

## CHRIS Data Format

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## DOCUMENT REVISION STATUS

Last Edited Date	Revision / Release Number	Status	Edited By	Pages / Paragraphs Affected	Change Ref
19/6/2008	1		M A Cutter	New release within the SSTL document system of the Sira document 271.DO.13, issue 4.2 dated 29/3/2005. A few corrections have been added as indicated below.	
				10. Longitude definition corrected	
				12. Observation Zenith Angle definition and permitted angles updated.	
				Annex 2 updated	

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## 1 INTRODUCTION

This document describes the CHRIS HDF file format for HDF version.

## 2 CHRIS MODES

There are five formal CHRIS imaging modes, classified as modes 1 to 5. (NB. Mode 3 exists with one variation: Mode 3A. Mode 3A addresses the requirements of PIs using the San Rossore site.)

The “nominal” wavelength allocations for each band within each mode are specified in Annex 1, as well as the nominal ground sampling distance (GSD). The “actual” wavelengths for the operating temperature are detailed within the HDF file, see section 4.3.4.

## 3 OBSERVATION ASPECTS

### 3.1 Observation Angles

CHRIS acquires a set of up to five images of each target during each acquisition sequence.

Each imaged target will have an associated “fly-by” position. This is the position on the *ground track* when the platform zenith angle, as seen from the target, is a minimum (i.e. Minimum Zenith Angle (MZA)). Negative values correspond to target locations east of the ground track.

The platform acquires the images at times when the zenith angle of the platform with *respect to the fly-by position* is equal to a set of Fly-by Zenith Angles (FZA).

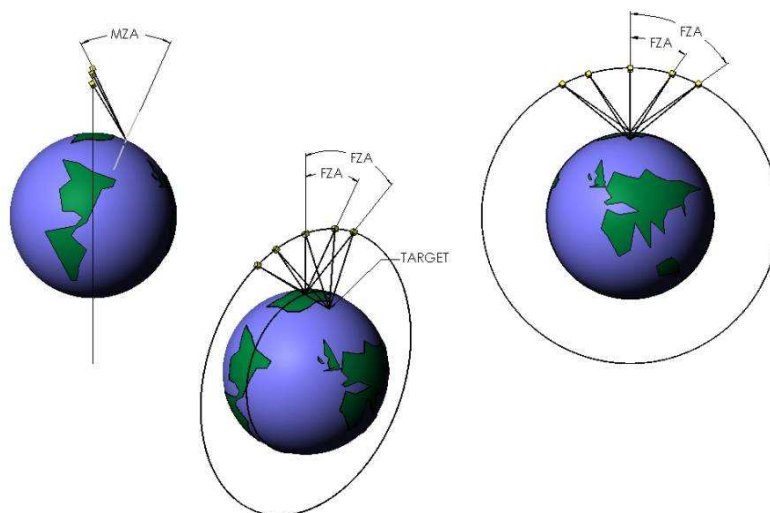

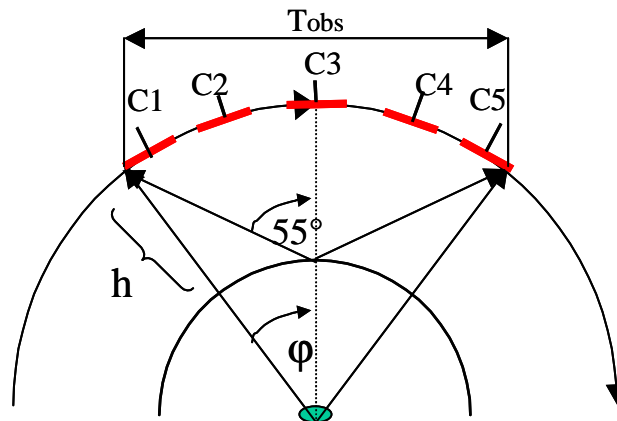


Figure 3.1 Illustration of the FZA and MZA

*The 5 angular CHRIS acquisitions are assumed take place within a 55° cone, as defined by a vector connecting the centre of the Earth to the spacecraft. This is illustrated in the diagram below. Two important points need to be made:*

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- The 55° cone assumes a circular orbit with the distance to spacecraft equal to the semi-major axis of the orbit, i.e. constant distance. For orbits higher or lower than the semi-major axis the cone traced by the satellite during acquisition will be slightly different.
- The first acquisition is initiated at the leading edge of the cone and the final acquisition finishes at the finishing edge of the cone. The centre time of the image acquisition therefore does not correspond to the edge of the cone.



**Figure 3.2: Illustration of acquisition geometry. The red lines indicate image acquisitions and C1 to C5 the image centre times.**

The timing of the acquisition is based on the total observation time  $T_{obs}$ , which is given by

$$T_{obs} = \phi / \omega$$

where  $\phi$  is constant and is calculated assuming constant distance to the satellite based on the semi-major orbit axis and  $\omega$ , the angular rate varies with orbital height.  $T_{obs}$  is defined from the beginning of the 1<sup>st</sup> scan to the end of the 5<sup>th</sup> scan. The time within  $T_{obs}$  is divided into

- scan time ( $T_{sc}$ ) during which the imaging is performed
- slew period ( $T_{sl}$ ) equal to 12.5s between each scan
- margin periods ( $T_{mar}$ ) added to both sides of the scan to damp transients occurring between slew period and the scan period.


The total observation period is made up of 5 scans, 4 slew periods and 8 margin periods (the margin periods before the 1<sup>st</sup> scan and after the 5<sup>th</sup> scan are considered outside  $T_{obs}$ ) as illustrated in Table 3.1. As  $T_{obs}$  is calculated based on the actual angular rate of the orbit  $\omega$ , the centre times C1 to C5 vary slightly over time as function of orbit height and corresponding changes in  $\omega$ .

$$\begin{array}{lcl}
 T_{obs} = & & \\
 T_{sc} + T_{mar} + & & \rightarrow 1^{st} \text{ acquisition} \\
 T_{sl} + T_{mar} + T_{sc} + T_{mar} + & \rightarrow & 2^{nd} \text{ acquisition} \\
 T_{sl} + T_{mar} + T_{sc} + T_{mar} + & \rightarrow & 3^{rd} \text{ acquisition} \\
 T_{sl} + T_{mar} + T_{sc} + T_{mar} + & \rightarrow & 4^{th} \text{ acquisition} \\
 T_{sl} + T_{mar} + T_{sc} + & \rightarrow & 5^{th} \text{ acquisition}
 \end{array}$$

**Table 3.1 Illustration of the image acquisition sequences including scan time ( $T_{sc}$ ), slew period ( $T_{sl}$ ) and margin periods ( $T_{mar}$ ).**

The acquisition angles are nominally  $\pm 55^\circ$ ,  $\pm 36^\circ$ ,  $0^\circ$  but not precisely. The FZA can be calculated from the image centre times.

For example, using a simple spherical Earth geometry and the image centre times, one can calculate the FZA angles shown in table 3.2

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	Max altitude	Min. altitude
FZA angles (°) for “nominal 55° condition”	49.52	56.18
FZA angles (°) for “nominal 36° condition”	29.27	32.02
Inclination (°)	97.81	97.81
Period (min)	98.33	95.60
Altitude (m)	678800	547400

**Table 3.2 FZA examples for maximum and minimum altitude conditions.**

Rather than provide the FZA for each acquisition it has been decided to include the azimuth and zenith angles of the observations.

