



# ADEOS-II

## Products and Data Management

13-14 December, 2000

Workshop on ADEOS-II Data Utilization in Asia and Pacific Region  
Bangkok, Thailand

Yasuyuki ITO  
Earth Observation Research Center



**AMSAR in AM Orbit**  
**ADEOS-II**  
**Launch : February 2002**



**AMSAR-E in PM Orbit**  
**EOS Aqua**  
**Launch : July 2001**

# ADEOS-II Geophysical Products

AMSR < same for AQUA/AMSR-E >

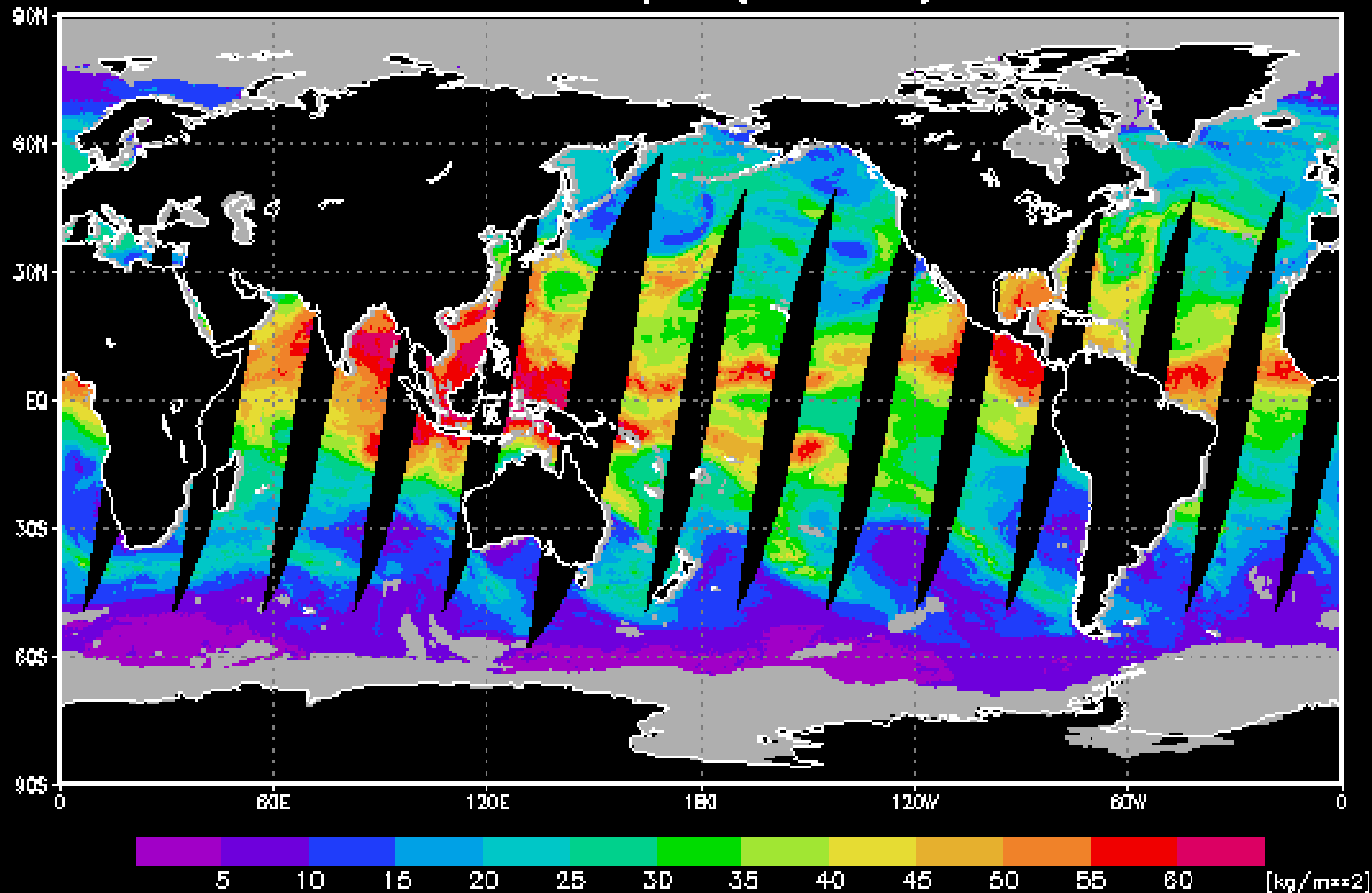
- Water Vapor
- Cloud Water
- Precipitation
- Sea Surface Wind Speed
- Sea Surface Temperature
- Sea Ice
- Snow Depth
- Soil Moisture (Research Product)

# AMSR Level 3 Standard Product - Water Vapor

ADEOS-II AMSR

1998/06/24 Descending

Water Vapor (Takeuchi)

