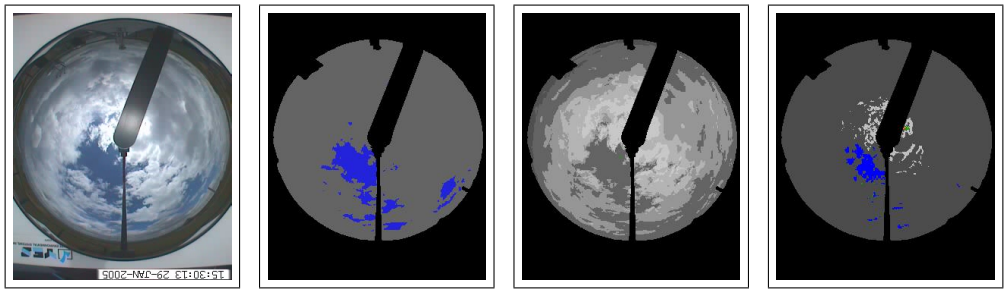
(i) 0501291445 (ii) 0501291445 Long (iii) 0501291445 EGD (iv) 0501291445 MAHA



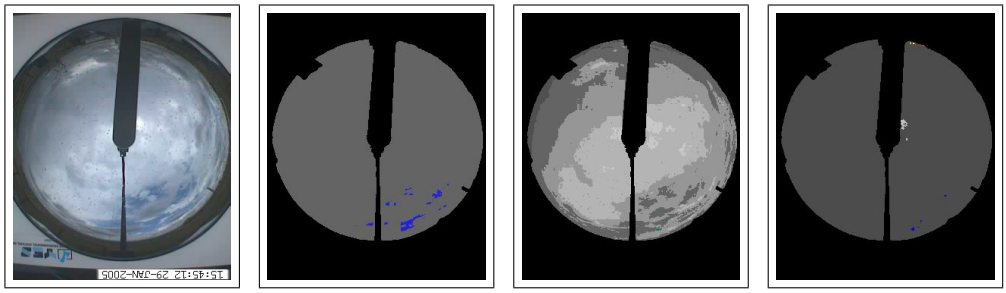
(v) 0501291500 (vi) 0501291500 Long (vii) 0501291500 EGD (viii) 0501291500 MAHA



(ix) 0501291515 (x) 0501291515 Long (xi) 0501291515 EGD (xii) 0501291515 MAHA

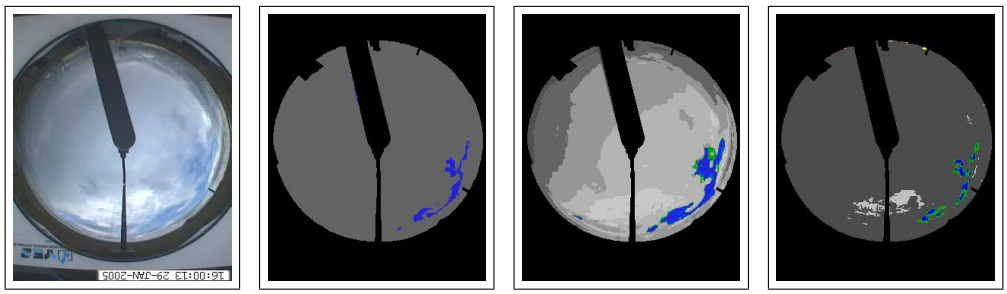


(xiii) 0501291530 (xiv) 0501291530 Long (xv) 0501291530 EGD (xvi) 0501291530 MAHA

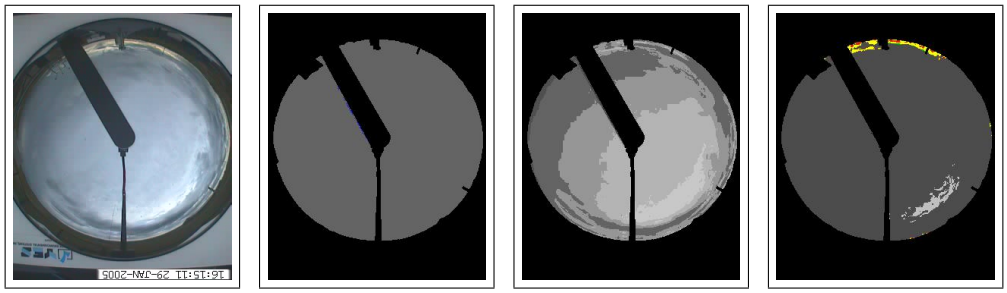


(xvii) 0501291545 (xviii) 0501291545 Long (xix) 0501291545 EGD (xx) 0501291545 MAHA

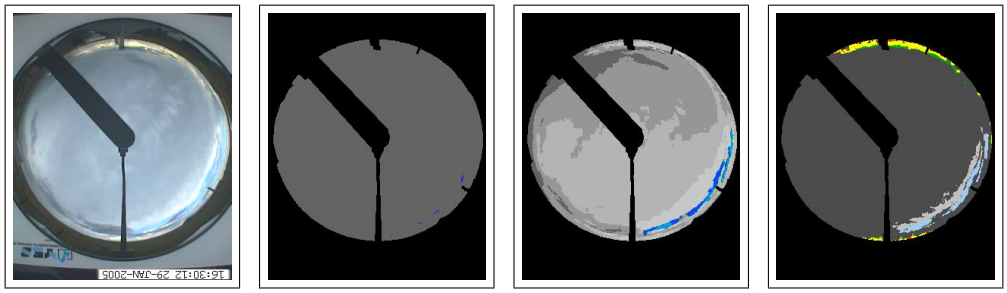
Figure A.326 - Sky images generated from 0501291445 to 0501291545.



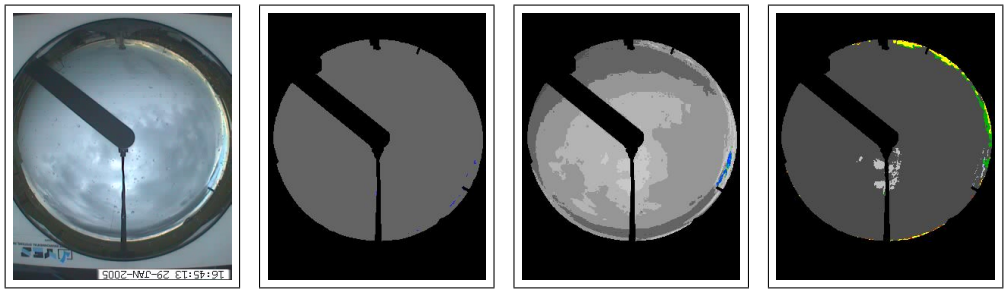
(i) 0501291600 (ii) 0501291600 Long (iii) 0501291600 EGD (iv) 0501291600 MAHA



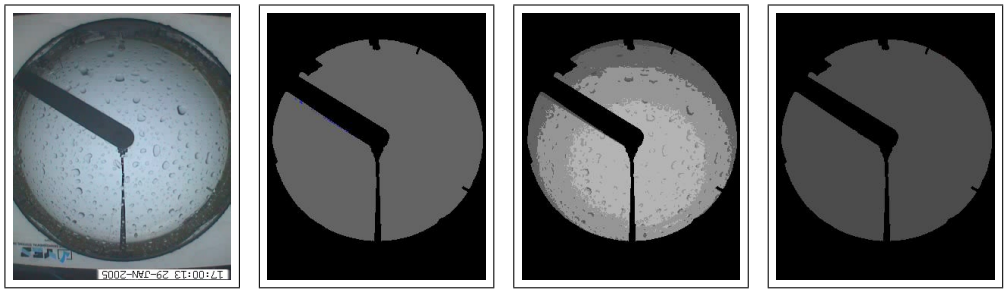
(v) 0501291615 (vi) 0501291615 Long (vii) 0501291615 EGD (viii) 0501291615 MAHA



(ix) 0501291630 (x) 0501291630 Long (xi) 0501291630 EGD (xii) 0501291630 MAHA

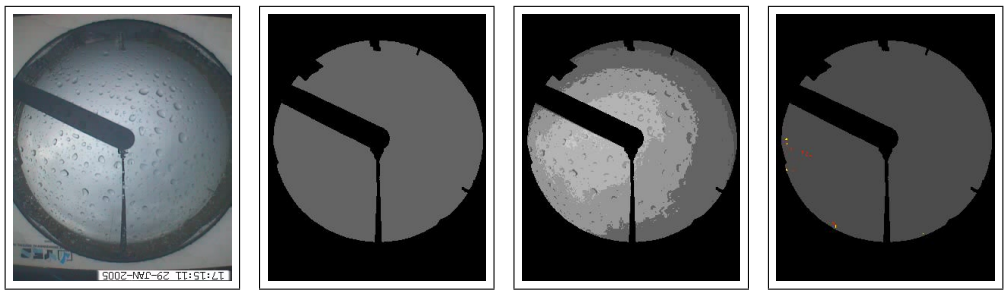


(xiii) 0501291645 (xiv) 0501291645 Long (xv) 0501291645 EGD (xvi) 0501291645 MAHA

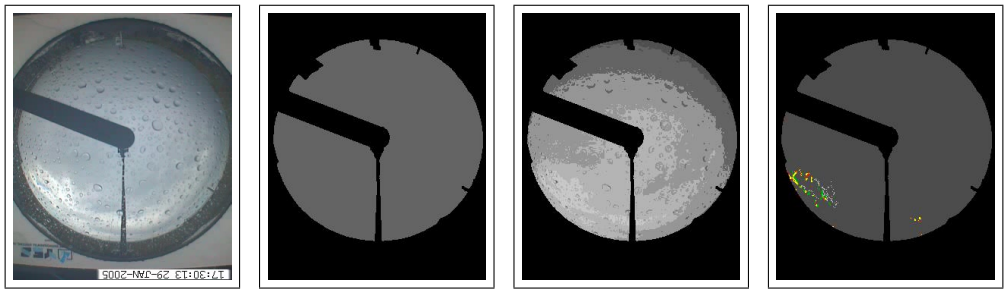


(xvii) 0501291700 (xviii) 0501291700 Long (xix) 0501291700 EGD (xx) 0501291700 MAHA

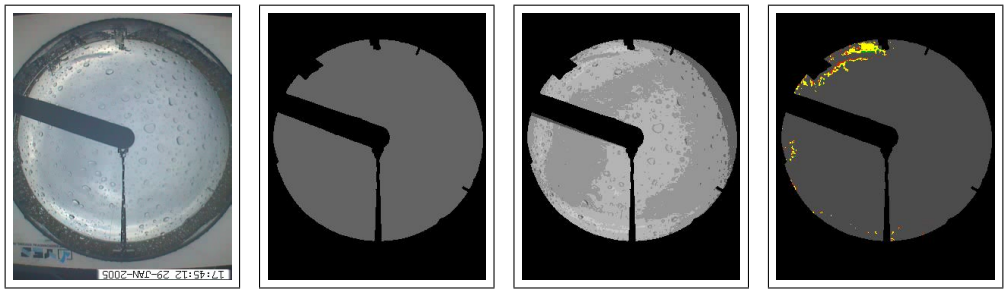
Figure A.327 - Sky images generated from 0501291600 to 0501291700.



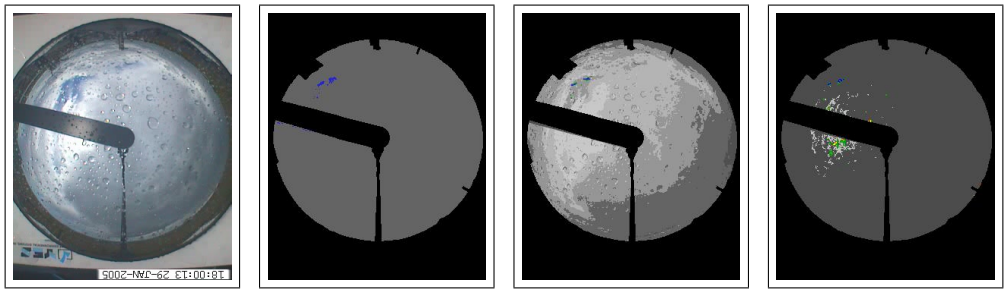
(i) 0501291715 (ii) 0501291715 Long (iii) 0501291715 EGD (iv) 0501291715 MAHA



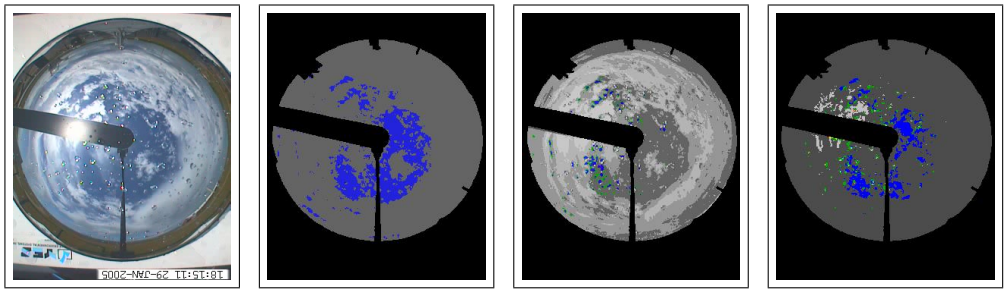
(v) 0501291730 (vi) 0501291730 Long (vii) 0501291730 EGD (viii) 0501291730 MAHA



(ix) 0501291745 (x) 0501291745 Long (xi) 0501291745 EGD (xii) 0501291745 MAHA

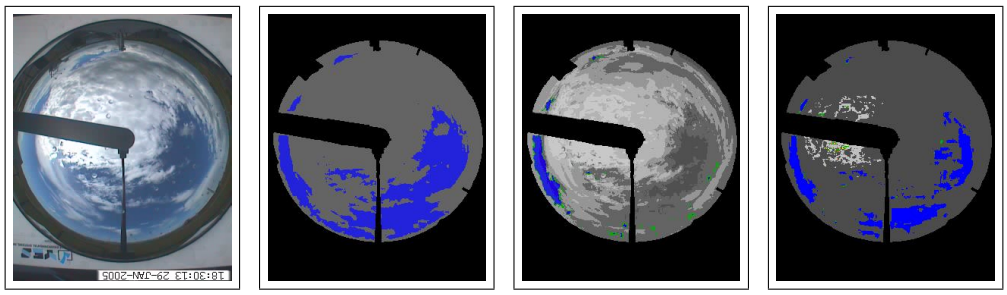


(xiii) 0501291800 (xiv) 0501291800 Long (xv) 0501291800 EGD (xvi) 0501291800 MAHA

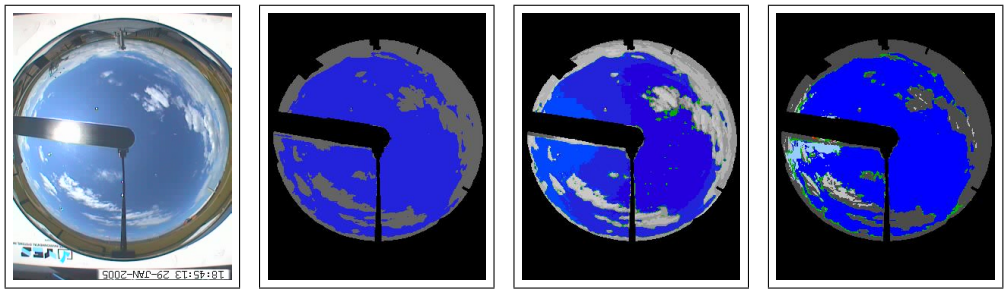


(xvii) 0501291815 (xviii) 0501291815 Long (xix) 0501291815 EGD (xx) 0501291815 MAHA

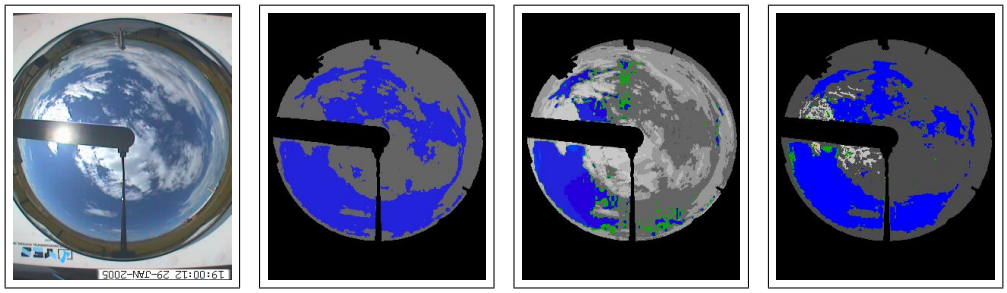
Figure A.328 - Sky images generated from 0501291715 to 0501291815.



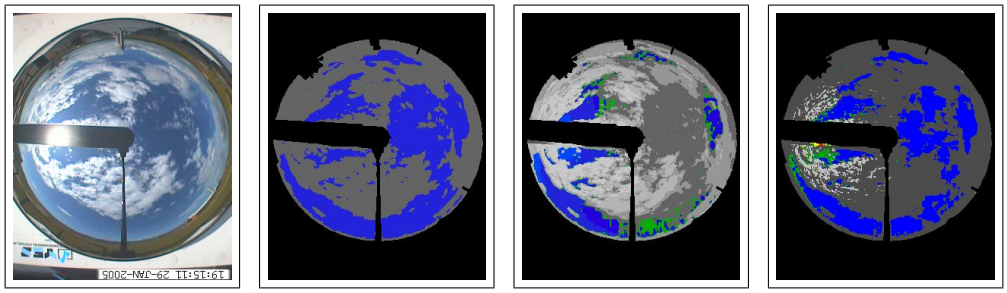
(i) 0501291830 (ii) 0501291830 Long (iii) 0501291830 EGD (iv) 0501291830 MAHA



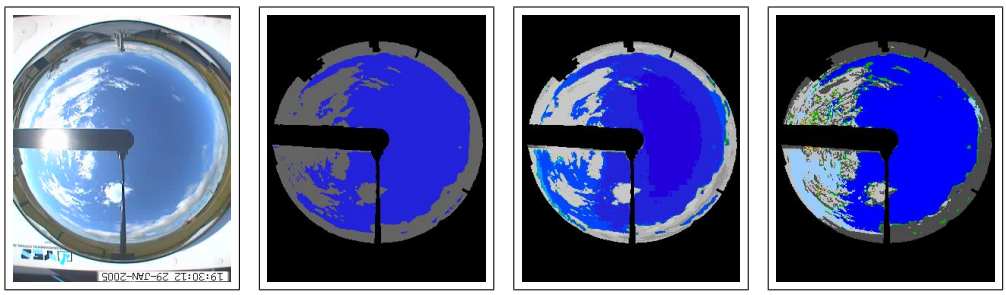
(v) 0501291845 (vi) 0501291845 Long (vii) 0501291845 EGD (viii) 0501291845 MAHA



(ix) 0501291900 (x) 0501291900 Long (xi) 0501291900 EGD (xii) 0501291900 MAHA

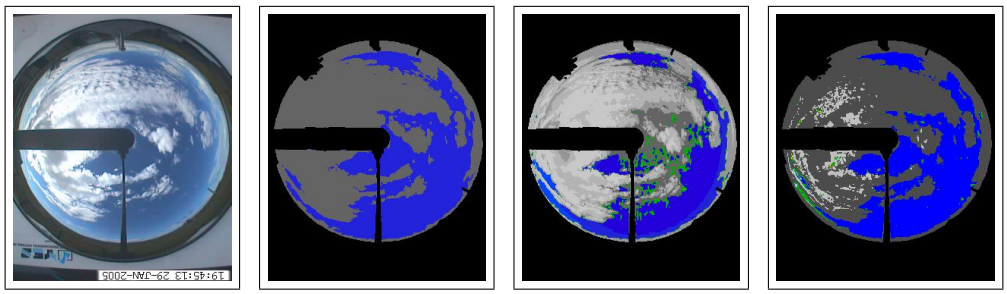


(xiii) 0501291915 (xiv) 0501291915 Long (xv) 0501291915 EGD (xvi) 0501291915 MAHA

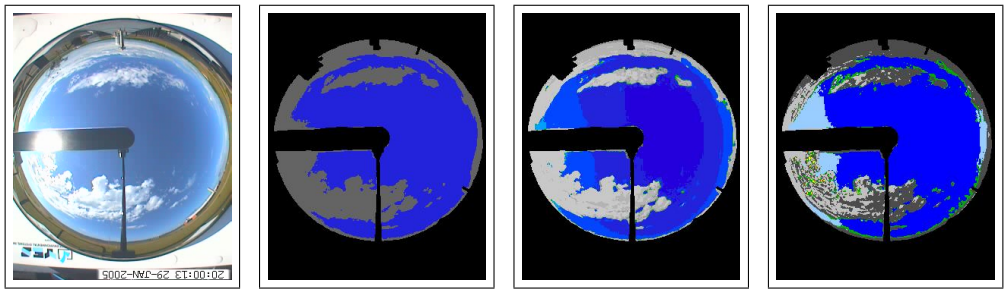


(xvii) 0501291930 (xviii) 0501291930 Long (xix) 0501291930 EGD (xx) 0501291930 MAHA

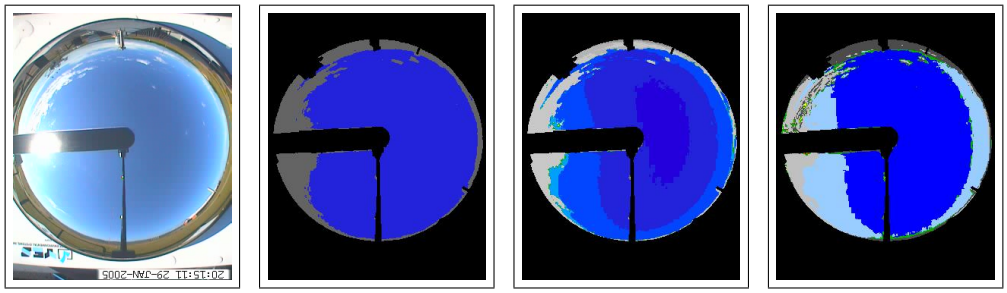
Figure A.329 - Sky images generated from 0501291830 to 0501291930.



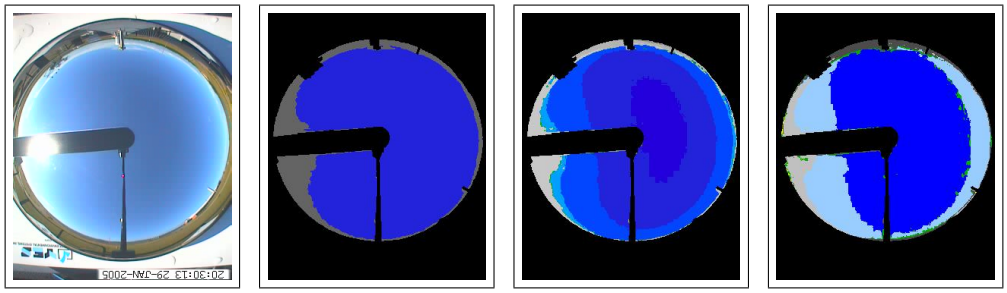
(i) 0501291945 (ii) 0501291945 Long (iii) 0501291945 EGD (iv) 0501291945 MAHA



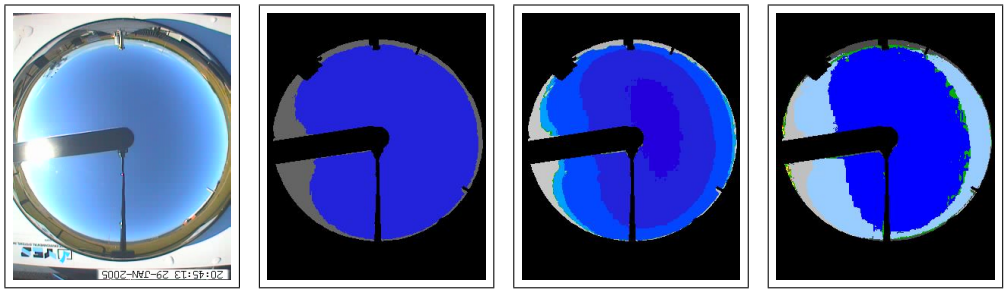
(v) 0501292000 (vi) 0501292000 Long (vii) 0501292000 EGD (viii) 0501292000 MAHA



(ix) 0501292015 (x) 0501292015 Long (xi) 0501292015 EGD (xii) 0501292015 MAHA

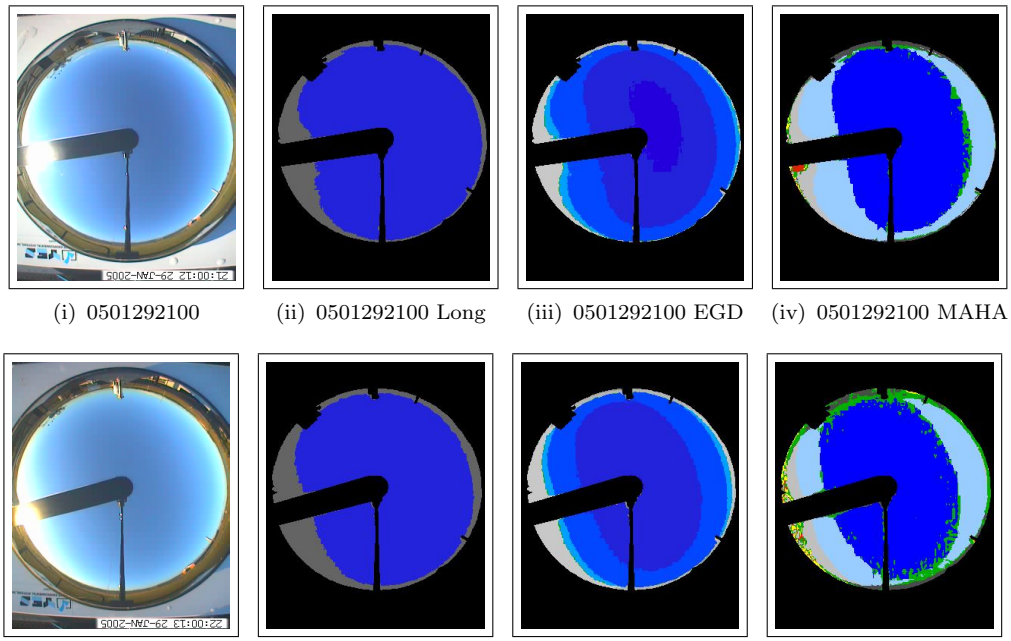


(xiii) 0501292030 (xiv) 0501292030 Long (xv) 0501292030 EGD (xvi) 0501292030 MAHA



(xvii) 0501292045 (xviii) 0501292045 Long (xix) 0501292045 EGD (xx) 0501292045 MAHA

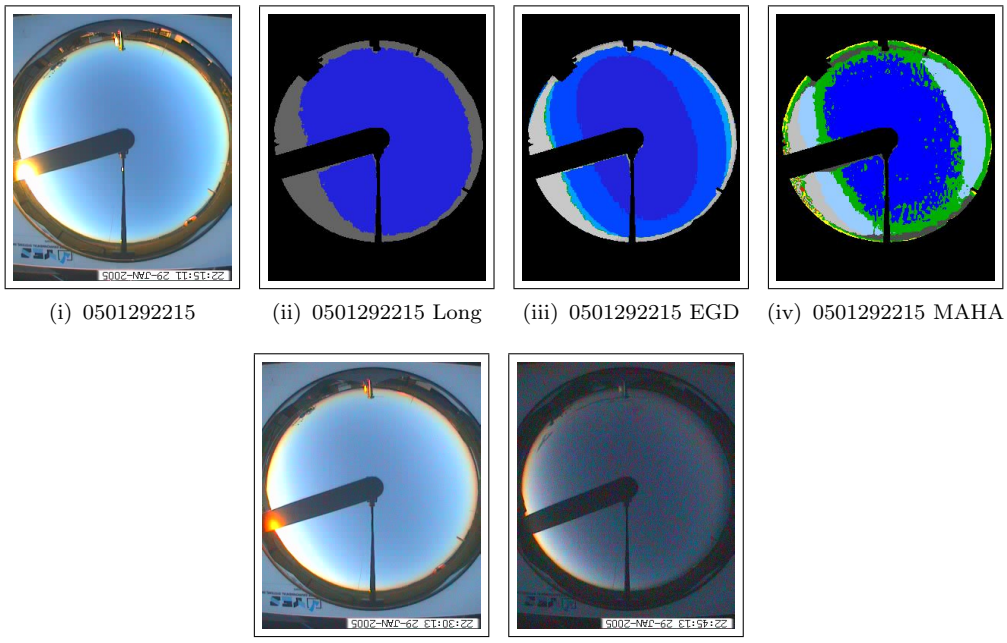
Figure A.330 - Sky images generated from 0501291945 to 0501292045.



(i) 0501292100 (ii) 0501292100 Long (iii) 0501292100 EGD (iv) 0501292100 MAHA

(v) 0501292200 (vi) 0501292200 Long (vii) 0501292200 EGD (viii) 0501292200 MAHA

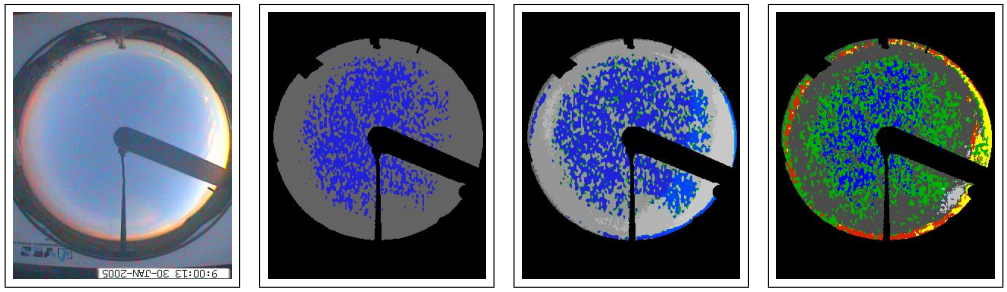
Figure A.331 - Sky images generated from 0501292100 to 0501292200. Images 0501292115, 0501292131 and 0501292145 are missing



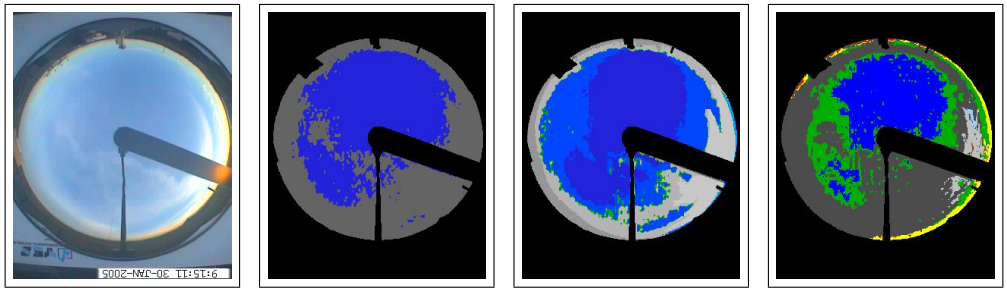
(i) 0501292215 (ii) 0501292215 Long (iii) 0501292215 EGD (iv) 0501292215 MAHA

(v) 0501292230 (vi) 0501292245

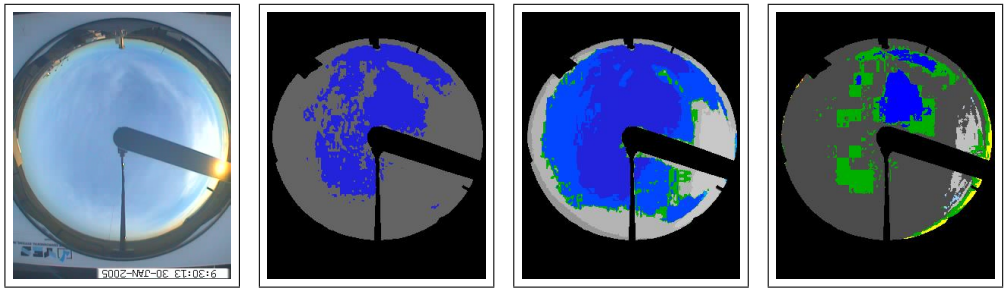
Figure A.332 - Sky images generated from 0501291600 to 0501292215.



(i) 0501300900 (ii) 0501300900 Long (iii) 0501300900 EGD (iv) 0501300900 MAHA

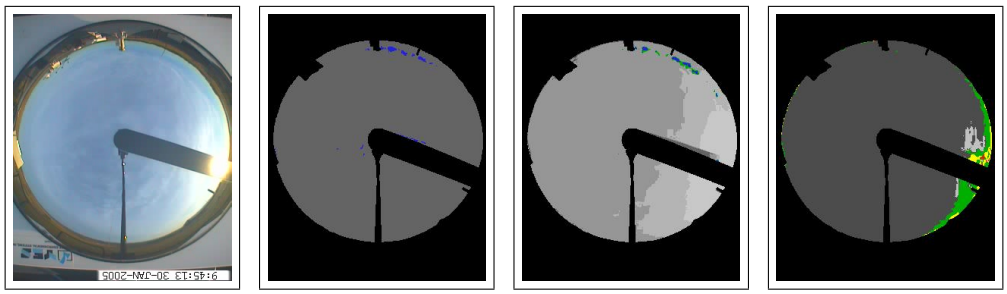


(v) 0501300915 (vi) 0501300915 Long (vii) 0501300915 EGD (viii) 0501300915 MAHA

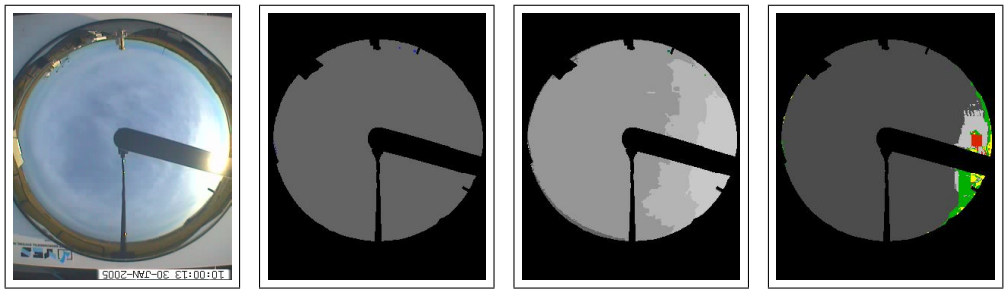


(ix) 0501300930 (x) 0501300930 Long (xi) 0501300930 EGD (xii) 0501300930 MAHA

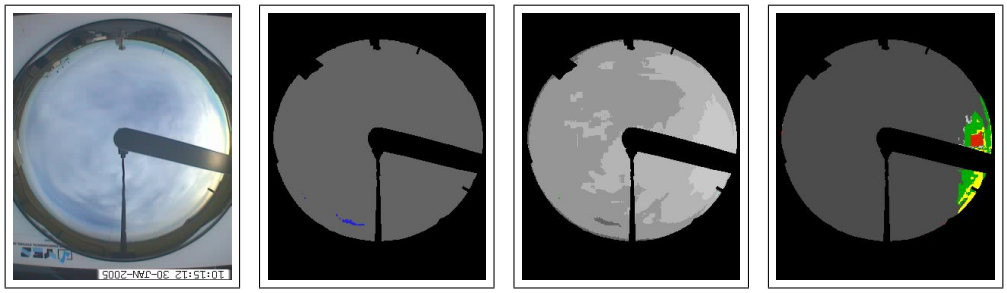
Figure A.333 - Sky images generated from 0501300845 to 0501300930.



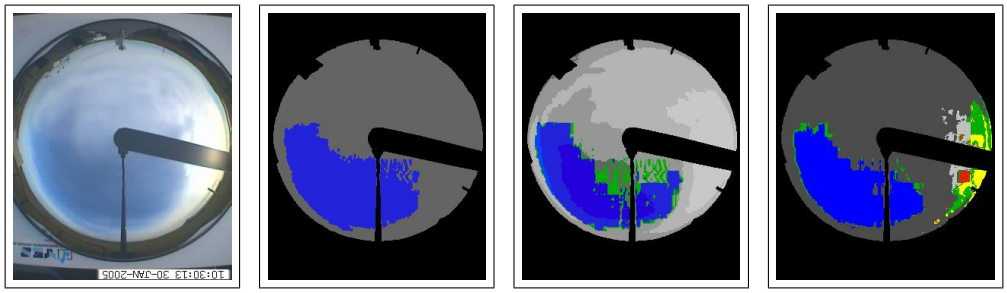
(i) 0501300945 (ii) 0501300945 Long (iii) 0501300945 EGD (iv) 0501300945 MAHA



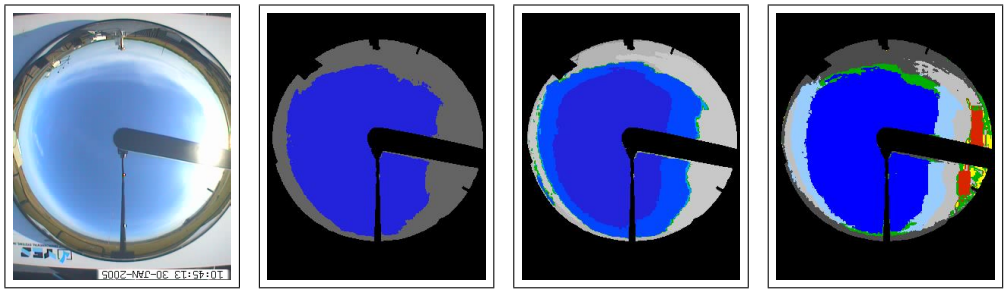
(v) 050130000 (vi) 050130000 Long (vii) 050130000 EGD (viii) 050130000 MAHA



(ix) 0501301015 (x) 0501301015 Long (xi) 0501301015 EGD (xii) 0501301015 MAHA

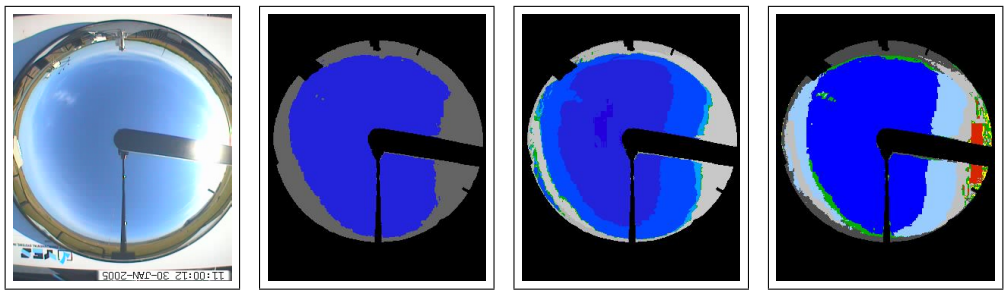


(xiii) 0501301030 (xiv) 0501301030 Long (xv) 0501301030 EGD (xvi) 0501301030 MAHA

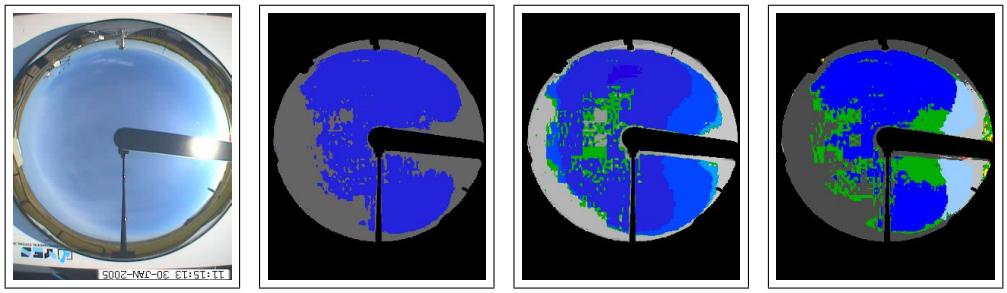


(xvii) 0501301045 (xviii) 0501301045 Long (xix) 0501301045 EGD (xx) 0501301045 MAHA

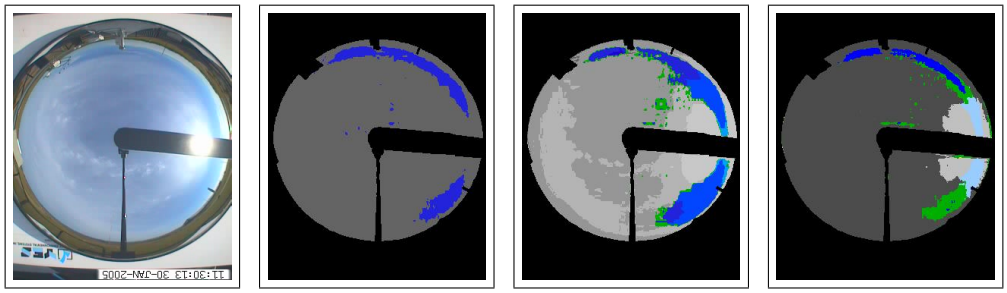
Figure A.334 - Sky images generated from 0501300945 to 0501301045.



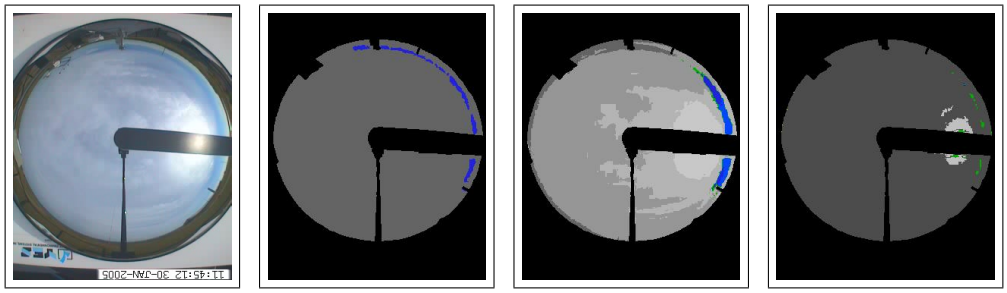
(i) 0501301100 (ii) 0501301100 Long (iii) 0501301100 EGD (iv) 0501301100 MAHA



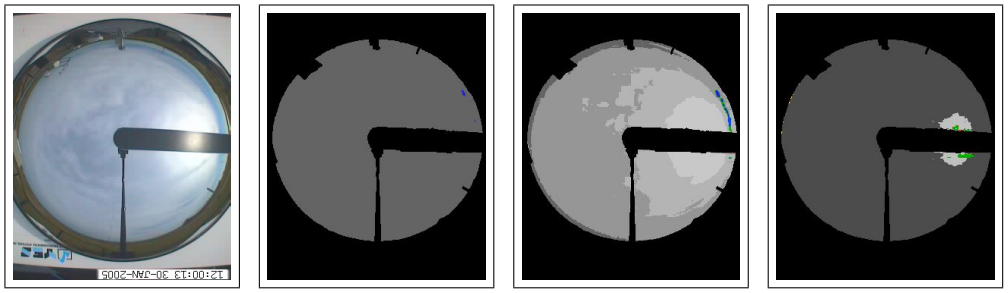
(v) 0501301115 (vi) 0501301115 Long (vii) 0501301115 EGD (viii) 0501301115 MAHA



(ix) 0501301130 (x) 0501301130 Long (xi) 0501301130 EGD (xii) 0501301130 MAHA

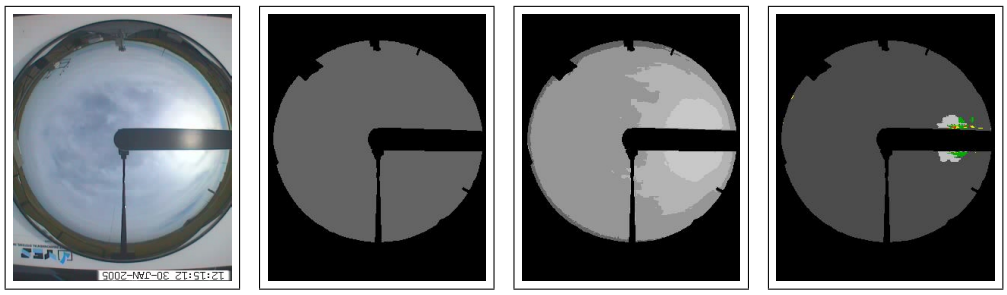


(xiii) 0501301145 (xiv) 0501301145 Long (xv) 0501301145 EGD (xvi) 0501301145 MAHA

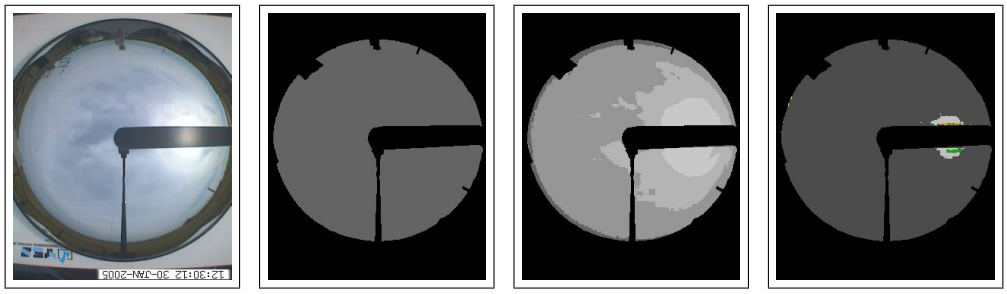


(xvii) 0501301200 (xviii) 0501301200 Long (xix) 0501301200 EGD (xx) 0501301200 MAHA

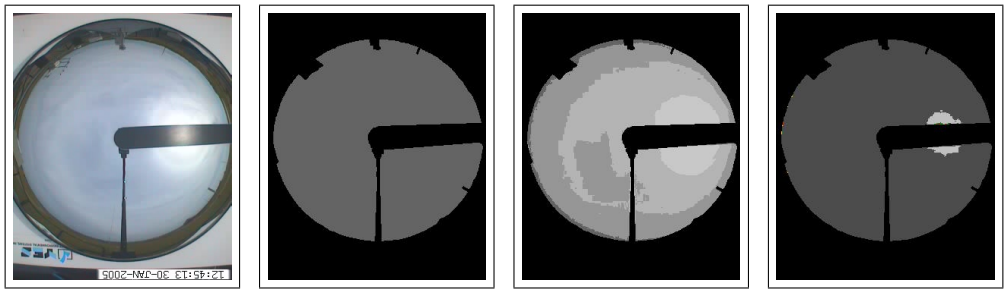
Figure A.335 - Sky images generated from 050130100 to 0501301200.



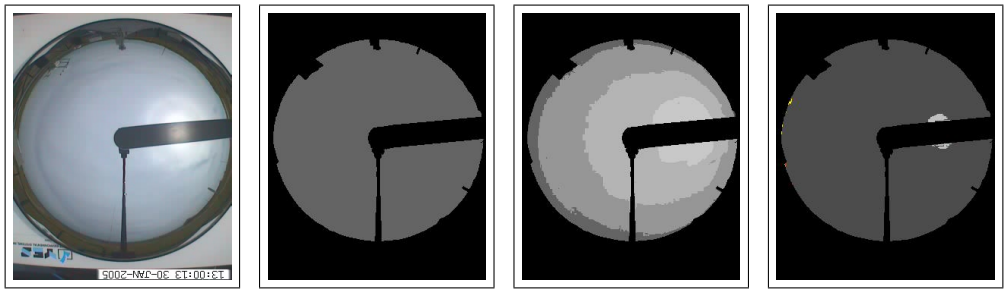
(i) 0501301215 (ii) 0501301215 Long (iii) 0501301215 EGD (iv) 0501301215 MAHA



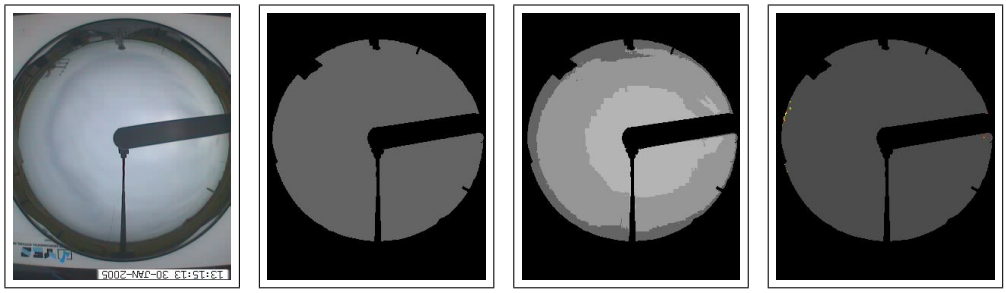
(v) 0501301230 (vi) 0501301230 Long (vii) 0501301230 EGD (viii) 0501301230 MAHA



(ix) 0501301245 (x) 0501301245 Long (xi) 0501301245 EGD (xii) 0501301245 MAHA



(xiii) 0501301300 (xiv) 0501301300 Long (xv) 0501301300 EGD (xvi) 0501301300 MAHA

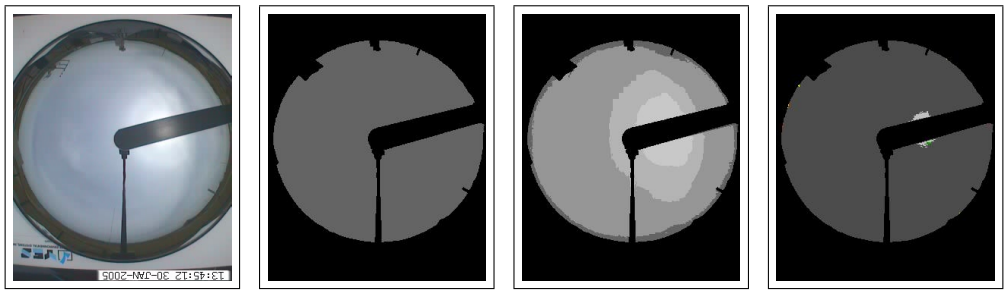


(xvii) 0501301315 (xviii) 0501301315 Long (xix) 0501301315 EGD (xx) 0501301315 MAHA

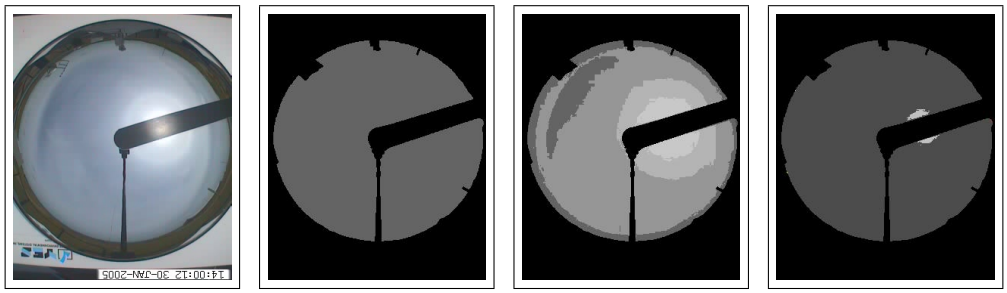
Figure A.336 - Sky images generated from 0501301215 to 0501301315.



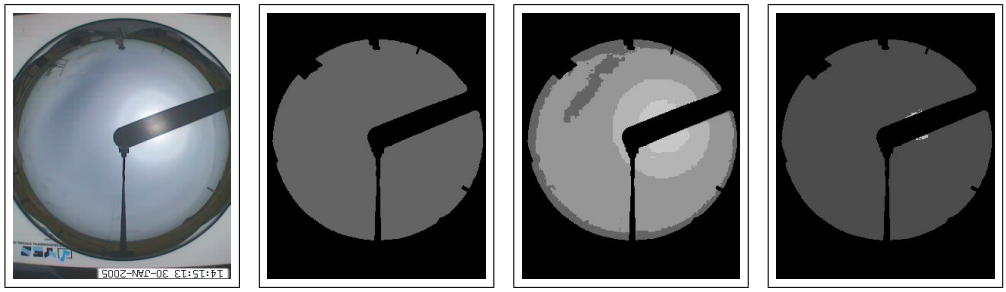
(i) 0501301330 (ii) 0501301330 Long (iii) 0501301330 EGD (iv) 0501301330 MAHA



(v) 0501301345 (vi) 0501301345 Long (vii) 0501301345 EGD (viii) 0501301345 MAHA

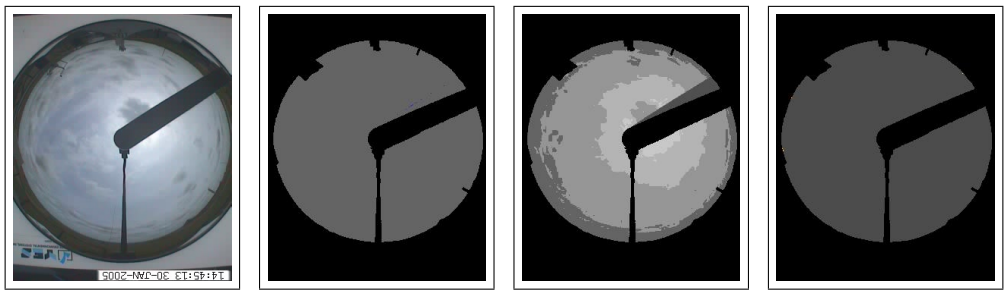


(ix) 0501301400 (x) 0501301400 Long (xi) 0501301400 EGD (xii) 0501301400 MAHA

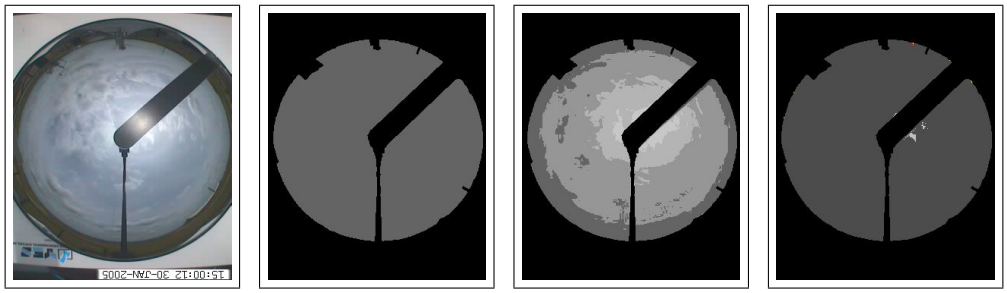


(xiii) 0501301415 (xiv) 0501301415 Long (xv) 0501301415 EGD (xvi) 0501301415 MAHA

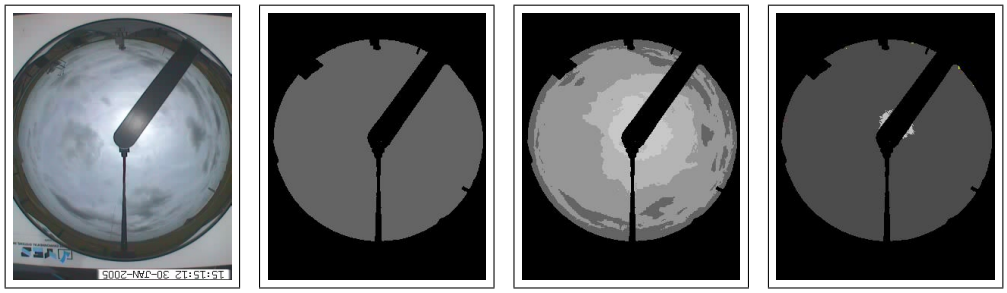
Figure A.337 - Sky images generated from 0501301330 to 0501301415.



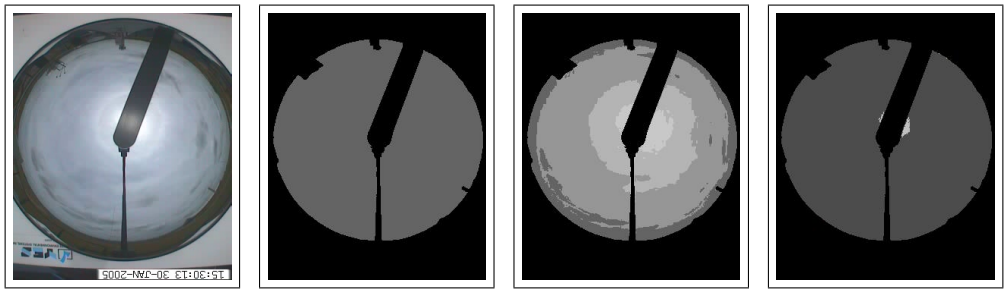
(i) 0501301445 (ii) 0501301445 Long (iii) 0501301445 EGD (iv) 0501301445 MAHA



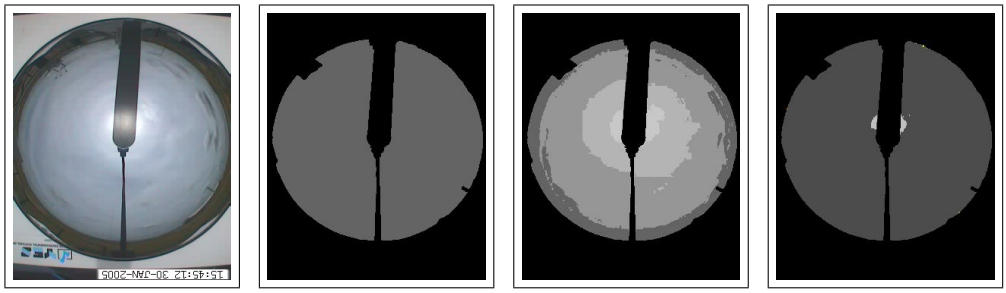
(v) 0501301500 (vi) 0501301500 Long (vii) 0501301500 EGD (viii) 0501301500 MAHA



(ix) 0501301515 (x) 0501301515 Long (xi) 0501301515 EGD (xii) 0501301515 MAHA

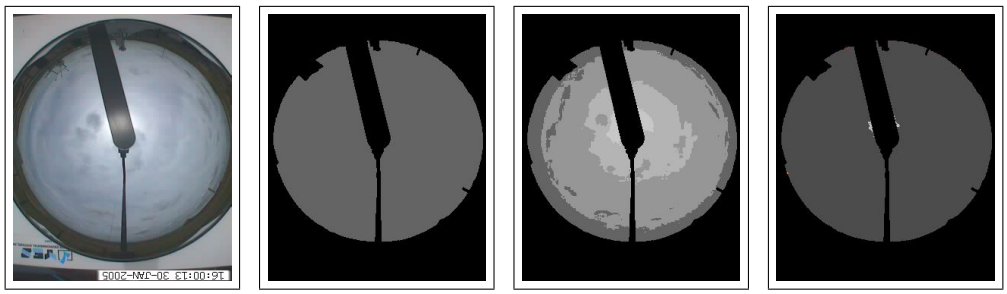


(xiii) 0501301530 (xiv) 0501301530 Long (xv) 0501301530 EGD (xvi) 0501301530 MAHA

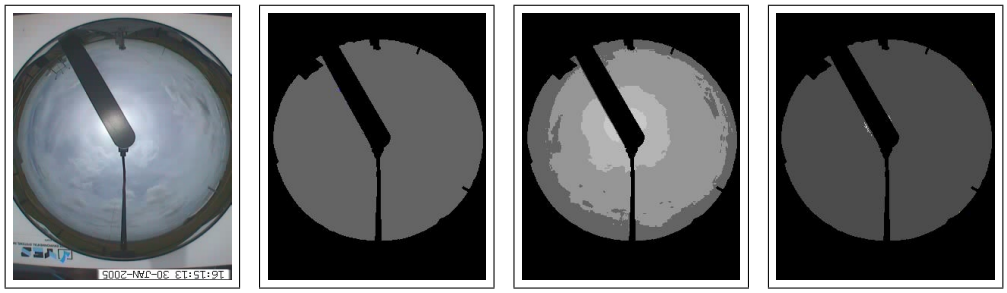


(xvii) 0501301545 (xviii) 0501301545 Long (xix) 0501301545 EGD (xx) 0501301545 MAHA

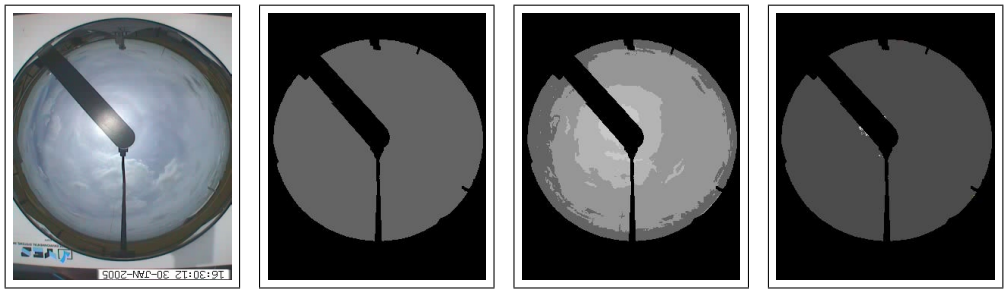
Figure A.338 - Sky images generated from 0501301445 to 0501301545.



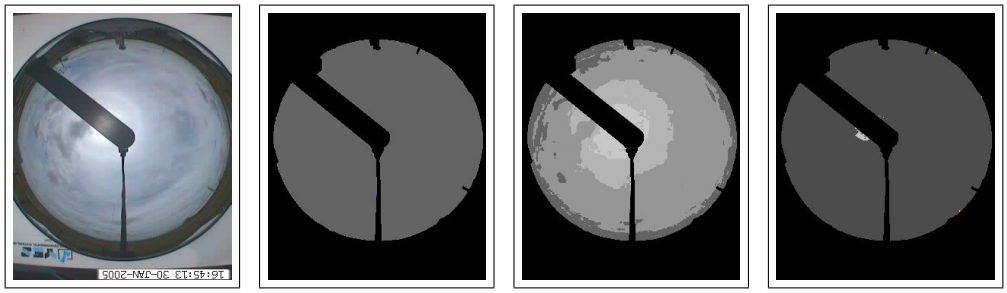
(i) 0501301600 (ii) 0501301600 Long (iii) 0501301600 EGD (iv) 0501301600 MAHA



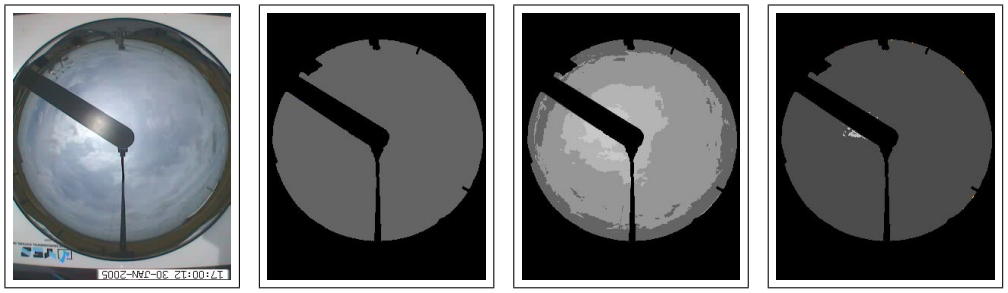
(v) 0501301615 (vi) 0501301615 Long (vii) 0501301615 EGD (viii) 0501301615 MAHA



(ix) 0501301630 (x) 0501301630 Long (xi) 0501301630 EGD (xii) 0501301630 MAHA

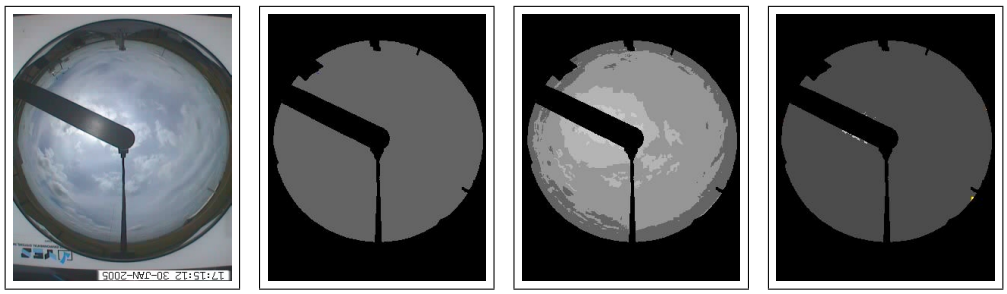


(xiii) 0501301645 (xiv) 0501301645 Long (xv) 0501301645 EGD (xvi) 0501301645 MAHA

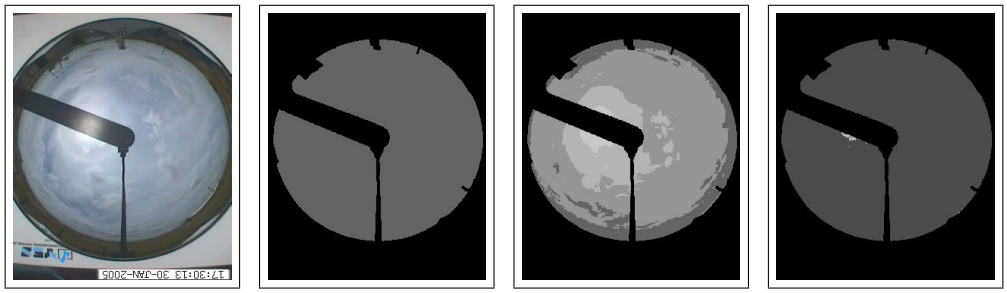


(xvii) 0501301700 (xviii) 0501301700 Long (xix) 0501301700 EGD (xx) 0501301700 MAHA

Figure A.339 - Sky images generated from 0501301600 to 0501301700.



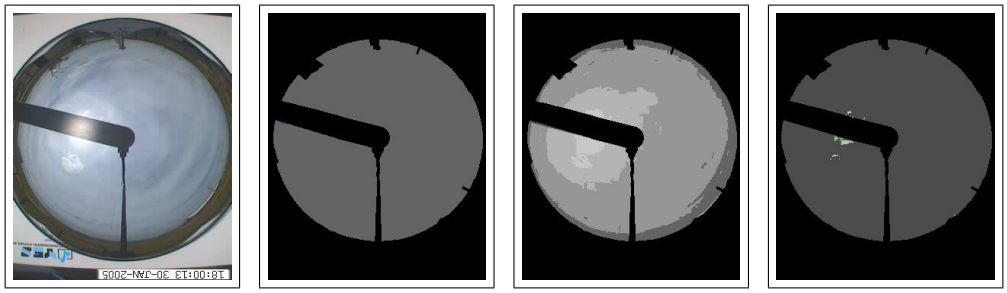
(i) 0501301715 (ii) 0501301715 Long (iii) 0501301715 EGD (iv) 0501301715 MAHA



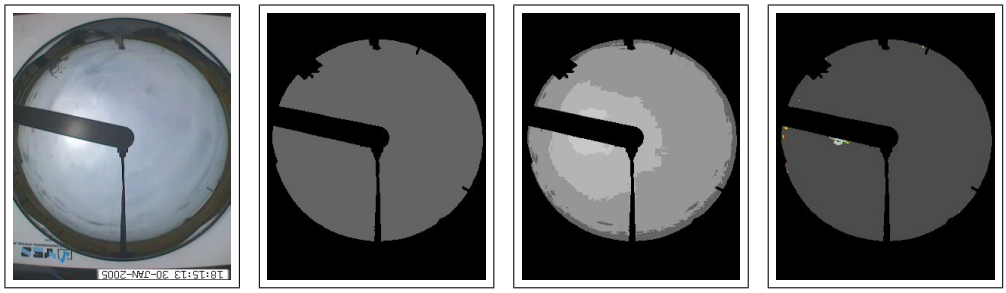
(v) 0501301730 (vi) 0501301730 Long (vii) 0501301730 EGD (viii) 0501301730 MAHA



(ix) 0501301745 (x) 0501301745 Long (xi) 0501301745 EGD (xii) 0501301745 MAHA

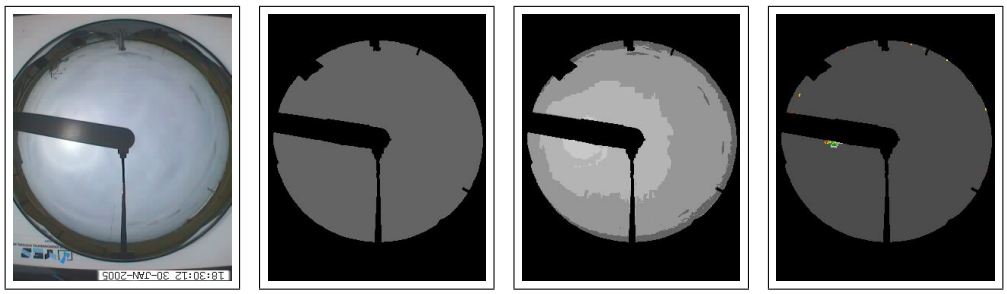


(xiii) 0501301800 (xiv) 0501301800 Long (xv) 0501301800 EGD (xvi) 0501301800 MAHA

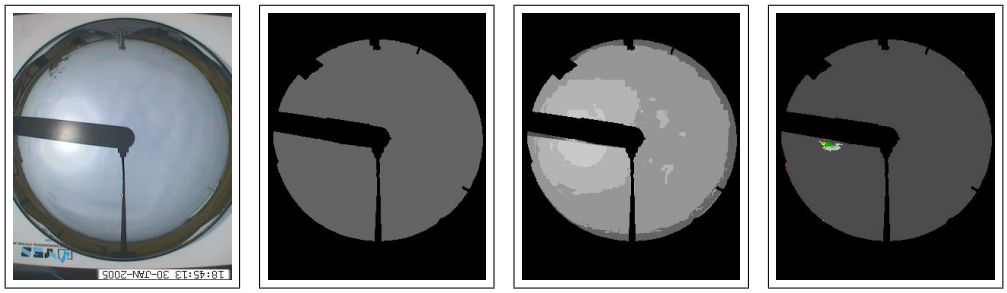


(xvii) 0501301815 (xviii) 0501301815 Long (xix) 0501301815 EGD (xx) 0501301815 MAHA

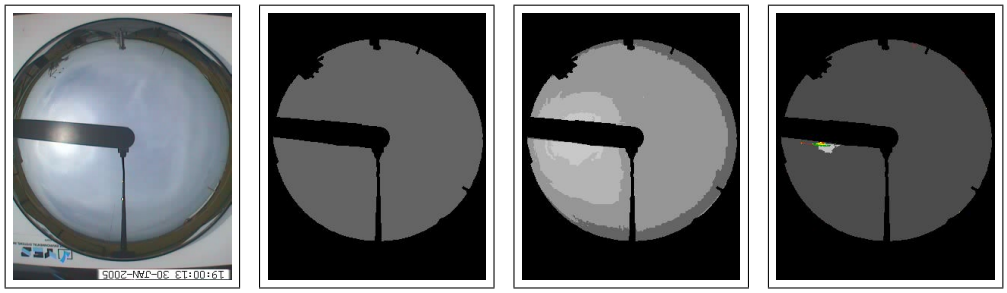
Figure A.340 - Sky images generated from 0501301715 to 0501301815.



