ALOS / PALSAR data processing for the entire observation period

● **Responsible Representative**

Sobue Shin-ichi,Associate Chief office of Earth Observation Missions,Space Technology Directorate I

● **Contact Information**

Kudoh fumio(kudoh.fumio@jaxa.jp)

● **Members**

Takashi Goto, Hidetoshi Hayasaka, Fumio Kudoh, Shunsuke Murakami, Shouko Morisaki, Taroh Mutoh, Hidekazu Mikai, Toshimi Nakata, Katsuyuki Otsuka, Kazuhiro Oka, Nozomi Sakuma, Hiroyuki Yokokawa, Shoma Yamada, Nobuhiro Yamauchi, Tadahiro Yamamoto

● **Abstract**

We will process data from Synthetic Aperture Radar (PALSAR) and AVNIR-2 acquired by the Advanced Land Observation Satellite "DAICHI" to generate and provide image products (Analysis Ready Data) that are highly user-friendly for users.

● **Reasons and benefits of using JAXA Supercomputer System**

JAXA is working on data disclosure to expand the use of Earth observation satellite data.

As part of this effort, the previous system, JSS2, processes data for the entire ALOS/PALSAR observation period and archives a large amount of data in J-SPACE.

In addition, regarding AVNIR-2, 1B1/1B2 processing was carried out.

A JSS system was used to quickly provide this data to external users.

● **Achievements of the Year**

This year, we processed 1B1 and 1B2 of AVNIR-2.

The data is EORC's ALOS-related O&F

https://www.eorc.jaxa.jp/ALOS/jp/dataset/alos_open_and_free_j.htm

As shown, it is open to the public free of charge.

The number of scenes processed is

1B1:1,461,389

1B2:1,492,686

The number of playback IDs to be processed after excluding low quality L0 is 43,847

● **Publications**

N/A

● **Usage of JSS**

● **Computational Information**

Process Parallelization Methods	N/A
Thread Parallelization Methods	N/A
Number of Processes	1
Elapsed Time per Case	16 Minute(s)

● **JSS3 Resources Used**

Fraction of Usage in Total Resources[*1](%): 0.01

Details

Computational Resources		
System Name	CPU Resources Used (core x hours)	Fraction of Usage[*2](%)
TOKI-SORA	0.00	0.00
TOKI-ST	105,047.76	0.11
TOKI-GP	0.00	0.00
TOKI-XM	0.00	0.00
TOKI-LM	0.00	0.00
TOKI-TST	0.00	0.00
TOKI-TGP	0.00	0.00
TOKI-TLM	0.00	0.00

File System Resources		
File System Name	Storage Assigned (GiB)	Fraction of Usage[2] (%)
/home	167.50	0.14
/data and /data2	105,779.83	0.65
/ssd	0.00	0.00

Archiver Resources		
Archiver Name	Storage Used (TiB)	Fraction of Usage[2] (%)
J-SPACE	2,467.25	8.89

[1]: Fraction of Usage in Total Resources: Weighted average of three resource types (Computing, File System, and Archiver).

[2]: Fraction of Usage：Percentage of usage relative to each resource used in one year.

● **ISV Software Licenses Used**

ISV Software Licenses Resources		
	ISV Software Licenses Used (Hours)	Fraction of Usage[2] (%)
ISV Software Licenses (Total)	0.00	0.00

[2]: Fraction of Usage：Percentage of usage relative to each resource used in one year.