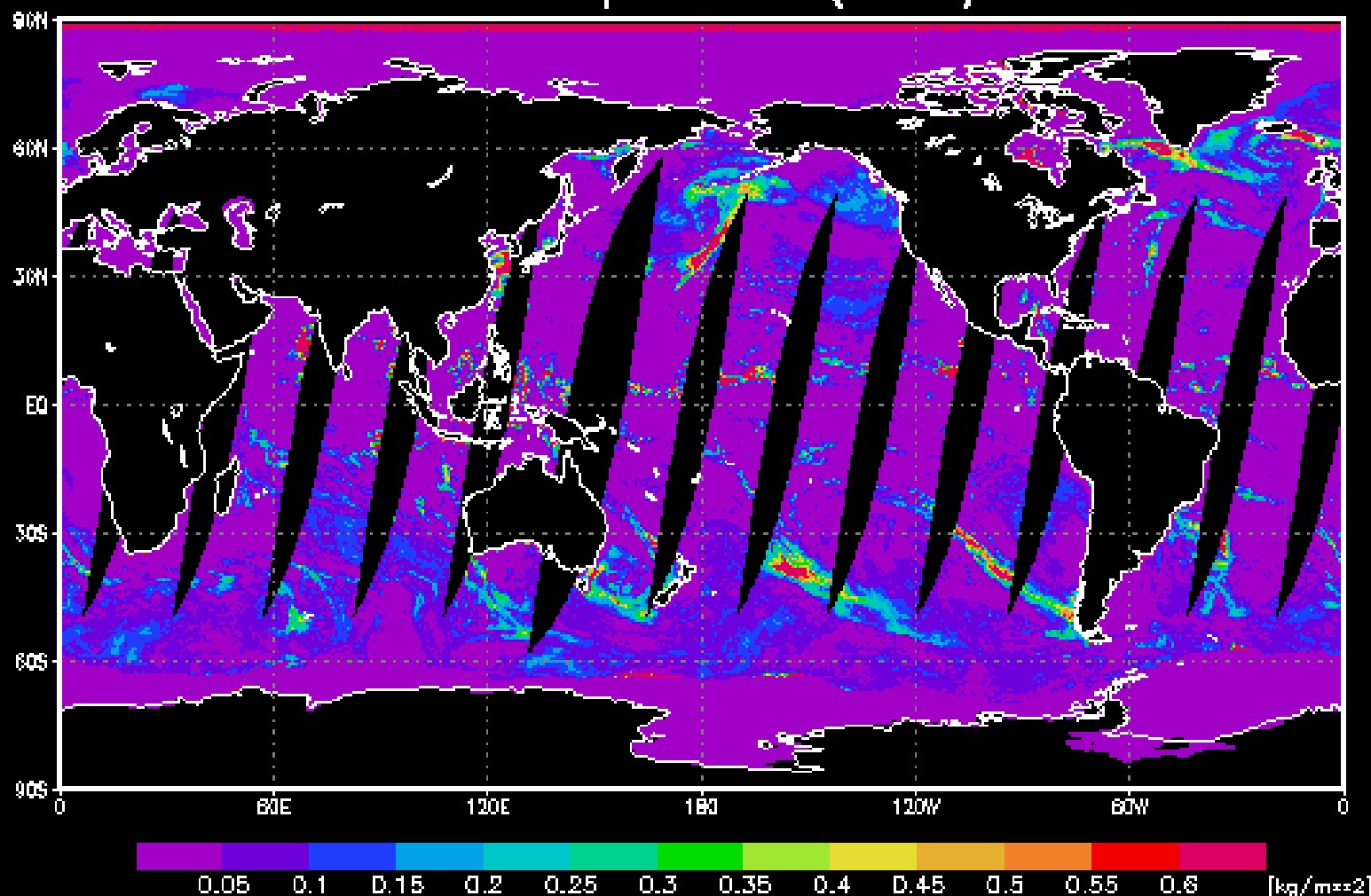


# AMSR Level 3 Standard Product - Cloud Liquid Water

ADEOS-II AMSR

1998/06/24 Descending

Cloud Liquid Water (Wentz)

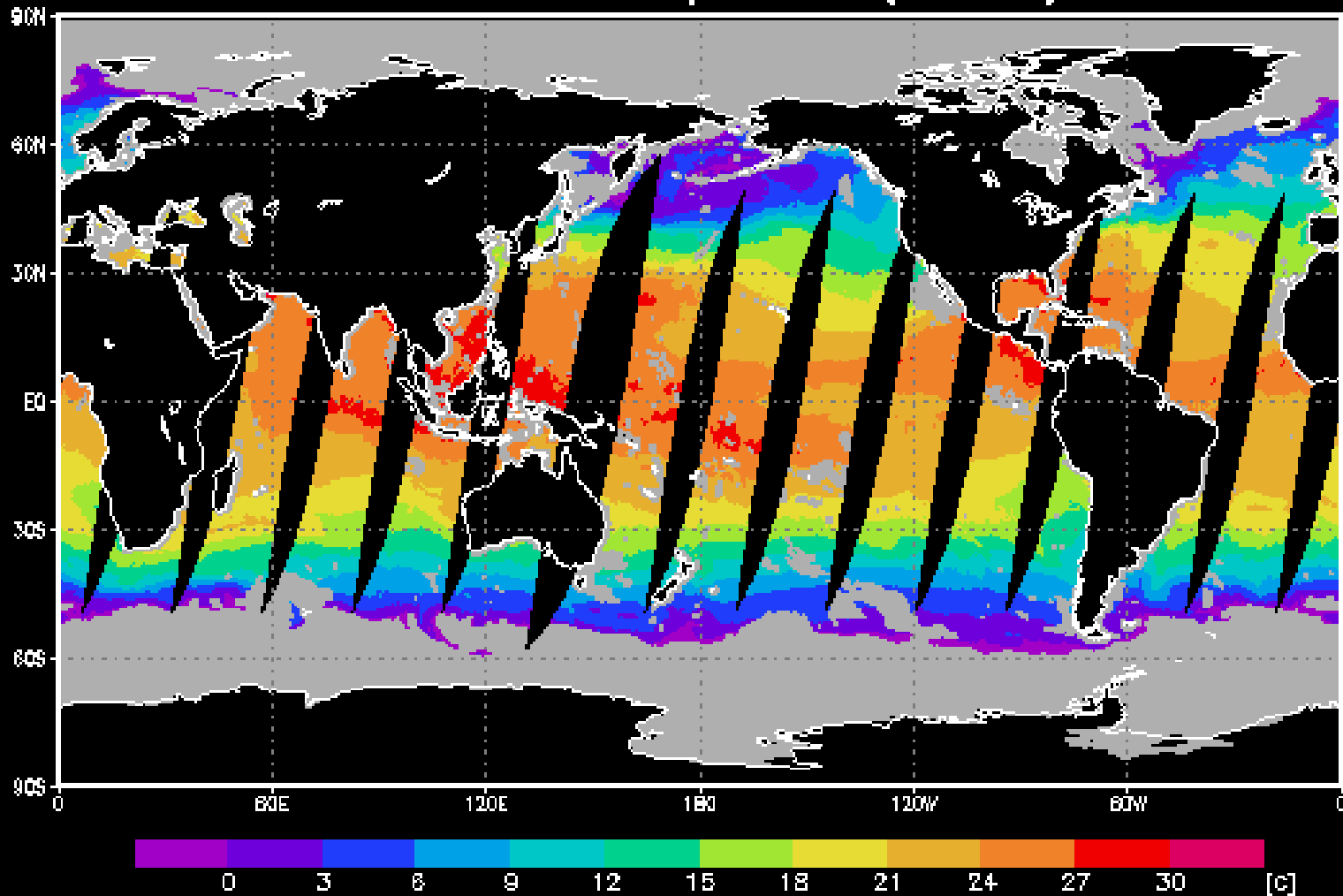


# AMSR Level 3 Standard Product - Sea Surface Temperature

ADEOS-II AMSR

1998/06/24 Descending

Sea Surface Temperature (Shibata)