### **3.2      *Imaging Sequence***

Each image, within a set of five images, will be assigned a different but consecutive tag number (four digit hex format). The direction of the scan is indicated in Table 3.3.

Chronological Imaging Order	Tag No. order	Scan Direction	Nominal FZA
First	3	N-S	+55°
Second	1	S-N	+36°
Third	0	N-S	0°
Fourth	2	S-N	-36°
Last	4	N-S	-55°


**Table 3.3 Imaging Sequence**

### **3.3      *Half Swath Mode (Mode 5)***

The half swath mode (Mode 5) images only one half of the nominal imaging area, which is the side on the west of the full image. The platform attitude system has only one pointing reference frame, which is coincident with the optical axis of the imaging system. Thus it is necessary to define a shifted longitude coordinate pointing to the eastern edge of the area to be imaged. This is approximately ¼ of the full swath width in normal imaging modes. The precise eastward shift depends on platform altitude and is given by:

$$\text{Shift} = \text{altitude} * (0.0225 * 748) / (746 * 4) \text{ km}$$

In March 2005 the altitude varied between 552 and 685km, resulting in eastward imaging shifts of between 3.1 and 3.9km.

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## 4 HDF FILES

### 4.1 File compatibility

CHRIS data is supplied in HDF data files compatible to HDF version 4.1r3.


### 4.2 File name definition

Files will use the following naming convention:

<Instrument>\_<TargetCode>\_<YYMMDD>\_<ImageID>\_<Version>.<FileType>

Name	Attribute	Value
<b>Instrument</b>	<b>Meaning</b>	Instrument name
	<b>Type</b>	ASCII
	<b>Formation</b>	<cccccc>
	<b>Permitted Values</b>	CHRIS
<b>TargetCode</b>	<b>Meaning</b>	Target identification code
	<b>Type</b>	ASCII
	<b>Formation</b>	<cc>
	<b>Permitted Values</b>	See annex 2
<b>YYMMDD</b>	<b>Meaning</b>	Image acquisition date
	<b>Type</b>	ASCII
	<b>Formation</b>	<cccccc>
	<b>Permitted Values</b>	
<b>ImageID</b>	<b>Meaning</b>	Image identification code
	<b>Type</b>	ASCII
	<b>Formation</b>	<cccc>
	<b>Permitted Values</b>	ASCII equivalent hex code
<b>Version</b>	<b>Meaning</b>	Image file version number
	<b>Type</b>	ASCII
	<b>Formation</b>	<cc>
	<b>Permitted Values</b>	Positive numbers
<b>File Type</b>	<b>Meaning</b>	File type
	<b>Type</b>	ASCII
	<b>Formation</b>	<ccc>
	<b>Permitted Values</b>	hdf



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### 4.3 File Contents

The HDF file contains:


- Annotations – see section 4.3.1
- Response corrected image (RCI) – see section 4.3.2
- V Data – Gain Settings – see section 4.3.3
- V Data – Mode Information – see section 4.3.4

The HDF File contents and format are described below.


#### 4.3.1 Annotations

The HDF annotations will contain the image information in ascii characters listed in the following table. (Note that some programmes will identify each value as Vdata.)


Name	Attribute	Value
<b>Sensor Type</b>	<b>Meaning</b>	Instrument name
	<b>Formation</b>	<cccc>
	<b>Permitted Values</b>	CHRIS
<b>Data rights</b>	<b>Meaning</b>	Data rights & requirements re-publications
	<b>Formation</b>	<400 ascii characters maximum>
	<b>Permitted Values</b>	
<b>Target Name</b>	<b>Meaning</b>	Name of the image target
	<b>Formation</b>	<40 ascii characters>
	<b>Permitted Values</b>	
<b>Image Date</b>	<b>Meaning</b>	Date image was taken
	<b>Formation</b>	<YYYY-MM-DD>
	<b>Permitted Values</b>	
<b>Image Number</b>	<b>Meaning</b>	Image order from the set requested
	<b>Formation</b>	<cccc>
	<b>Permitted Values</b>	1 of 5, 2 of 5 etc
<b>Image Tag</b>	<b>Meaning</b>	Image identification number
	<b>Formation</b>	<cccc>
	<b>Permitted Values</b>	ASCII equivalent hex codes, e.g. 2EF0
<b>Target Longitude</b>	<b>Meaning</b>	Nominal longitude of the requested target (WGS-84). <i>Units are degrees decimal.</i>  <i>Negative values are west of zero longitude.</i>
	<b>Formation</b>	<cccc.cc>
	<b>Permitted Values</b>	180.00 < 000.00 < -179.99
<b>Target Latitude</b>	<b>Meaning</b>	Nominal latitude (degrees decimal) of the requested target (WGS-84).  <i>Negative values are south of the equator</i>
	<b>Formation</b>	<ccc.cc>
	<b>Permitted Values</b>	90.00 < 00.00 < -89.99
<b>Target Altitude</b>	<b>Meaning</b>	Requested target altitude (m), (WGS-84)
	<b>Formation</b>	<cccc>
	<b>Permitted Values</b>	Negative and positive values

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<b>Name</b>	<b>Attribute</b>	<b>Value</b>
<b>Nominal Fly-by Zenith Angle</b>	<b>Meaning</b>	See section 3 for a definition. <i>Units are degrees decimal.</i>  <i>Negative values are for images acquired after over-flying the fly-by ground point.</i>
	<b>Formation</b>	<ccc>
	<b>Permitted Values</b>	55, 36, 0, -36, -55
<b>Minimum Zenith Angle</b>	<b>Meaning</b>	This is calculated from NORAD TLEs.  <i>See section 3 for a definition. Negative values correspond to locations east of the PROBA ground track. Units are degrees decimal.</i>
	<b>Formation</b>	<ccc>
	<b>Permitted Values</b>	25 > 0 > -25
<b>Solar Zenith Angle</b>	<b>Meaning</b>	Calculated solar zenith angle from target. <i>Units are degrees decimal.</i>
	<b>Formation</b>	<ccc.cc>
	<b>Permitted Values</b>	0 to 90.00
<b>Fly-by Time</b>	<b>Meaning</b>	Estimated UTC time of the platform's closest approach to the target (fly-by position) using NORAD TLEs.
	<b>Formation</b>	<hh:mm>
	<b>Permitted Values</b>	00:00 to 24:00
<b>Image Centre Time</b>	<b>Meaning</b>	<i>Calculated by the on-board Attitude Control &amp; Navigation System.</i>  <i>The information is available in HDF files ver. 3.1 and later. The on-board GPS occasionally gives rise to up to 6 sec. shift in acquisitions compared to the requested time. A single image acquisition period is approximately 9.5sec and the nominal period between the five images is 49.3 seconds.</i>
	<b>Formation</b>	<hh:mm:ss>
	<b>Permitted Values</b>	00:00:00 to 23:59:59

