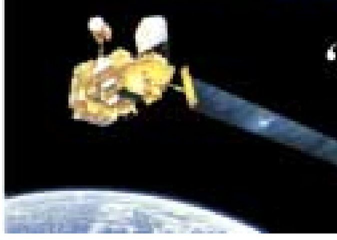
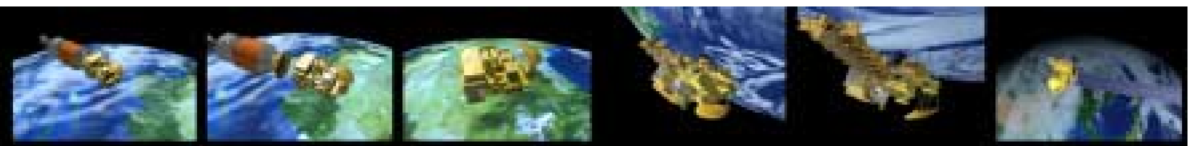
ADEOS-II





"Diagnose our Planet Earth from Space"

ADEOS-II is state of the art Earth observing platform that contributes to the understanding of global environment changes through its precise measurement of diverse geophysical phenomena particularly related to the global energy-water and carbon cycle. In addition to the NASDA's mission instruments, *AMSR* and *GLI*, ADEOS-II has advanced observing instruments on board such as *SeaWinds* (NASA/JPL), *POLDER* (CNES), *DCS* (CNES), and *ILAS-II* (MOE). By using these special eyes in wide range of wavelength, we can diagnose our planet from various perspectives.

Data from ADEOS-II are expected to be utilized by various international research programs such as the Global Energy and Water Cycle Experiment (GEWEX), the Climate Variability and Predictability (CLIVAR), and the International Geosphere-Biosphere Research Program (IGBP). ADEOS-II data will also be utilized in practical purpose such as weather forecasting and fishery.

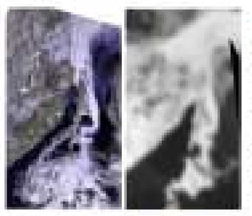
ADEOS-II satellite will be launched by Japanese H-IIA launch vehicle in 2002.

Advanced Microwave Scanning Radiometer

AMSR Advanced Microwave Scanning Radiometer

The AMSR is a multi-frequency, dual-polarized microwave radiometer that detects microwave emissions from the Earth's surface and atmosphere. Various geophysical parameters, particularly those related to water (H2O), can be estimated from AMSR.

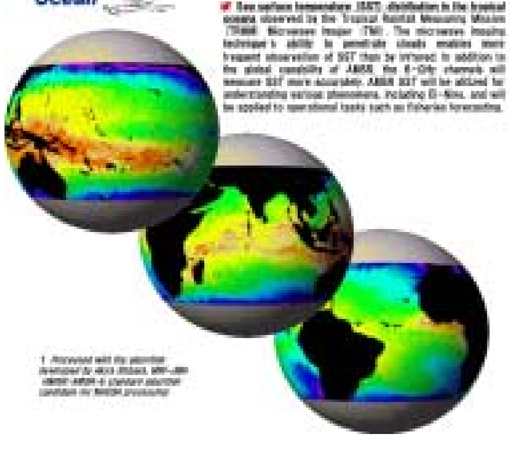
Earth View at Microwave Frequencies



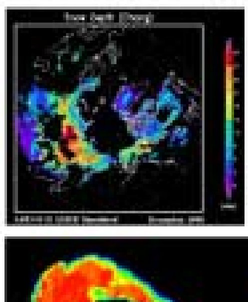
Conical scanning is employed to observe the Earth's surface with a constant incidence angle.