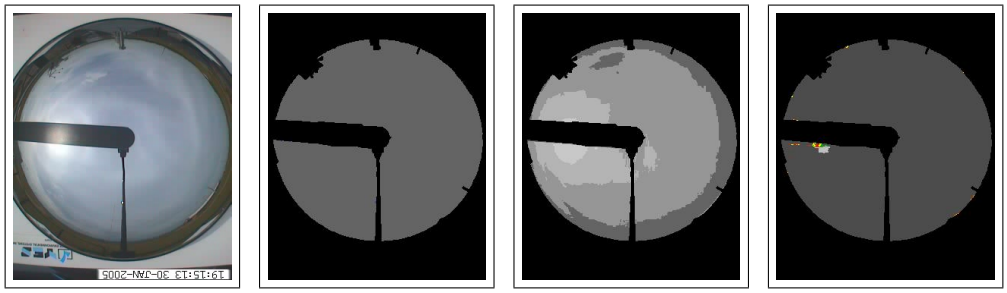
(i) 0501301830 (ii) 0501301830 Long (iii) 0501301830 EGD (iv) 0501301830 MAHA



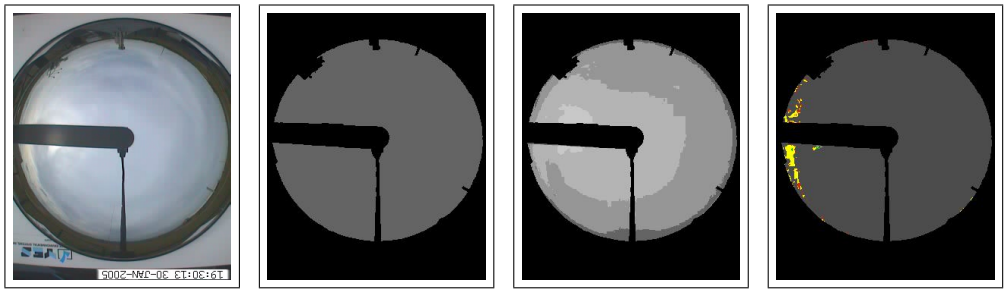
(v) 0501301845 (vi) 0501301845 Long (vii) 0501301845 EGD (viii) 0501301845 MAHA



(ix) 0501301900 (x) 0501301900 Long (xi) 0501301900 EGD (xii) 0501301900 MAHA

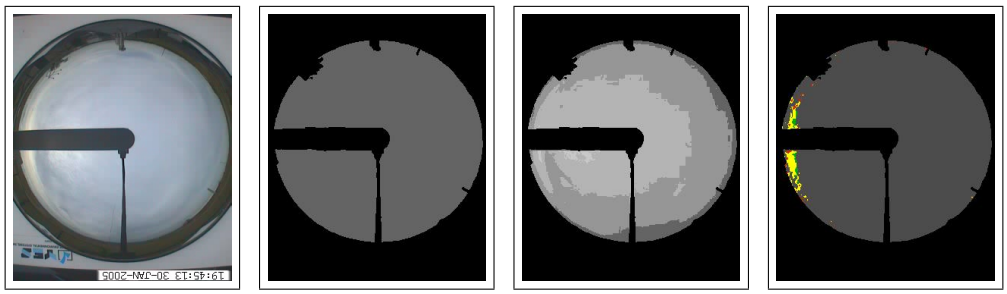


(xiii) 0501301915 (xiv) 0501301915 Long (xv) 0501301915 EGD (xvi) 0501301915 MAHA

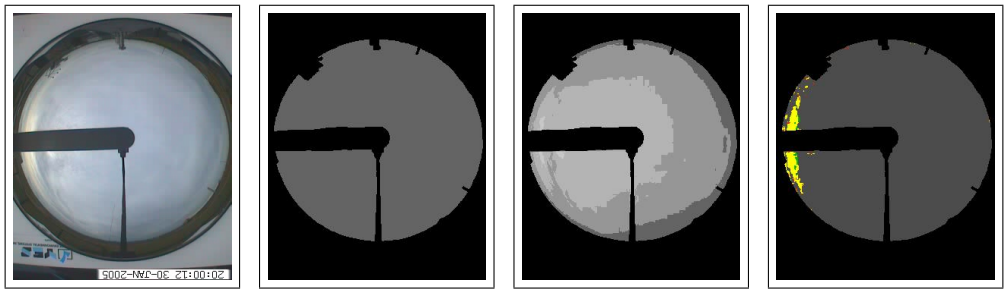


(xvii) 0501301930 (xviii) 0501301930 Long (xix) 0501301930 EGD (xx) 0501301930 MAHA

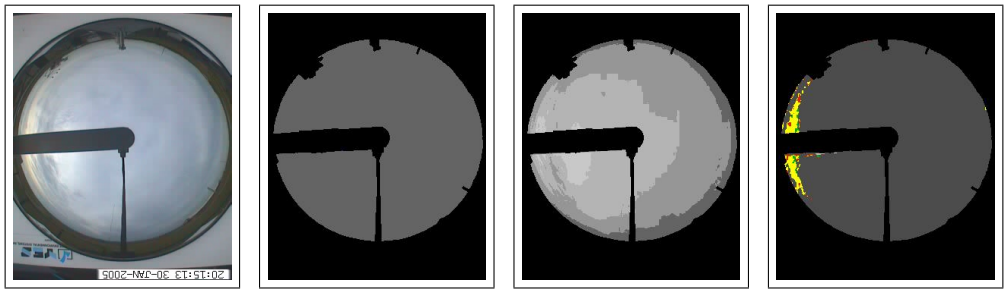
Figure A.341 - Sky images generated from 0501301830 to 0501301930.



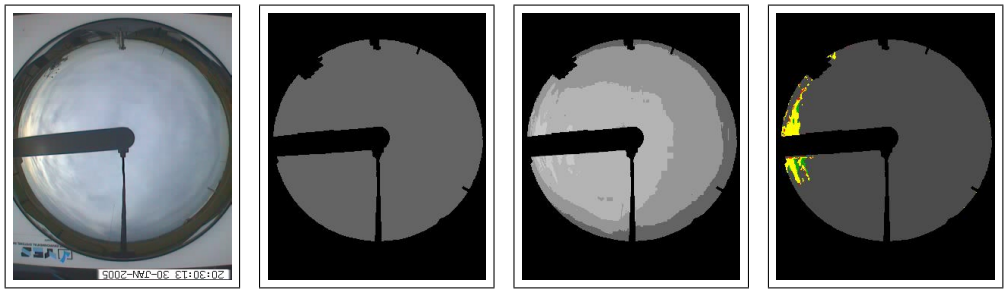
(i) 0501301945 (ii) 0501301945 Long (iii) 0501301945 EGD (iv) 0501301945 MAHA



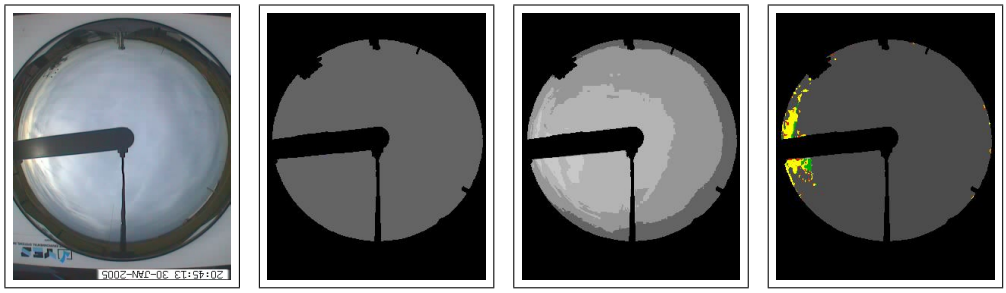
(v) 0501302000 (vi) 0501302000 Long (vii) 0501302000 EGD (viii) 0501302000 MAHA



(ix) 0501302015 (x) 0501302015 Long (xi) 0501302015 EGD (xii) 0501302015 MAHA

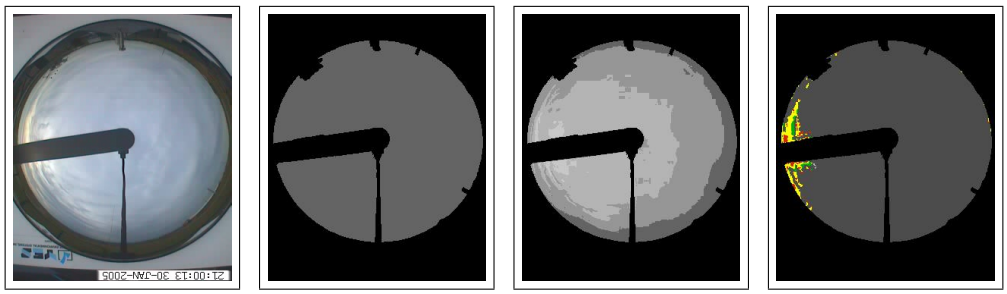


(xiii) 0501302030 (xiv) 0501302030 Long (xv) 0501302030 EGD (xvi) 0501302030 MAHA

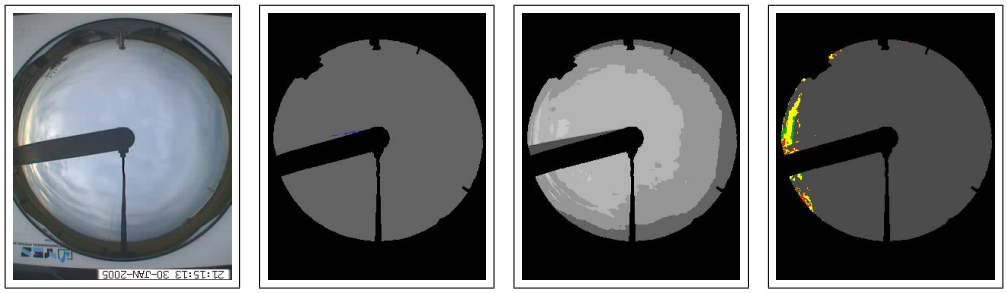


(xvii) 0501302045 (xviii) 0501302045 Long (xix) 0501302045 EGD (xx) 0501302045 MAHA

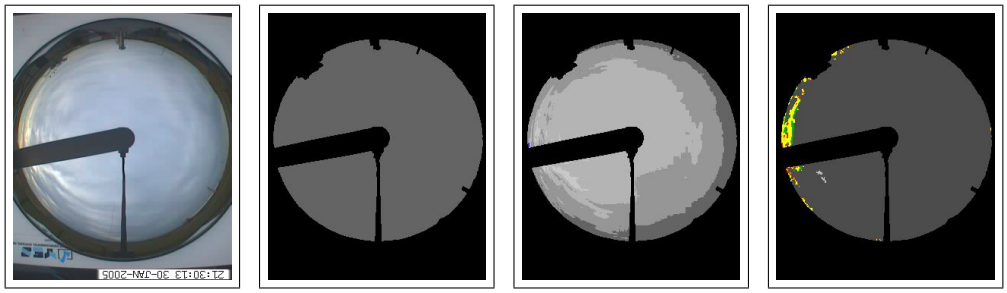
Figure A.342 - Sky images generated from 0501301945 to 0501302045.



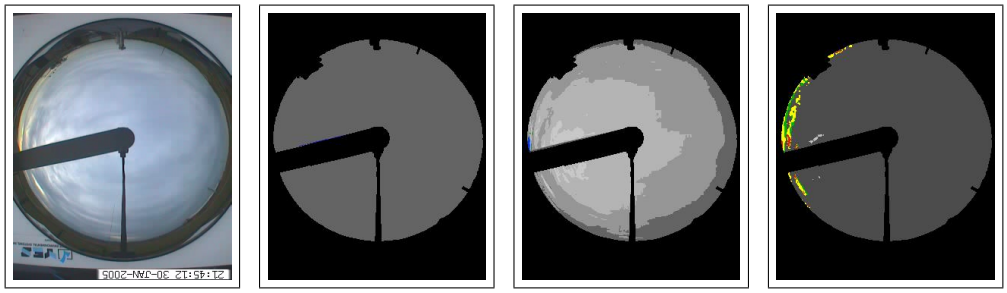
(i) 0501302100 (ii) 0501302100 Long (iii) 0501302100 EGD (iv) 0501302100 MAHA



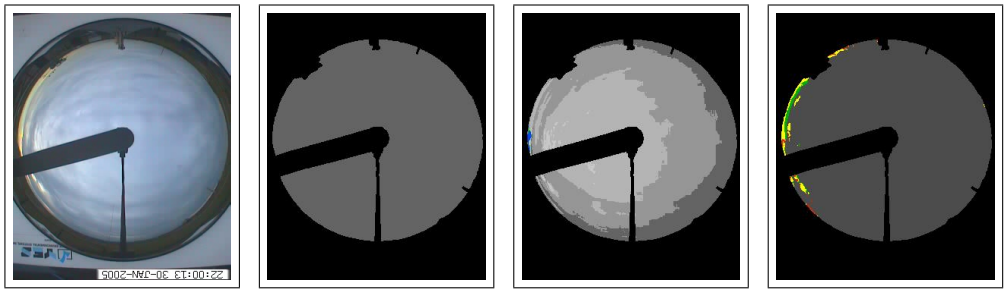
(v) 0501302115 (vi) 0501302115 Long (vii) 0501302115 EGD (viii) 0501302115 MAHA



(ix) 0501302130 (x) 0501302130 Long (xi) 0501302130 EGD (xii) 0501302130 MAHA

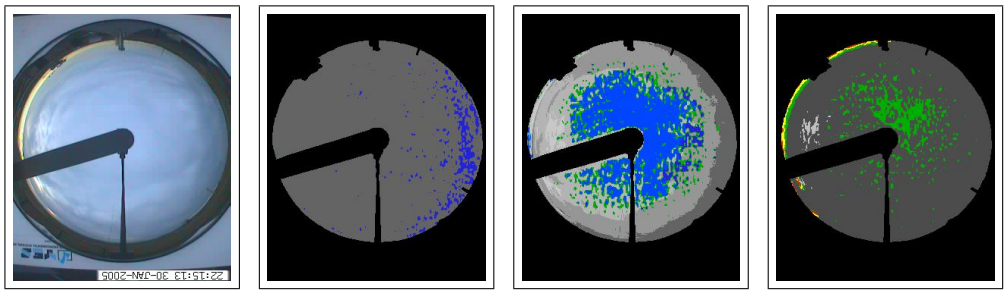


(xiii) 0501302145 (xiv) 0501302145 Long (xv) 0501302145 EGD (xvi) 0501302145 MAHA



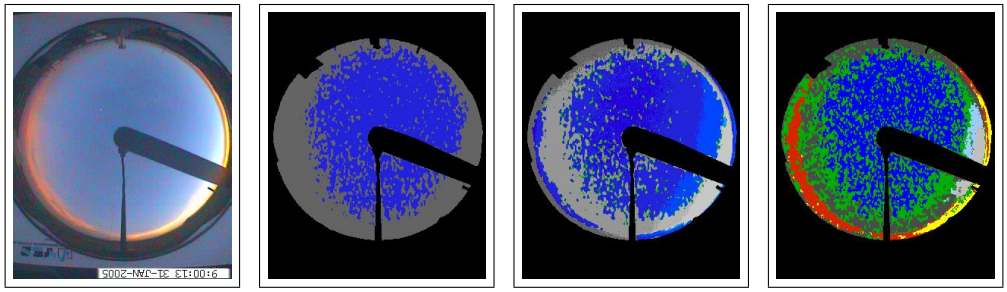
(xvii) 0501302200 (xviii) 0501302200 Long (xix) 0501302200 EGD (xx) 0501302200 MAHA

Figure A.343 - Sky images generated from 0501302100 to 0501302200.

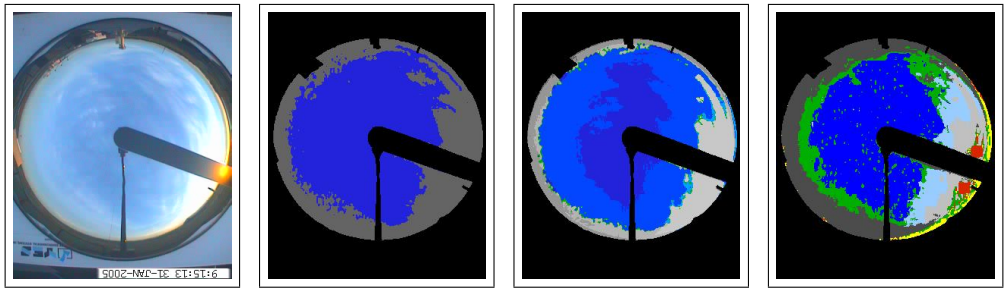


(i) 0501302215 (ii) 0501302215 Long (iii) 0501302215 EGD (iv) 0501302215 MAHA

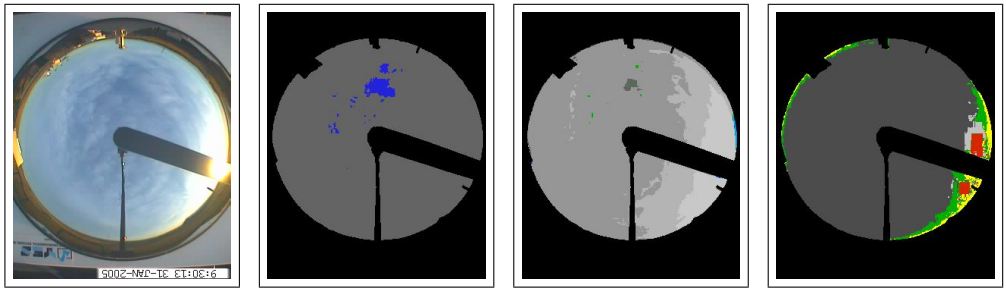
Figure A.344 - Sky images generated for 0501302215.



(i) 0501310900 (ii) 0501310900 Long (iii) 0501310900 EGD (iv) 0501310900 MAHA

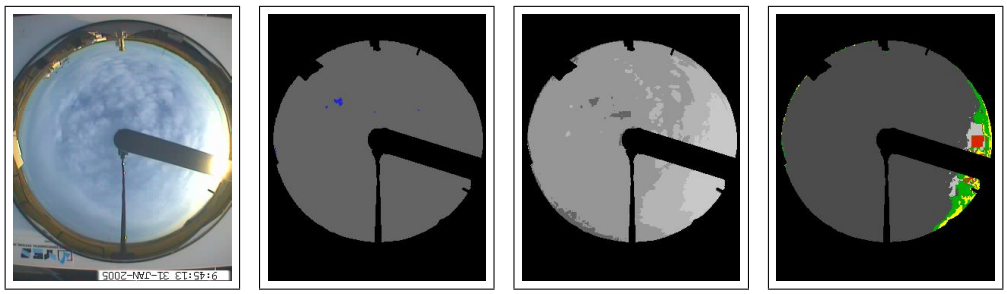


(v) 0501310915 (vi) 0501310915 Long (vii) 0501310915 EGD (viii) 0501310915 MAHA

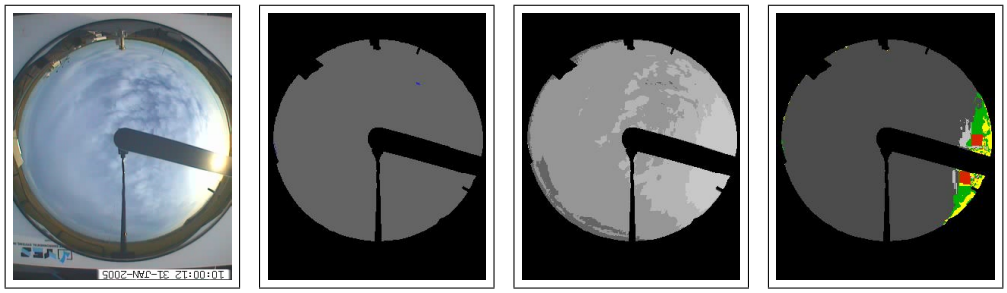


(ix) 0501310930 (x) 0501310930 Long (xi) 0501310930 EGD (xii) 0501310930 MAHA

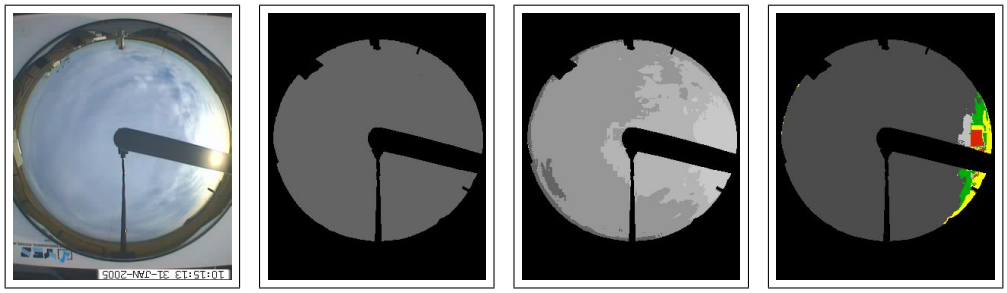
Figure A.345 - Sky images generated from 0501310845 to 0501310930.



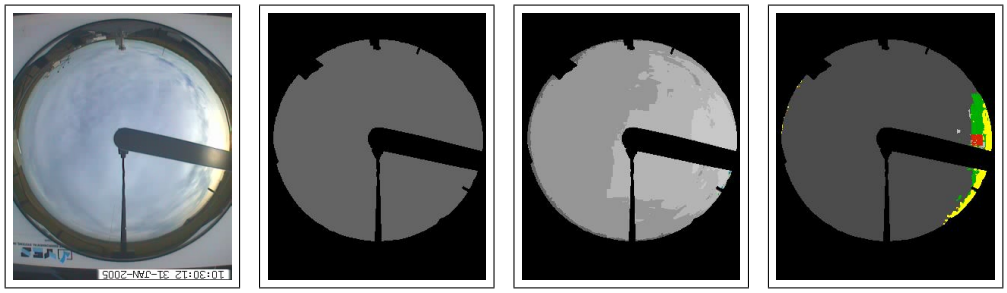
(i) 0501310945 (ii) 0501310945 Long (iii) 0501310945 EGD (iv) 0501310945 MAHA



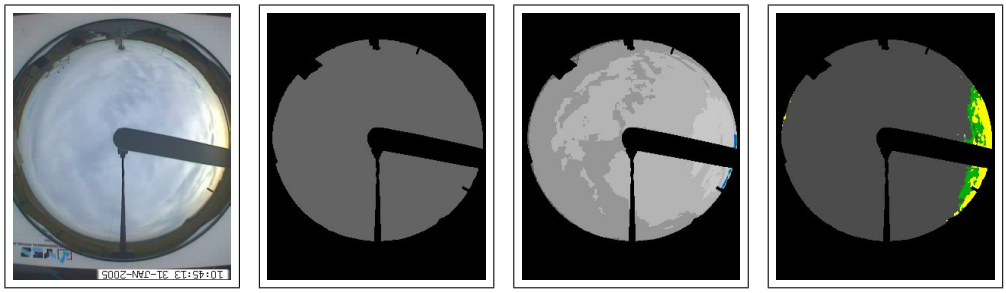
(v) 050131000 (vi) 050131000 Long (vii) 050131000 EGD (viii) 050131000 MAHA



(ix) 0501311015 (x) 0501311015 Long (xi) 0501311015 EGD (xii) 0501311015 MAHA

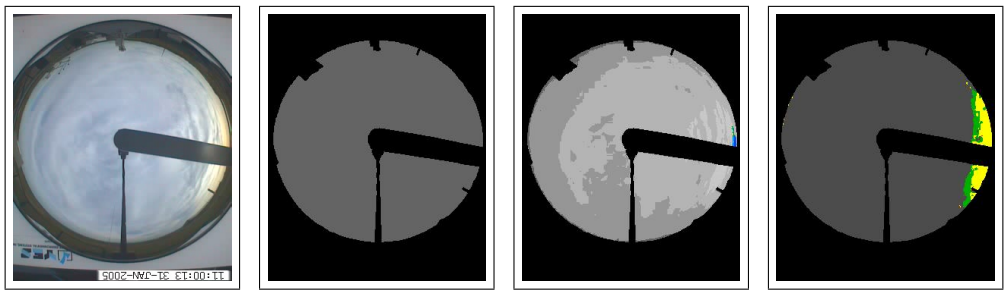


(xiii) 0501311030 (xiv) 0501311030 Long (xv) 0501311030 EGD (xvi) 0501311030 MAHA

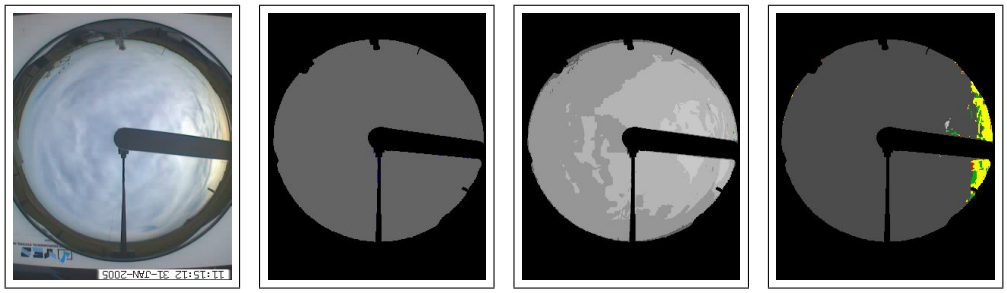


(xvii) 0501311045 (xviii) 0501311045 Long (xix) 0501311045 EGD (xx) 0501311045 MAHA

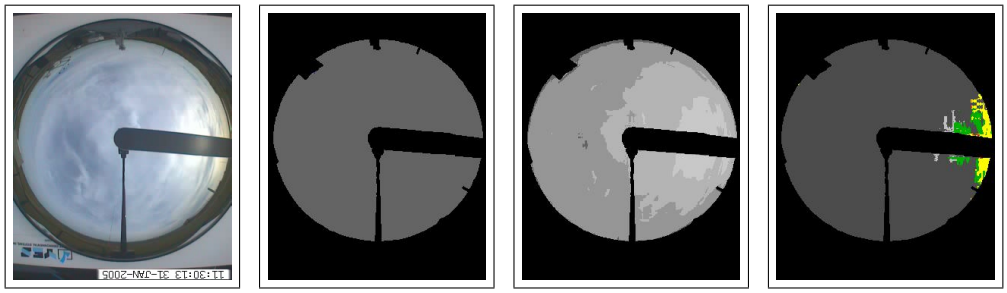
Figure A.346 - Sky images generated from 0501310945 to 0501311045.



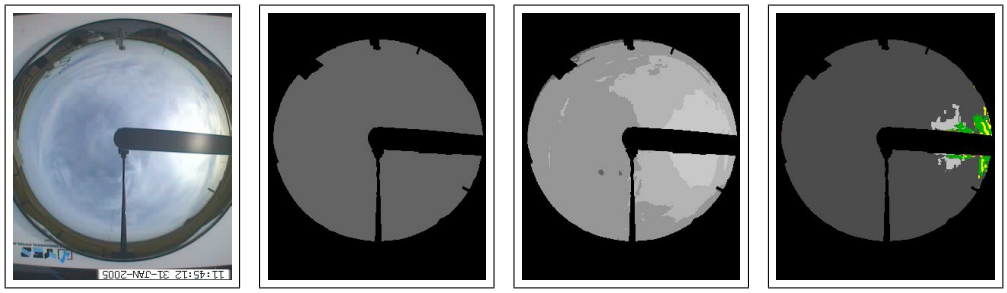
(i) 0501311100 (ii) 0501311100 Long (iii) 0501311100 EGD (iv) 0501311100 MAHA



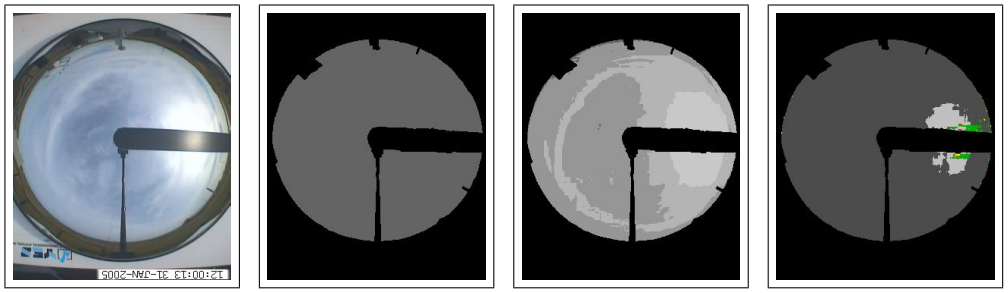
(v) 0501311115 (vi) 0501311115 Long (vii) 0501311115 EGD (viii) 0501311115 MAHA



(ix) 0501311130 (x) 0501311130 Long (xi) 0501311130 EGD (xii) 0501311130 MAHA

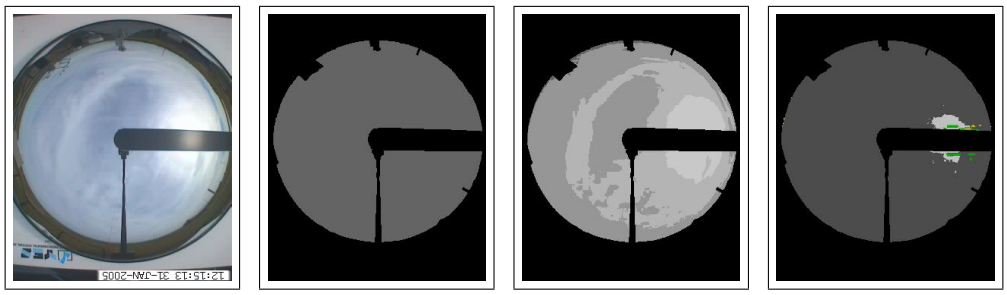


(xiii) 0501311145 (xiv) 0501311145 Long (xv) 0501311145 EGD (xvi) 0501311145 MAHA

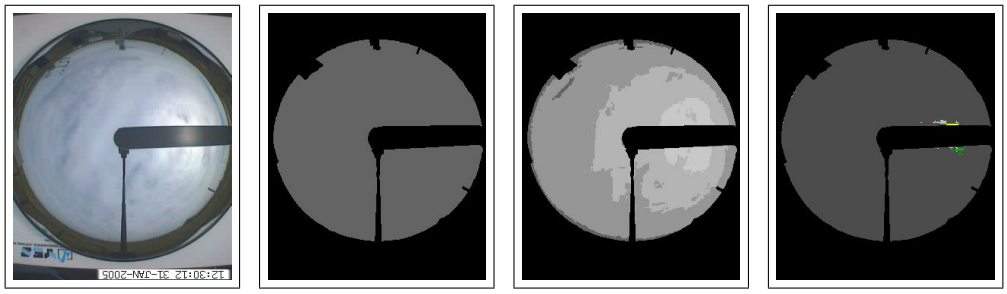


(xvii) 0501311200 (xviii) 0501311200 Long (xix) 0501311200 EGD (xx) 0501311200 MAHA

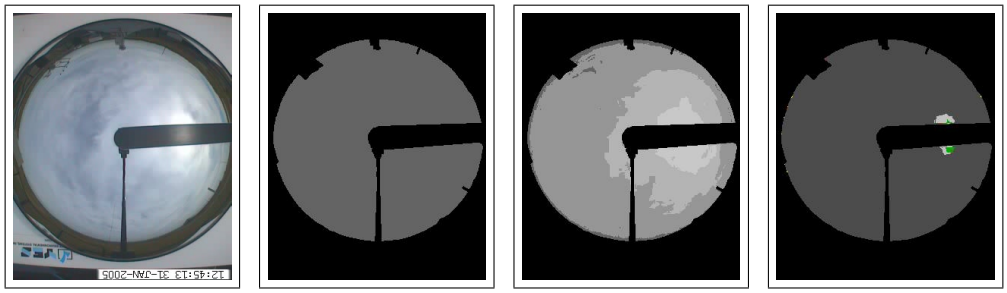
Figure A.347 - Sky images generated from 050131100 to 0501311200.



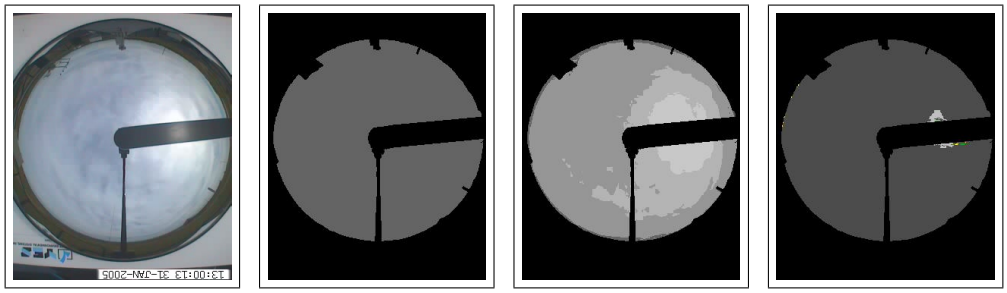
(i) 0501311215 (ii) 0501311215 Long (iii) 0501311215 EGD (iv) 0501311215 MAHA



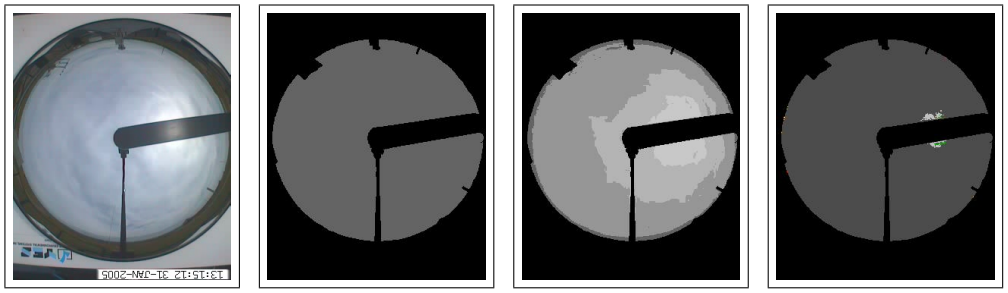
(v) 0501311230 (vi) 0501311230 Long (vii) 0501311230 EGD (viii) 0501311230 MAHA



(ix) 0501311245 (x) 0501311245 Long (xi) 0501311245 EGD (xii) 0501311245 MAHA

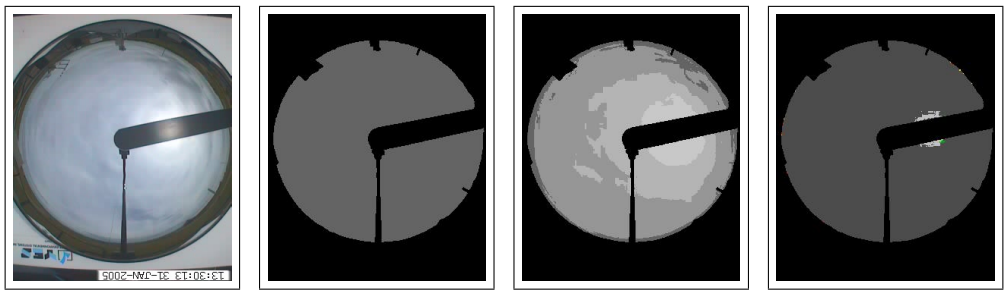


(xiii) 0501311300 (xiv) 0501311300 Long (xv) 0501311300 EGD (xvi) 0501311300 MAHA

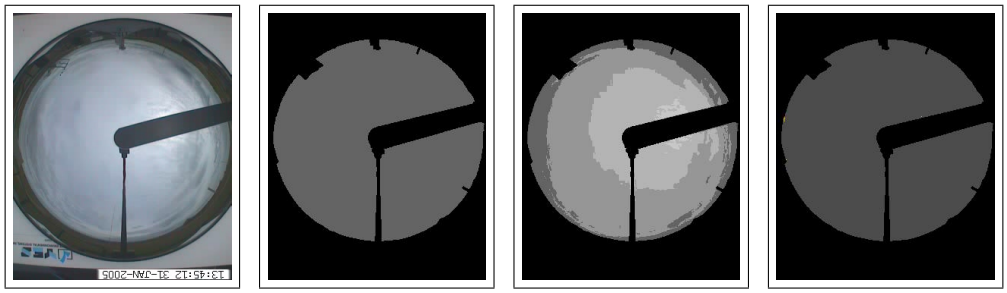


(xvii) 0501311315 (xviii) 0501311315 Long (xix) 0501311315 EGD (xx) 0501311315 MAHA

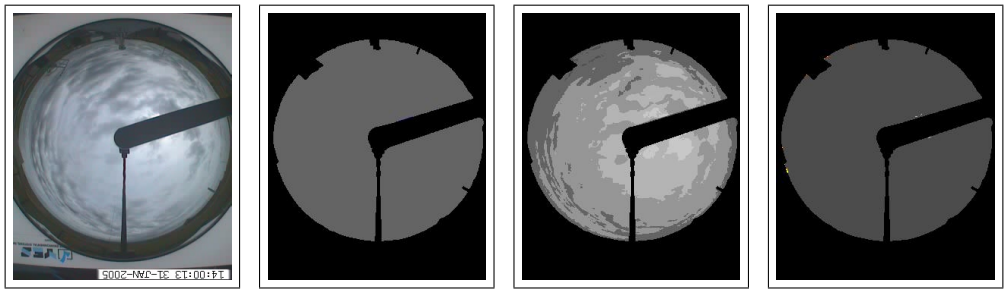
Figure A.348 - Sky images generated from 0501311215 to 0501311315.



(i) 0501311330 (ii) 0501311330 Long (iii) 0501311330 EGD (iv) 0501311330 MAHA



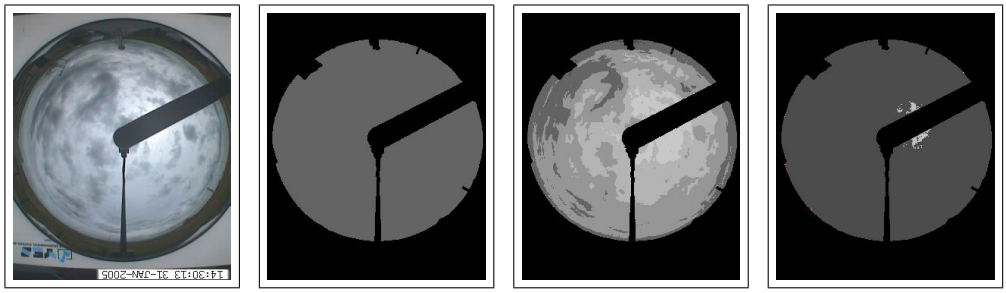
(v) 0501311345 (vi) 0501311345 Long (vii) 0501311345 EGD (viii) 0501311345 MAHA



(ix) 0501311400 (x) 0501311400 Long (xi) 0501311400 EGD (xii) 0501311400 MAHA

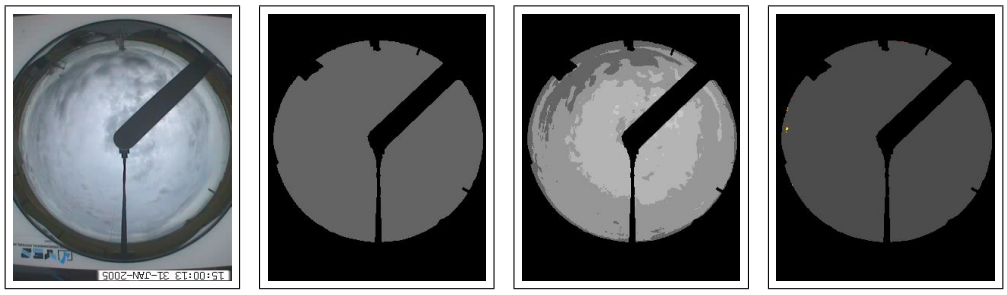


(xiii) 0501311415 (xiv) 0501311415 Long (xv) 0501311415 EGD (xvi) 0501311415 MAHA

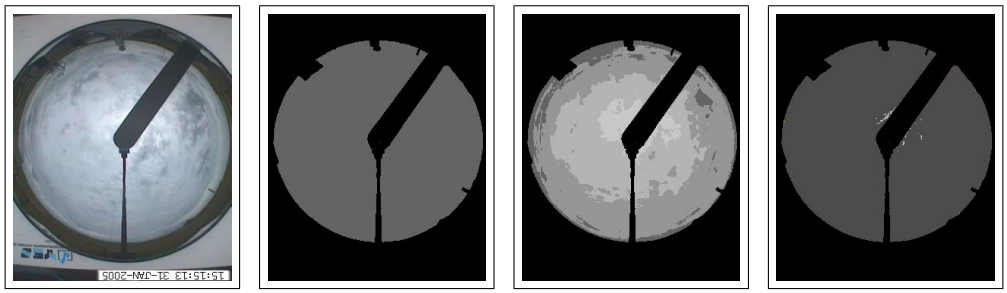


(xvii) 0501311430 (xviii) 0501311430 Long (xix) 0501311430 EGD (xx) 0501311430 MAHA

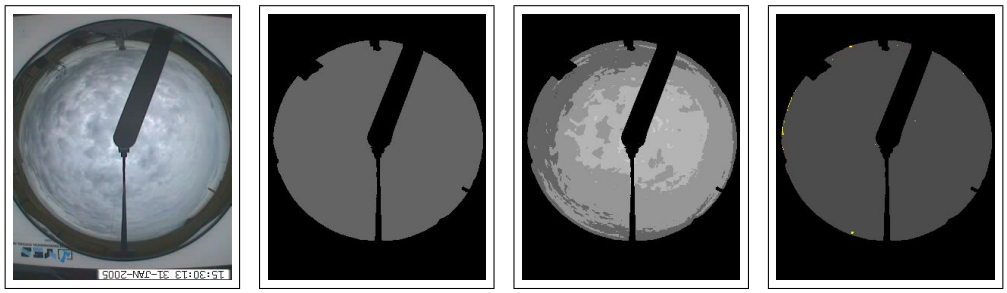
Figure A.349 - Sky images generated from 0501311330 to 0501311430.



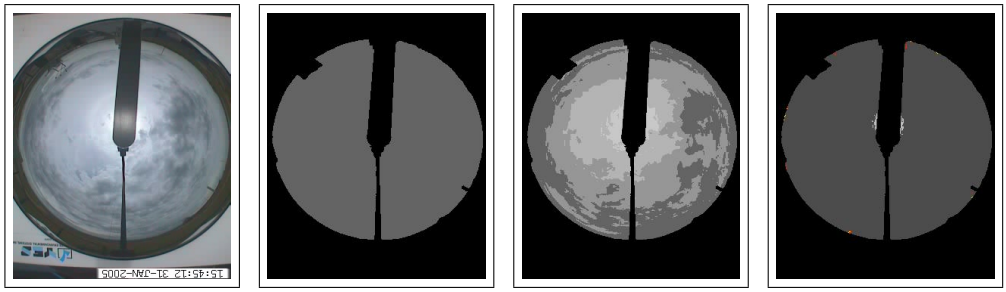
(i) 0501311500 (ii) 0501311500 Long (iii) 0501311500 EGD (iv) 0501311500 MAHA



(v) 0501311515 (vi) 0501311515 Long (vii) 0501311515 EGD (viii) 0501311515 MAHA

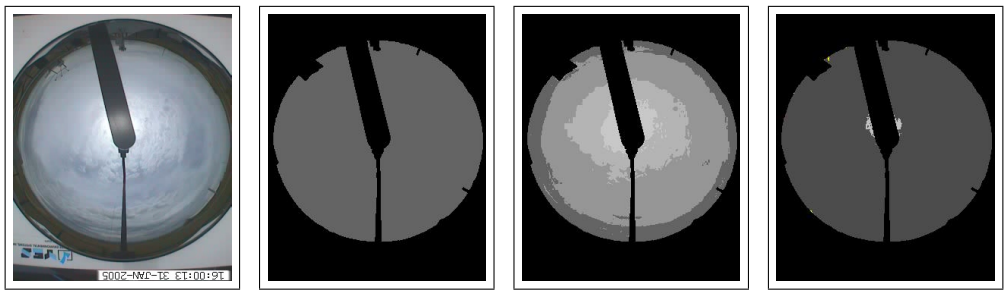


(ix) 0501311530 (x) 0501311530 Long (xi) 0501311530 EGD (xii) 0501311530 MAHA

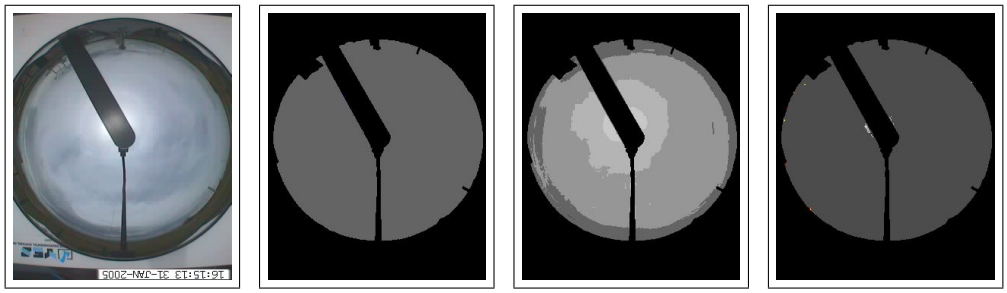


(xiii) 0501311545 (xiv) 0501311545 Long (xv) 0501311545 EGD (xvi) 0501311545 MAHA

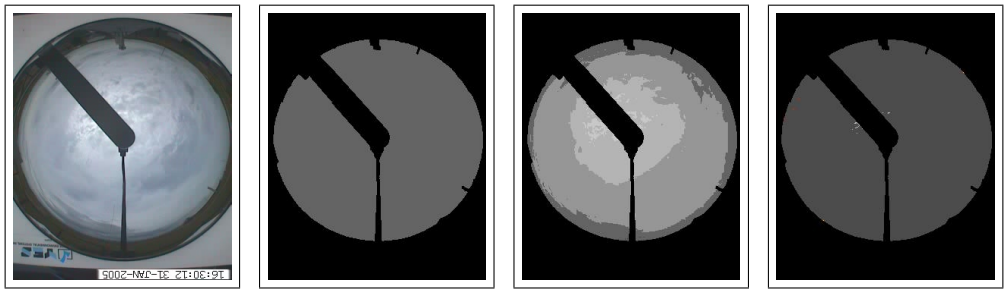
Figure A.350 - Sky images generated from 0501311445 to 0501311545.



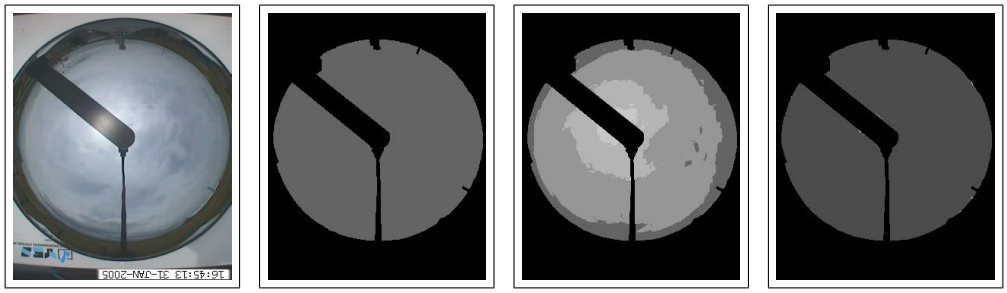
(i) 0501311600 (ii) 0501311600 Long (iii) 0501311600 EGD (iv) 0501311600 MAHA



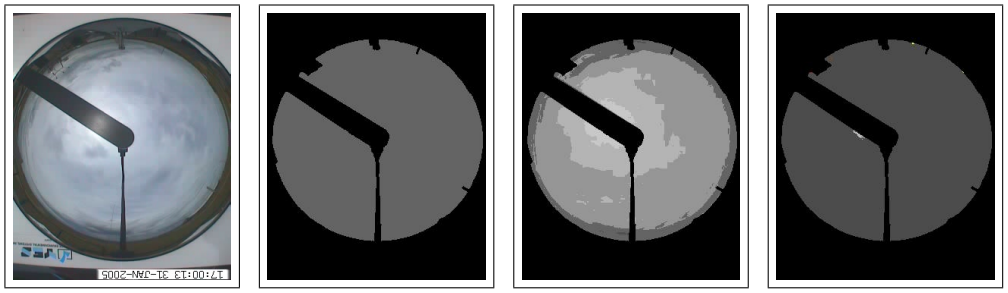
(v) 0501311615 (vi) 0501311615 Long (vii) 0501311615 EGD (viii) 0501311615 MAHA



(ix) 0501311630 (x) 0501311630 Long (xi) 0501311630 EGD (xii) 0501311630 MAHA

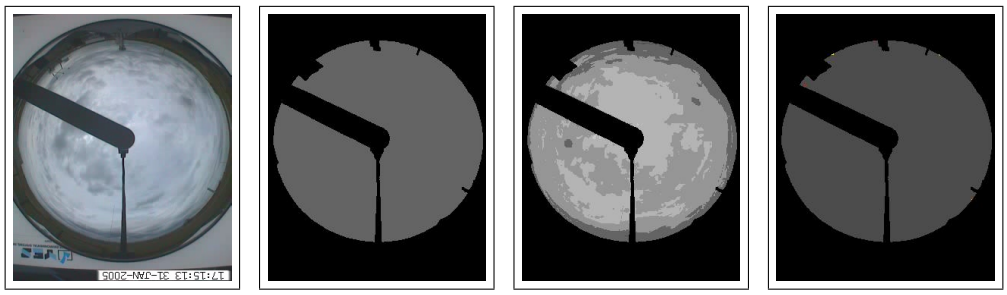


(xiii) 0501311645 (xiv) 0501311645 Long (xv) 0501311645 EGD (xvi) 0501311645 MAHA

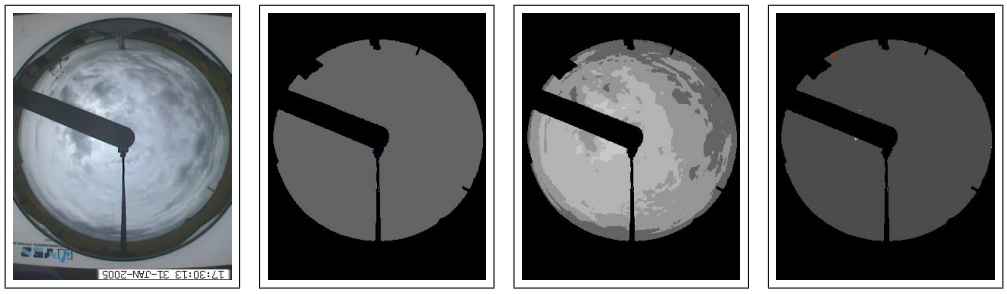


(xvii) 0501311700 (xviii) 0501311700 Long (xix) 0501311700 EGD (xx) 0501311700 MAHA

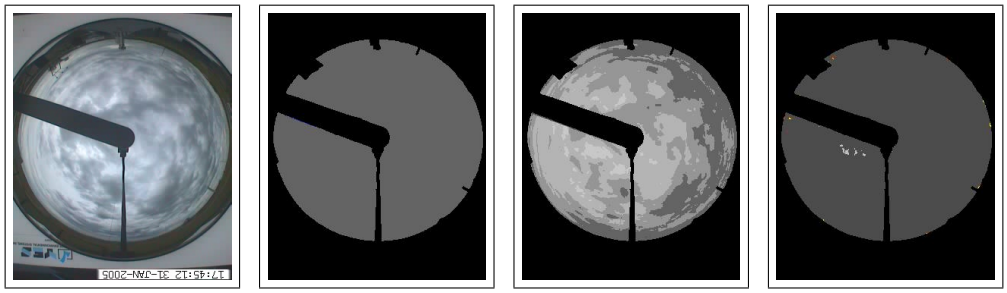
Figure A.351 - Sky images generated from 0501311600 to 0501311700.



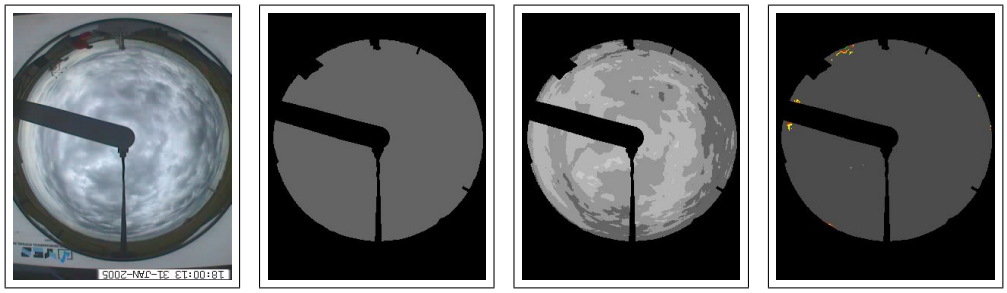
(i) 0501311715 (ii) 0501311715 Long (iii) 0501311715 EGD (iv) 0501311715 MAHA



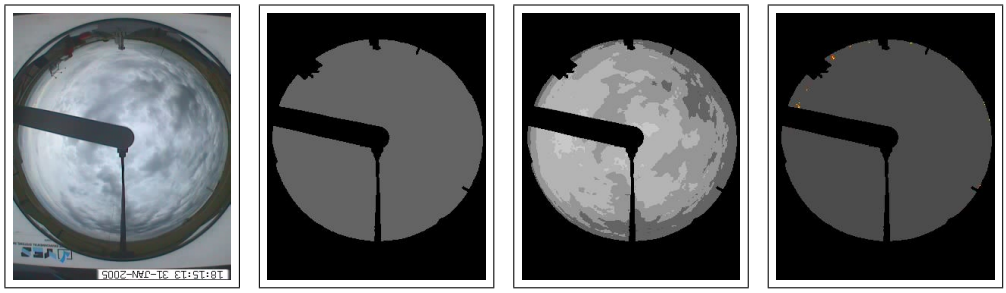
(v) 0501311730 (vi) 0501311730 Long (vii) 0501311730 EGD (viii) 0501311730 MAHA



(ix) 0501311745 (x) 0501311745 Long (xi) 0501311745 EGD (xii) 0501311745 MAHA

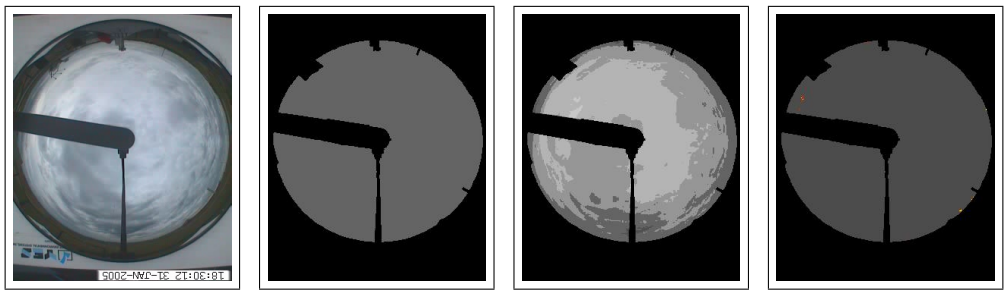


(xiii) 0501311800 (xiv) 0501311800 Long (xv) 0501311800 EGD (xvi) 0501311800 MAHA

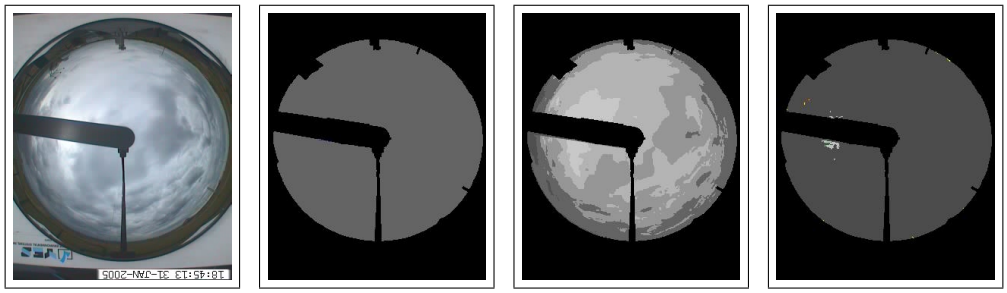


(xvii) 0501311815 (xviii) 0501311815 Long (xix) 0501311815 EGD (xx) 0501311815 MAHA

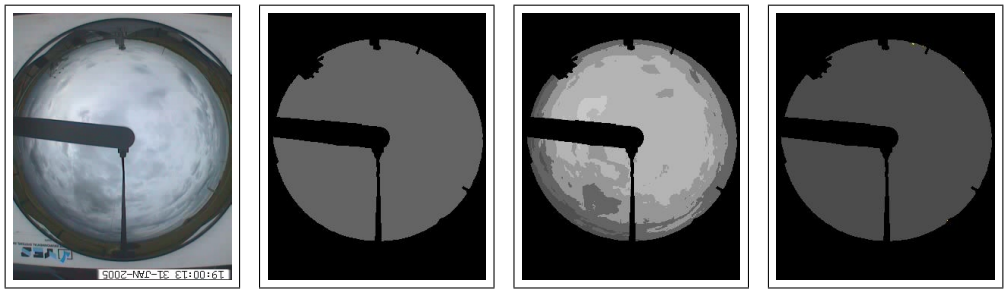
Figure A.352 - Sky images generated from 0501311715 to 0501311815.



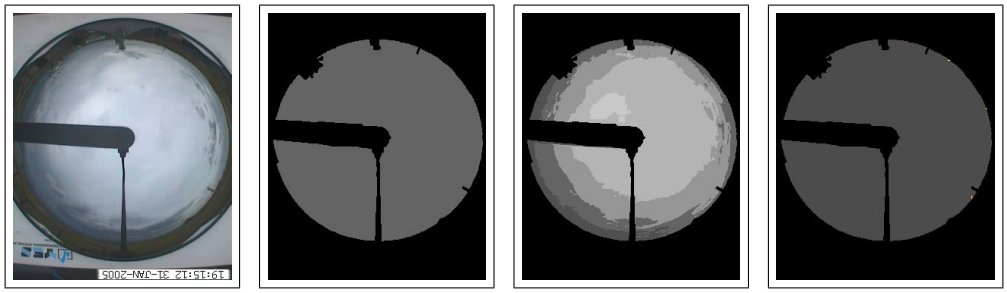
(i) 0501311830 (ii) 0501311830 Long (iii) 0501311830 EGD (iv) 0501311830 MAHA



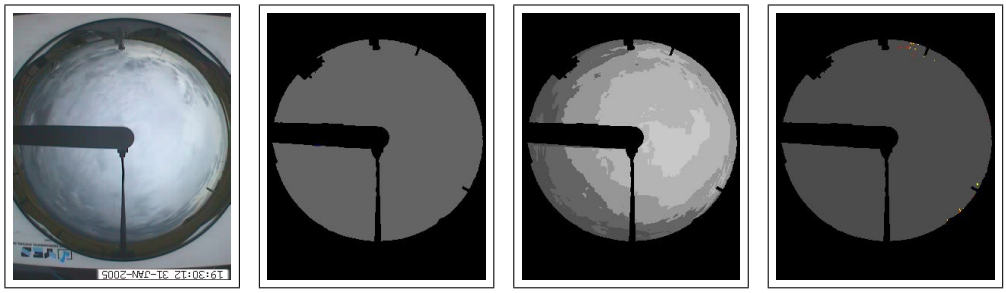
(v) 0501311845 (vi) 0501311845 Long (vii) 0501311845 EGD (viii) 0501311845 MAHA



(ix) 0501311900 (x) 0501311900 Long (xi) 0501311900 EGD (xii) 0501311900 MAHA

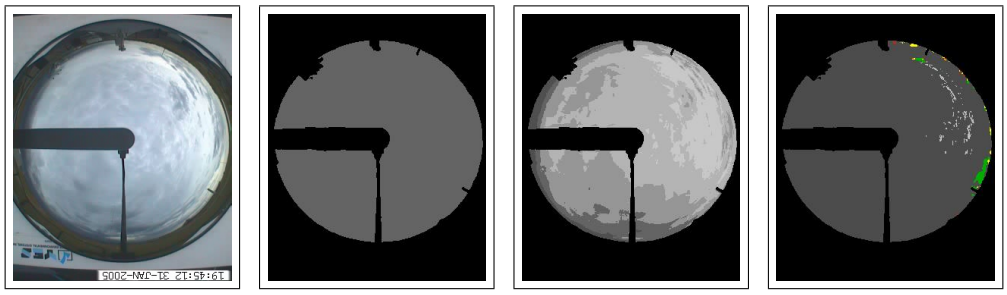


(xiii) 0501311915 (xiv) 0501311915 Long (xv) 0501311915 EGD (xvi) 0501311915 MAHA

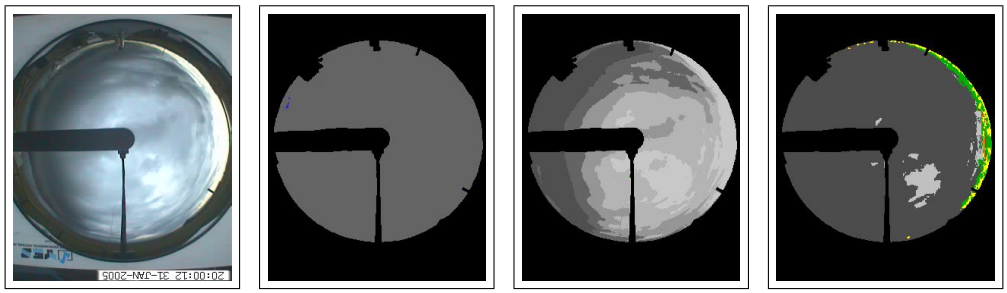


(xvii) 0501311930 (xviii) 0501311930 Long (xix) 0501311930 EGD (xx) 0501311930 MAHA

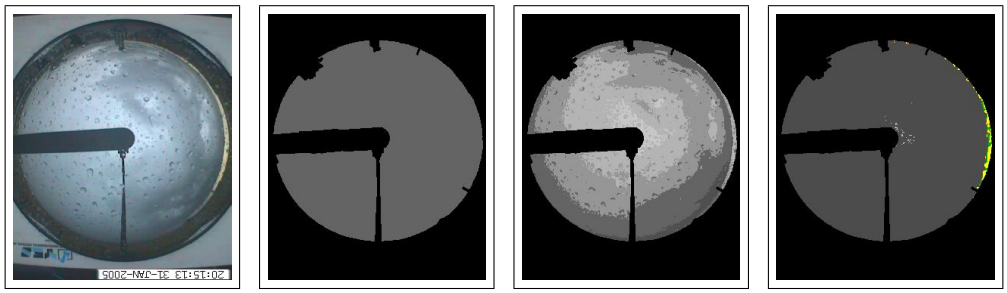
Figure A.353 - Sky images generated from 0501311830 to 0501311930.



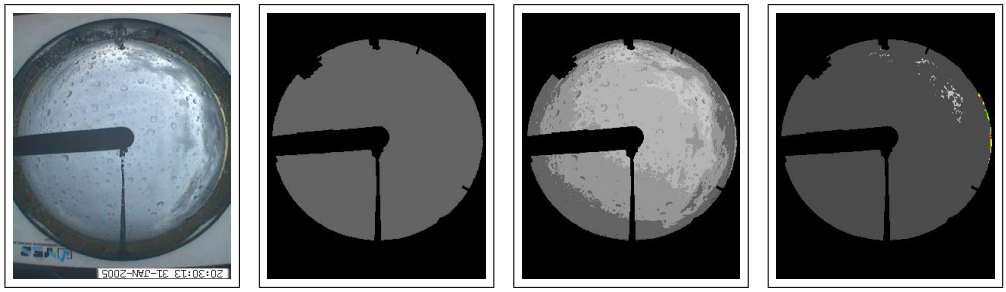
(i) 0501311945 (ii) 0501311945 Long (iii) 0501311945 EGD (iv) 0501311945 MAHA



(v) 0501312000 (vi) 0501312000 Long (vii) 0501312000 EGD (viii) 0501312000 MAHA



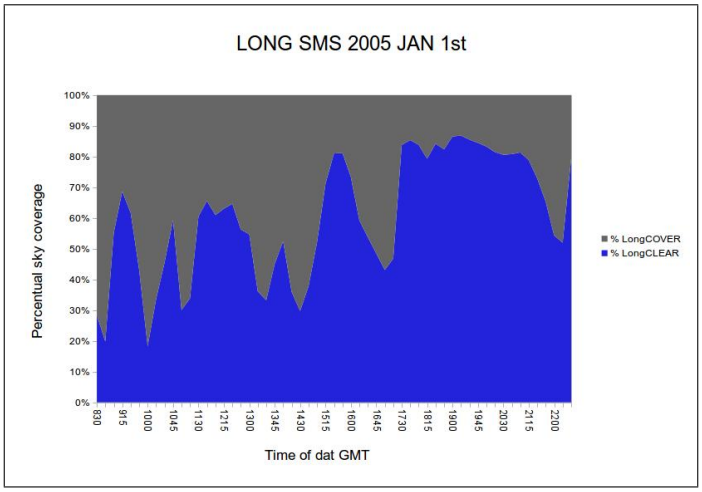
(ix) 0501312015 (x) 0501312015 Long (xi) 0501312015 EGD (xii) 0501312015 MAHA



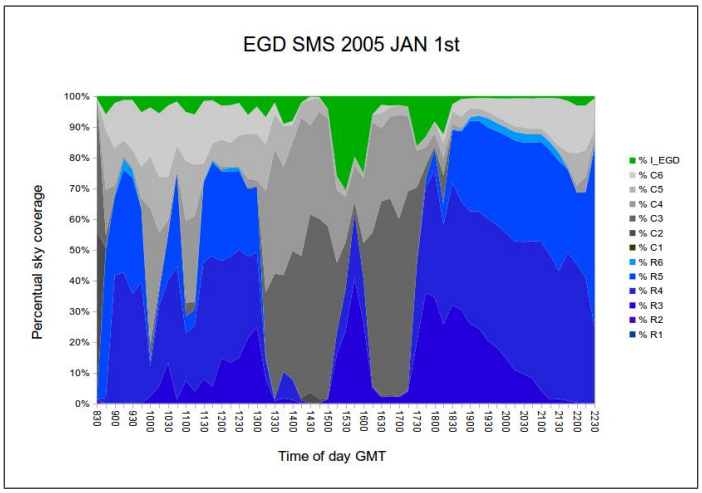
(xiii) 0501312030 (xiv) 0501312030 Long (xv) 0501312030 EGD (xvi) 0501312030 MAHA

Figure A.354 - Sky images generated from 0501311945 to 0501312030.

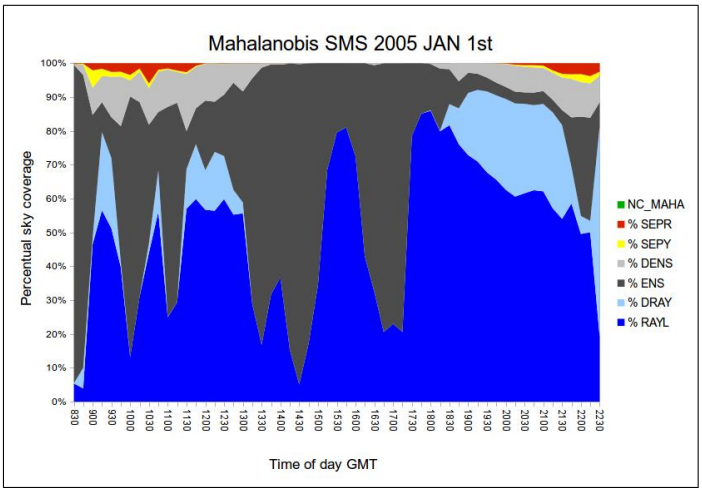
Appendix B - Daily graphic results for 3 methods during 2005 January



(i) LONG

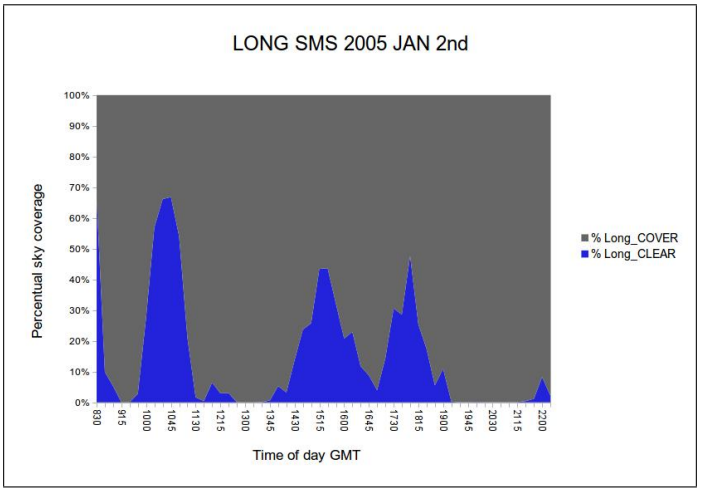


(ii) EGD

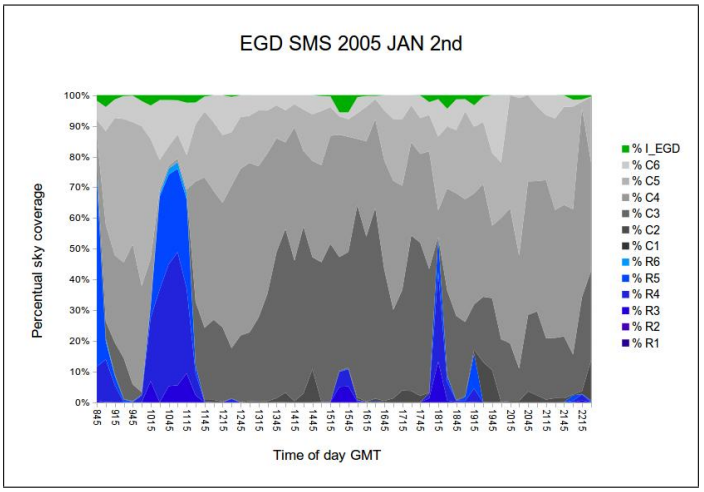


(iii) MAHA.