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<b>Name</b>	<b>Attribute</b>	<b>Value</b>
Observation Zenith Angle	<b>Meaning</b>	<p>The angle between the line-of-sight of the satellite from the target and the local zenith. <i>Units are degrees decimal.</i></p> <p><i>The zenith angle is calculated from the platform GPS data and the Image Centre Time. As indicated above the on-board GPS occasionally gives rise to up to 6 sec. shift in acquisitions compared to the requested time. A single image acquisition period is approximately 9.5sec. While the observation angle algorithm will smooth out errors in the GPS position data it will not reduce the errors in the timing information. However, the nominal time differences between the five sets of images is 49.3 sec, if this is substantially different then timing errors could have occurred resulting in erroneous observation angles. Note that this will be the case where split images have occurred – mainly a problem before August 2004.</i></p> <p><i>The zenith angle is available in HDF files ver. 4 and later.</i></p>
	<b>Formation</b>	<CC.C>
	<b>Permitted Values</b>	90.0 to 0.0
	<b>Meaning</b>	
Observation Azimuth Angle	<b>Meaning</b>	<p>The angle between the local line of longitude and the plane of observation measured clockwise when looking down towards the Earth. The plane of observation is the plane containing the target, PROBA satellite and the satellite nadir point on the Earth. <i>Units are degrees decimal.</i></p> <p><i>The azimuth angle is calculated from the platform GPS data and the Image Centre Time. As indicated above the on-board GPS occasionally gives rise to up to 6 sec. shift in acquisitions compared to the requested time. A single image acquisition period is approximately 9.5sec. While the observation angle algorithm will smooth out errors in the GPS position data it will not reduce the errors in the timing information. However, the nominal time differences between the five sets of images is 49.3 sec, if this is substantially different then timing errors could have occurred resulting in erroneous observation angles. Note that this will be the case where split images have occurred – mainly a problem before August 2004.</i></p> <p><i>The azimuth angle is available in HDF files ver. 4 and later.</i></p>
	<b>Formation</b>	<CC.C>
	<b>Permitted Values</b>	359.9 to 0.0
	<b>Meaning</b>	
CHRIS Mode	<b>Meaning</b>	CHRIS mode used to acquire the image.
	<b>Formation</b>	<C>
	<b>Permitted Values</b>	1, 2, 3, 4, 5 (additional modes may be added)

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<b>Name</b>	<b>Attribute</b>	<b>Value</b>
<b>Number of Samples</b>	<b>Meaning</b>	The number of data samples in the image.
	<b>Formation</b>	<ccc>
	<b>Permitted Values</b>	766
<b>Number of Ground Lines</b>	<b>Meaning</b>	Number of image lines.
	<b>Formation</b>	<cccc>
	<b>Permitted Values</b>	1 to 1024
<b>Number of Bands</b>	<b>Meaning</b>	Number of bands contained within the image data set.
	<b>Formation</b>	<ccc>
	<b>Permitted Values</b>	18, 37, 62
<b>Platform Altitude</b>	<b>Meaning</b>	PROBA altitude (km) at fly-by, (WGS-84)
	<b>Formation</b>	<cccc>
	<b>Permitted Values</b>	Positive numbers
<b>Response File Creation Time</b>	<b>Meaning</b>	The time that the response file used in the image processing was created.
	<b>Formation</b>	<YY-MM-DD hh:mm>
	<b>Permitted Values</b>	
<b>Dark File Creation Time</b>	<b>Meaning</b>	The time that the dark file used in the image processing was created.
	<b>Formation</b>	<YY-MM-DD hh:mm>
	<b>Permitted Values</b>	
<b>Calibration Data Units</b>	<b>Meaning</b>	Image radiance data units
	<b>Formation</b>	<cccccccccccccccc>
	<b>Permitted Values</b>	microW/nm/m <sup>2</sup> /str
<b>CHRIS Temperature</b>	<b>Meaning</b>	CHRIS temperature (°C).
	<b>Formation</b>	<ccc.cc>
	<b>Permitted Values</b>	Negative and positive numbers
<b>Mask Key Information</b>	<b>Meaning</b>	The key to understanding the values contained within the mask dataset included as part of the version 4.1 hdf data release.
	<b>Formation</b>	<64 characters>
	<b>Permitted Values</b>	

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#### 4.3.2 RCI Image

##### 4.3.2.1 Data Format

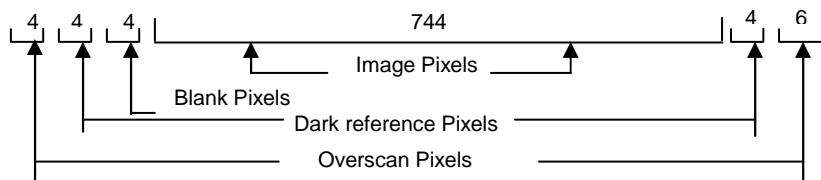
The image data is tabulated within the HDF file in the section called “RCI Image”.

The RCI Image is three-dimensional and ordered in band sequential format (BSQ). The three dimensions are: along-track image lines, across-track pixels and spectral bands. Data values are stored as long integers .

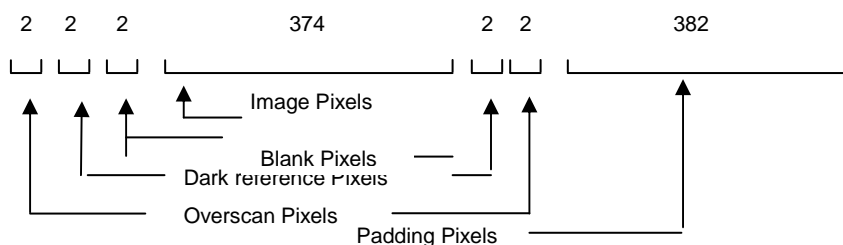
PPU reset errors have been set to zero (originally resulted in negative values in previous releases of the data.)


In the across-track direction an image will consist of 766 pixels, these consist of overscan, dark reference, blank and padding pixels. The line formats are illustrated below for the four possible swath width and binning options available.

- **Full Width Un-binned (Modes 2, 3, 4)**

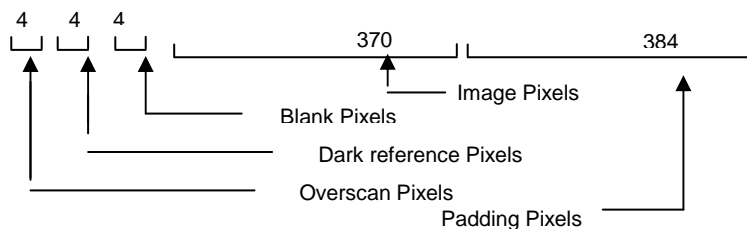


- **Full Width Binned (Mode 1)**

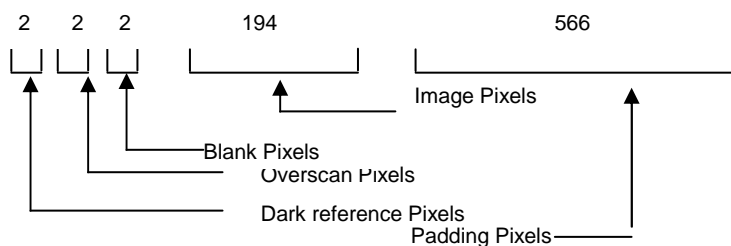


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- **Half Width Un-binned (Mode 5)**



- **Half Width Binned**




The overscan and dark reference pixels are situated under a masked area of the CCD. They are used for image correction purposes only and do not form a part of the imaging area. The blank pixels replace noisy image pixels at the start of the line that were present in the HDF file prior to version 3.1.

