

Release Note

Sensor Name	PALSAR
Processing Software Name	PALSAR Level 1.0 processing software PALSAR Core data processing software
Correction Parameter Name	PALSAR Correction parameter (Level 1.0) PALSAR Correction parameter (Core processing)
Other	Install manual
New Version/Revision	V05 / L04
Old Version/Revision	V05 / L03
Release Date	9 th Jan, 2009
Tar File Name	ALOS-SW-PALSAR-V05L04.tar
ZIP File Name/Password	alos_20090109
<p>Modified Items:</p> <p>(1) PALSAR Core data processing software</p> <ul style="list-style-type: none"> - Misalignment of PALSAR images due to a leap second corrected. - Tuning of Doppler center frequency estimation program. - PALSAR calibration factor updated. <p style="padding-left: 40px;">[AI_Psr_Core_SigmaSAR(9.02)]</p>	
<p>Note:</p> <p>Version 5.04 consists of changed files only.</p> <p>Please install "ALOS-SW-PALSAR-V05L04.tar.gz" according to [Captor 5.1-5] of "PALSAR Installation manual_V05L03.pdf" that released in Version5.03.</p> <p>Only next files are updated in "/alos" directory.</p> <p style="padding-left: 40px;">bin/palsar_cor/AI_Psr_Core_SigmaSAR</p> <p style="padding-left: 40px;">bin/palsar_cor/version.kav</p>	

History:

Version 1.0 (2003.10.20)

Version 1.1 (2003.12)

- (1) ALOS Data Processing Core Software (Ver.1.1) (for PALSAR)
- (2) Change to media number(ALOS_CoreSW_PALSAR_004N)
- (3) Change to Installation Manual

Version 1.2 (2004.5.28)

- (1) ALOS Data Processing Core Software (Ver.1.2) (for PALSAR)
 - Correct geo-coded processing for ScanSAR mode
 - Accuracy of latitude/longitude of each corner in the scene
 - RedHat Advanced Server 2.1
 - Bug fix
- (2) Input Data Files (for processing check)
 - Level0 data
 - Deletion of sample data :
 - Direct downlink mode
 - Polarimetry mode
 - High resolution mode (single polarization)

Version 1.3 (2005.5.25)

- (1) PALSAR 1.0 processing software
 - Handling for stopped GPSR
 - Bug fix
- (2) PALSAR core processing software
 - SIGMA-SAR
 - Data order of range direction type was changed from Near to Far for PALSAR level 1.1 record.
 - In the mode other than ScanSAR, it became possible to process PRF change.
 - Addition of polarimetry calibration function
 - Product Editing
 - Change of data order (Range direction: Near -> Far)
 - Auto-verification result when PRF change or calibration data was included or not was added.
 - Bug fix

Version 2.0 (2006.4.24)

- (1) PALSAR 1.0 processing software
 - Level 1.0 product format (record length) was changed.
 - Bug fix
- (2) PALSAR core processing software
 - SIGMA-SAR

- Level 1.5 product for polarimetry mode was added.
- Parameters of Level 1.1 product for polarimetry mode were added.
- Support to GPS system / DMS system.
- Product Editing
 - Function for SIGMA-SAR polarimetry mode was updated.
- Bug fix

Version 2.2 (2006.7.14)

- (1) PALSAR 1.0 processing software
 - Standby4/calibration mode check flag is added.
 - Auxiliary data check does not need in standby4.
 - Bug fix
- (2) PALSAR core processing software
 - SIGMA-SAR
 - Tuning by real data.
 - Reflection of ScanSAR antenna pattern.
 - Update of calibration coefficients table of polarimetric.
 - Improvement of geometric correction accuracy.
 - Bug fix

Version 2.3 (2006.7.28)

- (1) PALSAR core processing software
 - SIGMA-SAR
 - Tuning of ScanSAR histogram.
 - Bug fix

Version 2.4 (2006.9.29)

- (1) PALSAR Level 1.0 processing software
 - Handling of slant range calculates value.
 - Handling of 1 second delay of satellite time.
 - Handling of off-nadir angle at ScanSAR mode is changed.
- (2) PALSAR Core data processing software
 - Handling of 1 second delay of satellite time.
 - Handling of illegal data size and illegal image for PALSAR WB1.
 - Handling of product setting value and format are changed.
 - Handling of transpose of line number and pixel number for level 1.1 product.

