

AATSR Cycle Report
Cycle # 41

19 September 2005, 21:59:29 orbit 18591
24 October 2005, 21:59:29 orbit 19091

prepared by/*préparé par* AATSR DPQC and QWG team

reference/*référence*

issue/*édition* 1

Revision/*révision* 0

date of issue/*date d'édition* 30 November 2005

status/*état*

Document type/*type* de Technical Note

document

Distribution/*distribution*

A P P R O V A L

Title <i>Titre</i>	AATSR Cyclic Report – Cycle 41 st	issue 1 <i>issue</i>	revision 0 <i>revision</i>
-----------------------	----------------------------------------------	-------------------------	-------------------------------

author <i>auteur</i>	Kevin Halsall	date 24 November <i>date</i> 2005
-------------------------	---------------	--------------------------------------

approved by <i>approuvé by</i>		date <i>date</i>
-----------------------------------	--	---------------------

C H A N G E L O G

reason for change / <i>raison du changement</i>	issue/ <i>issue</i>	revision/ <i>revision</i>	date/ <i>date</i>

C H A N G E R E C O R D

Issue: 1 Revision: 0

reason for change/ <i>raison du changement</i>	page(s)/ <i>page(s)</i>	Paragraph(s)/ <i>paragraph(s)</i>

T A B L E O F C O N T E N T S

1	The Cyclic Report #40	5
1.1	Acronyms and abbreviations	5
1.2	Summary	6
1.3	Software and Aux File Version Configuration	7
1.3.1	Software version	7
1.3.1.1	Auxiliary file	7
1.4	PDS status.....	9
1.4.1	Instrument Unavailability	9
1.4.2	Level 0 data acquisition and Level 1b processing status	9
1.4.2.1	Orbits affected by poor data quality	9
1.4.3	Level 0 and Level 1b backlog processing status	10
1.5	Data Quality Control	11
1.5.1	Monitoring of instrument parameters	11
1.5.2	User Rejections	11
1.5.3	Software Problem Reporting.....	11
1.5.3.1	Existing SPRs that are still open	11
1.5.3.2	New SPRs since the last Cyclic Report	11
1.5.3.3	Closed SPRs	11
1.6	Instrument Performance	12
1.7	Calibration/Validation Activities and Results.....	12
1.7.1	Calibration	12
1.7.2	Validation	12
1.8	Disclaimers.....	12

1 THE CYCLIC REPORT #40

1.1 *Acronyms and abbreviations*

AATSR	Advanced Along Track Scanning Radiometer
CR	Cyclic Report
DMOP	Detailed Mission Operation Plan
DMS	Data Management System
EN-UNA-YYYY/#	Envisat Unavailability (plus year and number)
ESOC	European Space Operation Center
HSM	High Speed Multiplexer
IECF	Instrument Engineering and Calibration Facilities
IPF	Instrument Processing Facilities
MPS	Mission Planning Schedule
NRT	Near Real Time
OCM	Orbit Control Manoeuvre
PDS	Payload Data Segment
PMC	Payload Management Computer
SPR	Software Problem Reporting
SW	Software
VISCAL	Visible Calibration

The AATSR list of acronyms and abbreviation is in the following site:

<http://envisat.esa.int/dataproducts/aatsr/CNTR5.htm#eph.aatsr.glossary>

1.2 Summary

Cyclic number: 41

Cycle Start Time: 19-SEPTEMBER-2005, 21:59:29 orbit stop: 18591

Cycle Stop Time: 24-OCTOBER-2005, 21:59:29 orbit stop: 19091

The main activities during the cycle have been as follows:

- **L0 Processor and IPF Version:**
L0 Processor – no change (5.22)
Level 1b & Level 2 processor – no change (5.59)
- **Visible channel calibration:**
The visible calibration data supplied as an aux file (ATS_VC1_AX) continued to be regularly updated throughout the cycle.

1.3 Software and Aux File Version Configuration

1.3.1 Software version

AATSR IPF for Level 1 and Level 2: version 5.59

1.3.1.1 Auxiliary file

AATSR processing uses the following aux files:

- **Browse Product Look-up Data (ATS_BRW_AX)**
- **L1b Characterization Data (ATS_CH1_AX)**
- **Cloud Look-up Table Data (ATS_CL1_AX)**
- **General Calibration Data (ATS_GC1_AX)**
- **AATSR Instrument Data (ATS_INS_AX)**
- **Visible Calibration Coefficients Data (ATS_VC1_AX)**
- **Level1B Processing Configuration Data (ATS_PC1_AX)**
- **Level2 Processing Configuration Data (ATS_PC2_AX)**
- **SST Retrieval Coefficients Data (ATS_SST_AX)**
- **LST Land Surface Temperature Coefficients Data (ATS_LST_AX)**

The latest filename for each auxiliary file in use in the PDS is as follows:

Product name
ATS_BRW_AXVIEC20020123_072338_20020101_000000_20200101_000000
ATS_CH1_AXVIEC20021114_113144_20020301_000000_20070801_235959
ATS_CL1_AXVIEC20020123_073044_20020101_000000_20200101_000000
ATS_GC1_AXVIEC20020123_073430_20020101_000000_20200101_000000
ATS_INS_AXVIEC20030731_092706_20020301_000000_20070801_235959
See below for VC1 files
ATS_LST_AXVIEC20040311_095537_20020301_000001_20070801_235959
ATS_PC1_AXVIEC20040812_063722_20020301_000000_20070801_235959
ATS_PC2_AXVIEC20020123_074151_20020101_000000_20200101_000000
ATS_SST_AXVIEC20020123_074408_20020101_000000_20200101_000000

Tab 1.3.1.1: Latest auxiliary files currently in use by the PDS

1.3.1.1.1 Status of daily Visible Calibration (VC1) files

Reflectance channel calibration files were available for all dates, except:

25 September 2005
01-02 October 2005
22 October 2005

1.3.1.1.2 *Status of other auxiliary files*

The following list highlights any of the other auxiliary files changed during this cycle.