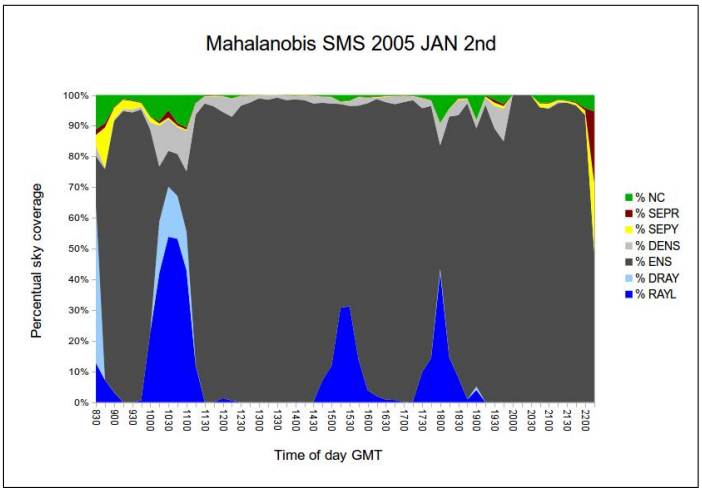
Figure B.1 - SMS daily coverage results for LONG, EGD and MAHA classification methods obtained on January 1, 2005.



(i) LONG

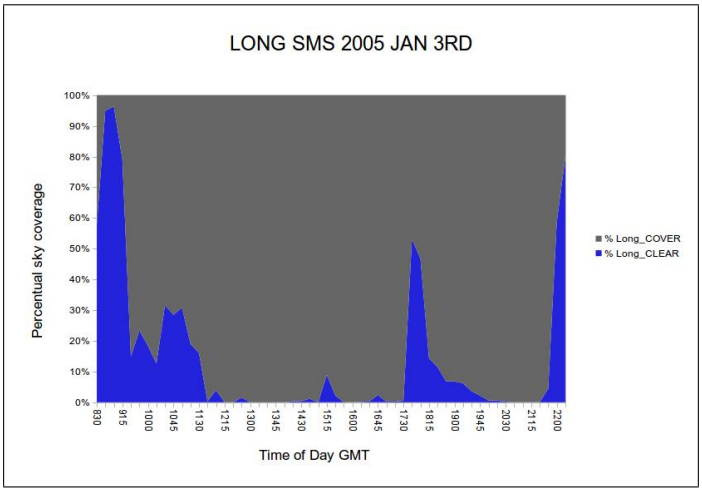


(ii) EGD

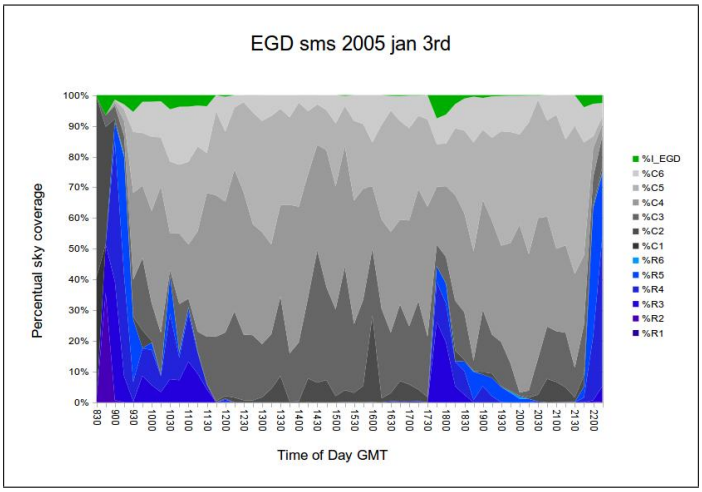


(iii) MAHA.

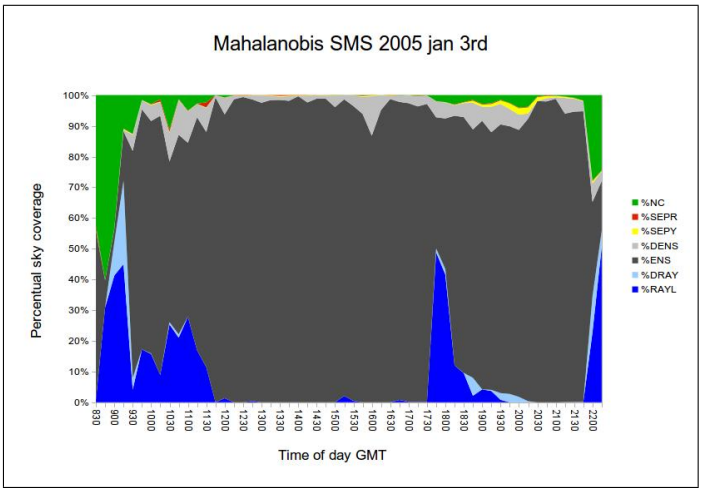
Figure B.2 - SMS daily coverage results for LONG, EGD and MAHA classification methods obtained on January 2, 2005.



(i) LONG

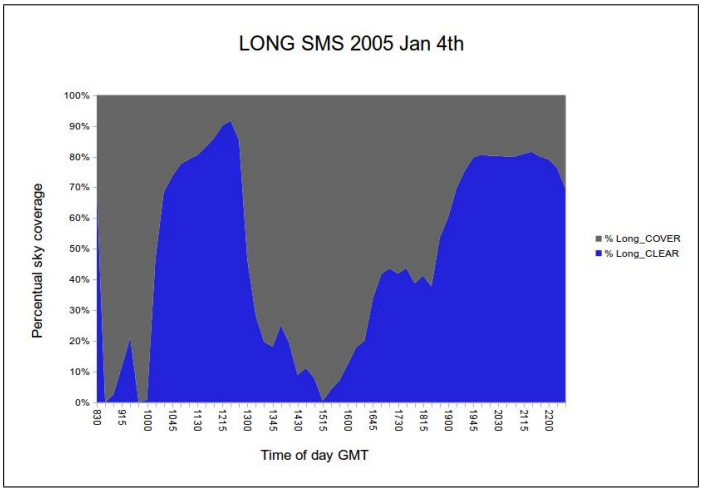


(ii) EGD

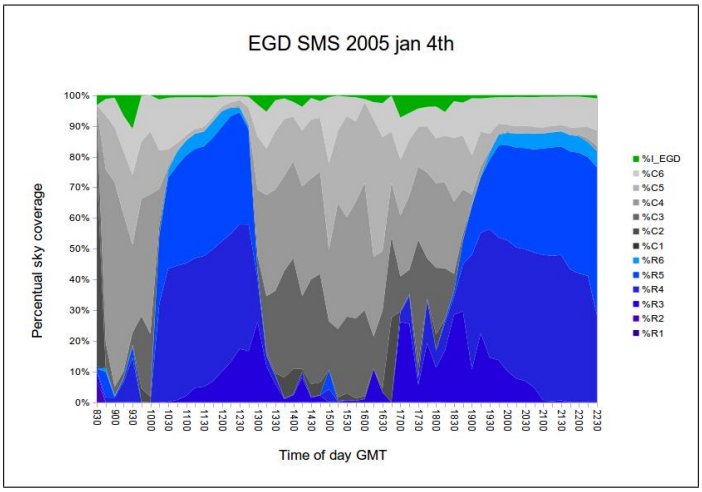


(iii) MAHA.

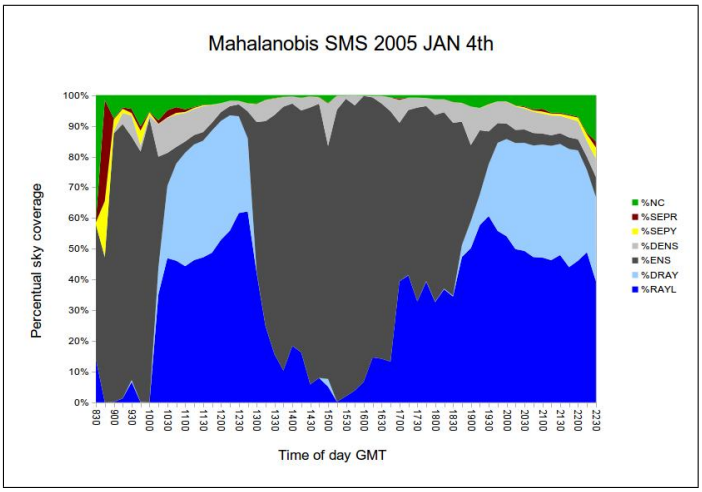
Figure B.3 - SMS daily coverage results for LONG, EGD and MAHA classification methods obtained on January 3, 2005.



(i) LONG

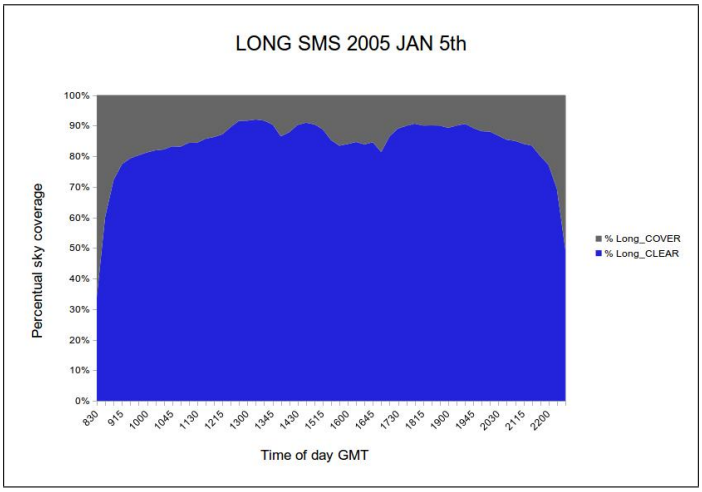


(ii) EGD

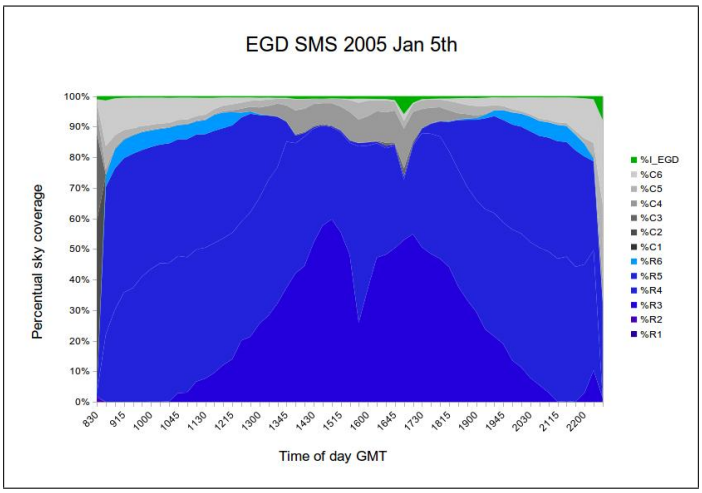


(iii) MAHA.

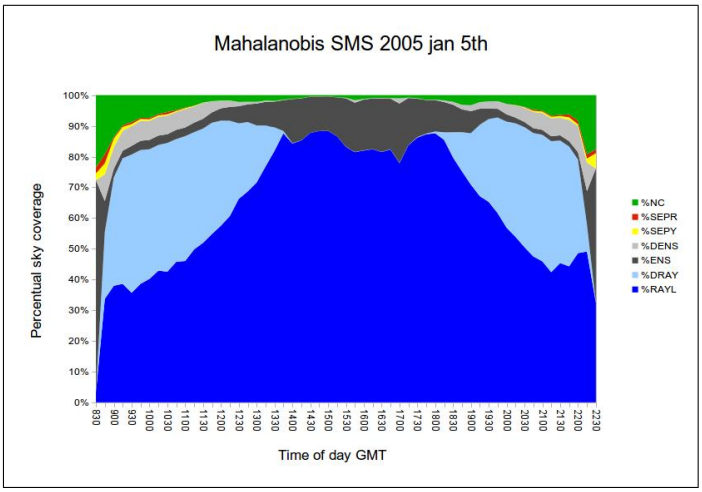
Figure B.4 - SMS daily coverage results for LONG, EGD and MAHA classification methods obtained on January 4, 2005.



(i) LONG

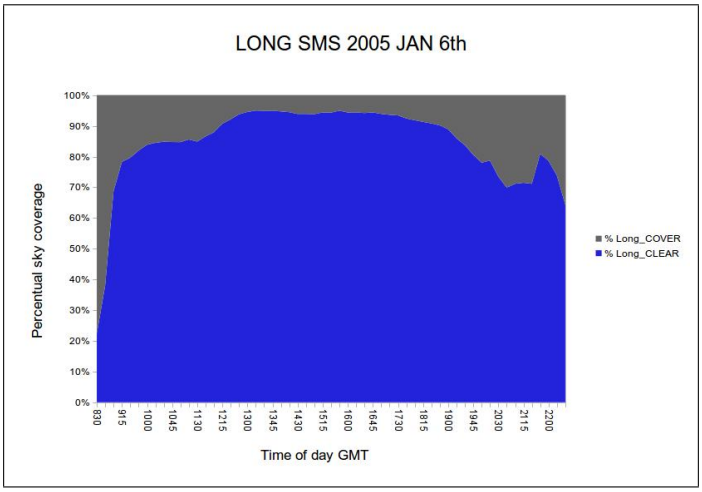


(ii) EGD

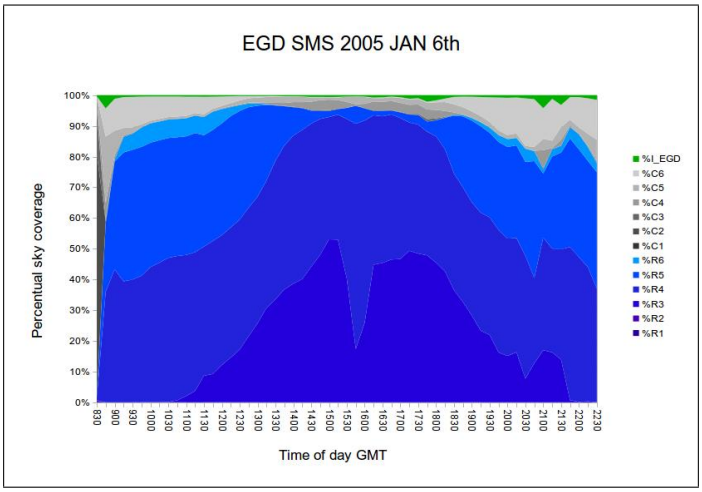


(iii) MAHA.

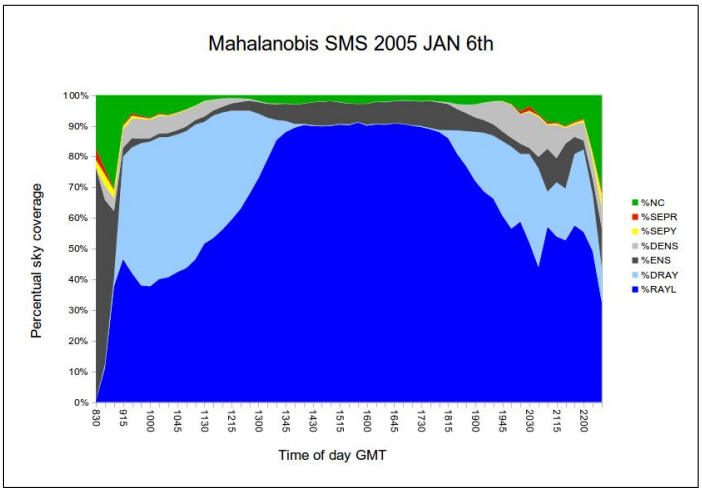
Figure B.5 - SMS daily coverage results for LONG, EGD and MAHA classification methods obtained on January 5, 2005.



(i) LONG

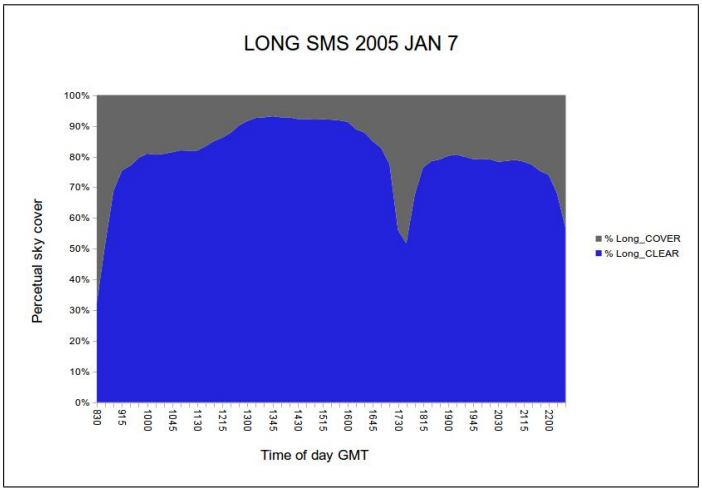


(ii) EGD

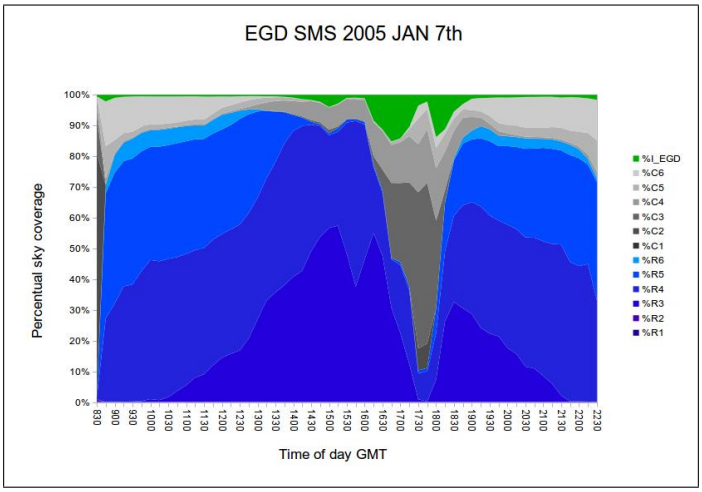


(iii) MAHA.

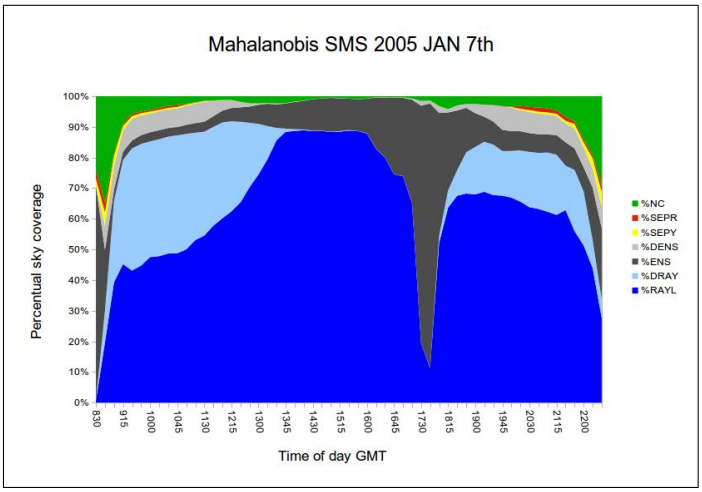
Figure B.6 - SMS daily coverage results for LONG, EGD and MAHA classification methods obtained on January 6, 2005.



(i) LONG

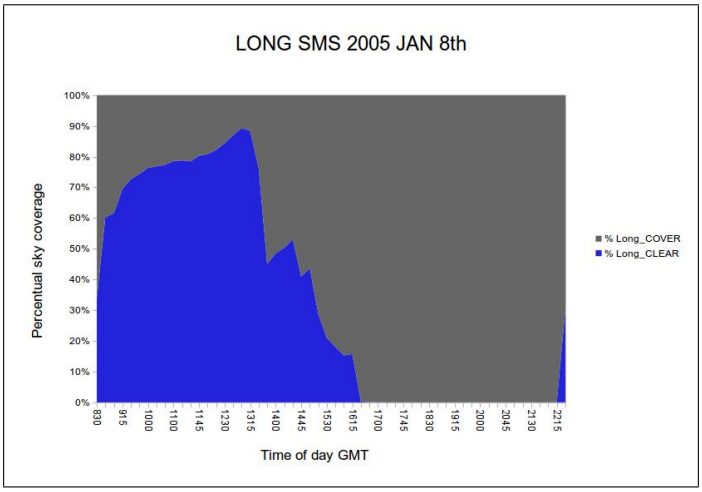


(ii) EGD

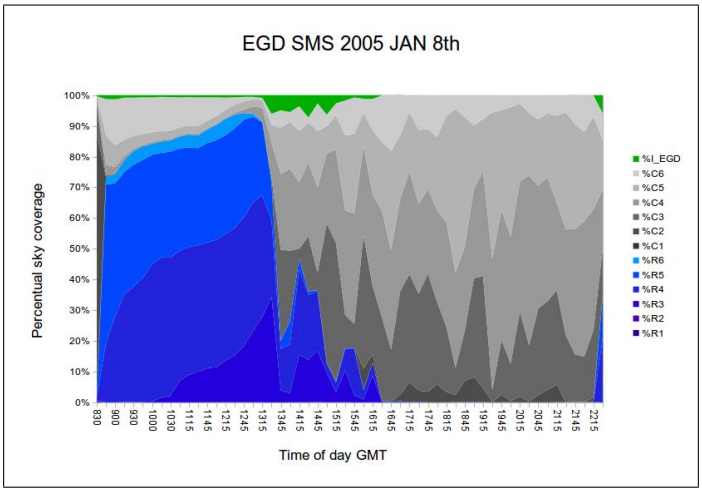


(iii) MAHA.

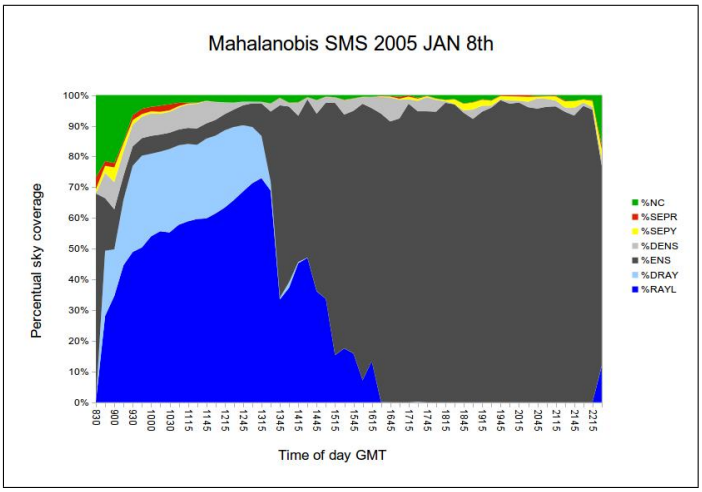
Figure B.7 - SMS daily coverage results for LONG, EGD and MAHA classification methods obtained on January 7, 2005.



(i) LONG

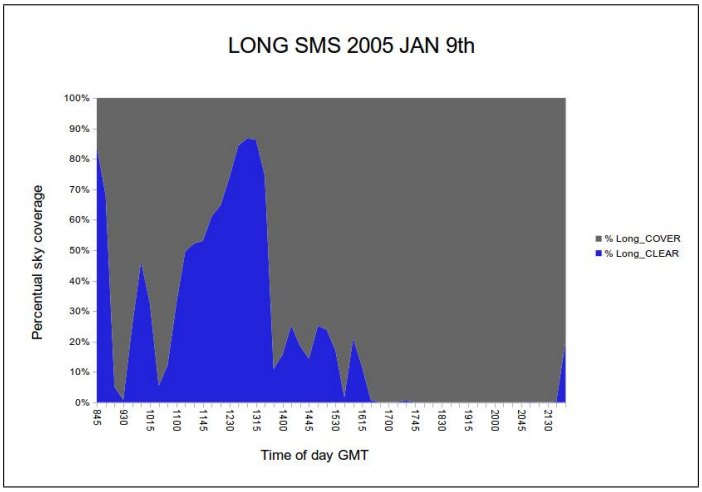


(ii) EGD

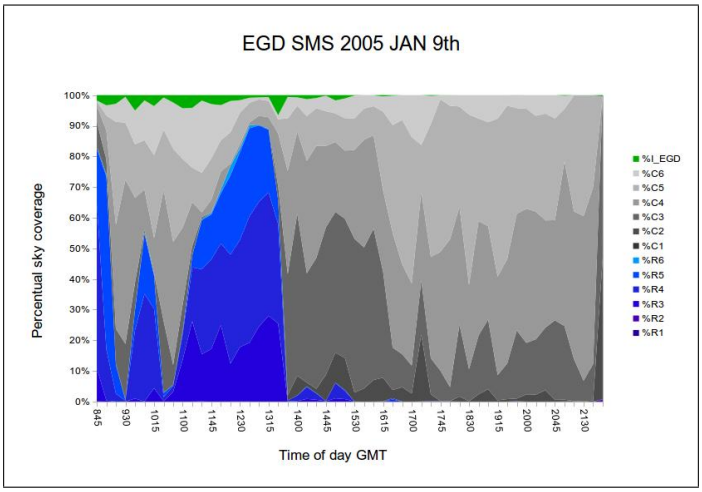


(iii) MAHA.

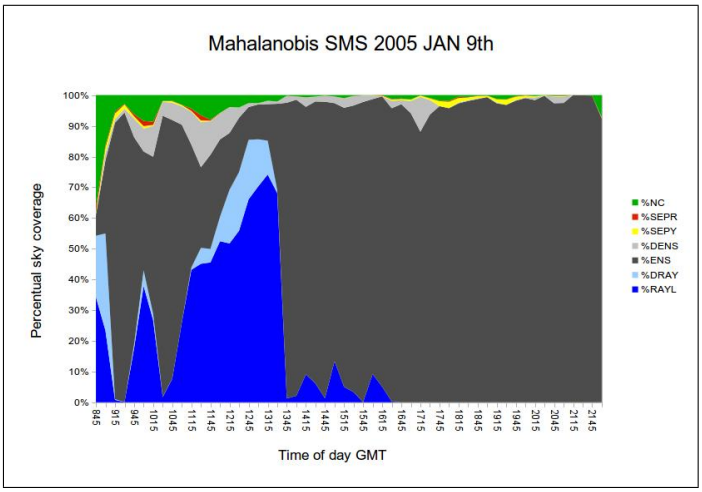
Figure B.8 - SMS daily coverage results for LONG, EGD and MAHA classification methods obtained on January 8, 2005.



(i) LONG

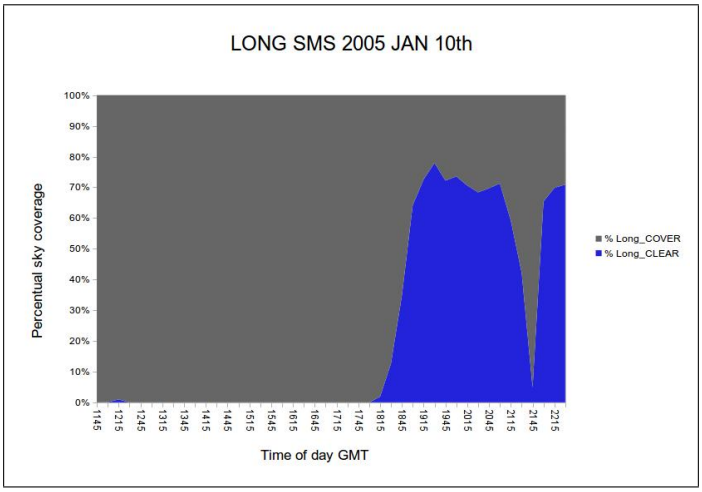


(ii) EGD

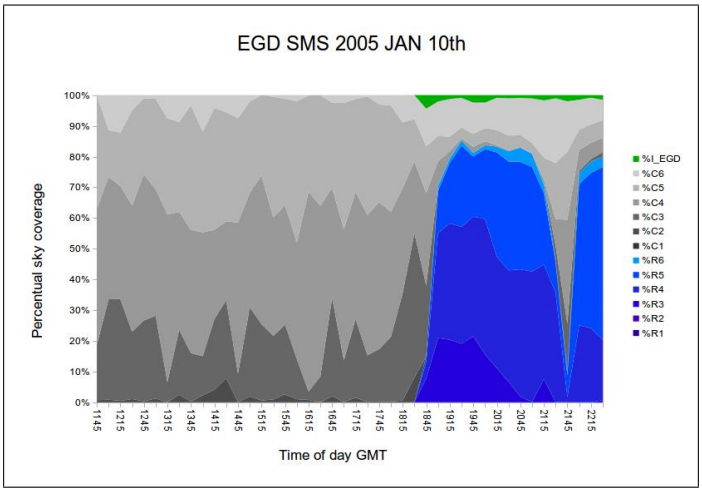


(iii) MAHA.

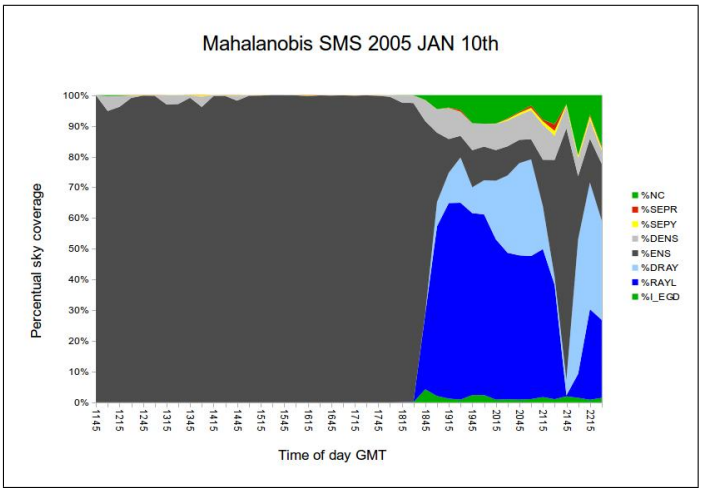
Figure B.9 - SMS daily coverage results for LONG, EGD and MAHA classification methods obtained on January 9, 2005.



(i) LONG

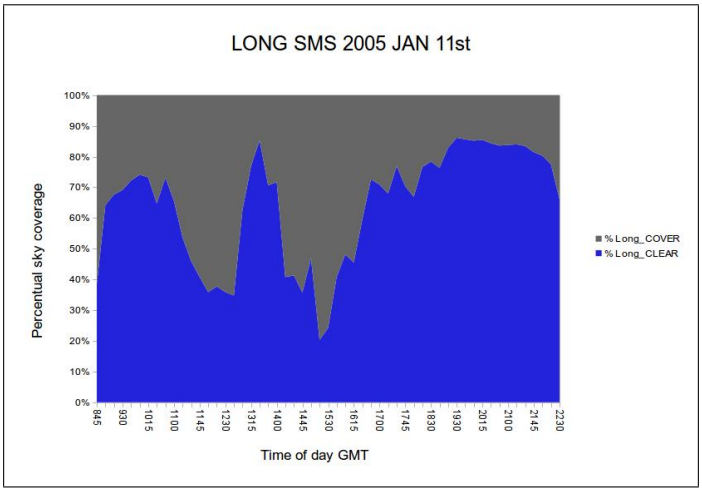


(ii) EGD

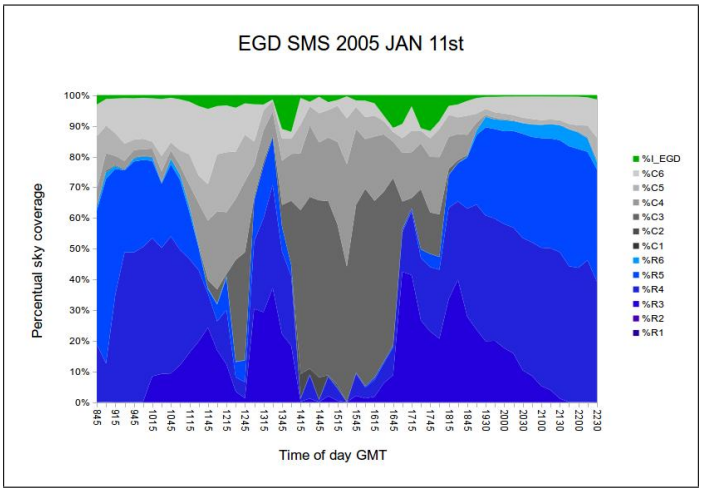


(iii) MAHA.

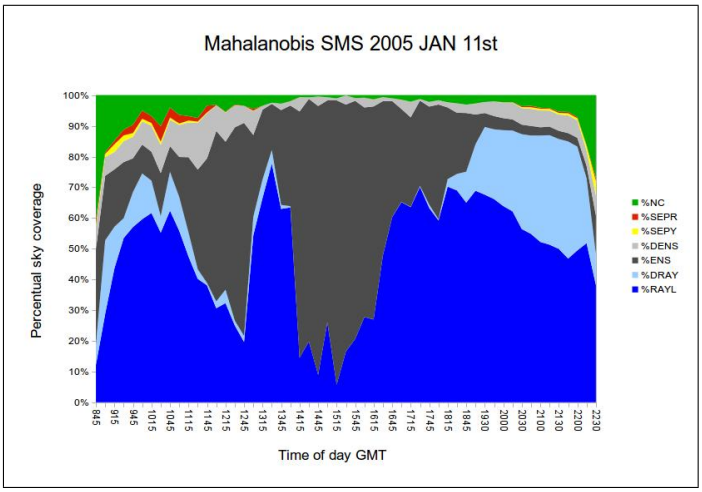
Figure B.10 - SMS daily coverage results for LONG, EGD and MAHA classification methods obtained on January 10, 2005.



(i) LONG

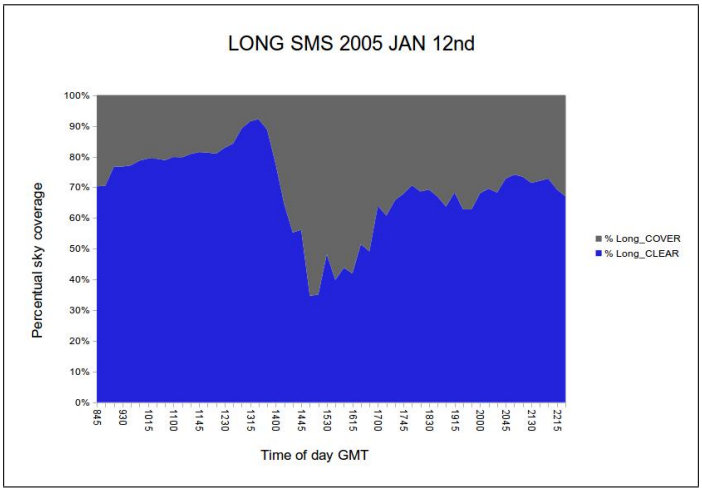


(ii) EGD

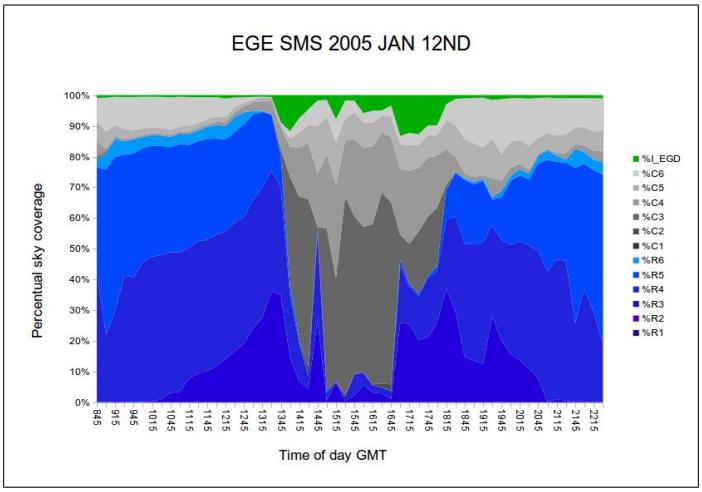


(iii) MAHA.

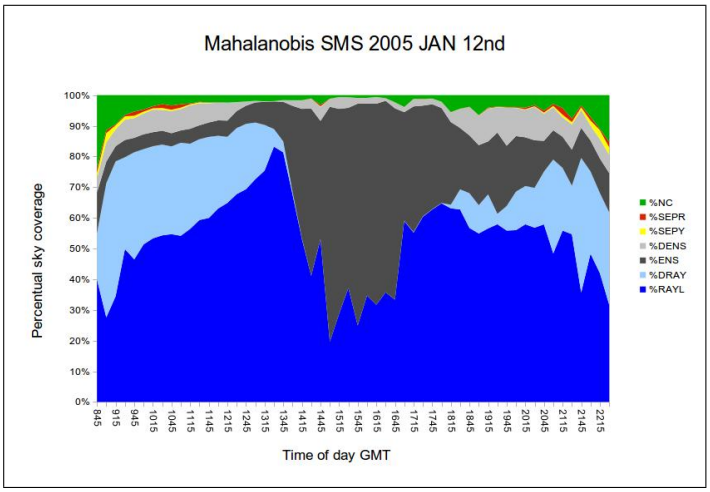
Figure B.11 - SMS daily coverage results for LONG, EGD and MAHA classification methods obtained on January 11, 2005.



(i) LONG

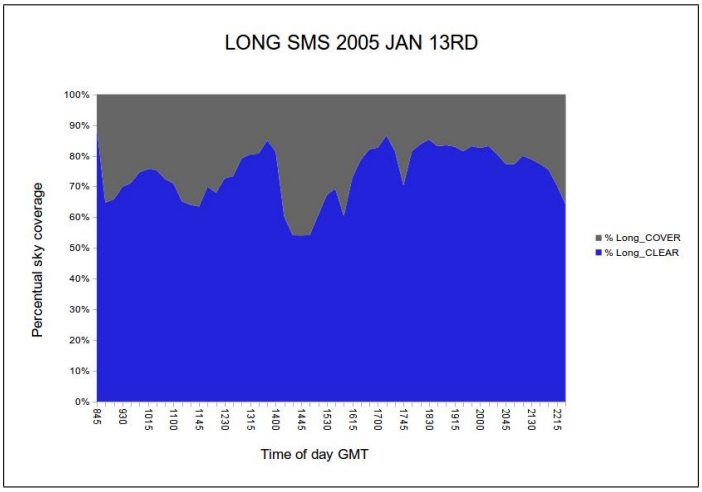


(ii) EGD

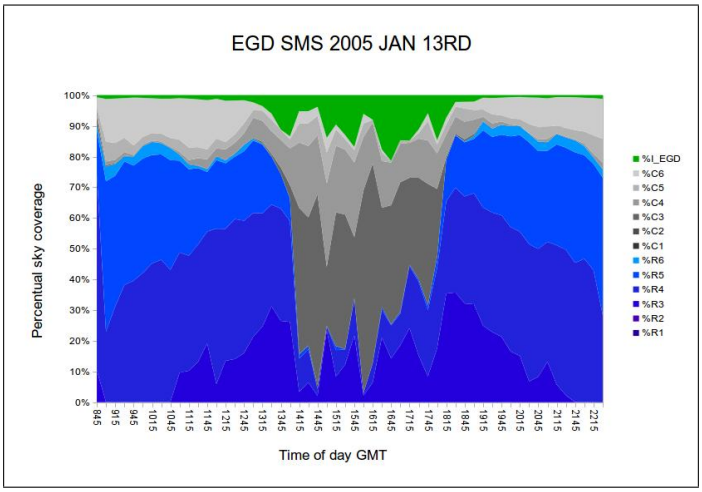


(iii) MAHA.

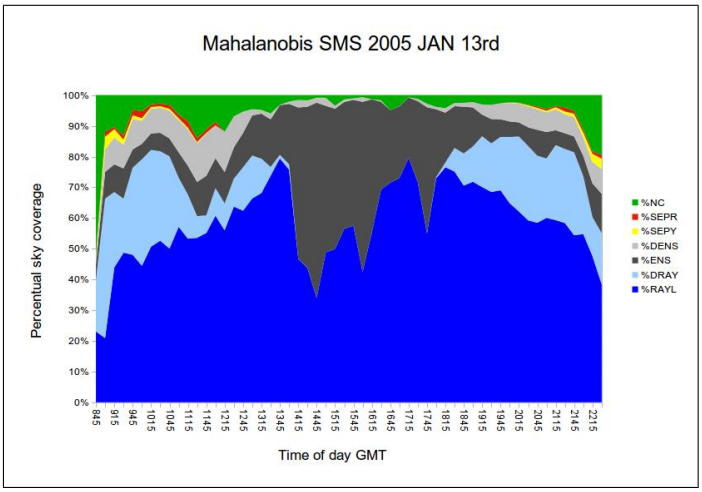
Figure B.12 - SMS daily coverage results for LONG, EGD and MAHA classification methods obtained on January 12, 2005.



(i) LONG

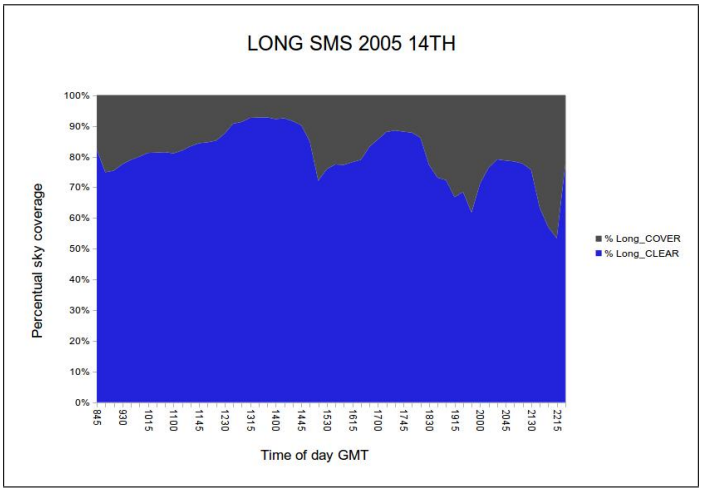


(ii) EGD

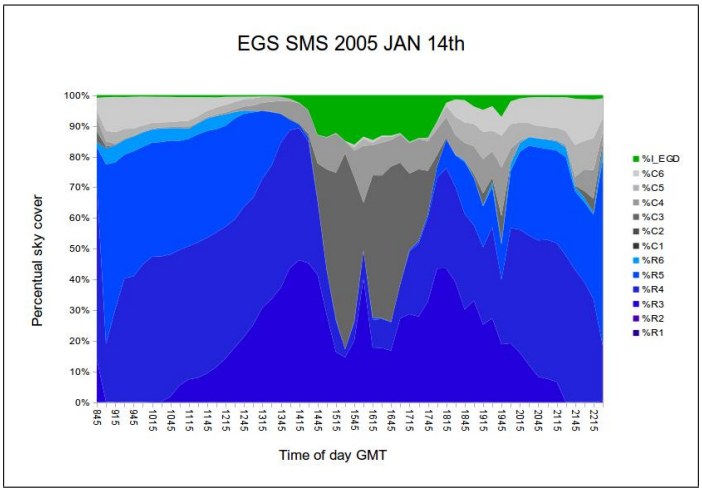


(iii) MAHA.

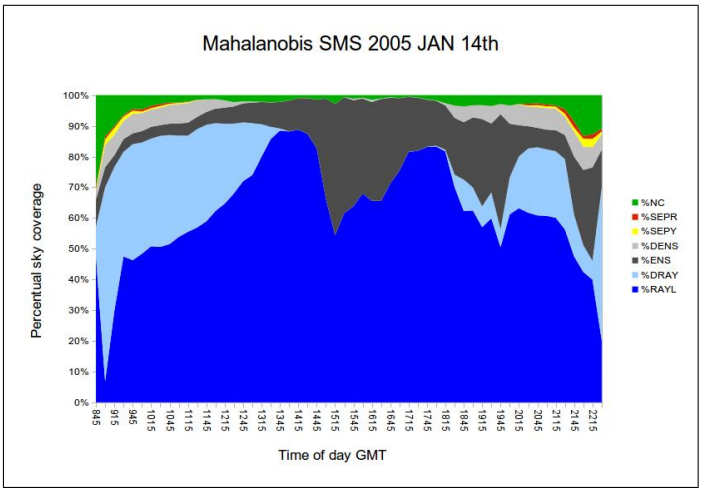
Figure B.13 - SMS daily coverage results for LONG, EGD and MAHA classification methods obtained on January 13, 2005.



(i) LONG

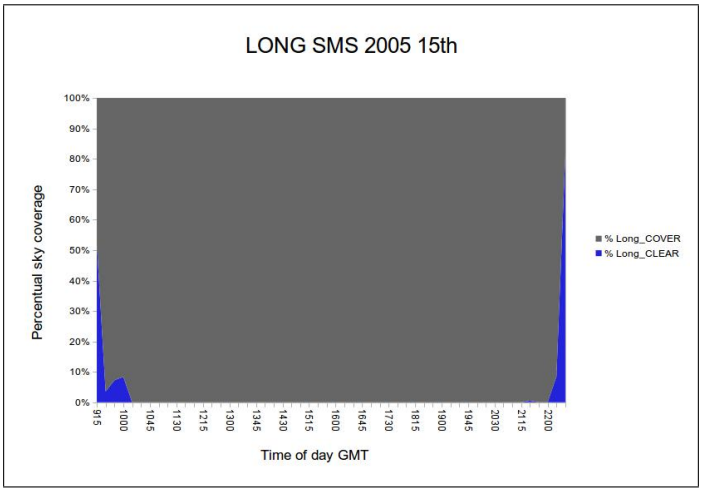


(ii) EGD

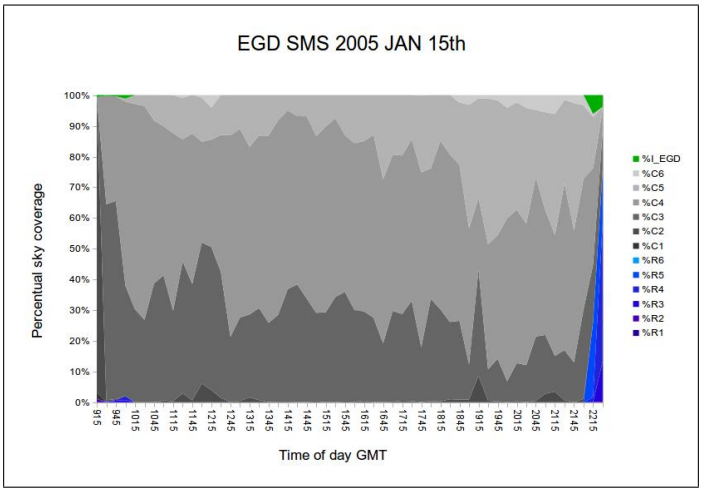


(iii) MAHA.

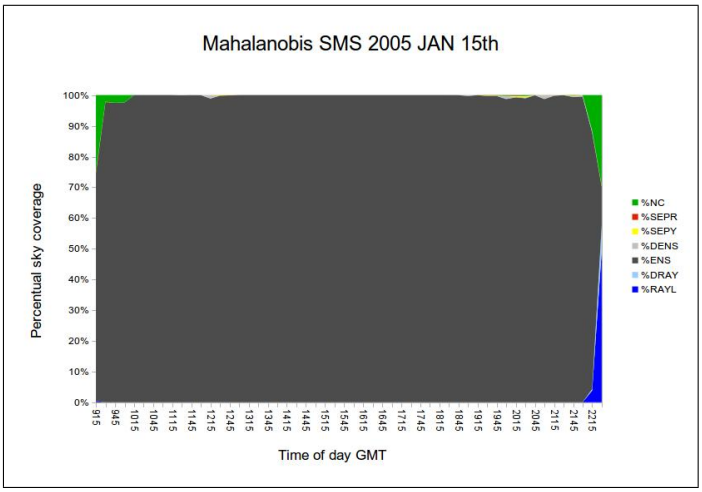
Figure B.14 - SMS daily coverage results for LONG, EGD and MAHA classification methods obtained on January 14, 2005.



(i) LONG

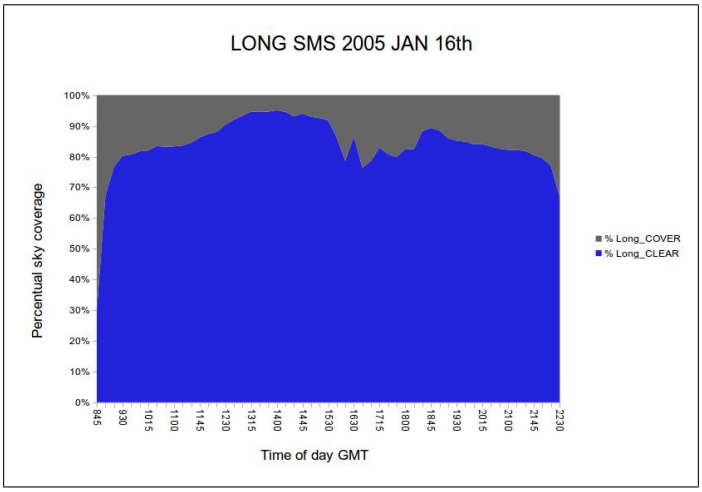


(ii) EGD

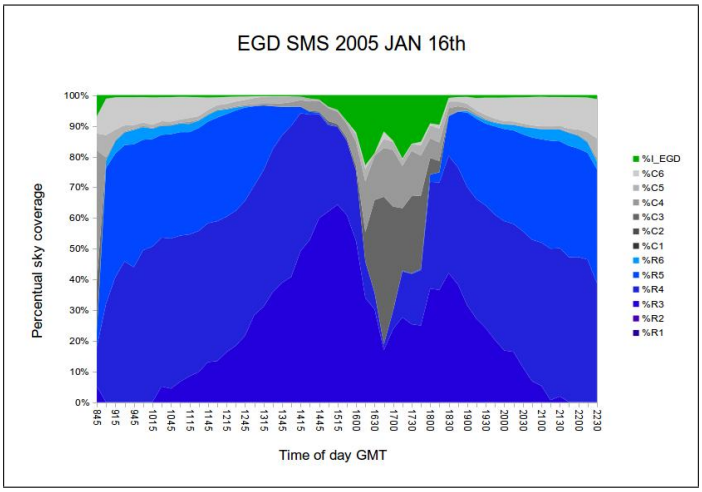


(iii) MAHA.

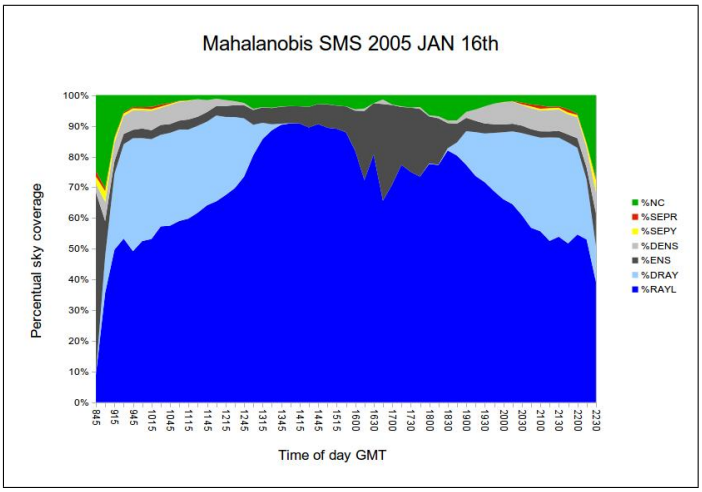
Figure B.15 - SMS daily coverage results for LONG, EGD and MAHA classification methods obtained on January 15, 2005.



(i) LONG

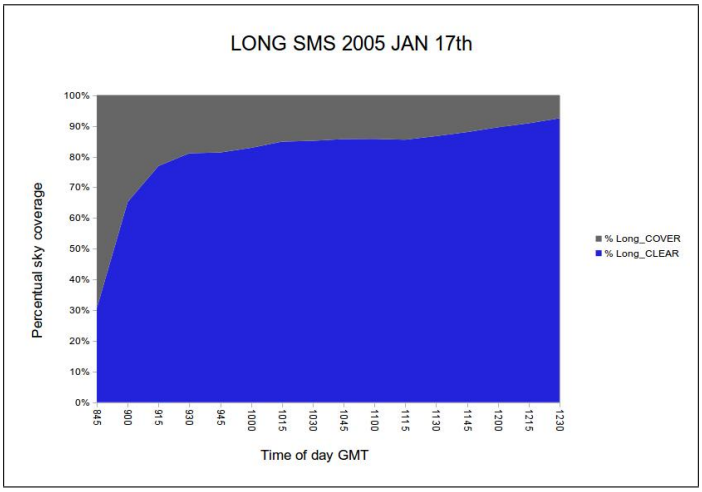


(ii) EGD

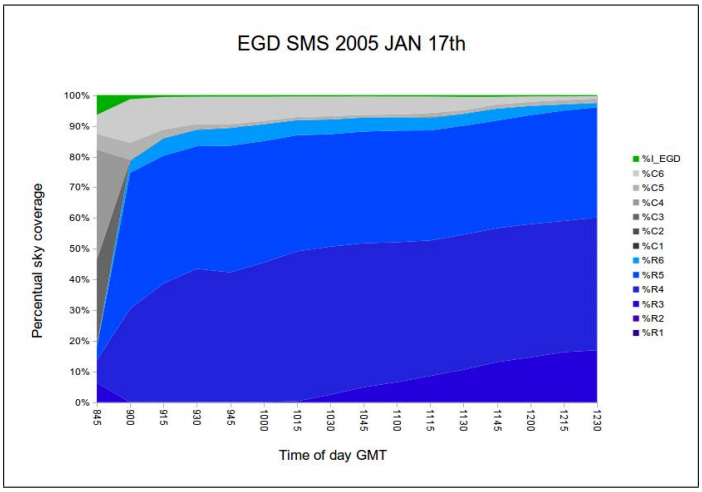


(iii) MAHA.

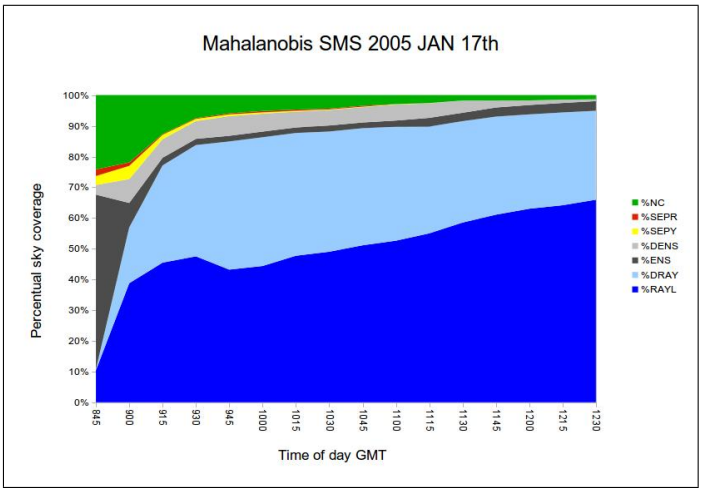
Figure B.16 - SMS daily coverage results for LONG, EGD and MAHA classification methods obtained on January 16, 2005.



(i) LONG

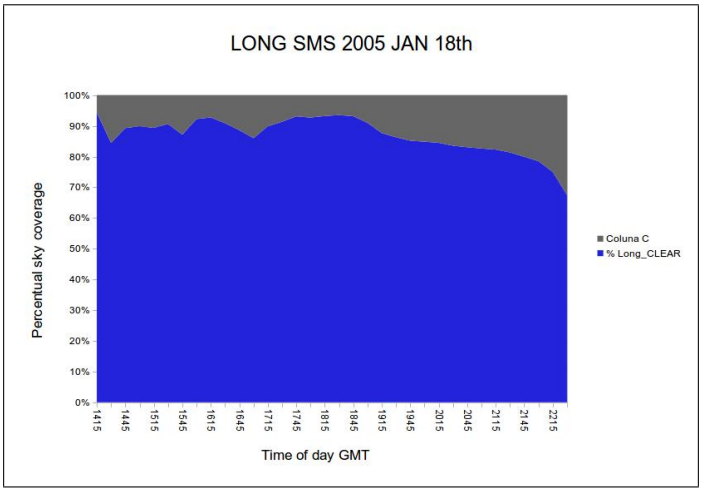


(ii) EGD

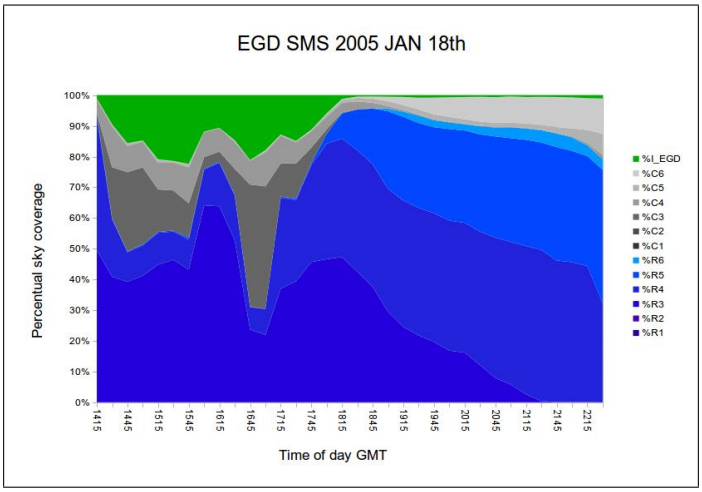


(iii) MAHA.

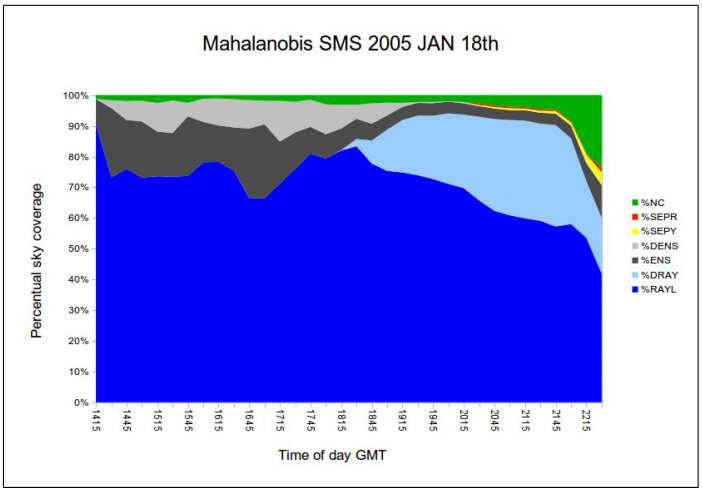
Figure B.17 - SMS daily coverage results for LONG, EGD and MAHA classification methods obtained on January 17, 2005.



(i) LONG

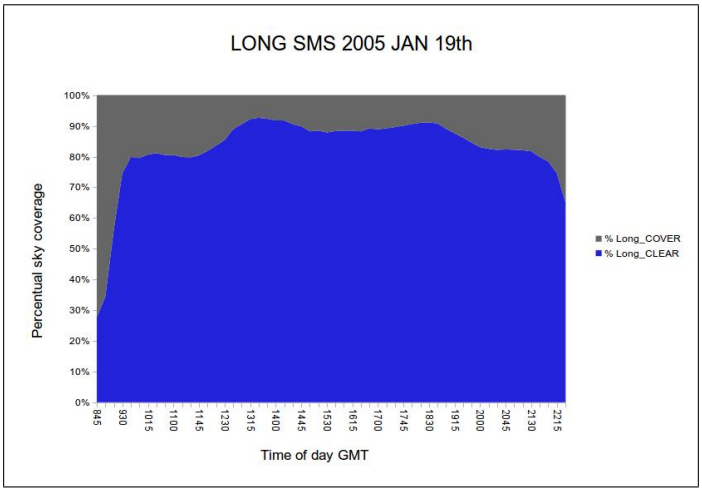


(ii) EGD

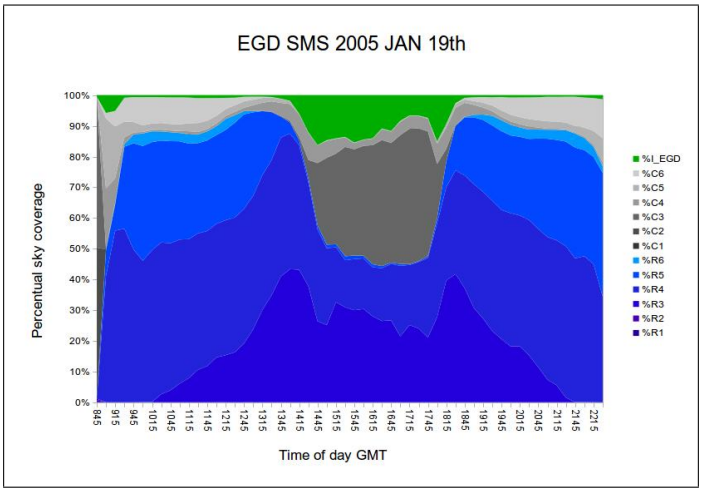


(iii) MAHA.

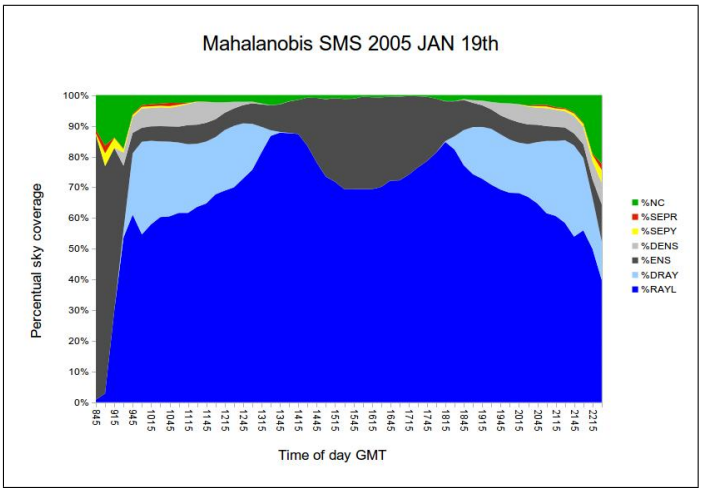
Figure B.18 - SMS daily coverage results for LONG, EGD and MAHA classification methods obtained on January 18, 2005.



(i) LONG

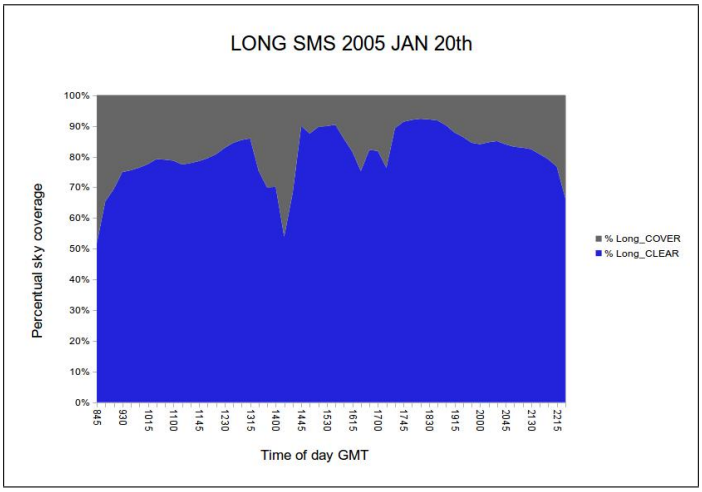


(ii) EGD

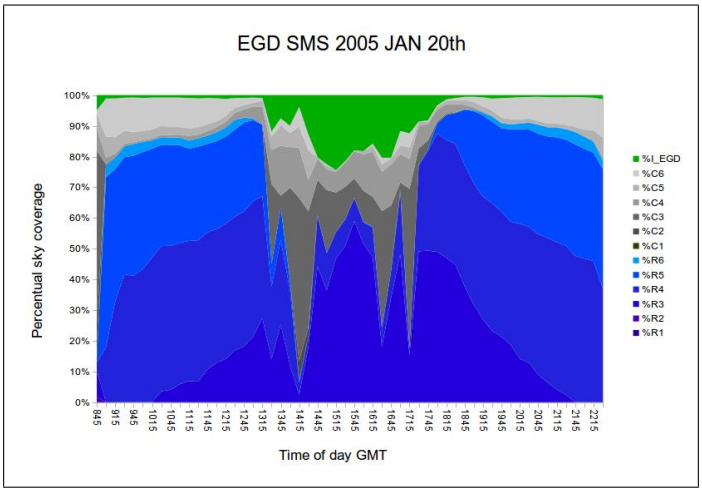


(iii) MAHA.

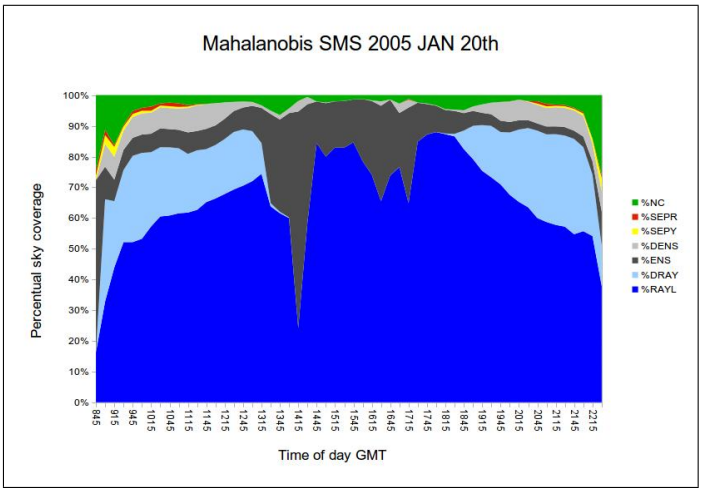
Figure B.19 - SMS daily coverage results for LONG, EGD and MAHA classification methods obtained on January 19, 2005.



(i) LONG

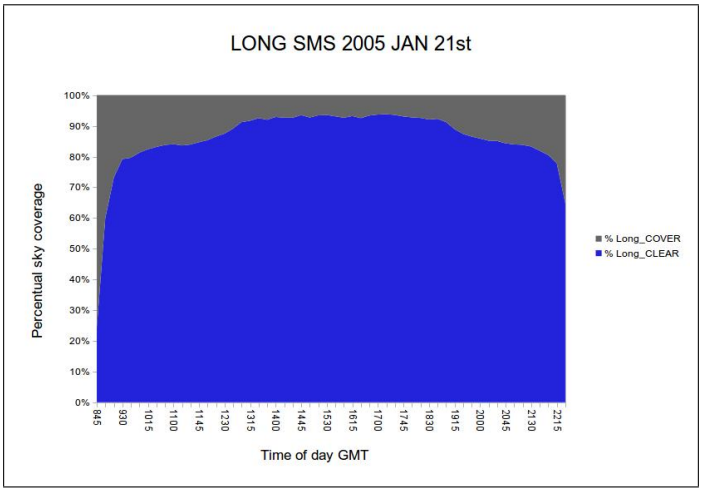


(ii) EGD

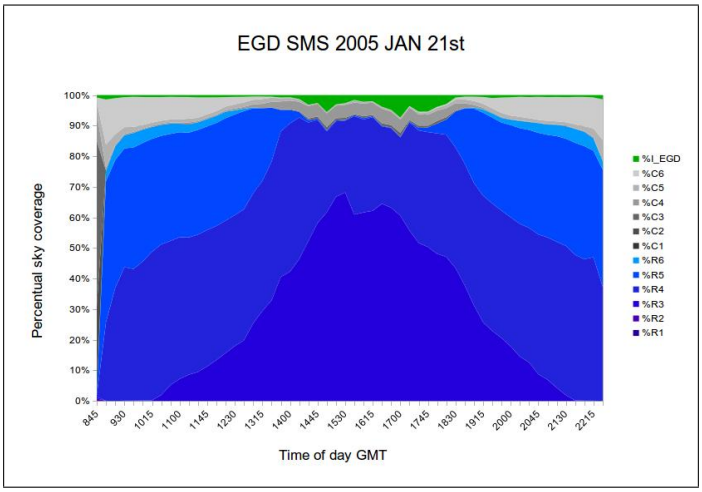


(iii) MAHA.

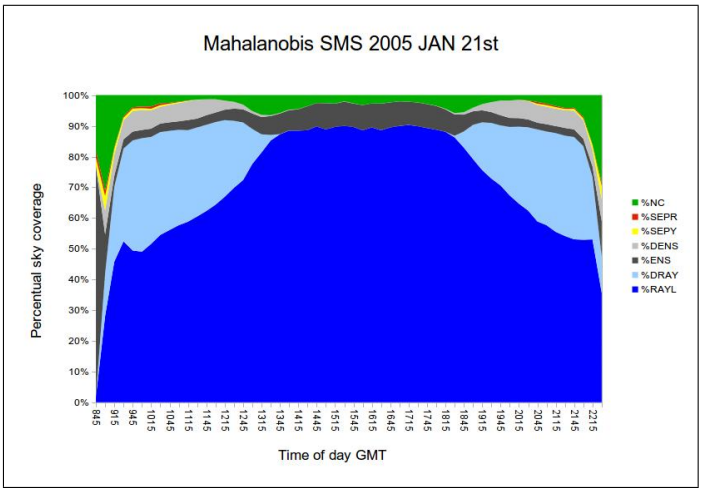
Figure B.20 - SMS daily coverage results for LONG, EGD and MAHA classification methods obtained on January 20, 2005.