#### 4.3.2.2 ***RCI Image Data Units***

The image data is presented in units of  $\mu\text{W}/\text{nm}/\text{m}^2/\text{str}$  and represents the radiance at top of the atmosphere. The radiance values are based on pre-launch sensor calibration. Reduction of radiance values will be expected through in-orbit life and thus the values presented will be on the high side.

#### 4.3.2.3 ***Image Orientation***

The first image data value within the image data set is on the west of the image for all modes and pitch angles. The scan direction is as indicated in Table 3.3.

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#### 4.3.3 Mask Key Data

The mask is a new addition to the version 4.1 data release and has the same dimensions in terms of number of pixels as the rci image dataset, it is essentially an image quality map. It is of byte type and contains one value for each pixel in the rci image dataset. Each pixel will have one of three values, with their meanings given in the following key.

<u>Mask Pixel Value</u>	<u>Meaning</u>
0	This pixel in the rci image is a useful image pixel
1	This pixel in the rci image is a channel 2 reset pixel and holds no valuable data
2	This pixel in the rci image has saturated and holds no valuable data. It should also be noted that the data from surrounding pixels may have been affected and should be considered with care.

This information is also given briefly in the hdf header included with the data release as a simple line of text:

0 = useful pixels; 1 = Ch2 reset pixels; 2 = Saturated data pixels

#### 4.3.4 V Data – Gain Information

The relative analogue gain utilised within the CHRIS electronics can be set to one of four values. These values are defined in the “Gain Information” and recorded as ascii characters. The definition of the gain information table is presented in Table 4-1.

Term	Definition	Formation
Gain setting	Digital number from 0 to 3	<c>
Gain value	Relative analogue gain	<c.ccc>

**Table 4-1 V Data Gain Information Definition**

An example V Data table is presented Table 4-2.

Record	Gain setting	Gain value
1	0	1.000
2	1	2.000
3	2	4.033
4	3	8.583


**Table 4-2 V Data Gain Information**

The heading “Record” does not appear in all HDF Viewers.

#### 4.3.5 V data – Mode Information

The CHRIS “Mode Information” is recorded as a V Data table with ascii characters. The definition of the Mode Information is described in Table 4-3. It consists of a table of values that describe the actual band configuration at the measured operating temperature. An example table of V Data is presented in Table 4-4.

Term	Definition	Formation
WILow	Cut-on wavelength (nm)	<cccc.c>
WIHigh	Cut-off wavelength (nm)	<cccc.c>

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<b>WIMid</b>	<b>Mid-wavelength (nm)</b>	<b>&lt;cccc.c&gt;</b>
<b>BWidth</b>	<b>Cut-off minus cut-on wavelength (nm)</b>	<b>&lt;cccc.c&gt;</b>
<b>Gain</b>	<b>CHRIS analogue electronics gain setting</b>	<b>&lt;c&gt;</b>
<b>RowLow</b>	<b>CCD row number for the WILow</b>	<b>&lt;ccc&gt;</b>
<b>RowHigh</b>	<b>CCD row number for the WIHigh</b>	<b>&lt;ccc&gt;</b>


Table 4-3 V Data Definition

Record	WILow	WIHigh	WIMid	Bwidth	gain	RowLow	RowHigh
1	438.0	448.5	443.1	10.5	3	87	92
2	485.4	497.1	491.2	11.6	3	111	115
3	525.5	537.1	531.2	11.6	3	127	130
4	546.2	559.2	552.6	13.0	2	134	137
5	566.1	576.9	571.4	10.7	3	140	142
6	626.3	640.5	633.3	14.2	2	155	157
7	655.5	671.3	663.3	15.8	2	161	163
8	671.3	682.4	676.8	11.1	2	164	165
9	693.9	705.9	699.8	11.9	2	168	169
10	705.9	712.0	708.9	6.2	3	170	170
11	712.0	718.3	715.1	6.2	3	171	171
12	737.8	751.4	744.5	13.6	2	175	176
13	751.4	758.4	754.9	7.0	3	177	177
14	772.9	795.5	784.0	22.7	1	180	182
15	862.4	889.9	876.0	27.4	1	191	193
16	889.9	909.0	899.4	19.2	2	194	195
17	909.0	918.8	913.9	9.8	3	196	196
18	1001.7	1045.7	1023.7	44.1	2	205	208

Table 4-4 VData Example


*NB. The heading "Record" does not appear in all HDF Viewers. In addition some HDF viewers will present this data with apparently higher precision but this should be ignored.*



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## ANNEX 1


### CHRIS FORMAL MODES

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## MODE 1




**Swath Width: Full**  
**Nadir GSD: 34m @ 556km altitude**


Band	Min (nm)	Max (nm)	Mid (nm)	Width (nm)	Corresponding to:
A1	406	415	411	10	W1
A2	438	447	442	9	W2,L1
A3	447	456	452	9	
A4	456	466	461	10	
A5	466	477	471	11	
A6	477	486	481	9	
A7	486	495	490	9	W3,L2
A8	495	505	500	10	
A9	505	515	510	10	W4
A10	515	526	520	11	
A11	526	534	530	9	W5,L3
A12	534	546	540	12	
A13	546	556	551	10	L4
A14	556	566	561	10	W6
A15	566	577	572	11	L5
A16	577	585	581	8	W7
A17	585	596	590	12	W8
A18	596	609	603	12	
A19	609	618	613	9	
A20	618	627	622	9	W9
A21	627	636	631	9	L6
A22	636	646	641	10	
A23	646	656	651	10	W10
A24	656	666	661	11	L7
A25	666	677	672	11	W11,L8
A26	677	683	680	6	W12
A27	683	689	686	6	W13
A28	689	694	691	6	
A29	694	700	697	6	L9
A30	700	706	703	6	W14(part),L10
A31	706	712	709	6	W14(part),L11
A32	712	719	716	6	
A33	719	725	722	6	
A34	725	732	728	7	
A35	732	738	735	7	
A36	738	745	742	7	L12
A37	745	752	748	7	L13
A38	752	759	755	7	W15
A39	759	766	762	7	
A40	766	773	770	7	
A41	773	781	777	7	W16,L14(part)
A42	781	788	785	8	W16,L14(part)

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## MODE 1

**Swath Width: Full**  
**Nadir GSD: 34m @ 556km altitude**


<b>Band</b>	<b>Min  (nm)</b>	<b>Max  (nm)</b>	<b>Mid  (nm)</b>	<b>Width (nm)</b>	<b>Corresponding to:</b>
A43	788	796	792	8	
A44	796	804	800	8	
A45	804	812	808	8	
A46	828	837	833	9	
A47	837	845	841	9	
A48	845	854	850	9	
A49	854	863	859	9	
A50	863	872	868	9	W17,L15(part)
A51	872	881	877	9	W17,L15(part)
A52	881	891	886	9	
A53	891	900	895	10	L16
A54	900	910	905	10	L17
A55	910	920	915	10	
A56	920	930	925	20	
A57	930	950	940	20	
A58	950	960	955	10	
A59	960	971	965	11	
A60	971	981	976	11	
A61	981	992	987	11	
A62	992	1003	997	11	