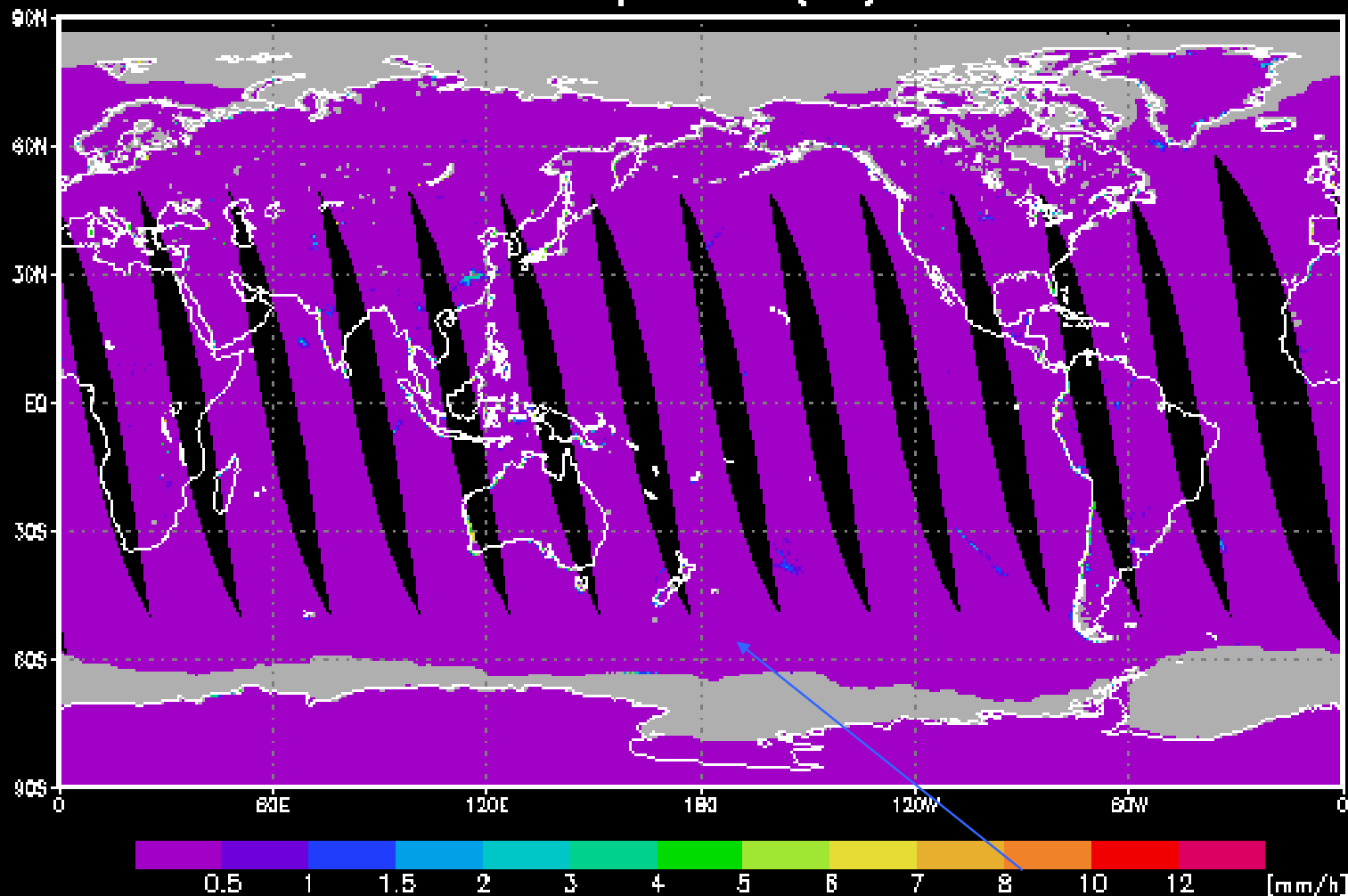


# AMSR Level 3 Standard Product - Precipitation

ADEOS-II AMSR

1998/06/24 Ascending

Precipitation (Liu)



1  
NASDA/ECRC (2000 10 24 10:44:41 JST)

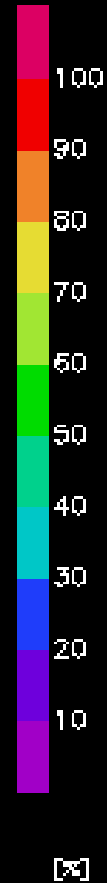
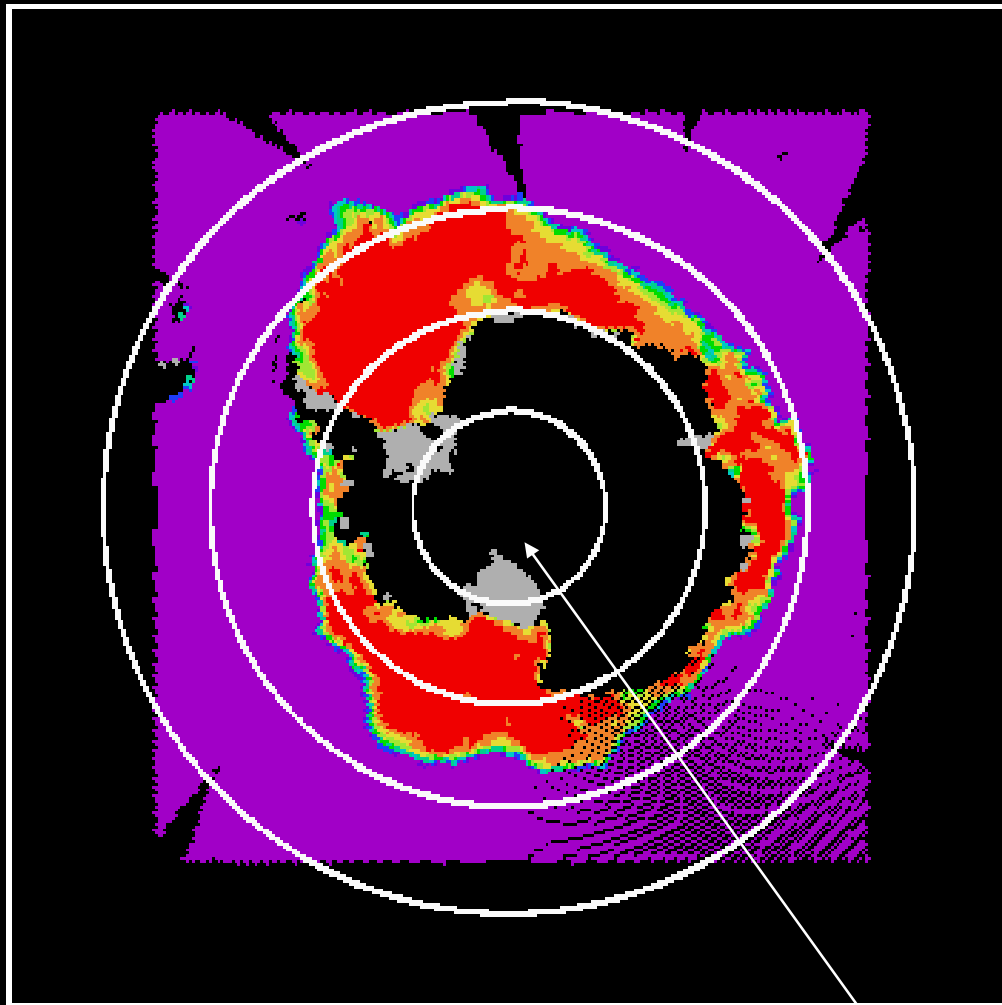
Gray area shows abnormal value.

# AMSR Level 3 Standard Product - Sea Ice Concentration

ADEOS-II AMSR

1998/06/24 Ascending

Sea Ice Concentration (Comiso)



Gray area shows abnormal value.

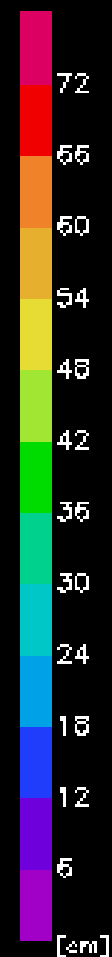
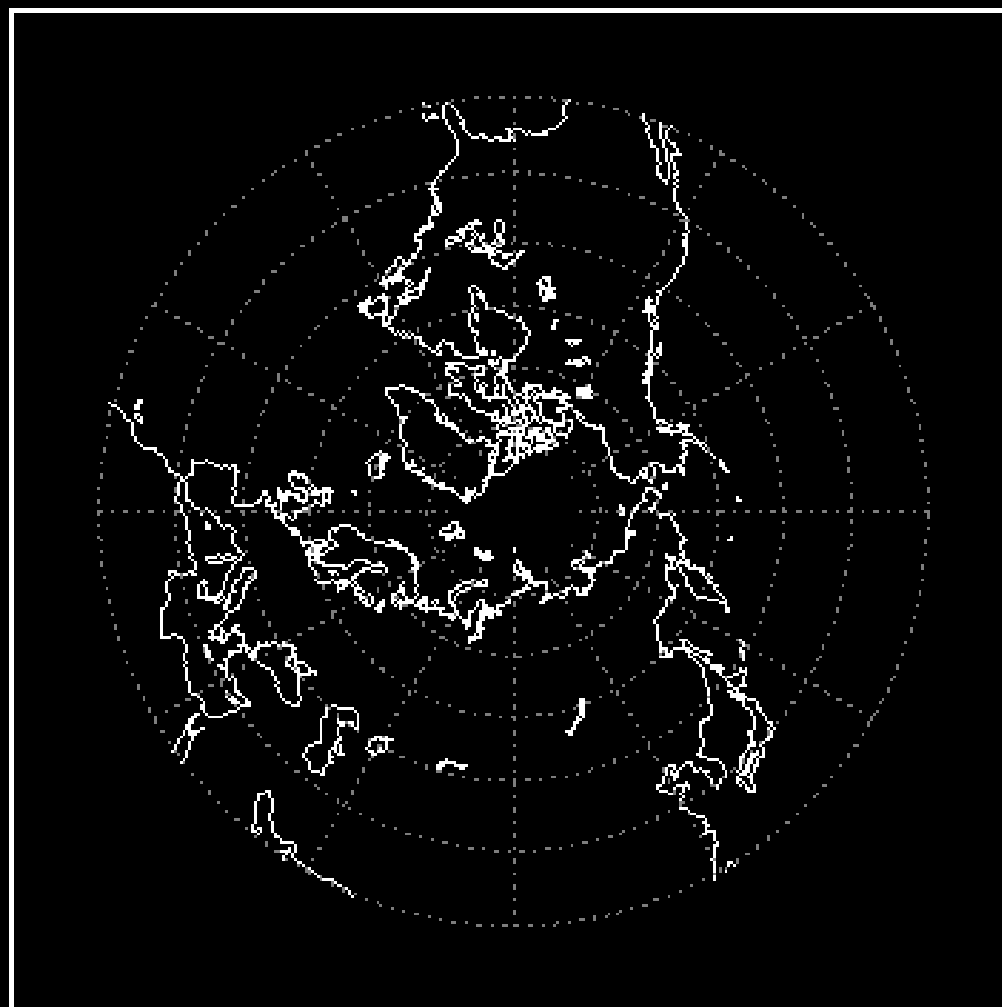