Product name	Date Introduced	Validity Range	Reason for Changing
No changes during this cycle			

Tab 1.3.1.2: Auxiliary files list changed during the period

1.4 PDS status

1.4.1 Instrument Unavailability

There was no planned or unplanned instrument unavailability.

1.4.2 Level 0 data acquisition and Level 1b processing status

The following L0 and L1b data were missing from this cycle.

Missing L0 data are automatically also missing at L1b. Therefore the missing L1b data specifically reported in table 1.4.2.2 represent additional data gaps where the start time does not coincide with L0 data already known to be missing.

UTC Start	UTC Stop	Duration (sec)	Orbit Start	Orbit Stop
19/09/2005 22:14	19/09/2005 22:19	297	18592	18592
21/09/2005 00:36	21/09/2005 00:37	62	18607	18607
26/09/2005 20:15	26/09/2005 20:25	577	18691	18691
27/09/2005 20:52	27/09/2005 20:55	175	18705	18705
10/10/2005 22:28	10/10/2005 22:40	708	18892	18893
12/10/2005 20:13	12/10/2005 20:14	26	18920	18920
16/10/2005 19:47	16/10/2005 19:48	65	18977	18977
18/10/2005 20:23	18/10/2005 20:33	593	19006	19006
19/10/2005 19:52	19/10/2005 20:56	3863	19020	19020
21/10/2005 20:30	21/10/2005 20:31	65	19049	19049
21/10/2005 23:22	22/10/2005 02:14	10311	19050	19052

Tab 1.4.2.1: ATS_NL_0P missing data during cycle 41

UTC Start	UTC Stop	Duration (sec)	Orbit Start	Orbit Stop
19/10/2005 19:58	19/10/2005 20:53	3289	19020	19020
21/10/2005 23:28	22/10/2005 02:07	9525	19050	19052

Tab 1.4.2.2: ATS_TOA_1P missing data during cycle 41

1.4.2.1 Orbits affected by poor data quality

The information reported in the tables 1.4.2.1 and 1.4.2.2 does not consider the quality of the data, only whether or not it is available.

List of orbits with bad data quality: *Not available for this report*

1.4.3 Level 0 and Level 1b backlog processing status

The following data reported missing from previous cycles have been retrieved via backlog processing.

List not available.

1.5 Data Quality Control

1.5.1 Monitoring of instrument parameters

JITTER: *Not available for this report.*

SENSOR TEMPERATURE: *Not available for this report.*

VISCAL: *Not available for this report.*

TOTAL NOISE: *Not available for this report.*

NEAT: *Not available for this report.*

1.5.2 User Rejections

Not available for this report.

1.5.3 Software Problem Reporting

This section describes the open SPRs, their potential impact on the data quality, and SPRs that have been closed.

1.5.3.1 Existing SPRs that are still open

Unphysical sea surface temperature values in Level 2 AATSR products from PDHS-E at intervals of 480 rows: Open – The investigation shows that the problem does not happen using the IPF 5.59 with respect to the IPF 5.52 on which the problem was detected. Further information on the changes introduced in V5.59 has been requested.

50 / 17 km Cell Size Anomaly in AST product: Open – The reason for this effect is understood, but it is proposed that the cell size should stay as-is until further consultation with AATSR users has taken place.

Inconsistent values in AST confidence word, 17 km cell: Investigation completed - to be corrected with a patch at the next appropriate opportunity.

1.5.3.2 New SPRs since the last Cyclic Report

There are no new SPRs since last Cyclic Report.

1.5.3.3 Closed SPRs

No SPRs have been closed since the last Cyclic Report.

1.6 Instrument Performance

Nominal

1.7 Calibration/Validation Activities and Results

1.7.1 Calibration

Not available for this report.

1.7.2 Validation

Not available for this report.

1.8 Disclaimers

Disclaimer ENVI-GSOP-EOGD-QD-04-0066 entitled "Calibration of visible channels during outgassing", included in the disclaimer set for the L1b ATS_TOA_1P product, and disclaimer ENVI-GSOP-EOGD-QD-04-0059 – "L1b disclaimers with an impact on the ATS_NR__2P product", included in the disclaimer set for the L2 ATS_NR__2P product, have been updated.

These updates are due to a series of plots that were presented at the 6th AATSR Quality Working Group, which suggest that the absence of more frequent VC1 files during periods of outgassing is resulting in definite discontinuities in the retrieved NDVI at Level 2. It was recommended that the current L1b disclaimer identifying the need for more frequent VC1 files during outgassings should be reviewed and, if necessary, changes made to emphasise the effect at L2.

A new L2 disclaimer for the ATS_NR__2P product is required to advise users of the presence of noise simulating NDVI values at night. Entitled "Night time NDVI generation" the disclaimer number is currently TBD by ESA.