

Joint Polar Satellite System

Harry Cikanek

Director, Joint Polar Satellite System

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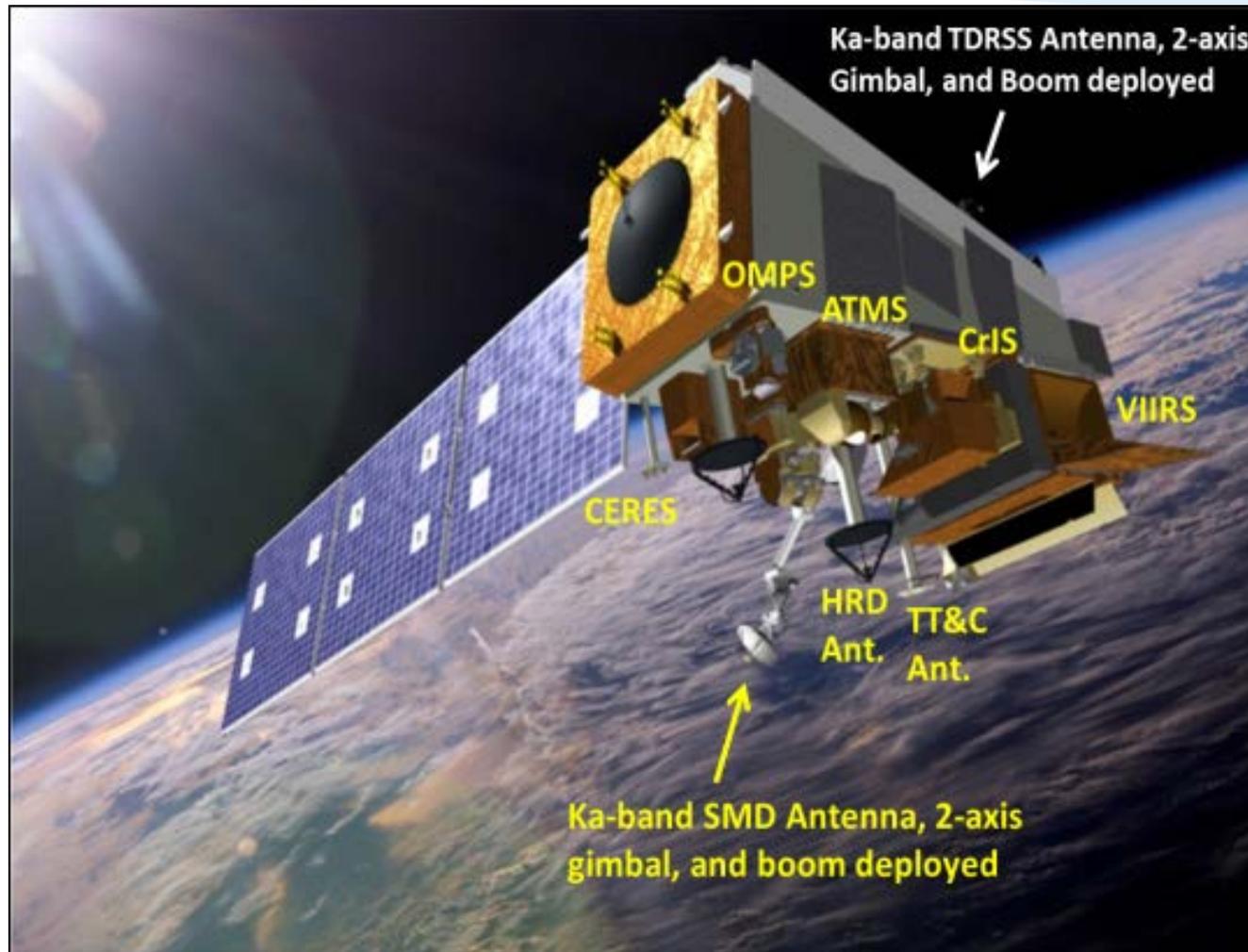


