CGMS

CGMS-34, NOAA-WP-26
Prepared by NOAA
Agenda Item: G.2
Discussed in Plenary

UPDATES TO THE CEOS/WMO DATABASE

In response to CGMS Permanent Action 02

NOAA-WP-24 provides an up-to-date-record of the US satellite missions, instruments and frequencies. The information presented in the document is accurate for the period ending October 27, 2006.

UPDATES TO THE CEOS/WMO DATABASE

1. Introduction

The US continues to provide updated information for the CEOS Database. The WMO requested revisions to the database manual tables, describing the geophysical parameters, in order to include them with the next version of the database in October 2006.

2. Update to the CEOS/WMO Database

Agency and Its Missions

GOES 10 Launch date: 4/25/1997
GOES-11 Status: currently being flown Launch date: 5/3/2000
GOES-M Status: currently being flown (SXI) Launch date: 7/23/2002
GOES-N Launch date: May 2006
GOES-O Launch date: April 2008
GOES-P Launch date: February 2009
GOES-R Launch date: April 2012 (?, new series)

NOAA-L is now NOAA-16. Status: currently being flown Launch date: 9/21/2000
NOAA-M is now NOAA-17. Status: currently being flown Launch date: 6/24/2002
NOAA-N is now NOAA-18. Status: currently being flown Launch date: 5/25/2005
NOAA-N' Launch date: March 2009

DMSP S16 is now DMSP F16. Status: Currently being flown Launch date: 10/18/2003
DMSP S17 (will be DMSP F17 after launch)Launch date: November 2006
DMSP S18 (will be DMSP F18 after launch)Launch date: As needed
DMSP S19 (will be DMSP F19 after launch)Launch date: As needed
DMSP S20 (will be F20 after launch)Launch date: As needed

National Polar-orbiting Operational Environmental Satellite System (NPOESS)
NPOESS Preparatory Project (NPP)

NPP	Launch date: 9/2009	1330 Equatorial Crossing Time (Ascending)
NPOESS-C1	Launch date: 1/2013	1330 Equatorial Crossing Time (Ascending)
NPOESS-C2	Launch date: 1/2016	1730 Equatorial Crossing Time (Ascending)
NPOESS-C3	Launch date: 1/2020	1330 Equatorial Crossing Time (Ascending)
NPOESS-C4	Launch date: 1/2022	1730 Equatorial Crossing Time (Ascending)

Mission and Associated Instruments

NPOESS instrument payloads by orbit are listed in the following table:

NPP/NPOESS EQUATORIAL ASCENDING NODAL CROSSING TIMES

NPP 1330	*C1 1330*	*C2 1730*	*C3 1330*	*C4 1730*
VIIRS	*VIIRS*	*VIIRS*	*VIIRS*	*VIIRS*
CrIS	*CrIS*		*CrIS*	
ATMS	*ATMS*		*ATMS*	
OMPS	*OMPS-N*		*OMPS-N*	
		MIS	*MIS*	*MIS*
	SEM		*SEM*	
	CERES			
	SARSAT	*SARSAT*	*SARSAT*	*SARSAT*
	ADCS	*ADCS*	*ADCS*	*ADCS*

NPOESS Instrument acronym list:

VIIRS - Visible/Infrared Imager Radiometer Suite
CrIS – Cross-track Infrared Sounder
ATMS – Advanced Technology Microwave Sounder
OMPS – Ozone Mapping and Profiler Suite
OMPS-N – Ozone Mapping and Profiler Suite – Nadir
(incl. Total Column [TOMS like] & Profiler [SBUV like] instruments)
MIS – Microwave Imager/Sounder
SEM - Space Environment Monitor
CERES – Cloud and Earth's Radiant Energy Sensor
SARSAT – Search and Rescue Satellite Aided Tracking
ADCS – Advanced Data Collection System

NPOESS Instrument Data

VIIRS

Environmental parameters allocated to VIIRS:

Visible and infrared imagery
Sea surface temperature
Soil moisture
Aerosol optical thickness
Aerosol particle size
Albedo (surface)
Cloud base height
Cloud cover/layers
Cloud effective particle size
Cloud optical thickness
Cloud top height
Cloud top pressure
Cloud top temperature
Ice surface temperature
Land surface temperature
Net heat flux
Ocean color/chlorophyll
Sea ice characterization (ice edge location/ice concentration)
Snow cover/depth
Surface type
Suspended matter
Vegetation index

CrIS/ATMS

Environmental parameters allocated to CrIS/ATMS:

Atmospheric vertical temperature profile
Atmospheric vertical moisture profile
Atmospheric vertical pressure profile/surface

OMPS-N

Environmental parameters allocated to OMPS-N:

Ozone profile	higher stratosphere and mesosphere
Ozone profile	lower stratosphere (LS)
Ozone profile	total column

MIS

[Note: the design of the MIS and the final products allocated to MIS are To Be

Determined as of October 2008]

Environmental parameters allocated to MIS (note: MIS is in the Concept Development Phase):

Atmospheric vertical temperature profile
Atmospheric vertical moisture profile
Atmospheric vertical pressure profile
All weather (microwave) imagery
Sea surface temperature
Sea surface winds (speed and direction – horizontal)
Soil moisture
Cloud base height
Cloud liquid water
Cloud ice water path
Cloud imagery
Fresh water ice
Ice surface temperature
Land surface temperature
Precipitable water
Precipitation type/rate
Sea ice characterization (ice edge location/ice concentration)
Snow cover/depth
Surface type
Sea surface wind stress
Total water content

SEM

The SEM instrument suite produces parameters that are not listed within the CEOS database. These are as follows:

Environmental parameters allocated to SEM:

Auroral boundary
Auroral energy deposition
Energetic ions
Medium energy charged particles
Supra-thermal-auroral particles

CERES

Environmental parameters allocated to CERES:

Downward longwave radiation
Downward shortwave radiation
Net solar radiation (TOA)
Outgoing longwave radiation (TOA)
Net heat flux