

SMOS L1 Prototype

ADF Set Description

Code : SO-TDD-DME-L1PP-0023
Issue : 2.14
Date : 29/11/11

	Name	Function	Signature
Prepared by	A.Gutiérrez	Project Engineer	
	R.Castro	Project Engineer	
Checked by	A.Gutiérrez	Quality A. Manager	
Approved by	J. Barbosa	Project Manager	

DEIMOS Engenharia
Av. D. João II, Lote 1.17, Torre Zen, 10º
1998-023 Lisboa, PORTUGAL
Tel: +351 21 893 3013
Fax: +351 21 896 9099
E-mail: <mailto:deimos@deimos.com.pt>

© DEIMOS Engenharia 2011

This page intentionally left blank

Document Information

Contract Data	Classification
Contract Number: 4000101241/10/I-AM	Internal <input checked="" type="checkbox"/>
Contract Issuer: ESA	Public <input type="checkbox"/>
	Industry <input type="checkbox"/>
	Confidential <input type="checkbox"/>

Internal Distribution		
Name	Unit	Copies

External Distribution		
Name	Organisation	Copies
Jean-Claude Debruyne	ESA	1
Steven Delwart	ESA	1

Archiving	
Word Processor:	MS Word 2000
File Name:	SO-TDD-DME-L1PP-0023-ADF-set-description
Archive Code:	SO-TDD-DME-L1PP-0023

Document Status Log

Issue	Change description	Date	Approved
Draft	First version of the document	12-05-2006	
1.0	Version delivered for the OSAT	05-06-2006	
1.1	Version delivered after the OSAT	29-06-2006	
1.2	Updated Land/Sea Mask Auxiliary Data File. Corrected Total Size of Land/Mask and Galaxy Map ADFs for consistency.	20-07-2006	
1.3	Added ADF headers to ADF Package	26-07-2006	
1.4	Update for L1OP CDR	26-10-2006	
2.0	Update for L1PP V2R	17-11-2006	
2.1	Update for L1PP V3R	09-04-2007	
2.2	Update for L1PP V3.5R	17-07-2007	
2.3	Update for L1PP V4R	26-11-2007	
2.4	Update for L1PP V5R	04-04-2008	
2.5	Update for L1PP V6R	25-07-2008	
2.6	Update for L1PP V6.5R	22-10-2008	
2.7	Update for L1PP v3.1.0	19-05-2009	
2.8	Update for L1PP v2.2.0	24-07-2009	
2.9	Update for L1PP v3.2.0	24-09-2009	
2.10	Update for L1PP v3.3.0	26-03-2010	
2.11	Update for L1PP v3.4.0	31-05-2010	
2.12	Updated after review for the Maintenance Phase and for L1PP v3.5.0	29-10-2010	
2.13	Update for L1PP v5.0.0	20-05-2011	
2.14	Update for L1PP v5.5.0	29-11-2011	
	Updated Baseline Weights ADF to remove NIR AB Baselines		
	Updated SPAR to reflect 1-slope parameters		
	CNF was updated to reflect Sun Direct setting.		

Table of Contents

1. INTRODUCTION	7
1.1. Purpose and Scope	7
1.2. Acronyms and Abbreviations	7
1.3. Applicable and Reference Documents	7
1.3.1. Applicable Documents	7
1.3.2. Reference Documents	8
2. Overview	9
3. Auxiliary Data Files	10
3.1. Files Naming Convention for L1 Prototype Format	10
3.2. Files Naming Convention for DPGS V3	12
3.3. Auxiliary Data Files Description	13
4. ADF Generation Procedures	22
5. Annex: ADF Set Package contents	28

List of Tables

Table 1: Applicable Documents	8
Table 2: Reference Documents.....	8
Table 3: Meaning of Logical File Name elements	10
Table 4: List of Auxiliary Data Files.....	13
Table 5: Generation Procedures Auxiliary Data Files.....	22

1. INTRODUCTION

1.1. Purpose and Scope

This document describes the SMOS Level 1 Processor Prototype (L1PP) Auxiliary Data Files (ADFs). The purpose of the document is not to specify the format of the files but rather to identify the files that are delivered together with the prototype and provide a summary description of their contents¹.