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## MODE 2 WATER BANDS

Swath Width: Full  
Nadir GSD: 17m @ 556km altitude


<b>Band</b>	<b>Min <input type="checkbox"/> (nm)</b>	<b>Max <input type="checkbox"/> (nm)</b>	<b>Mid <input type="checkbox"/> (nm)</b>	<b>Width (nm)</b>	<b>Corresponding to:</b>
W1	406	415	411	10	
W2	438	447	442	9	
W3	486	495	490	9	
W4	505	515	510	10	
W5	526	534	530	9	
W6	556	566	561	10	
W7	566	577	570	8	
W8	585	596	590	12	
W9	618	627	622	9	
W10	646	656	651	10	
W11	666	677	672	11	
W12	677	683	680	6	
W13	683	689	686	6	
W14	700	712	706	12	
W15	752	759	755	7	
W16	773	788	781	15	
W17	863	881	872	18	
W18	1003	1036	1019	33	

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### MODE 3 BANDS – LAND CHANNELS


**Swath Width: Full**  
**Nadir GSD: 17m @ 556km altitude**

<b>Band</b>	<b>Min <input type="checkbox"/> (nm)</b>	<b>Max <input type="checkbox"/> (nm)</b>	<b>Mid <input type="checkbox"/> (nm)</b>	<b>Width (nm)</b>	<b>Corresponding to:</b>
L1	438	447	442	9	
L2	486	495	490	9	
L3	526	534	530	9	
L4	546	556	551	10	
L5	566	573	570	8	
L6	627	636	631	9	
L7	656	666	661	11	
L8	666	677	672	11	
L9	694	700	697	6	
L10	700	706	703	6	
L11	706	712	709	6	
L12	738	745	742	7	
L13	745	752	748	7	
L14	773	788	781	15	
L15	863	881	872	18	
L16	891	900	895	10	
L17	900	910	905	10	
L18	1002	1035	1019	33	

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**MODE 3A BANDS – LAND CHANNELS**  
**(SPECIAL BAND FOR SAN ROSSORE)**  
**Swath Width: Full**  
**Nadir GSD: 17m @ 556km altitude**

<b>Band</b>	<b>Min □ (nm)</b>	<b>Max □ (nm)</b>	<b>Mid □ (nm)</b>	<b>Width (nm)</b>	<b>Corresponding to:</b>
L1	420	421	421	1	
L2	438	447	442	9	
L3	486	495	490	9	
L4	526	534	530	9	
L5	546	556	551	10	
L6	566	573	570	8	
L7	627	636	631	9	
L8	656	666	661	11	
L9	666	677	672	11	
L10	694	700	697	6	
L11	700	706	703	6	
L12	706	712	709	6	
L13	738	745	742	7	
L14	745	752	748	7	
L15	773	788	781	15	
L16	863	881	872	18	
L17	891	900	895	10	
L18	900	910	905	10	


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# *MODE 4 CHLOROPHYLL BAND SET*

*Swath Width: Full*

*Nadir GSD: 17m @ 556km altitude*

<b>Band</b>	<b>Min <input type="checkbox"/> (nm)</b>	<b>Max <input type="checkbox"/> (nm)</b>	<b>Mid <input type="checkbox"/> (nm)</b>	<b>Width (nm)</b>	<b>Corresponding to:</b>
C1	486	495	489	9	
C2	546	556	551	10	
C3	627	636	631	9	
C4	666	677	672	11	
C5	677	683	680	6	
C6	683	689	686	6	
C7	689	694	691	6	
C8	694	700	697	6	
C9	700	706	703	6	
C10	706	712	709	6	
C11	712	719	716	6	
C12	732	738	735	7	
C13	738	745	742	7	
C14	745	752	748	7	
C15	752	759	755	7	
C16	773	781	777	7	
C17	781	788	785	8	
C18	788	796	792	8	


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## MODE 5 – LAND CHANNELS

Swath Width: Half  
Nadir GSD: 17m @ 556km altitude


Band	Min (nm)	Max (nm)	Mid (nm)	Width (nm)	Corresponding to:
H1	438	447	442	9	L1,W2
H2	486	495	489	9	L2,W3
H3	526	534	530	9	L3,W5
H4	546	556	551	10	L4
H5	566	573	570	8	L5
H6	627	636	631	9	L6
H7	656	666	661	11	L7
H8	666	677	672	11	L8,W11
H9	677	689	683	11	W12+13
H10	694	700	697	6	L9
H11	700	706	703	6	L10
H12	706	712	709	6	L11
H13	712	719	716	6	
H14	719	725	722	6	
H15	725	732	728	7	
H16	732	738	735	7	
H17	738	745	742	7	L12
H18	745	752	748	7	L13
H19	752	759	755	7	W15
H20	759	766	762	7	
H21	766	773	770	7	
H22	773	788	777	15	L14,W16
H23	788	796	792	8	
H24	796	804	800	8	
H25	863	881	872	18	L15,W17
H26	881	891	886	10	
H27	891	900	895	10	L16
H28	900	910	905	10	L17
H29	910	920	915	10	
H30	920	930	925	10	
H31	930	950	940	20	
H32	950	960	955	10	
H33	960	971	965	11	
H34	971	981	976	11	
H35	981	992	987	11	
H36	992	1003	997	11	
H37	1003	1036	1019	33	L18,W18



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**ANNEX 2**

**TARGET CODES**


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Ordered by Site Name (Updated April 2008)


<b>SITE NAME</b>	<b>TARGET CODE</b>	<b>NOTES</b>
Abisko	AB	Currently Scheduled Site
Adana	AF	Currently Scheduled Site
Albufeira	AO	Old site
Albufera (de Valencia)	AL	Old site
Algoma	AG	Old site
Almendra	AN	Old site
Almonte	AT	Currently Scheduled Site
Alqueva Lake	AQ	Old site
Alyn-NWales	AW	Old site
Amazon River	AM	Currently Scheduled Site
Amburla	AB	Old site
Amsterdam	TE	Currently Scheduled Site
Angara_A	A1	Old site
Angara_B	A2	Old site
Angara_C	A3	Old site
Angara_D	A4	Old site
Angara_E	A5	Old site
Antelope-Creek	AT	Currently Scheduled Site
Aracena-Dam	AD	Currently Scheduled Site
Arcos de Valdevez	AR	Currently Scheduled Site
Arenal	NL	Currently Scheduled Site
Argichi	AI	Currently Scheduled Site
Asprokremmos	AS	Old site
Atankwidi	AK	Old site
Athens	AT	Currently Scheduled Site
Audobon	AU	Old site
AusBushFires	AU	Old site
AusCott	AC	Old site
Averto	AE	Old site
Avignon	AV	Old site
Baasdorf	BA	Currently Scheduled Site
Babina_Polder	BP	Old site
Baffin Island	BF	Currently Scheduled Site
Bahawalpur	BH	Old site
Bahia de Algeciras	BC	Currently Scheduled Site
Ballantrae	BL	Currently Scheduled Site
Bamberg	BM	Currently Scheduled Site
Barrax	BR	Currently Scheduled Site
Bartlett	BL	Old site
Barton_Bendish	BB	Old site
Bassin-du-Touch	BT	Old site
Bear Lake (1 and 2)	BQ	Currently Scheduled Site
Beauraing	BE	Old site
Beihai	EH	Old site
Beijing	BG	Currently Scheduled Site