# AMSR Level 3 Standard Product - Snow Depth

ADEOS-II AMSR

1998/06/24 Descending

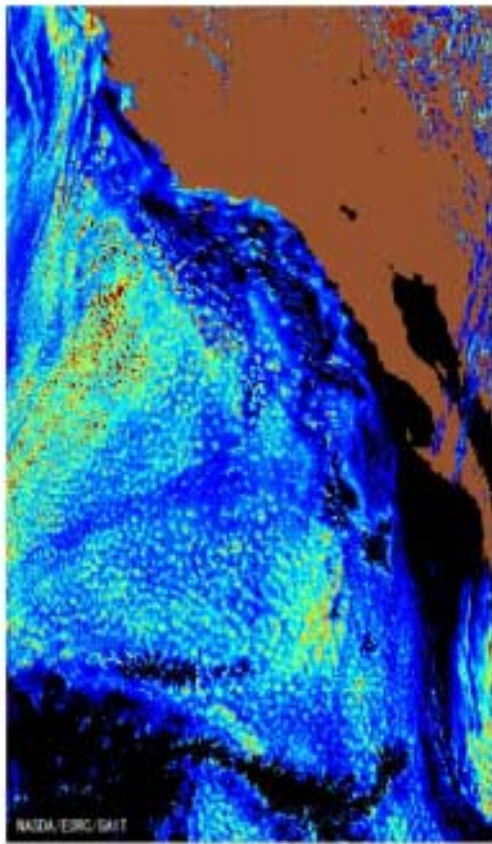
## Snow Depth (Koike)