Version 3.0 (2006.10.23)

- (1) PALSAR Level 1.0 processing software
 - Handling of scene missing by performing 1 second delay of satellite time.
 - Deregistration of charpreplica nominal for direct downlink V receiving polarization.
 - Revision up to Ver.4.05(for Version Information Files[version.kav]of Processing Softwares and Correction Parameters)

(2) PALSAR Core data processing software

- Handling of FBS ascending illegal image.
- Accuracy improvement for geometric/radiometric correction.
- Reflection of the result of parameter calibration verification for product.
- Tuning #3 for polarimetric calibration coefficient.

Version 4.0 (2007.04.13)

(1) PALSAR Level 1.0 processing software

- Handling of platform position data record / facility related data record storage
- Revision up to Ver5.00
- Modification after Ver5.00 was released
 - Time change for judging the correction of satellite time 1 second delay
 - Use the scene start time (before modification)
 - Use the scene center time (after modification)

(2) PALSAR Core data processing software

- Handling of WB1 image error (white line is seen at the end of image)
- PLR processing error: handling in case of the processing (exceeding over two days) is incomplete.
- Handling of check miss when user is specified LCC Southern Hemisphere of WB1
- Handling of the lack of consideration if longitude exceeds over 180 degree at L1.5 processing
- Revision up to Ver8.00

Version 4.01 (2007.08.08)

(1) PALSAR Level 1.0 processing software

- Handling for 1.0 processing of sync cord error.
- Handling for 1.0 processing error. [Ver_PSR10Prc(5.03)]

(2) PALSAR Core data processing software

- Handling for PALSAR compression processing error.
- Handling of map projection correction in L1.5 processing.
- Tuning of Doppler center frequency estimation program.
- Change of product size (reduction of range samples).
- Error in geometric correction corrected (Latitude/longitude calculation error about some products).

[AI_Psr_Core_SigmaSAR(8.03)]

Version 4.02 (2007.10.12)

(1) PALSAR Core data processing software

- Corrected an anomaly of geometric adjustment, which made some images of WB1/WB2 distorted. [AI_Psr_Core_SigmaSAR(8.04)]
- Corrected an anomaly of geometric adjustment, which made some images of WB1/WB2 distorted. [AI_Psr_Core_SigmaSAR(8.05)]

- Specification change with ScanSAR; value checks with LCC Reference Latitude Line1/Line2 be abolished; these checks have stopped the program when the scene center latitude of a product does not lie between these latitudes. [AI_Psr_Core_Supproduct(8.01)]

Version 4.03 (2007.12.06)

(1) PALSAR L1.0 Processing Software

- "Scene not-found error" fixed. [Ver_PSR10Prc (5.04)]

(2) PALSAR Core Processing Software

- Processing errors of PLR and FBD fixed, and an image noise improved. [AI_Psr_Core_SigmaSAR (8.06)]

Version 5.00 (2008.04.21)

(1) PALSAR L1.0 Processing Software

- "Scene not-found error" fixed.
- Revised to Ver6.10

(2) PALSAR Core Processing Software

- Improved image quality under the influence of unwanted radiation
- Corrected an anomaly in the image mapping of a scene across the longitude of 180 degrees.
- Revised to Ver9.00
- Additional updates are:
 - Corrected an anomaly in checking the validity of latitude range for PS mapping.

[AI_Psr_Core_Supproduct (9.01)]

Version 5.01 (2008.05.21)

(1) PALSAR L1.0 Processing Software

- A bug fixed. The L1.0 processor failed when its workorder specifies only one Conventional Orbit Data while the processor is forced to use it because no Precision Orbit Data exists.

[Ver_PSR10Prc(6.11)]

Version 5.02 (2008.07.30)

(1) PALSAR L1.0 Processing Software

- Corrected an anomaly to show "No applicable record" when part of mission telemetry level 0 data are missing outside of the observation data to be processed.

[Ver_PSR10Prc(6.12)]

(2) PALSAR Core Processing Software

- Modification of calculation method and parameters used to obtain ScanSAR antenna pattern values.

[AI_Psr_Core_SigmaSAR(9.01)]

[palsar_ant.dat_f_a(9.01)]

[palsar_ant.dat_f_b(9.01)]

Version 5.03 (2008.12.18)

(1) PALSAR L1.0 Processing Software

Handling of incident angle on SAR Leader file at ScanSAR mode is changed.

[Ver_PSR10Prc(6.21)]