Symposium for ALOS Data Application Users

# Tackling and the outline of **ALOS Data Application Promotion**



March 27, 2001

Akihiro Hirashima Data Distribution Dept. Remote Sensing Technology Center of Japan



#### Index

**RESTEC Overview** 

Major activities

Activity for data application promotion

Activity for data application promotion of ALOS mission

Challenge the world wide commercial data distribution of ALOS mission

Future plan

RESTEC business future plan



#### **RESTEC Overview**

- Established in July 1975.
- Special public-service promotion foundation to conduct basic and general research and development related to satellite remote sensing.



Copyright © 2001 Remote Sensing Technology Center of Japan, All Right Reserved.

#### **RESTEC Overview**

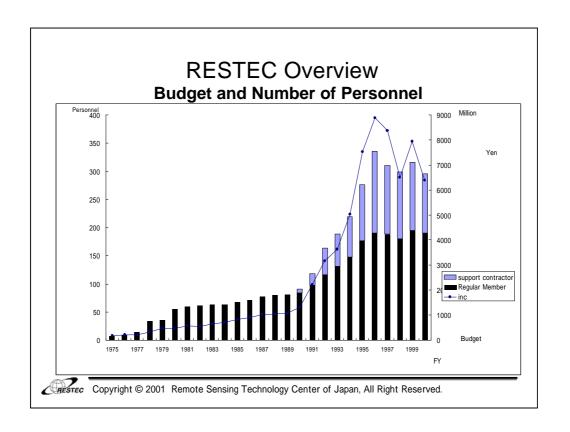
- Budget; 8 Billion Yen (JFY 1999) (70 Million US\$)
- Number of personnel;

291 (total: as of March 2001)

190 :Regular member

101 :Support contractor





## **Major Activities**

- Research and Development of Technology and Equipment
- Remote Sensing Data Reception, Analysis and **Application**
- Remote Sensing Data Distribution
- **Training and Education**
- **Promotion** of Remote Sensing Data Utilization
- **International Cooperation**

## **Activities for Data Application Promotion** NASDA Support & Cooperation

- System Development (EOC ground system, EOIS et. al)
- RADARSAT-1, IRS-1C/1D data processing facility at EOC (Cooperation with NASDA)
- Data analysis software development
- Data application promotion activity
- Training & education for the remote sensing technology activity (Cooperation with NASDA)



Copyright © 2001 Remote Sensing Technology Center of Japan, All Right Reserved.

## Activity for Data Application Promotion of **ALOS Mission**

NASDA Support Activity

Independent Activity



#### NASDA Support Activity

- Earth Observation Center (EOC) ground system development
- Data processing software development
- ALOS mission support



Copyright © 2001 Remote Sensing Technology Center of Japan, All Right Reserved.

## Activity for Data Application Promotion of **ALOS Mission**

#### NASDA Support Activity

- Earth Observation Center (EOC) ground system development
  - PALSAR data processing core software development
  - Support of the satellite/ground system development
  - Ground system (EOC) software configuration management
  - ALOS mission Information support system development for end users



#### NASDA Support Activity

- · Data processing software development
  - Support for the preparation for simulation data of PALSAR
  - Processing the SAR data in the rainy season by airplane
  - Algorithm development for ...
    - + Ortho-/DEM production for optical sensors
    - + High level processing for PALSAR and optical sensors
  - Algorithm development and examination for ...
    - + data calibration and validation
    - + test product



Copyright © 2001 Remote Sensing Technology Center of Japan, All Right Reserved.

## Activity for Data Application Promotion of **ALOS Mission**

#### NASDA Support Activity

- Support for ...
- the mission operation simulation program
- the maintenance and update the Information system on Web server
- the examination of ALOS application promotion center
- the management of contract for the joint research
- the demand activity survey of ALOS data



#### Independent Activity

- 1. Research development of application technology
- 2. Proposal regarding the data node operation to NASDA
- 3. Proposal of a world wide commercial data distribution network to NASDA



Copyright © 2001 Remote Sensing Technology Center of Japan, All Right Reserved.

#### Activity for Data Application Promotion of **ALOS Mission**

#### Independent Activity

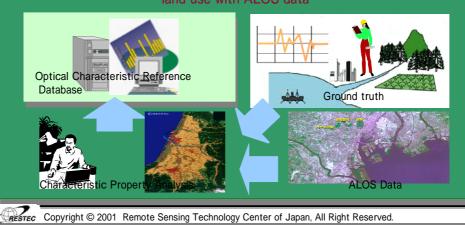
- 1. Research Development of Application Technology
  - Development of the spectrum characteristic reference database for periodic variation analysis and classification of land use with ALOS data
  - SAR interferometry analysis of ALOS/PALSAR data for crustal deformation detection and land subsidence monitoring
  - Development of the methodology for the assessment of the topographic/cartographic changing with ALOS data



#### Independent Activity

1. Research Development of Application Technology

Development of the spectrum characteristic reference database for periodic variation analysis and classification of land use with ALOS data



## Activity for Data Application Promotion of **ALOS Mission**

## Independent Activity

1. Research Development of Application Technology

SAR interferometry analysis of ALOS/PALSAR data for crustal deformation detection and land subsidence monitoring

> RA with NASDA and RESTEC (2000 - 2004) CI with Hiroshima Institute of Technology and RESTEC

Analyzing and extracting the interferometry conditions from the accomplishment of our study of the crustal deformation detection and land subsidence monitoring



#### Independent Activity

1. Research Development of Application Technology

Development of the methodology for the assessment of topographic/cartographic changing with ALOS data

This activity plan to intend some contributions for the development of application technology related to NASDA's ALOS Program.

This methodology will apply for the assessment/estimation of ...

- Land development planning
- Civil engineering
- Influence of the Disaster



Copyright © 2001 Remote Sensing Technology Center of Japan, All Right Reserved.

#### Activity for Data Application Promotion of **ALOS Mission**

## Independent Activity

2. Proposal of the data node operation to NASDA

ALOS Data Reception/Receiving Operational Program

ALOS Data Archiving policy and program

Management of the Node organization in Headquarters

Management of the Asian node and its data distribution and pricing policy

Basic concept for the agreement with the data distribution and pricing policy

Under preparation to proposal for above



#### Independent Activity

3. Proposal of the world wide commercial data distribution network

Our Proposal is already taken to the plan of NASDA

We have already started the opinion exchange with several organizations about the framework of the World wide Data Distribution Network for commercial use

Strategy of Asia for promoting and spreading the Remote Sensing Technology and Application Market