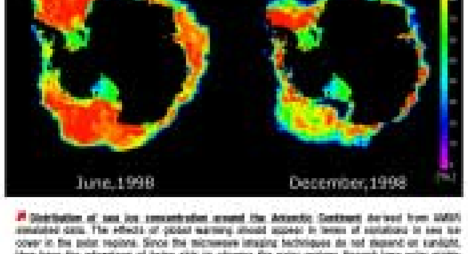
Atmosphere

Ocean



Land and Cryosphere



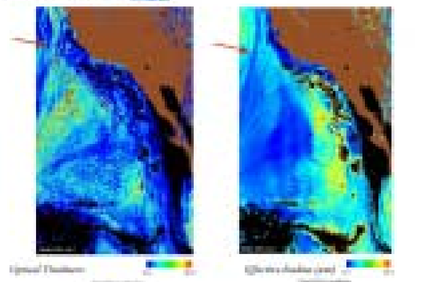


Global Imager

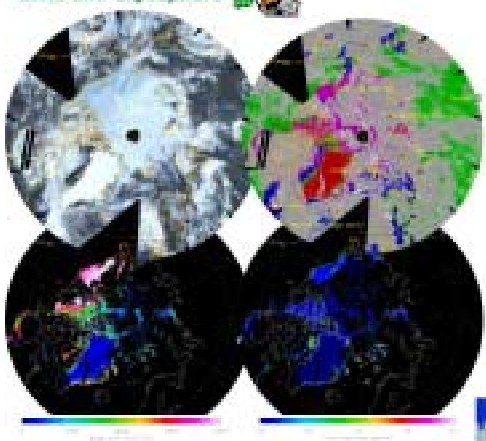
NASDA has been developing this since 1993 as a general purpose medium spatial resolution visible-infrared imager to cover atmosphere and land observation as well as ocean color observations.

The GLI is an optical sensor designed to observe the atmosphere, ocean, land, and cryosphere.

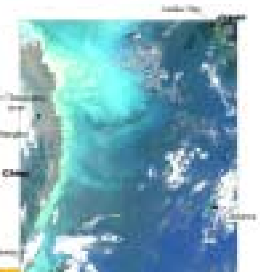
Atmosphere

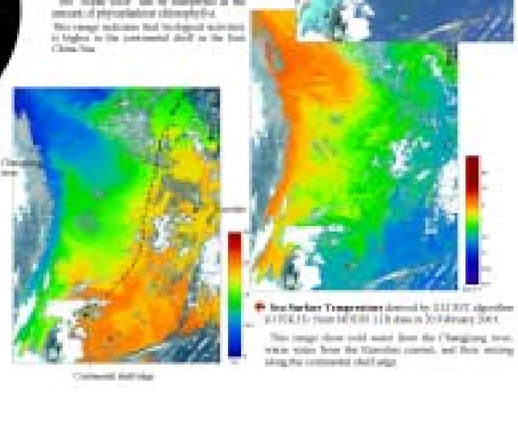


Land and Cryosphere

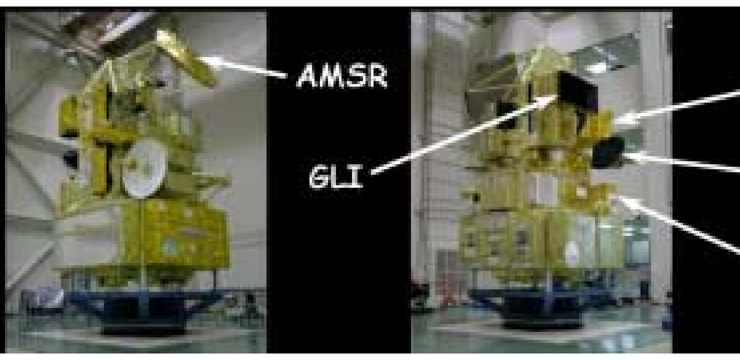


Ocean





Satellite is now ready for launch !



ADEOS-II Flight Model @ NASDA Tsukuba Space Center

ILAS-II: Improved Limb Atmospheric Spectrometer II (ILAS-II) developed by the Ministry of the Environment (MOE) is a sensor to monitor the high-latitude stratospheric ozone layer. The objectives of ILAS-II are to monitor and study changes in the stratosphere which are triggered by emissions of chlorofluorocarbons (CFC), and to evaluate the effectiveness of world-wide emission controls of CFCs.

SeaWinds: NASA's SeaWinds Scatterometer will provide high accuracy wind speed and direction measurements over nearly 90% of the ice-free global oceans every day. SeaWinds will provide a continuing set of long term wind data for studies of ocean circulation, climate and air-sea interaction.

POLDER: POLarization and Directionality of the Earth's Reflectances (POLDER) is a wide field of view imaging radiometer that will provide the global, systematic measurements of spectral, directional and polarized characteristics of the solar radiation reflected by the Earth/atmosphere system. Its original observation capabilities open up new perspectives for discriminating the radiation scattered in the atmosphere from the radiation actually reflected by the surface.