# ADEOS-II Geophysical Products

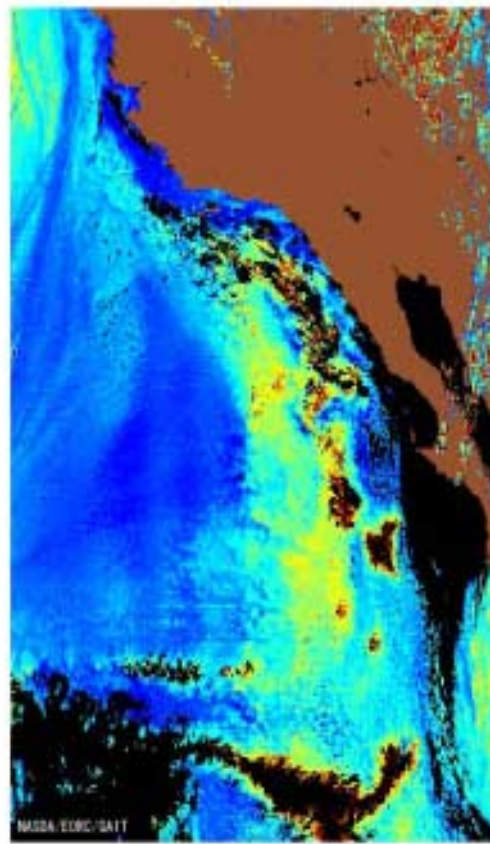
## GLI <overview>

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



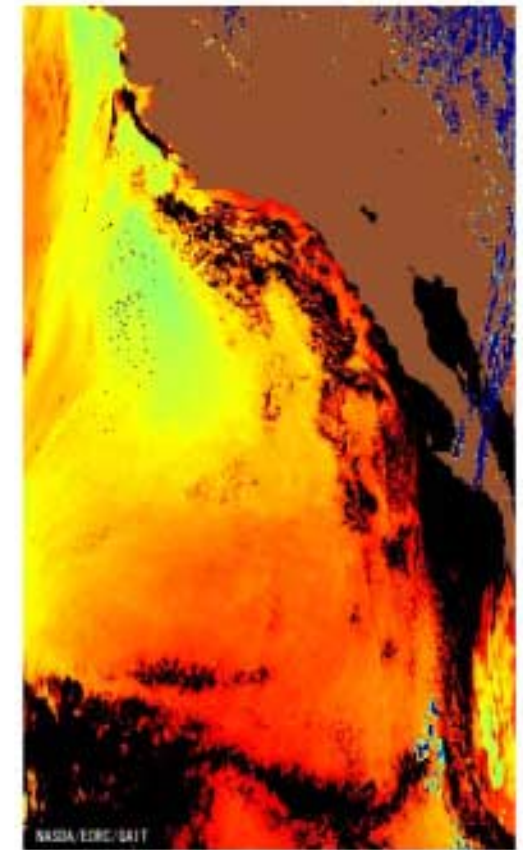
Cloud Optical Thickness

Optical Thickness



Cloud Effective Radius

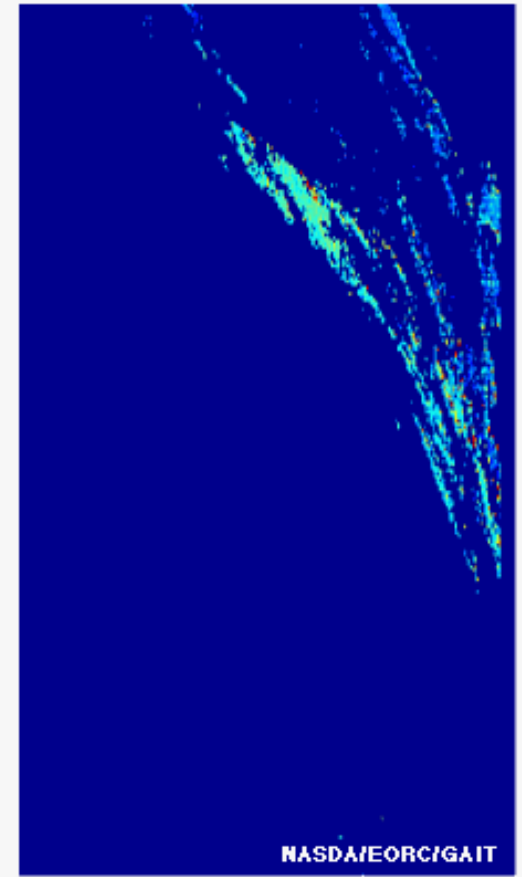
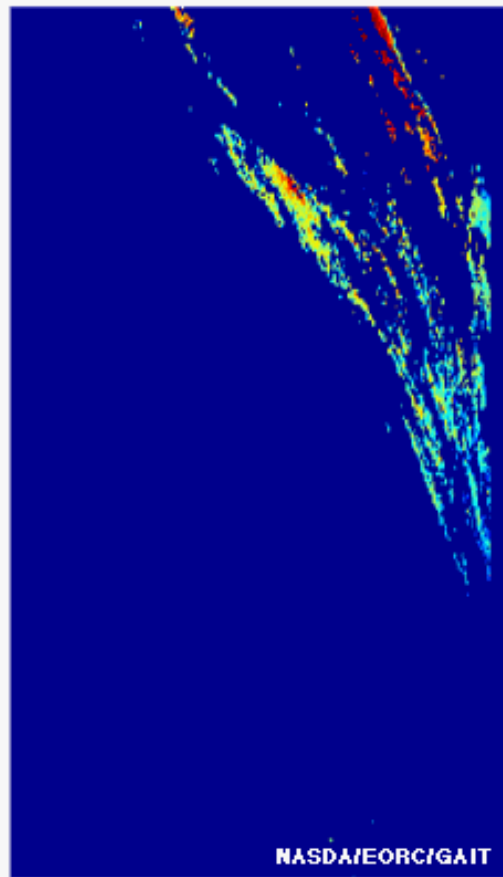
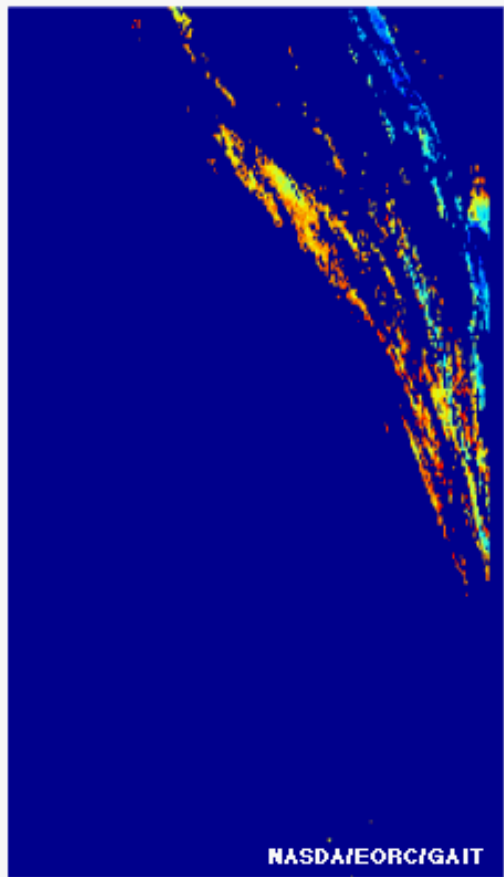
Effective Radius ( $\mu\text{m}$ )



Cloud Top Temperature

Cloud Top Temperature (K)