JPSS Overview



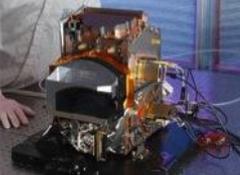
- JPSS consists of five satellites (Suomi NPP, JPSS-1, JPSS-2, FF-1, FF-2), ground system and operations through 2028
 - JPSS mission is to provide global imagery and atmospheric measurements using polar-orbiting satellites
- JPSS is a partnership between NOAA and NASA
 - NOAA has final decision authority and is responsible for overall program commitment
 - NASA is the acquisition agent for the flight system (satellite, instruments and launch vehicle), ground system, leads program systems engineering, and program safety and mission assurance
 - NOAA is responsible for operations, science, **data exploitation** and archiving, infrastructure

JPSS Observatory



S-NPP and JPSS-1 Common Instruments



JPSS Instrument		Measurement
	ATMS - Advanced Technology Microwave Sounder	ATMS and CrIS together provide high vertical resolution temperature and water vapor information needed to maintain and improve forecast skill out to 5 to 7 days in advance for extreme weather events, including hurricanes and severe weather outbreaks
	CrIS - Cross-track Infrared Sounder	
	VIIRS – Visible Infrared Imaging Radiometer Suite	VIIRS provides many critical imagery products including snow/ice cover, clouds, fog, aerosols, fire, smoke plumes, vegetation health, phytoplankton abundance/chlorophyll
	OMPS - Ozone Mapping and Profiler Suite	Ozone spectrometers for monitoring ozone hole and recovery of stratospheric ozone and for UV index forecasts
	CERES - Clouds and the Earth's Radiant Energy System	Scanning radiometer which supports studies of Earth Radiation Budget

S-NPP and JPSS Data Products



VIIRS (25)

ALBEDO (SURFACE)
CLOUD BASE HEIGHT
CLOUD COVER/LAYERS
CLOUD EFFECTIVE PART SIZE
CLOUD OPTICAL THICKNESS
CLOUD TOP HEIGHT
CLOUD TOP PRESSURE
CLOUD TOP TEMPERATURE
ICE SURFACE TEMPERATURE
OCEAN COLOR/CHLOROPHYLL
NET HEAT FLUX*
SUSPENDED MATTER
VEGETATION INDEX, FRACTION,
HEALTH
AEROSOL OPTICAL THICKNESS
AEROSOL PARTICLE SIZE
ACTIVE FIRES
POLAR WINDS
IMAGERY
SEA ICE CHARACTERIZATION
SNOW COVER
SEA SURFACE TEMPERATURE
LAND SURFACE TEMP
SURFACE TYPE

CrIS/ATMS (4)

ATM VERT MOIST PROFILE
ATM VERT TEMP PROFILE
PRESSURE (SURFACE/PROFILE)
CARBON (CO₂, CH₄, CO)

ATMS (11)

CLOUD LIQUID WATER
PRECIPITATION RATE
PRECIPITABLE WATER
LAND SURFACE EMISSIVITY
ICE WATER PATH
LAND SURFACE TEMPERATURE
SEA ICE CONCENTRATION
SNOW COVER
SNOW WATER EQUIVALENT
ATM TEMPERATURE PROFILE
ATM MOISTURE PROFILE

OMPS (2)

O₃ TOTAL COLUMN
O₃ NADIR PROFILE

CERES (2)

REFLECTED SOLAR RADIATION (TOA)
OUTGOING LW RADIATION (TOA)

TSIS (1)

SOLAR IRRADIANCE

GCOM AMSR-2 (11)

CLOUD LIQUID WATER
PRECIPITATION TYPE/RATE
PRECIPITABLE WATER
SEA SURFACE WINDS SPEED
SOIL MOISTURE
SNOW WATER EQUIVALENT
IMAGERY
SEA ICE CHARACTERIZATION
SNOW COVER/DEPTH
SEA SURFACE TEMPERATURE
SURFACE TYPE