(i) LONG

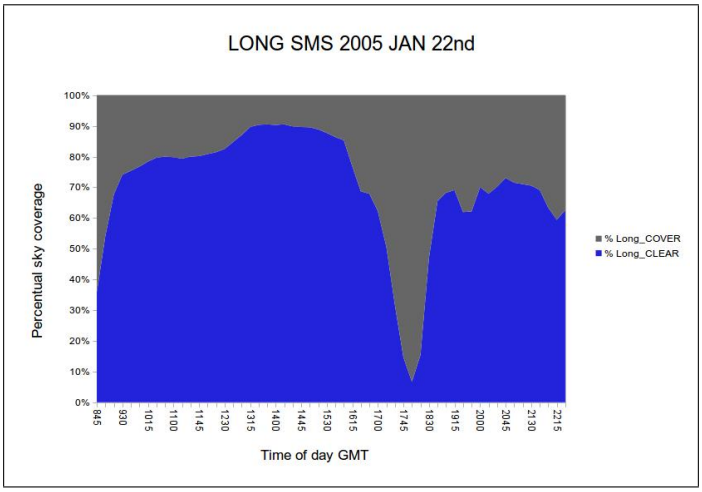


(ii) EGD

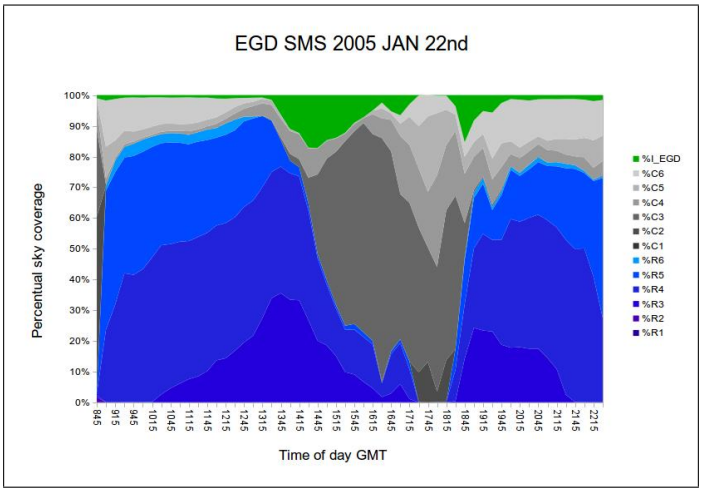


(iii) MAHA.

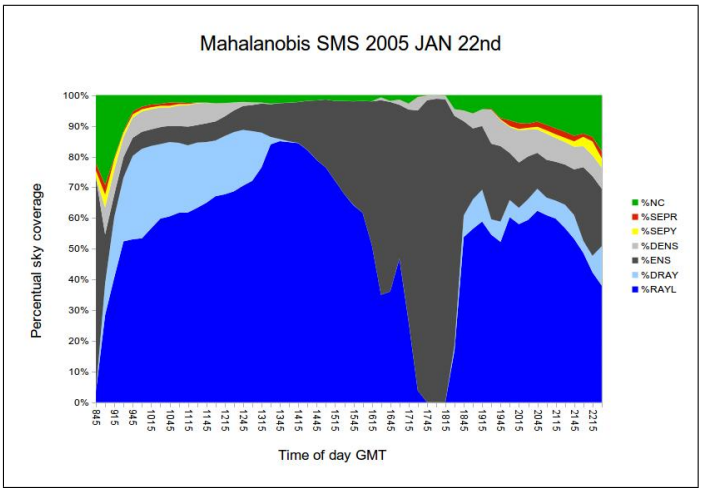
Figure B.21 - SMS daily coverage results for LONG, EGD and MAHA classification methods obtained on January 21, 2005.



(i) LONG

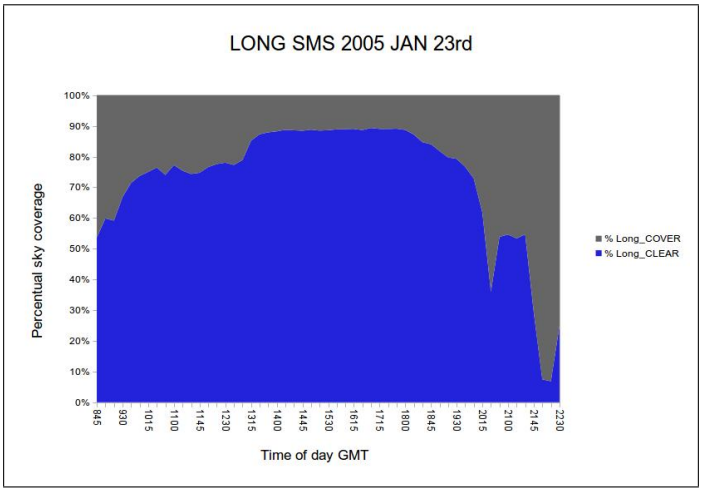


(ii) EGD

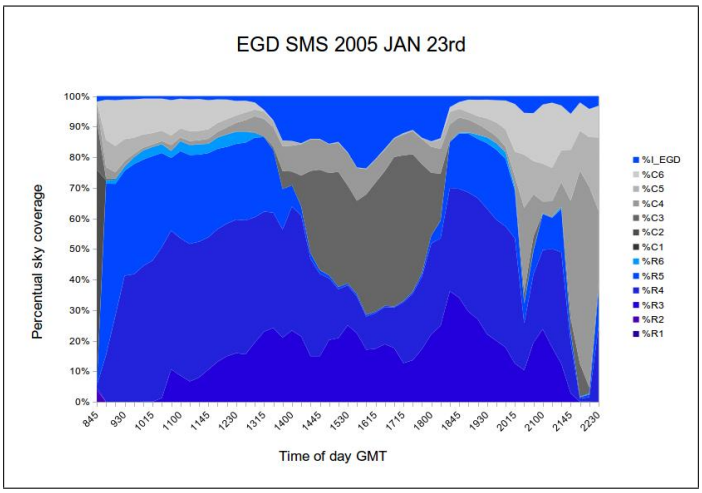


(iii) MAHA.

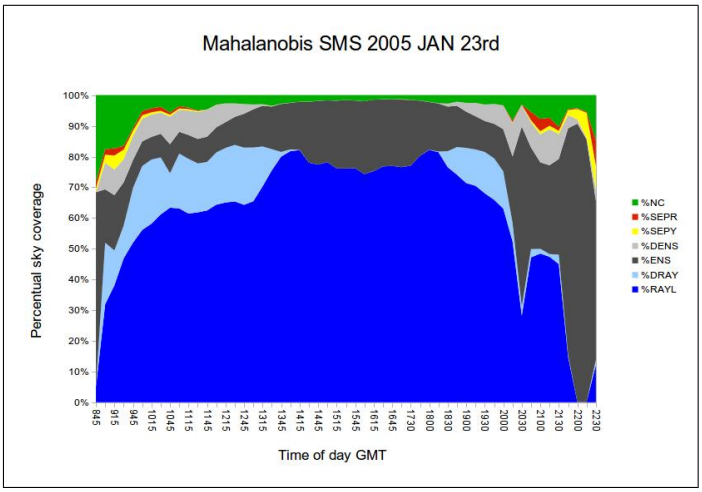
Figure B.22 - SMS daily coverage results for LONG, EGD and MAHA classification methods obtained on January 22, 2005.



(i) LONG

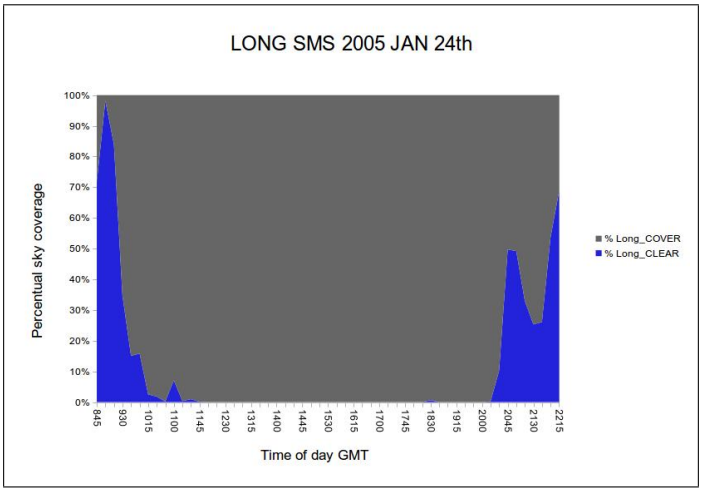


(ii) EGD

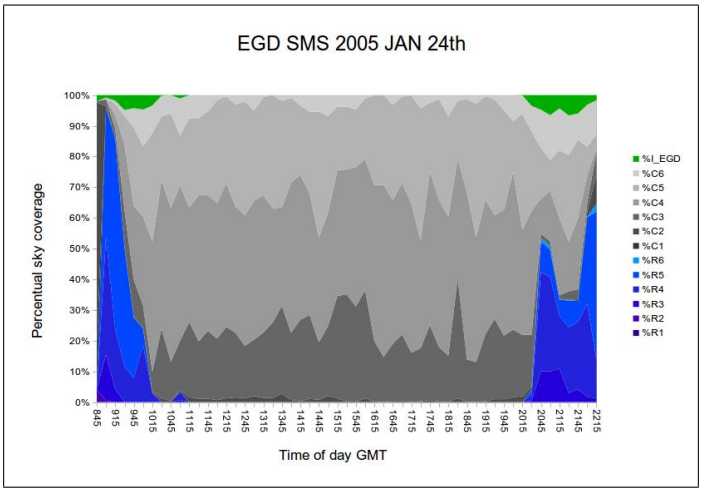


(iii) MAHA.

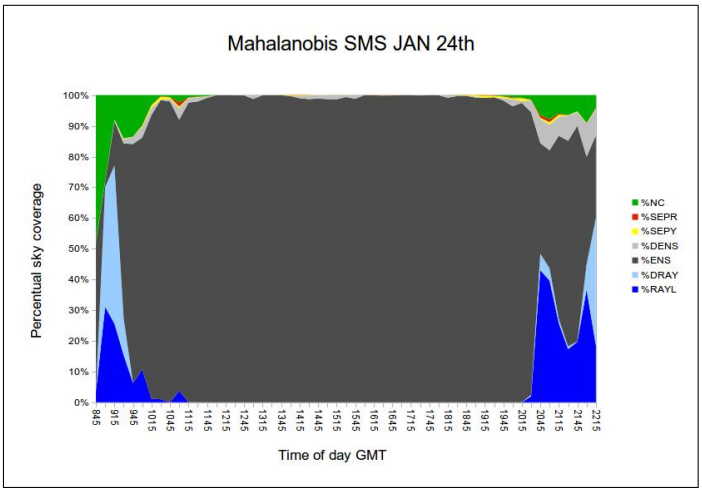
Figure B.23 - SMS daily coverage results for LONG, EGD and MAHA classification methods obtained on January 23, 2005.



(i) LONG

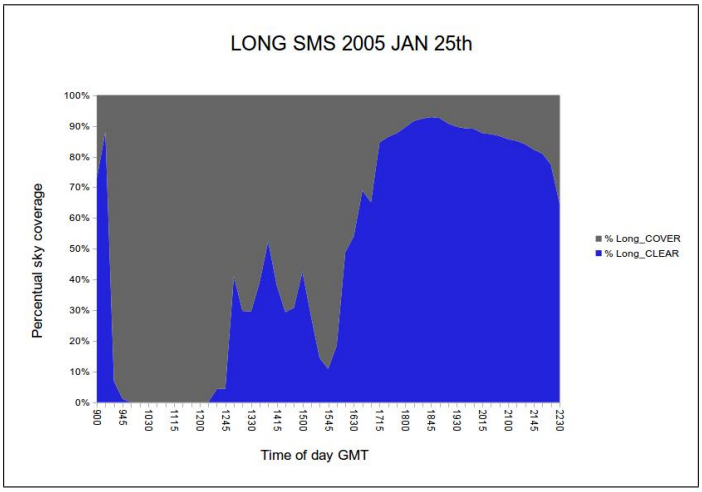


(ii) EGD

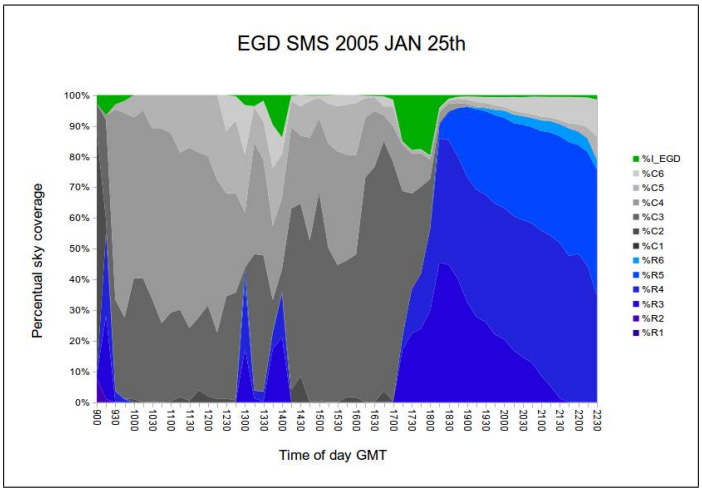


(iii) MAHA.

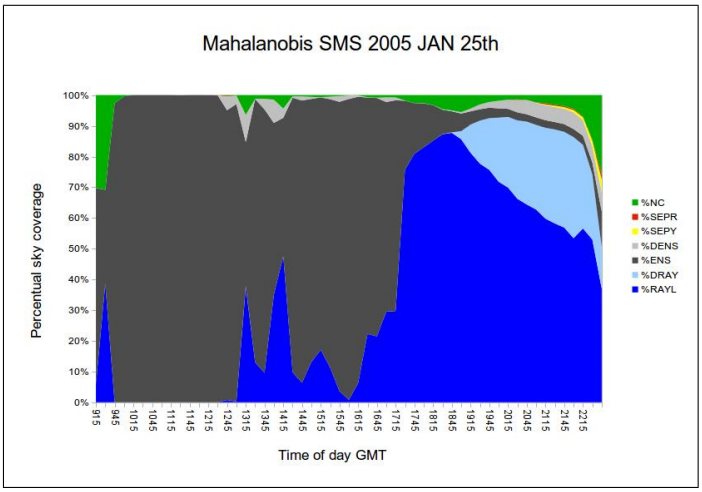
Figure B.24 - SMS daily coverage results for LONG, EGD and MAHA classification methods obtained on January 24, 2005.



(i) LONG

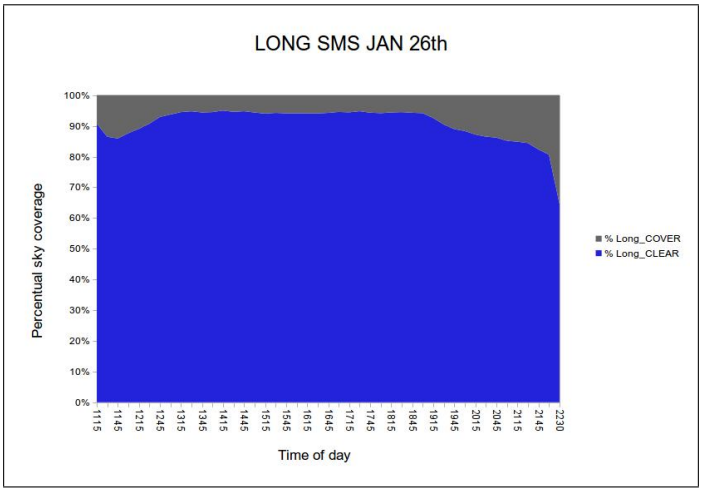


(ii) EGD

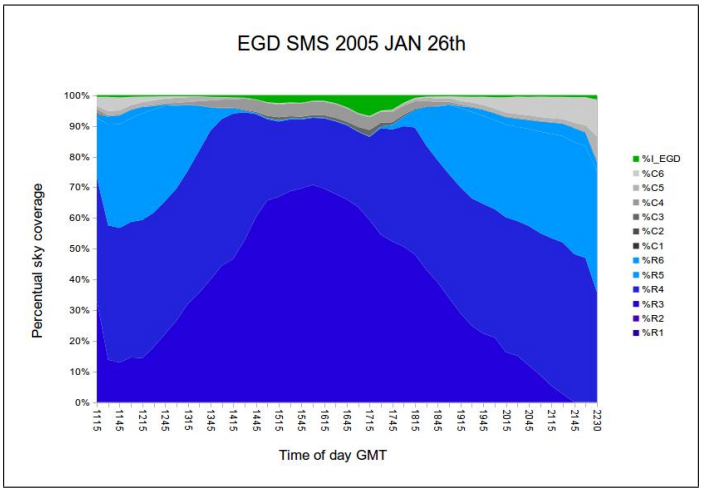


(iii) MAHA.

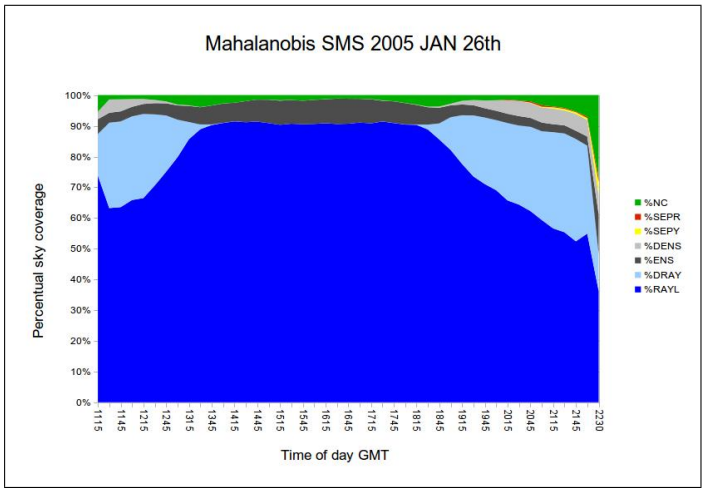
Figure B.25 - SMS daily coverage results for LONG, EGD and MAHA classification methods obtained on January 25, 2005.



(i) LONG

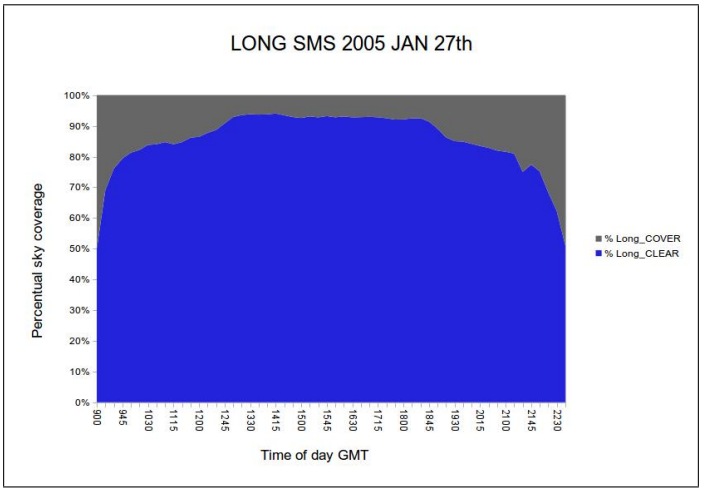


(ii) EGD

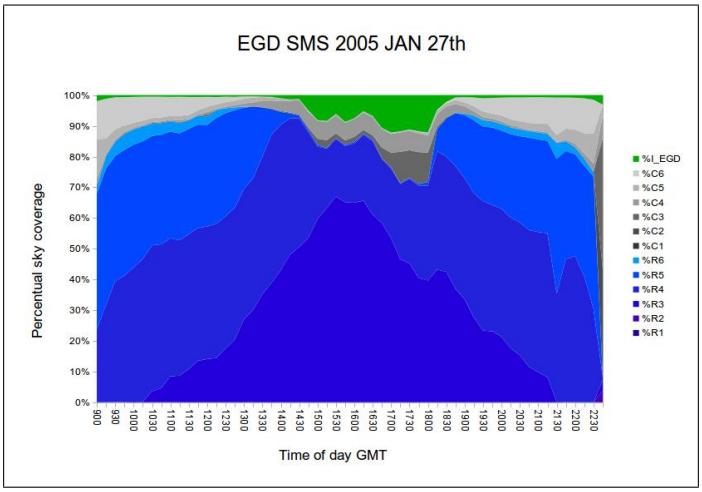


(iii) MAHA.

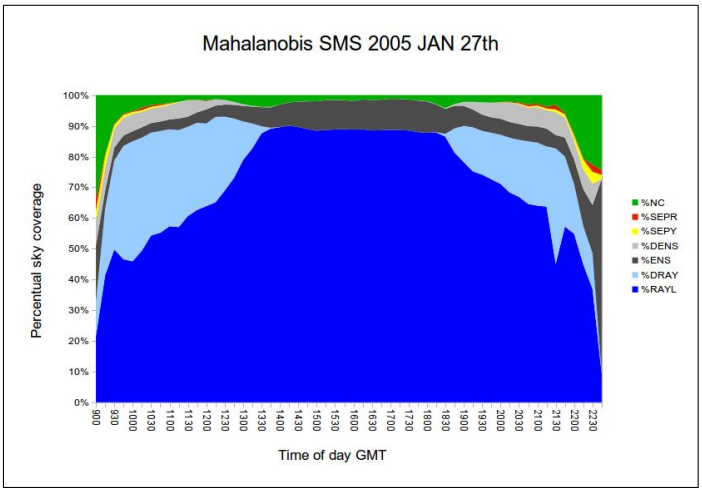
Figure B.26 - SMS daily coverage results for LONG, EGD and MAHA classification methods obtained on January 26, 2005.



(i) LONG

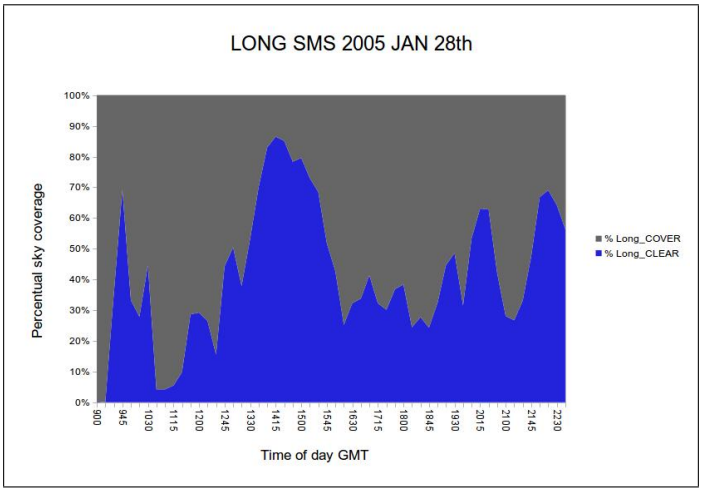


(ii) EGD

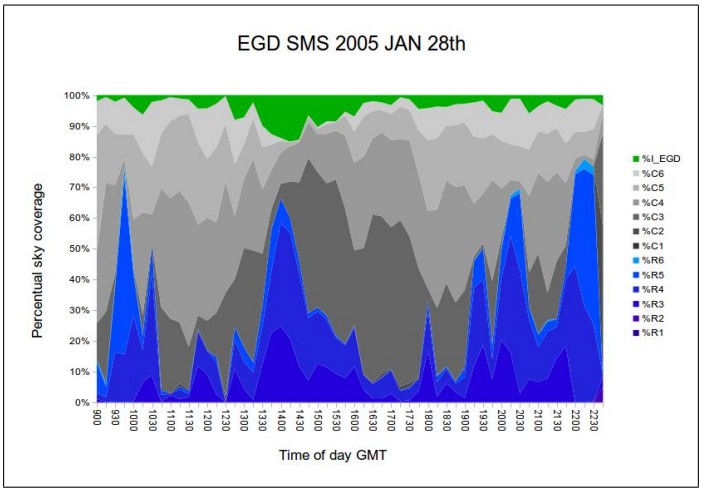


(iii) MAHA.

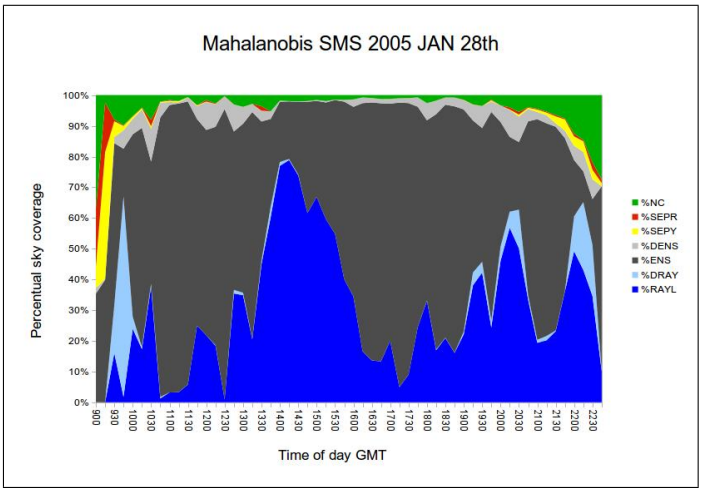
Figure B.27 - SMS daily coverage results for LONG, EGD and MAHA classification methods obtained on January 27, 2005.



(i) LONG

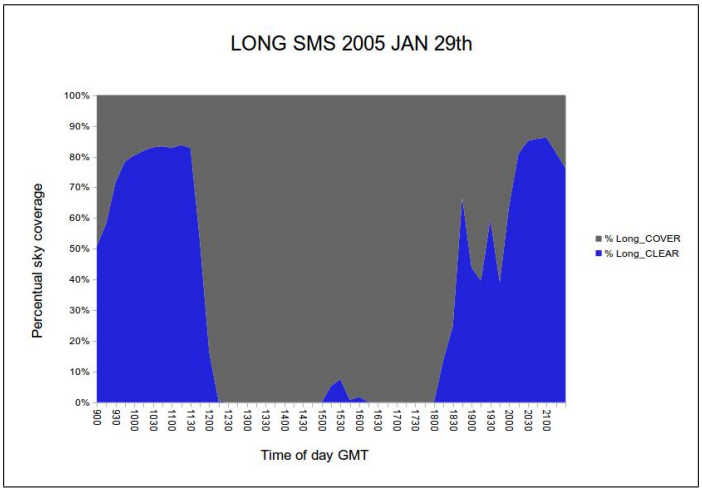


(ii) EGD

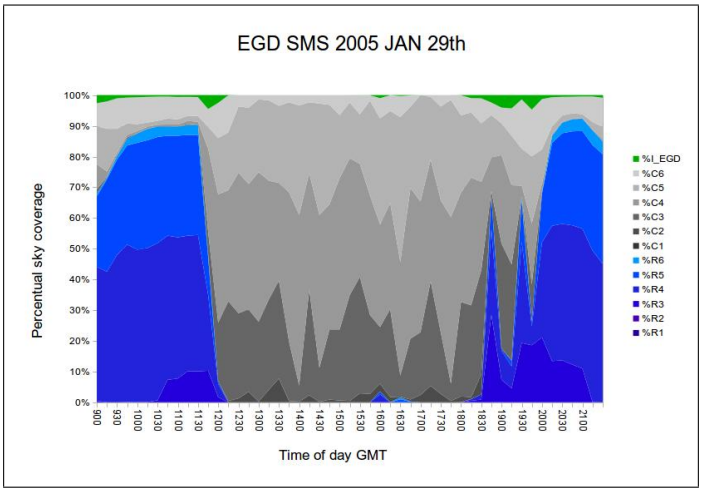


(iii) MAHA.

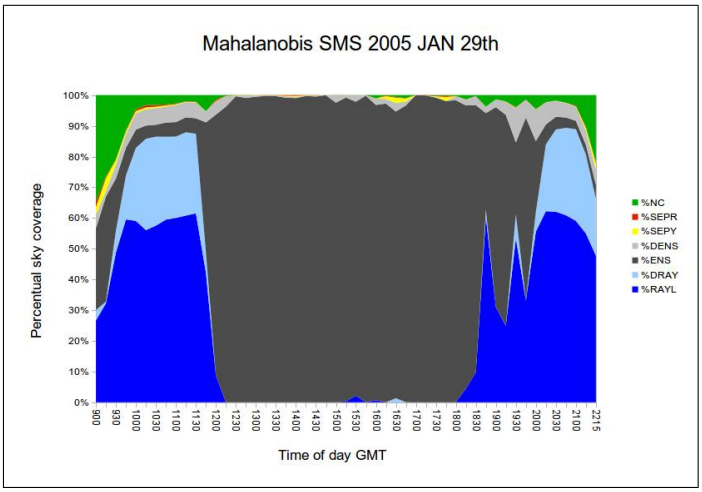
Figure B.28 - SMS daily coverage results for LONG, EGD and MAHA classification methods obtained on January 28, 2005.



(i) LONG

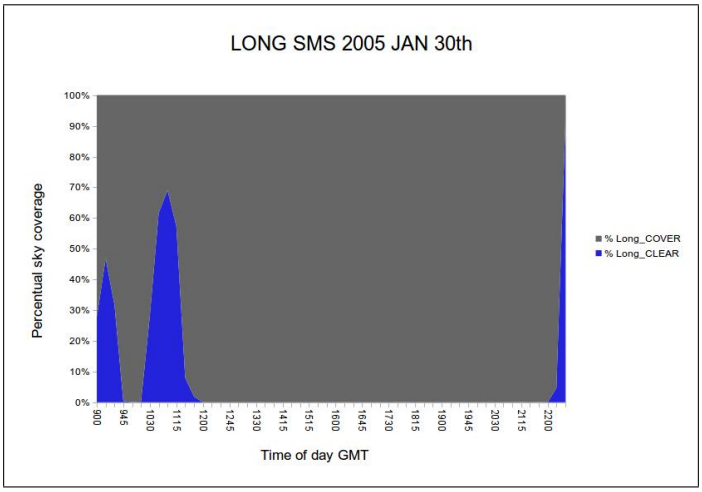


(ii) EGD

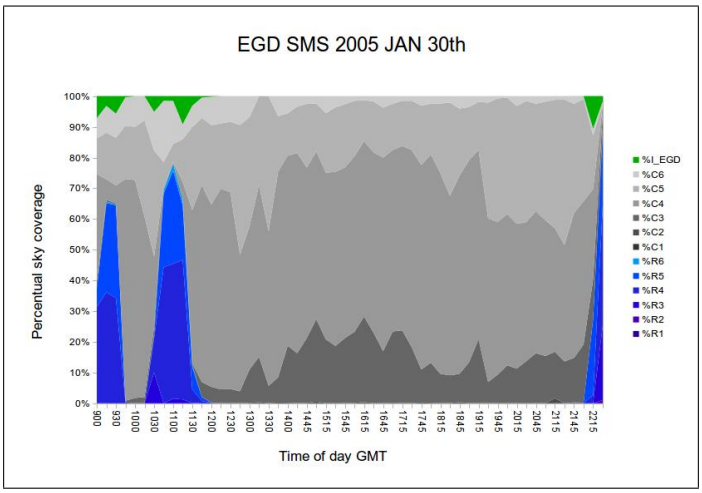


(iii) MAHA.

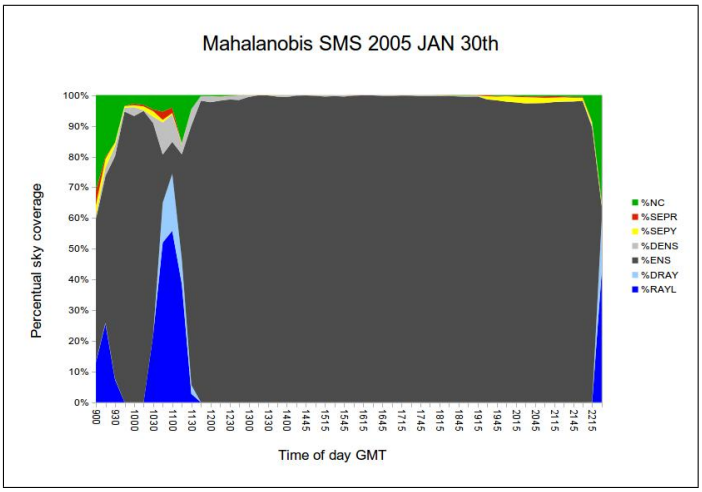
Figure B.29 - SMS daily coverage results for LONG, EGD and MAHA classification methods obtained on January 29, 2005.



(i) LONG

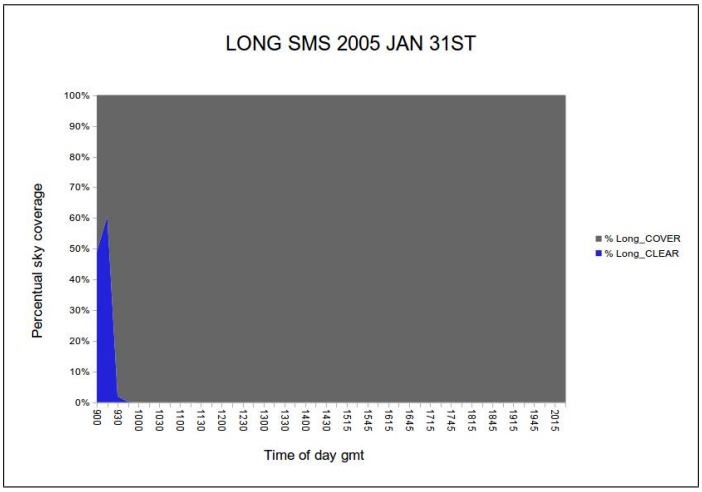


(ii) EGD

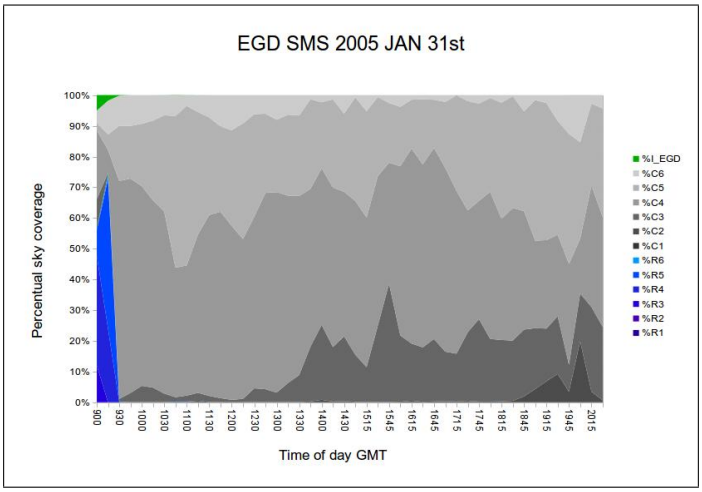


(iii) MAHA.

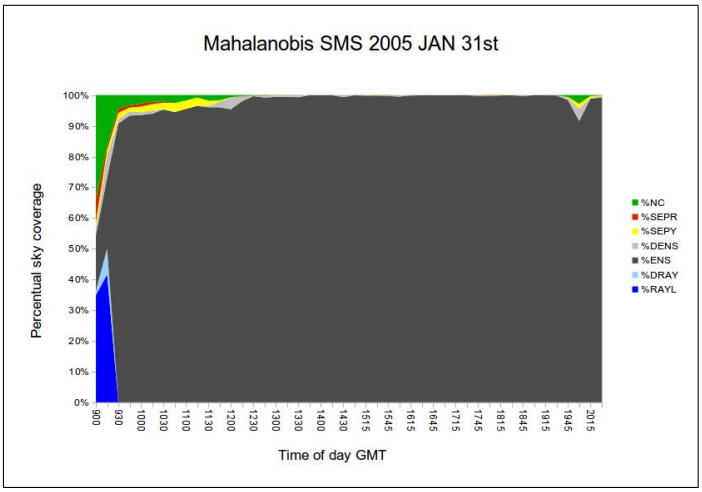
Figure B.30 - SMS daily coverage results for LONG, EGD and MAHA classification methods obtained on January 30, 2005.



(i) LONG



(ii) EGD



(iii) MAHA.

Figure B.31 - SMS daily coverage results for LONG, EGD and MAHA classification methods obtained on January 31, 2005.

Appendix C - SURFACE SOLAR RADIATION AND DERIVED DATA

Solar data for January of 2005 São Martinho da Serra. Table headers are related to the following data and parameters:

min: Minute of the day (UTC).

toa: top of atmosphere radiation, estimated.

glo: Global Shortwave Radiation horizontal.

dirH: Direct shortwave radiation horizontal.

diff: Diffuse Shortwave Radiation horizontal.

CF: Cloud Force.

df: diffuse fraction.

kt: clearness index.

op: Opacity.

cos: Cosine of zenith angle θ_z of Min.

Table C.1 - Solar radiation and derived data for SMS jan 1^{st} 2005.

min	toa	glo	dirH	diff	CF	df	kt	op	cos
480	0.00	-0.24	-0.48	-0.89	-0.23	0.000	0.000	0.000	-0.126
495	0.00	-0.78	-0.03	-0.72	-0.75	0.000	0.000	0.000	-0.076
510	0.00	0.73	-0.01	1.08	0.70	0.000	0.000	0.000	-0.025
525	37.85	7.00	0.01	7.51	6.76	1.000	0.185	0.815	0.027
540	112.30	29.85	14.87	27.71	28.84	0.928	0.266	0.734	0.079
555	187.37	42.46	47.15	38.36	41.02	0.903	0.227	0.773	0.133
570	262.74	66.06	98.75	62.69	63.82	0.949	0.251	0.749	0.186
585	338.09	154.70	85.75	94.00	149.47	0.608	0.458	0.542	0.239
600	413.09	208.00	78.04	139.90	200.96	0.673	0.504	0.496	0.292
615	487.42	179.90	51.06	137.30	173.81	0.763	0.369	0.631	0.345
630	560.77	265.90	114.35	157.40	256.90	0.592	0.474	0.526	0.397
645	632.82	344.30	233.46	120.00	332.65	0.349	0.544	0.456	0.448
660	703.26	451.00	277.80	180.40	435.74	0.400	0.641	0.359	0.497
675	771.79	263.90	81.17	187.50	254.97	0.710	0.342	0.658	0.546
690	838.11	608.30	493.20	125.70	587.72	0.207	0.726	0.274	0.593
705	901.95	663.50	558.84	113.20	641.05	0.171	0.736	0.264	0.638
720	963.03	719.00	613.72	113.40	694.67	0.158	0.747	0.253	0.681
735	1021.09	768.00	662.99	108.60	742.01	0.141	0.752	0.248	0.722
750	1075.88	823.00	704.65	120.20	795.15	0.146	0.765	0.235	0.761
765	1127.16	886.00	750.20	134.90	856.02	0.152	0.786	0.214	0.797
780	1174.72	871.00	707.07	157.50	841.53	0.181	0.741	0.259	0.831
795	1218.35	823.00	583.22	232.90	795.15	0.283	0.676	0.324	0.862
810	1257.86	873.00	620.73	241.20	843.46	0.276	0.694	0.306	0.890
825	1293.09	1005.00	813.08	178.50	971.00	0.178	0.777	0.223	0.915
840	1323.89	1050.00	869.90	163.50	1014.47	0.156	0.793	0.207	0.936
855	1350.12	1064.00	854.66	191.20	1028.00	0.180	0.788	0.212	0.955
870	1371.66	847.00	559.30	272.90	818.34	0.322	0.617	0.383	0.970
885	1388.44	1063.00	817.05	224.90	1027.03	0.212	0.766	0.234	0.982
900	1400.37	1143.00	965.71	153.70	1104.33	0.134	0.816	0.184	0.990
915	1407.41	1132.00	981.52	124.70	1093.70	0.110	0.804	0.196	0.995
930	1409.52	1120.00	981.00	111.70	1082.10	0.100	0.795	0.205	0.997
945	1406.70	1110.00	968.09	111.20	1072.44	0.100	0.789	0.211	0.995
960	1398.96	1121.00	966.72	119.40	1083.07	0.107	0.801	0.199	0.989
975	1386.33	1131.00	954.07	142.50	1092.73	0.126	0.816	0.184	0.981
990	1368.86	808.00	578.69	201.90	780.66	0.250	0.590	0.410	0.968
1005	1346.63	929.00	716.26	173.90	897.57	0.187	0.690	0.310	0.952
1020	1319.74	1013.00	799.03	173.20	978.73	0.171	0.768	0.232	0.933
1035	1288.30	1015.00	804.60	164.10	980.66	0.162	0.788	0.212	0.911
1050	1252.45	1005.00	859.27	97.40	971.00	0.097	0.802	0.198	0.886
1065	1212.33	965.00	825.75	93.10	932.35	0.096	0.796	0.204	0.857
1080	1168.13	945.00	798.94	98.40	913.03	0.104	0.809	0.191	0.826
1095	1120.02	743.00	578.29	129.10	717.86	0.174	0.663	0.337	0.792
1110	1068.22	794.00	650.53	98.90	767.14	0.125	0.743	0.257	0.756
1125	1012.95	819.00	679.20	89.90	791.29	0.110	0.809	0.191	0.716
1140	954.44	757.00	631.87	76.40	731.39	0.101	0.793	0.207	0.675
1155	892.95	698.30	578.52	72.30	674.67	0.104	0.782	0.218	0.632
1170	828.73	644.00	525.20	70.50	622.21	0.109	0.777	0.223	0.586
1185	762.07	589.80	473.25	70.20	569.84	0.119	0.774	0.226	0.539
1200	693.25	530.70	413.84	70.40	512.74	0.133	0.766	0.234	0.490
1215	622.56	476.70	360.63	70.90	460.57	0.149	0.766	0.234	0.440
1230	550.30	409.90	295.03	72.50	396.03	0.177	0.745	0.255	0.389
1245	476.79	362.90	249.55	71.90	350.62	0.198	0.761	0.239	0.337
1260	402.34	298.20	192.83	67.78	288.11	0.227	0.741	0.259	0.285
1275	327.27	206.30	116.06	63.20	199.32	0.306	0.630	0.370	0.231
1290	251.91	127.40	50.81	61.63	123.09	0.484	0.506	0.494	0.178
1305	176.56	92.70	24.59	58.79	89.56	0.634	0.525	0.475	0.125
1320	101.56	52.39	4.77	45.89	50.62	0.876	0.516	0.484	0.072
1335	27.23	25.18	0.02	26.83	24.33	1.000	0.925	0.075	0.019
1350	0.00	5.22	0.08	6.71	5.05	0.000	0.000	0.000	-0.033
1365	0.00	-1.73	0.22	-0.48	-1.67	0.000	0.000	0.000	-0.084
1380	0.00	-2.51	0.20	-1.34	-2.43	0.000	0.000	0.000	-0.133
1395	0.00	-2.36	0.24	-1.37	-2.28	0.000	0.000	0.000	-0.182
1410	0.00	-2.45	0.34	-1.36	-2.37	0.000	0.000	0.000	-0.229
1425	0.00	-2.35	0.29	-1.38	-2.27	0.000	0.000	0.000	-0.274

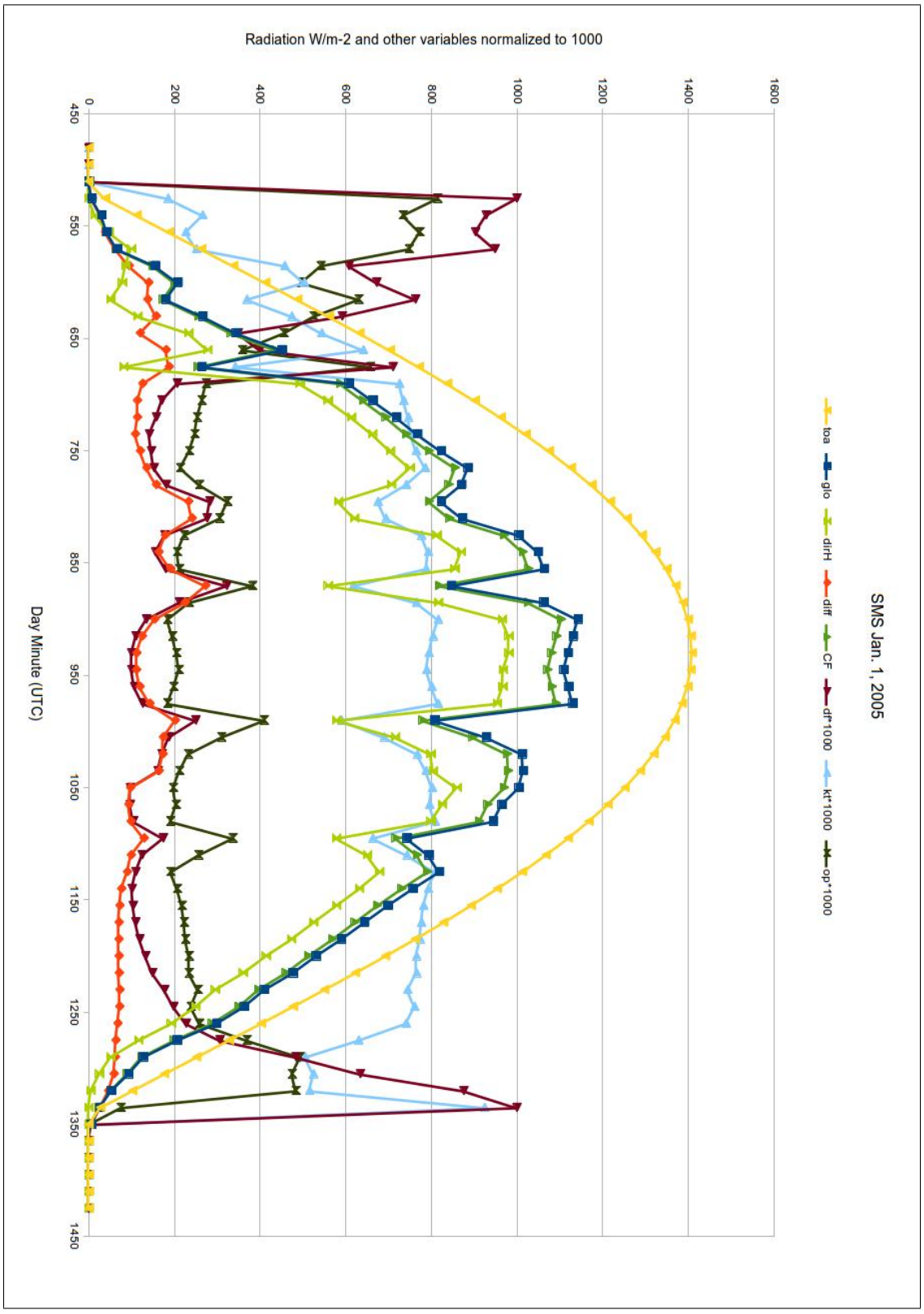


Figure C.1 - Graphic illustrating data measured and calculated on SMS January 1^{st} 2005.

Table C.2 - Solar radiation and derived data for SMS jan 2^{nd} 2005.

min	toa	glo	dirH	diff	CF	df	kt	op	cos
480	0.00	(1.41)	-.01	-1.01	-1.36	0.000	0.000	0.000	-0.126
495	0.00	(1.30)	.00	-.90	-1.26	0.000	0.000	0.000	-0.076
510	0.00	0.80	-.02	1.30	.77	0.000	0.000	0.000	-0.025
525	37.85	3.34	.03	4.10	3.22	1.000	0.088	0.912	0.027
540	112.30	17.96	14.34	19.50	17.35	1.000	0.160	0.840	0.079
555	187.37	37.14	.48	38.39	35.88	1.000	0.198	0.802	0.133
570	262.74	63.11	.20	64.46	60.97	1.000	0.240	0.760	0.186
585	338.09	80.10	1.00	81.20	77.39	1.000	0.237	0.763	0.239
600	413.09	96.10	8.64	91.20	92.85	0.949	0.233	0.767	0.292
615	487.42	104.50	.84	106.40	100.96	1.000	0.214	0.786	0.345
630	560.77	135.70	42.40	97.00	131.11	0.715	0.242	0.758	0.397
645	632.82	416.60	334.35	94.50	402.50	0.227	0.658	0.342	0.448
660	703.26	473.80	385.99	99.30	457.77	0.210	0.674	0.326	0.497
675	771.79	559.80	432.88	136.30	540.86	0.243	0.725	0.275	0.546
690	838.11	707.00	441.04	265.40	683.08	0.375	0.844	0.156	0.593
705	901.95	674.20	314.44	357.20	651.39	0.530	0.747	0.253	0.638
720	963.03	648.60	241.94	399.10	626.65	0.615	0.673	0.327	0.681
735	1021.09	433.30	97.93	334.00	418.64	0.771	0.424	0.576	0.722
750	1075.88	678.80	335.28	340.20	655.83	0.501	0.631	0.369	0.761
765	1127.16	959.00	551.85	394.00	926.55	0.411	0.851	0.149	0.797
780	1174.72	1054.00	476.59	561.10	1018.34	0.532	0.897	0.103	0.831
795	1218.35	628.00	76.00	534.90	606.75	0.852	0.515	0.485	0.862
810	1257.86	683.20	128.65	537.70	660.08	0.787	0.543	0.457	0.890
825	1293.09	669.50	118.44	533.80	646.85	0.797	0.518	0.482	0.915
840	1323.89	539.40	66.20	466.70	521.15	0.865	0.407	0.593	0.936
855	1350.12	907.00	476.03	401.40	876.31	0.443	0.672	0.328	0.955
870	1371.66	1102.00	548.05	521.20	1064.71	0.473	0.803	0.197	0.970
885	1388.44	624.70	168.81	441.20	603.56	0.706	0.450	0.550	0.982
900	1400.37	1267.00	873.60	362.00	1224.13	0.286	0.905	0.095	0.990
915	1407.41	1250.00	909.84	293.00	1207.71	0.234	0.888	0.112	0.995
930	1409.52	1162.00	926.16	195.20	1122.68	0.168	0.824	0.176	0.997
945	1406.70	1196.00	953.16	201.60	1155.53	0.169	0.850	0.150	0.995
960	1398.96	366.00	24.38	340.30	353.62	0.930	0.262	0.738	0.989
975	1386.33	1170.00	752.07	359.20	1130.41	0.307	0.844	0.156	0.981
990	1368.86	1167.00	864.59	260.00	1127.51	0.223	0.853	0.147	0.968
1005	1346.63	848.00	399.08	417.50	819.31	0.492	0.630	0.370	0.952
1020	1319.74	461.10	6.46	450.90	445.50	0.978	0.349	0.651	0.933
1035	1288.30	575.80	16.45	559.50	556.32	0.972	0.447	0.553	0.911
1050	1252.45	887.00	466.75	381.00	856.99	0.430	0.708	0.292	0.886
1065	1212.33	936.00	570.48	324.20	904.33	0.346	0.772	0.228	0.857
1080	1168.13	818.00	490.27	287.40	790.32	0.351	0.700	0.300	0.826
1095	1120.02	389.40	178.56	191.60	376.22	0.492	0.348	0.652	0.792
1110	1068.22	833.00	537.19	252.50	804.82	0.303	0.780	0.220	0.756
1125	1012.95	411.00	72.36	319.10	397.09	0.776	0.406	0.594	0.716
1140	954.44	822.00	480.65	295.10	794.19	0.359	0.861	0.139	0.675
1155	892.95	811.00	500.21	259.10	783.56	0.319	0.908	0.092	0.632
1170	828.73	583.70	232.59	318.20	563.95	0.545	0.704	0.296	0.586
1185	762.07	72.00	-8.19	77.10	69.56	1.000	0.094	0.906	0.539
1200	693.25	12.57	-1.72	15.36	12.14	1.000	0.018	0.982	0.490
1215	622.56	10.95	-8.61	15.45	10.58	1.000	0.018	0.982	0.440
1230	550.30	14.35	.95	12.87	13.86	0.897	0.026	0.974	0.389
1245	476.79	12.26	.06	12.19	11.85	0.994	0.026	0.974	0.337
1260	402.34	7.79	.87	7.39	7.53	0.949	0.019	0.981	0.285
1275	327.27	7.16	.44	7.03	6.92	0.982	0.022	0.978	0.231
1290	251.91	7.15	1.14	6.99	6.91	0.977	0.028	0.972	0.178
1305	176.56	5.33	.00	5.03	5.15	0.944	0.030	0.970	0.125
1320	101.56	3.65	.17	3.50	3.53	0.957	0.036	0.964	0.072
1335	27.23	2.60	.01	2.08	2.51	0.801	0.096	0.904	0.019
1350	0.00	4.94	-.01	4.15	4.77	0.000	0.000	0.000	-0.033
1365	0.00	0.72	.43	.36	.70	0.000	0.000	0.000	-0.084
1380	0.00	(0.32)	-.13	-.57	-.31	0.000	0.000	0.000	-0.133
1395	0.00	(0.29)	-.23	-.95	-.28	0.000	0.000	0.000	-0.182
1410	0.00	0.31	-.58	-.58	.30	0.000	0.000	0.000	-0.229
1425	0.00	0.17	-.35	-.43	.17	0.000	0.000	0.000	-0.274

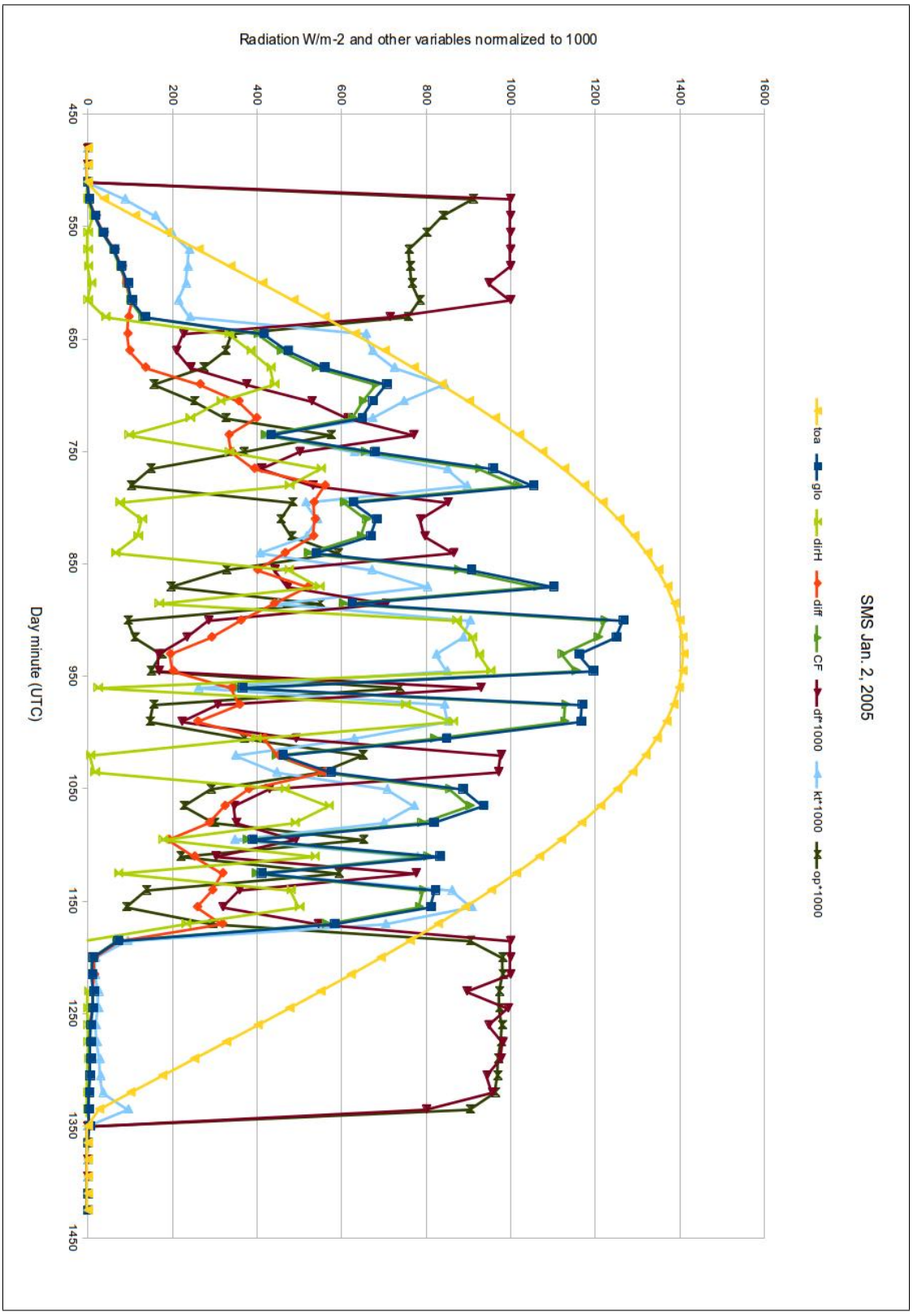


Figure C.2 - Graphic illustrating data measured and calculated on SMS January 2^{nd} 2005.

Table C.3 - Solar radiation and derived data for SMS jan 3^{rd} 2005.

min	toa	glo	dirH	diff	CF	df	kt	op	cos
480	0.00	-0.78	-0.13	-0.65	-0.75	0.000	0.000	0.000	-0.126
495	0.00	-0.77	-0.10	-0.71	-0.74	0.000	0.000	0.000	-0.076
510	0.00	-0.94	-0.01	-0.44	-0.91	0.000	0.000	0.000	-0.025
525	37.85	-1.48	0.00	-0.39	-1.43	0.266	-0.039	1.000	0.027
540	112.30	-0.15	0.08	0.58	-0.14	-3.893	-0.001	1.000	0.079
555	187.37	4.66	0.14	5.29	4.50	1.000	0.025	0.975	0.133
570	262.74	21.72	0.32	22.17	20.99	1.000	0.083	0.917	0.186
585	338.09	78.30	0.40	78.30	75.65	1.000	0.232	0.768	0.239
600	413.09	112.70	2.59	110.10	108.89	0.977	0.273	0.727	0.292
615	487.42	339.90	174.55	175.70	328.40	0.517	0.697	0.303	0.345
630	560.77	166.30	6.27	164.30	160.67	0.988	0.297	0.703	0.397
645	632.82	519.10	316.44	215.60	501.54	0.415	0.820	0.180	0.448
660	703.26	150.80	0.25	152.40	145.70	1.000	0.214	0.786	0.497
675	771.79	197.00	16.41	180.40	190.33	0.916	0.255	0.745	0.546
690	838.11	244.80	6.75	238.40	236.52	0.974	0.292	0.708	0.593
705	901.95	255.50	0.81	254.60	246.86	0.996	0.283	0.717	0.638
720	963.03	368.00	18.30	349.00	355.55	0.948	0.382	0.618	0.681
735	1021.09	395.10	6.32	389.90	381.73	0.987	0.387	0.613	0.722
750	1075.88	323.80	-1.56	321.90	312.84	0.994	0.301	0.699	0.761
765	1127.16	438.40	5.00	433.30	423.57	0.988	0.389	0.611	0.797
780	1174.72	502.90	5.18	495.10	485.88	0.984	0.428	0.572	0.831
795	1218.35	504.70	3.92	494.30	487.62	0.979	0.414	0.586	0.862
810	1257.86	440.90	1.79	433.50	425.98	0.983	0.351	0.649	0.890
825	1293.09	293.50	-3.46	291.60	283.57	0.994	0.227	0.773	0.915
840	1323.89	350.00	2.98	344.80	338.16	0.985	0.264	0.736	0.936
855	1350.12	974.00	264.52	681.10	941.04	0.699	0.721	0.279	0.955
870	1371.66	687.90	83.92	596.80	664.62	0.868	0.502	0.498	0.970
885	1388.44	989.00	259.85	698.60	955.54	0.706	0.712	0.288	0.982
900	1400.37	566.60	-1.53	550.60	547.43	0.972	0.405	0.595	0.990
915	1407.41	940.00	379.77	533.40	908.20	0.567	0.668	0.332	0.995
930	1409.52	688.20	42.01	621.90	664.91	0.904	0.488	0.512	0.997
945	1406.70	178.30	-1.65	177.60	172.27	0.996	0.127	0.873	0.995
960	1398.96	179.80	-0.63	177.10	173.72	0.985	0.129	0.871	0.989
975	1386.33	55.90	-11.30	56.93	54.01	1.000	0.040	0.960	0.981
990	1368.86	174.20	3.07	170.80	168.31	0.980	0.127	0.873	0.968
1005	1346.63	545.60	108.20	422.20	527.14	0.774	0.405	0.595	0.952
1020	1319.74	333.50	5.54	329.60	322.22	0.988	0.253	0.747	0.933
1035	1288.30	205.80	2.11	203.90	198.84	0.991	0.160	0.840	0.911
1050	1252.45	439.00	1.53	431.00	424.15	0.982	0.351	0.649	0.886
1065	1212.33	1002.00	691.98	262.20	968.10	0.262	0.827	0.173	0.857
1080	1168.13	1044.00	750.20	244.30	1008.68	0.234	0.894	0.106	0.826
1095	1120.02	154.70	-3.17	155.40	149.47	1.000	0.138	0.862	0.792
1110	1068.22	99.80	-0.86	100.80	96.42	1.000	0.093	0.907	0.756
1125	1012.95	74.20	-0.16	75.20	71.69	1.000	0.073	0.927	0.716
1140	954.44	98.40	0.14	99.10	95.07	1.000	0.103	0.897	0.675
1155	892.95	88.10	-0.16	89.40	85.12	1.000	0.099	0.901	0.632
1170	828.73	66.68	-0.13	67.87	64.42	1.000	0.080	0.920	0.586
1185	762.07	47.94	-0.80	49.83	46.32	1.000	0.063	0.937	0.539
1200	693.25	33.28	-0.52	35.37	32.15	1.000	0.048	0.952	0.490
1215	622.56	36.00	-0.11	37.68	34.78	1.000	0.058	0.942	0.440
1230	550.30	61.04	-0.11	62.14	58.97	1.000	0.111	0.889	0.389
1245	476.79	77.50	-1.59	79.00	74.88	1.000	0.163	0.837	0.337
1260	402.34	51.28	-0.48	52.75	49.54	1.000	0.127	0.873	0.285
1275	327.27	29.41	-0.45	31.05	28.41	1.000	0.090	0.910	0.231
1290	251.91	16.62	-0.68	18.40	16.06	1.000	0.066	0.934	0.178
1305	176.56	12.21	-0.49	13.15	11.80	1.000	0.069	0.931	0.125
1320	101.56	3.60	-0.12	4.66	3.48	1.000	0.035	0.965	0.072
1335	27.23	0.91	-0.04	1.71	0.88	1.000	0.033	0.967	0.019
1350	0.00	-0.57	0.12	-0.05	-0.56	0.000	0.000	0.000	-0.033
1365	0.00	-1.57	0.18	-0.97	-1.51	0.000	0.000	0.000	-0.084
1380	0.00	-1.80	0.14	-1.10	-1.74	0.000	0.000	0.000	-0.133
1395	0.00	-1.72	0.19	-1.03	-1.66	0.000	0.000	0.000	-0.182
1410	0.00	-1.57	0.14	-0.95	-1.51	0.000	0.000	0.000	-0.229
1425	0.00	-1.42	0.11	-0.88	-1.37	0.000	0.000	0.000	-0.274

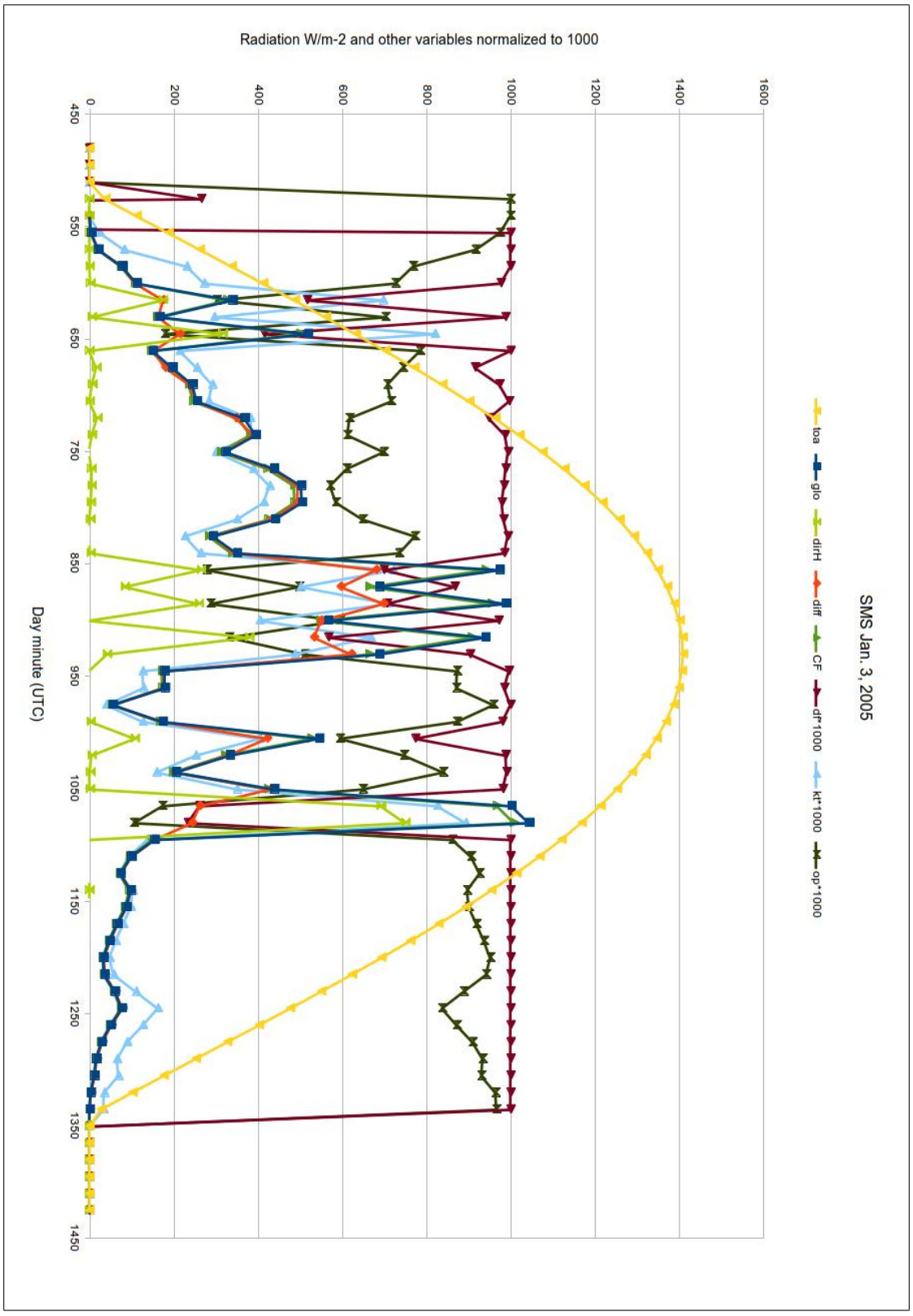


Figure C.3 - Graphic illustrating data measured and calculated on SMS January 3^{rd} 2005.