As from the L1PP 2.2.0 release only DPGS V3 ADFs are delivered. Maintenance of the Prototype Format was discontinued since release 1.6.1, so the user is invited to refer to older ADF Packages in case he needs Prototype Format ADF. The only Prototype Format ADF maintained and delivered in this package is the GALAXY ADF, which is used by the SMOS Plan Generation Facility.

This document is to be used by L1PP users as a support document and complements the Software User Manual Document [AD.6].

The files described in this document correspond to the baseline ADF Set 5.5.0.

1.2. Acronyms and Abbreviations

For the list of acronyms, please refer to the “Directory of Acronyms and abbreviations” [RD.1].

1.3. Applicable and Reference Documents

1.3.1. Applicable Documents

Ref.	Code	Title	Issue & Date
AD.1	ECSS-E-40B	ECSS E-40 Software Engineering Standards	
AD.2	SO-DS-DME-L1PP-0007	SMOS L1PP DPM L1a	2.15 29/11/11
AD.3	SO-DS-DME-L1PP-0008	SMOS L1PP DPM L1b	2.15 29/11/11
AD.4	SO-DS-DME-L1PP-0009	SMOS L1PP DPM L1c	2.10 29/11/11

¹ For further information regarding the format of the files, please refer to AD.8.

Ref.	Code	Title	Issue & Date
AD.5	SO-TR-DME-L1PP-0018	SMOS L1 Verification and Validation Plan	2.11 29/11/11
AD.6	SO-UM-DME-L1PP-0016	SMOS L1 Processor Prototype User Manual	2.17 29/11/11
AD.7	PE-TN-ESA-GS-001	Earth Explorer Ground Segment File Format Standard	1.4 13/06/03
AD.8	SO-TN-IDR-GS-0005	SMOS Level 1 and Auxiliary Data Products Specifications	5.22 29/11/11
AD.9	SO-SOW-ESA-GS-6647	SMOS Expert Support Laboratories for the period 2010-2014 - ESL Level 1 Calibration and Reconstruction	1.2 07/05/10

Table 1: Applicable Documents

1.3.2. Reference Documents

Ref.	Code	Title	Issue
RD.1	SO-LI-CASA-PLM-0094	Directory of Acronyms and abbreviations	

Table 2: Reference Documents

2. OVERVIEW

The document is organized as follows:

- Section 3 presents a description of the Auxiliary Data Files used by the prototype.
- Section 4 presents the generation method and origin of data for each of the Auxiliary Data Files
- Section 5 lists the contents of the ADF Set 5.5.0.

3. AUXILIARY DATA FILES

The Auxiliary Data Files (ADFs) ingested by the Level 1 Processor Prototype are defined according to the Earth Explorer Ground Segment File Format Standard [AD.7]. The files are composed by an XML Header and a Binary Data Block, and use “.EEF” extension. The following sections provide a summary description of the file naming convention and of the ADFs.

In the default Prototype Format, header and datablock are concatenated into a single .EEF file, while in the DPGS V3 format a product is inside a directory with its name, containing a separate header (.HDR) and datablock (.DBL) file (AD.8).

3.1. Files Naming Convention for L1 Prototype Format

According to the ESA Earth Explorer File Format Standard, *files shall be named using a fixed set of elements, each of fixed size, separated by underscores “_”*. The maximum size for any given file name shall be smaller than 64 characters.

The Logical File Name is to be of the following structure:

MM_CCCC_TTTTTTTTTT_<Instance ID>

Where each of the elements will be as follows:

Table 3: Meaning of Logical File Name elements

Naming Element	Description	Format
MM	Mission ID. This field will be ‘SM’ for all SMOS products	2 characters Uppercase letters
CCCC	File Class. This element identifies the type of activity for which the file is to be used, namely which phase of the ground segment development or operations cycle (TD00 for Test Dataset, GSOV for GS Validation Test, OPER for Operation, REPR for Reprocessing, COMM for Commissioning Phase, GC00 for Ground Calibration phases...).	4 characters Uppercase letters or digits
TTTTTTTTTT	File Type. This element uniquely defines the file structure and should include: File Category These are the first 4 characters (3 characters plus underscore) and define the type of file (e.g. TLM for telemetry, MIR for MIRAS	10 characters Uppercase letters, digits or underscores “_”