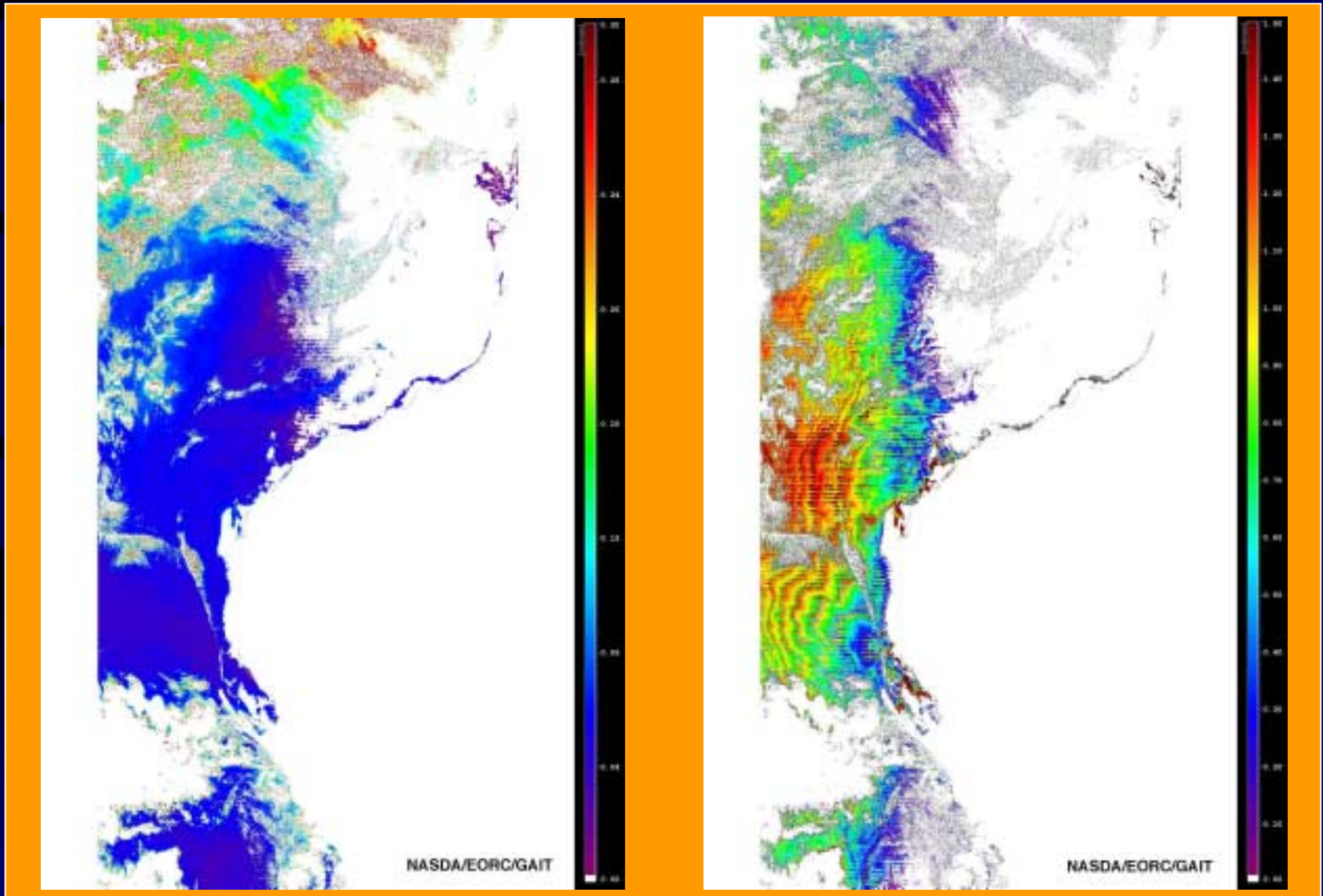
# *Cirrus cloud (Regional)*



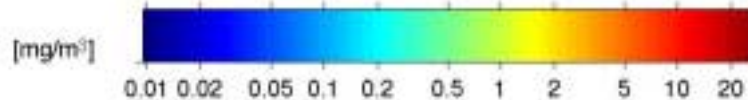
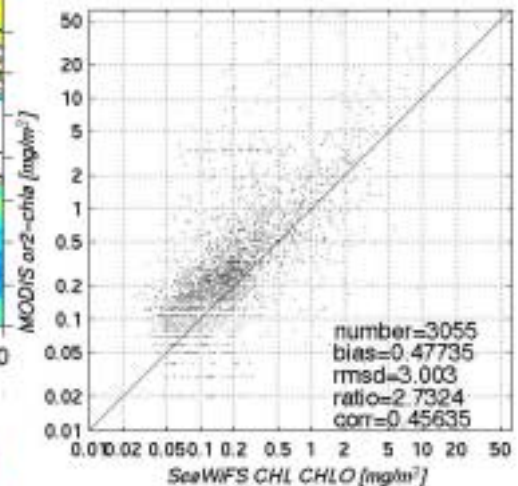
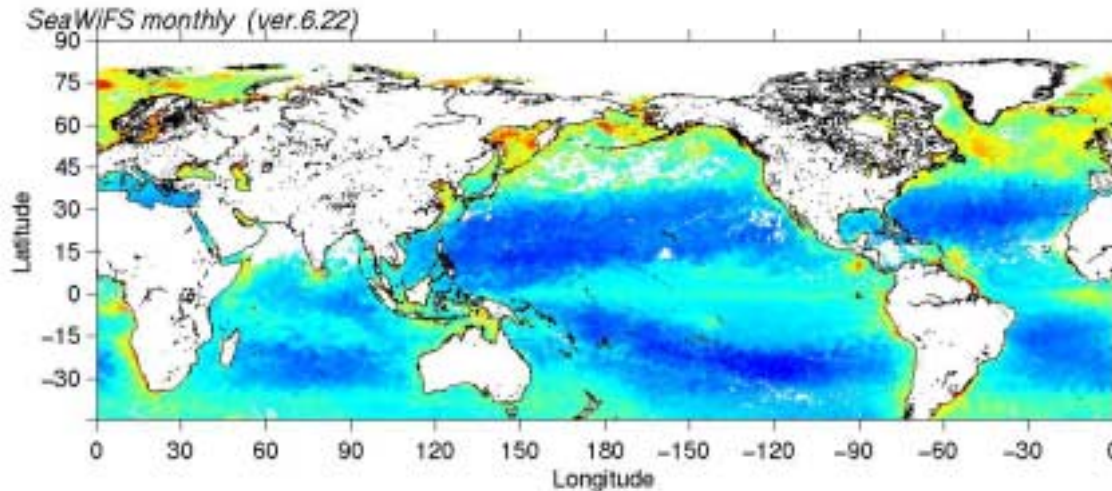
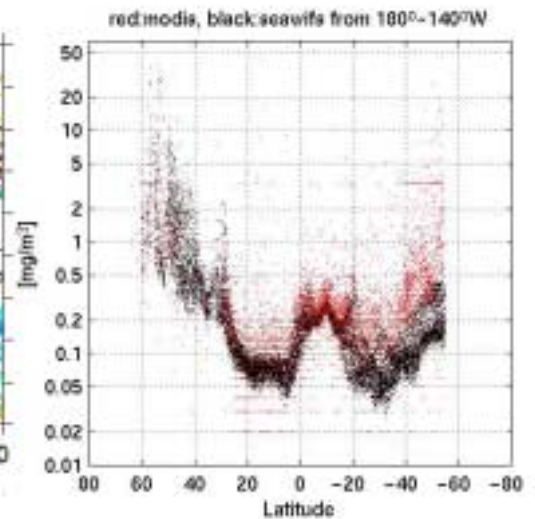
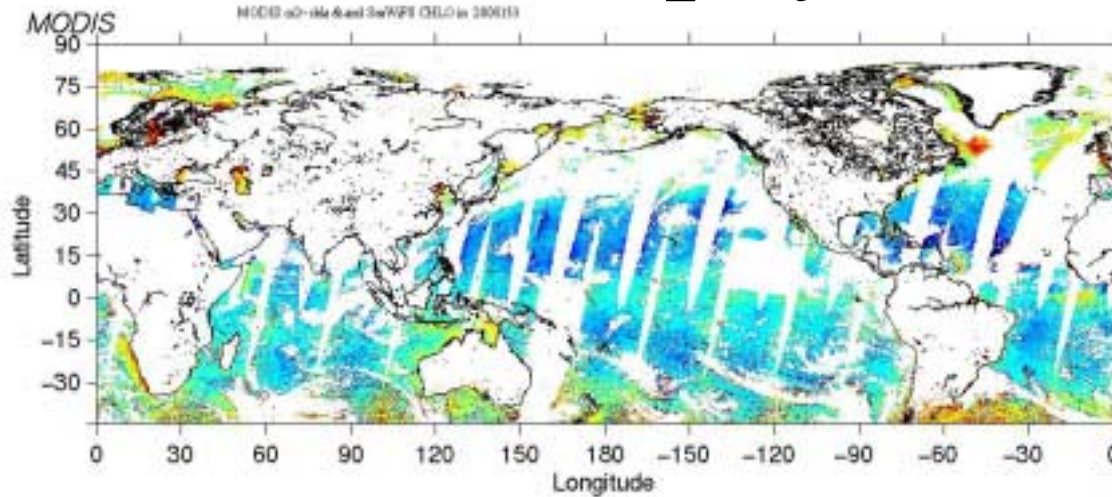
# *Aerosol (Regional)*

Optical Thickness

Angstrom Exponent

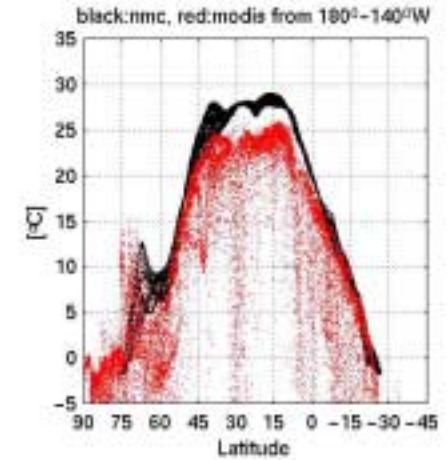
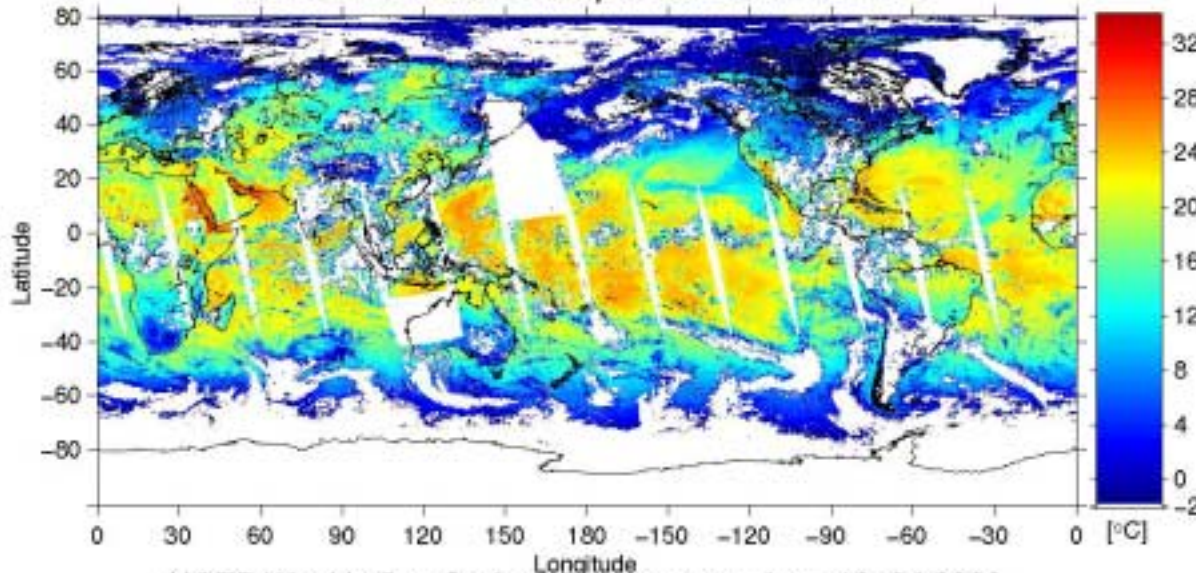