Table C.4 - Solar radiation and derived data for SMS jan 4^{th} 2005.

min	toa	glo	dirH	diff	CF	df	kt	op	cos
480	0.00	-1.38	0.00	-0.93	-1.34	0.000	0.000	0.000	-0.126
495	0.00	-1.27	-0.02	-0.86	-1.22	0.000	0.000	0.000	-0.076
510	0.00	-0.23	-0.01	0.21	-0.23	0.000	0.000	0.000	-0.025
525	37.85	16.93	0.03	17.96	16.36	1.000	0.447	0.553	0.027
540	112.30	35.10	18.78	36.88	33.91	1.000	0.313	0.687	0.079
555	187.37	58.95	39.69	61.22	56.96	1.000	0.315	0.685	0.133
570	262.74	84.40	86.23	86.60	81.54	1.000	0.321	0.679	0.186
585	338.09	183.20	8.09	183.90	177.00	1.000	0.542	0.458	0.239
600	413.09	169.80	2.19	170.20	164.05	1.000	0.411	0.589	0.292
615	487.42	101.60	0.99	102.90	98.16	1.000	0.208	0.792	0.345
630	560.77	353.20	288.75	85.10	341.25	0.241	0.630	0.370	0.397
645	632.82	398.10	345.98	76.90	384.63	0.193	0.629	0.371	0.448
660	703.26	452.80	404.39	69.69	437.48	0.154	0.644	0.356	0.497
675	771.79	508.30	460.18	68.08	491.10	0.134	0.659	0.341	0.546
690	838.11	563.90	513.95	67.35	544.82	0.119	0.673	0.327	0.593
705	901.95	617.30	567.77	66.05	596.41	0.107	0.684	0.316	0.638
720	963.03	668.00	613.04	67.21	645.40	0.101	0.694	0.306	0.681
735	1021.09	719.00	662.27	67.20	694.67	0.093	0.704	0.296	0.722
750	1075.88	767.00	702.37	71.20	741.05	0.093	0.713	0.287	0.761
765	1127.16	703.00	618.66	96.00	679.21	0.137	0.624	0.376	0.797
780	1174.72	388.10	138.42	255.70	374.97	0.659	0.330	0.670	0.831
795	1218.35	338.50	13.68	328.80	327.05	0.971	0.278	0.722	0.862
810	1257.86	471.30	103.83	388.00	455.35	0.823	0.375	0.625	0.890
825	1293.09	426.80	12.90	408.60	412.36	0.957	0.330	0.670	0.915
840	1323.89	1006.00	619.70	331.30	971.96	0.329	0.760	0.240	0.936
855	1350.12	284.30	5.50	280.90	274.68	0.988	0.211	0.789	0.955
870	1371.66	421.00	35.74	377.90	406.76	0.898	0.307	0.693	0.970
885	1388.44	472.10	56.86	386.30	456.13	0.818	0.340	0.660	0.982
900	1400.37	154.60	-4.82	155.40	149.37	1.000	0.110	0.890	0.990
915	1407.41	210.70	-3.15	207.00	203.57	0.982	0.150	0.850	0.995
930	1409.52	344.30	1.27	334.90	332.65	0.973	0.244	0.756	0.997
945	1406.70	393.50	1.61	382.50	380.19	0.972	0.280	0.720	0.995
960	1398.96	341.20	4.65	332.30	329.66	0.974	0.244	0.756	0.989
975	1386.33	347.00	6.79	337.10	335.26	0.971	0.250	0.750	0.981
990	1368.86	473.30	17.33	449.10	457.29	0.949	0.346	0.654	0.968
1005	1346.63	684.80	125.44	534.30	661.63	0.780	0.509	0.491	0.952
1020	1319.74	955.00	543.17	390.60	922.69	0.409	0.724	0.276	0.933
1035	1288.30	1168.00	884.78	243.10	1128.48	0.208	0.907	0.093	0.911
1050	1252.45	1166.00	841.56	284.00	1126.55	0.244	0.931	0.069	0.886
1065	1212.33	1079.00	803.46	220.40	1042.49	0.204	0.890	0.110	0.857
1080	1168.13	360.30	4.91	348.20	348.11	0.966	0.308	0.692	0.826
1095	1120.02	714.00	391.50	283.10	689.84	0.396	0.637	0.363	0.792
1110	1068.22	493.70	197.73	258.40	477.00	0.523	0.462	0.538	0.756
1125	1012.95	793.00	551.67	194.10	766.17	0.245	0.783	0.217	0.716
1140	954.44	207.30	49.82	159.60	200.29	0.770	0.217	0.783	0.675
1155	892.95	298.30	152.34	127.60	288.21	0.428	0.334	0.666	0.632
1170	828.73	647.20	486.51	111.40	625.30	0.172	0.781	0.219	0.586
1185	762.07	586.30	466.24	73.60	566.46	0.126	0.769	0.231	0.539
1200	693.25	534.90	421.19	67.10	516.80	0.125	0.772	0.228	0.490
1215	622.56	473.90	364.59	63.78	457.87	0.135	0.761	0.239	0.440
1230	550.30	415.50	310.21	61.72	401.44	0.149	0.755	0.245	0.389
1245	476.79	360.00	256.63	60.19	347.82	0.167	0.755	0.245	0.337
1260	402.34	296.10	201.20	55.94	286.08	0.189	0.736	0.264	0.285
1275	327.27	240.00	154.63	49.29	231.88	0.205	0.733	0.267	0.231
1290	251.91	184.10	108.01	43.61	177.87	0.237	0.731	0.269	0.178
1305	176.56	130.70	65.79	37.45	126.28	0.287	0.740	0.260	0.125
1320	101.56	72.60	25.77	29.30	70.14	0.404	0.715	0.285	0.072
1335	27.23	18.77	4.84	19.59	18.13	1.000	0.689	0.311	0.019
1350	0.00	7.64	-2.84	8.76	7.38	0.000	0.000	0.000	-0.033
1365	0.00	-0.05	0.40	1.25	-0.05	0.000	0.000	0.000	-0.084
1380	0.00	-2.06	0.75	-0.82	-1.99	0.000	0.000	0.000	-0.133
1395	0.00	-1.79	0.56	-1.14	-1.73	0.000	0.000	0.000	-0.182
1410	0.00	-2.02	0.43	-1.11	-1.95	0.000	0.000	0.000	-0.229
1425	0.00	-1.72	0.29	-1.17	-1.67	0.000	0.000	0.000	-0.274

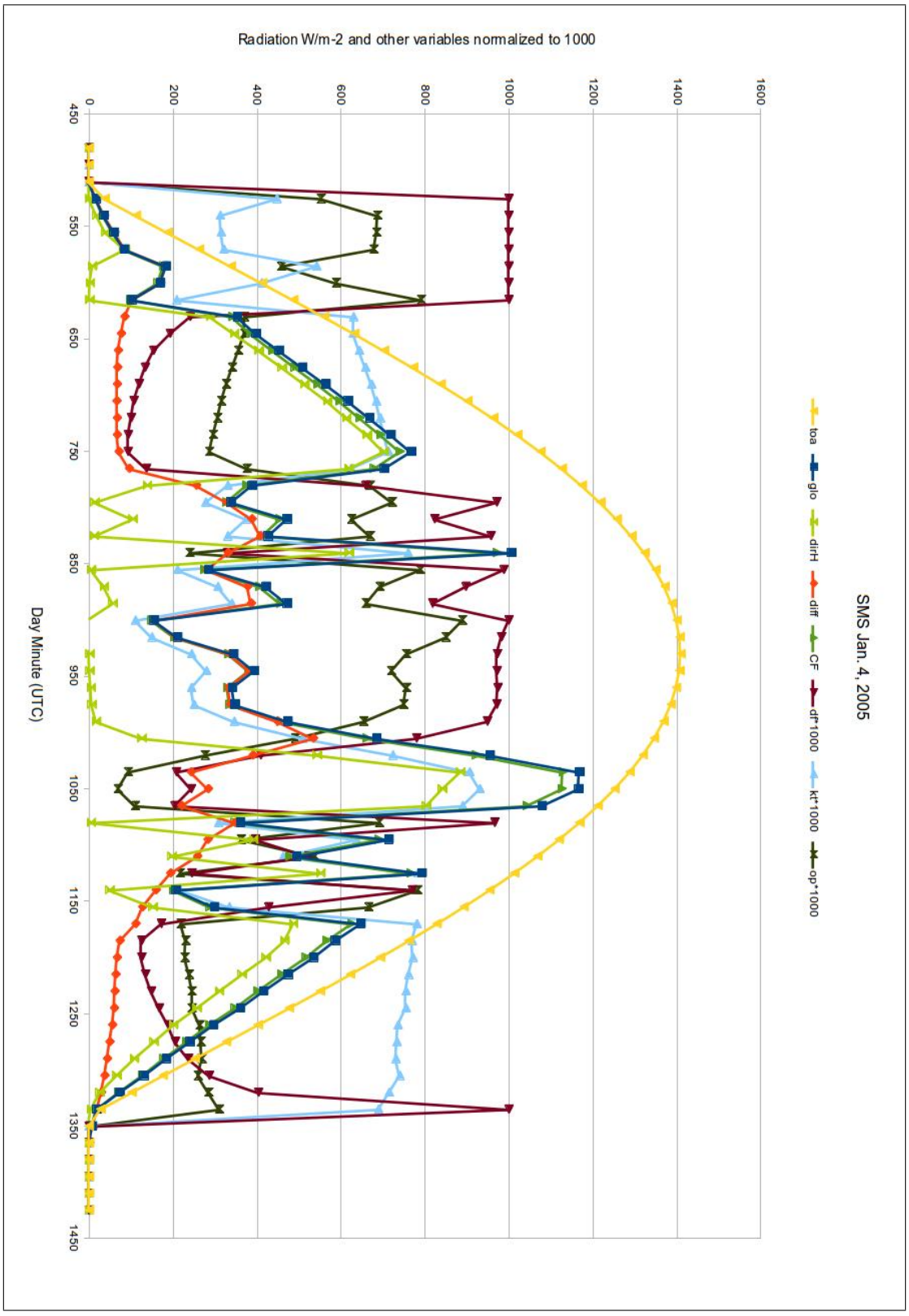


Figure C.4 - Graphic illustrating data measured and calculated on SMS January 4^{th} 2005.

Table C.5 - Solar radiation and derived data for SMS jan 5^{th} 2005.

min	toa	glo	dirH	diff	CF	df	kt	op	cos
480	0.00	-2.13	-0.02	-1.31	-2.06	0.000	0.000	0.000	-0.126
495	0.00	-2.19	0.06	-1.13	-2.12	0.000	0.000	0.000	-0.076
510	0.00	-0.96	0.03	0.00	-0.93	0.000	0.000	0.000	-0.025
525	37.85	4.25	-0.10	6.34	4.10	1.000	0.112	0.888	0.027
540	112.30	14.05	19.10	16.00	13.57	1.000	0.125	0.875	0.079
555	187.37	23.81	53.20	25.53	23.00	1.000	0.127	0.873	0.133
570	262.74	32.11	95.80	33.66	31.02	1.000	0.122	0.878	0.186
585	338.09	117.50	141.56	41.09	113.52	0.350	0.348	0.652	0.239
600	413.09	217.50	191.78	47.43	210.14	0.218	0.527	0.473	0.292
615	487.42	276.30	245.81	52.25	266.95	0.189	0.567	0.433	0.345
630	560.77	335.50	302.23	55.58	324.15	0.166	0.598	0.402	0.397
645	632.82	393.70	357.17	59.03	380.38	0.150	0.622	0.378	0.448
660	703.26	452.70	412.85	61.39	437.38	0.136	0.644	0.356	0.497
675	771.79	510.20	467.27	63.57	492.94	0.125	0.661	0.339	0.546
690	838.11	565.30	519.29	65.78	546.17	0.116	0.674	0.326	0.593
705	901.95	619.60	570.33	67.66	598.64	0.109	0.687	0.313	0.638
720	963.03	670.30	615.08	71.00	647.62	0.106	0.696	0.304	0.681
735	1021.09	721.00	660.83	73.60	696.61	0.102	0.706	0.294	0.722
750	1075.88	772.00	701.61	79.10	745.88	0.102	0.718	0.282	0.761
765	1127.16	820.00	749.40	77.60	792.26	0.095	0.727	0.273	0.797
780	1174.72	865.00	795.15	75.40	835.73	0.087	0.736	0.264	0.831
795	1218.35	911.00	837.60	74.70	880.18	0.082	0.748	0.252	0.862
810	1257.86	945.00	864.77	76.60	913.03	0.081	0.751	0.249	0.890
825	1293.09	978.00	897.22	76.40	944.91	0.078	0.756	0.244	0.915
840	1323.89	1011.00	922.33	81.80	976.79	0.081	0.764	0.236	0.936
855	1350.12	1036.00	941.56	83.80	1000.95	0.081	0.767	0.233	0.955
870	1371.66	1055.00	959.50	80.90	1019.30	0.077	0.769	0.231	0.970
885	1388.44	1078.00	984.98	77.30	1041.53	0.072	0.776	0.224	0.982
900	1400.37	1091.00	994.44	77.90	1054.09	0.071	0.779	0.221	0.990
915	1407.41	1103.00	1003.42	80.40	1065.68	0.073	0.784	0.216	0.995
930	1409.52	1110.00	1001.93	85.40	1072.44	0.077	0.788	0.212	0.997
945	1406.70	1117.00	1002.91	d 89.60	1079.21	0.080	0.794	0.206	0.995
960	1398.96	1110.00	994.42	84.70	1072.44	0.076	0.793	0.207	0.989
975	1386.33	1104.00	989.37	81.50	1066.65	0.074	0.796	0.204	0.981
990	1368.86	1089.00	964.31	83.30	1052.15	0.076	0.796	0.204	0.968
1005	1346.63	1074.00	949.61	86.30	1037.66	0.080	0.798	0.202	0.952
1020	1319.74	1068.00	909.18	116.90	1031.86	0.109	0.809	0.191	0.933
1035	1288.30	1027.00	893.90	87.30	992.25	0.085	0.797	0.203	0.911
1050	1252.45	996.00	869.02	79.50	962.30	0.080	0.795	0.205	0.886
1065	1212.33	961.00	836.04	76.40	928.48	0.080	0.793	0.207	0.857
1080	1168.13	923.00	795.64	78.20	891.77	0.085	0.790	0.210	0.826
1095	1120.02	885.00	758.91	78.00	855.06	0.088	0.790	0.210	0.792
1110	1068.22	848.00	725.32	74.20	819.31	0.088	0.794	0.206	0.756
1125	1012.95	804.00	677.76	74.60	776.80	0.093	0.794	0.206	0.716
1140	954.44	759.00	635.24	71.40	733.32	0.094	0.795	0.205	0.675
1155	892.95	705.00	585.47	68.11	681.15	0.097	0.790	0.210	0.632
1170	828.73	651.40	536.33	64.70	629.36	0.099	0.786	0.214	0.586
1185	762.07	596.20	482.41	62.87	576.03	0.105	0.782	0.218	0.539
1200	693.25	542.60	433.45	58.84	524.24	0.108	0.783	0.217	0.490
1215	622.56	488.50	383.09	55.76	471.97	0.114	0.785	0.215	0.440
1230	550.30	427.40	324.22	55.10	412.94	0.129	0.777	0.223	0.389
1245	476.79	365.50	267.43	53.14	353.13	0.145	0.767	0.233	0.337
1260	402.34	308.20	214.85	50.12	297.77	0.163	0.766	0.234	0.285
1275	327.27	248.40	162.50	46.62	240.00	0.188	0.759	0.241	0.231
1290	251.91	186.80	110.27	42.53	180.48	0.228	0.742	0.258	0.178
1305	176.56	122.30	58.27	39.38	118.16	0.322	0.693	0.307	0.125
1320	101.56	61.88	17.07	33.70	59.79	0.545	0.609	0.391	0.072
1335	27.23	25.15	4.51	26.38	24.30	1.000	0.924	0.076	0.019
1350	0.00	11.78	-3.02	13.41	11.38	0.000	0.000	0.000	-0.033
1365	0.00	2.33	0.37	3.86	2.25	0.000	0.000	0.000	-0.084
1380	0.00	-2.20	0.32	-1.23	-2.12	0.000	0.000	0.000	-0.133
1395	0.00	-2.52	0.40	-1.29	-2.43	0.000	0.000	0.000	-0.182
1410	0.00	-2.67	0.87	-0.98	-2.58	0.000	0.000	0.000	-0.229
1425	0.00	-1.90	0.14	-1.66	-1.84	0.000	0.000	0.000	-0.274

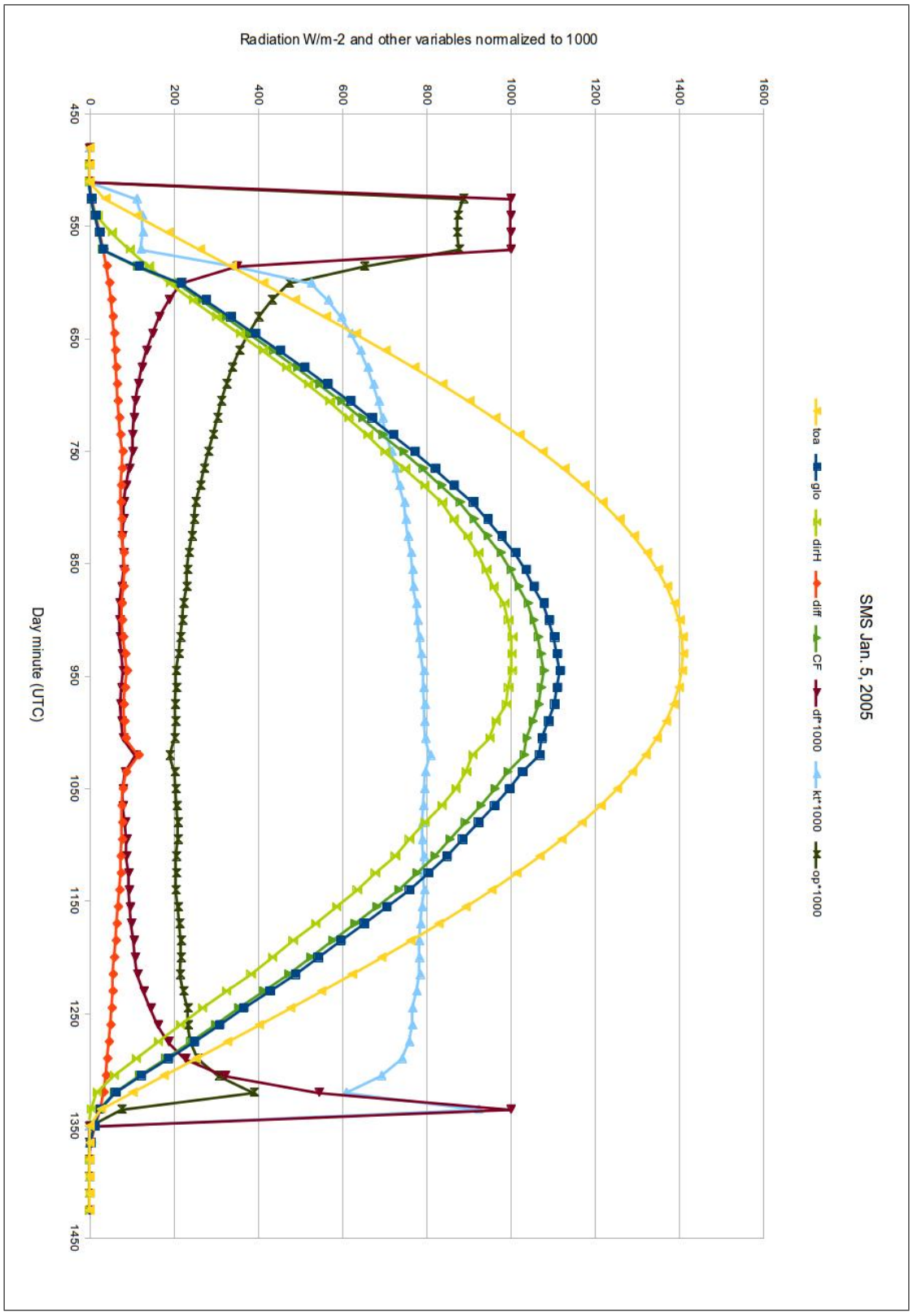


Figure C.5 - Graphic illustrating data measured and calculated on SMS January 5^{th} 2005.

Table C.6 - Solar radiation and derived data for SMS jan 6^{th} 2005.

min	toa	glo	dirH	diff	CF	df	kt	op	cos
480	.00	-1.88	.16	-1.13	-1.82	0.000	0.000	0.000	-0.126
495	.00	-1.88	.08	-1.10	-1.82	0.000	0.000	0.000	-0.076
510	.00	-.56	.00	-.11	-.54	0.000	0.000	0.000	-0.025
525	37.85	4.78	.00	5.67	4.62	1.000	0.126	0.874	0.027
540	112.30	22.65	6.46	18.91	21.88	0.835	0.202	0.798	0.079
555	187.37	45.33	48.15	28.55	43.80	0.630	0.242	0.758	0.133
570	262.74	59.18	97.67	39.00	57.18	0.659	0.225	0.775	0.186
585	338.09	140.40	154.81	42.56	135.65	0.303	0.415	0.585	0.239
600	413.09	249.70	212.12	45.84	241.25	0.184	0.604	0.396	0.292
615	487.42	300.60	270.63	48.21	290.43	0.160	0.617	0.383	0.345
630	560.77	351.50	327.22	50.79	339.61	0.144	0.627	0.373	0.397
645	632.82	409.40	381.79	54.86	395.55	0.134	0.647	0.353	0.448
660	703.26	468.90	437.22	57.39	453.03	0.122	0.667	0.333	0.497
675	771.79	528.40	495.11	58.70	510.52	0.111	0.685	0.315	0.546
690	838.11	583.30	546.56	60.69	563.56	0.104	0.696	0.304	0.593
705	901.95	642.70	604.77	59.47	620.95	0.093	0.713	0.287	0.638
720	963.03	698.90	654.59	60.39	675.25	0.086	0.726	0.274	0.681
735	1021.09	753.00	705.60	59.62	727.52	0.079	0.737	0.263	0.722
750	1075.88	801.00	751.83	60.34	773.90	0.075	0.745	0.255	0.761
765	1127.16	847.00	792.45	61.34	818.34	0.072	0.751	0.249	0.797
780	1174.72	888.00	825.89	63.96	857.95	0.072	0.756	0.244	0.831
795	1218.35	928.00	863.46	64.20	896.60	0.069	0.762	0.238	0.862
810	1257.86	967.00	896.80	65.91	934.28	0.068	0.769	0.231	0.890
825	1293.09	1003.00	930.15	64.73	969.06	0.065	0.776	0.224	0.915
840	1323.89	1032.00	954.17	66.16	997.08	0.064	0.780	0.220	0.936
855	1350.12	1064.00	985.49	65.38	1028.00	0.061	0.788	0.212	0.955
870	1371.66	1081.00	996.36	67.10	1044.42	0.062	0.788	0.212	0.970
885	1388.44	1096.00	1007.57	68.99	1058.92	0.063	0.789	0.211	0.982
900	1400.37	1114.00	1023.16	67.89	1076.31	0.061	0.796	0.204	0.990
915	1407.41	1125.00	1030.29	68.76	1086.94	0.061	0.799	0.201	0.995
930	1409.52	1125.00	1024.86	69.85	1086.94	0.062	0.798	0.202	0.997
945	1406.70	1123.00	1021.82	71.10	1085.00	0.063	0.798	0.202	0.995
960	1398.96	1121.00	1015.20	72.30	1083.07	0.064	0.801	0.199	0.989
975	1386.33	1112.00	1007.02	72.30	1074.38	0.065	0.802	0.198	0.981
990	1368.86	1099.00	986.58	72.70	1061.82	0.066	0.803	0.197	0.968
1005	1346.63	1084.00	971.52	71.70	1047.32	0.066	0.805	0.195	0.952
1020	1319.74	1064.00	949.32	72.20	1028.00	0.068	0.806	0.194	0.933
1035	1288.30	1040.00	915.77	72.10	1004.81	0.069	0.807	0.193	0.911
1050	1252.45	1007.00	880.53	73.70	972.93	0.073	0.804	0.196	0.886
1065	1212.33	979.00	851.47	73.20	945.88	0.075	0.808	0.192	0.857
1080	1168.13	942.00	810.51	74.10	910.13	0.079	0.806	0.194	0.826
1095	1120.02	905.00	777.13	72.60	874.38	0.080	0.808	0.192	0.792
1110	1068.22	866.00	738.92	69.48	836.70	0.080	0.811	0.189	0.756
1125	1012.95	820.00	692.81	69.29	792.26	0.085	0.810	0.190	0.716
1140	954.44	769.00	644.02	71.10	742.98	0.092	0.806	0.194	0.675
1155	892.95	719.00	593.68	71.90	694.67	0.100	0.805	0.195	0.632
1170	828.73	668.50	543.37	73.30	645.88	0.110	0.807	0.193	0.586
1185	762.07	621.20	495.35	73.40	600.18	0.118	0.815	0.185	0.539
1200	693.25	571.30	443.26	74.00	551.97	0.130	0.824	0.176	0.490
1215	622.56	488.30	362.39	77.30	471.78	0.158	0.784	0.216	0.440
1230	550.30	395.70	271.91	82.20	382.31	0.208	0.719	0.281	0.389
1245	476.79	240.20	134.99	80.80	232.07	0.336	0.504	0.496	0.337
1260	402.34	337.00	212.01	81.80	325.60	0.243	0.838	0.162	0.285
1275	327.27	276.40	161.55	75.90	267.05	0.275	0.845	0.155	0.231
1290	251.91	211.70	113.78	62.49	204.54	0.295	0.840	0.160	0.178
1305	176.56	144.90	70.42	44.32	140.00	0.306	0.821	0.179	0.125
1320	101.56	85.70	30.92	32.53	82.80	0.380	0.844	0.156	0.072
1335	27.23	40.59	5.45	21.45	39.22	0.528	0.000	1.000	0.019
1350	.00	8.78	-3.43	10.19	8.48	0.000	0.000	0.000	-0.033
1365	.00	-.09	.22	1.21	-.08	0.000	0.000	0.000	-0.084
1380	.00	-2.39	.30	-1.36	-2.31	0.000	0.000	0.000	-0.133
1395	.00	-2.68	.50	-1.51	-2.59	0.000	0.000	0.000	-0.182
1410	.00	-2.67	.53	-1.60	-2.58	0.000	0.000	0.000	-0.229
1425	.00	-2.89	.98	-1.17	-2.79	0.000	0.000	0.000	-0.274

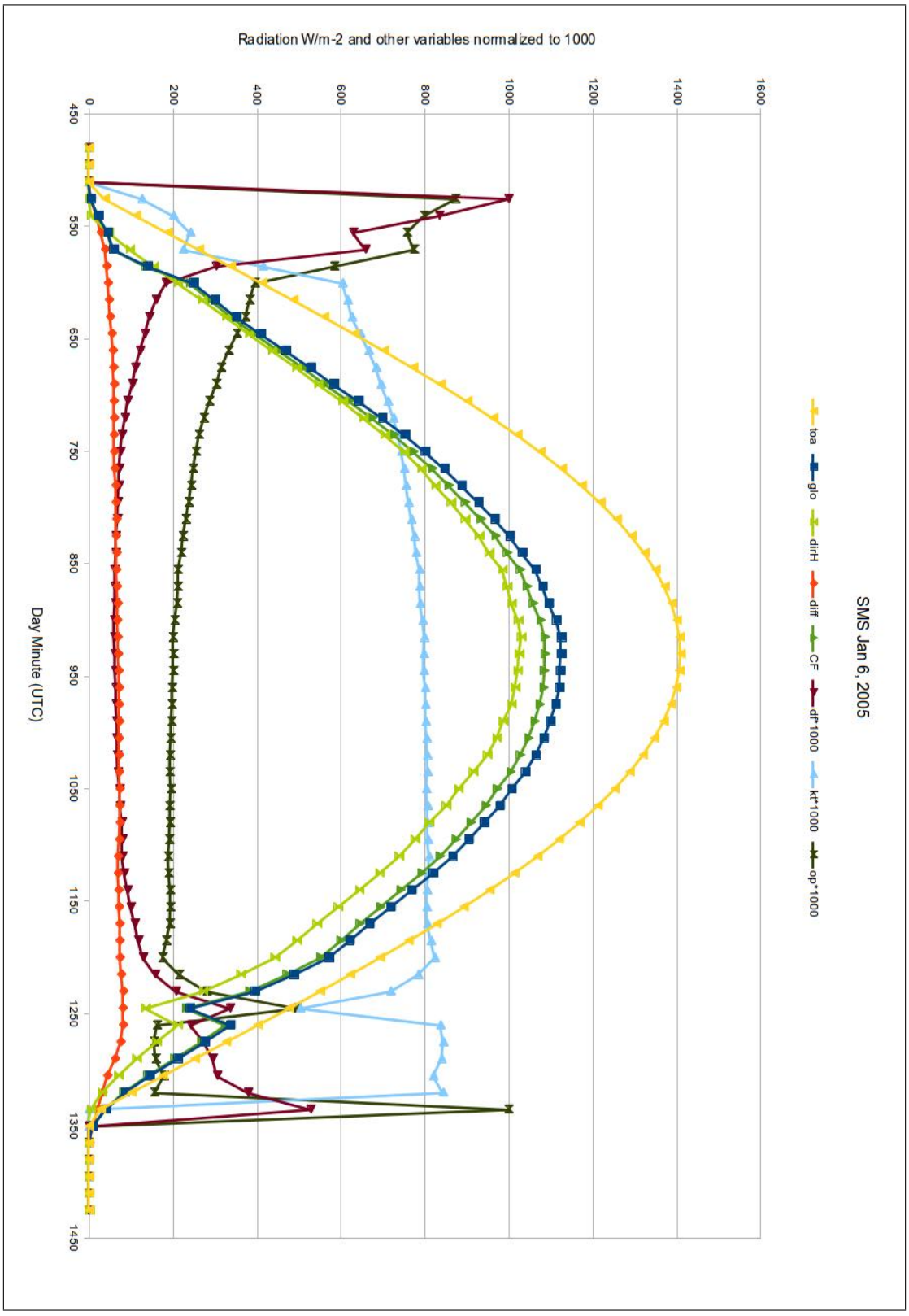


Figure C.6 - Graphic illustrating data measured and calculated on SMS January 6^{th} 2005.

Table C.7 - Solar radiation and derived data for SMS jan 7^{th} 2005.

min	toa	glo	dirH	diff	CF	df	kt	op	cos
480	0.00	-2.39	0.14	-1.30	-2.31	0.000	0.000	0.000	-0.126
495	0.00	-1.92	-0.19	-1.91	-1.85	0.000	0.000	0.000	-0.076
510	0.00	-1.53	0.00	-0.47	-1.48	0.000	0.000	0.000	-0.025
525	37.85	3.96	0.01	4.67	3.82	1.000	0.105	0.895	0.027
540	112.30	24.00	18.33	15.15	23.19	0.631	0.214	0.786	0.079
555	187.37	63.72	52.98	25.24	61.56	0.396	0.340	0.660	0.133
570	262.74	113.50	98.01	33.55	109.66	0.296	0.432	0.568	0.186
585	338.09	168.40	148.64	40.23	162.70	0.239	0.498	0.502	0.239
600	413.09	226.90	202.77	45.79	219.22	0.202	0.549	0.451	0.292
615	487.42	285.60	256.49	51.60	275.94	0.181	0.586	0.414	0.345
630	560.77	345.30	312.15	55.88	333.62	0.162	0.616	0.384	0.397
645	632.82	406.90	370.60	58.57	393.13	0.144	0.643	0.357	0.448
660	703.26	468.20	429.26	60.73	452.36	0.130	0.666	0.334	0.497
675	771.79	523.20	478.74	64.93	505.50	0.124	0.678	0.322	0.546
690	838.11	579.20	529.96	67.53	559.60	0.117	0.691	0.309	0.593
705	901.95	636.70	584.36	68.21	615.16	0.107	0.706	0.294	0.638
720	963.03	691.90	638.24	68.80	668.49	0.099	0.718	0.282	0.681
735	1021.09	744.00	686.10	70.10	718.83	0.094	0.729	0.271	0.722
750	1075.88	790.00	726.72	72.90	763.27	0.092	0.734	0.266	0.761
765	1127.16	840.00	773.32	74.00	811.58	0.088	0.745	0.255	0.797
780	1174.72	878.00	808.44	76.90	848.29	0.088	0.747	0.253	0.831
795	1218.35	920.00	843.64	77.00	888.87	0.084	0.755	0.245	0.862
810	1257.86	956.00	881.67	77.70	923.65	0.081	0.760	0.240	0.890
825	1293.09	990.00	912.77	78.30	956.50	0.079	0.766	0.234	0.915
840	1323.89	1017.00	937.32	78.70	982.59	0.077	0.768	0.232	0.936
855	1350.12	1047.00	962.57	77.70	1011.57	0.074	0.775	0.225	0.955
870	1371.66	1068.00	969.20	78.50	1031.86	0.074	0.779	0.221	0.970
885	1388.44	1092.00	996.77	77.50	1055.05	0.071	0.786	0.214	0.982
900	1400.37	1102.00	1002.36	81.30	1064.71	0.074	0.787	0.213	0.990
915	1407.41	1100.00	986.49	84.60	1062.78	0.077	0.782	0.218	0.995
930	1409.52	1112.00	1006.92	81.30	1074.38	0.073	0.789	0.211	0.997
945	1406.70	1113.00	1002.91	81.10	1075.34	0.073	0.791	0.209	0.995
960	1398.96	1106.00	987.50	82.10	1068.58	0.074	0.791	0.209	0.989
975	1386.33	1092.00	958.97	90.90	1055.05	0.083	0.788	0.212	0.981
990	1368.86	1075.00	943.98	94.10	1038.63	0.088	0.785	0.215	0.968
1005	1346.63	1059.00	918.18	100.50	1023.17	0.095	0.786	0.214	0.952
1020	1319.74	1048.00	894.24	103.60	1012.54	0.099	0.794	0.206	0.933
1035	1288.30	1026.00	862.00	117.60	991.29	0.115	0.796	0.204	0.911
1050	1252.45	881.00	607.16	235.20	851.19	0.267	0.703	0.297	0.886
1065	1212.33	1061.00	770.01	236.90	1025.10	0.223	0.875	0.125	0.857
1080	1168.13	942.00	738.63	150.30	910.13	0.160	0.806	0.194	0.826
1095	1120.02	877.00	705.84	118.30	847.33	0.135	0.783	0.217	0.792
1110	1068.22	821.00	655.81	114.50	793.22	0.139	0.769	0.231	0.756
1125	1012.95	789.00	630.48	104.90	762.30	0.133	0.779	0.221	0.716
1140	954.44	735.00	581.91	100.90	710.13	0.137	0.770	0.230	0.675
1155	892.95	687.30	540.63	93.70	664.05	0.136	0.770	0.230	0.632
1170	828.73	632.40	490.03	91.10	611.00	0.144	0.763	0.237	0.586
1185	762.07	578.00	435.52	91.70	558.44	0.159	0.758	0.242	0.539
1200	693.25	520.60	385.40	85.70	502.99	0.165	0.751	0.249	0.490
1215	622.56	460.60	332.45	81.60	445.02	0.177	0.740	0.260	0.440
1230	550.30	401.00	277.91	79.20	387.43	0.198	0.729	0.271	0.389
1245	476.79	348.50	234.38	72.90	336.71	0.209	0.731	0.269	0.337
1260	402.34	293.60	187.59	67.21	283.67	0.229	0.730	0.270	0.285
1275	327.27	233.40	138.98	59.85	225.50	0.256	0.713	0.287	0.231
1290	251.91	184.20	99.47	53.00	177.97	0.288	0.731	0.269	0.178
1305	176.56	129.10	58.98	44.05	124.73	0.341	0.731	0.269	0.125
1320	101.56	80.30	26.70	33.85	77.58	0.422	0.791	0.209	0.072
1335	27.23	38.36	4.49	22.74	37.06	0.593	0.000	1.000	0.019
1350	0.00	8.84	-2.02	10.76	8.54	0.000	0.000	0.000	-0.033
1365	0.00	0.14	0.43	1.35	0.14	0.000	0.000	0.000	-0.084
1380	0.00	-2.66	0.87	-0.55	-2.57	0.000	0.000	0.000	-0.133
1395	0.00	-2.04	0.57	-1.19	-1.97	0.000	0.000	0.000	-0.182
1410	0.00	-1.82	0.38	-1.24	-1.76	0.000	0.000	0.000	-0.229
1425	0.00	-2.04	0.04	-1.32	-1.97	0.000	0.000	0.000	-0.274

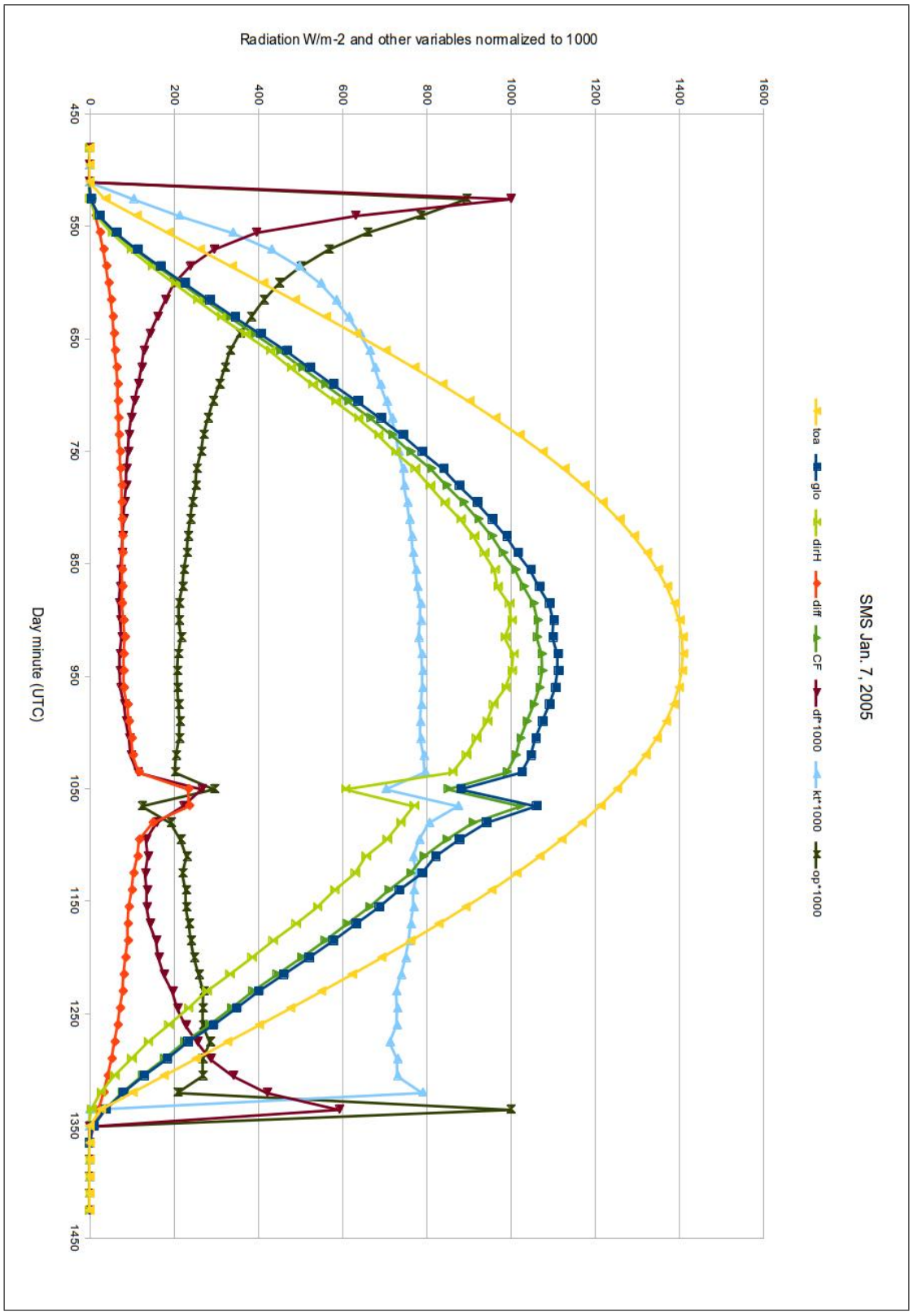


Figure C.7 - Graphic illustrating data measured and calculated on SMS January 7^{th} 2005.

Table C.8 - Solar radiation and derived data for SMS jan 8^{th} 2005.

min	toa	glo	dirH	diff	CF	df	kt	op	cos
480	0.00	-1.57	0.16	-0.84	-1.52	0.000	0.000	0.000	-0.126
495	0.00	-1.40	-0.11	-1.25	-1.35	0.000	0.000	0.000	-0.076
510	0.00	-0.82	-0.01	-0.35	-0.79	0.000	0.000	0.000	-0.025
525	37.85	3.99	0.05	4.15	3.86	1.000	0.105	0.895	0.027
540	112.30	20.16	10.57	16.21	19.48	0.804	0.180	0.820	0.079
555	187.37	55.54	38.18	28.52	53.66	0.514	0.296	0.704	0.133
570	262.74	99.60	75.63	38.62	96.23	0.388	0.379	0.621	0.186
585	338.09	149.90	119.20	48.10	144.83	0.321	0.443	0.557	0.239
600	413.09	202.50	164.70	56.36	195.65	0.278	0.490	0.510	0.292
615	487.42	257.90	214.36	63.26	249.17	0.245	0.529	0.471	0.345
630	560.77	313.20	265.42	68.14	302.60	0.218	0.559	0.441	0.397
645	632.82	374.10	322.71	72.50	361.44	0.194	0.591	0.409	0.448
660	703.26	432.70	378.53	74.70	418.06	0.173	0.615	0.385	0.497
675	771.79	488.40	431.25	77.70	471.88	0.159	0.633	0.367	0.546
690	838.11	544.60	482.53	81.40	526.17	0.149	0.650	0.350	0.593
705	901.95	597.90	535.88	80.20	577.67	0.134	0.663	0.337	0.638
720	963.03	652.90	586.47	81.80	630.81	0.125	0.678	0.322	0.681
735	1021.09	703.00	634.10	82.60	679.21	0.117	0.688	0.312	0.722
750	1075.88	752.00	677.26	83.40	726.56	0.111	0.699	0.301	0.761
765	1127.16	796.00	716.72	86.50	769.07	0.109	0.706	0.294	0.797
780	1174.72	839.00	752.77	89.50	810.61	0.107	0.714	0.286	0.831
795	1218.35	877.00	779.01	95.90	847.33	0.109	0.720	0.280	0.862
810	1257.86	600.40	380.07	198.00	580.09	0.330	0.477	0.523	0.890
825	1293.09	1078.00	829.54	240.50	1041.53	0.223	0.834	0.166	0.915
840	1323.89	1048.00	835.25	197.10	1012.54	0.188	0.792	0.208	0.936
855	1350.12	500.70	247.42	254.90	483.76	0.509	0.371	0.629	0.955
870	1371.66	1096.00	896.44	175.20	1058.92	0.160	0.799	0.201	0.970
885	1388.44	238.20	-0.46	232.00	230.14	0.974	0.172	0.828	0.982
900	1400.37	1033.00	750.78	273.10	998.05	0.264	0.738	0.262	0.990
915	1407.41	1243.00	905.86	299.40	1200.94	0.241	0.883	0.117	0.995
930	1409.52	277.00	10.50	265.80	267.63	0.960	0.197	0.803	0.997
945	1406.70	241.60	-0.70	233.20	233.43	0.965	0.172	0.828	0.995
960	1398.96	1344.00	906.36	390.70	1298.53	0.291	0.961	0.039	0.989
975	1386.33	328.90	4.04	321.30	317.77	0.977	0.237	0.763	0.981
990	1368.86	194.10	-6.89	189.90	187.53	0.978	0.142	0.858	0.968
1005	1346.63	133.60	-9.09	132.50	129.08	0.992	0.099	0.901	0.952
1020	1319.74	177.70	-4.33	170.70	171.69	0.961	0.135	0.865	0.933
1035	1288.30	106.10	-12.88	106.50	102.51	1.000	0.082	0.918	0.911
1050	1252.45	60.31	-15.48	63.14	58.27	1.000	0.048	0.952	0.886
1065	1212.33	103.10	-2.04	99.90	99.61	0.969	0.085	0.915	0.857
1080	1168.13	88.70	0.38	87.60	85.70	0.988	0.076	0.924	0.826
1095	1120.02	36.62	0.17	36.46	35.38	0.996	0.033	0.967	0.792
1110	1068.22	27.19	1.17	26.12	26.27	0.961	0.025	0.975	0.756
1125	1012.95	20.46	1.66	20.36	19.77	0.995	0.020	0.980	0.716
1140	954.44	13.46	1.59	12.92	13.00	0.960	0.014	0.986	0.675
1155	892.95	11.66	3.38	10.89	11.27	0.934	0.013	0.987	0.632
1170	828.73	8.38	-3.94	8.93	8.10	1.000	0.010	0.990	0.586
1185	762.07	24.45	0.24	23.48	23.62	0.960	0.032	0.968	0.539
1200	693.25	21.82	1.05	21.23	21.08	0.973	0.031	0.969	0.490
1215	622.56	37.64	0.53	36.79	36.37	0.977	0.060	0.940	0.440
1230	550.30	32.84	1.02	32.31	31.73	0.984	0.060	0.940	0.389
1245	476.79	32.12	0.93	31.95	31.03	0.995	0.067	0.933	0.337
1260	402.34	23.92	0.87	23.92	23.11	1.000	0.059	0.941	0.285
1275	327.27	21.85	1.24	21.38	21.11	0.978	0.067	0.933	0.231
1290	251.91	10.33	-1.19	12.12	9.98	1.000	0.041	0.959	0.178
1305	176.56	18.50	-0.40	19.13	17.87	1.000	0.105	0.895	0.125
1320	101.56	26.95	0.00	26.84	26.04	0.996	0.265	0.735	0.072
1335	27.23	34.08	0.05	34.11	32.93	1.000	0.000	1.000	0.019
1350	0.00	11.37	0.00	11.81	10.99	0.000	0.000	0.000	-0.033
1365	0.00	3.72	0.04	4.31	3.59	0.000	0.000	0.000	-0.084
1380	0.00	-1.38	0.01	-0.80	-1.34	0.000	0.000	0.000	-0.133
1395	0.00	-1.40	-0.10	-0.98	-1.36	0.000	0.000	0.000	-0.182
1410	0.00	-1.55	-0.95	-1.52	-1.49	0.000	0.000	0.000	-0.229
1425	0.00	-1.37	-0.63	-0.96	-1.33	0.000	0.000	0.000	-0.274

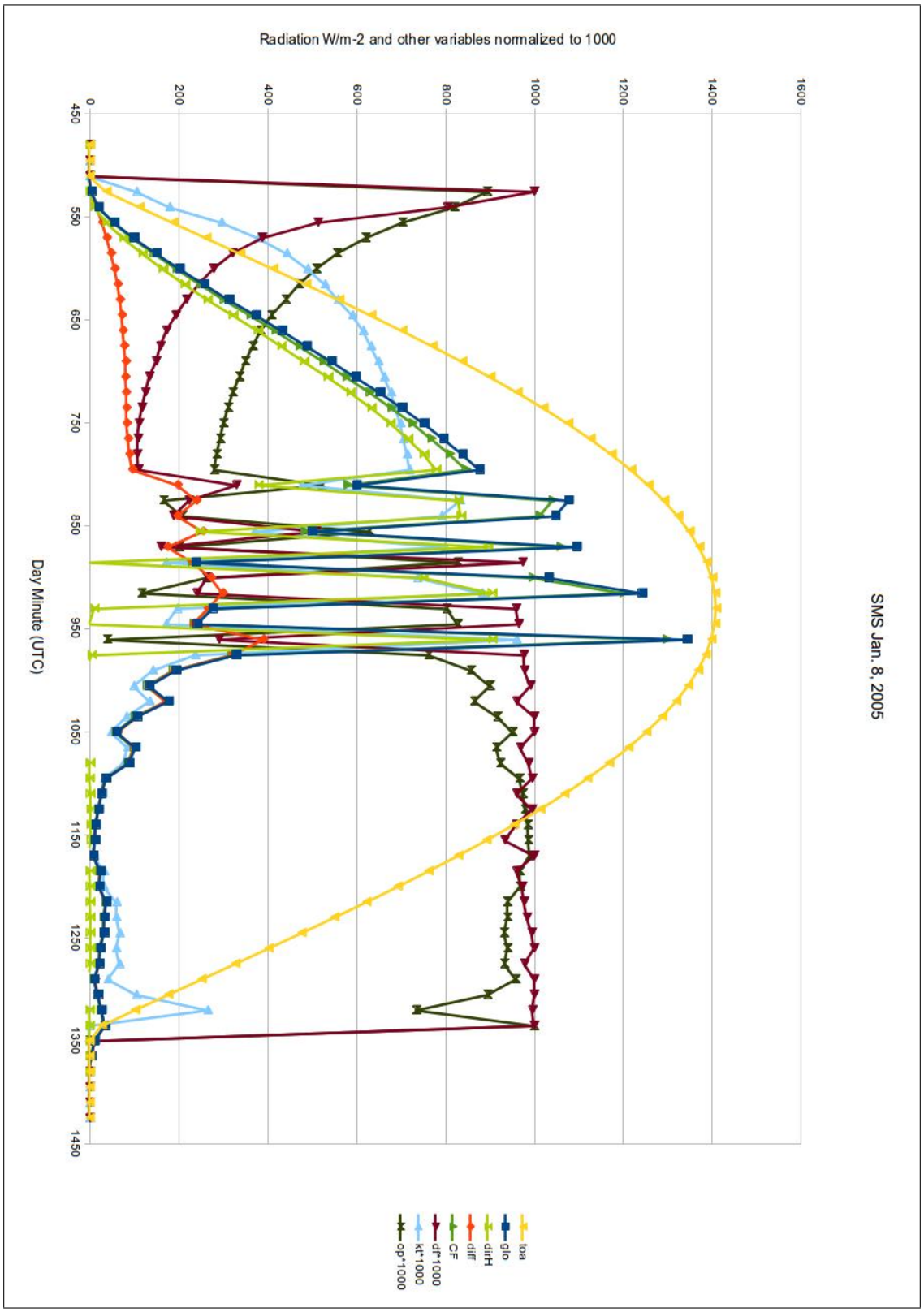


Figure C.8 - Graphic illustrating data measured and calculated on SMS January 8^{th} 2005.

Table C.9 - Solar radiation and derived data for SMS jan 9^{th} 2005.

min	toa	glo	dirH	diff	CF	df	kt	op	cos
480	0.00	-1.41	-0.05	-1.09	-1.36	0.000	0.000	0.000	-0.126
495	0.00	-1.09	-0.05	-0.84	-1.06	0.000	0.000	0.000	-0.076
510	0.00	-0.34	-0.02	-0.25	-0.33	0.000	0.000	0.000	-0.025
525	37.85	1.83	0.03	1.97	1.77	1.000	0.048	0.952	0.027
540	112.30	10.28	1.38	10.21	9.93	0.993	0.092	0.908	0.079
555	187.37	32.45	0.06	32.38	31.35	0.998	0.173	0.827	0.133
570	262.74	126.60	71.12	68.98	122.32	0.545	0.482	0.518	0.186
585	338.09	158.40	83.91	87.10	153.04	0.550	0.469	0.531	0.239
600	413.09	198.80	126.31	86.50	192.07	0.435	0.481	0.519	0.292
615	487.42	240.00	138.24	114.00	231.88	0.475	0.492	0.508	0.345
630	560.77	434.80	233.30	217.60	420.09	0.500	0.775	0.225	0.397
645	632.82	177.30	4.46	171.60	171.30	0.968	0.280	0.720	0.448
660	703.26	205.60	11.01	190.80	198.64	0.928	0.292	0.708	0.497
675	771.79	215.20	11.56	202.20	207.92	0.940	0.279	0.721	0.546
690	838.11	319.10	126.62	190.20	308.30	0.596	0.381	0.619	0.593
705	901.95	514.70	334.92	186.80	497.29	0.363	0.571	0.429	0.638
720	963.03	702.00	587.83	130.70	678.25	0.186	0.729	0.271	0.681
735	1021.09	725.00	627.60	109.80	700.47	0.151	0.710	0.290	0.722
750	1075.88	768.00	672.69	104.00	742.01	0.135	0.714	0.286	0.761
765	1127.16	798.00	713.53	91.20	771.00	0.114	0.708	0.292	0.797
780	1174.72	840.00	748.62	94.90	811.58	0.113	0.715	0.285	0.831
795	1218.35	872.00	774.70	97.20	842.50	0.111	0.716	0.284	0.862
810	1257.86	938.00	809.61	124.20	906.26	0.132	0.746	0.254	0.890
825	1293.09	635.60	80.30	541.30	614.09	0.852	0.492	0.508	0.915
840	1323.89	1228.00	849.30	361.60	1186.45	0.294	0.928	0.072	0.936
855	1350.12	1230.00	872.81	333.50	1188.38	0.271	0.911	0.089	0.955
870	1371.66	1117.00	672.52	424.10	1079.21	0.380	0.814	0.186	0.970
885	1388.44	1435.00	896.60	503.00	1386.45	0.351	0.000	1.000	0.982
900	1400.37	1227.00	886.48	306.60	1185.48	0.250	0.876	0.124	0.990
915	1407.41	1289.00	854.10	396.10	1245.39	0.307	0.916	0.084	0.995
930	1409.52	1406.00	890.27	469.60	1358.43	0.334	0.998	0.002	0.997
945	1406.70	594.10	54.14	509.40	574.00	0.857	0.422	0.578	0.995
960	1398.96	765.00	361.85	371.80	739.12	0.486	0.547	0.453	0.989
975	1386.33	298.60	0.04	287.80	288.50	0.964	0.215	0.785	0.981
990	1368.86	131.50	-3.49	128.80	127.05	0.979	0.096	0.904	0.968
1005	1346.63	121.30	-0.60	118.10	117.20	0.974	0.090	0.910	0.952
1020	1319.74	39.20	-2.16	39.07	37.87	0.997	0.030	0.970	0.933
1035	1288.30	31.62	-6.69	32.86	30.55	1.000	0.025	0.975	0.911
1050	1252.45	11.93	-5.04	13.00	11.53	1.000	0.010	0.990	0.886
1065	1212.33	15.01	-3.14	14.96	14.50	0.997	0.012	0.988	0.857
1080	1168.13	23.57	-2.56	23.72	22.77	1.000	0.020	0.980	0.826
1095	1120.02	55.47	-1.34	54.00	53.59	0.973	0.050	0.950	0.792
1110	1068.22	61.85	1.45	60.07	59.76	0.971	0.058	0.942	0.756
1125	1012.95	91.50	2.26	89.10	88.40	0.974	0.090	0.910	0.716
1140	954.44	85.90	3.61	82.90	82.99	0.965	0.090	0.910	0.675
1155	892.95	42.22	1.01	40.56	40.79	0.961	0.047	0.953	0.632
1170	828.73	39.29	-1.92	40.31	37.96	1.000	0.047	0.953	0.586
1185	762.07	31.36	-2.25	31.94	30.30	1.000	0.041	0.959	0.539
1200	693.25	34.44	-0.71	34.36	33.27	0.998	0.050	0.950	0.490
1215	622.56	27.83	-0.46	27.92	26.89	1.000	0.045	0.955	0.440
1230	550.30	26.08	-0.41	26.44	25.20	1.000	0.047	0.953	0.389
1245	476.79	8.56	-0.86	9.02	8.27	1.000	0.018	0.982	0.337
1260	402.34	4.19	-0.99	5.17	4.04	1.000	0.010	0.990	0.285
1275	327.27	4.39	-0.74	4.80	4.24	1.000	0.013	0.987	0.231
1290	251.91	4.44	-0.11	4.61	4.29	1.000	0.018	0.982	0.178
1305	176.56	3.75	0.03	4.04	3.63	1.000	0.021	0.979	0.125
1320	101.56	0.94	0.03	1.06	0.91	1.000	0.009	0.991	0.072
1335	27.23	-0.31	0.01	-0.22	-0.30	0.694	-0.012	1.000	0.019
1350	0.00	-0.86	0.11	-0.26	-0.83	0.000	0.000	0.000	-0.033
1365	0.00	-0.75	0.06	-0.37	-0.73	0.000	0.000	0.000	-0.084
1380	0.00	-0.70	0.03	-0.41	-0.67	0.000	0.000	0.000	-0.133
1395	0.00	-0.78	0.26	-0.21	-0.75	0.000	0.000	0.000	-0.182
1410	0.00	-0.38	-0.05	-0.37	-0.36	0.000	0.000	0.000	-0.229
1425	0.00	-0.46	-0.17	-0.52	-0.44	0.000	0.000	0.000	-0.274

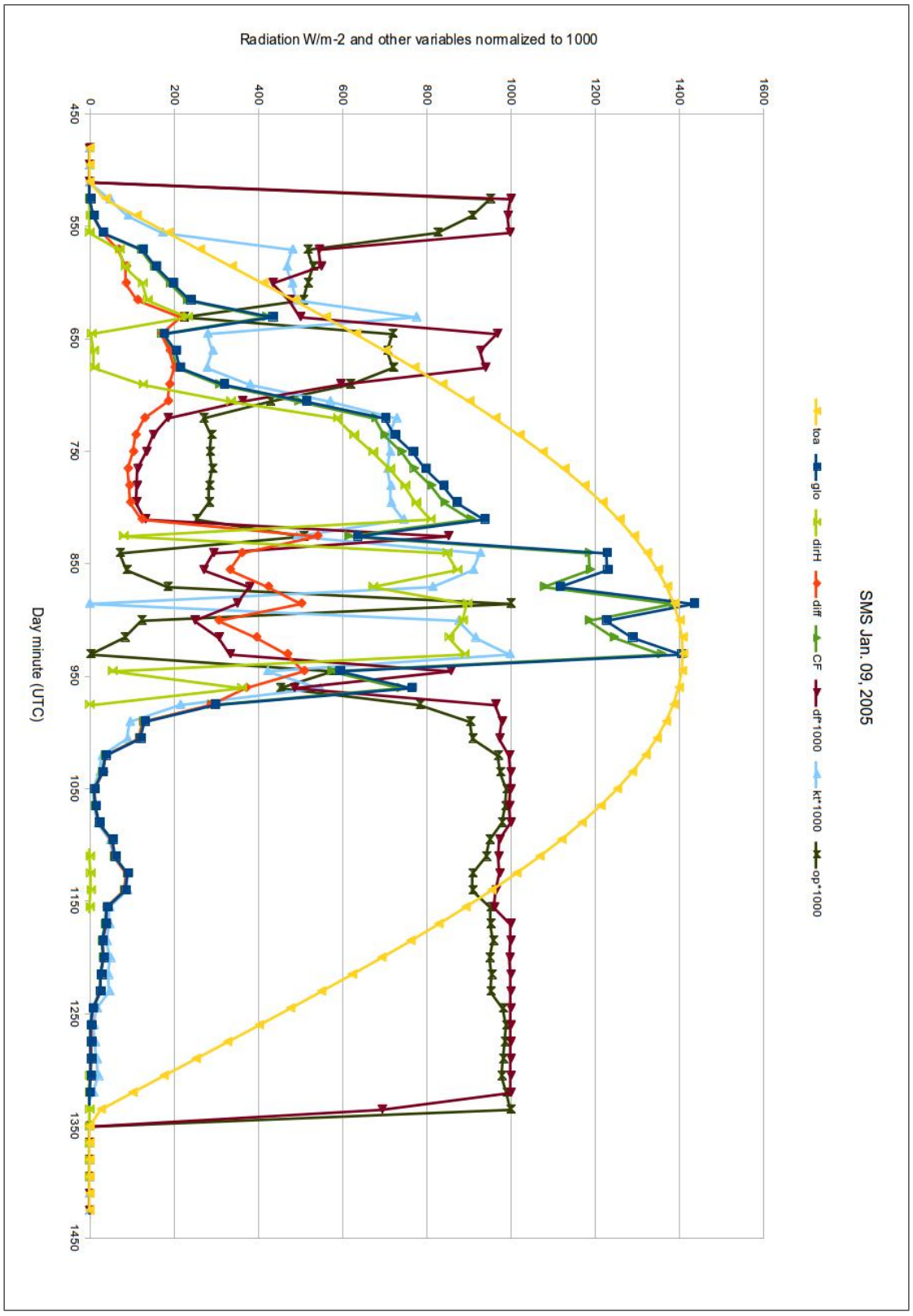


Figure C.9 - Graphic illustrating data measured and calculated on SMS January 9^{th} 2005.

Table C.10 - Solar radiation and derived data for SMS jan 10^{th} 2005.

min	toa	glo	dirH	diff	CF	df	kt	op	cos
480	0.00	-0.54	-0.03	-0.37	-0.53	0.000	0.000	0.000	-0.126
495	0.00	-0.63	0.05	-0.25	-0.61	0.000	0.000	0.000	-0.076
510	0.00	-0.56	0.01	-0.23	-0.54	0.000	0.000	0.000	-0.025
525	37.85	0.42	-0.01	0.72	0.40	1.000	0.011	0.989	0.027
540	112.30	4.23	0.00	4.32	4.08	1.000	0.038	0.962	0.079
555	187.37	8.20	0.03	8.12	7.92	0.990	0.044	0.956	0.133
570	262.74	15.88	0.12	15.67	15.34	0.987	0.060	0.940	0.186
585	338.09	21.20	0.01	20.95	20.48	0.988	0.063	0.937	0.239
600	413.09	31.08	0.11	30.51	30.03	0.982	0.075	0.925	0.292
615	487.42	43.87	0.29	43.12	42.39	0.983	0.090	0.910	0.345
630	560.77	103.30	0.64	101.60	99.80	0.984	0.184	0.816	0.397
645	632.82	134.20	0.64	131.90	129.66	0.983	0.212	0.788	0.448
660	703.26	286.40	2.55	280.50	276.71	0.979	0.407	0.593	0.497
675	771.79	164.60	-0.34	162.30	159.03	0.986	0.213	0.787	0.546
690	838.11	197.10	0.03	194.00	190.43	0.984	0.235	0.765	0.593
705	901.95	233.60	1.82	228.80	225.70	0.979	0.259	0.741	0.638
720	963.03	664.10	81.60	525.10	641.63	0.791	0.690	0.310	0.681
735	1021.09	453.50	16.99	423.40	438.16	0.934	0.444	0.556	0.722
750	1075.88	310.50	0.18	304.50	299.99	0.981	0.289	0.711	0.761
765	1127.16	212.40	1.49	208.10	205.21	0.980	0.188	0.812	0.797
780	1174.72	274.00	2.98	267.40	264.73	0.976	0.233	0.767	0.831
795	1218.35	204.00	2.78	199.00	197.10	0.975	0.167	0.833	0.862
810	1257.86	370.80	7.22	360.60	358.25	0.972	0.295	0.705	0.890
825	1293.09	213.60	0.63	209.00	206.37	0.978	0.165	0.835	0.915
840	1323.89	143.30	0.59	140.40	138.45	0.980	0.108	0.892	0.936
855	1350.12	435.20	7.98	420.20	420.48	0.966	0.322	0.678	0.955
870	1371.66	356.50	3.47	344.20	344.44	0.965	0.260	0.740	0.970
885	1388.44	203.50	-1.30	198.00	196.61	0.973	0.147	0.853	0.982
900	1400.37	279.50	4.38	269.30	270.04	0.964	0.200	0.800	0.990
915	1407.41	86.20	-3.83	84.70	83.28	0.983	0.061	0.939	0.995
930	1409.52	195.80	1.59	188.50	189.18	0.963	0.139	0.861	0.997
945	1406.70	393.90	4.35	378.80	380.57	0.962	0.280	0.720	0.995
960	1398.96	224.30	2.52	216.30	216.71	0.964	0.160	0.840	0.989
975	1386.33	103.60	-0.46	100.70	100.09	0.972	0.075	0.925	0.981
990	1368.86	213.80	1.92	206.80	206.57	0.967	0.156	0.844	0.968
1005	1346.63	378.60	3.34	364.70	365.79	0.963	0.281	0.719	0.952
1020	1319.74	350.00	2.98	338.10	338.16	0.966	0.265	0.735	0.933
1035	1288.30	423.30	5.60	409.80	408.98	0.968	0.329	0.671	0.911
1050	1252.45	380.60	3.17	370.40	367.72	0.973	0.304	0.696	0.886
1065	1212.33	438.40	4.67	427.00	423.57	0.974	0.362	0.638	0.857
1080	1168.13	470.70	4.73	458.90	454.77	0.975	0.403	0.597	0.826
1095	1120.02	523.70	12.56	501.40	505.98	0.957	0.468	0.532	0.792
1110	1068.22	641.90	135.54	476.10	620.18	0.742	0.601	0.399	0.756
1125	1012.95	722.00	363.74	316.50	697.57	0.438	0.713	0.287	0.716
1140	954.44	792.00	593.39	137.80	765.20	0.174	0.830	0.170	0.675
1155	892.95	713.00	536.21	118.50	688.88	0.166	0.798	0.202	0.632
1170	828.73	634.00	471.86	107.60	612.55	0.170	0.765	0.235	0.586
1185	762.07	619.80	441.99	122.00	598.83	0.197	0.813	0.187	0.539
1200	693.25	556.40	406.48	93.60	537.57	0.168	0.803	0.197	0.490
1215	622.56	496.10	353.58	88.40	479.31	0.178	0.797	0.203	0.440
1230	550.30	438.60	302.82	84.30	423.76	0.192	0.797	0.203	0.389
1245	476.79	370.70	251.58	70.40	358.16	0.190	0.777	0.223	0.337
1260	402.34	170.00	85.23	69.21	164.25	0.407	0.423	0.577	0.285
1275	327.27	280.10	146.41	94.00	270.62	0.336	0.856	0.144	0.231
1290	251.91	216.70	93.38	91.30	209.37	0.421	0.860	0.140	0.178
1305	176.56	37.75	-1.06	39.65	36.47	1.000	0.214	0.786	0.125
1320	101.56	25.84	-0.32	27.18	24.97	1.000	0.254	0.746	0.072
1335	27.23	27.02	1.97	19.53	26.11	0.723	0.992	0.008	0.019
1350	0.00	8.39	0.05	9.01	8.11	0.000	0.000	0.000	-0.033
1365	0.00	1.53	0.12	2.12	1.48	0.000	0.000	0.000	-0.084
1380	0.00	-0.99	0.04	-0.64	-0.95	0.000	0.000	0.000	-0.133
1395	0.00	-0.95	0.02	-0.62	-0.92	0.000	0.000	0.000	-0.182
1410	0.00	-1.41	0.14	-0.84	-1.36	0.000	0.000	0.000	-0.229
1425	0.00	-1.48	0.36	-0.80	-1.43	0.000	0.000	0.000	-0.274

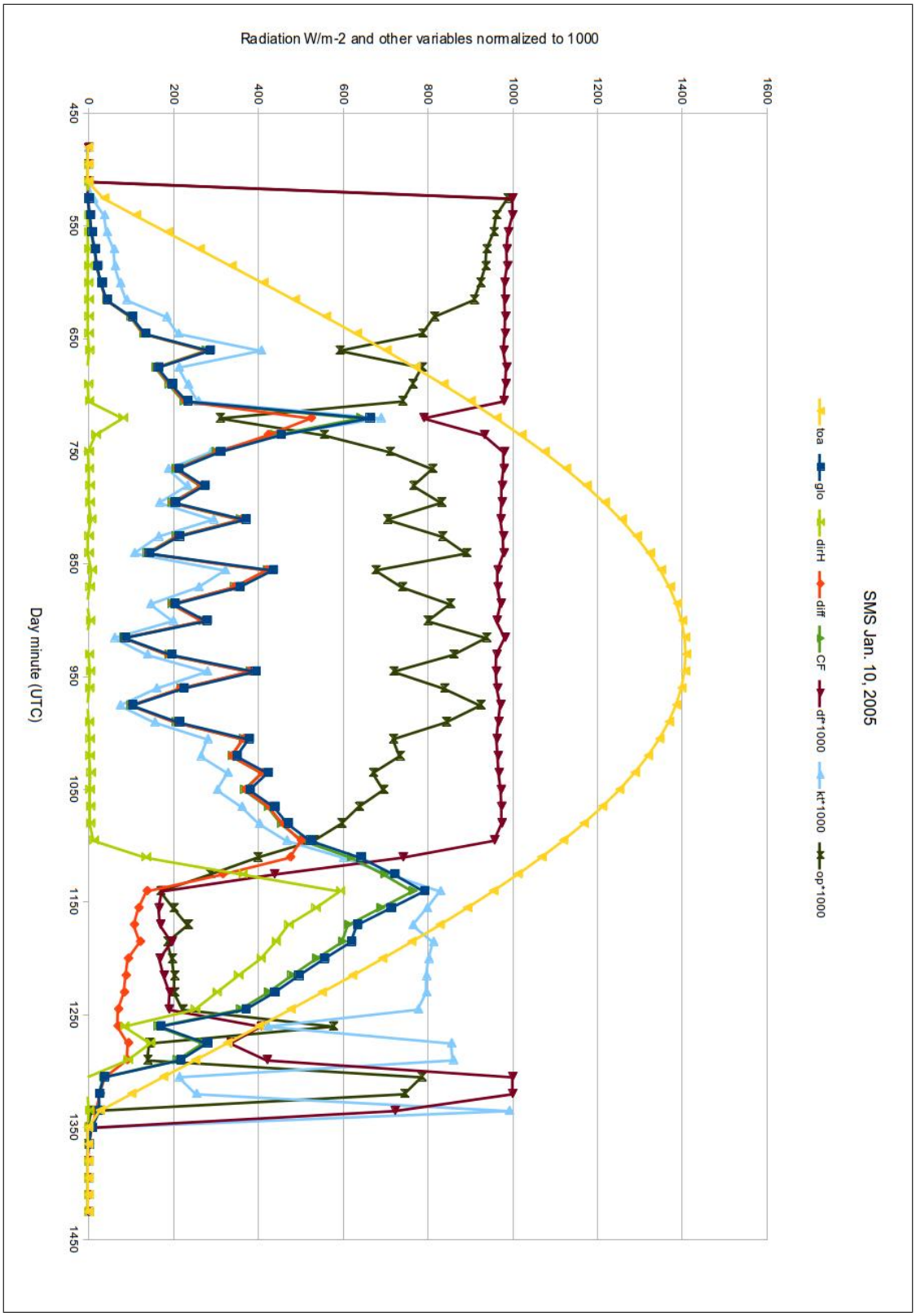


Figure C.10 - Graphic illustrating data measured and calculated on SMS January 10^{th} 2005.