Naming Element	Description	Format
	<p>products, AUX for Auxiliary files)</p> <hr/> <p>Semantic Description</p> <p>These are also 4 characters in size and provide description of the type of data represented (e.g. SC_D for Science Data at Dual-polarisation)</p> <hr/> <p>Product Level</p> <p>The last 2 characters, it gives information on the level of data represented (e.g. 0_, 1b, 2_,)</p>	
<Instance ID>	<p>Instance ID.</p> <p>The role of this element is to avoid file name duplicates and add extra information that may prove useful for understanding the contents of the file. All files of the same File Category must have the same File Instance ID format and should include one date and time element (Creation or Validity period) separated by a 'T' (e.g. 20040526T172800). If the file name still is not unique, a Version number should be added, starting in '1' and having as many digits as needed for the expected lifetime of operation of the mission.</p> <p>For the current L1 format, this Instance ID shall be modelled as a string of 41 characters containing the following information:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Validity Start time: YYYYMMDDTHHMMSS (15 char) <input type="checkbox"/> Underscore: _ (1 char) <input type="checkbox"/> Validity Stop time: YYYYMMDDTHHMMSS (15 char) <input type="checkbox"/> Underscore: _ (1 char) <p>Version: %08d (8 char)</p>	<p>Maximum 41 characters</p> <p>Uppercase letters, digits or underscores “_”</p>

It must be clearly stated, that the underscore character “_” shall be used also as separator between naming elements.

3.2. Files Naming Convention for DPGS V3

The filename convention adopted for DPGS V3 products is fully described in [AD.8].

3.3. Auxiliary Data Files Description

The following tables identify the ADFs ingested by L1PP v5.5.0 and provide relevant information about these files. A specific statement is included about the applicability of each file to the Launch Baseline or not, depending on whether the file is ready to be used, or if there is no Launch Baseline yet.

As of post-Launch version v3.3.0 of L1PP, no FTTx are provided in the ADF TDS, as the formal baseline is available from other sources within DPGS (as is the case for other operational products like GMAT, JMAT and ANIR, which are not considered ADF and thus not provided in this TDS). In addition, IVT and SEPS ADF distribution has been discontinued, only Post-Launch ADF shall be provided during the operations phase.

Despite the fact that all the files have “.EEF” extension, some of them are pure XML files instead of “Hybrid” composed of an XML Header and a Binary Data Block. Tables 4 and 5 contain a column describing the internal format of the file, which can be:

EEF – Hybrid Files containing an XML Header and a Binary Data Block;

XML - Pure XML Files, following the Earth Explorer File Format Standard.

Table 4: List of Auxiliary Data Files

Type of Data	Description	File Name	Size	Format
Apodisation Window Coefficients	Defines the apodisation function coefficients over the frequency domain coordinates (U,V) for the Blackman Window. Launch Baseline	SM_TEST_AUX_APDL____20070101T000000_20500101T000000_300_001_0.EEF	216 027	XML
		SM_TEST_AUX_APDS____20070101T000000_20500101T000000_300_001_0.EEF	216 026	

Type of Data	Description	File Name	Size	Format
Best Fit Plane	Euler Rotation Angles between Antenna Reference Frame and Best-Fit Plane. Filled with on-ground calibrated BFP and first in-orbit calibrated BFP. Post-Launch (KP2) Baseline	SM_TEST_AUX_BFP____20050101T000000_20500101T000000_340_001_0.EEF	2 508	XML
Bistatic Scattering Coefficients	Bistatic Scattering Coefficients used for removing Sun Glint effects. Look-Up-Table provided by IFREMER. Launch Baseline	SM_TEST_AUX_BSCAT__20070101T000000_20500101T000000_300_001_0	832 352	EEF
IERS Bulletin B File	Bulletin B Earth Orientation parameters, linking UTC time to UT1, TAI and GPS time. Generated by IERS File provided for completeness and reproduction of L1PP TDS results. L1PP is not the official provider of this file. Post-Launch Baseline	SM_TEST_AUX_BULL_B_20100202T000000_20100301T235959_100_001_3 SM_TEST_AUX_BULL_B_20101202T000000_20110101T235959_100_001_3	16 553 17 546	EEF