# Chlorophyll-a (Global)

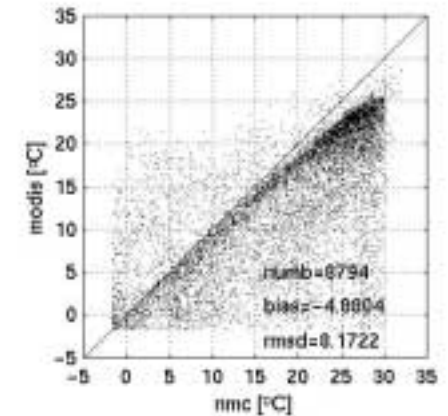
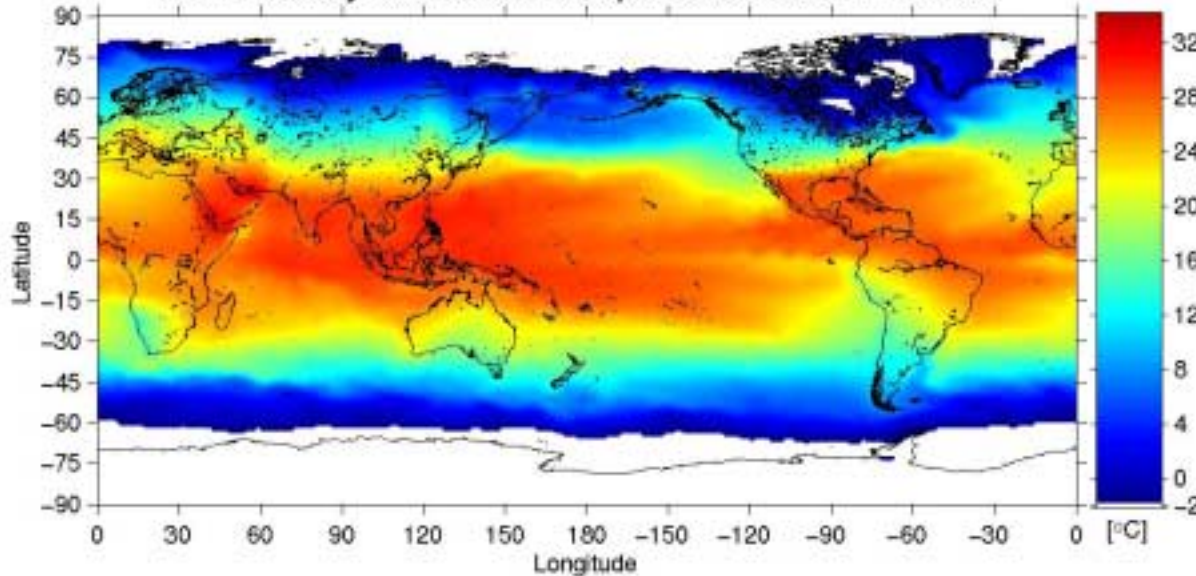


# Sea surface temperature (Global)

MODIS Sea Surface Temperature June 18 2000

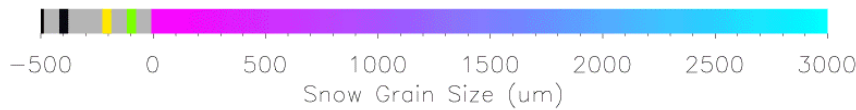
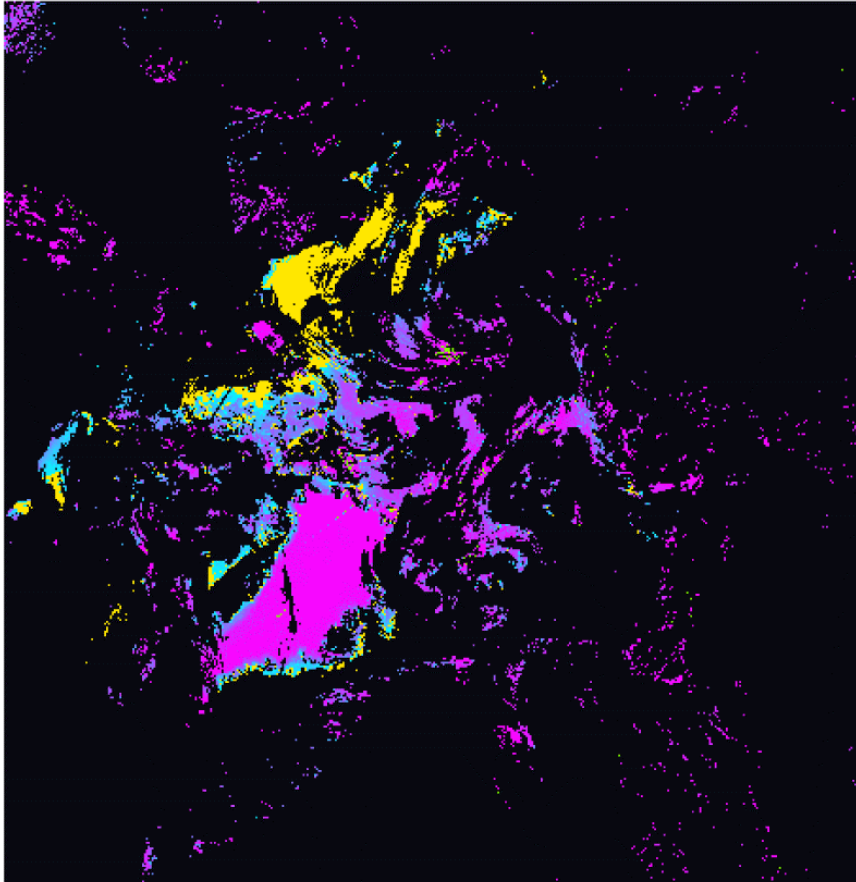


