

ADEOS-II Science Project Status

7 November, 2000 ADEOS-II GLI Workshop 2000 Kanazawa Yasuyuki ITO Earth Observation Research Center



Science Project Scope of Work

ADEOS-II Science Project

- Higher-order Algorithm Development
- Calibration & Validation
- Processing System Development
- Science Team



Science Project Organization





Science Project Organization

Cal Scientist : Prof. Yasuhiro Senga, Tokai Univ. - Post PFT Special Test Plan discussed at Cal W/G. Val Scientist : Prof. Tamio Takamura, Chiba Univ., CeRES EORC Cal Team Leader : Dr. I. Asanuma



ADEOS-II Geophysical Products

AMSR < same for AQUA/AMSR-E >

- Water Vapor
- Cloud Water
- Precipitation
- Sea Surface Wind Speed
- Sea Surface Temperature
- Sea Ice
- Snow Depth
- Soil Moisture (Research Product)

AMSR Level 3 Standard Product - Water Vapor

ADEOS-II AMSR

1998/06/24 Descending Water Vapor (Takeuchi)



AMSR Level 3 Standard Product - Cloud Liquid Water





NASDA/EORC (2000 Sep 14 14:02:DD JST)

AMSR Level 3 Standard Product - Sea Surface Temperature

ADEOS—II AMSR 1998/06/24 Descending Sea Surface Temperature (Shibata)





ADEOS-II Geophysical Products

- GLI <overview>
 - Aerosol parameters
 - Cloud parameters
 - Chlorophyll-a
 - Colored Dissolved Organic Matter
 - Suspended Solid weight
 - Sea Surface Temperature
 - Vegetation Index
 - Snow Grain Size & Impurities



ADEOS-II Geophysical Products

SeaWinds Sea Surface Wind Vector POLDER Cloud and Aerosols parameters, etc. ILAS-II – Ozone, HNO₃, etc. (ARGOS-DCS)

Science Projects at EORC

- JERS-1 : data 92-98
- ADEOS : data 96-97
- TRMM : data 98-
- AQUA/AMSR-E : Launch Jul. 2001 ?
- ADEOS-II : Launch Nov. 2001 ?
- ALOS : Launch 2002
- GCOM : data 2002 2017 (TBD)



Algorithm Development

- Standard algorithms from PI have been received, tested and integrated at EORC environment.
- Ver.1.0 algorithm/software, to be used for the initial products for public from EOC +12 months after launch, will be delivered from EORC to EOC +6 months.

7-10 November, 2000



Calibration & Validation

- EORC is responsible for (Cal)/Val.
- Basic Cal/Val plan completed.
 (Pl's web ; having network security problem)
- Cal/Val implementation plan:
 JFY2000 documentation almost completed.
 JFY2001 to be defined more in detail soon.
- Needs cooperation worldwide.



GLI Algorithm Development Tools





MODIS data utilization

Plans to use MODIS data :

- As simulated GLI data as a part of preflight algorithm validation activities.
- To receive DBS and create LAC for Asian ocean studies.
- <u>MODIS => GLI Format Change Software</u> developed and being of importance.



GLI 250m resolution data

- Data acquisition analysis in progress.
- Data availability heavily depends on the Data Relay Satellite utilization.
 - ESA's "ARTEMIS" and NASDA's DRTS launch schedule.
 - ARTEMIS Link budget at Ka-band to be confirmed in the test operation.
- Thermal design margin for X-band Tx to be confirmed in the initial check-out.



GLI PFM Dynamic Range Issue

- Inappropriate specification at some of the ocean channels found in PFT data analysis.
- Hardware and Software efforts being made.
- Conclusion to make software efforts made in September.
- English translated report issued.