Type of Data	Description	File Name	Size	Format
Baseline Weights	Baseline weights used during Image Reconstruction to alter the relative weight of certain baselines First in-orbit characterisation of NIR-LICEF weights, plus hinge baselines and NIR-NIR baselines across arms are suppressed (weight set to 0) Post-Launch (KP3) Baseline. The baseline formed by NIR AB has also been removed.	SM_TEST_AUX_BWGHT__20070101T000000_20500101T000000_340_004_0.EEF	337 103	XML
L1 Algorithm Configuration File	Unified L1 algorithm configuration file, containing L1 science and calibration configurations. Post-Launch Baseline. Sun Direct algorithm has been activated.	SM_TEST_AUX_CNFL1P_20110501T000000_20500101T000000_550_001_3.EEF	14 189	XML
Discrete Global Grid	ISEA aperture 4, resolution 9 global hexagonal grid, containing geodetic coordinates (lat-lon-alt) of all pixels. Launch Baseline	SM_TEST_AUX_DGG____20070101T000000_20500101T000000_300_001_0	41 943 320	EEF

Type of Data	Description	File Name	Size	Format
Failing Components Table	Failing components table set to no failures in any element, except for NIR-AB, as per QWG-3 recommendation. Post-Launch Baseline	SM_TEST_AUX_FAIL___20070101T000000_20500101T000000_300_002_0.EEF	51 275	XML
Galaxy L-band Map	Map of the Galaxy Brightness Temperatures containing 6 layers of 721x1441 elements. Values of the first 4 layers have been taken directly from the map produced by ESA (N. Floury), plus two additional layers representing the NIR expected measurements and RMS values that are used in NIR calibration and FTT. All values contain the latest baseline available from ESA, including cross-polar measurements above -20° declination. Launch Baseline	SM_TEST_AUX_CLXY___20070101T000000_20781231T235959_000000000.EEF	24 938 293	EEF
		SM_TEST_AUX_GALAXY_20070101T000000_20500101T000000_300_002_0 SM_TEST_AUX_GALNIR_20070101T000000_20500101T000000_300_001_0	16 623 376 8 311 688	

Type of Data	Description	File Name	Size	Format
Receivers Characterisation	Receivers characterisation (ohmic efficiency and absolute phase). First version of in-orbit characterised antenna efficiency values after changing the LICEF antenna model. Post-Launch Baseline	SM_TEST_AUX_LCF____20050101T000000_20500101T000000_360_003_0	88 626	XML
Land/Sea Mask	ADF extracted from combining the USGS Land-Sea mask and ISEA grid. Launch Baseline	SM_TEST_AUX_LSMASK_20070101T000000_20500101T000000_300_002_0	15 728 820	EEF
L1C Pixel Mask	ADF extracted from combination of Land-Sea Mask flags. This mask contains the latest baseline agreed with L2 teams, including the 200km overlap over coastlines. Launch Baseline	SM_TEST_AUX_MASK____20070101T000000_20500101T000000_300_001_0	13 107 370	EEF
Mispointing Angles	ADF containing measured or estimated mispointing angles between the Star Tracker unit and the PLM Launch Baseline	SM_TEST_AUX_MISP____20070101T000000_20500101T000000_300_002_0.EEF	2 745	XML

Type of Data	Description	File Name	Size	Format
Moon Brightness Temperature Map Model	Moon Brightness Temperature measurements, to be used only for reprocessing. ADF currently incomplete. Launch Baseline	SM_TEST_AUX_MOONT_20070101T000000_20500101T000000_300_001_0	2 618	EEF
NIR Characterisation tables	NIR characterisation table. All values measured on-ground have been incorporated into this baseline Fourth version of in-orbit characterised sensitivity values, including new NIR drift parameters. Post-Launch Baseline	SM_TEST_AUX_NIR_20070101T000000_20500101T000000_350_004_0.EEF	15 135	XML
PLM Characterisation Table	Parameters calibrated on-ground referent to elements of the PLM. Version 5 must be used with in-orbit data due to the differences in central frequency Launch Baseline	SM_TEST_AUX_PLM_20070101T000000_20500101T000000_300_005_0.EEF	27 106	XML