Table C.11 - Solar radiation and derived data for SMS jan 11^{th} 2005.

min	toa	glo	dirH	diff	CF	df	kt	op	cos
480	0.00	-0.54	-0.03	-0.37	-0.53	0.000	0.000	0.000	-0.126
495	0.00	-0.63	0.05	-0.25	-0.61	0.000	0.000	0.000	-0.076
510	0.00	-0.56	0.01	-0.23	-0.54	0.000	0.000	0.000	-0.025
525	37.85	0.42	-0.01	0.72	0.40	1.000	0.011	0.989	0.027
540	112.30	4.23	0.00	4.32	4.08	1.000	0.038	0.962	0.079
555	187.37	8.20	0.03	8.12	7.92	0.990	0.044	0.956	0.133
570	262.74	15.88	0.12	15.67	15.34	0.987	0.060	0.940	0.186
585	338.09	21.20	0.01	20.95	20.48	0.988	0.063	0.937	0.239
600	413.09	31.08	0.11	30.51	30.03	0.982	0.075	0.925	0.292
615	487.42	43.87	0.29	43.12	42.39	0.983	0.090	0.910	0.345
630	560.77	103.30	0.64	101.60	99.80	0.984	0.184	0.816	0.397
645	632.82	134.20	0.64	131.90	129.66	0.983	0.212	0.788	0.448
660	703.26	286.40	2.55	280.50	276.71	0.979	0.407	0.593	0.497
675	771.79	164.60	-0.34	162.30	159.03	0.986	0.213	0.787	0.546
690	838.11	197.10	0.03	194.00	190.43	0.984	0.235	0.765	0.593
705	901.95	233.60	1.82	228.80	225.70	0.979	0.259	0.741	0.638
720	963.03	664.10	81.60	525.10	641.63	0.791	0.690	0.310	0.681
735	1021.09	453.50	16.99	423.40	438.16	0.934	0.444	0.556	0.722
750	1075.88	310.50	0.18	304.50	299.99	0.981	0.289	0.711	0.761
765	1127.16	212.40	1.49	208.10	205.21	0.980	0.188	0.812	0.797
780	1174.72	274.00	2.98	267.40	264.73	0.976	0.233	0.767	0.831
795	1218.35	204.00	2.78	199.00	197.10	0.975	0.167	0.833	0.862
810	1257.86	370.80	7.22	360.60	358.25	0.972	0.295	0.705	0.890
825	1293.09	213.60	0.63	209.00	206.37	0.978	0.165	0.835	0.915
840	1323.89	143.30	0.59	140.40	138.45	0.980	0.108	0.892	0.936
855	1350.12	435.20	7.98	420.20	420.48	0.966	0.322	0.678	0.955
870	1371.66	356.50	3.47	344.20	344.44	0.965	0.260	0.740	0.970
885	1388.44	203.50	-1.30	198.00	196.61	0.973	0.147	0.853	0.982
900	1400.37	279.50	4.38	269.30	270.04	0.964	0.200	0.800	0.990
915	1407.41	86.20	-3.83	84.70	83.28	0.983	0.061	0.939	0.995
930	1409.52	195.80	1.59	188.50	189.18	0.963	0.139	0.861	0.997
945	1406.70	393.90	4.35	378.80	380.57	0.962	0.280	0.720	0.995
960	1398.96	224.30	2.52	216.30	216.71	0.964	0.160	0.840	0.989
975	1386.33	103.60	-0.46	100.70	100.09	0.972	0.075	0.925	0.981
990	1368.86	213.80	1.92	206.80	206.57	0.967	0.156	0.844	0.968
1005	1346.63	378.60	3.34	364.70	365.79	0.963	0.281	0.719	0.952
1020	1319.74	350.00	2.98	338.10	338.16	0.966	0.265	0.735	0.933
1035	1288.30	423.30	5.60	409.80	408.98	0.968	0.329	0.671	0.911
1050	1252.45	380.60	3.17	370.40	367.72	0.973	0.304	0.696	0.886
1065	1212.33	438.40	4.67	427.00	423.57	0.974	0.362	0.638	0.857
1080	1168.13	470.70	4.73	458.90	454.77	0.975	0.403	0.597	0.826
1095	1120.02	523.70	12.56	501.40	505.98	0.957	0.468	0.532	0.792
1110	1068.22	641.90	135.54	476.10	620.18	0.742	0.601	0.399	0.756
1125	1012.95	722.00	363.74	316.50	697.57	0.438	0.713	0.287	0.716
1140	954.44	792.00	593.39	137.80	765.20	0.174	0.830	0.170	0.675
1155	892.95	713.00	536.21	118.50	688.88	0.166	0.798	0.202	0.632
1170	828.73	634.00	471.86	107.60	612.55	0.170	0.765	0.235	0.586
1185	762.07	619.80	441.99	122.00	598.83	0.197	0.813	0.187	0.539
1200	693.25	556.40	406.48	93.60	537.57	0.168	0.803	0.197	0.490
1215	622.56	496.10	353.58	88.40	479.31	0.178	0.797	0.203	0.440
1230	550.30	438.60	302.82	84.30	423.76	0.192	0.797	0.203	0.389
1245	476.79	370.70	251.58	70.40	358.16	0.190	0.777	0.223	0.337
1260	402.34	170.00	85.23	69.21	164.25	0.407	0.423	0.577	0.285
1275	327.27	280.10	146.41	94.00	270.62	0.336	0.856	0.144	0.231
1290	251.91	216.70	93.38	91.30	209.37	0.421	0.860	0.140	0.178
1305	176.56	37.75	-1.06	39.65	36.47	1.000	0.214	0.786	0.125
1320	101.56	25.84	-0.32	27.18	24.97	1.000	0.254	0.746	0.072
1335	27.23	27.02	1.97	19.53	26.11	0.723	0.992	0.008	0.019
1350	0.00	8.39	0.05	9.01	8.11	0.000	0.000	0.000	-0.033
1365	0.00	1.53	0.12	2.12	1.48	0.000	0.000	0.000	-0.084
1380	0.00	-0.99	0.04	-0.63	-0.95	0.000	0.000	0.000	-0.133
1395	0.00	-0.95	0.02	-0.62	-0.92	0.000	0.000	0.000	-0.182
1410	0.00	-1.41	0.14	-0.84	-1.36	0.000	0.000	0.000	-0.229
1425	0.00	-1.48	0.36	-0.80	-1.43	0.000	0.000	0.000	-0.274

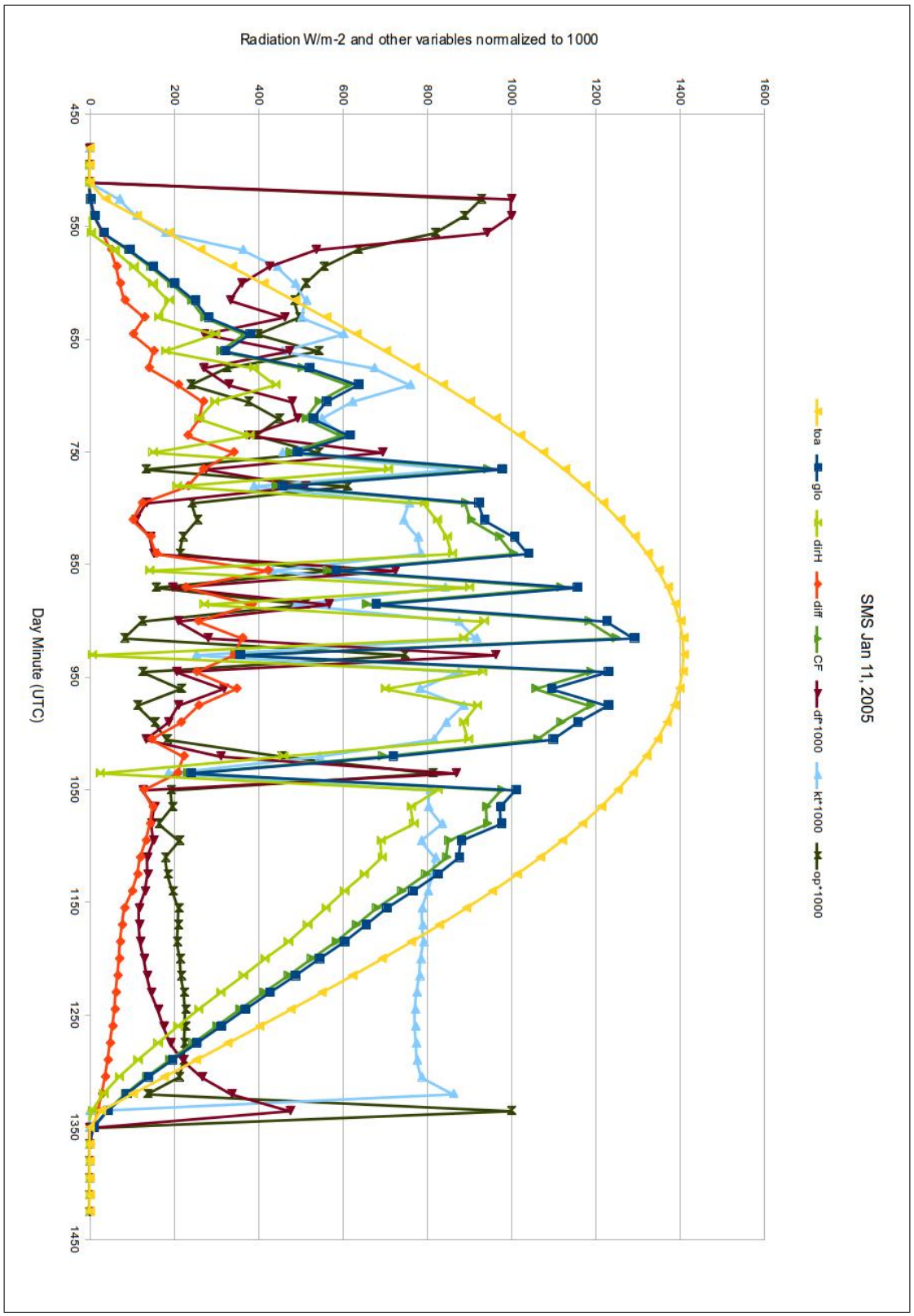


Figure C.11 - Graphic illustrating data measured and calculated on SMS January 11^{th} 2005.

Table C.12 - Solar radiation and derived data for SMS jan 12^{th} 2005.

min	toa	glo	dirH	diff	CF	df	kt	op	cos
480	0.00	-1.72	-0.03	-1.24	-1.66	0.000	0.000	0.000	-0.126
495	0.00	-1.88	0.02	-1.16	-1.82	0.000	0.000	0.000	-0.076
510	0.00	-1.49	0.01	-0.75	-1.44	0.000	0.000	0.000	-0.025
525	37.85	1.35	-0.02	2.24	1.31	1.000	0.036	0.964	0.027
540	112.30	10.19	4.35	10.47	9.85	1.000	0.091	0.909	0.079
555	187.37	37.71	25.80	21.08	36.43	0.559	0.201	0.799	0.133
570	262.74	88.70	79.50	35.79	85.70	0.403	0.338	0.662	0.186
585	338.09	146.60	124.80	44.77	141.64	0.305	0.434	0.566	0.239
600	413.09	203.80	176.09	52.15	196.90	0.256	0.493	0.507	0.292
615	487.42	259.40	225.60	58.58	250.62	0.226	0.532	0.468	0.345
630	560.77	316.50	278.83	64.27	305.79	0.203	0.564	0.436	0.397
645	632.82	374.60	331.21	69.44	361.93	0.185	0.592	0.408	0.448
660	703.26	434.80	388.97	70.60	420.09	0.162	0.618	0.382	0.497
675	771.79	495.00	444.89	73.20	478.25	0.148	0.641	0.359	0.546
690	838.11	551.20	496.17	75.80	532.55	0.138	0.658	0.342	0.593
705	901.95	609.50	549.91	77.00	588.88	0.126	0.676	0.324	0.638
720	963.03	665.70	598.73	81.20	643.18	0.122	0.691	0.309	0.681
735	1021.09	713.00	638.44	84.50	688.88	0.119	0.698	0.302	0.722
750	1075.88	765.00	684.87	84.80	739.12	0.111	0.711	0.289	0.761
765	1127.16	808.00	722.30	87.80	780.66	0.109	0.717	0.283	0.797
780	1174.72	852.00	760.25	88.20	823.17	0.104	0.725	0.275	0.831
795	1218.35	894.00	800.55	88.00	863.75	0.098	0.734	0.266	0.862
810	1257.86	933.00	834.52	90.20	901.43	0.097	0.742	0.258	0.890
825	1293.09	969.00	852.41	103.80	936.21	0.107	0.749	0.251	0.915
840	1323.89	939.00	729.44	197.20	907.23	0.210	0.709	0.291	0.936
855	1350.12	833.00	614.69	199.70	804.82	0.240	0.617	0.383	0.955
870	1371.66	729.00	394.96	285.40	704.33	0.391	0.531	0.469	0.970
885	1388.44	234.00	6.58	224.70	226.08	0.960	0.169	0.831	0.982
900	1400.37	803.00	414.61	366.40	775.83	0.456	0.573	0.427	0.990
915	1407.41	283.80	7.22	273.40	274.20	0.963	0.202	0.798	0.995
930	1409.52	373.90	40.47	330.50	361.25	0.884	0.265	0.735	0.997
945	1406.70	1245.00	954.16	247.10	1202.88	0.198	0.885	0.115	0.995
960	1398.96	1237.00	953.85	229.40	1195.15	0.185	0.884	0.116	0.989
975	1386.33	1242.00	956.03	239.60	1199.98	0.193	0.896	0.104	0.981
990	1368.86	1169.00	938.17	185.30	1129.45	0.159	0.854	0.146	0.968
1005	1346.63	1183.00	898.18	232.70	1142.97	0.197	0.878	0.122	0.952
1020	1319.74	1045.00	841.97	152.40	1009.64	0.146	0.792	0.208	0.933
1035	1288.30	1015.00	775.44	170.00	980.66	0.167	0.788	0.212	0.911
1050	1252.45	1056.00	853.07	150.30	1020.27	0.142	0.843	0.157	0.886
1065	1212.33	1026.00	817.17	147.30	991.29	0.144	0.846	0.154	0.857
1080	1168.13	1004.00	787.38	159.00	970.03	0.158	0.859	0.141	0.826
1095	1120.02	921.00	706.63	154.40	889.84	0.168	0.822	0.178	0.792
1110	1068.22	877.00	673.95	135.20	847.33	0.154	0.821	0.179	0.756
1125	1012.95	150.00	10.85	137.20	144.92	0.915	0.148	0.852	0.716
1140	954.44	245.40	102.07	138.00	237.10	0.562	0.257	0.743	0.675
1155	892.95	121.90	-4.20	122.40	117.78	1.000	0.137	0.863	0.632
1170	828.73	667.70	449.58	155.60	645.11	0.233	0.806	0.194	0.586
1185	762.07	649.00	440.91	149.10	627.04	0.230	0.852	0.148	0.539
1200	693.25	557.30	393.24	106.50	538.44	0.191	0.804	0.196	0.490
1215	622.56	492.50	339.49	99.10	475.84	0.201	0.791	0.209	0.440
1230	550.30	412.50	269.77	94.40	398.54	0.229	0.750	0.250	0.389
1245	476.79	347.10	222.27	79.40	335.36	0.229	0.728	0.272	0.337
1260	402.34	177.50	88.65	68.90	171.49	0.388	0.441	0.559	0.285
1275	327.27	209.40	109.33	70.00	202.31	0.334	0.640	0.360	0.231
1290	251.91	176.80	85.08	61.94	170.82	0.350	0.702	0.298	0.178
1305	176.56	42.23	0.22	43.02	40.80	1.000	0.239	0.761	0.125
1320	101.56	66.03	18.20	33.60	63.80	0.509	0.650	0.350	0.072
1335	27.23	23.57	0.74	21.93	22.77	0.930	0.866	0.134	0.019
1350	0.00	8.06	-0.33	9.04	7.79	0.000	0.000	0.000	-0.033
1365	0.00	-0.19	0.24	0.79	-0.18	0.000	0.000	0.000	-0.084
1380	0.00	-2.04	0.31	-1.02	-1.97	0.000	0.000	0.000	-0.134
1395	0.00	-2.02	0.24	-1.23	-1.95	0.000	0.000	0.000	-0.182
1410	0.00	-2.07	0.62	-0.98	-2.00	0.000	0.000	0.000	-0.229

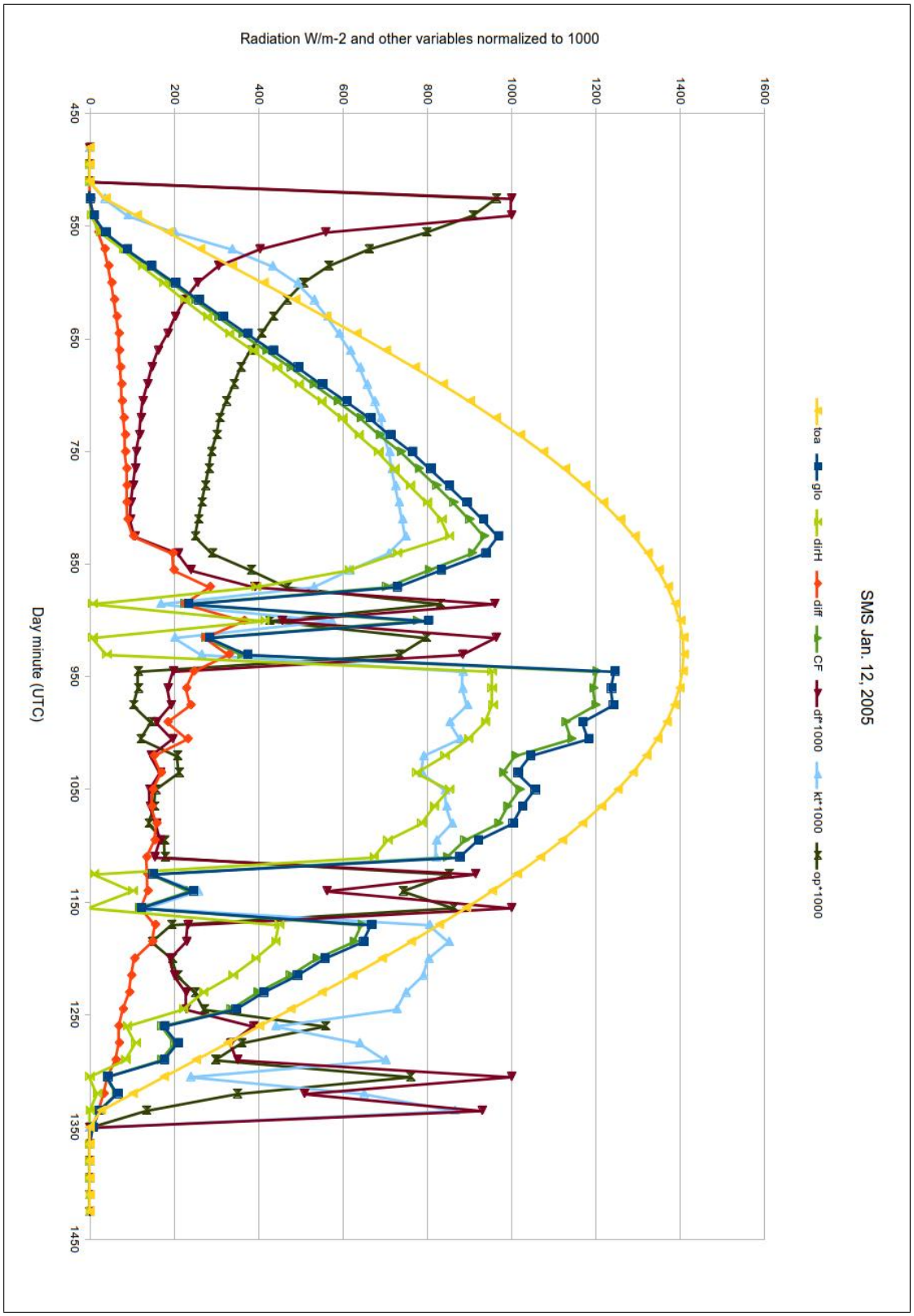


Figure C.12 - Graphic illustrating data measured and calculated on SMS January 12^{th} 2005.

Table C.13 - Solar radiation and derived data for SMS jan 13^{th} 2005.

min	toa	glo	dirH	diff	CF	df	kt	op	cos
480	0.00	-2.20	0.15	-1.11	-2.12	0.000	0.000	0.000	-0.126
495	0.00	-2.30	0.15	-1.07	-2.22	0.000	0.000	0.000	-0.076
510	0.00	-1.86	0.03	-0.86	-1.80	0.000	0.000	0.000	-0.025
525	37.85	0.31	0.00	0.98	0.30	1.000	0.008	0.992	0.027
540	112.30	10.13	3.90	10.51	9.79	1.000	0.090	0.910	0.079
555	187.37	41.51	24.12	26.70	40.11	0.643	0.222	0.778	0.133
570	262.74	79.40	61.53	41.86	76.71	0.527	0.302	0.698	0.186
585	338.09	132.50	100.55	51.65	128.02	0.390	0.392	0.608	0.239
600	413.09	174.00	143.02	52.02	168.11	0.299	0.421	0.579	0.292
615	487.42	239.90	206.33	58.11	231.78	0.242	0.492	0.508	0.345
630	560.77	320.50	284.78	64.46	309.66	0.201	0.572	0.428	0.397
645	632.82	379.20	334.35	73.40	366.37	0.194	0.599	0.401	0.448
660	703.26	439.20	371.07	93.30	424.34	0.212	0.625	0.375	0.497
675	771.79	433.80	336.92	115.20	419.12	0.266	0.562	0.438	0.546
690	838.11	423.70	304.81	131.50	409.36	0.310	0.506	0.494	0.593
705	901.95	539.60	401.97	149.20	521.34	0.277	0.598	0.402	0.638
720	963.03	608.70	484.98	134.50	588.10	0.221	0.632	0.368	0.681
735	1021.09	722.00	603.05	129.50	697.57	0.179	0.707	0.293	0.722
750	1075.88	625.30	490.82	137.20	604.14	0.219	0.581	0.419	0.761
765	1127.16	789.00	671.27	118.30	762.30	0.150	0.700	0.300	0.797
780	1174.72	842.00	726.18	115.10	813.51	0.137	0.717	0.283	0.831
795	1218.35	878.00	762.63	115.20	848.29	0.131	0.721	0.279	0.862
810	1257.86	874.00	744.66	121.00	844.43	0.138	0.695	0.305	0.890
825	1293.09	969.00	857.89	101.20	936.21	0.104	0.749	0.251	0.915
840	1323.89	1000.00	870.83	115.00	966.17	0.115	0.755	0.245	0.936
855	1350.12	1101.00	902.41	176.30	1063.75	0.160	0.815	0.185	0.955
870	1371.66	1135.00	919.72	191.50	1096.60	0.169	0.827	0.173	0.970
885	1388.44	1171.00	937.84	208.40	1131.38	0.178	0.843	0.157	0.982
900	1400.37	518.40	276.05	240.80	500.86	0.465	0.370	0.630	0.990
915	1407.41	1153.00	948.67	164.00	1113.99	0.142	0.819	0.181	0.995
930	1409.52	1172.00	976.01	155.30	1132.35	0.133	0.831	0.169	0.997
945	1406.70	1139.00	966.10	130.20	1100.46	0.114	0.810	0.190	0.995
960	1398.96	1079.00	840.06	192.70	1042.49	0.179	0.771	0.229	0.989
975	1386.33	1101.00	930.53	120.20	1063.75	0.109	0.794	0.206	0.981
990	1368.86	1049.00	871.37	130.60	1013.51	0.125	0.766	0.234	0.968
1005	1346.63	1080.00	916.27	109.70	1043.46	0.102	0.802	0.198	0.952
1020	1319.74	1047.00	884.91	111.80	1011.57	0.107	0.793	0.207	0.933
1035	1288.30	1028.00	871.12	99.50	993.22	0.097	0.798	0.202	0.911
1050	1252.45	1018.00	839.79	117.20	983.56	0.115	0.813	0.187	0.886
1065	1212.33	1017.00	787.16	163.40	982.59	0.161	0.839	0.161	0.857
1080	1168.13	940.00	755.16	120.40	908.20	0.128	0.805	0.195	0.826
1095	1120.02	843.00	650.38	126.80	814.48	0.150	0.753	0.247	0.792
1110	1068.22	859.00	688.30	103.80	829.94	0.121	0.804	0.196	0.756
1125	1012.95	804.00	637.64	102.10	776.80	0.127	0.794	0.206	0.716
1140	954.44	761.00	596.09	100.70	735.25	0.132	0.797	0.203	0.675
1155	892.95	699.70	550.10	89.10	676.03	0.127	0.784	0.216	0.632
1170	828.73	657.70	508.20	89.60	635.45	0.136	0.794	0.206	0.586
1185	762.07	596.00	456.00	80.80	575.83	0.136	0.782	0.218	0.539
1200	693.25	538.90	405.50	76.30	520.67	0.142	0.777	0.223	0.490
1215	622.56	488.30	364.59	67.70	471.78	0.139	0.784	0.216	0.440
1230	550.30	433.60	310.21	70.60	418.93	0.163	0.788	0.212	0.389
1245	476.79	375.20	252.25	73.40	362.51	0.196	0.787	0.213	0.337
1260	402.34	312.20	195.87	71.10	301.64	0.228	0.776	0.224	0.285
1275	327.27	246.60	148.86	57.50	238.26	0.233	0.753	0.247	0.231
1290	251.91	186.80	101.15	52.14	180.48	0.279	0.742	0.258	0.178
1305	176.56	130.70	59.43	44.01	126.28	0.337	0.740	0.260	0.125
1320	101.56	81.90	26.61	35.39	79.13	0.432	0.806	0.194	0.072
1335	27.23	38.91	4.32	23.87	37.59	0.613	0.000	1.000	0.019
1350	0.00	9.14	-0.76	10.26	8.83	0.000	0.000	0.000	-0.033
1365	0.00	-0.45	0.40	1.14	-0.44	0.000	0.000	0.000	-0.084
1380	0.00	-2.30	0.48	-1.17	-2.22	0.000	0.000	0.000	-0.133
1395	0.00	-2.34	0.36	-1.32	-2.26	0.000	0.000	0.000	-0.182
1410	0.00	-2.35	0.34	-1.39	-2.27	0.000	0.000	0.000	-0.229
1425	0.00	-2.51	0.64	-1.25	-2.42	0.000	0.000	0.000	-0.274

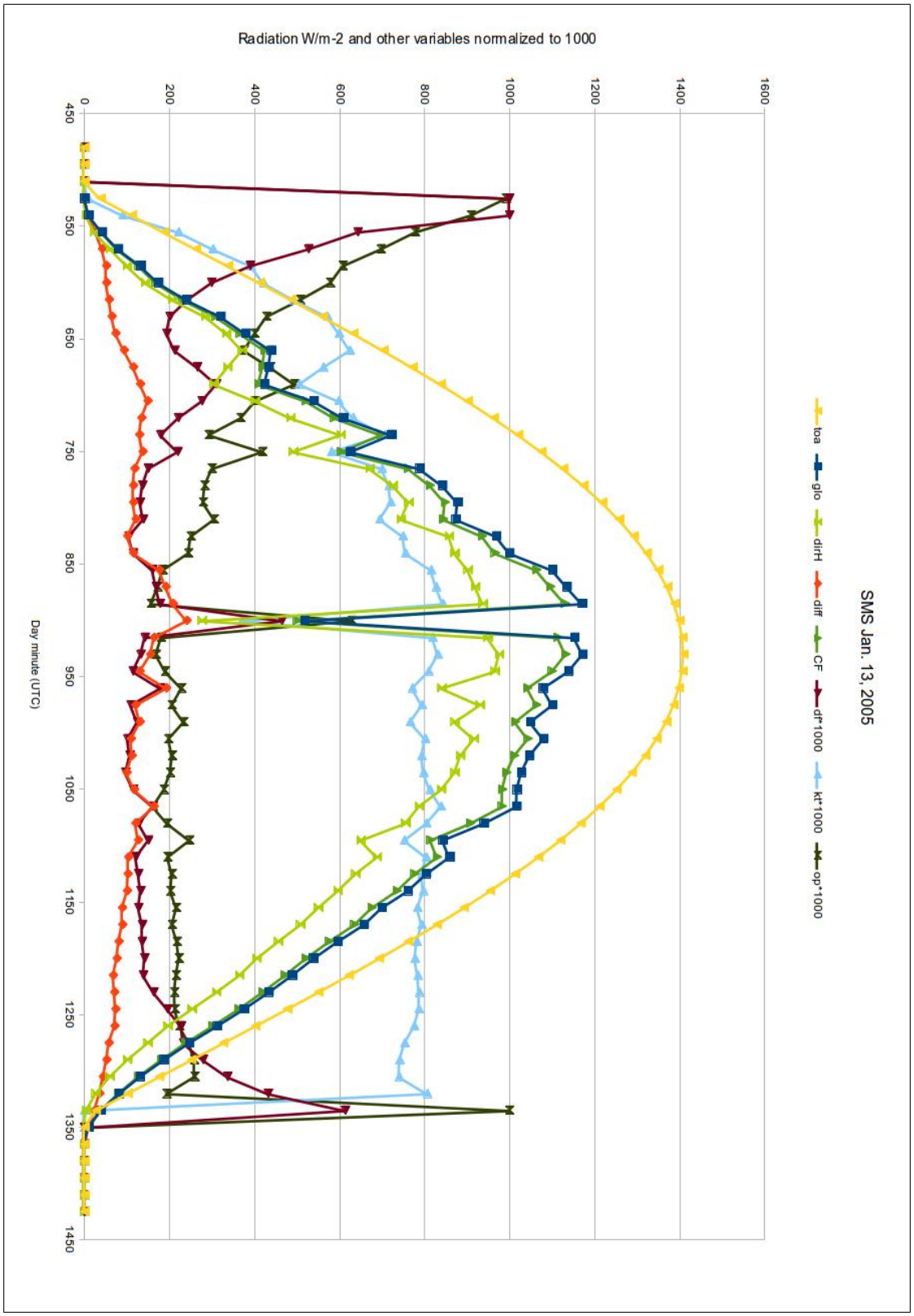


Figure C.13 - Graphic illustrating data measured and calculated on SMS January 13^{th} 2005.

Table C.14 - Solar radiation and derived data for SMS jan 14^{th} 2005.

min	toa	glo	dirH	diff	CF	df	kt	op	cos
480	0.00	-2.36	0.10	-1.44	-2.28	0.000	0.000	0.000	-0.126
495	0.00	-2.20	-0.11	-1.77	-2.13	0.000	0.000	0.000	-0.076
510	0.00	-2.30	0.01	-1.35	-2.22	0.000	0.000	0.000	-0.025
525	37.85	0.25	0.02	0.86	0.24	1.000	0.007	0.993	0.027
540	112.30	8.15	2.29	8.19	7.87	1.000	0.073	0.927	0.079
555	187.37	31.79	20.04	19.28	30.71	0.606	0.170	0.830	0.133
570	262.74	73.30	76.14	32.43	70.82	0.442	0.279	0.721	0.186
585	338.09	149.50	137.71	40.68	144.44	0.272	0.442	0.558	0.239
600	413.09	208.30	191.75	47.30	201.25	0.227	0.504	0.496	0.292
615	487.42	265.40	244.77	52.25	256.42	0.197	0.545	0.456	0.345
630	560.77	323.90	299.85	56.60	312.94	0.175	0.578	0.422	0.397
645	632.82	383.90	356.28	60.02	370.91	0.156	0.607	0.393	0.448
660	703.26	444.90	411.85	64.04	429.85	0.144	0.633	0.367	0.497
675	771.79	504.60	466.73	66.24	487.53	0.131	0.654	0.346	0.546
690	838.11	561.00	519.29	67.34	542.02	0.120	0.669	0.331	0.593
705	901.95	618.20	570.33	69.50	597.28	0.112	0.685	0.315	0.638
720	963.03	670.80	615.76	73.30	648.10	0.109	0.697	0.303	0.681
735	1021.09	721.00	659.38	75.80	696.61	0.105	0.706	0.294	0.722
750	1075.88	773.00	706.18	77.20	746.85	0.100	0.718	0.282	0.761
765	1127.16	824.00	750.20	78.50	796.12	0.095	0.731	0.269	0.797
780	1174.72	865.00	785.18	80.10	835.73	0.093	0.736	0.264	0.831
795	1218.35	911.00	828.99	79.80	880.18	0.088	0.748	0.252	0.862
810	1257.86	942.00	851.42	82.80	910.13	0.088	0.749	0.251	0.890
825	1293.09	978.00	883.50	82.50	944.91	0.084	0.756	0.244	0.915
840	1323.89	1005.00	903.61	84.70	971.00	0.084	0.759	0.241	0.936
855	1350.12	1034.00	930.10	85.20	999.01	0.082	0.766	0.234	0.955
870	1371.66	1051.00	933.30	90.80	1015.44	0.086	0.766	0.234	0.970
885	1388.44	1076.00	952.57	94.50	1039.59	0.088	0.775	0.225	0.982
900	1400.37	1091.00	952.84	105.80	1054.09	0.097	0.779	0.221	0.990
915	1407.41	1095.00	938.71	122.00	1057.95	0.111	0.778	0.222	0.995
930	1409.52	1117.00	968.04	107.10	1079.21	0.096	0.792	0.208	0.997
945	1406.70	1112.00	945.20	122.80	1074.38	0.110	0.791	0.209	0.995
960	1398.96	1114.00	948.91	114.50	1076.31	0.103	0.796	0.204	0.989
975	1386.33	1087.00	920.73	124.20	1050.22	0.114	0.784	0.216	0.981
990	1368.86	1094.00	924.62	117.90	1056.98	0.108	0.799	0.201	0.968
1005	1346.63	1068.00	903.89	111.20	1031.86	0.104	0.793	0.207	0.952
1020	1319.74	1051.00	892.38	102.30	1015.44	0.097	0.796	0.204	0.933
1035	1288.30	1014.00	862.00	94.60	979.69	0.093	0.787	0.213	0.911
1050	1252.45	983.00	831.81	94.50	949.74	0.096	0.785	0.215	0.886
1065	1212.33	948.00	793.17	94.10	915.92	0.099	0.782	0.218	0.857
1080	1168.13	920.00	764.24	94.80	888.87	0.103	0.788	0.212	0.826
1095	1120.02	893.00	732.77	95.70	862.79	0.107	0.797	0.203	0.792
1110	1068.22	733.00	507.73	178.90	708.20	0.244	0.686	0.314	0.756
1125	1012.95	822.00	626.90	130.80	794.19	0.159	0.811	0.189	0.716
1140	954.44	787.00	594.74	128.60	760.37	0.163	0.825	0.175	0.675
1155	892.95	753.00	538.73	151.90	727.52	0.202	0.843	0.157	0.632
1170	828.73	678.50	488.27	130.50	655.54	0.192	0.819	0.181	0.586
1185	762.07	671.60	441.99	169.90	648.88	0.253	0.881	0.119	0.539
1200	693.25	553.20	394.71	100.40	534.48	0.181	0.798	0.202	0.490
1215	622.56	481.00	344.34	81.60	464.73	0.170	0.773	0.227	0.440
1230	550.30	421.10	296.59	72.00	406.85	0.171	0.765	0.235	0.389
1245	476.79	359.50	243.14	68.87	347.34	0.192	0.754	0.246	0.337
1260	402.34	298.90	190.32	65.10	288.79	0.218	0.743	0.257	0.285
1275	327.27	240.00	140.86	60.31	231.88	0.251	0.733	0.267	0.231
1290	251.91	170.50	87.52	53.22	164.73	0.312	0.677	0.323	0.178
1305	176.56	124.70	47.19	55.60	120.48	0.446	0.706	0.294	0.125
1320	101.56	74.00	19.66	39.35	71.50	0.532	0.729	0.271	0.072
1335	27.23	25.63	0.81	23.67	24.76	0.924	0.941	0.059	0.019
1350	0.00	5.06	0.09	6.23	4.89	0.000	0.000	0.000	-0.033
1365	0.00	-1.12	0.18	0.14	-1.08	0.000	0.000	0.000	-0.084
1380	0.00	-2.09	0.25	-1.14	-2.02	0.000	0.000	0.000	-0.133
1395	0.00	-1.26	0.08	-0.93	-1.21	0.000	0.000	0.000	-0.182
1410	0.00	-1.10	-0.14	-0.97	-1.06	0.000	0.000	0.000	-0.229
1425	0.00	-1.40	0.36	-0.63	-1.35	0.000	0.000	0.000	-0.274

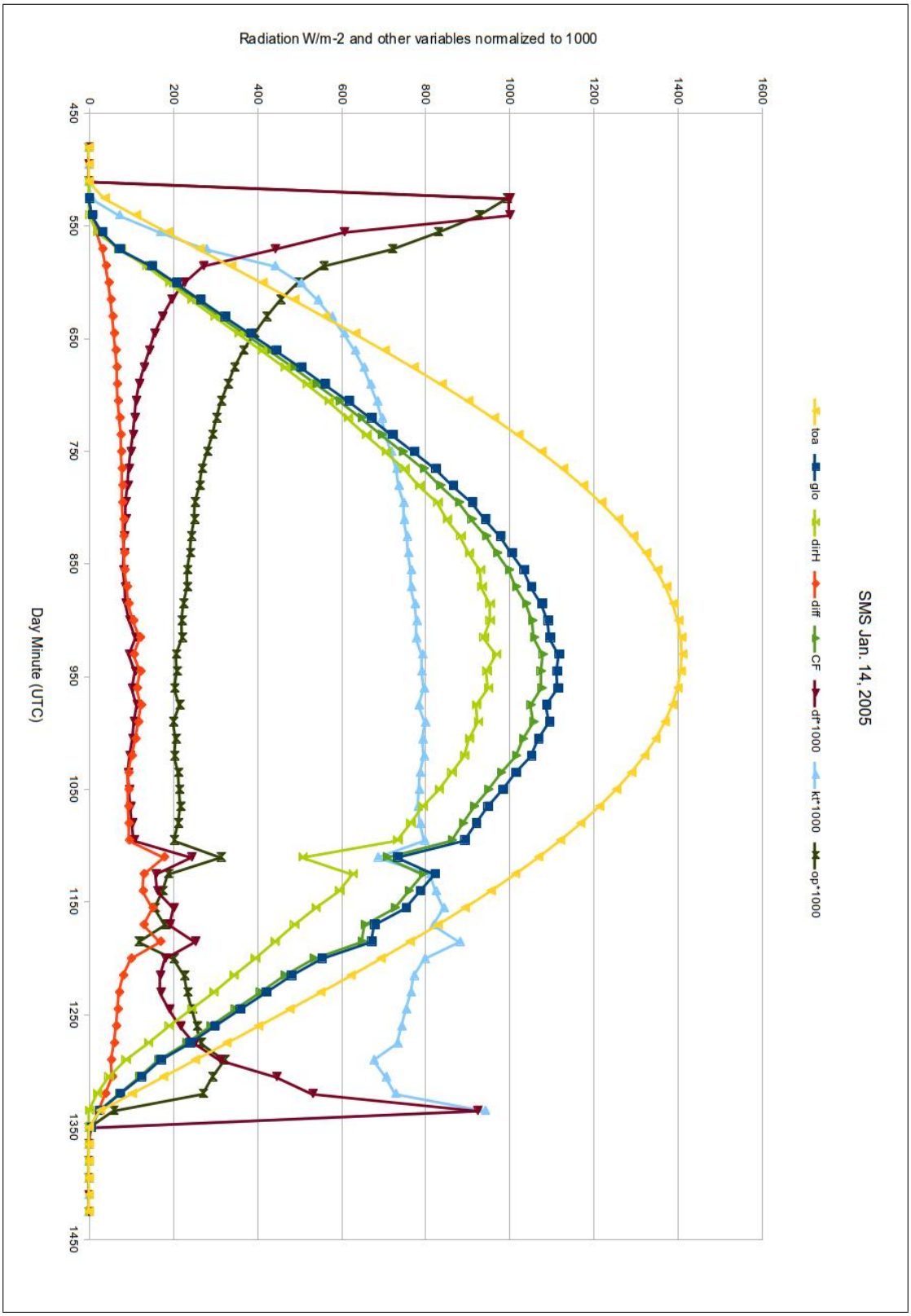


Figure C.14 - Graphic illustrating data measured and calculated on SMS January 14^{th} 2005.

Table C.15 - Solar radiation and derived data for SMS jan 15^{th} 2005.

min	toa	glo	dirH	diff	CF	df	kt	op	cos
480	0.00	-0.77	-0.03	-0.62	-0.74	0.000	0.000	0.000	-0.126
495	0.00	-1.04	0.02	-0.75	-1.00	0.000	0.000	0.000	-0.076
510	0.00	-0.94	0.00	-0.65	-0.91	0.000	0.000	0.000	-0.025
525	37.85	-0.71	0.00	-0.37	-0.69	0.522	-0.019	1.000	0.027
540	112.30	-3.16	-0.78	-0.25	-3.06	0.078	-0.028	1.000	0.079
555	187.37	-0.21	-0.12	0.37	-0.20	-1.761	-0.001	1.000	0.133
570	262.74	2.85	-0.05	3.13	2.75	1.000	0.011	0.989	0.186
585	338.09	2.66	0.00	2.84	2.57	1.000	0.008	0.992	0.239
600	413.09	3.14	-0.01	3.27	3.03	1.000	0.008	0.992	0.292
615	487.42	8.84	0.00	8.84	8.54	1.000	0.018	0.982	0.345
630	560.77	11.22	0.08	11.12	10.84	0.991	0.020	0.980	0.397
645	632.82	13.50	-0.05	13.36	13.04	0.990	0.021	0.979	0.448
660	703.26	15.51	0.11	15.20	14.99	0.980	0.022	0.978	0.497
675	771.79	37.46	0.66	36.52	36.19	0.975	0.049	0.951	0.546
690	838.11	58.36	-0.19	57.52	56.39	0.986	0.070	0.930	0.593
705	901.95	58.78	0.00	57.92	56.79	0.985	0.065	0.935	0.638
720	963.03	103.40	-0.01	102.00	99.90	0.986	0.107	0.893	0.681
735	1021.09	74.90	1.58	73.40	72.37	0.980	0.073	0.927	0.722
750	1075.88	59.93	1.05	58.90	57.90	0.983	0.056	0.944	0.761
765	1127.16	42.15	0.25	41.40	40.72	0.982	0.037	0.963	0.797
780	1174.72	29.52	-1.75	29.31	28.52	0.993	0.025	0.975	0.831
795	1218.35	26.33	-2.68	26.13	25.44	0.992	0.022	0.978	0.862
810	1257.86	27.19	-1.13	26.75	26.27	0.984	0.022	0.978	0.890
825	1293.09	25.44	-0.39	24.80	24.58	0.975	0.020	0.980	0.915
840	1323.89	32.92	0.33	32.00	31.81	0.972	0.025	0.975	0.936
855	1350.12	46.41	0.40	45.04	44.84	0.970	0.034	0.966	0.955
870	1371.66	73.80	-0.38	71.50	71.30	0.969	0.054	0.946	0.970
885	1388.44	80.40	0.09	77.70	77.68	0.966	0.058	0.942	0.982
900	1400.37	77.00	-0.83	74.80	74.39	0.971	0.055	0.945	0.990
915	1407.41	83.60	-0.93	81.00	80.77	0.969	0.059	0.941	0.995
930	1409.52	100.50	-0.18	96.70	97.10	0.962	0.071	0.929	0.997
945	1406.70	131.20	0.74	126.90	126.76	0.967	0.093	0.907	0.995
960	1398.96	106.40	0.60	102.30	102.80	0.961	0.076	0.924	0.989
975	1386.33	145.70	0.17	141.00	140.77	0.968	0.105	0.895	0.981
990	1368.86	162.30	0.86	157.00	156.81	0.967	0.119	0.881	0.968
1005	1346.63	133.50	0.17	129.90	128.98	0.973	0.099	0.901	0.952
1020	1319.74	154.20	1.17	149.50	148.98	0.970	0.117	0.883	0.933
1035	1288.30	141.00	1.93	136.60	136.23	0.969	0.109	0.891	0.911
1050	1252.45	174.40	0.30	169.50	168.50	0.972	0.139	0.861	0.886
1065	1212.33	138.90	0.30	135.00	134.20	0.972	0.115	0.885	0.857
1080	1168.13	123.60	0.25	120.00	119.42	0.971	0.106	0.894	0.826
1095	1120.02	114.90	-0.03	112.30	111.01	0.977	0.103	0.897	0.792
1110	1068.22	160.50	1.13	157.20	155.07	0.979	0.150	0.850	0.756
1125	1012.95	137.90	1.01	135.00	133.23	0.979	0.136	0.864	0.716
1140	954.44	128.40	0.42	126.50	124.06	0.985	0.135	0.865	0.675
1155	892.95	223.40	1.83	218.70	215.84	0.979	0.250	0.750	0.632
1170	828.73	255.20	2.79	248.90	246.57	0.975	0.308	0.692	0.586
1185	762.07	288.20	9.54	271.40	278.45	0.942	0.378	0.622	0.539
1200	693.25	359.30	54.67	275.80	347.14	0.768	0.518	0.482	0.490
1215	622.56	257.50	9.57	238.80	248.79	0.927	0.414	0.586	0.440
1230	550.30	200.60	7.36	187.50	193.81	0.935	0.365	0.635	0.389
1245	476.79	184.50	0.45	181.20	178.26	0.982	0.387	0.613	0.337
1260	402.34	135.60	-0.13	133.80	131.01	0.987	0.337	0.663	0.285
1275	327.27	89.30	-0.14	88.20	86.28	0.988	0.273	0.727	0.231
1290	251.91	83.60	-0.01	82.70	80.77	0.989	0.332	0.668	0.178
1305	176.56	41.86	-0.05	41.55	40.44	0.993	0.237	0.763	0.125
1320	101.56	39.20	-0.04	39.06	37.87	0.996	0.386	0.614	0.072
1335	27.23	15.49	-0.01	15.81	14.97	1.000	0.569	0.431	0.019
1350	0.00	2.36	-0.02	2.61	2.28	0.000	0.000	0.000	-0.033
1365	0.00	4.85	0.02	5.53	4.69	0.000	0.000	0.000	-0.084
1380	0.00	-1.25	0.08	-0.57	-1.21	0.000	0.000	0.000	-0.133
1395	0.00	-1.31	0.09	-0.85	-1.27	0.000	0.000	0.000	-0.182
1410	0.00	-1.41	0.10	-0.84	-1.36	0.000	0.000	0.000	-0.229
1425	0.00	-1.43	0.12	-0.88	-1.38	0.000	0.000	0.000	-0.274

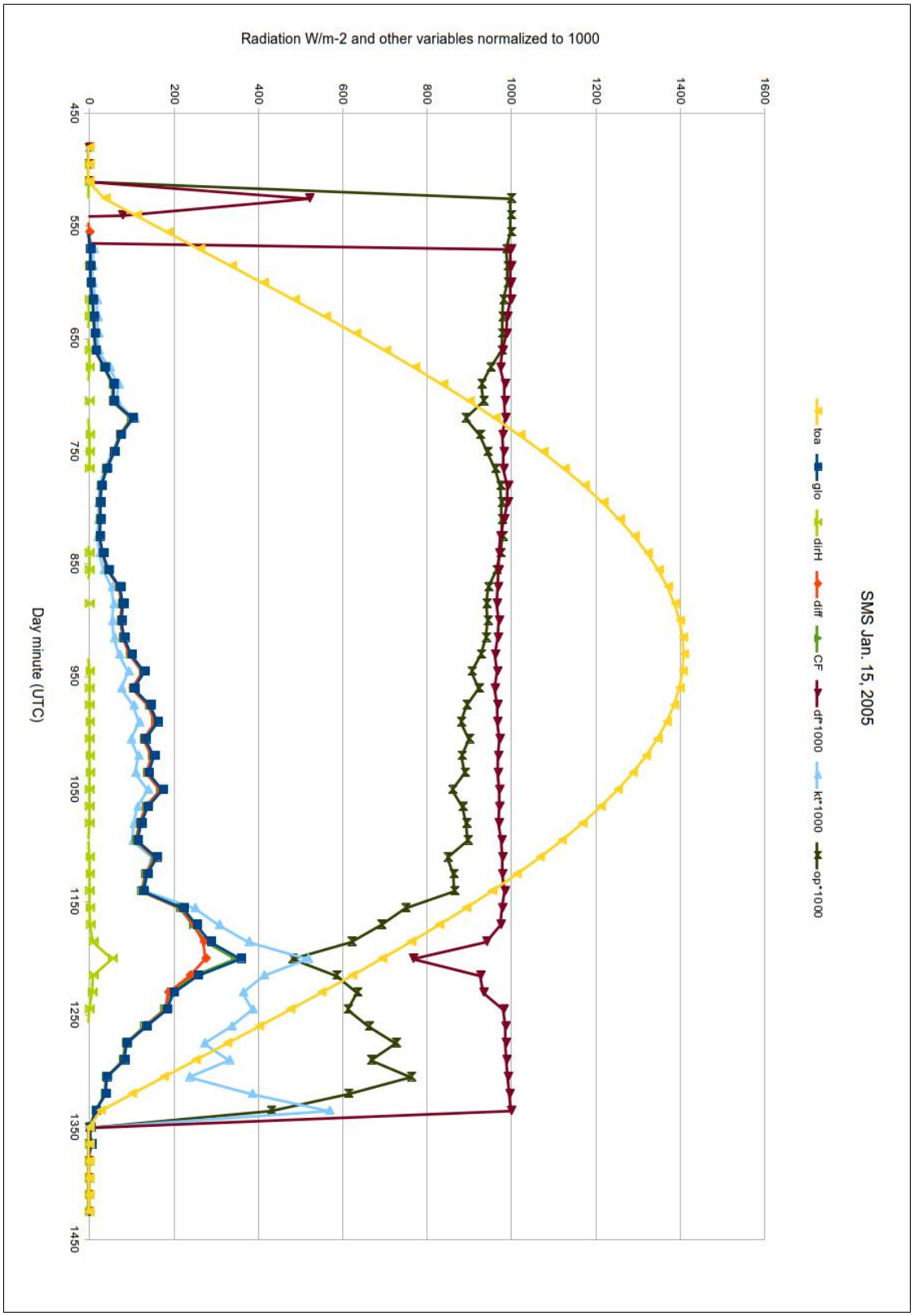


Figure C.15 - Graphic illustrating data measured and calculated on SMS January 15^{th} 2005.

Table C.16 - Solar radiation and derived data for SMS jan 16^{th} 2005.

min	toa	glo	dirH	diff	CF	df	kt	op	cos
480	0.00	-2.20	0.08	-1.43	-2.13	0.000	0.000	0.000	-0.126
495	0.00	-2.50	0.10	-1.42	-2.41	0.000	0.000	0.000	-0.076
510	0.00	-2.20	0.02	-1.11	-2.12	0.000	0.000	0.000	-0.025
525	37.85	0.34	-0.04	1.51	0.33	1.000	0.009	0.991	0.027
540	112.30	11.67	5.31	10.89	11.28	0.933	0.104	0.896	0.079
555	187.37	46.41	21.12	22.60	44.84	0.487	0.248	0.752	0.133
570	262.74	78.80	88.64	32.70	76.13	0.415	0.300	0.700	0.186
585	338.09	150.00	144.10	39.61	144.92	0.264	0.444	0.556	0.239
600	413.09	210.00	198.71	47.05	202.89	0.224	0.508	0.492	0.292
615	487.42	269.30	252.70	53.13	260.19	0.197	0.553	0.447	0.345
630	560.77	329.30	309.77	57.39	318.16	0.174	0.587	0.413	0.397
645	632.82	389.90	366.57	61.10	376.71	0.157	0.616	0.384	0.448
660	703.26	453.20	426.78	62.73	437.87	0.138	0.644	0.356	0.497
675	771.79	512.50	482.56	63.90	495.16	0.125	0.664	0.336	0.546
690	838.11	572.80	538.26	65.67	553.42	0.115	0.683	0.317	0.593
705	901.95	630.50	591.38	66.65	609.17	0.106	0.699	0.301	0.638
720	963.03	689.70	647.77	66.31	666.36	0.096	0.716	0.284	0.681
735	1021.09	743.00	694.05	68.66	717.86	0.092	0.728	0.272	0.722
750	1075.88	795.00	743.46	67.94	768.10	0.085	0.739	0.261	0.761
765	1127.16	844.00	785.28	69.86	815.44	0.083	0.749	0.251	0.797
780	1174.72	895.00	832.54	69.67	864.72	0.078	0.762	0.238	0.831
795	1218.35	939.00	876.38	66.28	907.23	0.071	0.771	0.229	0.862
810	1257.86	974.00	905.70	66.26	941.04	0.068	0.774	0.226	0.890
825	1293.09	1011.00	940.21	66.10	976.79	0.065	0.782	0.218	0.915
840	1323.89	1041.00	963.54	66.96	1005.78	0.064	0.786	0.214	0.936
855	1350.12	1057.00	969.25	72.10	1021.24	0.068	0.783	0.217	0.955
870	1371.66	1078.00	983.75	74.90	1041.53	0.069	0.786	0.214	0.970
885	1388.44	1103.00	1005.60	73.10	1065.68	0.066	0.794	0.206	0.982
900	1400.37	1117.00	1013.26	75.00	1079.21	0.067	0.798	0.202	0.990
915	1407.41	1126.00	1015.36	77.90	1087.90	0.069	0.800	0.200	0.995
930	1409.52	1130.00	1012.90	81.90	1091.77	0.072	0.802	0.198	0.997
945	1406.70	1125.00	991.97	91.30	1086.94	0.081	0.800	0.200	0.995
960	1398.96	1125.00	976.61	102.50	1086.94	0.091	0.804	0.196	0.989
975	1386.33	1138.00	974.66	115.60	1099.50	0.102	0.821	0.179	0.981
990	1368.86	1110.00	962.38	92.90	1072.44	0.084	0.811	0.189	0.968
1005	1346.63	1128.00	922.94	153.40	1089.83	0.136	0.838	0.162	0.952
1020	1319.74	1088.00	921.31	110.00	1051.19	0.101	0.824	0.176	0.933
1035	1288.30	1056.00	892.99	101.70	1020.27	0.096	0.820	0.180	0.911
1050	1252.45	1029.00	864.59	104.80	994.18	0.102	0.822	0.178	0.886
1065	1212.33	1006.00	825.75	117.80	971.96	0.117	0.830	0.170	0.857
1080	1168.13	956.00	792.33	99.80	923.65	0.104	0.818	0.182	0.826
1095	1120.02	917.00	749.41	102.70	885.97	0.112	0.819	0.181	0.792
1110	1068.22	875.00	723.06	87.60	845.39	0.100	0.819	0.181	0.756
1125	1012.95	830.00	681.35	84.20	801.92	0.101	0.819	0.181	0.716
1140	954.44	780.00	633.22	81.50	753.61	0.104	0.817	0.183	0.675
1155	892.95	727.00	577.89	83.40	702.40	0.115	0.814	0.186	0.632
1170	828.73	674.00	529.30	80.80	651.20	0.120	0.813	0.187	0.586
1185	762.07	619.00	479.18	77.60	598.06	0.125	0.812	0.188	0.539
1200	693.25	560.40	425.12	75.50	541.44	0.135	0.808	0.192	0.490
1215	622.56	500.80	371.20	71.70	483.86	0.143	0.804	0.196	0.440
1230	550.30	441.70	318.78	67.31	426.76	0.152	0.803	0.197	0.389
1245	476.79	379.00	262.37	64.55	366.18	0.170	0.795	0.205	0.337
1260	402.34	317.60	209.45	60.69	306.85	0.191	0.789	0.211	0.285
1275	327.27	257.30	160.35	54.31	248.59	0.211	0.786	0.214	0.231
1290	251.91	199.40	113.42	48.15	192.65	0.241	0.792	0.208	0.178
1305	176.56	142.70	69.41	41.53	137.87	0.291	0.808	0.192	0.125
1320	101.56	87.60	30.99	33.35	84.64	0.381	0.863	0.137	0.072
1335	27.23	41.89	5.44	22.80	40.47	0.544	0.000	1.000	0.019
1350	0.00	9.49	-2.63	10.62	9.17	0.000	0.000	0.000	-0.033
1365	0.00	-0.41	0.48	1.41	-0.39	0.000	0.000	0.000	-0.084
1380	0.00	-2.45	0.56	-1.14	-2.37	0.000	0.000	0.000	-0.133
1395	0.00	-2.34	0.28	-1.60	-2.26	0.000	0.000	0.000	-0.182
1410	0.00	-2.35	0.51	-1.25	-2.27	0.000	0.000	0.000	-0.229
1425	0.00	-2.29	0.63	-1.24	-2.21	0.000	0.000	0.000	-0.274

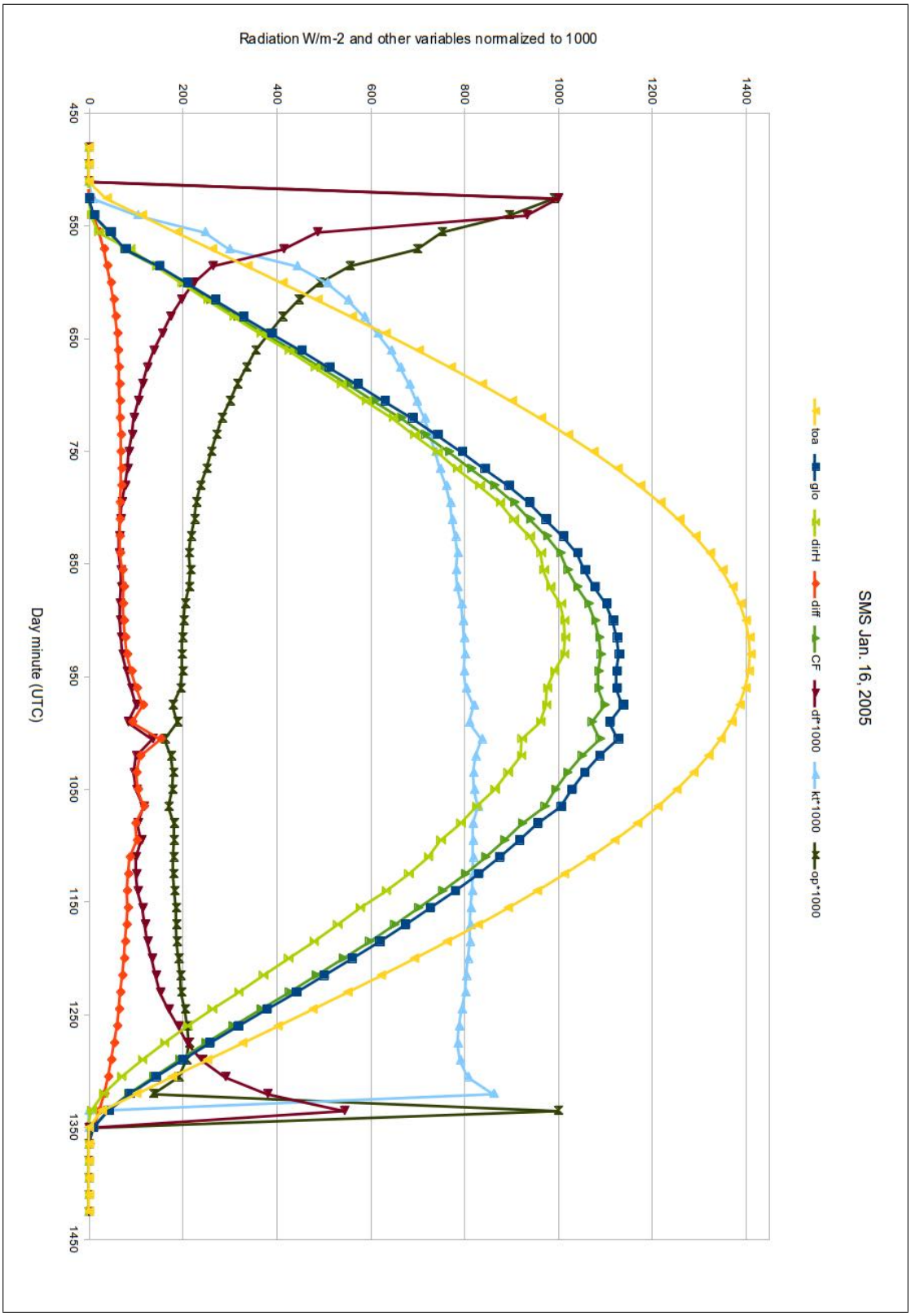


Figure C.16 - Graphic illustrating data measured and calculated on SMS January 16^{th} 2005.

Table C.17 - Solar radiation and derived data for SMS jan 17^{th} 2005.

min	toa	glo	dirH	diff	CF	df	kt	op	cos
480	0.00	-2.80	0.08	-1.59	-2.71	0.000	0.000	0.000	-0.126
495	0.00	-2.47	-0.22	-2.02	-2.38	0.000	0.000	0.000	-0.076
510	0.00	-2.52	-0.02	-1.48	-2.43	0.000	0.000	0.000	-0.025
525	37.85	-0.08	-0.02	1.22	-0.08	-14.464	-0.002	1.000	0.027
540	112.30	11.66	13.61	9.28	11.27	0.796	0.104	0.896	0.079
555	187.37	46.94	19.03	19.35	45.35	0.412	0.251	0.749	0.133
570	262.74	72.90	99.53	27.96	70.43	0.384	0.277	0.723	0.186
585	338.09	151.00	151.49	35.35	145.89	0.234	0.447	0.553	0.239
600	413.09	211.40	208.32	40.45	204.25	0.191	0.512	0.488	0.292
615	487.42	273.40	267.53	44.19	264.15	0.162	0.561	0.439	0.345
630	560.77	333.90	326.42	47.41	322.60	0.142	0.595	0.405	0.397
645	632.82	393.50	382.69	50.86	380.19	0.129	0.622	0.378	0.448
660	703.26	452.70	436.73	54.46	437.38	0.120	0.644	0.356	0.497
675	771.79	508.70	487.47	58.43	491.49	0.115	0.659	0.341	0.546
690	838.11	569.40	543.59	59.91	550.13	0.105	0.679	0.321	0.593
705	901.95	628.00	596.48	61.48	606.75	0.098	0.696	0.304	0.638
720	963.03	686.30	650.50	62.17	663.08	0.091	0.713	0.287	0.681
735	1021.09	741.00	700.55	62.92	715.93	0.085	0.726	0.274	0.722
750	1075.88	792.00	747.27	63.88	765.20	0.081	0.736	0.264	0.761
765	1127.16	847.00	797.24	62.93	818.34	0.074	0.751	0.249	0.797
780	1174.72	891.00	835.03	64.10	860.85	0.072	0.758	0.242	0.831
795	1218.35	933.00	873.80	64.42	901.43	0.069	0.766	0.234	0.862
810	1257.86	972.00	907.47	64.43	939.11	0.066	0.773	0.227	0.890
825	1293.09	1012.00	941.12	64.34	977.76	0.064	0.783	0.217	0.915
840	1323.89	1040.00	964.47	64.64	1004.81	0.062	0.786	0.214	0.936
855	1350.12	1069.00	988.35	64.40	1032.83	0.060	0.792	0.208	0.955
870	1371.66	1090.00	1005.10	65.73	1053.12	0.060	0.795	0.205	0.970
885	1388.44	1110.00	1016.41	65.69	1072.44	0.059	0.799	0.201	0.982
900	1400.37	1131.00	1037.03	64.25	1092.73	0.057	0.808	0.192	0.990
915	1407.41	1139.00	1041.24	63.66	1100.46	0.056	0.809	0.191	0.995
930	1409.52	1152.00	1047.79	62.65	1113.02	0.054	0.817	0.183	0.997
945	1406.70	1153.00	1046.69	62.54	1113.99	0.054	0.820	0.180	0.995
960	1398.96	1147.00	1035.98	63.43	1108.19	0.055	0.820	0.180	0.989
975	1386.33	1138.00	1023.68	63.94	1099.50	0.056	0.821	0.179	0.981
990	1368.86	1127.00	1008.85	63.91	1088.87	0.057	0.823	0.177	0.968
1005	1346.63	1110.00	988.66	64.33	1072.44	0.058	0.824	0.176	0.952
1020	1319.74	1089.00	967.05	64.82	1052.15	0.060	0.825	0.175	0.933
1035	1288.30	1060.00	933.08	65.83	1024.13	0.062	0.823	0.177	0.911
1050	1252.45	1036.00	907.11	64.57	1000.95	0.062	0.827	0.173	0.886
1065	1212.33	1004.00	873.77	64.02	970.03	0.064	0.828	0.172	0.857
1080	1168.13	969.00	840.25	63.08	936.21	0.065	0.830	0.170	0.826
1095	1120.02	931.00	800.90	62.77	899.50	0.067	0.831	0.169	0.792
1110	1068.22	886.00	755.55	62.19	856.02	0.070	0.829	0.171	0.756
1125	1012.95	845.00	716.45	60.23	816.41	0.071	0.834	0.166	0.716
1140	954.44	792.00	663.59	60.09	765.20	0.076	0.830	0.170	0.675
1155	892.95	745.00	618.31	58.55	719.79	0.079	0.834	0.166	0.632
1170	828.73	684.60	560.37	58.23	661.44	0.085	0.826	0.174	0.586
1185	762.07	630.30	508.28	57.16	608.97	0.091	0.827	0.173	0.539
1200	693.25	572.60	454.04	55.06	553.23	0.096	0.826	0.174	0.490
1215	622.56	514.40	400.26	53.16	497.00	0.103	0.826	0.174	0.440
1230	550.30	454.30	345.24	49.83	438.93	0.110	0.826	0.174	0.389
1245	476.79	397.10	293.73	46.63	383.66	0.117	0.833	0.167	0.337
1260	402.34	335.30	237.91	44.22	323.96	0.132	0.833	0.167	0.285
1275	327.27	272.00	183.10	41.01	262.80	0.151	0.831	0.169	0.231
1290	251.91	209.00	129.71	37.31	201.93	0.179	0.830	0.170	0.178
1305	176.56	150.30	81.43	32.47	145.21	0.216	0.851	0.149	0.125
1320	101.56	95.20	39.64	26.28	91.98	0.276	0.937	0.063	0.072
1335	27.23	13.25	0.20	14.92	12.80	1.000	0.487	0.513	0.019
1350	0.00	3.90	-0.52	5.83	3.77	0.000	0.000	0.000	-0.033
1365	0.00	-1.77	0.58	-0.06	-1.71	0.000	0.000	0.000	-0.084
1380	0.00	-2.82	0.60	-1.66	-2.72	0.000	0.000	0.000	-0.133
1395	0.00	-2.81	0.55	-1.53	-2.71	0.000	0.000	0.000	-0.182
1410	0.00	-2.81	0.34	-1.56	-2.71	0.000	0.000	0.000	-0.229
1425	0.00	-2.81	0.67	-1.43	-2.71	0.000	0.000	0.000	-0.274

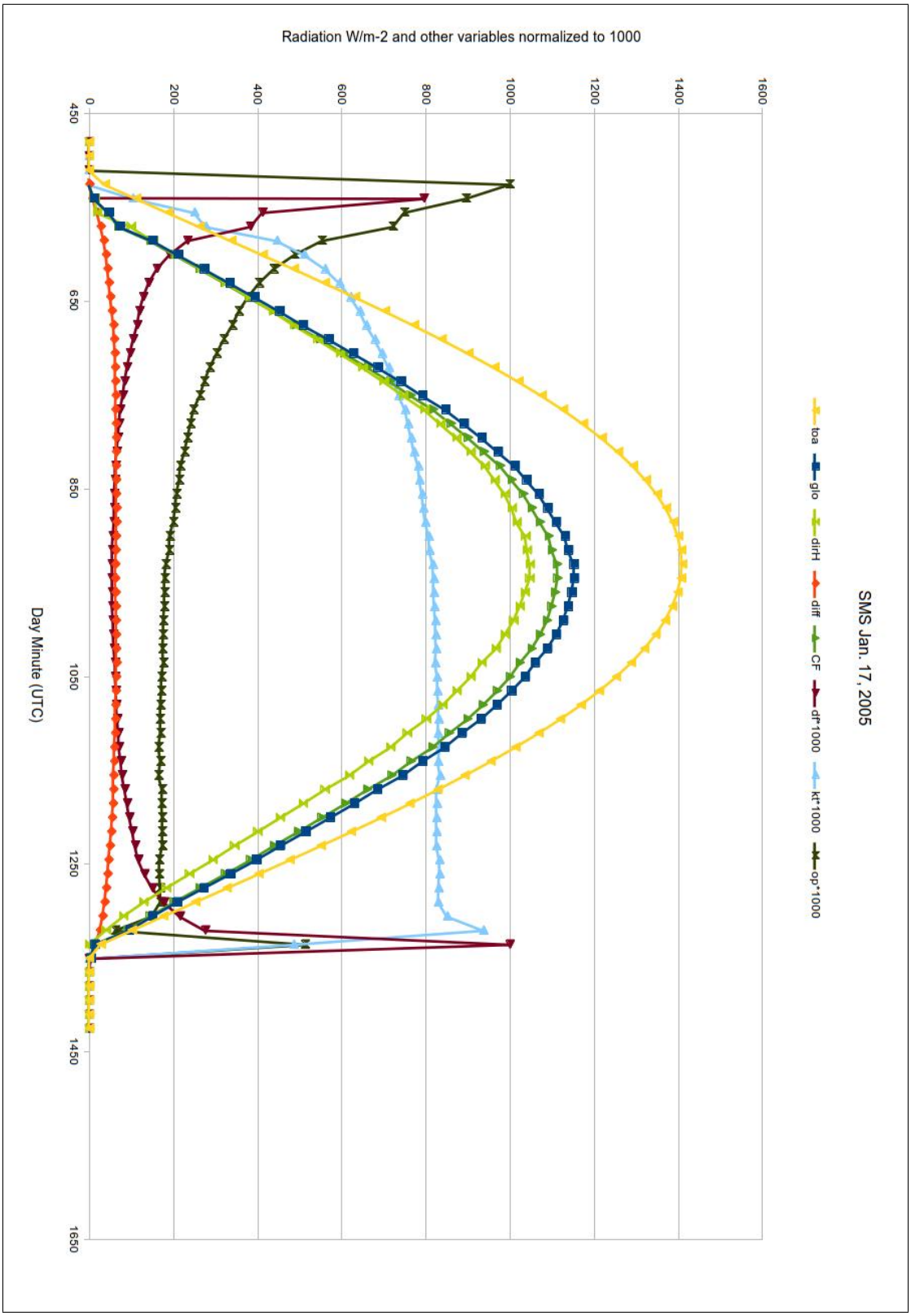


Figure C.17 - Graphic illustrating data measured and calculated on SMS January 17^{th} 2005.

