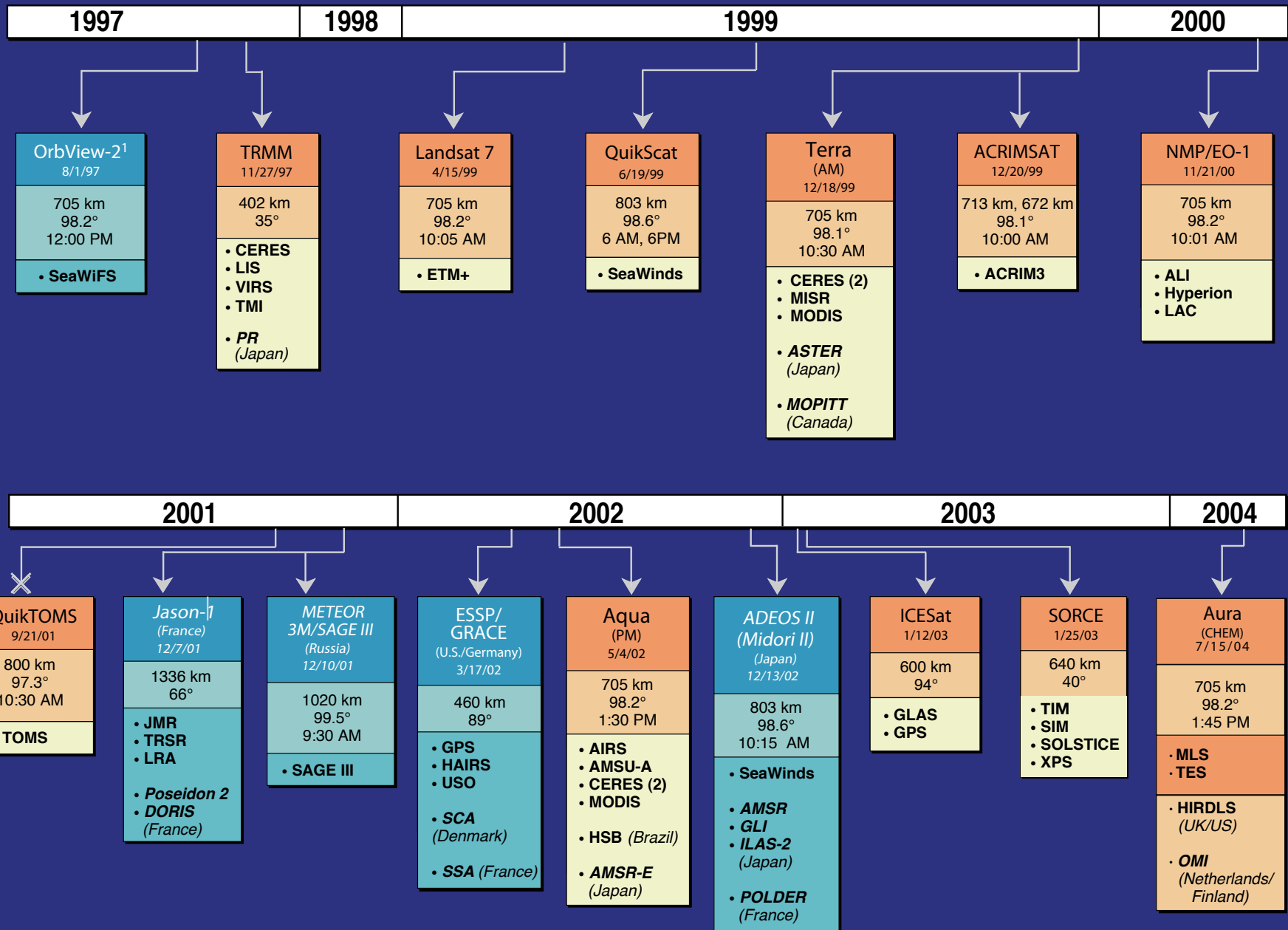


# Earth Science Mission Profile 1997 - 2004

Revised: 7 January 2009



■ Spacecraft not provided or is partly provided by NASA

Items in italics not funded by NASA

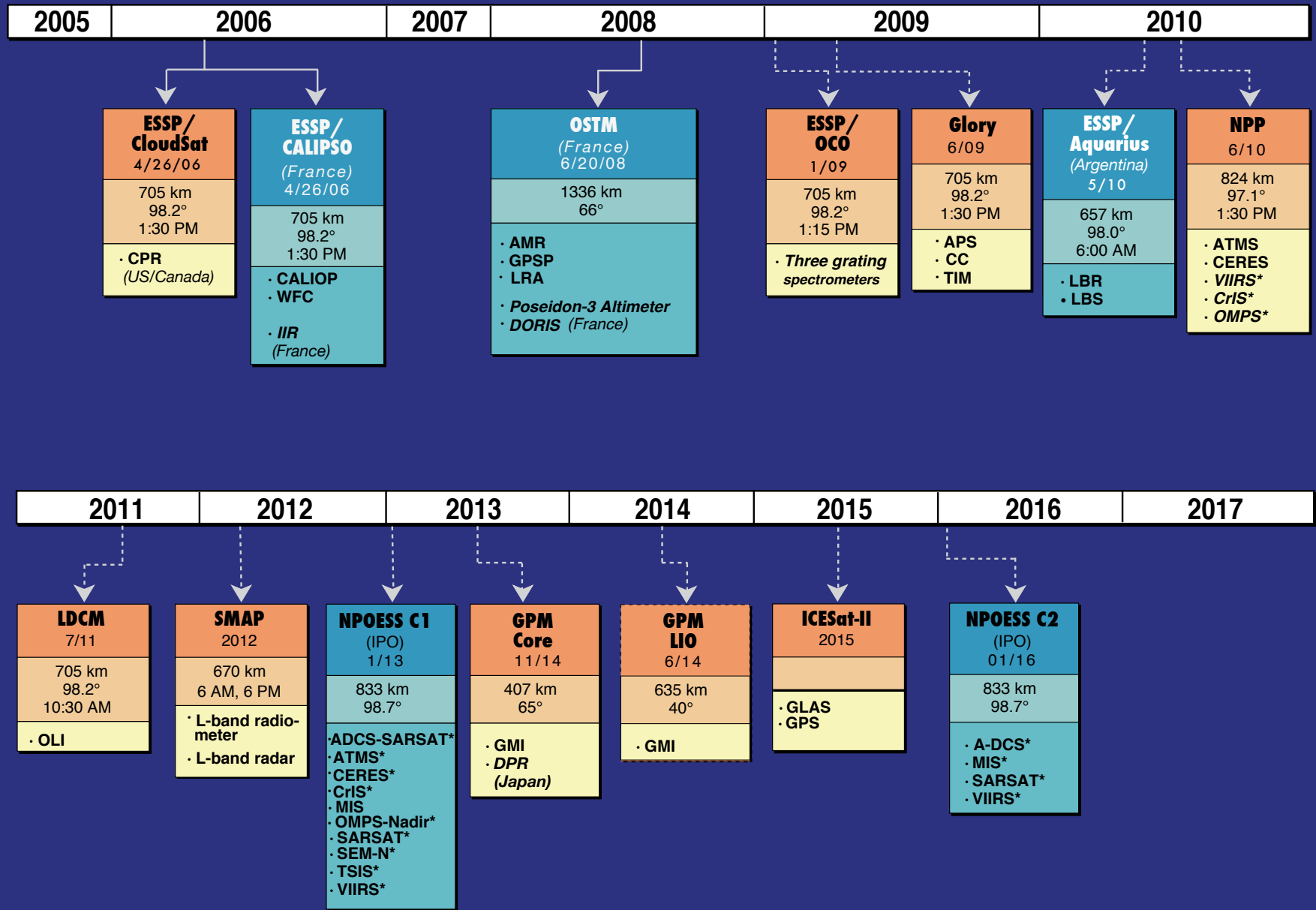
↘ Currently in orbit

✗ Launch Failure

<sup>1</sup> OrbView-2 is not provided or operated by NASA but is a data buy

# Earth Science Mission Profile

## 2005 - 2017



Spacecraft not provided by NASA

\* Instrument provided jointly with the Integrated Program Office (IPO)

Currently in orbit Future mission

Items in italics not funded by NASA

# Mission Profile 1997 – 2004 Acronym List

## ACRIMSAT

- **ACRIM3** - Active Cavity Radiometer Irradiance Monitor

## ADEOS II (Midori II)

- **AMSR** - Advanced Microwave Scanning Radiometer
- **GLI** - Global Imager
- **ILAS-2** - Improved Limb Atmospheric Spectrometer 2
- **POLDER** - Polarization and Directionality of the Earth's Reflectances

## Aqua

- **AIRS** - Atmospheric Infrared Sounder
- **AMSU-A** - Advanced Microwave Sounding Unit-A