Type of Data	Description	File Name	Size	Format
PMS Characterisation tables	PMS characterisation table, computed on-ground. Second Order Sensitivities have been set to zero according to KP2 recommendation. Third in-orbit characterisation of PMS Heater delays. First in-orbit characterisation of PMS Sensitivities Post-Launch Baseline	SM_TEST_AUX_PMS____20050101T000000_20500101T000000_340_004_0.EEF	125 322	XML
RFI sources Map	ADF containing TRUE values for those pixels that are expected to be affected by RFI. Issue 2 is filled completely with zeros. Launch Baseline	SM_TEST_AUX_RFI____20070101T000000_20500101T000000_300_002_0	13 107 370	EEF
RFI Sources List	ADF containing the list of global RFI sources (position, expected strength and applicable flags during L1 processing) Third operational file provided by L2 contractor, contains all RFI sources to be flagged and none to be mitigated. Post-Launch Baseline	SM_TEST_AUX_RFILST_20070101T000000_20500101T000000_360_003_0.EEF	111 768	XML

Type of Data	Description	File Name	Size	Format
Relevant S-parameters of MIRAS	<p>Noise distribution networks and switch S-parameters characterisation.</p> <p>NDN data has been filled with complete data from EADS CASA Espacio with the full S-parameters and corrections from UPC. Switch data has been filled using EADS CASA Espacio measurements.</p> <p>First and second in-orbit characterisation of CAS correction factors, applicable to different dates. Coefficients reflect the new 1-slope antenna model. Post-Launch Baseline</p>	<p>SM_TEST_AUX_SPAR___20050101T000000_20100111T120700_340_005_0.EEF</p> <p>SM_TEST_AUX_SPAR___20100111T120700_20110112T091500_340_006_0.EEF</p> <p>SM_TEST_AUX_SPAR___20110112T091500_20500101T000000_340_007_0.EEF</p>	<p>1456315</p> <p>1456315</p> <p>1456315</p>	XML
Sun Brightness Temperature Map Model	<p>Sun Brightness Temperature measurements, to be used only for reprocessing. ADF currently incomplete. Launch Baseline</p>	<p>SM_TEST_AUX_SUNT___20070101T000000_20500101T000000_300_001_0</p>	<p>2 617</p>	EEF

Type of Data	Description	File Name	Size	Format
Reference Orbit Scenario File	Reference orbit description, linking UTC time to orbit time. Generated using EE CFI Function. File provided for completeness and reproduction of L1PP TDS results. L1PP is not the official provider of this file. Post-Launch Baseline	SM_TEST_MPL_ORBSCT_20091102T031142_20500101T000000_350_003_1.EEF	13 369	XML
Average Antenna Patterns	Post-Launch baseline for Antenna Patterns, including corrected xi-eta coordinates annotation and latest averaging and normalization algorithm using only 69 antennas (not duplicating NIR-LICEF patterns). Post-Launch Baseline	SM_TEST_AUX_PATT_20070101T000000_20500101T000000_320_003_0	457 613 144	EEF

4. ADF GENERATION PROCEDURES

The following table summarises the origin of the data contained in each ADF, specific tools used in its generation and special procedures followed (if any):

Table 5: Generation Procedures Auxiliary Data Files

Type of Data	Origin of Data	Specific Tools	Procedure
AUX_APDL_ AUX_APDS_	Blackmann function equation Eq. 17 of DPM LIC	None	Generated manually by DEIMOS. Fixed file so it had to be generated only once. Regenerated when L1 Cal Team recommendation
Best Fit Plane (AUX_BFP)	On-ground measurement data provided by EADS CASA Espacio with MIRAS Database v2.2 In-orbit measurements provided by CESBIO (F. Cabot)	None	Generated manually by DEIMOS. Regenerated when L2 recommendation.
Bistatic Scattering Coefficients (AUX_BSCAT)	Look-Up-Table provided by IFREMER.	None	Generated manually by DEIMOS. Fixed file so it had to be generated only once.