Table C.18 - Solar radiation and derived data for SMS jan 18^{th} 2005.

min	toa	glo	dirH	diff	CF	df	kt	op	cos
480	0.00	-2.20	0.05	-1.40	-2.12	0.000	0.000	0.000	-0.126
495	0.00	-2.84	0.21	-0.63	-2.74	0.000	0.000	0.000	-0.076
510	0.00	-1.73	0.01	-1.78	-1.67	0.000	0.000	0.000	-0.025
525	37.85	-0.31	0.12	-0.64	-0.30	1.000	-0.008	1.000	0.027
540	112.30	6.87	3.02	6.52	6.64	0.949	0.061	0.939	0.079
555	187.37	38.94	16.67	20.23	37.62	0.520	0.208	0.792	0.133
570	262.74	67.97	85.13	30.03	65.67	0.442	0.259	0.741	0.186
585	338.09	139.50	136.35	37.86	134.78	0.271	0.413	0.587	0.239
600	413.09	197.70	192.46	43.36	191.01	0.219	0.479	0.521	0.292
615	487.42	256.60	250.29	47.59	247.92	0.185	0.526	0.474	0.345
630	560.77	315.20	306.59	51.75	304.54	0.164	0.562	0.438	0.397
645	632.82	373.20	358.07	55.85	360.57	0.150	0.590	0.410	0.448
660	703.26	433.00	413.35	58.87	418.35	0.136	0.616	0.384	0.497
675	771.79	491.90	467.82	61.47	475.26	0.125	0.637	0.363	0.546
690	838.11	550.60	522.25	63.67	531.97	0.116	0.657	0.343	0.593
705	901.95	607.60	574.15	65.65	587.04	0.108	0.674	0.326	0.638
720	963.03	662.90	622.57	68.09	640.47	0.103	0.688	0.312	0.681
735	1021.09	715.00	668.05	69.42	690.81	0.097	0.700	0.300	0.722
750	1075.88	766.00	711.50	70.80	740.08	0.092	0.712	0.288	0.761
765	1127.16	816.00	755.78	71.70	788.39	0.088	0.724	0.276	0.797
780	1174.72	856.00	782.68	76.50	827.04	0.089	0.729	0.271	0.831
795	1218.35	896.00	814.34	79.40	865.68	0.089	0.735	0.265	0.862
810	1257.86	934.00	848.76	80.50	902.40	0.086	0.743	0.257	0.890
825	1293.09	972.00	881.67	80.20	939.11	0.083	0.752	0.248	0.915
840	1323.89	1005.00	912.97	80.20	971.00	0.080	0.759	0.241	0.936
855	1350.12	1034.00	938.70	80.10	999.01	0.077	0.766	0.234	0.955
870	1371.66	1080.00	959.50	101.60	1043.46	0.094	0.787	0.213	0.970
885	1388.44	1085.00	960.43	98.60	1048.29	0.091	0.781	0.219	0.982
900	1400.37	1103.00	974.63	98.50	1065.68	0.089	0.788	0.212	0.990
915	1407.41	1101.00	964.59	102.60	1063.75	0.093	0.782	0.218	0.995
930	1409.52	1108.00	970.03	97.10	1070.51	0.088	0.786	0.214	0.997
945	1406.70	1117.00	970.08	106.50	1079.21	0.095	0.794	0.206	0.995
960	1398.96	1072.00	931.10	96.30	1035.73	0.090	0.766	0.234	0.989
975	1386.33	1096.00	957.99	88.70	1058.92	0.081	0.791	0.209	0.981
990	1368.86	1092.00	949.79	92.20	1055.05	0.084	0.798	0.202	0.968
1005	1346.63	1083.00	929.61	99.60	1046.36	0.092	0.804	0.196	0.952
1020	1319.74	1055.00	894.24	103.40	1019.30	0.098	0.799	0.201	0.933
1035	1288.30	1032.00	878.41	94.80	997.08	0.092	0.801	0.199	0.911
1050	1252.45	1005.00	853.96	88.70	971.00	0.088	0.802	0.198	0.886
1065	1212.33	977.00	830.89	82.20	943.94	0.084	0.806	0.194	0.857
1080	1168.13	938.00	788.20	85.60	906.26	0.091	0.803	0.197	0.826
1095	1120.02	897.00	753.37	79.40	866.65	0.089	0.801	0.199	0.792
1110	1068.22	859.00	717.77	75.80	829.94	0.088	0.804	0.196	0.756
1125	1012.95	813.00	671.32	75.30	785.49	0.093	0.803	0.197	0.716
1140	954.44	765.00	625.11	74.80	739.12	0.098	0.802	0.198	0.675
1155	892.95	709.00	567.79	76.00	685.01	0.107	0.794	0.206	0.632
1170	828.73	658.90	521.09	75.00	636.61	0.114	0.795	0.205	0.586
1185	762.07	602.10	465.70	74.10	581.73	0.123	0.790	0.210	0.539
1200	693.25	545.60	413.84	71.10	527.14	0.130	0.787	0.213	0.490
1215	622.56	487.80	362.39	67.96	471.30	0.139	0.784	0.216	0.440
1230	550.30	427.60	307.88	64.77	413.13	0.151	0.777	0.223	0.389
1245	476.79	365.30	253.26	61.55	352.94	0.168	0.766	0.234	0.337
1260	402.34	307.00	204.04	57.33	296.61	0.187	0.763	0.237	0.285
1275	327.27	245.50	153.24	52.46	237.19	0.214	0.750	0.250	0.231
1290	251.91	187.40	105.98	46.89	181.06	0.250	0.744	0.256	0.178
1305	176.56	131.90	63.91	39.69	127.44	0.301	0.747	0.253	0.125
1320	101.56	80.60	28.54	31.33	77.87	0.389	0.794	0.206	0.072
1335	27.23	36.90	4.73	21.61	35.65	0.586	0.000	1.000	0.019
1350	0.00	7.61	-1.71	9.26	7.35	0.000	0.000	0.000	-0.033
1365	0.00	-0.31	0.41	0.93	-0.30	0.000	0.000	0.000	-0.084
1380	0.00	-2.25	0.41	-1.27	-2.17	0.000	0.000	0.000	-0.133
1395	0.00	-2.31	0.30	-1.36	-2.24	0.000	0.000	0.000	-0.182
1410	0.00	-2.19	0.09	-1.59	-2.12	0.000	0.000	0.000	-0.229
1425	0.00	-2.21	0.12	-1.44	-2.13	0.000	0.000	0.000	-0.274

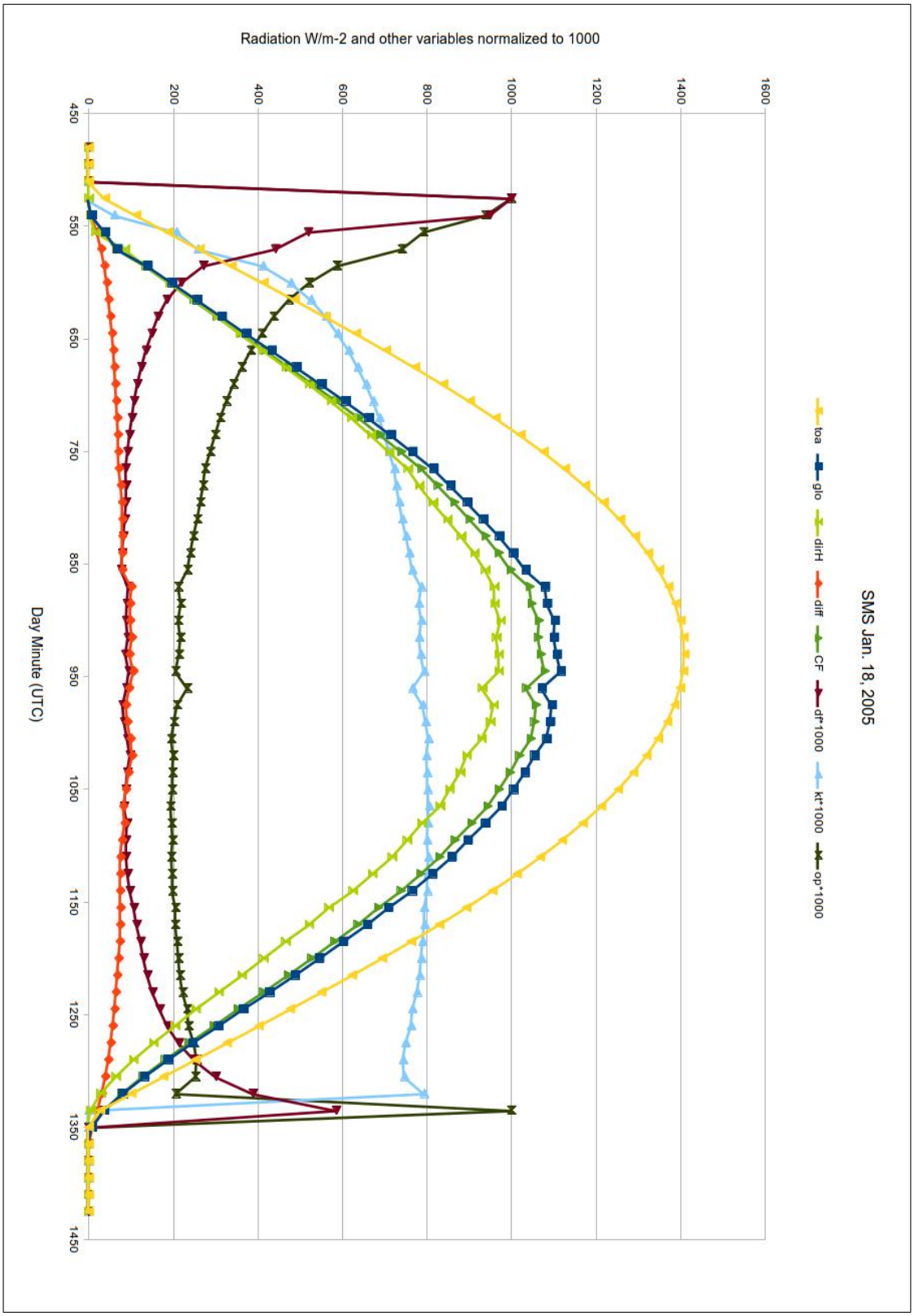


Figure C.18 - Graphic illustrating data measured and calculated on SMS January 18^{th} 2005.

Table C.19 - Solar radiation and derived data for SMS jan 19^{th} 2005.

min	toa	glo	dirH	diff	CF	df	kt	op	cos
480	0.00	-1.95	0.11	-1.23	-1.88	0.000	0.000	0.000	-0.126
495	0.00	-1.91	0.06	-1.19	-1.85	0.000	0.000	0.000	-0.076
510	0.00	-1.26	-0.01	-0.93	-1.21	0.000	0.000	0.000	-0.025
525	37.85	0.30	0.01	0.61	0.29	1.000	0.008	0.992	0.027
540	112.30	9.16	0.83	9.30	8.85	1.000	0.082	0.918	0.079
555	187.37	45.58	6.92	22.67	44.04	0.497	0.243	0.757	0.133
570	262.74	88.70	43.00	34.96	85.70	0.394	0.338	0.662	0.186
585	338.09	156.70	124.39	42.76	151.40	0.273	0.463	0.537	0.239
600	413.09	202.10	177.12	47.99	195.26	0.237	0.489	0.511	0.292
615	487.42	246.10	225.36	54.71	237.77	0.222	0.505	0.495	0.345
630	560.77	303.60	277.04	62.29	293.33	0.205	0.541	0.459	0.397
645	632.82	353.70	319.13	68.83	341.73	0.195	0.559	0.441	0.448
660	703.26	419.10	379.03	73.60	404.92	0.176	0.596	0.404	0.497
675	771.79	479.10	432.88	77.80	462.89	0.162	0.621	0.379	0.546
690	838.11	539.80	486.09	81.60	521.54	0.151	0.644	0.356	0.593
705	901.95	596.40	535.88	83.90	576.22	0.141	0.661	0.339	0.638
720	963.03	651.90	585.79	85.40	629.84	0.131	0.677	0.323	0.681
735	1021.09	706.00	636.99	84.70	682.11	0.120	0.691	0.309	0.722
750	1075.88	760.00	688.67	84.00	734.29	0.111	0.706	0.294	0.761
765	1127.16	812.00	744.62	79.60	784.53	0.098	0.720	0.280	0.797
780	1174.72	854.00	776.04	83.30	825.10	0.098	0.727	0.273	0.831
795	1218.35	900.00	819.51	81.40	869.55	0.090	0.739	0.261	0.862
810	1257.86	937.00	848.76	84.20	905.30	0.090	0.745	0.255	0.890
825	1293.09	970.00	877.10	85.30	937.18	0.088	0.750	0.250	0.915
840	1323.89	1001.00	900.80	87.10	967.13	0.087	0.756	0.244	0.936
855	1350.12	1028.00	922.46	89.10	993.22	0.087	0.761	0.239	0.955
870	1371.66	1052.00	934.27	95.80	1016.41	0.091	0.767	0.233	0.970
885	1388.44	1060.00	930.97	102.30	1024.13	0.097	0.763	0.237	0.982
900	1400.37	1076.00	941.94	105.50	1039.59	0.098	0.768	0.232	0.990
915	1407.41	1088.00	948.67	104.70	1051.19	0.096	0.773	0.227	0.995
930	1409.52	1086.00	943.11	107.20	1049.26	0.099	0.770	0.230	0.997
945	1406.70	1086.00	934.26	108.70	1049.26	0.100	0.772	0.228	0.995
960	1398.96	1092.00	942.97	105.50	1055.05	0.097	0.781	0.219	0.989
975	1386.33	1077.00	921.71	108.10	1040.56	0.100	0.777	0.223	0.981
990	1368.86	1067.00	908.16	108.70	1030.90	0.102	0.779	0.221	0.968
1005	1346.63	1060.00	901.99	105.50	1024.13	0.100	0.787	0.213	0.952
1020	1319.74	1036.00	872.77	107.30	1000.95	0.104	0.785	0.215	0.933
1035	1288.30	1023.00	865.65	98.80	988.39	0.097	0.794	0.206	0.911
1050	1252.45	1004.00	845.10	95.90	970.03	0.096	0.802	0.198	0.886
1065	1212.33	966.00	806.03	96.80	933.32	0.100	0.797	0.203	0.857
1080	1168.13	935.00	776.64	92.80	903.36	0.099	0.800	0.200	0.826
1095	1120.02	901.00	744.65	88.90	870.51	0.099	0.804	0.196	0.792
1110	1068.22	857.00	701.90	87.60	828.00	0.102	0.802	0.198	0.756
1125	1012.95	812.00	659.85	85.70	784.53	0.106	0.802	0.198	0.716
1140	954.44	763.00	613.64	82.90	737.18	0.109	0.799	0.201	0.675
1155	892.95	718.00	569.68	80.60	693.71	0.112	0.804	0.196	0.632
1170	828.73	669.20	526.96	77.00	646.56	0.115	0.808	0.193	0.586
1185	762.07	609.90	472.71	74.30	589.26	0.122	0.800	0.200	0.539
1200	693.25	547.60	412.86	75.70	529.07	0.138	0.790	0.210	0.490
1215	622.56	489.50	361.07	72.10	472.94	0.147	0.786	0.214	0.440
1230	550.30	427.10	303.21	69.94	412.65	0.164	0.776	0.224	0.389
1245	476.79	368.90	254.27	64.16	356.42	0.174	0.774	0.226	0.337
1260	402.34	310.80	206.32	57.91	300.28	0.186	0.772	0.228	0.285
1275	327.27	252.00	157.71	52.74	243.47	0.209	0.770	0.230	0.231
1290	251.91	193.60	111.61	45.54	187.05	0.235	0.769	0.231	0.178
1305	176.56	137.00	67.81	38.81	132.36	0.283	0.776	0.224	0.125
1320	101.56	83.50	30.63	30.81	80.67	0.369	0.822	0.178	0.072
1335	27.23	37.53	5.04	20.81	36.26	0.554	0.000	1.000	0.019
1350	0.00	7.87	-1.89	9.13	7.60	0.000	0.000	0.000	-0.033
1365	0.00	-0.81	0.41	0.49	-0.78	0.000	0.000	0.000	-0.084
1380	0.00	-2.66	0.57	-1.21	-2.57	0.000	0.000	0.000	-0.133
1395	0.00	-2.35	0.27	-1.65	-2.27	0.000	0.000	0.000	-0.182
1410	0.00	-2.20	-0.14	-1.74	-2.12	0.000	0.000	0.000	-0.229
1425	0.00	-2.47	0.29	-1.44	-2.39	0.000	0.000	0.000	-0.274

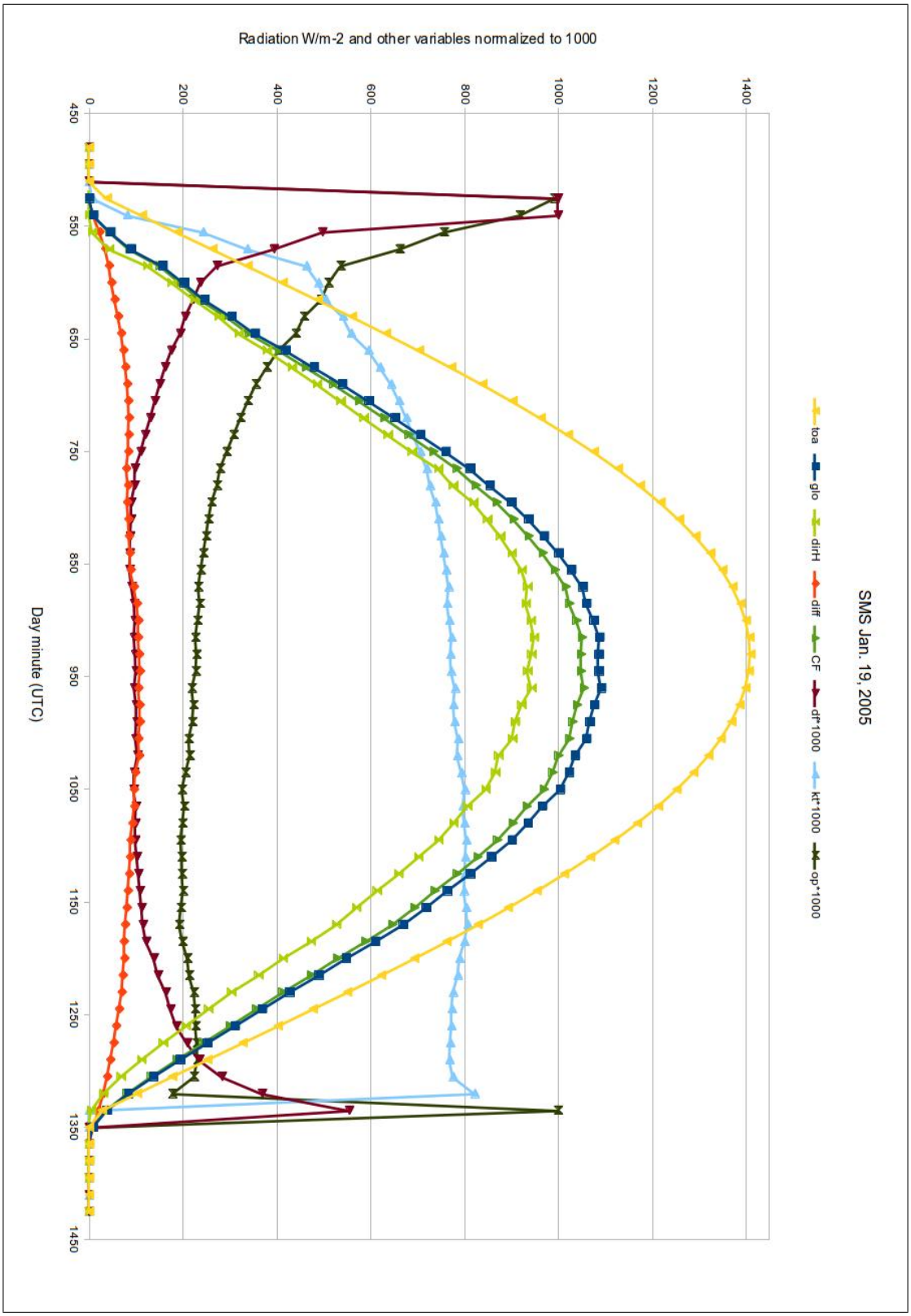


Figure C.19 - Graphic illustrating data measured and calculated on SMS January 19^{th} 2005.

Table C.20 - Solar radiation and derived data for SMS jan 20^{th} 2005.

min	toa	glo	dirH	diff	CF	df	kt	op	cos
480	0.00	-2.18	0.03	-1.22	-2.11	0.000	0.000	0.000	-0.126
495	0.00	-2.20	0.10	-1.11	-2.12	0.000	0.000	0.000	-0.076
510	0.00	-2.20	0.03	-1.11	-2.12	0.000	0.000	0.000	-0.025
525	37.85	-0.50	-0.05	0.54	-0.48	-1.087	-0.013	1.000	0.027
540	112.30	6.88	1.74	7.19	6.65	1.000	0.061	0.939	0.079
555	187.37	32.51	12.99	20.58	31.41	0.633	0.174	0.826	0.133
570	262.74	69.09	64.13	32.41	66.75	0.469	0.263	0.737	0.186
585	338.09	121.00	107.39	43.48	116.91	0.359	0.358	0.642	0.239
600	413.09	175.70	154.76	53.12	169.76	0.302	0.425	0.575	0.292
615	487.42	229.20	201.33	61.62	221.45	0.269	0.470	0.530	0.345
630	560.77	291.80	268.99	65.14	281.93	0.223	0.520	0.480	0.397
645	632.82	347.30	317.34	72.50	335.55	0.209	0.549	0.451	0.448
660	703.26	404.50	363.61	78.40	390.81	0.194	0.575	0.425	0.497
675	771.79	459.80	407.23	86.00	444.24	0.187	0.596	0.404	0.546
690	838.11	518.90	460.01	88.80	501.34	0.171	0.619	0.381	0.593
705	901.95	579.20	516.74	89.00	559.60	0.154	0.642	0.358	0.638
720	963.03	633.60	564.67	91.80	612.16	0.145	0.658	0.342	0.681
735	1021.09	686.60	608.83	93.90	663.37	0.137	0.672	0.328	0.722
750	1075.88	743.00	664.32	92.40	717.86	0.124	0.691	0.309	0.761
765	1127.16	788.00	702.37	94.90	761.34	0.120	0.699	0.301	0.797
780	1174.72	835.00	736.99	100.70	806.75	0.121	0.711	0.289	0.831
795	1218.35	880.00	772.11	104.30	850.23	0.119	0.722	0.278	0.862
810	1257.86	950.00	779.36	158.50	917.86	0.167	0.755	0.245	0.890
825	1293.09	995.00	851.49	128.90	961.33	0.130	0.769	0.231	0.915
840	1323.89	1040.00	873.64	149.30	1004.81	0.144	0.786	0.214	0.936
855	1350.12	1035.00	755.35	268.10	999.98	0.259	0.767	0.233	0.955
870	1371.66	511.70	226.24	260.50	494.39	0.509	0.373	0.627	0.970
885	1388.44	1073.00	948.65	92.20	1036.70	0.086	0.773	0.227	0.982
900	1400.37	1089.00	949.87	102.70	1052.15	0.094	0.778	0.222	0.990
915	1407.41	1096.00	963.60	92.80	1058.92	0.085	0.779	0.221	0.995
930	1409.52	1102.00	967.04	92.10	1064.71	0.084	0.782	0.218	0.997
945	1406.70	1109.00	973.06	89.60	1071.48	0.081	0.788	0.212	0.995
960	1398.96	1113.00	970.67	95.70	1075.34	0.086	0.796	0.204	0.989
975	1386.33	1109.00	952.11	106.70	1071.48	0.096	0.800	0.200	0.981
990	1368.86	1132.00	927.52	147.10	1093.70	0.130	0.827	0.173	0.968
1005	1346.63	1082.00	918.18	105.40	1045.39	0.097	0.803	0.197	0.952
1020	1319.74	1107.00	897.04	149.20	1069.54	0.135	0.839	0.161	0.933
1035	1288.30	956.00	703.45	190.30	923.65	0.199	0.742	0.258	0.911
1050	1252.45	1009.00	854.85	86.50	974.86	0.086	0.806	0.194	0.886
1065	1212.33	978.00	825.75	83.10	944.91	0.085	0.807	0.193	0.857
1080	1168.13	942.00	793.16	79.40	910.13	0.084	0.806	0.194	0.826
1095	1120.02	910.00	759.70	78.90	879.21	0.087	0.812	0.188	0.792
1110	1068.22	868.00	719.28	77.70	838.63	0.090	0.813	0.187	0.756
1125	1012.95	816.00	666.30	77.40	788.39	0.095	0.806	0.194	0.716
1140	954.44	779.00	632.54	74.60	752.64	0.096	0.816	0.184	0.675
1155	892.95	730.00	584.21	73.90	705.30	0.101	0.818	0.182	0.632
1170	828.73	677.40	533.99	74.60	654.48	0.110	0.817	0.183	0.586
1185	762.07	615.00	472.17	76.30	594.19	0.124	0.807	0.193	0.539
1200	693.25	553.50	416.29	73.10	534.77	0.132	0.798	0.202	0.490
1215	622.56	503.50	375.60	65.67	486.46	0.130	0.809	0.191	0.440
1230	550.30	445.70	324.61	61.50	430.62	0.138	0.810	0.190	0.389
1245	476.79	383.30	268.77	59.04	370.33	0.154	0.804	0.196	0.337
1260	402.34	319.60	213.15	56.68	308.79	0.177	0.794	0.206	0.285
1275	327.27	257.00	161.11	52.29	248.30	0.203	0.785	0.215	0.231
1290	251.91	200.20	115.01	46.75	193.43	0.234	0.795	0.205	0.178
1305	176.56	136.90	66.51	40.47	132.27	0.296	0.775	0.225	0.125
1320	101.56	82.20	29.09	32.50	79.42	0.395	0.809	0.191	0.072
1335	27.23	37.56	4.93	21.91	36.29	0.583	0.000	1.000	0.019
1350	0.00	7.69	-1.58	9.69	7.43	0.000	0.000	0.000	-0.033
1365	0.00	-0.96	0.59	1.13	-0.92	0.000	0.000	0.000	-0.084
1380	0.00	-2.67	0.59	-1.29	-2.57	0.000	0.000	0.000	-0.133
1395	0.00	-2.46	0.34	-1.66	-2.37	0.000	0.000	0.000	-0.182
1410	0.00	-2.61	0.26	-1.56	-2.52	0.000	0.000	0.000	-0.229
1425	0.00	-2.52	0.48	-1.50	-2.44	0.000	0.000	0.000	-0.274

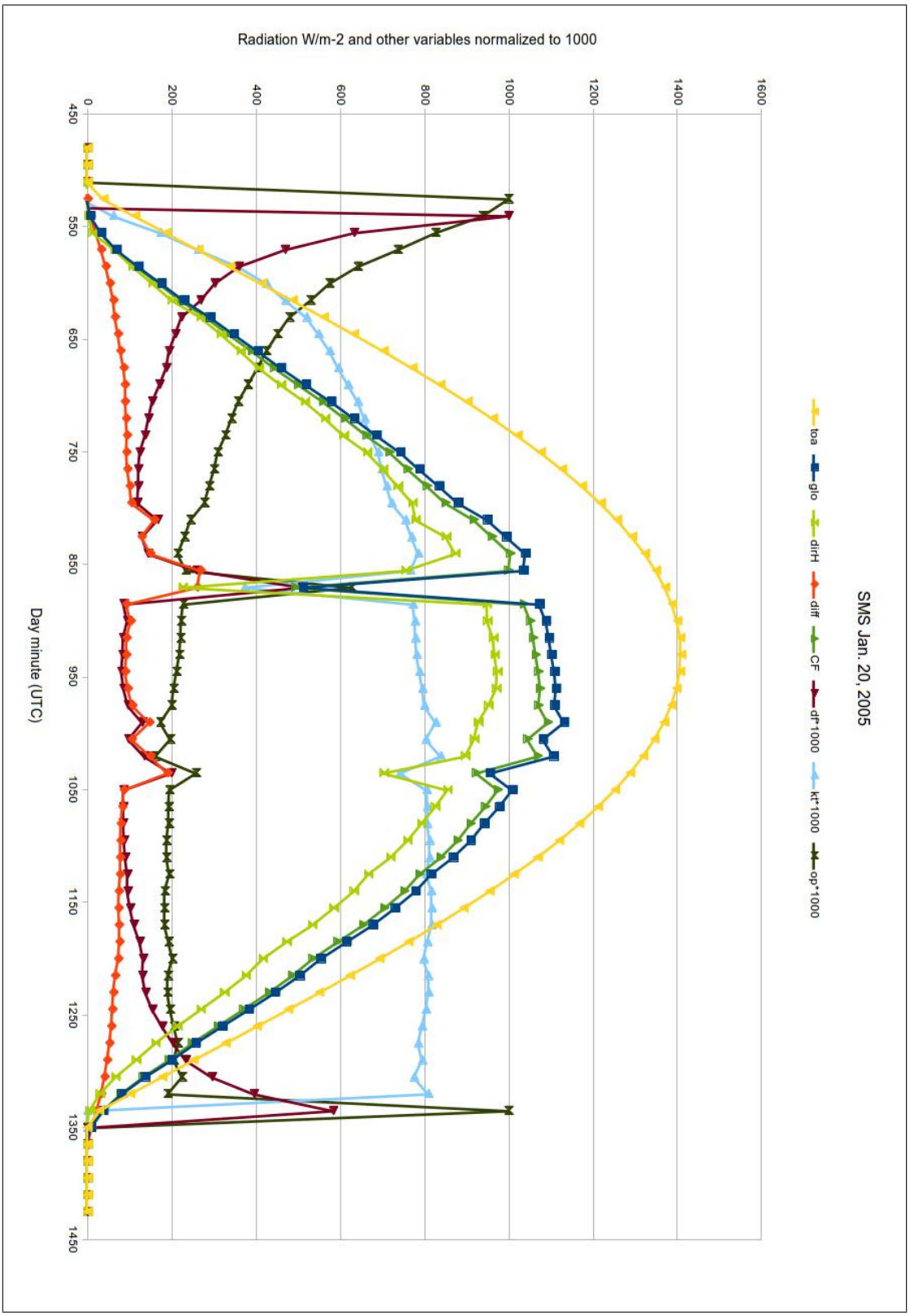


Figure C.20 - Graphic illustrating data measured and calculated on SMS January 20^{th} 2005.

Table C.21 - Solar radiation and derived data for SMS jan 21^{th} 2005.

min	toa	glo	dirH	diff	CF	df	kt	op	cos
480	0.00	-2.50	0.06	-1.46	-2.41	0.000	0.000	0.000	-0.126
495	0.00	-2.33	0.11	-1.19	-2.25	0.000	0.000	0.000	-0.076
510	0.00	-1.89	0.00	-1.47	-1.82	0.000	0.000	0.000	-0.025
525	37.85	-0.61	0.02	0.02	-0.59	-0.030	-0.016	1.000	0.027
540	112.30	6.56	1.67	7.18	6.34	1.000	0.058	0.942	0.079
555	187.37	34.56	24.15	19.19	33.39	0.555	0.184	0.816	0.133
570	262.74	79.40	82.44	29.42	76.71	0.371	0.302	0.698	0.186
585	338.09	134.70	135.11	37.16	130.14	0.276	0.398	0.602	0.239
600	413.09	194.20	191.20	43.40	187.63	0.223	0.470	0.530	0.292
615	487.42	254.20	245.81	48.98	245.60	0.193	0.522	0.478	0.345
630	560.77	313.90	301.83	53.71	303.28	0.171	0.560	0.440	0.397
645	632.82	374.00	358.52	57.42	361.35	0.154	0.591	0.409	0.448
660	703.26	434.10	414.34	60.05	419.41	0.138	0.617	0.383	0.497
675	771.79	494.10	467.82	63.31	477.38	0.128	0.640	0.360	0.546
690	838.11	554.40	522.25	65.89	535.64	0.119	0.661	0.339	0.593
705	901.95	612.70	573.52	68.08	591.97	0.111	0.679	0.321	0.638
720	963.03	670.90	625.98	69.66	648.20	0.104	0.697	0.303	0.681
735	1021.09	724.00	670.21	72.70	699.50	0.100	0.709	0.291	0.722
750	1075.88	775.00	713.79	75.40	748.78	0.097	0.720	0.280	0.761
765	1127.16	826.00	761.36	76.90	798.05	0.093	0.733	0.267	0.797
780	1174.72	868.00	799.30	79.10	838.63	0.091	0.739	0.261	0.831
795	1218.35	912.00	840.19	80.80	881.14	0.089	0.749	0.251	0.862
810	1257.86	954.00	883.45	79.40	921.72	0.083	0.758	0.242	0.890
825	1293.09	985.00	906.37	81.80	951.67	0.083	0.762	0.238	0.915
840	1323.89	1021.00	932.63	78.30	986.45	0.077	0.771	0.229	0.936
855	1350.12	1039.00	941.56	82.60	1003.85	0.080	0.770	0.230	0.955
870	1371.66	1066.00	969.20	80.70	1029.93	0.076	0.777	0.223	0.970
885	1388.44	1092.00	993.82	76.50	1055.05	0.070	0.786	0.214	0.982
900	1400.37	1099.00	996.42	79.00	1061.82	0.072	0.785	0.215	0.990
915	1407.41	1113.00	1002.42	75.80	1075.34	0.068	0.791	0.209	0.995
930	1409.52	1124.00	1017.88	73.90	1085.97	0.066	0.797	0.203	0.997
945	1406.70	1108.00	989.98	80.10	1070.51	0.072	0.788	0.212	0.995
960	1398.96	1116.00	996.40	80.60	1078.24	0.072	0.798	0.202	0.989
975	1386.33	1107.00	987.40	79.10	1069.54	0.071	0.799	0.201	0.981
990	1368.86	1092.00	958.51	79.00	1055.05	0.072	0.798	0.202	0.968
1005	1346.63	1080.00	948.66	78.60	1043.46	0.073	0.802	0.198	0.952
1020	1319.74	1064.00	937.18	75.70	1028.00	0.071	0.806	0.194	0.933
1035	1288.30	1044.00	917.59	72.70	1008.68	0.070	0.810	0.190	0.911
1050	1252.45	1010.00	877.88	74.20	975.83	0.073	0.806	0.194	0.886
1065	1212.33	981.00	843.76	74.40	947.81	0.076	0.809	0.191	0.857
1080	1168.13	942.00	799.77	77.30	910.13	0.082	0.806	0.194	0.826
1095	1120.02	901.00	754.95	78.20	870.51	0.087	0.804	0.196	0.792
1110	1068.22	859.00	713.24	80.60	829.94	0.094	0.804	0.196	0.756
1125	1012.95	813.00	669.17	78.80	785.49	0.097	0.803	0.197	0.716
1140	954.44	770.00	629.84	74.70	743.95	0.097	0.807	0.193	0.675
1155	892.95	723.00	584.21	73.00	698.54	0.101	0.810	0.190	0.632
1170	828.73	666.20	529.30	71.70	643.66	0.108	0.804	0.196	0.586
1185	762.07	611.90	480.79	69.04	591.20	0.113	0.803	0.197	0.539
1200	693.25	557.10	430.02	65.97	538.25	0.118	0.804	0.196	0.490
1215	622.56	497.70	376.04	62.99	480.86	0.127	0.799	0.201	0.440
1230	550.30	438.30	322.28	59.68	423.47	0.136	0.796	0.204	0.389
1245	476.79	379.20	269.79	56.07	366.37	0.148	0.795	0.205	0.337
1260	402.34	317.20	215.99	52.34	306.47	0.165	0.788	0.212	0.285
1275	327.27	257.40	166.20	47.46	248.69	0.184	0.786	0.214	0.231
1290	251.91	198.30	117.83	42.26	191.59	0.213	0.787	0.213	0.178
1305	176.56	140.40	72.51	36.23	135.65	0.258	0.795	0.205	0.125
1320	101.56	85.90	33.77	28.67	82.99	0.334	0.846	0.154	0.072
1335	27.23	39.21	6.19	19.35	37.88	0.493	0.000	1.000	0.019
1350	0.00	7.09	-2.69	8.60	6.85	0.000	0.000	0.000	-0.033
1365	0.00	-0.96	0.48	0.53	-0.93	0.000	0.000	0.000	-0.084
1380	0.00	-2.80	0.56	-1.29	-2.70	0.000	0.000	0.000	-0.133
1395	0.00	-2.44	0.28	-1.69	-2.35	0.000	0.000	0.000	-0.182
1410	0.00	-3.09	0.81	-1.29	-2.99	0.000	0.000	0.000	-0.229
1425	0.00	-2.95	0.57	-1.64	-2.85	0.000	0.000	0.000	-0.274

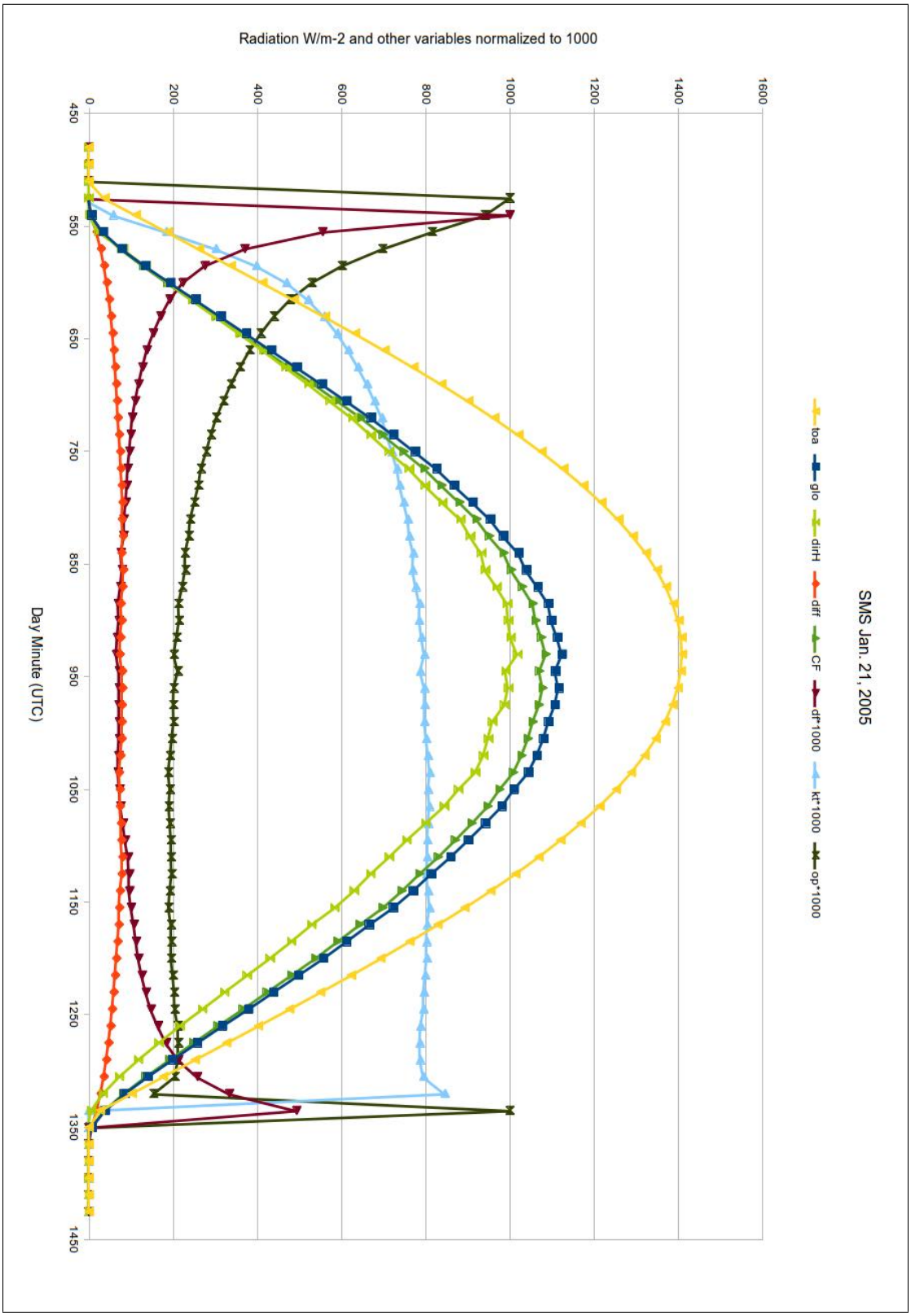


Figure C.21 - Graphic illustrating data measured and calculated on SMS January 21^{th} 2005.

Table C.22 - Solar radiation and derived data for SMS jan 22^{th} 2005.

min	toa	glo	dirH	diff	CF	df	kt	op	cos
480	0.00	-2.10	-0.05	-1.47	-2.03	0.000	0.000	0.000	-0.126
495	0.00	-2.23	0.12	-1.10	-2.15	0.000	0.000	0.000	-0.076
510	0.00	-1.61	-0.05	-1.54	-1.55	0.000	0.000	0.000	-0.025
525	37.85	-0.94	0.00	0.01	-0.91	-0.013	-0.025	1.000	0.027
540	112.30	6.39	1.26	7.12	6.17	1.000	0.057	0.943	0.079
555	187.37	30.33	22.41	19.05	29.30	0.628	0.162	0.838	0.133
570	262.74	70.20	65.77	30.82	67.82	0.439	0.267	0.733	0.186
585	338.09	120.50	112.25	40.96	116.42	0.340	0.356	0.644	0.239
600	413.09	176.20	163.56	49.10	170.24	0.279	0.427	0.573	0.292
615	487.42	233.10	214.78	55.98	225.21	0.240	0.478	0.522	0.345
630	560.77	292.40	269.35	61.71	282.51	0.211	0.521	0.479	0.397
645	632.82	351.10	324.05	66.28	339.22	0.189	0.555	0.445	0.448
660	703.26	407.70	373.55	72.10	393.91	0.177	0.580	0.420	0.497
675	771.79	464.90	424.15	76.20	449.17	0.164	0.602	0.398	0.546
690	838.11	525.60	479.57	78.90	507.82	0.150	0.627	0.373	0.593
705	901.95	583.60	530.13	82.20	563.85	0.141	0.647	0.353	0.638
720	963.03	635.60	572.17	86.50	614.09	0.136	0.660	0.340	0.681
735	1021.09	689.20	617.49	89.10	665.88	0.129	0.675	0.325	0.722
750	1075.88	741.00	661.28	90.90	715.93	0.123	0.689	0.311	0.761
765	1127.16	793.00	709.54	91.90	766.17	0.116	0.704	0.296	0.797
780	1174.72	837.00	746.96	92.70	808.68	0.111	0.713	0.287	0.831
795	1218.35	880.00	784.18	94.10	850.23	0.107	0.722	0.278	0.862
810	1257.86	919.00	818.51	93.50	887.91	0.102	0.731	0.269	0.890
825	1293.09	953.00	851.49	94.30	920.76	0.099	0.737	0.263	0.915
840	1323.89	982.00	873.64	95.10	948.77	0.097	0.742	0.258	0.936
855	1350.12	1009.00	897.63	96.20	974.86	0.095	0.747	0.253	0.955
870	1371.66	1029.00	906.14	100.80	994.18	0.098	0.750	0.250	0.970
885	1388.44	1048.00	917.22	102.00	1012.54	0.097	0.755	0.245	0.982
900	1400.37	1061.00	926.09	104.60	1025.10	0.099	0.758	0.242	0.990
915	1407.41	1075.00	929.75	107.20	1038.63	0.100	0.764	0.236	0.995
930	1409.52	1073.00	925.17	110.30	1036.70	0.103	0.761	0.239	0.997
945	1406.70	1071.00	913.37	114.90	1034.76	0.107	0.761	0.239	0.995
960	1398.96	1071.00	906.36	117.40	1034.76	0.110	0.766	0.234	0.989
975	1386.33	1080.00	907.00	128.60	1043.46	0.119	0.779	0.221	0.981
990	1368.86	666.40	437.04	194.40	643.85	0.292	0.487	0.513	0.968
1005	1346.63	1068.00	851.51	161.30	1031.86	0.151	0.793	0.207	0.952
1020	1319.74	442.30	186.78	231.20	427.33	0.523	0.335	0.665	0.933
1035	1288.30	1081.00	790.93	232.50	1044.42	0.215	0.839	0.161	0.911
1050	1252.45	510.70	49.07	447.90	493.42	0.877	0.408	0.592	0.886
1065	1212.33	562.70	39.24	510.70	543.66	0.908	0.464	0.536	0.857
1080	1168.13	633.50	85.18	526.70	612.07	0.831	0.542	0.458	0.826
1095	1120.02	833.00	322.42	461.80	804.82	0.554	0.744	0.256	0.792
1110	1068.22	875.00	619.55	191.60	845.39	0.219	0.819	0.181	0.756
1125	1012.95	796.00	589.64	147.40	769.07	0.185	0.786	0.214	0.716
1140	954.44	750.00	543.43	143.90	724.62	0.192	0.786	0.214	0.675
1155	892.95	698.00	492.00	144.00	674.38	0.206	0.782	0.218	0.632
1170	828.73	653.10	433.76	163.80	631.00	0.251	0.788	0.212	0.586
1185	762.07	578.40	374.34	149.70	558.83	0.259	0.759	0.241	0.539
1200	693.25	509.20	327.05	131.80	491.97	0.259	0.735	0.265	0.490
1215	622.56	456.40	281.41	126.70	440.96	0.278	0.733	0.267	0.440
1230	550.30	393.60	239.76	108.40	380.28	0.275	0.715	0.285	0.389
1245	476.79	337.00	199.84	94.50	325.60	0.280	0.707	0.293	0.337
1260	402.34	280.10	156.74	87.10	270.62	0.311	0.696	0.304	0.285
1275	327.27	219.60	114.30	75.10	212.17	0.342	0.671	0.329	0.231
1290	251.91	166.70	77.43	63.74	161.06	0.382	0.662	0.338	0.178
1305	176.56	112.20	42.61	51.23	108.40	0.457	0.635	0.365	0.125
1320	101.56	68.36	17.98	38.41	66.05	0.562	0.673	0.327	0.072
1335	27.23	29.90	2.31	22.92	28.89	0.767	0.000	1.000	0.019
1350	0.00	6.98	-0.57	8.86	6.74	0.000	0.000	0.000	-0.033
1365	0.00	-1.03	0.49	0.16	-1.00	0.000	0.000	0.000	-0.084
1380	0.00	-2.29	0.48	-1.13	-2.21	0.000	0.000	0.000	-0.133
1395	0.00	-2.37	0.50	-1.15	-2.29	0.000	0.000	0.000	-0.182
1410	0.00	-2.26	0.24	-1.41	-2.19	0.000	0.000	0.000	-0.229
1425	0.00	-2.35	0.38	-1.30	-2.27	0.000	0.000	0.000	-0.274

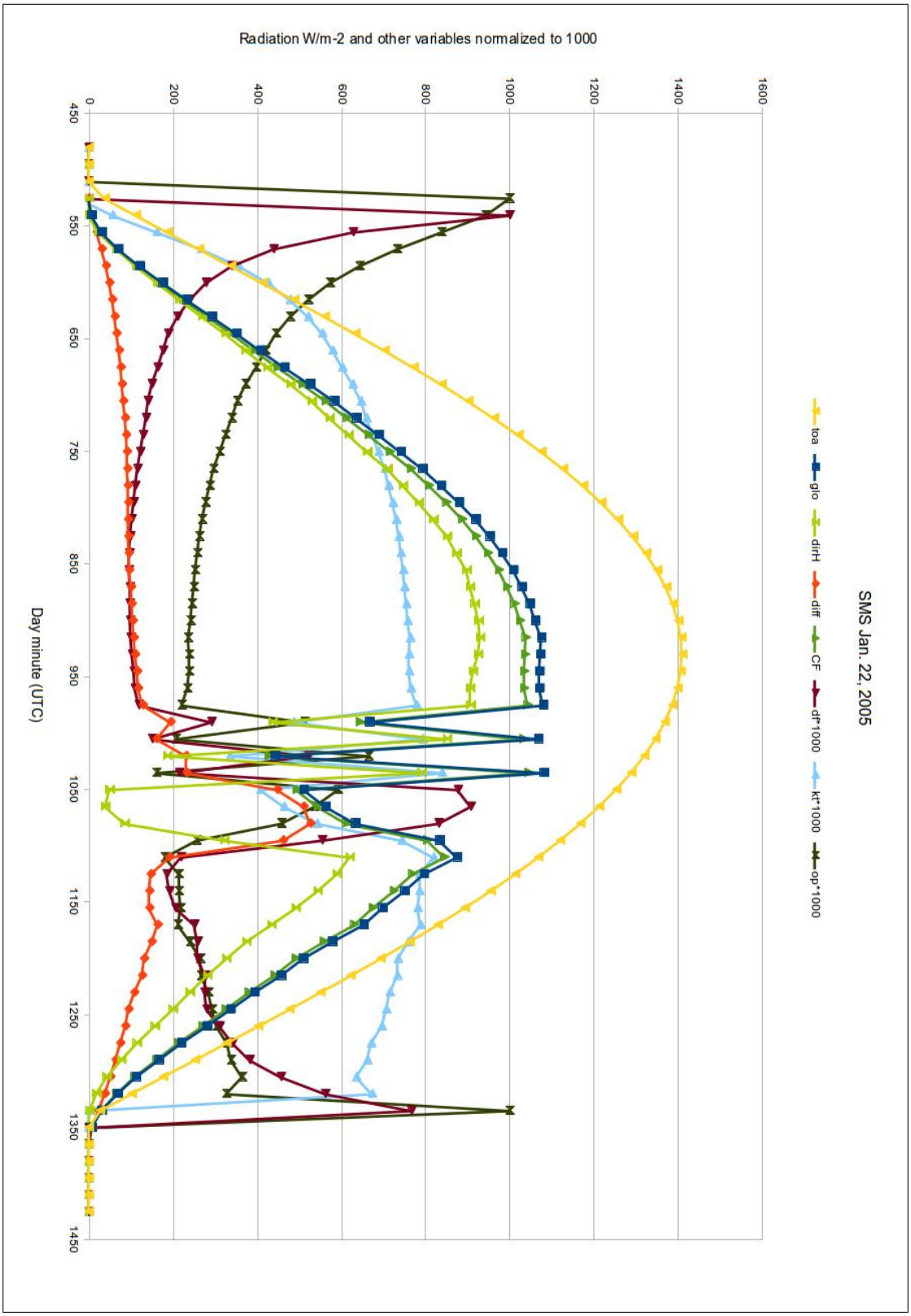


Figure C.22 - Graphic illustrating data measured and calculated on SMS January 22^{th} 2005.

Table C.23 - Solar radiation and derived data for SMS jan 23^{th} 2005.

min	toa	glo	dirH	diff	CF	df	kt	op	cos
480	0.00	-2.02	0.10	-1.15	-1.95	0.000	0.000	0.000	-0.126
495	0.00	-1.93	-0.12	-1.58	-1.87	0.000	0.000	0.000	-0.076
510	0.00	-2.03	-0.01	-1.46	-1.96	0.000	0.000	0.000	-0.025
525	37.85	-1.37	-0.01	-0.35	-1.32	0.258	-0.036	1.000	0.027
540	112.30	5.19	0.47	6.10	5.01	1.000	0.046	0.954	0.079
555	187.37	25.99	18.26	18.66	25.11	0.718	0.139	0.861	0.133
570	262.74	63.37	53.54	33.04	61.23	0.521	0.241	0.759	0.186
585	338.09	110.10	95.15	43.81	106.37	0.398	0.326	0.674	0.239
600	413.09	165.00	145.56	52.68	159.42	0.319	0.399	0.601	0.292
615	487.42	222.00	197.64	60.19	214.49	0.271	0.455	0.545	0.345
630	560.77	279.50	249.92	66.94	270.04	0.239	0.498	0.502	0.397
645	632.82	350.50	304.58	84.70	338.64	0.242	0.554	0.446	0.448
660	703.26	397.30	357.14	78.60	383.86	0.198	0.565	0.435	0.497
675	771.79	455.00	407.77	83.50	439.61	0.184	0.590	0.410	0.546
690	838.11	514.10	461.19	89.60	496.71	0.174	0.613	0.387	0.593
705	901.95	569.90	510.36	92.60	550.62	0.162	0.632	0.368	0.638
720	963.03	623.90	554.46	95.10	602.79	0.152	0.648	0.352	0.681
735	1021.09	676.10	599.44	98.40	653.22	0.146	0.662	0.338	0.722
750	1075.88	727.00	643.78	100.10	702.40	0.138	0.676	0.324	0.761
765	1127.16	771.00	683.23	103.70	744.91	0.135	0.684	0.316	0.797
780	1174.72	820.00	722.86	107.10	792.26	0.131	0.698	0.302	0.831
795	1218.35	869.00	768.67	104.20	839.60	0.120	0.713	0.287	0.862
810	1257.86	904.00	798.93	103.30	873.41	0.114	0.719	0.281	0.890
825	1293.09	933.00	824.05	103.10	901.43	0.111	0.722	0.278	0.915
840	1323.89	977.00	867.09	99.30	943.94	0.102	0.738	0.262	0.936
855	1350.12	1005.00	895.72	97.50	971.00	0.097	0.744	0.256	0.955
870	1371.66	1024.00	904.20	100.40	989.35	0.098	0.747	0.253	0.970
885	1388.44	1048.00	924.10	99.50	1012.54	0.095	0.755	0.245	0.982
900	1400.37	1060.00	933.03	98.20	1024.13	0.093	0.757	0.243	0.990
915	1407.41	1077.00	948.67	97.90	1040.56	0.091	0.765	0.235	0.995
930	1409.52	1089.00	956.07	95.50	1052.15	0.088	0.773	0.227	0.997
945	1406.70	1086.00	947.19	96.60	1049.26	0.089	0.772	0.228	0.995
960	1398.96	1085.00	941.98	97.30	1048.29	0.090	0.776	0.224	0.989
975	1386.33	1078.00	937.40	96.50	1041.53	0.090	0.778	0.222	0.981
990	1368.86	1069.00	923.65	95.30	1032.83	0.089	0.781	0.219	0.968
1005	1346.63	1053.00	905.80	95.90	1017.37	0.091	0.782	0.218	0.952
1020	1319.74	1034.00	886.77	95.80	999.01	0.093	0.783	0.217	0.933
1035	1288.30	1010.00	856.54	94.90	975.83	0.094	0.784	0.216	0.911
1050	1252.45	987.00	834.47	93.30	953.60	0.095	0.788	0.212	0.886
1065	1212.33	948.00	788.02	95.30	915.92	0.101	0.782	0.218	0.857
1080	1168.13	920.00	760.11	95.80	888.87	0.104	0.788	0.212	0.826
1095	1120.02	883.00	723.26	97.10	853.12	0.110	0.788	0.212	0.792
1110	1068.22	843.00	683.01	97.70	814.48	0.116	0.789	0.211	0.756
1125	1012.95	801.00	642.66	94.40	773.90	0.118	0.791	0.209	0.716
1140	954.44	749.00	591.36	94.90	723.66	0.127	0.785	0.215	0.675
1155	892.95	699.50	542.52	94.10	675.83	0.135	0.783	0.217	0.632
1170	828.73	644.70	491.20	91.50	622.89	0.142	0.778	0.222	0.586
1185	762.07	588.30	439.29	88.90	568.39	0.151	0.772	0.228	0.539
1200	693.25	533.80	384.91	93.20	515.74	0.175	0.770	0.230	0.490
1215	622.56	534.20	338.17	137.90	516.13	0.258	0.858	0.142	0.440
1230	550.30	516.50	284.52	179.90	499.02	0.348	0.939	0.061	0.389
1245	476.79	292.60	112.43	155.90	282.70	0.533	0.614	0.386	0.337
1260	402.34	125.40	4.49	120.30	121.16	0.959	0.312	0.688	0.285
1275	327.27	280.30	134.24	108.30	270.82	0.386	0.856	0.144	0.231
1290	251.91	198.90	91.60	78.10	192.17	0.393	0.790	0.210	0.178
1305	176.56	160.20	53.12	83.60	154.78	0.522	0.907	0.093	0.125
1320	101.56	109.30	22.72	71.00	105.60	0.650	0.000	1.000	0.072
1335	27.23	49.97	3.29	39.75	48.28	0.795	0.000	1.000	0.019
1350	0.00	9.46	-0.83	10.90	9.14	0.000	0.000	0.000	-0.033
1365	0.00	-1.62	0.48	0.55	-1.57	0.000	0.000	0.000	-0.084
1380	0.00	-0.95	0.13	-1.99	-0.92	0.000	0.000	0.000	-0.133
1395	0.00	-2.04	0.06	-1.05	-1.97	0.000	0.000	0.000	-0.182
1410	0.00	-2.01	-0.23	-1.55	-1.94	0.000	0.000	0.000	-0.229
1425	0.00	-2.21	0.87	-0.71	-2.14	0.000	0.000	0.000	-0.274

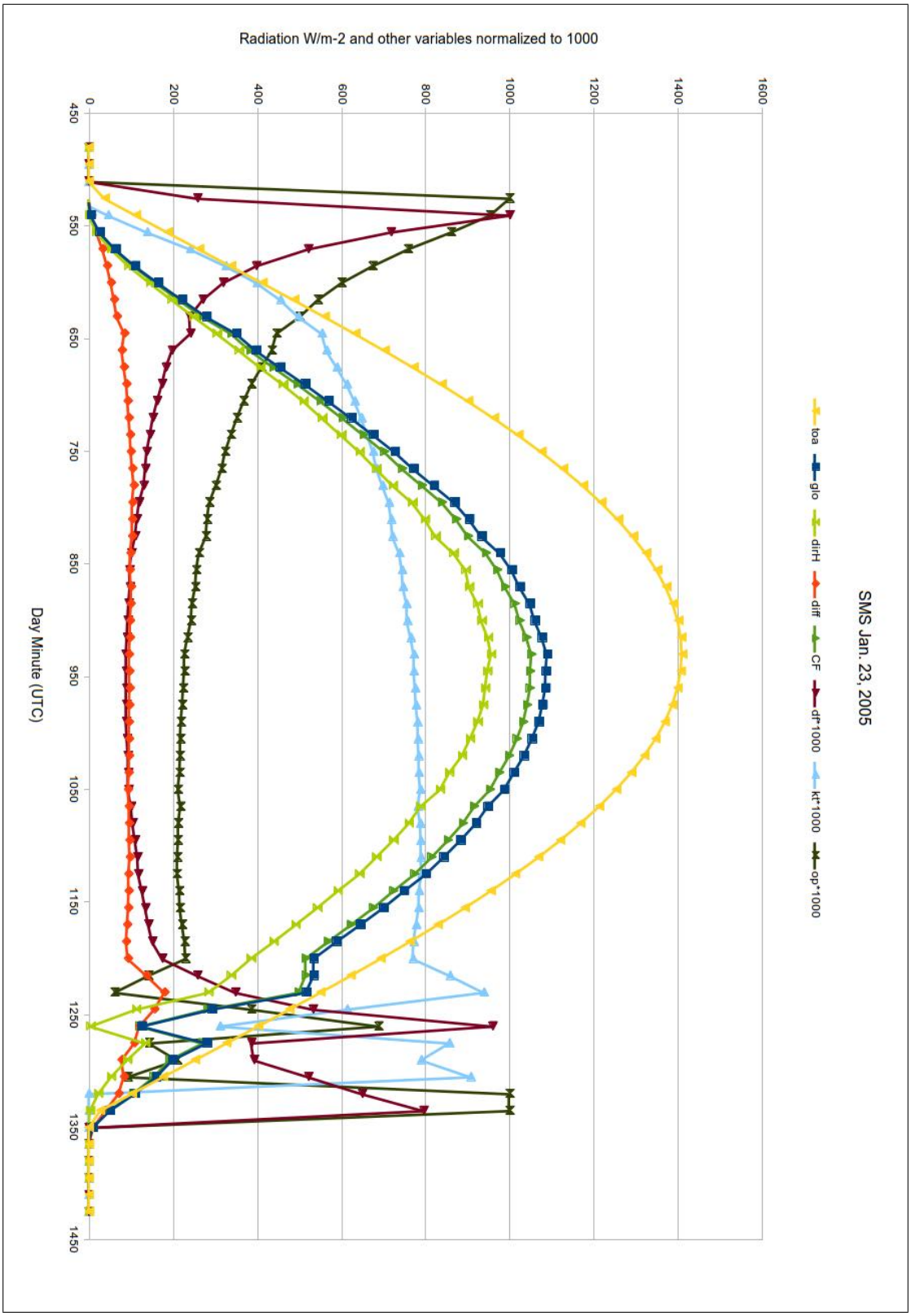


Figure C.23 - Graphic illustrating data measured and calculated on SMS January 23^{th} 2005.

Table C.24 - Solar radiation and derived data for SMS jan 24^{th} 2005.

min	toa	glo	dirH	diff	CF	df	kt	op	cos
480	0.00	-1.25	-0.11	-0.74	-1.21	0.000	0.000	0.000	-0.126
495	0.00	-1.09	-0.05	-0.90	-1.05	0.000	0.000	0.000	-0.076
510	0.00	-1.25	-0.01	-0.96	-1.21	0.000	0.000	0.000	-0.025
525	37.85	-0.94	0.01	-0.46	-0.91	0.491	-0.025	1.000	0.027
540	112.30	1.34	0.00	1.92	1.29	1.000	0.012	0.988	0.079
555	187.37	6.21	0.03	6.85	6.00	1.000	0.033	0.967	0.133
570	262.74	20.18	0.08	20.22	19.50	1.000	0.077	0.923	0.186
585	338.09	41.76	0.23	41.61	40.35	0.996	0.124	0.876	0.239
600	413.09	60.16	0.31	59.76	58.12	0.993	0.146	0.854	0.292
615	487.42	98.10	1.14	96.70	94.78	0.986	0.201	0.799	0.345
630	560.77	137.70	1.23	135.90	133.04	0.987	0.246	0.754	0.397
645	632.82	154.30	4.78	149.20	149.08	0.967	0.244	0.756	0.448
660	703.26	218.70	6.63	210.60	211.30	0.963	0.311	0.689	0.497
675	771.79	276.20	15.30	259.70	266.85	0.940	0.358	0.642	0.546
690	838.11	282.70	4.69	275.90	273.13	0.976	0.337	0.663	0.593
705	901.95	322.50	3.41	316.30	311.59	0.981	0.358	0.642	0.638
720	963.03	327.00	1.24	321.30	315.94	0.983	0.340	0.660	0.681
735	1021.09	322.60	1.62	315.40	311.68	0.978	0.316	0.684	0.722
750	1075.88	380.40	3.13	372.20	367.53	0.978	0.354	0.646	0.761
765	1127.16	366.40	2.58	358.20	354.00	0.978	0.325	0.675	0.797
780	1174.72	512.00	39.67	462.90	494.68	0.904	0.436	0.564	0.831
795	1218.35	402.00	0.94	393.20	388.40	0.978	0.330	0.670	0.862
810	1257.86	354.60	1.56	346.00	342.60	0.976	0.282	0.718	0.890
825	1293.09	365.00	4.44	355.50	352.65	0.974	0.282	0.718	0.915
840	1323.89	207.20	-3.24	203.00	200.19	0.980	0.157	0.843	0.936
855	1350.12	202.50	-2.63	197.90	195.65	0.977	0.150	0.850	0.955
870	1371.66	280.50	-1.90	273.30	271.01	0.974	0.204	0.796	0.970
885	1388.44	399.20	1.13	386.50	385.69	0.968	0.288	0.712	0.982
900	1400.37	636.30	9.46	609.00	614.77	0.957	0.454	0.546	0.990
915	1407.41	583.20	32.56	528.30	563.47	0.906	0.414	0.586	0.995
930	1409.52	589.20	31.02	533.20	569.26	0.905	0.418	0.582	0.997
945	1406.70	625.10	14.09	590.90	603.95	0.945	0.444	0.556	0.995
960	1398.96	506.10	9.40	489.20	488.98	0.967	0.362	0.638	0.989
975	1386.33	504.20	5.41	487.30	487.14	0.966	0.364	0.636	0.981
990	1368.86	408.80	5.24	396.60	394.97	0.970	0.299	0.701	0.968
1005	1346.63	523.40	8.89	506.90	505.69	0.968	0.389	0.611	0.952
1020	1319.74	509.00	9.86	492.00	491.78	0.967	0.386	0.614	0.933
1035	1288.30	416.50	2.62	404.30	402.41	0.971	0.323	0.677	0.911
1050	1252.45	542.60	11.45	524.30	524.24	0.966	0.433	0.567	0.886
1065	1212.33	561.40	14.28	545.00	542.41	0.971	0.463	0.537	0.857
1080	1168.13	453.30	6.54	440.80	437.96	0.972	0.388	0.612	0.826
1095	1120.02	586.30	72.64	496.50	566.46	0.847	0.523	0.477	0.792
1110	1068.22	464.20	4.00	453.50	448.49	0.977	0.435	0.565	0.756
1125	1012.95	319.00	-0.82	312.60	308.21	0.980	0.315	0.685	0.716
1140	954.44	371.20	7.87	354.70	358.64	0.956	0.389	0.611	0.675
1155	892.95	302.70	0.99	296.70	292.46	0.980	0.339	0.661	0.632
1170	828.73	295.70	1.36	290.20	285.70	0.981	0.357	0.643	0.586
1185	762.07	291.90	1.03	286.90	282.02	0.983	0.383	0.617	0.539
1200	693.25	462.90	151.41	279.50	447.24	0.604	0.668	0.332	0.490
1215	622.56	263.90	0.71	260.10	254.97	0.986	0.424	0.576	0.440
1230	550.30	338.10	73.17	245.20	326.66	0.725	0.614	0.386	0.389
1245	476.79	335.30	168.75	131.70	323.96	0.393	0.703	0.297	0.337
1260	402.34	329.10	170.18	119.10	317.96	0.362	0.818	0.182	0.285
1275	327.27	170.30	27.15	134.30	164.54	0.789	0.520	0.480	0.231
1290	251.91	95.60	-0.31	95.30	92.37	0.997	0.380	0.620	0.178
1305	176.56	61.56	-0.34	61.78	59.48	1.000	0.349	0.651	0.125
1320	101.56	25.25	-0.20	25.91	24.40	1.000	0.249	0.751	0.072
1335	27.23	7.54	-0.04	8.09	7.28	1.000	0.277	0.723	0.019
1350	0.00	-1.41	0.23	0.56	-1.36	0.000	0.000	0.000	-0.033
1365	0.00	-1.44	0.45	-0.19	-1.39	0.000	0.000	0.000	-0.084
1380	0.00	-0.79	0.04	-0.49	-0.76	0.000	0.000	0.000	-0.133
1395	0.00	-0.36	0.23	-0.02	-0.34	0.000	0.000	0.000	-0.182
1410	0.00	-0.50	-0.12	-0.41	-0.49	0.000	0.000	0.000	-0.229
1425	0.00	-0.64	0.06	-0.37	-0.62	0.000	0.000	0.000	-0.274

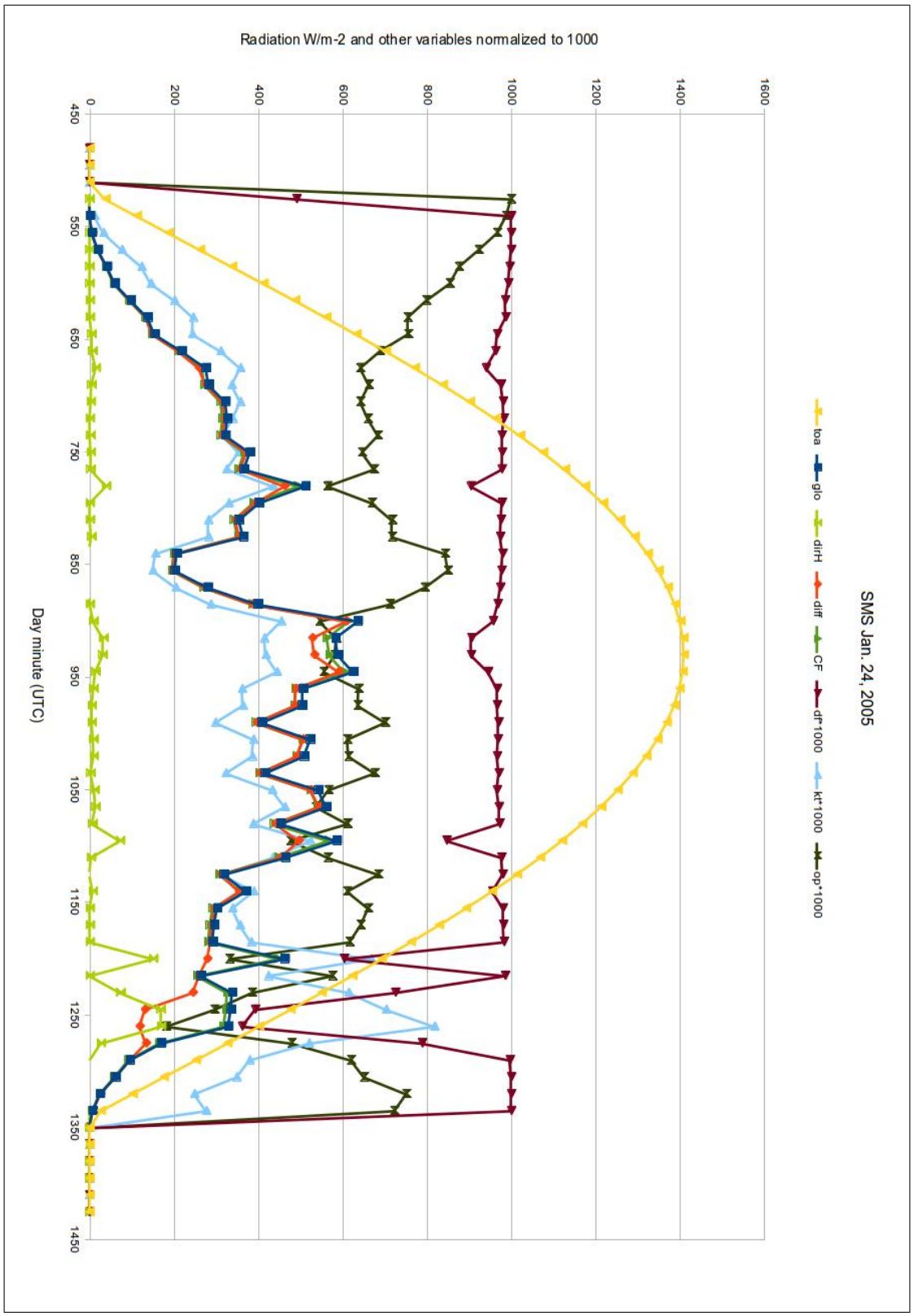


Figure C.24 - Graphic illustrating data measured and calculated on SMS January 24^{th} 2005.