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Ben-Gardane-1	GR	Old site
Ben-Gardane-2	GR	Old site
Berengela	BG	Old site
Berlin	IN	Currently Scheduled Site
Bern	BA	Old site
Bezid	BZ	Old site
Biebrza	ZR	Currently Scheduled Site
Bily_Kriz	BK	Currently Scheduled Site
Bishops-Head-Marsh	HH	Currently Scheduled Site
Bjorkelangen	BJ	Currently Scheduled Site
Blackwater-Marsh	BW	Currently Scheduled Site
Blagoevrag	BV	Old site
Bodensee	BD	Old site
Bonis	BI	Old site
BOREAS-North	BN	Currently Scheduled Site
BOREAS-South	BS	Currently Scheduled Site
Borneo_A	B1	Old site
Borneo_B	B2	Old site
Borneo_C	B3	Old site
Botswana	BO	Old site
Brussels	BX	Currently Scheduled Site
Budapest	BU	Old site
Burdekin	BD	Currently Scheduled Site
Bykovsky Peninsular	BY	Currently Scheduled Site
Cabauw	CW	Currently Scheduled Site
Cabo de Gata	DG	Currently Scheduled Site
CairoNE	C2	Old site
CairoNW	C3	Old site
CairoS	C1	Currently Scheduled Site
Cala-Dam	CD	Old site
Calc Prov	CO	Currently Scheduled Site
Cankiri	CK	Currently Scheduled Site
Caparra	CR	Currently Scheduled Site
Cape-Flats	CF	Old site
Cape-Peninsular	CA	Old site
Capo-Verde1	CV	Old site
Capo-Verde2	CV	Old site
Capo-Verde3	CV	Old site
Casselman	CM	Currently Scheduled Site
Castiglione	CX	Currently Scheduled Site
Cat_Tien_Vietnam	CT	Old site
Central_Portugal	CP	Old site
Cerro do Cipo	CP	Currently Scheduled Site
CFIA	FC	Currently Scheduled Site
Chacao	CC	Currently Scheduled Site
Chamela	CM	Old site
Chamiza-Estuario	CE	Currently Scheduled Site

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Changbai	CG	Currently Scheduled Site
Changbai-Larch	NG	Currently Scheduled Site
Chesapeake Bay	CB	Old site
Chichester_Harbour	CH	Old site
Chilbolton	CL	Old site
Chilika	KC	Currently Scheduled Site
China-Desert1	N1	Currently Scheduled Site
China-Desert2	N2	Currently Scheduled Site
China-Loess	CI	Old site
Chinchon	CN	Old site
Chobe	OE	Currently Scheduled Site
Cilacap	LP	Currently Scheduled Site
Clayoquot_Sound	CS	Currently Scheduled Site
CLO Cordoba	CZ	Old site
Colly	CL	Old site
Copenhagen	OP	Currently Scheduled Site
Cordoba	IC	Old site
Cotter Catchment	TC	Currently Scheduled Site
Craigieburn	IG	Currently Scheduled Site
Cucchinadorza	CU	Old site
Cumbre-Vieja	CJ	Currently Scheduled Site
Cyprus_Eddy	CE	Old site
Daejeon	DJ	Currently Scheduled Site
Daimiel	DA	Old site
Danger-Island	DE	Currently Scheduled Site
Danube_Red	DR	Old site
Dardanelles	DD	Currently Scheduled Site
DaShawei	DS	Currently Scheduled Site
Delaware	DW	Old site
Deliktas1	D1	Currently Scheduled Site
Deliktas2	D2	Currently Scheduled Site
Demmin	DM	Currently Scheduled Site
Dexing	DX	Currently Scheduled Site
Dhofar	DH	Old site
Dijle	DI	Currently Scheduled Site
Dinghu	DU	Currently Scheduled Site
Disaster Charter Image	XX	Currently Scheduled Site
DonanaN	DN	Currently Scheduled Site
DonanaS	DN	Currently Scheduled Site
Dorchester	DC	Currently Scheduled Site
Dorset_Wytch_Farm	WF	Old site
Douro-Aciprestes	DO	Old site
Dublin	DU	Currently Scheduled Site
Duranbah-Beach	DB	Old site
EduSpace Harbours	ES	Currently Scheduled Site
Elche	EC	Currently Scheduled Site
Ellinbank	EL	Old site

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Entre-Rios	EN	Currently Scheduled Site
Erichsfelde	ER	Old site
Exmoor	EX	Old site
Fairbairn	FB	Currently Scheduled Site
Fairbanks	FA	Old site
Finokalia	FK	Currently Scheduled Site
Flevoland	FV	Old site
Foggia	FG	Old site
Fontainebleau	FT	Old site
Fordate	FI	Currently Scheduled Site
Foshan	FO	Currently Scheduled Site
Frascati	FR	Currently Scheduled Site
Gabes-1	G1	Old site
Gabes-2	G2	Old site
Galapagos	GX	Currently Scheduled Site
Garderen	GE	Currently Scheduled Site
Gatton	GT	Old site
Gavaragat	GA	Currently Scheduled Site
Gergal-Dam	GM	Currently Scheduled Site
Ghotki	GH	Old site
Gilching	GC	Currently Scheduled Site
Giles_Point	GI	Old site
Ginkelse	GS	Currently Scheduled Site
Glyka-Nera	GY	Currently Scheduled Site
Gnith	NI	Currently Scheduled Site
Gobi	GB	Old site
Goerzig	GK	Currently Scheduled Site
Goitsche	OI	Currently Scheduled Site
Goldbro	GD	Old site
Gonghu	GQ	Currently Scheduled Site
Gongju	GG	Currently Scheduled Site
Gourma	GO	Currently Scheduled Site
Great_Plains	GP	Old site
Griffin-forest	GF	Currently Scheduled Site
Grossenzersdorf	GZ	Old site
Guagua-Pinchincha	UG	Currently Scheduled Site
Guangfu	FU	Currently Scheduled Site
Guangzhou	RZ	Currently Scheduled Site
Guanting2	UN	Currently Scheduled Site
Guanting-Lake	GL	Currently Scheduled Site
Guiers	GU	Currently Scheduled Site
Guinean-Gulf	GN	Currently Scheduled Site
GVWD	GV	Currently Scheduled Site
Hainan	HN	Old site
Hamilton-NZ	HM	Old site
Harvard Forest	HF	Old site
Harwood_Forest	HW	Currently Scheduled Site