Type of Data	Origin of Data	Specific Tools	Procedure
IERS Bulletin B File	File provided by SMOS FOS	None	None
Baseline Weights (AUX_BWGHT)	Suppressed baselines defined during KP3 (weight set to zero) NIR-LICEF baselines provided by OBS-MIP (E. Anterrieu)	None	Generated manually by DEIMOS. Regenerated at L1 Cal Team recommendation
Discrete Global Grid (AUX_DGG)	ISEA aperture 4, resolution 9 global hexagonal grid (4H9), generated by DGGRID GETASSE30 used for the altitude computation of each grid cell	DGGRID Software (http://webpages.sou.edu/~sahrk/dgg/dggrid/dggrid.html) Modified DGGRID instance for binning GETASSE30 DEM into ISEA	Generated by DEIMOS using the available tools
Failing Components Table (AUX_FAIL)	No elements set to fail	None	Generated manually by DEIMOS. Regenerated at L1 Cal Team recommendation

Type of Data	Origin of Data	Specific Tools	Procedure
Galaxy L-band Map (AUX_GALAXY)	<p>Values of the first 4 layers have been taken directly from the map produced by ESA (N. Flourey, 15-01-2008 v2.1)</p> <p>Final two layers representing the NIR expected measurements and RMS values that are used in NIR calibration and FTT were provided by EADS CASA Espacio.</p>	Matlab script developed by DEIMOS.	Generated manually by DEIMOS using available tool.
Receivers Characterisation (AUX_LCF)	<p>On-ground measurement data provided by EADS CASA Espacio with MIRAS Database v2.2 and updated with latest LICEF antenna model coefficients.</p>	None	<p>Generated manually by DEIMOS.</p> <p>Regenerated at L1 Cal Team recommendation</p>

Type of Data	Origin of Data	Specific Tools	Procedure
Land/Sea Mask (AUX_LSMASK)	<p>USGS LandSea Mask (http://edc2.usgs.gov/1KM/land_sea_mask.php) binned to ISEA 4H9 grid</p> <p>MERIS Hierarchical Coastline data provided by Brockman Consulting</p>	<p>Modified DGGRID instance for binning USGS LandSea Mask into ISEA</p> <p>Ad-hoc C99 tool created to combine USGS binning and MERIS coastline data into final binary file.</p>	Generated by DEIMOS using the available tools (first USGS binning, then adding the hierarchical coastlines)
L1C Pixel Mask (AUX_MASK)	List of pixels to be stored in SM or OS products was provided by L2 teams	Ad-hoc C99 tool created to combine OS and SM pixel lists into final binary file.	Generated by DEIMOS using the available tool
Mispointing Angles (AUX_MISP)	On-ground measurement data provided by EADS CASA Espacio with MIRAS Database v2.2	None	Generated manually by DEIMOS. Regenerated at L2 recommendation
Moon Brightness Temperature Map Model (AUX_MOONT)	Data currently not available	None	Generated manually by DEIMOS with placeholder values.

Type of Data	Origin of Data	Specific Tools	Procedure
NIR Characterisation tables (AUX_NIR)	On-ground measurement data provided by EADS CASA Espacio with MIRAS Database v2.2 Data refined with latest NIR antenna model evolution from HUT (J. Kainulainen)	None	Generated manually by DEIMOS. Regenerated at L1 Cal Team recommendation
PLM Characterisation Table (AUX_PLM)	On-ground measurement data provided by EADS CASA Espacio with MIRAS Database v2.2	None	Generated manually by DEIMOS. Regenerated at L1 Cal Team recommendation
PMS Characterisation tables (AUX_PMS)	On-ground measurement data provided by EADS CASA Espacio with MIRAS Database v2.2 Date refined with latest PMS heater delay calibration campaign from UPC.	None	Generated manually by DEIMOS. Regenerated at L1 Cal Team recommendation