NCEP Weekly Sea Surface Temperature June 18~24 2000

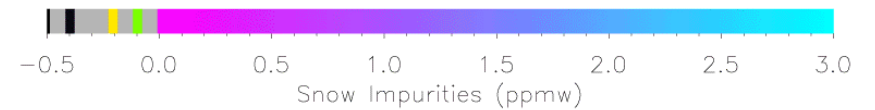
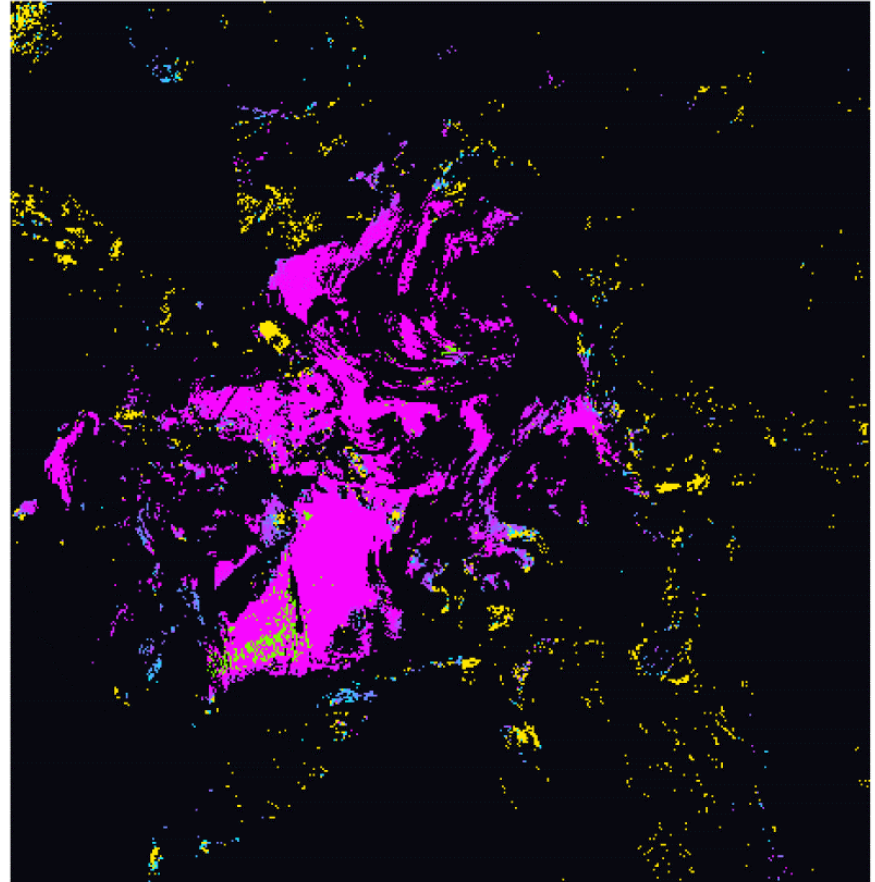


/Murakami&Park

# Snow grain size & impurity



Green(-100): Out of Range (<0.0 um)  
Yellow(-200): Out of Range (>3000.0 um)  
Dark Grey(-400): Non-Snow covered area



Green(-100): Out of Range (<0.0 ppmw)  
Yellow(-200): Out of Range (>3.0 ppmw)  
Dark Grey(-400): Non-Snow covered area

MODIS image: 2000/170 snow grain size & impurities (test version)

NASDA/EORC/GAIT

/Hori



# MODIS Data Utilization

Plans to use MODIS data :

- As simulated GLI data as a part of pre-flight algorithm validation activities.
  - < by ADEOS-II science project >
- To receive DBS and create LAC for Asian ocean studies. < by Ocean science project >
- MODIS to GLI reformat Software Tool developed.

# ADEOS-II Geophysical Products

## SeaWinds

- Sea Surface Wind Vector

## POLDER

- Cloud and Aerosols parameters, etc.

## ILAS-II

- Ozone,  $\text{HNO}_3$ , etc.

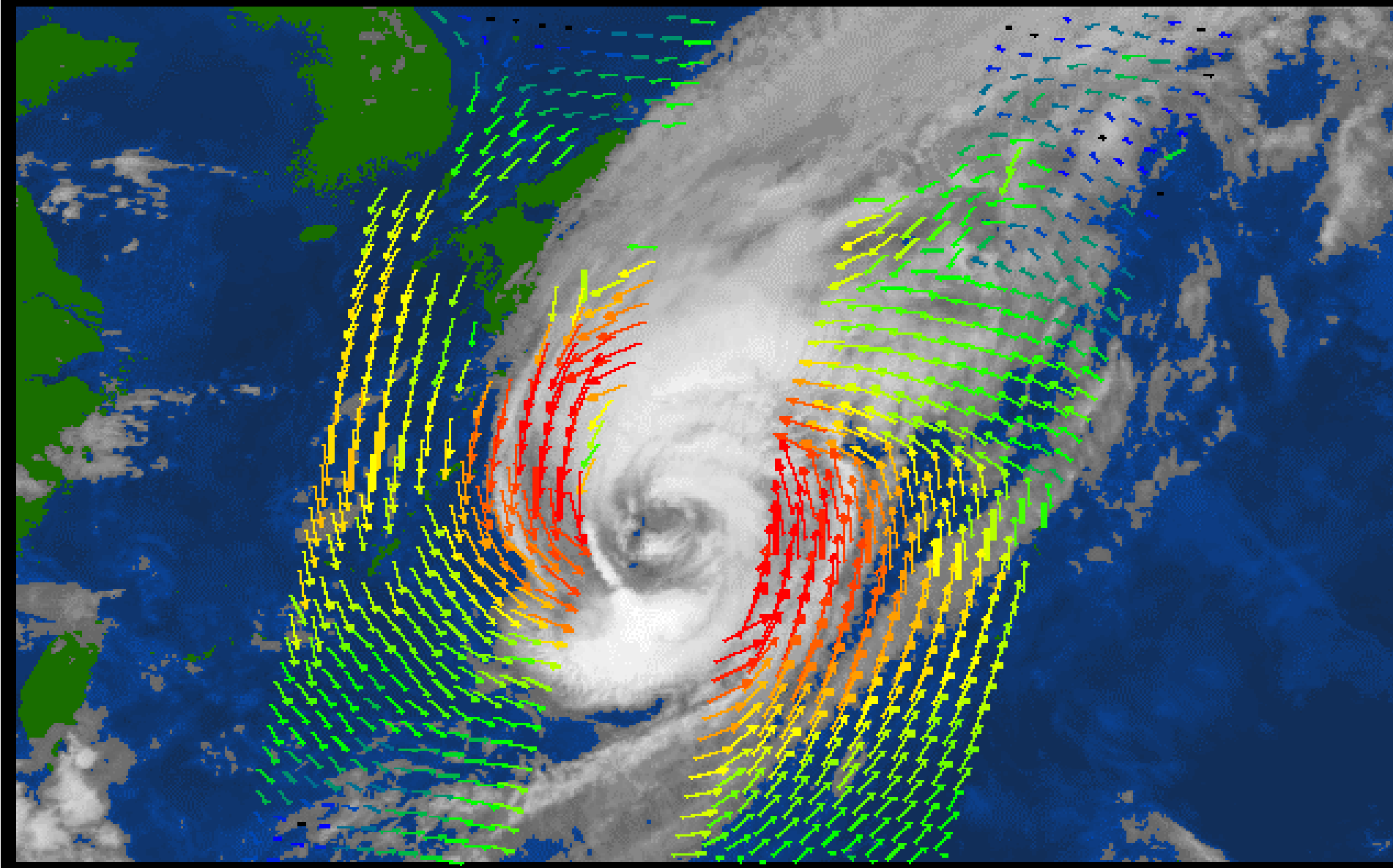
## (ARGOS-DCS)

# ADEOS/NSCAT Wind Vector Product on GMS-5 Image

GMS-5 data courtesy of  
University of Hawaii

Winds (M/S)

>20



# ADEOS-II Data Management

- Operation requirements of GLI from science community summarized at EORC.
- Atmosphere, Ocean, Land, Cryosphere - GLI team leaders and EORC Mission Manager will be the focal points.
- ILAS-II, SeaWinds, POLDER operation requirements will be directly from sensor providing agency to EOC.

# ADEOS-II Data Management

- GLI operation requirements from science community will be summarized and coordinated at EORC.
- EOC will provide data to public & PI in Data Utilization Phase, i.e. Launch + 12 months
- EORC will provide data to PI's before EOC data release.