Table C.25 - Solar radiation and derived data for SMS jan 25^{th} 2005.

min	toa	glo	dirH	diff	CF	df	kt	op	cos
480	0.00	-0.63	-0.05	-0.37	-0.61	0.000	0.000	0.000	-0.126
495	0.00	-0.63	0.00	-0.33	-0.61	0.000	0.000	0.000	-0.076
510	0.00	-0.63	-0.02	-0.36	-0.60	0.000	0.000	0.000	-0.025
525	37.85	-0.69	0.00	-0.09	-0.67	0.133	-0.018	1.000	0.027
540	112.30	0.34	-0.02	0.76	0.33	1.000	0.003	0.997	0.079
555	187.37	1.64	-0.09	2.10	1.59	1.000	0.009	0.991	0.133
570	262.74	4.63	-0.33	5.25	4.47	1.000	0.018	0.982	0.186
585	338.09	6.94	-0.09	7.13	6.71	1.000	0.021	0.979	0.239
600	413.09	22.38	-0.37	22.71	21.62	1.000	0.054	0.946	0.292
615	487.42	17.95	-0.44	18.14	17.34	1.000	0.037	0.963	0.345
630	560.77	34.55	-0.20	34.41	33.38	0.996	0.062	0.938	0.397
645	632.82	29.35	-0.36	29.20	28.36	0.995	0.046	0.954	0.448
660	703.26	69.15	-0.03	68.30	66.81	0.988	0.098	0.902	0.497
675	771.79	100.70	-0.12	98.90	97.29	0.982	0.130	0.870	0.546
690	838.11	90.50	0.00	89.00	87.44	0.983	0.108	0.892	0.593
705	901.95	73.00	0.34	72.10	70.53	0.988	0.081	0.919	0.638
720	963.03	111.80	0.01	110.10	108.02	0.985	0.116	0.884	0.681
735	1021.09	173.90	1.06	170.80	168.02	0.982	0.170	0.830	0.722
750	1075.88	535.60	56.77	469.70	517.48	0.877	0.498	0.502	0.761
765	1127.16	675.40	190.22	476.80	652.55	0.706	0.599	0.401	0.797
780	1174.72	927.00	657.22	268.60	895.64	0.290	0.789	0.211	0.831
795	1218.35	1051.00	767.80	279.60	1015.44	0.266	0.863	0.137	0.862
810	1257.86	694.10	347.87	334.80	670.62	0.482	0.552	0.448	0.890
825	1293.09	317.50	7.86	301.50	306.76	0.950	0.246	0.754	0.915
840	1323.89	978.00	710.71	243.60	944.91	0.249	0.739	0.261	0.936
855	1350.12	1164.00	888.08	247.30	1124.62	0.212	0.862	0.138	0.955
870	1371.66	982.00	548.24	400.00	948.77	0.407	0.716	0.284	0.970
885	1388.44	1209.00	915.26	254.40	1168.09	0.210	0.871	0.129	0.982
900	1400.37	1185.00	925.10	210.70	1144.91	0.178	0.846	0.154	0.990
915	1407.41	1292.00	931.74	304.70	1248.29	0.236	0.918	0.082	0.995
930	1409.52	1003.00	532.47	427.10	969.06	0.426	0.712	0.288	0.997
945	1406.70	484.50	5.59	470.10	468.11	0.970	0.344	0.656	0.995
960	1398.96	380.20	0.38	369.20	367.34	0.971	0.272	0.728	0.989
975	1386.33	1187.00	926.61	200.50	1146.84	0.169	0.856	0.144	0.981
990	1368.86	1150.00	885.89	199.40	1111.09	0.173	0.840	0.160	0.968
1005	1346.63	1057.00	782.93	212.50	1021.24	0.201	0.785	0.215	0.952
1020	1319.74	1110.00	841.97	202.50	1072.44	0.182	0.841	0.159	0.933
1035	1288.30	1035.00	861.09	105.30	999.98	0.102	0.803	0.197	0.911
1050	1252.45	1014.00	847.76	94.50	979.69	0.093	0.810	0.190	0.886
1065	1212.33	982.00	815.46	92.60	948.77	0.094	0.810	0.190	0.857
1080	1168.13	950.00	787.38	87.40	917.86	0.092	0.813	0.187	0.826
1095	1120.02	919.00	762.08	79.30	887.91	0.086	0.821	0.179	0.792
1110	1068.22	877.00	723.81	75.90	847.33	0.087	0.821	0.179	0.756
1125	1012.95	832.00	681.35	73.20	803.85	0.088	0.821	0.179	0.716
1140	954.44	780.00	630.52	72.60	753.61	0.093	0.817	0.183	0.675
1155	892.95	729.00	584.21	69.90	704.33	0.096	0.816	0.184	0.632
1170	828.73	677.90	538.09	67.39	654.96	0.099	0.818	0.182	0.586
1185	762.07	627.40	493.19	62.97	606.17	0.100	0.823	0.177	0.539
1200	693.25	570.60	442.28	59.57	551.29	0.104	0.823	0.177	0.490
1215	622.56	512.10	389.69	57.16	494.77	0.112	0.823	0.177	0.440
1230	550.30	449.30	333.57	54.96	434.10	0.122	0.816	0.184	0.389
1245	476.79	387.50	278.22	52.55	374.39	0.136	0.813	0.187	0.337
1260	402.34	324.00	223.68	49.39	313.04	0.152	0.805	0.195	0.285
1275	327.27	261.10	170.37	46.08	252.27	0.176	0.798	0.202	0.231
1290	251.91	198.60	118.98	41.66	191.88	0.210	0.788	0.212	0.178
1305	176.56	138.10	72.07	35.73	133.43	0.259	0.782	0.218	0.125
1320	101.56	84.30	33.77	28.04	81.45	0.333	0.830	0.170	0.072
1335	27.23	34.73	5.40	18.86	33.55	0.543	0.000	1.000	0.019
1350	0.00	6.11	-2.26	7.82	5.91	0.000	0.000	0.000	-0.033
1365	0.00	-1.46	0.50	0.07	-1.41	0.000	0.000	0.000	-0.084
1380	0.00	-2.93	0.45	-1.58	-2.83	0.000	0.000	0.000	-0.133
1395	0.00	-2.87	0.41	-1.59	-2.78	0.000	0.000	0.000	-0.182
1410	0.00	-2.77	0.49	-1.53	-2.68	0.000	0.000	0.000	-0.229
1425	0.00	-2.51	0.16	-1.73	-2.43	0.000	0.000	0.000	-0.274

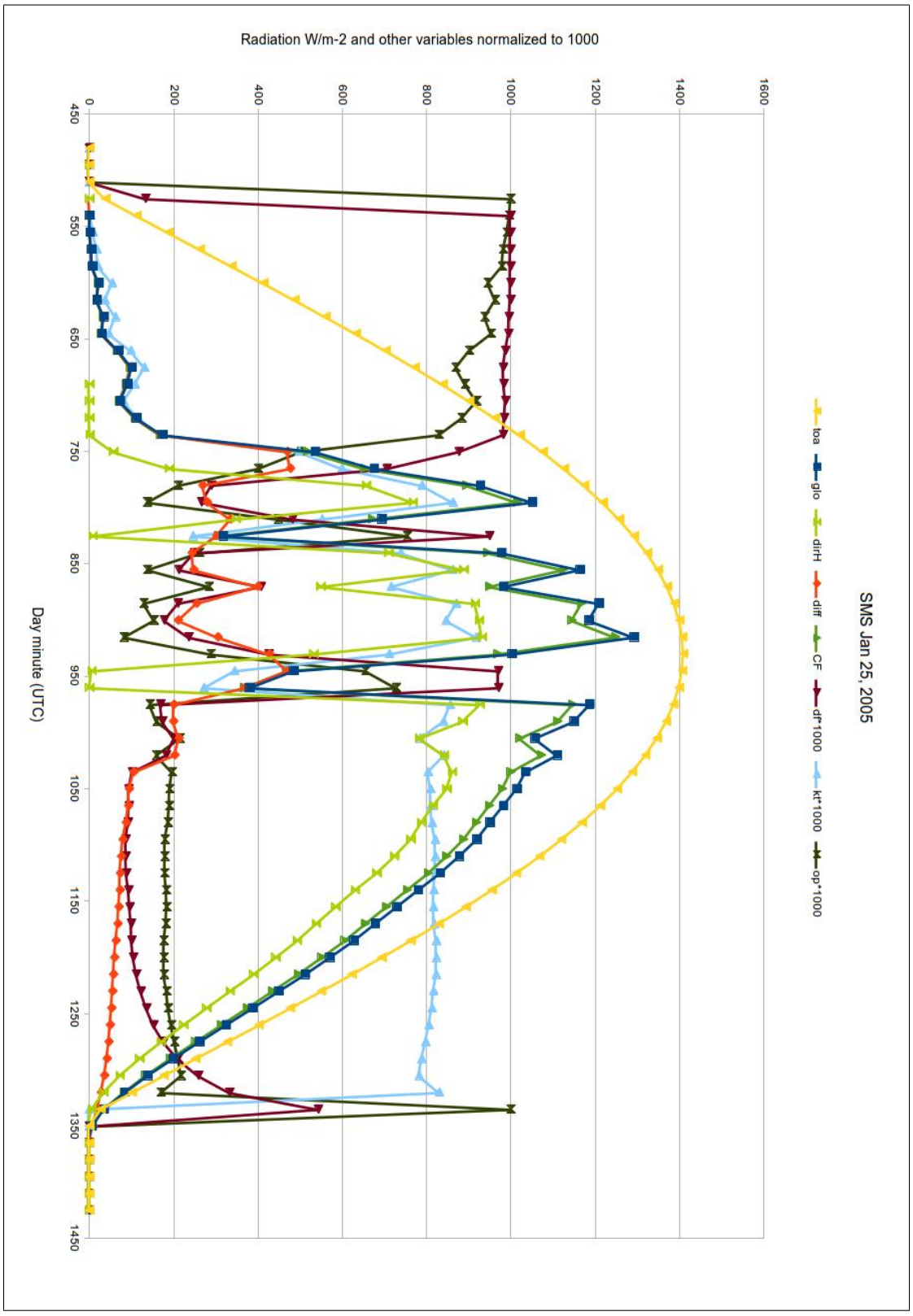


Figure C.25 - Graphic illustrating data measured and calculated on SMS January 25^{th} 2005.

Table C.26 - Solar radiation and derived data for SMS jan 26^{th} 2005.

min	toa	glo	dirH	diff	CF	df	kt	op	cos
480	0.00	-2.20	0.00	-1.45	-2.12	0.000	0.000	0.000	-0.126
495	0.00	-2.52	0.00	-1.11	-2.43	0.000	0.000	0.000	-0.076
510	0.00	-2.20	0.00	-1.47	-2.12	0.000	0.000	0.000	-0.025
525	37.85	-1.57	-0.48	-0.60	-1.51	0.386	-0.041	1.000	0.027
540	112.30	3.55	-0.63	4.30	3.43	1.000	0.032	0.968	0.079
555	187.37	26.62	148.25	14.66	25.72	0.551	0.142	0.858	0.133
570	262.74	70.40	159.32	24.70	68.02	0.351	0.268	0.732	0.186
585	338.09	123.80	152.89	32.73	119.61	0.264	0.366	0.634	0.239
600	413.09	182.00	142.52	38.75	175.84	0.213	0.441	0.559	0.292
615	487.42	243.30	132.92	44.12	235.07	0.181	0.499	0.501	0.345
630	560.77	303.70	126.43	49.48	293.42	0.163	0.542	0.458	0.397
645	632.82	365.50	118.12	52.65	353.13	0.144	0.578	0.422	0.448
660	703.26	426.90	111.27	55.95	412.46	0.131	0.607	0.393	0.497
675	771.79	488.20	105.77	59.08	471.68	0.121	0.633	0.367	0.546
690	838.11	549.70	98.61	60.16	531.10	0.109	0.656	0.344	0.593
705	901.95	607.30	95.96	63.69	586.75	0.105	0.673	0.327	0.638
720	963.03	661.20	90.35	64.58	638.83	0.098	0.687	0.313	0.681
735	1021.09	721.00	84.15	63.80	696.61	0.088	0.706	0.294	0.722
750	1075.88	772.00	82.73	66.67	745.88	0.086	0.718	0.282	0.761
765	1127.16	821.00	79.20	67.38	793.22	0.082	0.728	0.272	0.797
780	1174.72	868.00	76.25	67.74	838.63	0.078	0.739	0.261	0.831
795	1218.35	910.00	74.64	69.38	879.21	0.076	0.747	0.253	0.862
810	1257.86	952.00	72.59	69.80	919.79	0.073	0.757	0.243	0.890
825	1293.09	984.00	72.01	71.50	950.71	0.073	0.761	0.239	0.915
840	1323.89	1020.00	69.31	70.70	985.49	0.069	0.770	0.230	0.936
855	1350.12	1049.00	67.23	69.96	1013.51	0.067	0.777	0.223	0.955
870	1371.66	1076.00	65.48	69.62	1039.59	0.065	0.784	0.216	0.970
885	1388.44	1096.00	64.91	70.30	1058.92	0.064	0.789	0.211	0.982
900	1400.37	1109.00	64.48	70.80	1071.48	0.064	0.792	0.208	0.990
915	1407.41	1118.00	64.95	71.90	1080.17	0.064	0.794	0.206	0.995
930	1409.52	1126.00	63.93	71.20	1087.90	0.063	0.799	0.201	0.997
945	1406.70	1129.00	64.18	71.60	1090.80	0.063	0.803	0.197	0.995
960	1398.96	1129.00	63.14	70.30	1090.80	0.062	0.807	0.193	0.989
975	1386.33	1120.00	63.84	71.00	1082.10	0.063	0.808	0.192	0.981
990	1368.86	1109.00	64.81	71.30	1071.48	0.064	0.810	0.190	0.968
1005	1346.63	1090.00	66.37	72.20	1053.12	0.066	0.809	0.191	0.952
1020	1319.74	1073.00	65.61	70.40	1036.70	0.066	0.813	0.187	0.933
1035	1288.30	1049.00	67.58	71.10	1013.51	0.068	0.814	0.186	0.911
1050	1252.45	1022.00	68.43	70.50	987.42	0.069	0.816	0.184	0.886
1065	1212.33	994.00	68.77	68.84	960.37	0.069	0.820	0.180	0.857
1080	1168.13	955.00	71.59	69.55	922.69	0.073	0.818	0.182	0.826
1095	1120.02	917.00	73.49	69.12	885.97	0.075	0.819	0.181	0.792
1110	1068.22	871.00	77.06	69.70	841.53	0.080	0.815	0.185	0.756
1125	1012.95	828.00	78.19	67.58	799.98	0.082	0.817	0.183	0.716
1140	954.44	778.00	80.36	66.09	751.68	0.085	0.815	0.185	0.675
1155	892.95	729.00	82.74	64.37	704.33	0.088	0.816	0.184	0.632
1170	828.73	672.70	86.05	62.92	649.94	0.094	0.812	0.188	0.586
1185	762.07	615.90	91.14	62.30	595.06	0.101	0.808	0.192	0.539
1200	693.25	558.80	95.36	60.28	539.89	0.108	0.806	0.194	0.490
1215	622.56	498.80	101.00	58.51	481.92	0.117	0.801	0.199	0.440
1230	550.30	439.10	108.07	56.83	424.24	0.129	0.798	0.202	0.389
1245	476.79	378.20	114.35	53.79	365.40	0.142	0.793	0.207	0.337
1260	402.34	315.90	122.92	50.76	305.21	0.161	0.785	0.215	0.285
1275	327.27	253.40	129.98	46.00	244.83	0.182	0.774	0.226	0.231
1290	251.91	193.70	138.02	40.73	187.15	0.210	0.769	0.231	0.178
1305	176.56	135.80	148.05	34.99	131.21	0.258	0.769	0.231	0.125
1320	101.56	80.70	155.93	27.97	77.97	0.347	0.795	0.205	0.072
1335	27.23	34.32	152.29	18.66	33.16	0.544	0.000	1.000	0.019
1350	0.00	5.86	0.00	7.39	5.66	0.000	0.000	0.000	-0.033
1365	0.00	-1.07	0.00	0.03	-1.03	0.000	0.000	0.000	-0.084
1380	0.00	-2.45	0.00	-1.62	-2.36	0.000	0.000	0.000	-0.133
1395	0.00	-2.67	0.00	-1.37	-2.58	0.000	0.000	0.000	-0.182
1410	0.00	-2.47	0.00	-1.29	-2.39	0.000	0.000	0.000	-0.229
1425	0.00	-2.35	0.00	-1.56	-2.27	0.000	0.000	0.000	-0.274

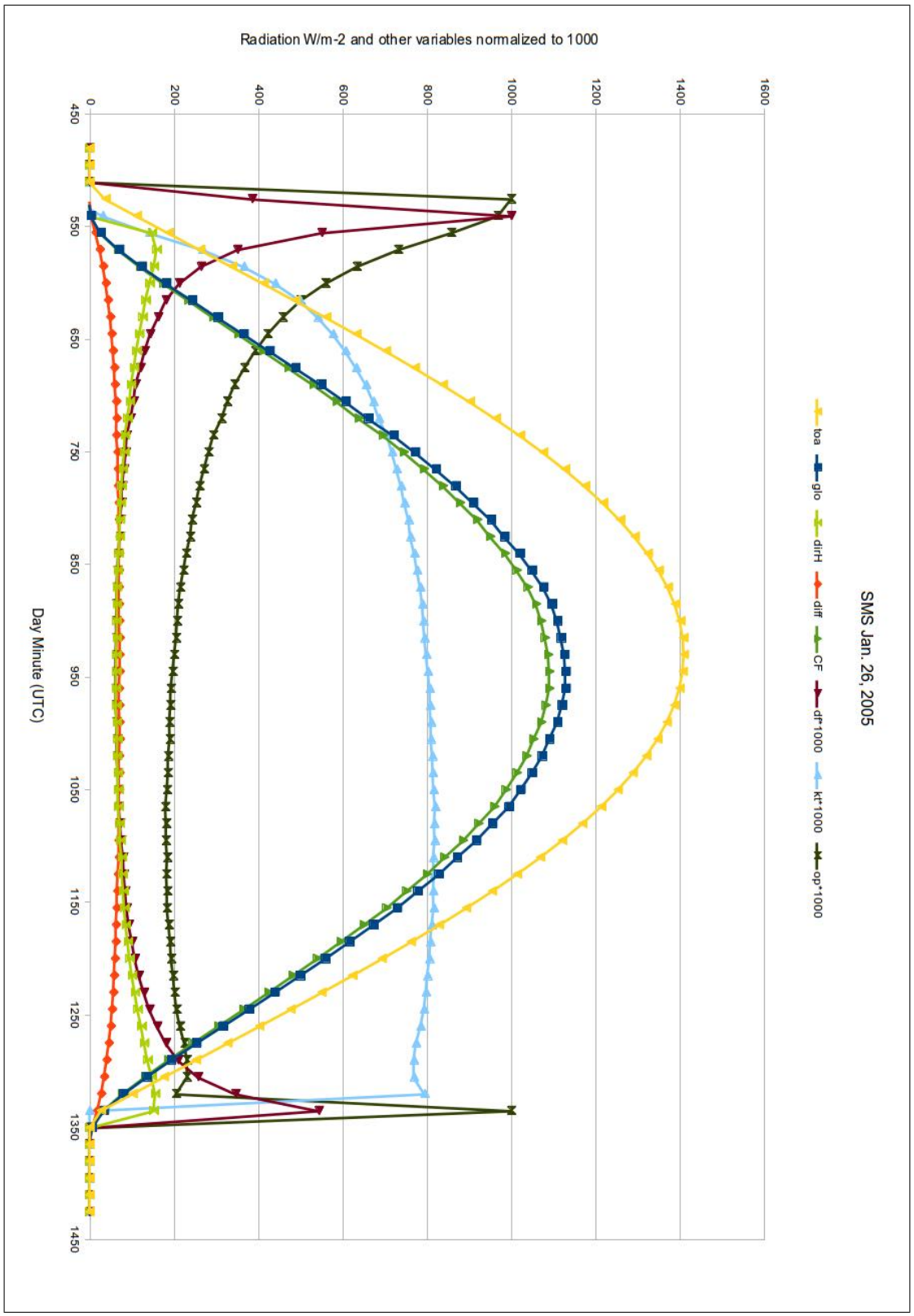


Figure C.26 - Graphic illustrating data measured and calculated on SMS January 26^{th} 2005.

Table C.27 - Solar radiation and derived data for SMS jan 27^{th} 2005.

min	toa	glo	dirH	diff	CF	df	kt	op	cos
480	0.00	-2.26	-0.04	-1.52	-2.18	0.000	0.000	0.000	-0.126
495	0.00	-2.19	-0.01	-1.47	-2.11	0.000	0.000	0.000	-0.076
510	0.00	-2.51	0.04	-1.23	-2.43	0.000	0.000	0.000	-0.025
525	37.85	-1.57	0.01	-1.05	-1.52	0.666	-0.042	1.000	0.027
540	112.30	3.12	-0.10	4.17	3.01	1.000	0.028	0.972	0.079
555	187.37	22.67	30.04	15.01	21.90	0.662	0.121	0.879	0.133
570	262.74	64.12	73.89	25.49	61.95	0.398	0.244	0.756	0.186
585	338.09	115.40	126.57	33.34	111.50	0.289	0.341	0.659	0.239
600	413.09	172.20	183.49	39.34	166.37	0.228	0.417	0.583	0.292
615	487.42	231.30	238.64	45.13	223.47	0.195	0.475	0.525	0.345
630	560.77	293.70	297.47	49.64	283.76	0.169	0.524	0.476	0.397
645	632.82	353.20	352.70	53.94	341.25	0.153	0.558	0.442	0.448
660	703.26	415.10	410.36	56.41	401.06	0.136	0.590	0.410	0.497
675	771.79	476.90	466.18	58.99	460.76	0.124	0.618	0.382	0.546
690	838.11	533.80	513.95	63.05	515.74	0.118	0.637	0.363	0.593
705	901.95	593.50	569.05	63.21	573.42	0.107	0.658	0.342	0.638
720	963.03	649.60	617.80	65.62	627.62	0.101	0.675	0.325	0.681
735	1021.09	706.00	668.77	65.89	682.11	0.093	0.691	0.309	0.722
750	1075.88	757.00	709.98	69.58	731.39	0.092	0.704	0.296	0.761
765	1127.16	804.00	744.62	73.10	776.80	0.091	0.713	0.287	0.797
780	1174.72	853.00	789.33	71.70	824.14	0.084	0.726	0.274	0.831
795	1218.35	894.00	823.82	73.60	863.75	0.082	0.734	0.266	0.862
810	1257.86	933.00	855.87	75.30	901.43	0.081	0.742	0.258	0.890
825	1293.09	968.00	884.42	75.10	935.25	0.078	0.749	0.251	0.915
840	1323.89	1002.00	912.97	76.60	968.10	0.076	0.757	0.243	0.936
855	1350.12	1028.00	931.06	77.90	993.22	0.076	0.761	0.239	0.955
870	1371.66	1056.00	953.68	76.80	1020.27	0.073	0.770	0.230	0.970
885	1388.44	1072.00	962.40	80.60	1035.73	0.075	0.772	0.228	0.982
900	1400.37	1083.00	965.71	81.80	1046.36	0.076	0.773	0.227	0.990
915	1407.41	1096.00	979.53	78.80	1058.92	0.072	0.779	0.221	0.995
930	1409.52	1107.00	985.98	77.60	1069.54	0.070	0.785	0.215	0.997
945	1406.70	1106.00	980.03	78.80	1068.58	0.071	0.786	0.214	0.995
960	1398.96	1096.00	960.78	82.30	1058.92	0.075	0.783	0.217	0.989
975	1386.33	1095.00	959.95	79.10	1057.95	0.072	0.790	0.210	0.981
990	1368.86	1082.00	942.05	81.70	1045.39	0.076	0.790	0.210	0.968
1005	1346.63	1072.00	928.66	79.80	1035.73	0.074	0.796	0.204	0.952
1020	1319.74	1052.00	909.18	79.00	1016.41	0.075	0.797	0.203	0.933
1035	1288.30	1028.00	881.14	79.30	993.22	0.077	0.798	0.202	0.911
1050	1252.45	1000.00	851.30	78.30	966.17	0.078	0.798	0.202	0.886
1065	1212.33	968.00	821.46	80.00	935.25	0.083	0.798	0.202	0.857
1080	1168.13	932.00	779.94	79.90	900.47	0.086	0.798	0.202	0.826
1095	1120.02	902.00	748.61	78.60	871.48	0.087	0.805	0.195	0.792
1110	1068.22	844.00	689.81	83.30	815.44	0.099	0.790	0.210	0.756
1125	1012.95	806.00	656.27	82.00	778.73	0.102	0.796	0.204	0.716
1140	954.44	751.00	600.81	82.60	725.59	0.110	0.787	0.213	0.675
1155	892.95	695.30	548.21	82.70	671.77	0.119	0.779	0.221	0.632
1170	828.73	655.10	512.30	78.80	632.93	0.120	0.790	0.210	0.586
1185	762.07	597.20	458.16	76.40	576.99	0.128	0.784	0.216	0.539
1200	693.25	541.30	408.44	73.70	522.99	0.136	0.781	0.219	0.490
1215	622.56	478.40	350.06	71.80	462.21	0.150	0.768	0.232	0.440
1230	550.30	419.70	297.76	69.07	405.50	0.165	0.763	0.237	0.389
1245	476.79	357.40	243.82	65.52	345.31	0.183	0.750	0.250	0.337
1260	402.34	295.30	191.32	61.49	285.31	0.208	0.734	0.266	0.285
1275	327.27	235.20	142.87	56.21	227.24	0.239	0.719	0.281	0.231
1290	251.91	176.40	97.05	49.45	170.43	0.280	0.700	0.300	0.178
1305	176.56	122.20	57.57	41.48	118.07	0.339	0.692	0.308	0.125
1320	101.56	73.60	25.62	32.10	71.11	0.436	0.725	0.275	0.072
1335	27.23	30.18	3.64	20.23	29.16	0.670	0.000	1.000	0.019
1350	0.00	5.72	-0.47	7.19	5.53	0.000	0.000	0.000	-0.033
1365	0.00	-1.40	0.31	-0.18	-1.35	0.000	0.000	0.000	-0.084
1380	0.00	-2.56	0.33	-1.29	-2.47	0.000	0.000	0.000	-0.133
1395	0.00	-2.67	0.47	-1.27	-2.57	0.000	0.000	0.000	-0.182
1410	0.00	-2.35	0.53	-1.29	-2.27	0.000	0.000	0.000	-0.229
1425	0.00	-2.35	0.64	-1.14	-2.27	0.000	0.000	0.000	-0.274

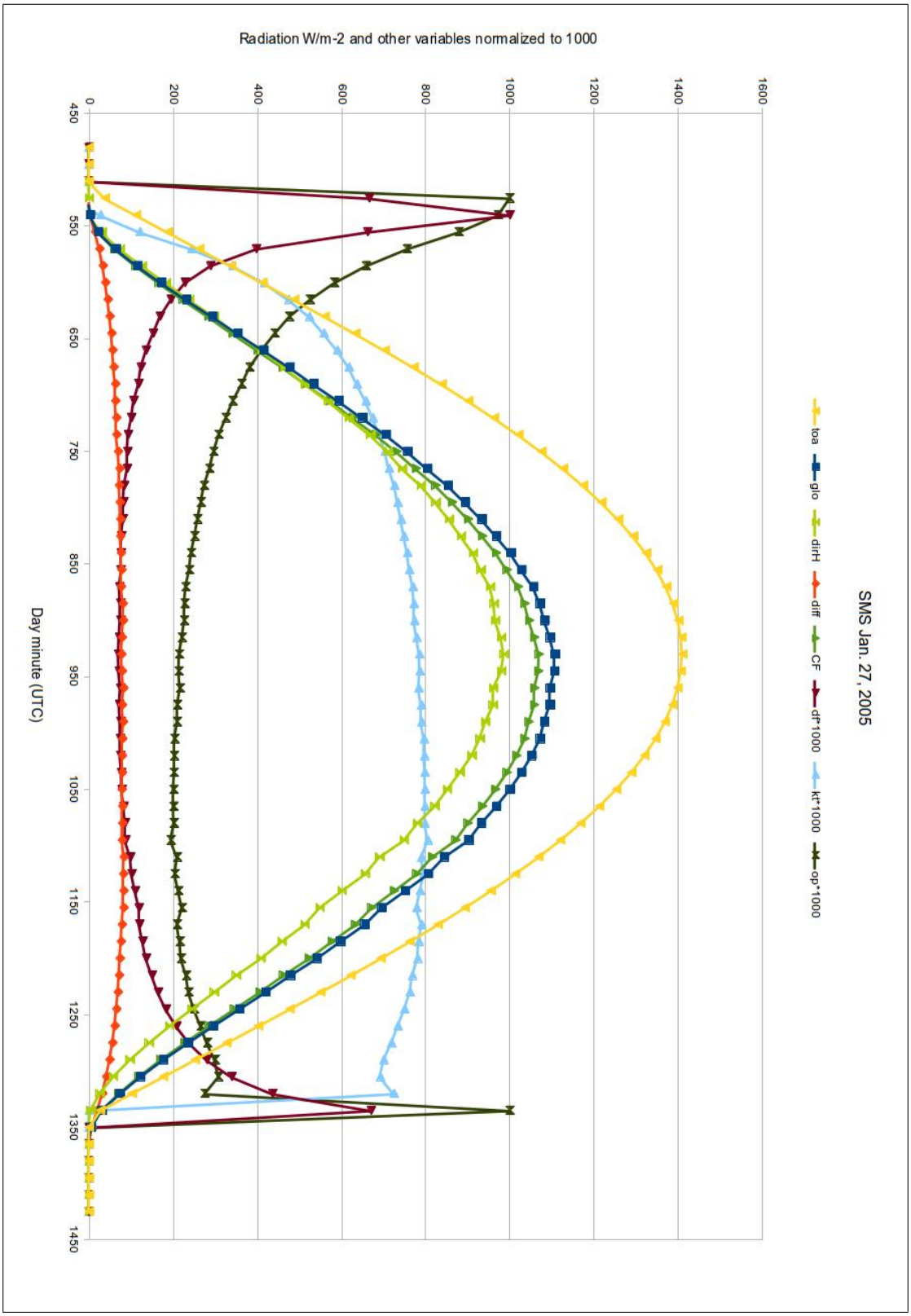


Figure C.27 - Graphic illustrating data measured and calculated on SMS January 27^{th} 2005.

Table C.28 - Solar radiation and derived data for SMS jan 28^{th} 2005.

min	toa	glo	dirH	diff	CF	df	kt	op	cos
480	0.00	-1.89	0.04	-1.13	-1.83	0.000	0.000	0.000	-0.126
495	0.00	-2.02	0.03	-1.14	-1.95	0.000	0.000	0.000	-0.076
510	0.00	-1.88	0.00	-1.18	-1.82	0.000	0.000	0.000	-0.025
525	37.85	-1.45	-0.02	-0.60	-1.40	0.409	-0.038	1.000	0.027
540	112.30	13.43	0.06	13.70	12.98	1.000	0.120	0.880	0.079
555	187.37	28.58	18.53	24.31	27.61	0.851	0.153	0.847	0.133
570	262.74	26.67	12.95	20.10	25.77	0.754	0.102	0.898	0.186
585	338.09	22.11	0.40	22.52	21.36	1.000	0.065	0.935	0.239
600	413.09	87.60	6.32	82.40	84.64	0.941	0.212	0.788	0.292
615	487.42	254.80	172.68	118.40	246.18	0.465	0.523	0.477	0.345
630	560.77	300.60	233.42	107.10	290.43	0.356	0.536	0.464	0.397
645	632.82	439.00	279.88	197.30	424.15	0.449	0.694	0.306	0.448
660	703.26	199.10	38.85	162.90	192.36	0.818	0.283	0.717	0.497
675	771.79	206.90	0.33	204.20	199.90	0.987	0.268	0.732	0.546
690	838.11	188.50	1.16	186.00	182.12	0.987	0.225	0.775	0.593
705	901.95	172.80	-0.61	170.60	166.95	0.987	0.192	0.808	0.638
720	963.03	360.00	86.17	272.40	347.82	0.757	0.374	0.626	0.681
735	1021.09	420.60	125.38	291.90	406.37	0.694	0.412	0.588	0.722
750	1075.88	932.00	575.29	362.70	900.47	0.389	0.866	0.134	0.761
765	1127.16	845.00	614.67	235.60	816.41	0.279	0.750	0.250	0.797
780	1174.72	822.00	557.10	264.30	794.19	0.322	0.700	0.300	0.831
795	1218.35	1002.00	698.00	289.30	968.10	0.289	0.822	0.178	0.862
810	1257.86	776.00	501.78	257.80	749.74	0.332	0.617	0.383	0.890
825	1293.09	960.00	795.70	145.90	927.52	0.152	0.742	0.258	0.915
840	1323.89	962.00	827.76	112.40	929.45	0.117	0.727	0.273	0.936
855	1350.12	988.00	849.89	110.00	954.57	0.111	0.732	0.268	0.955
870	1371.66	1012.00	862.48	116.90	977.76	0.116	0.738	0.262	0.970
885	1388.44	1045.00	881.87	126.70	1009.64	0.121	0.753	0.247	0.982
900	1400.37	1059.00	892.42	123.00	1023.17	0.116	0.756	0.244	0.990
915	1407.41	1096.00	901.88	146.70	1058.92	0.134	0.779	0.221	0.995
930	1409.52	1094.00	905.23	140.40	1056.98	0.128	0.776	0.224	0.997
945	1406.70	1151.00	903.42	188.20	1112.06	0.164	0.818	0.182	0.995
960	1398.96	502.80	255.78	268.10	485.79	0.533	0.359	0.641	0.989
975	1386.33	412.70	68.34	321.90	398.74	0.780	0.298	0.702	0.981
990	1368.86	1235.00	890.73	284.80	1193.21	0.231	0.902	0.098	0.968
1005	1346.63	1179.00	858.17	264.10	1139.11	0.224	0.876	0.124	0.952
1020	1319.74	1090.00	748.62	269.00	1053.12	0.247	0.826	0.174	0.933
1035	1288.30	1171.00	822.82	289.20	1131.38	0.247	0.909	0.091	0.911
1050	1252.45	552.70	221.82	307.90	534.00	0.557	0.441	0.559	0.886
1065	1212.33	286.30	-0.85	279.50	276.61	0.976	0.236	0.764	0.857
1080	1168.13	247.80	0.28	242.00	239.42	0.977	0.212	0.788	0.826
1095	1120.02	367.40	8.49	354.30	354.97	0.964	0.328	0.672	0.792
1110	1068.22	265.50	3.76	261.00	256.52	0.983	0.249	0.751	0.756
1125	1012.95	431.70	103.81	307.90	417.09	0.713	0.426	0.574	0.716
1140	954.44	835.00	537.36	233.80	806.75	0.280	0.875	0.125	0.675
1155	892.95	260.60	45.22	207.80	251.78	0.797	0.292	0.708	0.632
1170	828.73	259.90	40.19	207.20	251.11	0.797	0.314	0.686	0.586
1185	762.07	702.00	429.59	211.00	678.25	0.301	0.921	0.079	0.539
1200	693.25	563.40	369.22	138.20	544.34	0.245	0.813	0.187	0.490
1215	622.56	495.10	333.77	108.30	478.35	0.219	0.795	0.205	0.440
1230	550.30	239.20	113.07	103.20	231.11	0.431	0.435	0.565	0.389
1245	476.79	425.50	230.06	149.90	411.10	0.352	0.892	0.108	0.337
1260	402.34	360.30	179.25	139.40	348.11	0.387	0.896	0.104	0.285
1275	327.27	107.80	0.37	107.60	104.15	0.998	0.329	0.671	0.231
1290	251.91	145.20	27.72	108.30	140.29	0.746	0.576	0.424	0.178
1305	176.56	152.80	55.31	75.00	147.63	0.491	0.865	0.135	0.125
1320	101.56	69.73	22.04	35.16	67.37	0.504	0.687	0.313	0.072
1335	27.23	17.02	0.15	18.09	16.44	1.000	0.625	0.375	0.019
1350	0.00	4.98	-0.41	6.40	4.81	0.000	0.000	0.000	-0.033
1365	0.00	-1.44	0.39	-0.17	-1.39	0.000	0.000	0.000	-0.084
1380	0.00	-2.20	0.50	-1.10	-2.12	0.000	0.000	0.000	-0.133
1395	0.00	-2.04	0.50	-1.19	-1.97	0.000	0.000	0.000	-0.182
1410	0.00	-2.04	0.15	-1.32	-1.97	0.000	0.000	0.000	-0.229
1425	0.00	-2.07	0.28	-1.29	-2.00	0.000	0.000	0.000	-0.274

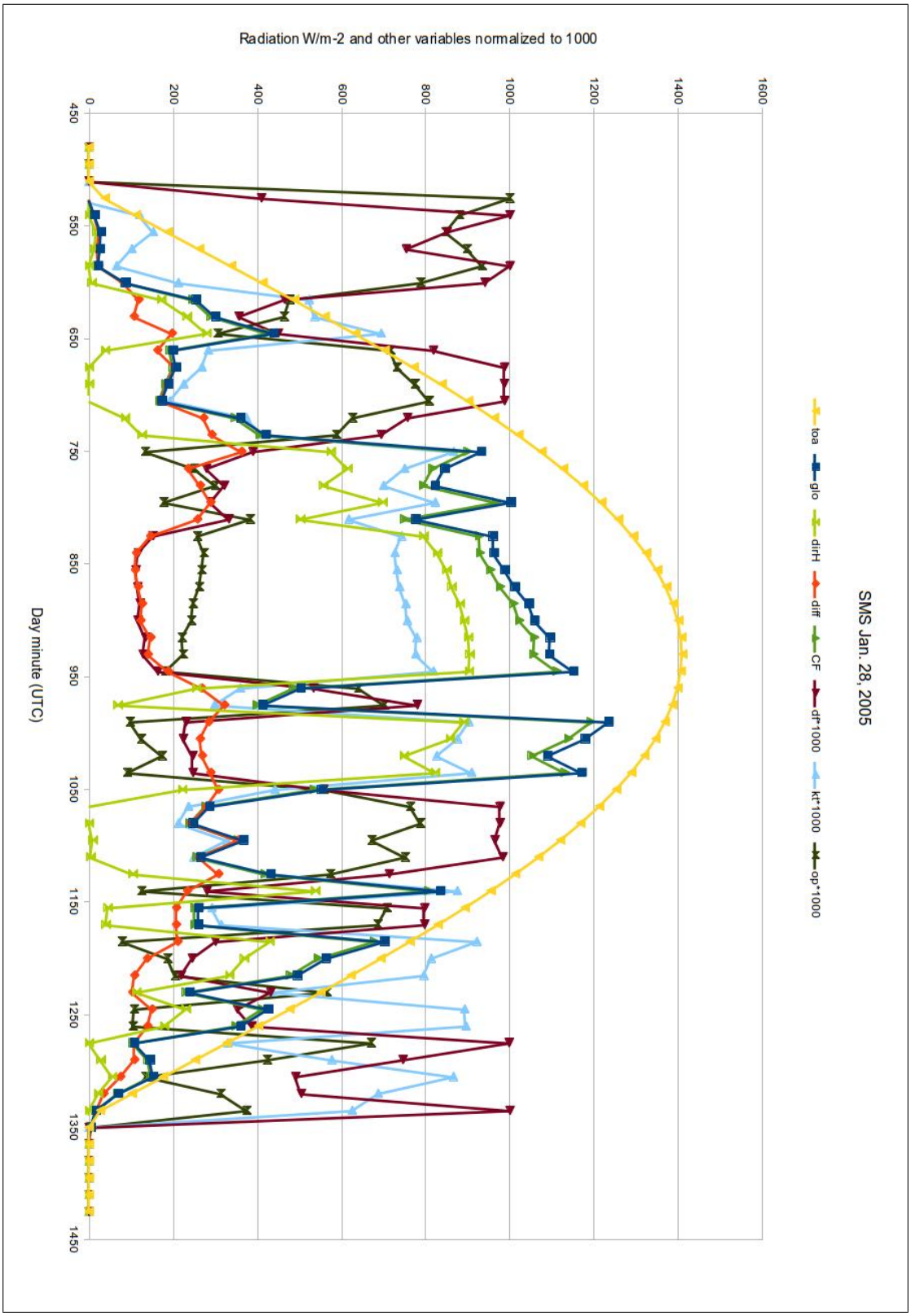


Figure C.28 - Graphic illustrating data measured and calculated on SMS January 28^{th} 2005.

Table C.29 - Solar radiation and derived data for SMS jan 29^{th} 2005.

min	toa	glo	dirH	diff	CF	df	kt	op	cos
480	0.00	-1.88	0.08	-1.10	-1.82	0.000	0.000	0.000	-0.126
495	0.00	-1.81	0.00	-1.16	-1.75	0.000	0.000	0.000	-0.076
510	0.00	-1.84	0.00	-1.10	-1.78	0.000	0.000	0.000	-0.025
525	37.85	-1.53	-0.01	-0.76	-1.48	0.494	-0.041	1.000	0.027
540	112.30	2.50	0.03	3.04	2.41	1.000	0.022	0.978	0.079
555	187.37	17.99	20.33	13.41	17.38	0.745	0.096	0.904	0.133
570	262.74	55.36	60.77	24.76	53.49	0.447	0.211	0.789	0.186
585	338.09	104.10	106.20	33.39	100.58	0.321	0.308	0.692	0.239
600	413.09	156.30	160.90	39.81	151.01	0.255	0.378	0.622	0.292
615	487.42	211.20	212.06	44.88	204.05	0.213	0.433	0.567	0.345
630	560.77	271.60	269.15	49.40	262.41	0.182	0.484	0.516	0.397
645	632.82	328.60	323.16	53.05	317.48	0.161	0.519	0.481	0.448
660	703.26	387.60	375.05	57.46	374.49	0.148	0.551	0.449	0.497
675	771.79	444.30	426.33	59.93	429.27	0.135	0.576	0.424	0.546
690	838.11	499.10	472.46	64.91	482.21	0.130	0.596	0.404	0.593
705	901.95	609.20	496.96	142.70	588.59	0.234	0.675	0.325	0.638
720	963.03	629.30	270.01	351.90	608.01	0.559	0.653	0.347	0.681
735	1021.09	631.00	180.12	456.00	609.65	0.723	0.618	0.382	0.722
750	1075.88	413.90	2.06	403.80	399.90	0.976	0.385	0.615	0.761
765	1127.16	449.30	16.34	422.30	434.10	0.940	0.399	0.601	0.797
780	1174.72	260.70	-1.36	254.90	251.88	0.978	0.222	0.778	0.831
795	1218.35	365.70	-0.05	357.40	353.33	0.977	0.300	0.700	0.862
810	1257.86	304.40	0.92	297.30	294.10	0.977	0.242	0.758	0.890
825	1293.09	146.50	-2.56	143.30	141.54	0.978	0.113	0.887	0.915
840	1323.89	87.90	-4.27	85.80	84.93	0.976	0.066	0.934	0.936
855	1350.12	199.10	0.68	193.90	192.36	0.974	0.147	0.853	0.955
870	1371.66	250.90	4.93	242.50	242.41	0.967	0.183	0.817	0.970
885	1388.44	432.40	4.91	419.60	417.77	0.970	0.311	0.689	0.982
900	1400.37	544.50	7.43	522.50	526.08	0.960	0.389	0.611	0.990
915	1407.41	430.60	3.31	415.30	416.03	0.964	0.306	0.694	0.995
930	1409.52	662.10	126.91	506.80	639.70	0.765	0.470	0.530	0.997
945	1406.70	290.50	-2.34	282.00	280.67	0.971	0.207	0.793	0.995
960	1398.96	155.90	0.63	151.80	150.63	0.974	0.111	0.889	0.989
975	1386.33	81.90	-1.03	80.40	79.13	0.982	0.059	0.941	0.981
990	1368.86	44.23	-1.42	43.78	42.73	0.990	0.032	0.968	0.968
1005	1346.63	27.42	-2.46	27.64	26.49	1.000	0.020	0.980	0.952
1020	1319.74	34.94	-9.26	35.46	33.76	1.000	0.026	0.974	0.933
1035	1288.30	88.10	-1.21	85.50	85.12	0.970	0.068	0.932	0.911
1050	1252.45	93.10	-0.08	91.20	89.95	0.980	0.074	0.926	0.886
1065	1212.33	91.40	-1.44	88.70	88.31	0.970	0.075	0.925	0.857
1080	1168.13	457.00	88.16	344.30	441.54	0.753	0.391	0.609	0.826
1095	1120.02	963.00	587.01	290.80	930.42	0.302	0.860	0.140	0.792
1110	1068.22	397.10	12.26	377.30	383.66	0.950	0.372	0.628	0.756
1125	1012.95	823.00	631.91	117.70	795.15	0.143	0.812	0.188	0.716
1140	954.44	793.00	488.75	252.80	766.17	0.319	0.831	0.169	0.675
1155	892.95	858.00	549.47	241.40	828.97	0.281	0.961	0.039	0.632
1170	828.73	300.80	110.08	168.00	290.62	0.559	0.363	0.637	0.586
1185	762.07	218.20	0.87	215.40	210.82	0.987	0.286	0.714	0.539
1200	693.25	581.40	406.97	117.80	561.73	0.203	0.839	0.161	0.490
1215	622.56	476.20	356.67	67.53	460.09	0.142	0.765	0.235	0.440
1230	550.30	409.80	305.93	55.63	395.93	0.136	0.745	0.255	0.389
1245	476.79	349.70	253.26	51.97	337.87	0.149	0.733	0.267	0.337
1260	402.34	290.20	203.19	47.48	280.38	0.164	0.721	0.279	0.285
1275	327.27	232.50	154.95	43.21	224.63	0.186	0.710	0.290	0.231
1290	251.91	175.10	107.17	38.65	169.18	0.221	0.695	0.305	0.178
1305	176.56	118.90	63.38	32.83	114.88	0.276	0.673	0.327	0.125
1320	101.56	68.59	27.55	25.64	66.27	0.374	0.675	0.325	0.072
1335	27.23	28.26	4.46	16.38	27.30	0.580	0.000	1.000	0.019
1350	0.00	5.20	-1.42	6.42	5.02	0.000	0.000	0.000	-0.033
1365	0.00	-1.05	0.15	-0.04	-1.01	0.000	0.000	0.000	-0.084
1380	0.00	-2.04	0.31	-0.92	-1.97	0.000	0.000	0.000	-0.133
1395	0.00	-1.92	0.27	-1.02	-1.85	0.000	0.000	0.000	-0.182
1410	0.00	-1.73	0.24	-1.03	-1.67	0.000	0.000	0.000	-0.229
1425	0.00	-1.89	0.29	-1.04	-1.82	0.000	0.000	0.000	-0.274

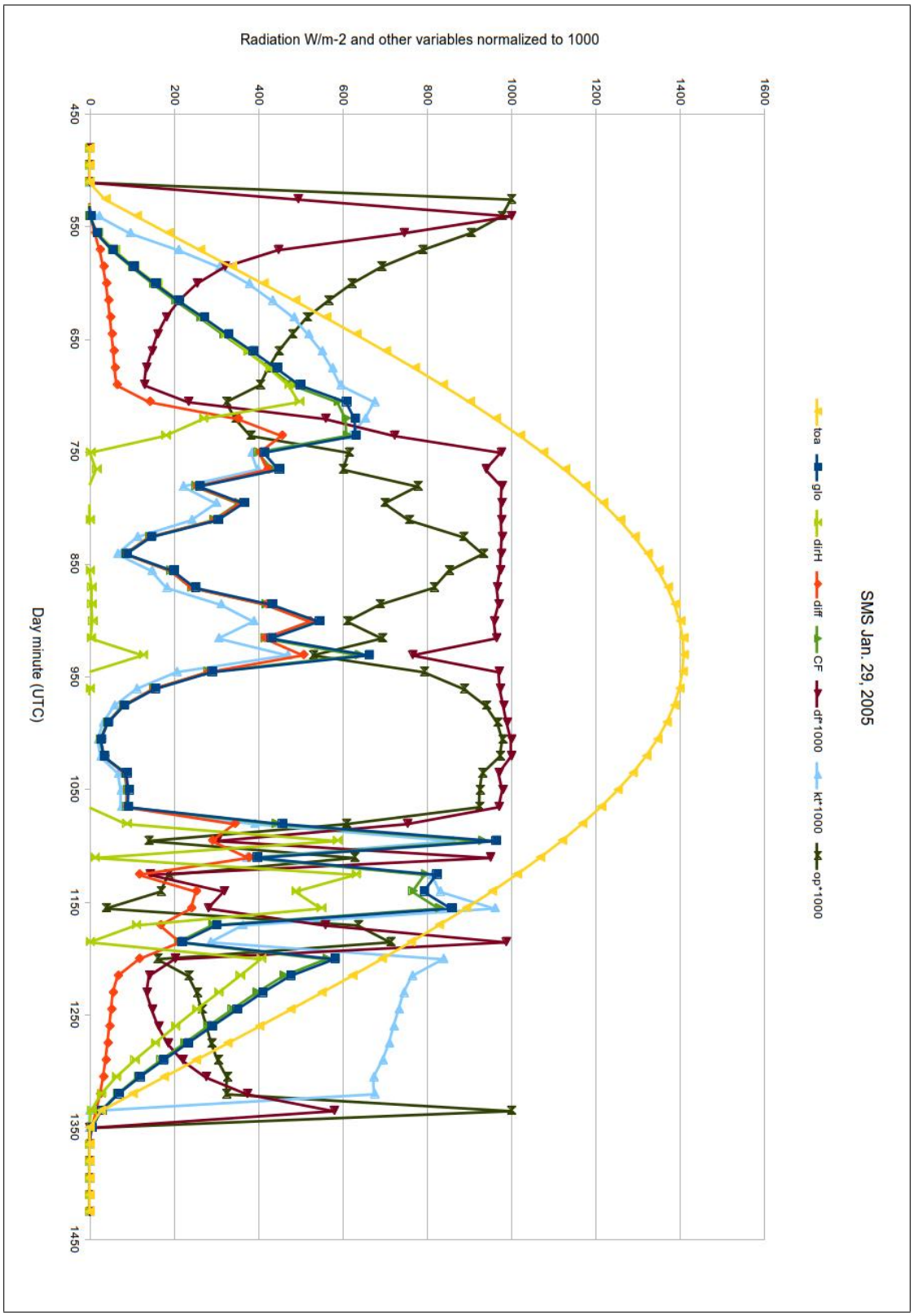


Figure C.29 - Graphic illustrating data measured and calculated on SMS January 29^{th} 2005.

Table C.30 - Solar radiation and derived data for SMS jan 30^{th} 2005.

min	toa	glo	dirH	diff	CF	df	kt	op	cos
480	0.00	-1.74	0.03	-1.10	-1.68	0.000	0.000	0.000	-0.126
495	0.00	-1.73	0.00	-1.10	-1.67	0.000	0.000	0.000	-0.076
510	0.00	-1.73	0.01	-1.10	-1.67	0.000	0.000	0.000	-0.025
525	37.85	-1.47	-0.01	-0.74	-1.42	0.503	-0.039	1.000	0.027
540	112.30	2.67	0.00	3.27	2.58	1.000	0.024	0.976	0.079
555	187.37	17.17	3.47	16.62	16.59	0.968	0.092	0.908	0.133
570	262.74	49.32	15.91	41.86	47.65	0.849	0.188	0.812	0.186
585	338.09	151.10	106.48	85.90	145.99	0.568	0.447	0.553	0.239
600	413.09	197.70	118.36	115.10	191.01	0.582	0.479	0.521	0.292
615	487.42	138.90	10.19	130.30	134.20	0.938	0.285	0.715	0.345
630	560.77	136.50	20.37	119.10	131.88	0.873	0.243	0.757	0.397
645	632.82	258.10	205.31	87.20	249.37	0.338	0.408	0.592	0.448
660	703.26	388.40	360.62	81.00	375.26	0.209	0.552	0.448	0.497
675	771.79	481.20	423.60	109.70	464.92	0.228	0.623	0.377	0.546
690	838.11	526.30	378.85	184.30	508.49	0.350	0.628	0.372	0.593
705	901.95	497.80	193.81	314.60	480.96	0.632	0.552	0.448	0.638
720	963.03	539.40	195.97	349.90	521.15	0.649	0.560	0.440	0.681
735	1021.09	466.20	118.37	347.90	450.43	0.746	0.457	0.543	0.722
750	1075.88	517.60	133.32	382.00	500.09	0.738	0.481	0.519	0.761
765	1127.16	606.20	174.52	427.20	585.69	0.705	0.538	0.462	0.797
780	1174.72	624.20	151.30	466.10	603.08	0.747	0.531	0.469	0.831
795	1218.35	412.60	12.54	390.20	398.64	0.946	0.339	0.661	0.862
810	1257.86	386.50	2.76	373.60	373.42	0.967	0.307	0.693	0.890
825	1293.09	538.60	91.19	436.50	520.38	0.810	0.417	0.583	0.915
840	1323.89	780.00	292.06	473.80	753.61	0.607	0.589	0.411	0.936
855	1350.12	687.30	179.91	489.20	664.05	0.712	0.509	0.491	0.955
870	1371.66	656.80	125.54	518.80	634.58	0.790	0.479	0.521	0.970
885	1388.44	517.10	16.68	485.70	499.60	0.939	0.372	0.628	0.982
900	1400.37	1022.00	429.87	565.00	987.42	0.553	0.730	0.270	0.990
915	1407.41	656.50	109.10	525.10	634.29	0.800	0.466	0.534	0.995
930	1409.52	678.60	108.57	550.00	655.64	0.810	0.481	0.519	0.997
945	1406.70	927.00	309.63	583.50	895.64	0.629	0.659	0.341	0.995
960	1398.96	718.00	147.93	547.10	693.71	0.762	0.513	0.487	0.989
975	1386.33	793.00	226.60	538.90	766.17	0.680	0.572	0.428	0.981
990	1368.86	951.00	377.69	539.60	918.82	0.567	0.695	0.305	0.968
1005	1346.63	666.50	131.73	511.10	643.95	0.767	0.495	0.505	0.952
1020	1319.74	938.00	355.46	545.00	906.26	0.581	0.711	0.289	0.933
1035	1288.30	661.00	103.42	535.80	638.64	0.811	0.513	0.487	0.911
1050	1252.45	836.00	298.80	502.50	807.71	0.601	0.667	0.333	0.886
1065	1212.33	667.90	162.23	479.80	645.30	0.718	0.551	0.449	0.857
1080	1168.13	918.00	382.87	492.00	886.94	0.536	0.786	0.214	0.826
1095	1120.02	534.60	61.95	454.80	516.51	0.851	0.477	0.523	0.792
1110	1068.22	550.60	81.52	450.50	531.97	0.818	0.515	0.485	0.756
1125	1012.95	674.20	197.24	446.50	651.39	0.662	0.666	0.334	0.716
1140	954.44	619.50	174.84	416.20	598.54	0.672	0.649	0.351	0.675
1155	892.95	599.60	186.82	382.80	579.31	0.638	0.671	0.329	0.632
1170	828.73	354.70	25.61	319.40	342.70	0.900	0.428	0.572	0.586
1185	762.07	290.80	3.82	280.90	280.96	0.966	0.382	0.618	0.539
1200	693.25	271.10	3.59	262.40	261.93	0.968	0.391	0.609	0.490
1215	622.56	246.70	2.77	239.60	238.35	0.971	0.396	0.604	0.440
1230	550.30	213.40	3.48	206.30	206.18	0.967	0.388	0.612	0.389
1245	476.79	190.70	6.81	180.10	184.25	0.944	0.400	0.600	0.337
1260	402.34	147.10	1.83	143.20	142.12	0.973	0.366	0.634	0.285
1275	327.27	109.10	1.08	106.80	105.41	0.979	0.333	0.667	0.231
1290	251.91	77.30	0.08	76.60	74.68	0.991	0.307	0.693	0.178
1305	176.56	52.77	-0.03	52.70	50.98	0.999	0.299	0.701	0.125
1320	101.56	29.67	-0.05	30.02	28.67	1.000	0.292	0.708	0.072
1335	27.23	10.87	-0.01	11.48	10.50	1.000	0.399	0.601	0.019
1350	0.00	0.93	-0.01	1.63	0.90	0.000	0.000	0.000	-0.033
1365	0.00	-1.57	0.15	-0.58	-1.51	0.000	0.000	0.000	-0.084
1380	0.00	-2.04	0.26	-0.95	-1.97	0.000	0.000	0.000	-0.133
1395	0.00	-1.81	0.11	-1.16	-1.74	0.000	0.000	0.000	-0.182
1410	0.00	-1.59	-0.08	-1.29	-1.53	0.000	0.000	0.000	-0.229
1425	0.00	-1.88	0.17	-1.06	-1.82	0.000	0.000	0.000	-0.274

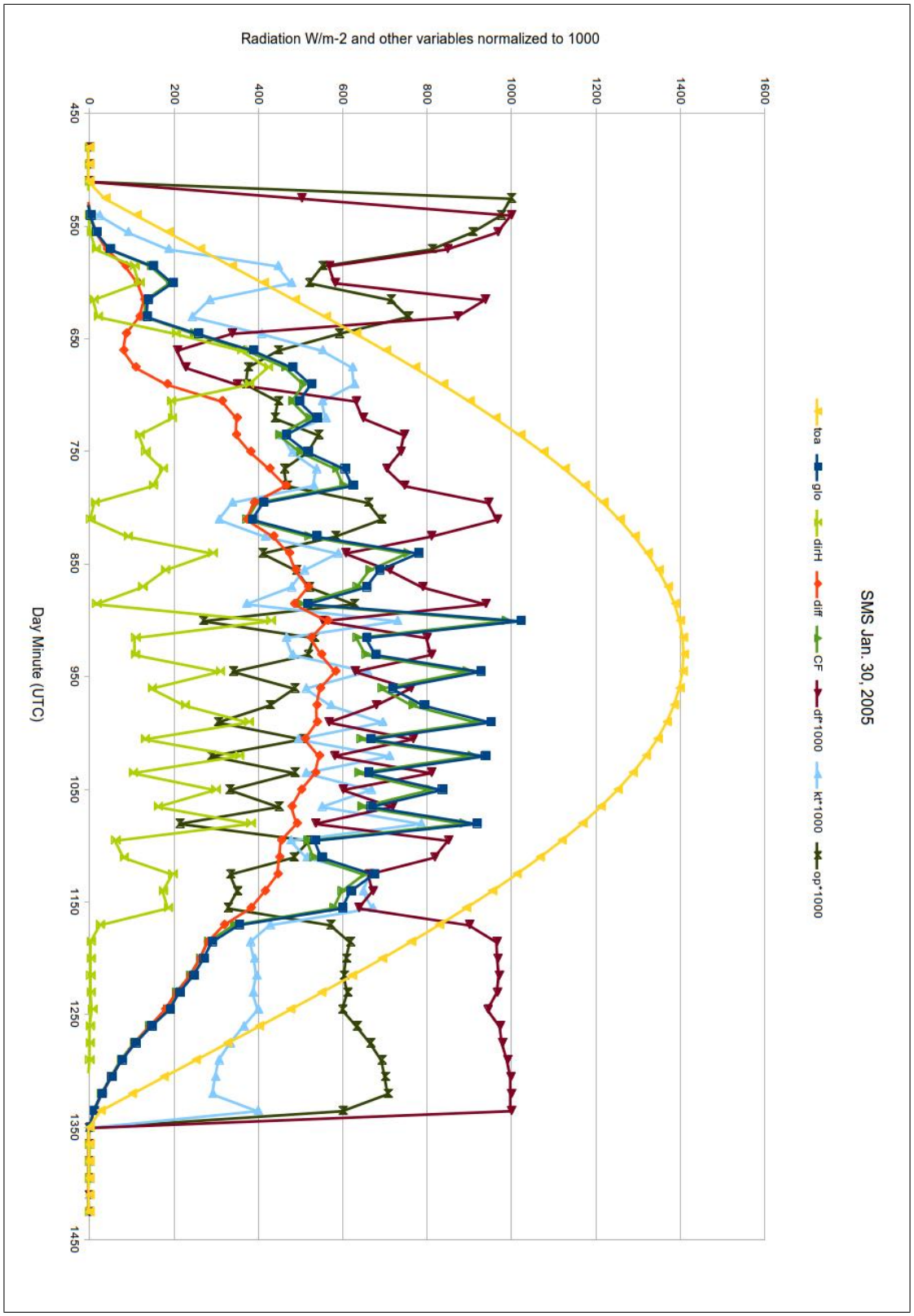


Figure C.30 - Graphic illustrating data measured and calculated on SMS January 30^{th} 2005.

Table C.31 - Solar radiation and derived data for SMS jan 31^{th} 2005.

min	toa	glo	dirH	diff	CF	df	kt	op	cos
480	0.00	-1.90	0.10	-1.10	-1.84	0.000	0.000	0.000	-0.126
495	0.00	-1.88	0.08	-1.10	-1.82	0.000	0.000	0.000	-0.076
510	0.00	-1.72	0.00	-1.12	-1.66	0.000	0.000	0.000	-0.025
525	37.85	-1.39	0.00	-0.82	-1.34	0.591	-0.037	1.000	0.027
540	112.30	1.65	0.00	2.32	1.60	1.000	0.015	0.985	0.079
555	187.37	14.15	2.91	13.96	13.67	0.987	0.076	0.924	0.133
570	262.74	75.80	60.41	48.43	73.24	0.639	0.288	0.712	0.186
585	338.09	120.10	72.10	76.60	116.04	0.638	0.355	0.645	0.239
600	413.09	144.70	48.50	110.60	139.80	0.764	0.350	0.650	0.292
615	487.42	172.60	48.61	135.10	166.76	0.783	0.354	0.646	0.345
630	560.77	160.90	16.17	146.90	155.46	0.913	0.287	0.713	0.397
645	632.82	168.90	2.12	165.80	163.19	0.982	0.267	0.733	0.448
660	703.26	202.70	8.44	193.70	195.84	0.956	0.288	0.712	0.497
675	771.79	237.00	2.14	232.60	228.98	0.981	0.307	0.693	0.546
690	838.11	288.40	22.12	264.90	278.64	0.919	0.344	0.656	0.593
705	901.95	327.60	53.14	274.90	316.52	0.839	0.363	0.637	0.638
720	963.03	399.70	109.80	292.40	386.18	0.732	0.415	0.585	0.681
735	1021.09	432.40	84.79	345.40	417.77	0.799	0.423	0.577	0.722
750	1075.88	449.40	58.44	385.20	434.19	0.857	0.418	0.582	0.761
765	1127.16	449.50	57.16	384.90	434.29	0.856	0.399	0.601	0.797
780	1174.72	478.10	70.04	401.60	461.92	0.840	0.407	0.593	0.831
795	1218.35	560.40	94.96	455.20	541.44	0.812	0.460	0.540	0.862
810	1257.86	637.30	151.87	474.90	615.74	0.745	0.507	0.493	0.890
825	1293.09	491.40	7.89	469.70	474.77	0.956	0.380	0.620	0.915
840	1323.89	430.30	10.67	408.20	415.74	0.949	0.325	0.675	0.936
855	1350.12	356.70	-1.14	347.90	344.63	0.975	0.264	0.736	0.955
870	1371.66	485.20	7.35	463.80	468.78	0.956	0.354	0.646	0.970
885	1388.44	425.50	0.39	411.40	411.10	0.967	0.306	0.694	0.982
900	1400.37	440.30	2.93	425.10	425.40	0.965	0.314	0.686	0.990
915	1407.41	544.00	10.62	517.00	525.59	0.950	0.387	0.613	0.995
930	1409.52	470.10	5.70	450.90	454.19	0.959	0.334	0.666	0.997
945	1406.70	732.00	175.11	532.80	707.23	0.728	0.520	0.480	0.995
960	1398.96	801.00	172.76	599.80	773.90	0.749	0.573	0.427	0.989
975	1386.33	701.00	130.61	548.70	677.28	0.783	0.506	0.494	0.981
990	1368.86	593.30	10.40	567.00	573.23	0.956	0.433	0.567	0.968
1005	1346.63	845.00	252.59	560.70	816.41	0.664	0.627	0.373	0.952
1020	1319.74	676.30	109.21	541.40	653.42	0.801	0.512	0.488	0.933
1035	1288.30	417.00	0.76	405.20	402.89	0.972	0.324	0.676	0.911
1050	1252.45	415.40	2.06	404.50	401.34	0.974	0.332	0.668	0.886
1065	1212.33	300.80	-0.30	293.30	290.62	0.975	0.248	0.752	0.857
1080	1168.13	249.10	0.18	243.40	240.67	0.977	0.213	0.787	0.826
1095	1120.02	330.10	3.93	319.80	318.93	0.969	0.295	0.705	0.792
1110	1068.22	292.20	1.75	284.50	282.31	0.974	0.274	0.726	0.756
1125	1012.95	313.20	18.02	287.40	302.60	0.918	0.309	0.691	0.716
1140	954.44	276.70	2.61	269.20	267.34	0.973	0.290	0.710	0.675
1155	892.95	230.00	-0.06	226.10	222.22	0.983	0.258	0.742	0.632
1170	828.73	121.70	-0.86	120.20	117.58	0.988	0.147	0.853	0.586
1185	762.07	56.74	-0.80	56.37	54.82	0.993	0.074	0.926	0.539

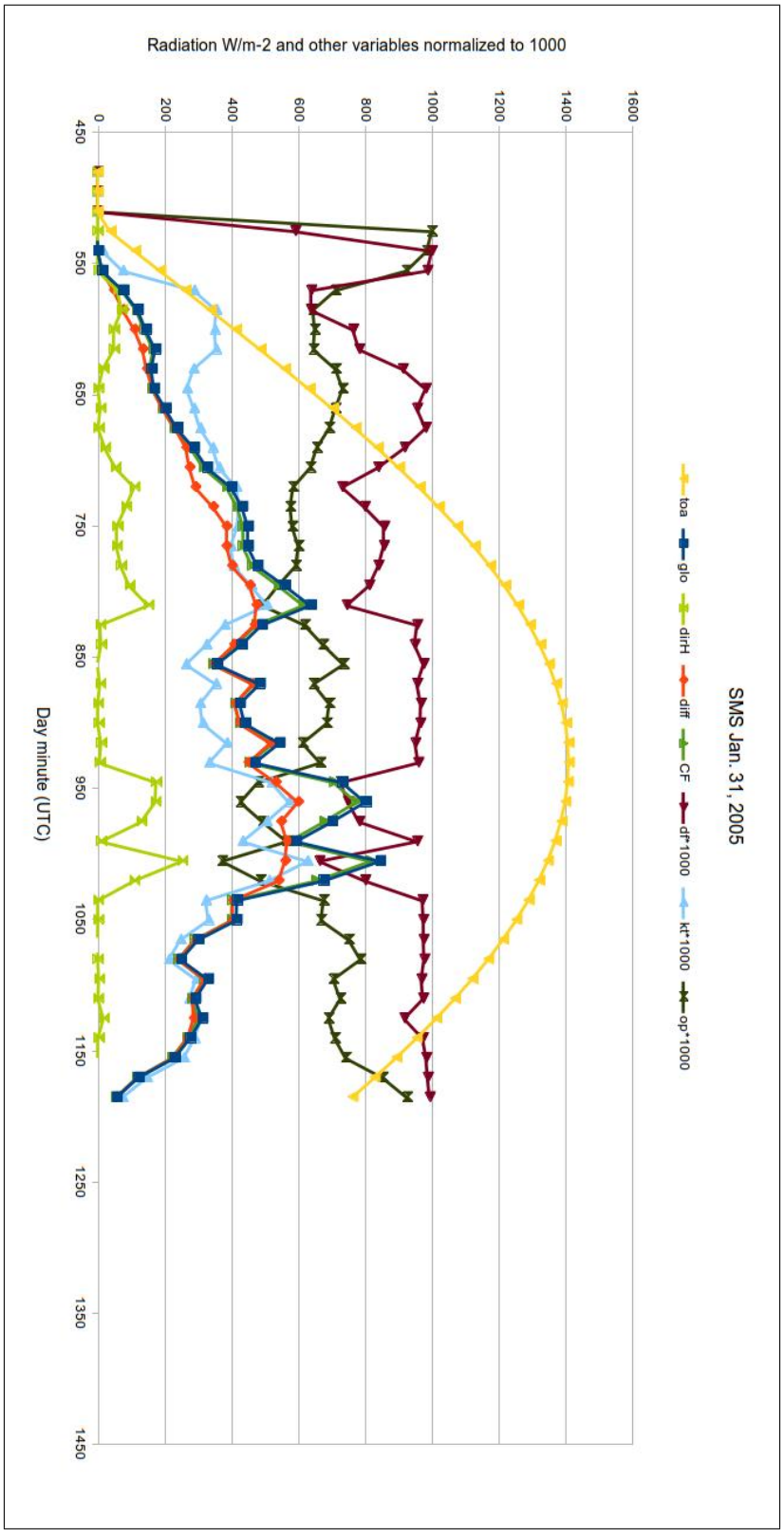


Figure C.31 - Graphic illustrating data measured and calculated on SMS January 31^{th} 2005.