Type of Data	Origin of Data	Specific Tools	Procedure
RFI sources Map (AUX_RFI)	Data currently not available (dummy file)	None	Generated manually by DEIMOS with placeholder values. Regenerated at L2 recommendation
RFI Sources List (AUX_RFILIST)	File provided by L2 contractor (ARRAY)	None	None. Regenerated at L2 recommendation
Relevant S-parameters of MIRAS (AUX_SPAR)	On-ground measurement data provided by EADS CASA Espacio with MIRAS Database v2.2	None	Generated manually by DEIMOS. Regenerated at L1 Cal Team recommendation
Sun Brightness Temperature Map Model (AUX_SUNT)	Data currently not available	None	Generated manually by DEIMOS with placeholder values.
Reference Orbit Scenario File	File provided by SMOS FOS	None	None Generated by CEC. Regenerated at L1 Cal Team recommendation
Average Antenna Patterns (AUX_PATT))	On-ground measurement data provided by EADS CASA Espacio with MIRAS Database v2.2	None	Generated manually by DEIMOS.

5. ANNEX: ADF SET PACKAGE CONTENTS

```
├── adf-dpgs  
└── adf-eef
```

```
data/  
adf-dpgs  
adf-eef
```

```
data/adf-dpgs:  
SM_TEST_AUX_APDL____20070101T000000_20500101T000000_300_001_0.EEF  
SM_TEST_AUX_APDS____20070101T000000_20500101T000000_300_001_0.EEF  
SM_TEST_AUX_BFP_____20070101T000000_20500101T000000_340_001_0.EEF  
SM_TEST_AUX_BSCAT____20070101T000000_20500101T000000_300_001_0  
SM_TEST_AUX_BULL_B_20100202T000000_20100301T235959_100_001_3  
SM_TEST_AUX_BULL_B_20101202T000000_20110101T235959_100_001_3  
SM_TEST_AUX_BWGHT____20050101T000000_20500101T000000_340_004_4.EEF  
SM_TEST_AUX_CNFL1P_20110501T000000_20500101T000000_550_001_0.EEF  
SM_TEST_AUX_DGG_____20070101T000000_20500101T000000_300_001_0  
SM_TEST_AUX_FAIL____20070101T000000_20500101T000000_300_002_0.EEF  
SM_TEST_AUX_GALAXY_20070101T000000_20500101T000000_300_002_0  
SM_TEST_AUX_GALNIR_20070101T000000_20500101T000000_300_001_0  
SM_TEST_AUX_LCF_____20050101T000000_20500101T000000_360_003_0.EEF  
SM_TEST_AUX_LSMASK_20070101T000000_20500101T000000_300_002_0  
SM_TEST_AUX_MASK____20070101T000000_20500101T000000_300_001_0  
SM_TEST_AUX_MISP____20070101T000000_20500101T000000_300_002_0.EEF  
SM_TEST_AUX_MOONT____20070101T000000_20500101T000000_300_001_0  
SM_TEST_AUX_NIR_____20070101T000000_20500101T000000_350_004_0.EEF  
SM_TEST_AUX_PATT____20070101T000000_20500101T000000_320_003_0  
SM_TEST_AUX_PLM_____20070101T000000_20500101T000000_300_005_0.EEF  
SM_TEST_AUX_PMS_____20050101T000000_20500101T000000_340_004_0.EEF  
SM_TEST_AUX_RFI_____20070101T000000_20500101T000000_300_001_0  
SM_TEST_AUX_RFI_____20070101T000000_20500101T000000_300_002_0  
SM_TEST_AUX_RFILST_20070101T000000_20500101T000000_360_003_0.EEF  
SM_TEST_AUX_SPAR____20050101T000000_20100111T120700_340_005_0.EEF  
SM_TEST_AUX_SPAR____20100111T120700_20110112T091500_340_006_0.EEF  
SM_TEST_AUX_SPAR____20110112T091500_20500101T000000_340_007_0.EEF  
SM_TEST_AUX_SUNT____20070101T000000_20500101T000000_300_001_0  
SM_TEST_MPL_ORBSCT_20091102T031142_20500101T000000_350_003_1.EEF
```

```
data/adf-dpgs/SM_TEST_AUX_BULL_B_20100202T000000_20100301T235959_100_001_3:  
SM_TEST_AUX_BULL_B_20100202T000000_20100301T235959_100_001_3.DBL  
SM_TEST_AUX_BULL_B_20100202T000000_20100301T235959_100_001_3.HDR
```

```
data/adf-dpgs/SM_TEST_AUX_BULL_B_20101202T000000_20110101T235959_100_001_3:  
SM_TEST_AUX_BULL_B_20101202T000000_20110101T235959_100_001_3.DBL  
SM_TEST_AUX_BULL_B_20101202T000000_20110101T235959_100_001_3.HDR
```

```
data/adf-dpgs/SM_TEST_AUX_DGG_____20070101T000000_20500101T000000_300_001_0:  
SM_TEST_AUX_DGG_____20070101T000000_20500101T000000_300_001_0.DBL  
SM_TEST_AUX_DGG_____20070101T000000_20500101T000000_300_001_0.HDR
```

```
data/adf-dpgs/SM_TEST_AUX_GALAXY_20070101T000000_20500101T000000_300_002_0:  
SM_TEST_AUX_GALAXY_20070101T000000_20500101T000000_300_002_0.DBL  
SM_TEST_AUX_GALAXY_20070101T000000_20500101T000000_300_002_0.HDR
```

```
data/adf-dpgs/SM_TEST_AUX_GALNIR_20070101T000000_20500101T000000_300_001_0:  
SM_TEST_AUX_GALNIR_20070101T000000_20500101T000000_300_001_0.DBL
```



