PALSAR Data From the ASF SAR Data Center

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Background

- PALSAR has four modes of operation, FBS, FBD, PLR, and WB1.
- In JAXA terminology, an observation is full-resolution data acquired via relay satellite or direct downlink into JAXA ground stations, an acquisition is any data acquired via direct transmission into a non-JAXA ground station.
- Full-resolution FBS, FBD and PLR PALSAR observations can only be acquired via a relay satellite or at JAXA ground stations due data rate limitations.
- WB1 can be acquired via direct transmission to ground stations affiliated with the nodes and JAXA as well as via a relay satellite. A lower resolution version of FBS can also be acquired via direct transmission.

Background

- JAXA distributes PALSAR data through designated nodes for geographic regions.
- The Americas ALOS Data Node (AADN) is the node for researchers who live in North, South and Central America.
- JAXA automatically sends data observations from the node's region to the node, these are known as in-zone observations.
- The node can request data from anywhere in the world for researchers who are located in their zone, these are called out-of-zone transcription requests.

Background

- The U.S. Government Research Consortium purchases PALSAR scenes from the AADN and makes them available to approved researchers through the SAR Data Center(SDC), both located at the Alaska Satellite Facility.
  - The consortium is composed of NASA, NSF and USGS.
  - The datapool is only for the consortium.
  - The datapool is not considered redistribution of the data.
  - Redistribution is NOT allowed. Everyone using data from the datapool must have their own user id and password.
- Proposals for access to the data are placed through the U-PASS system provided by the data center.
  - Proposals are submitted to one of the three agencies involved in the consortium for approval.
  - Approved proposals are granted a specific number of scenes for transfer from the AADN to the SDC, these scenes are purchased for the project by the consortium.

In-Zone Data

- In-Zone data arrives at the AADN regularly, approximately 2 weeks after the observation was acquired.
- NASA and JAXA are currently testing the use of TDRSS for PALSAR data acquisitions and anticipate operational use of TDRSS by April 2010.
  - The use of TDRSS is expected to increase the total amount of data collected over North, South and Central America as well as providing the possibility of full-resolution near-real time data
  - All PALSAR data acquired through the TDRSS link will be available through the SDC datapool within two days of acquisition.
  - Near-real time processing will require separate proposals that specifically request it.

Out-of-Zone Data

- Out-of-zone data refers to all the PALSAR observations of regions other than North, South and Central America.
- The AADN recently completed development that provides access to the JAXA catalog of observations through the AADN URSA interface for the period from May 2008 to the present.
- Out-of-zone scene requests can be placed with ASF by sending the ASF User Support office lists of scenes identified by searches in either the AADN URSA or the JAXA AUIG catalog.
  - The scene id is sufficient information for us to place the transcription request.

Out-of-Zone Data

- JAXA has imposed a moratorium on out-of-zone transcriptions until they complete an archive migration from DTF-2 to LTO-4 tapes.
- JAXA does not anticipate the migration to be complete prior to March 2010.
- Out-of-zone requests are being compiled and once JAXA lifts the restriction, we will begin placing requests.
- Node to node transfer of data is under consideration by JAXA and the nodes as a possible method to provide customers with out-of-zone data and ease the demands on JAXA for transcriptions.

Subscriptions

- A subscription represents a set of tracks and frames that a researcher has requested be automatically transferred to the SDC archive and processed to a specified level for the datapool.
  - A subscription must be associated with an approved proposal.
  - Once the scene allotment in the proposal is exhausted, a new proposal must be submitted.
- There are 9 regions that currently have subscriptions: Hawaii, Sumatra and Java, the Everglades, Iceland, the Galapagos, the Western U.S., New Orleans, Latin America, and Tibet.

Questions?

- ASF Staff can provide you assistance with every part of the process for obtaining PALSAR through the USGRC and the ASF SAR Data Center.
- Please come by and visit us in the One NASA booth and the UAF booth in the AGU Exhibit Hall for individual discussions and tutorials.