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<b>SITE NAME</b>	<b>TARGET CODE</b>	<b>NOTES</b>
Hato-Ganadero	HD	Currently Scheduled Site
Heard Island	HE	Currently Scheduled Site
Helsinki	EK	Currently Scheduled Site
Hengshui	HS	Currently Scheduled Site
Heron Island	HR	Currently Scheduled Site
Hinton	HT	Currently Scheduled Site
Hog Island	HG	Old site
Hong-Kong	HK	Currently Scheduled Site
Hongze	NZ	Currently Scheduled Site
Horn Island	HI	Old site
Howard Springs	HO	Old site
Howland	HL	Currently Scheduled Site
Hrazdan	HZ	Currently Scheduled Site
Huaihe	UA	Currently Scheduled Site
Huairou	HU	Currently Scheduled Site
Huajiang	HJ	Currently Scheduled Site
Huanghekou	HA	Currently Scheduled Site
Hubbard_Brook	HB	Old site
Huixian	HX	Currently Scheduled Site
ICIPE_Mbita	IC	Currently Scheduled Site
Idarwald-Forst	IF	Currently Scheduled Site
Indian_Head	IH	Old site
Inis_Mor	IM	Old site
Iznajar	IZ	Old site
Jabiru	JB	Old site
Jarvselja	JA	Currently Scheduled Site
Jasper_Ridge	JR	Old site
Jiaomen-River	JI	Currently Scheduled Site
Jornada	JN	Currently Scheduled Site
K2	K2	Old site
Kalimantan	KL	Currently Scheduled Site
Kalmthout	KM	Currently Scheduled Site
KamKotia	KK	Old site
Kangshan	KN	Currently Scheduled Site
Karthala	KT	Currently Scheduled Site
Kasur	KA	Old site
Keonsuo	KE	Old site
Kevo	VO	Currently Scheduled Site
Khorezm East	KH	Old site
Khorezm West	KH	Currently Scheduled Site
Khorogor-Valley	KV	Old site
Kilauea	KI	Old site
Kochang	KG	Currently Scheduled Site
Koronia-Wetland	KW	Currently Scheduled Site
Kouris	KO	Old site
Kuta	KU	Currently Scheduled Site
L_Acadie	LC	Old site


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La_Segua	LS	Old site
Lady-Elliot-Island	EI	Old site
Lahore	LH	Old site
Lake_Isaac	LI	Old site
Lake_Wannsee	LW	Old site
Lake-Argyle	LG	Currently Scheduled Site
Lake-Constance	LE	Old site
Lake-Dian	LK	Currently Scheduled Site
Lake-Garda	KD	Currently Scheduled Site
Lake-Koronia	KR	Currently Scheduled Site
Lake-of-Mantua	LU	Currently Scheduled Site
Lake-Taihu	TL	Currently Scheduled Site
Lamasquere	LS	Currently Scheduled Site
Lamberts-Bay	LB	Currently Scheduled Site
Lanai_Hawaii	LN	Old site
Landser	LA	Old site
Lanier	LR	Currently Scheduled Site
Las Tablas	LT	Currently Scheduled Site
LeBray	YB	Currently Scheduled Site
Libyan_Desert	LD	Old site
Libyan-crater	LB	Old site
Liminganlahti	LL	Old site
Limoncocha	LM	Old site
Linze	LJ	Currently Scheduled Site
Lisbon	LI	Currently Scheduled Site
Liushawan	IU	Currently Scheduled Site
Liuxi-River	LX	Currently Scheduled Site
Livingstone-Island	LV	Currently Scheduled Site
Lizard Island	LI	Currently Scheduled Site
Lobos	OS	Currently Scheduled Site
London	OD	Currently Scheduled Site
London-UK	OU	Currently Scheduled Site
Longgong	LZ	Currently Scheduled Site
Longwan	GW	Currently Scheduled Site
Longyearbyen	LY	Old site
Los_Monegros	LN	Currently Scheduled Site
Los-Inocentes	LC	Old site
Loumbila	LO	Old site
Lushuihe	UH	Currently Scheduled Site
Luxembourg	UX	Currently Scheduled Site
Macao	MA	Old site
Maccarese	MX	Currently Scheduled Site
Madrid	ID	Currently Scheduled Site
MajSEVAN2	S2	Currently Scheduled Site
MajSEVAN3	S3	Currently Scheduled Site
Makhtesh_Ramon	MR	Old site
Malagar City	MY	Currently Scheduled Site


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Manacapura	MC	Currently Scheduled Site
Manfredonia Gulf	MF	Old site
Mangari	MG	Currently Scheduled Site
Manly-Beach	MB	Currently Scheduled Site
Mansehra	MS	Old site
Marapi	AP	Currently Scheduled Site
Masrik	MK	Currently Scheduled Site
Massachusetts-Bay1	M1	Old site
Massachusetts-Bay2	M2	Old site
Massachusetts-Bay3	M3	Old site
Massey Farms	MM	Currently Scheduled Site
Mata-Seca	SC	Currently Scheduled Site
Mauna Loa	UL	Currently Scheduled Site
Mazury1	MZ	Currently Scheduled Site
Mazury-2	MZ	Currently Scheduled Site
McLelland	MN	Old site
Melliang	M4	Currently Scheduled Site
Merapi	EP	Currently Scheduled Site
Mexico_City	MC	Old site
Mezzano	ME	Currently Scheduled Site
Mikolajki	MK	Old site
Milford_Haven	MH	Old site
Milk-River-Ridge	RD	Currently Scheduled Site
Millingerwaard	ML	Old site
Minilla-Dam	MD	Old site
MinSEVAN	S1	Currently Scheduled Site
Mirbat	MI	Old site
Mistley	MQ	Old site
Miyun	YN	Currently Scheduled Site
Molenplaat	MP	Old site
Mongu	MG	Old site
Monks-Wood	MW	Currently Scheduled Site
Monterosso	MT	Old site
Montes Claros1	O1	Currently Scheduled Site
Montes Claros2	O2	Currently Scheduled Site
Montfrague	MO	Currently Scheduled Site
Montreal	MR	Old site
Montreal-1	MR	Currently Scheduled Site
Montreal-2	MR	Currently Scheduled Site
Morelos	ML	Currently Scheduled Site
Mount St Helens	UT	Currently Scheduled Site
Mragowo	MW	Old site
Mueritz	MU	Old site
Mundaka-Guernica	MN	Old site
Munich	MN	Old site
Nanisivik	NN	Currently Scheduled Site
NCIPE-Mtibe	NC	Old site




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<b>SITE NAME</b>	<b>TARGET CODE</b>	<b>NOTES</b>
Nelson-Island	ND	Currently Scheduled Site
New_Forest	NF	Currently Scheduled Site
New_York	NE	Old site
Niamey_Airport	NA	Currently Scheduled Site
Nissyros	NS	Currently Scheduled Site
Nordhausen	NH	Old site
Norunda	NR	Old site
Nowshehra	NO	Old site
Nyiragongo	NY	Currently Scheduled Site
Oahu	OH	Currently Scheduled Site
Oaklands	OL	Old site
Oberammergau	OB	Old site
Okavango Delta	OV	Currently Scheduled Site
Okhara	OK	Old site
Omatako	OM	Old site
Ontario	ON	Old site
Oostende	OT	Old site
Orihuela	OR	Old site
Oslo	OO	Currently Scheduled Site
Ottawa	OW	Currently Scheduled Site
Padang 1	P1	Currently Scheduled Site
Padang 2	P2	Currently Scheduled Site
Padang 3	P3	Currently Scheduled Site
Pagasitikos-Gulf	PK	Currently Scheduled Site
Palo Verde	PD	Old site
Pandeiros	PA	Currently Scheduled Site
Paredes-de-Rio	RP	Currently Scheduled Site
Paris	PQ	Currently Scheduled Site
Parnitha	PH	Currently Scheduled Site
Pearl River	EA	Currently Scheduled Site
Pendeli-Attica	PT	Currently Scheduled Site
Penobscot	PE	Old site
Pernambuco	PN	Currently Scheduled Site
Peros-Banhos	PF	Currently Scheduled Site
Phlomas-Araxos	PX	Currently Scheduled Site
Phlomas-Louros	PS	Currently Scheduled Site
Pianosa Island	PI	Old site
Pico	IO	Currently Scheduled Site
Pijnven	PV	Old site
Piton	IT	Currently Scheduled Site
Pollino	PL	Old site
Port-of-Valencia	PC	Old site
Port-Wcoast1	PW	Old site
Port-Wcoast2	PW	Old site
Preagro	PR	Old site
Prudhoe_Bay_Alaska	PB	Old site
Public Relation Image	PU	Currently Scheduled Site