- **CERES** - Clouds and the Earth's Radiant Energy System
- **MODIS** - Moderate Resolution Imaging Spectroradiometer
- **HSB** - Humidity Sounder for Brazil
- **AMSR-E** - Advanced Microwave Scanning Radiometer for EOS

## Aura

- **HIRDLS** - High Resolution Dynamics Limb Sounder
- **MLS** - Microwave Limb Sounder
- **OMI** - Ozone Monitoring Instrument
- **TES** - Tropospheric Emission Spectrometer

## ESSP/GRACE

### Earth System Science Pathfinder/Gravity Recovery And Climate Experiment

- **GPS** - Black-Jack Global Positioning System Receiver
- **HAIRS** - High-Accuracy Inter-satellite Ranging System
- **SCA** - Star Camera Assembly
- **SSA** - SuperStar Accelerometer
- **USO** - Ultra Stable Oscillator

## ICESat

- **GLAS** - Geoscience Laser Altimeter System
- **GPS** - Global Positioning System

## Jason-1

- **JMR** - Jason Microwave Radiometer
- **TRSR** - Turbo Rogue Space Receiver
- **LRA** - Laser Retroreflector Array
- **DORIS** - Doppler Orbitography and Radiopositioning Integrated by Satellite
- **Poseidon-2 Altimeter**

