

ALOS-2 status and JAXA contributions to GFOI R&D Support strategy (SDCG Element 3)

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ALOS-2

Application	Disaster, Land, Agriculture, Natural Resources, Sea Ice & Maritime Safety
L-band SAR (PALSAR-2)	Stripmap: 3 to 10m res., 50 to 70 km swath ScanSAR: 100m res., 350km/490km swath Spotlight: 1 × 3m res., 25km swath
Orbit	Sun-synchronous orbit Altitude: 628km Local sun time : 12:00 +/- 15min Revisit: 14days Orbit control: \leq +/-500m
Life time	5 years (target: 7 years)
Launch	May 24, 2014 (JST) , H-IIA launch vehicle
Downlink	X-band: 800Mbps(16QAM) 400/200Mbps(QPSK) Ka-band: 278Mbps (Data Relay)
Experimental Instrument	Compact InfraRed Camera (CIRC) Space-based Automatic Identification System Experiment 2 (SPAISE2)

ALOS-2 was successfully launched on May 24, 2014.

Commissioning and Cal/Val phase completed November

ALOS-2 declared **operational on November 25, 2014.**

ALOS-2 Basic Observation Scenario implemented in parallel with Cal/Val phase from August 2014.

Basic Observation Scenarios – BOS - have been developed and implemented by JAXA for two decades:

- **JERS-1 SAR (1992-1998: Pan-tropical, Pan-boreal)**
- **ALOS PALSAR (2006-2011: Global)**
- **ALOS-2 PALSAR-2 (2014+ Global)**

JAXA historical archives of L-band SAR constitute long-term and consistent time-series data over the global forest cover from mid 1990's to present.

The *Basic Observation Scenario* for ALOS-2 comprises:

10m Dual-pol stripmap mode: At least 2 observations/year in over all global forest regions, with up to **6 obs/year** over all **tropical forests**

50m Dual-pol ScanSAR mode: **9 obs/year (every 42 days)** over all **tropical forests**

New acquisition requests for GFOI can not be accommodated, but it is anticipated that the BOS is **fully compliant with SDCG recommendations** for L-band SAR

(at least dual season, resolution <30m, dual-pol)

As of October 31, 2014, JAXA have made **PALSAR**
25 m global mosaic data openly available **free of charge**

Annual mosaics from 2007, 2008, 2009 and 2010, covering all
land areas except Greenland and Antarctica.

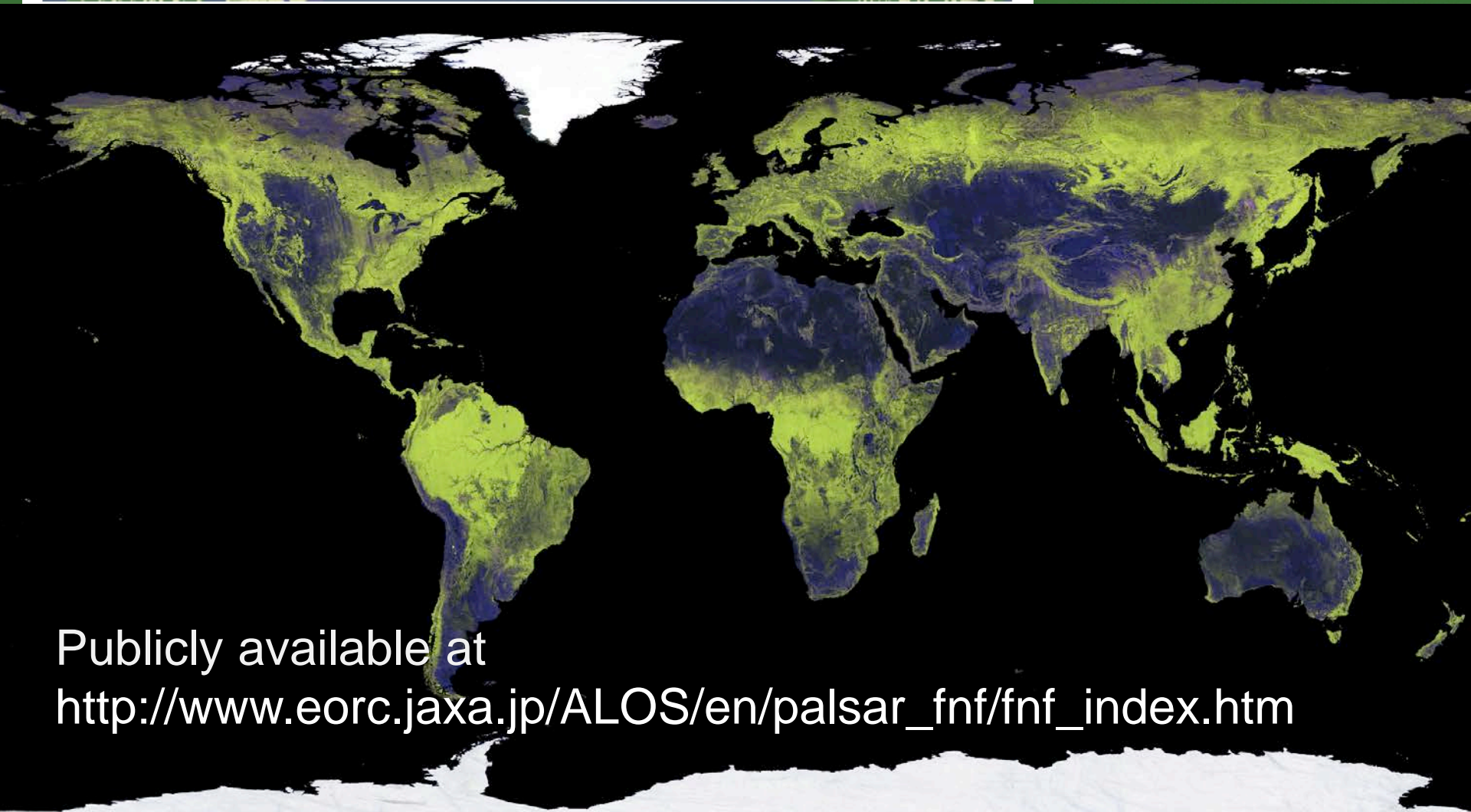
Generation continuing from 2014/2015 with **ALOS-2**

Available in 1° x1° tiles.

The data can be downloaded from
http://www.eorc.jaxa.jp/ALOS/en/palsar_fnf/fnf_index.htm

New Global Forest/Non-Forest Maps

from ALOS PALSAR data (2007-2010)



Publicly available at
http://www.eorc.jaxa.jp/ALOS/en/palsar_fnf/fnf_index.htm

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Within the framework of the GEO Forest Carbon Tracking (GEO-FCT) Task 2009-2013 JAXA provided ALOS standard product data free of charge to GEO-FCT research groups (<50 scenes/year/group) in the 11 National Demonstrator countries.

In support of GFOI R&D activities – as outlined in the SDCG Element-3 strategy plan – JAXA anticipates that the ALOS-2 data also can be provided but under internal coordination.

The number of ALOS and ALOS-2 scenes that can be provided to each research group will be assessed on a case-by-case basis.

JAXA anticipates that some near-future research announcements may be relevant to the GFOI R&D plan:

- The next **RA for ALOS-2 (RA6)** is planned to be issued mid-2015 for application research for PALSAR-2.
- Note: JAXA support is limited to data only, and does not comprise direct funding for research.

ALOS-2 and ALOS-2 data policies are commercial.
For data requests outside of GFOI R&D support,
contact the commercial distributors (RESTEC and
PASCO for ALOS-2: RESTEC for ALOS-1).