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<b>SITE NAME</b>	<b>TARGET CODE</b>	<b>NOTES</b>
Punta-Gennarta	PG	Old site
Rahim-Yar-Kan	RY	Old site
Railroad_Valley	RV	Old site
Rakaia	RK	Currently Scheduled Site
Rame-Head	RH	Currently Scheduled Site
Randfontein	RF	Currently Scheduled Site
Rapolano	RA	Old site
Ratno Ostrovo	RT	Currently Scheduled Site
Red_Lake	RL	Old site
Rehoboth	RE	Old site
Reloncavi	RI	Currently Scheduled Site
Remedhus	RU	Currently Scheduled Site
Reynolds_Creek	RC	Old site
Rheinsberg	RB	Old site
Ria-de-Pontevedra	DP	Currently Scheduled Site
Ria-de-Vigo	DV	Currently Scheduled Site
Riomaggiore	RG	Old site
Rivas Vaciamadrid	RS	Currently Scheduled Site
Roman	RM	Old site
Rome	RX	Currently Scheduled Site
Roraima	RR	Old site
Rosarito-Reservoir	RO	Old site
Rotterdam_1	R1	Old site
Rotterdam_2	R2	Old site
Rotterdam_3	R3	Old site
Rotterdam_4	R4	Old site
RSAC-Cloud-Check	AL	Old site
Sabodia	SI	Old site
Sacele	SL	Old site
Saloman	SJ	Currently Scheduled Site
Salto	ST	Currently Scheduled Site
Samburu	SB	Currently Scheduled Site
Samoylov-Island	MV	Currently Scheduled Site
San-Rossore	SR	Currently Scheduled Site
Santa_Rita	SA	Old site
Santa-Rosa	SN	Old site
Saronikos	RN	Currently Scheduled Site
SE_Australia	SS	Old site
Seno de Corcubion	UB	Currently Scheduled Site
Senta-SWales	SN	Old site
SERC	SC	Old site
Sevilleta	SE	Old site
Shangzulai	SZ	Old site
Shingles_Bank	SB	Old site
Shiziyang	ZN	Currently Scheduled Site
Shuiyi	SY	Currently Scheduled Site
Shunyi	SH	Old site

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<b>SITE NAME</b>	<b>TARGET CODE</b>	<b>NOTES</b>
Siddah	SD	Old site
Siikalahti	SK	Old site
Smith Island	SM	Old site
Snowy High Plains	SG	Currently Scheduled Site
SNP	SP	Currently Scheduled Site
Sodankyla	SO	Old site
Soebatsfontein	SF	Old site
Solar_Village	SV	Old site
Soufriere-Hills	OF	Currently Scheduled Site
Sounio-Attica	AA	Currently Scheduled Site
South_Portugal	PO	Old site
St_Andre	SD	Old site
Stanley	SE	Old site
StewBrog	ST	Old site
Stockholm	TK	Currently Scheduled Site
Stromboli	IB	Currently Scheduled Site
Sudbury	SU	Currently Scheduled Site
Sudbury2	SU	Currently Scheduled Site
Sur	SS	Old site
Suratgarh	GJ	Currently Scheduled Site
Swansea	NW	Currently Scheduled Site
Swiss-Midlands	SW	Currently Scheduled Site
Table Mountain	TM	Currently Scheduled Site
Taihu-Lake/Tai Lake	TL	Old site
Tampa Bay	TB	Old site
Tapajos Forest	TJ	Old site
Thangoo	TG	Old site
Thasos1	T1	Currently Scheduled Site
Thasos2	T2	Currently Scheduled Site
The_Hague	TH	Old site
Thetford_Forest	TF	Old site
Three-Brothers	EB	Currently Scheduled Site
Three-Gorges-Dam	TD	Currently Scheduled Site
Tinga-Tingana	TT	Currently Scheduled Site
Tinto Odiel	TI	Currently Scheduled Site
Torre_Guaceto	TO	Old site
Tourin	TR	Old site
Tumbarumba	TA	Old site
Tumen	TU	Old site
Tumut	TZ	Old site
Tuz-Golu	ZG	Currently Scheduled Site
Uardry	UD	Old site
Upper_Rhine	UR	Old site
Uyuni	UY	Old site
Uzlina	UZ	Old site
Vaal-River-Mispah	VM	Old site
Vaal-River-Western	VW	Old site

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<b>SITE NAME</b>	<b>TARGET CODE</b>	<b>NOTES</b>
Valmayor	VY	Old site
Vancouver	VC	Currently Scheduled Site
Vanhan	VH	Old site
Varnazza	VA	Old site
Vasse	VS	Old site
Venice_prev	VN	Old site
Venice1	V1	Old site
Venice2	V2	Old site
Venice3	V3	Old site
Vienna	VE	Currently Scheduled Site
Villafafila	VF	Old site
Vistula Lagoon	VI	Currently Scheduled Site
Vistula-LagoonE	VI	Currently Scheduled Site
Vistula-LagoonW	VI	Currently Scheduled Site
Vittorio-Tadini	VT	Currently Scheduled Site
Vivo	VV	Old site
Volta-Lake	VL	Currently Scheduled Site
Vulcano	VU	Currently Scheduled Site
Wallis Lake	WA	Currently Scheduled Site
Walsoorden	WO	Old site
Wanginsha	WH	Currently Scheduled Site
Wangqing	WQ	Currently Scheduled Site
Washington	WS	Old site
WaterCalVal-Chesapeake	WC	Currently Scheduled Site
Weidemann	WM	Old site
Welkom-Boet-Farm	WB	Old site
Welkom-Dankbaar	WK	Old site
Western-Lena-Delta	WN	Currently Scheduled Site
Westfly1	WY	Currently Scheduled Site
Westfly2	WY	Currently Scheduled Site
West-Wits-Deelkraal	WD	Old site
West-Wits-Easternly	WE	Old site
Wielkopolsksa	WI	Currently Scheduled Site
Winam Gulf	WG	Currently Scheduled Site
Wisconsin	WC	Old site
Wivenhoe	WV	Currently Scheduled Site
Wlotzkasbaken	WL	Currently Scheduled Site
Woodlark	WP	
Xincungang	XI	Currently Scheduled Site
Yakutsk	YK	Old site
Yinghe	YI	Currently Scheduled Site
Yzer	YZ	Old site
Zeekoevlei	ZK	Currently Scheduled Site
Zegrze	ZE	Old site
Zhalong_A	ZA	Old site
Zhalong_B	ZB	Old site
Zhalong_C	ZC	Old site

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<b>SITE NAME</b>	<b>TARGET CODE</b>	<b>NOTES</b>
Zhalong_D	ZD	Old site
Zhangye1	Z1	Currently Scheduled Site
Zhangye2	Z2	Currently Scheduled Site
Zhaoyuan	ZY	Currently Scheduled Site
Zigui	ZI	Currently Scheduled Site
Zufre-Dam	ZF	Currently Scheduled Site
Zwalm	ZW	Old site