

CEOS Analysis-Ready Data for Land (CARD4L) SAR product specifications JAXA plans for Analysis-Ready Data (CARD4L) standards for PALSAR and PALSAR-2 products– Status update

T. Tadono¹, T. Itoh, O. Isoguchi , T. Ogawa, A. Rosenqvist

1) ake.rosenqvist@soloEO.com, JAXA / soloEO

Abstract

Analysis Ready Data (ARD) are commonly referred to as satellite data that have been processed to a minimum set of requirements and organised into a form that allows immediate analysis with a minimum of additional user effort and that facilitates interoperability through both time and space with other datasets. The Committee on Earth Observation Satellites (CEOS) is currently developing a set of ARD specifications for both optical and Synthetic Aperture Radar (SAR) satellite data under the so called CARD4L (CEOS Analysis Ready Data for Land) framework.

In a coordinated effort by the CEOS Land Surface Imaging Virtual Constellation (LSI-VC) and the CEOS WG on Cal-Val (WGCV) SAR Subgroup, a number of SAR-specific CARD4L specifications are under development, including Normalised Radar Backscatter (NRB).

The Japan Aerospace Exploration Agency (JAXA) is planning to implement CARD4L standards for a selection of SAR products, starting with Normalised Radar Backscatter (NRB), covering both the image data (measurements) and corresponding metadata. In cases where the latter may not be fully compliant with the CARD4L specifications, development of a dedicated metadata conversion software to be provided to users is foreseen.

Currently, the following products are considered for CARD4L:

* ALOS PALSAR/ALOS-2 PALSAR-2 global mosaics

- Global coverage (2007-2010; 2015-2018+)
- Derived from 10m/20m Fine Beam data
- 1x1 deg tile format
- 25 m pixel spacing

* ALOS-2 PALSAR-2 ScanSAR tile products

- Regional coverage (pan-tropical + selected global regions)
- 1x1 deg (non-mosaicked) tile format
- 50 m pixel spacing

* ALOS PALSAR (FBS, FBD, POL, ScanSAR)

- Full global archive (2006-2011)
- Scene-based
- FBS, FBD, POL, ScanSAR imaging modes
- Full spatial resolution

This presentation will provide an overview of JAXA's product development workflow, metadata conversion software and corresponding CARD4L self-assessment.

Keywords - Analysis Ready Data (ARD)