JPSS Development Status

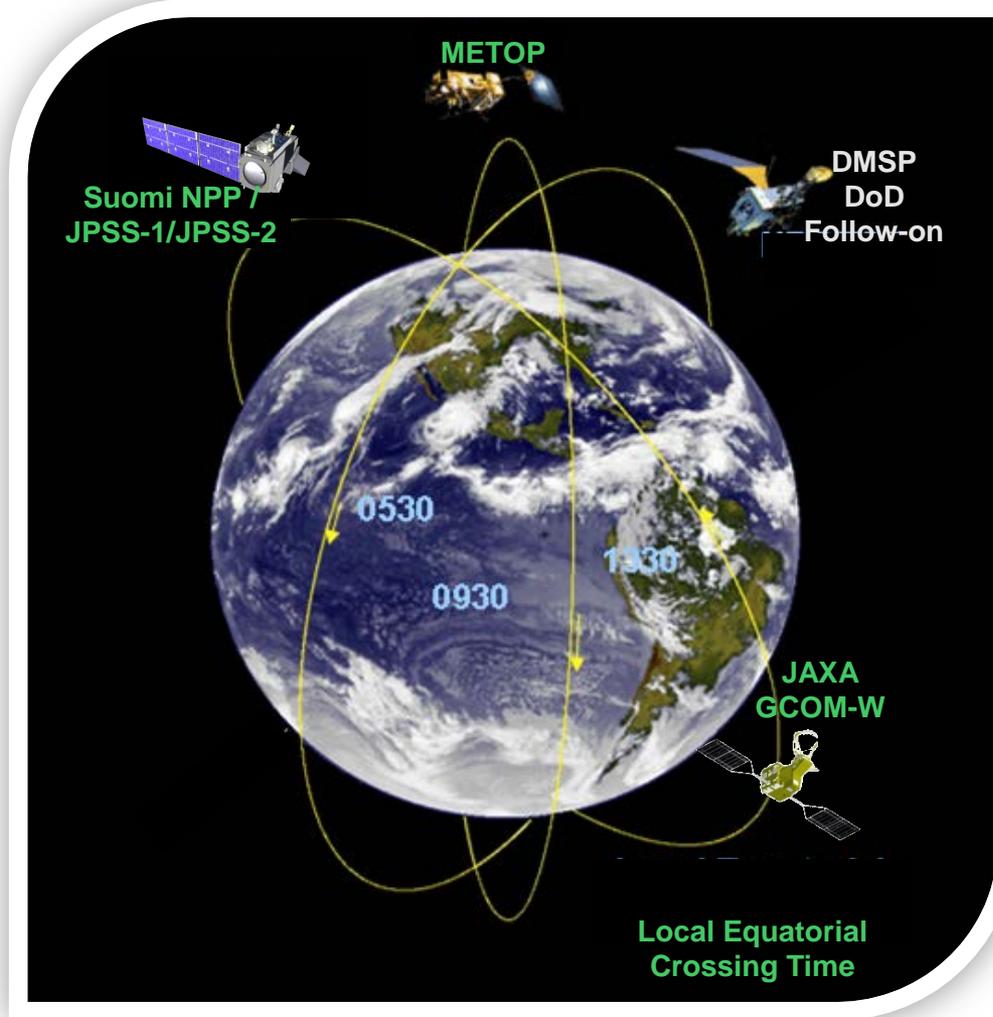


- SNPP has been operating successfully for over 1 year, and intensive cal val is on or ahead of schedule for all instruments
- All JPSS-1 segments are on track to support a launch no later than 2nd quarter FY2017, with the instruments in the latter phases of build test, and spacecraft bus manufacturing started, and Ground Block 1.5 / 2.0 upgrades well underway
- JPSS KDP – 0 passed in July 2012; JPSS-1 Mission PDR Step 2 slated for May; KDP-C on track for Summer 2013
- JPSS Program System Definition Review (SDR) targeted for May 2013 followed by Key Decision Point-I.