SMOS L1 Prototype ADF Set
Description

Code : ~~0023~~ SO-TDD-DME-L1PP-0023
Date : 29/11/11
Issue : 2.14
Page : 29 of 29

SM_TEST_AUX_GALNIR_20070101T000000_20500101T000000_300_001_0.HDR

data/adf-dpgs/SM_TEST_AUX_LSMASK_20070101T000000_20500101T000000_300_002_0:
SM_TEST_AUX_LSMASK_20070101T000000_20500101T000000_300_002_0.DBL
SM_TEST_AUX_LSMASK_20070101T000000_20500101T000000_300_002_0.HDR

data/adf-dpgs/SM_TEST_AUX_MASK_20070101T000000_20500101T000000_300_001_0:
SM_TEST_AUX_MASK_20070101T000000_20500101T000000_300_001_0.DBL
SM_TEST_AUX_MASK_20070101T000000_20500101T000000_300_001_0.HDR

data/adf-dpgs/SM_TEST_AUX_MOONT_20070101T000000_20500101T000000_300_001_0:
SM_TEST_AUX_MOONT_20070101T000000_20500101T000000_300_001_0.DBL
SM_TEST_AUX_MOONT_20070101T000000_20500101T000000_300_001_0.HDR

data/adf-dpgs/ SM_TEST_AUX_PATT_20050101T000000_20500101T000000_320_003_0:
SM_TEST_AUX_PATT_20050101T000000_20500101T000000_320_003_0.DBL
SM_TEST_AUX_PATT_20050101T000000_20500101T000000_320_003_0.HDR

data/adf-dpgs/SM_TEST_AUX_RFI_20070101T000000_20500101T000000_300_001_0:
SM_TEST_AUX_RFI_20070101T000000_20500101T000000_300_001_0.DBL
SM_TEST_AUX_RFI_20070101T000000_20500101T000000_300_001_0.HDR

data/adf-dpgs/SM_TEST_AUX_RFI_20070101T000000_20500101T000000_300_002_0:
SM_TEST_AUX_RFI_20070101T000000_20500101T000000_300_002_0.DBL
SM_TEST_AUX_RFI_20070101T000000_20500101T000000_300_002_0.HDR

data/adf-dpgs/SM_TEST_AUX_SUNT_20070101T000000_20500101T000000_300_001_0:
SM_TEST_AUX_SUNT_20070101T000000_20500101T000000_300_001_0.DBL
SM_TEST_AUX_SUNT_20070101T000000_20500101T000000_300_001_0.HDR

data/adf-eef:
SM_TEST_AUX_GLXY_20070101T000000_20781231T235959_00000008.EEF