## Landsat 7

- **ETM+** - Enhanced Thematic Mapper Plus

## METEOR 3M/SAGE III

- **SAGE III** - Stratospheric Aerosol and Gas Experiment III

## NMP/EO-1

### New Millennium Program/Earth Observing-1

- **ALI** - Advanced Land Imager
- **Hyperion** - Hyperspectral Instrument
- **LAC** - Linear Etalon Imaging Spectral Array (LEISA) Atmospheric Corrector

## OrbView-2

- **SeaWiFS** - Sea-viewing Wide Field-of-view Sensor

## QuikScat

### Quick Scatterometer

- **SeaWinds**

## QuikTOMS

- **TOMS** - Total Ozone Mapping Spectrometer

## SORCE

### Solar Radiation and Climate Experiment

- **TIM** - Total Irradiance Monitor
- **SIM** - Spectral Irradiance Monitor
- **SOLSTICE** - Solar Stellar Irradiance Comparison Experiment
- **XPS** - XUV Photometer System

## Terra

- **ASTER** - Advanced Spaceborne Thermal Emission and Reflection Radiometer
- **CERES** - Clouds and the Earth's Radiant Energy System
- **MISR** - Multi-angle Imaging Spectroradiometer
- **MODIS** - Moderate Resolution Imaging Spectroradiometer
- **MOPITT** - Measurements of Pollution in the Troposphere

## Mission Profile 1997 – 2004 Acronym List (cont.)

### **TRMM**

#### **Tropical Rainfall Measuring Mission**

- **CERES** - Clouds and the Earth's Radiant Energy System
- **LIS** - Lightning Imaging Sensor
- **VIRS** - Visible and Infrared Scanner
- **TMI** - TRMM Microwave Imager
- **PR** - Precipitation Radar

# Mission Profile 2005 – 2017 Acronym List

## **ESSP/Aquarius**

- **LBR** - L-Band Radiometer
- **LBS** - L-Band Scatterometer

## **ESSP/CALIPSO**

### Cloud-Aerosol Lidar and Infrared Pathfinder Satellite Observations

- **CALIOP** - Cloud Aerosol Lidar with Orthogonal Polarization
- **IIR** - Imaging Infrared Radiometer
- **WFC** - Wide Field Camera
- **Three high-resolution grating spectrometers**

## **ESSP/Cloudsat**

- **CPR** - Cloud Profiling Radar

## **ESSP/OCO**

### Orbiting Carbon Observatory

## **Glory**

- **APS** - Aerosol Polarimetry Sensor
- **TIM** - Total Irradiance Monitor
- **CC** - Cloud Camera

## **GPM Core Observatory**

### Global Precipitation Measurement

- **DPR** - Dual Frequency Precipitation Radar
- **GMI** - GPM Microwave Imager

## **GPM Low-Inclination Observatory**

### Global Precipitation Measurement

- **GMI** - GPM Microwave Imager

## **ICESat II**

- **GLAS** - Geoscience Laser Altimeter System
- **GPS** - Global Positioning System

## **LDCM**

### Landsat Data Continuity Mission

- **OLI** - Operational Land Imager

## **OSTM**

### Ocean Surface Topography Mission

- **DORIS** - Doppler Orbitography and Radiopositioning Integrated by Satellite
- **TRSR** - TurboRogue Space Receiver
- **LRA** - Laser Retroreflector Array
- **Poseidon-3 Altimeter**
- **AMR** - Advanced Microwave Radiometer
- **GPSP** - Global Positioning System Payload

## **NPOESS C1**

### National Polar-orbiting Operational Environmental Satellite System

- **ADCS-SARSAT** - Advanced Data Collection System/Search and Rescue Satellite-Aided Tracking
- **ATMS** - Advanced Technology Microwave Sounder
- **CERES** - Clouds and Earth's Radiant Energy System
- **CrIS** - Cross-Track Infrared Sounder
- **MIS** - Microwave Imager/Sounder
- **OMPS-Nadir** - Ozone Mapping and Profiler Suite
- **SARSAT** - Search and Rescue Satellite Aided Tracking
- **SEM-N** - Space Environment Monitor-NPOESS
- **TSIS** - Total and Spectral Solar Irradiance Sensor
- **VIIRS** - Visible/Infrared Imager/Radiometer Suite

## **NPOESS C2**

### National Polar-orbiting Operational Environmental Satellite System

- **A-DCS**
- **MIS**
- **SARSAT** - Search and Rescue Satellite Aided Tracking
- **VIIRS** - Visible/Infrared Imager/Radiometer Suite

## **NPP**

### NPOESS Preparatory Project

- **ATMS** - Advanced Technology Microwave Sounder
- **CERES** - Clouds and the Earth's Radiant Energy System
- **CrIS** - Cross-Track Infrared Sounder
- **OMPS** - Ozone Mapping and Profiler Suite
- **VIIRS** - Visible/Infrared Imager/Radiometer Suite

## **SMAP**

### Soil Moisture Active Passive

- **L-Band radiometer**
- **L-Band radar**