JPSS Integral to 3-Orbit Global Polar Coverage



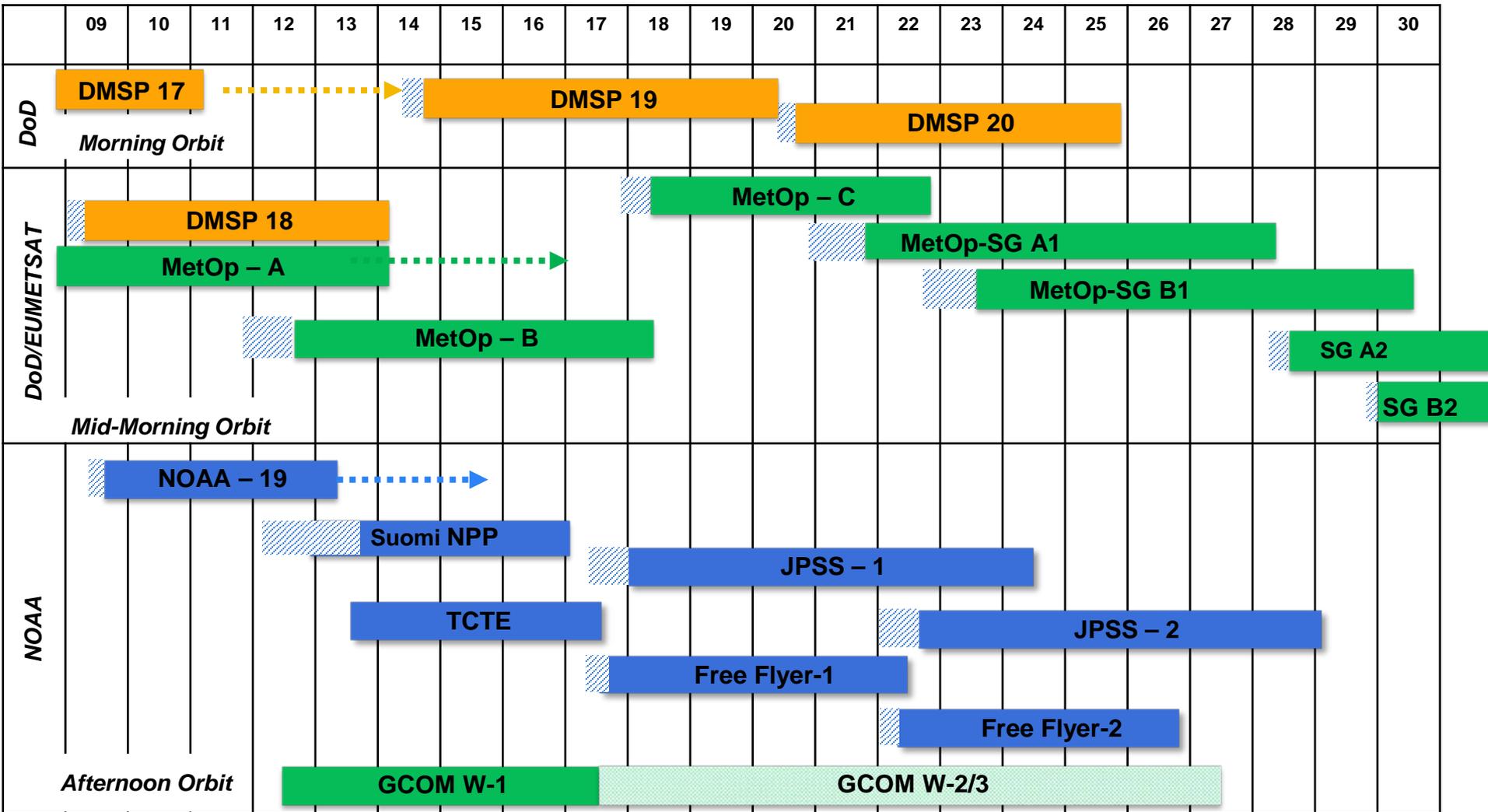
JPSS implements US civil commitment, interagency and international agreements to afford 3-orbit global coverage.



JPSS Flyout

Fiscal Year

December 2012



Launch Dates based on PB13



Satellite is operational beyond design life



Post Launch Test
Operational

Thank you



Any questions?