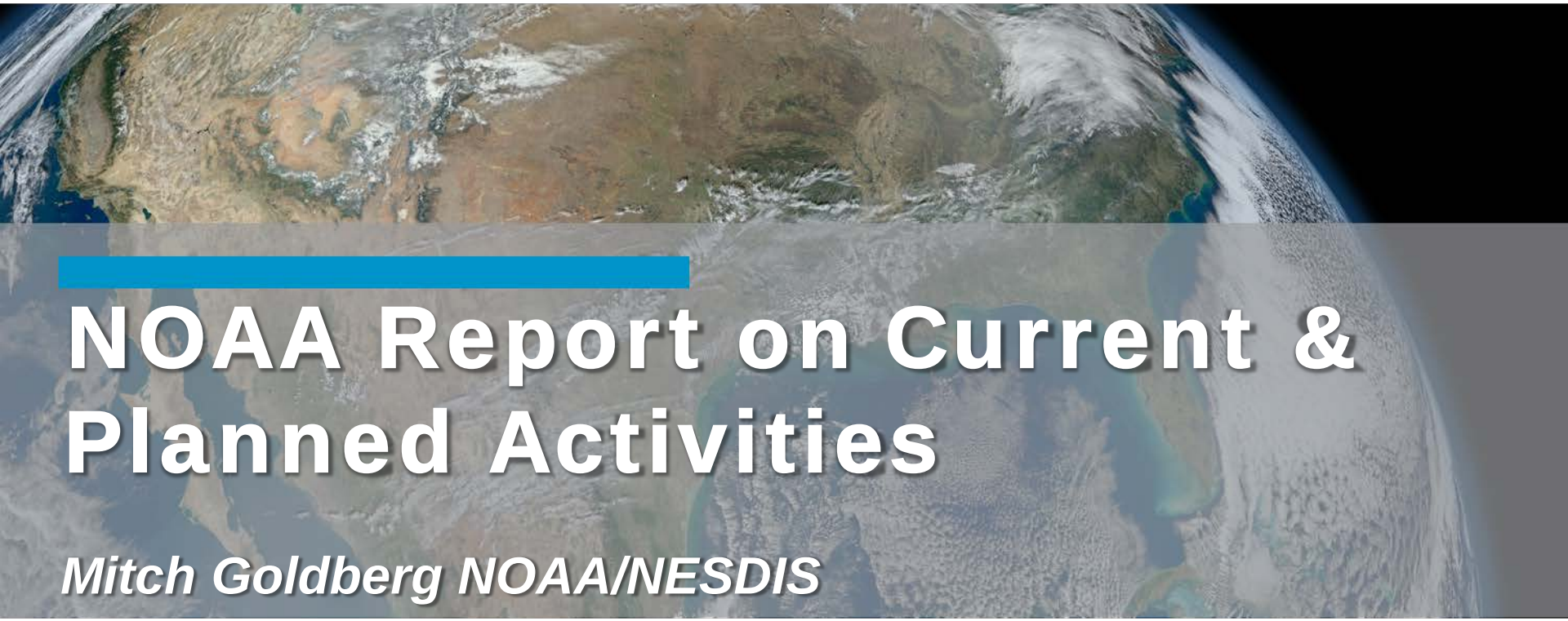


NOAA Report on Current & Planned Activities

Mitch Goldberg NOAA/NESDIS

ITSC-XX

NESDIS Principal Activities

Currently Providing 24/7 On-Orbit Satellite Operations

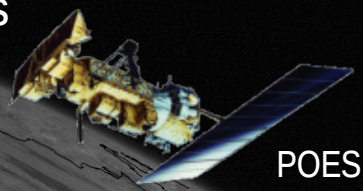
- Geostationary satellites (GOES)
- Polar-orbiting satellites (POES)
- Defense Meteorological Satellite Program (DMSP)
- Jason-2 Altimetry Satellite
- Suomi National Polar-orbiting Partnership (S-NPP)
- DSCOVR (Solar Wind Continuity)

Acquiring Next Generation Satellites

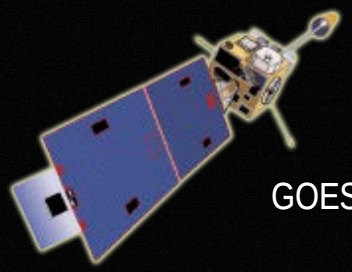
- Jason-3 Altimetry Satellite
- COSMIC-2 Radio Occultation
- GOES–R Satellite Series
- Joint Polar Satellite System

Providing Long Term Data Stewardship

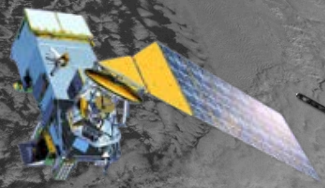
Conducting Research and Developing Operations



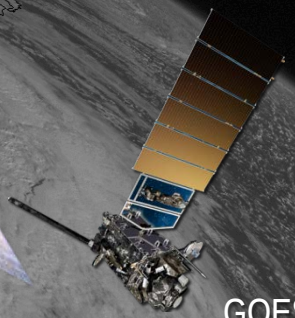
POES



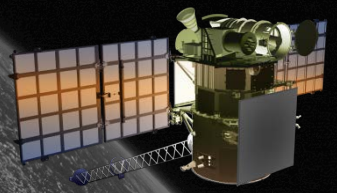
GOES



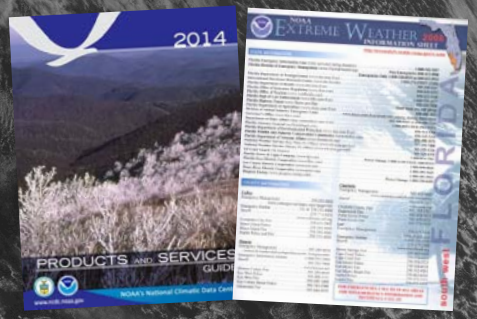
JPSS



GOES-R



DSCOVR

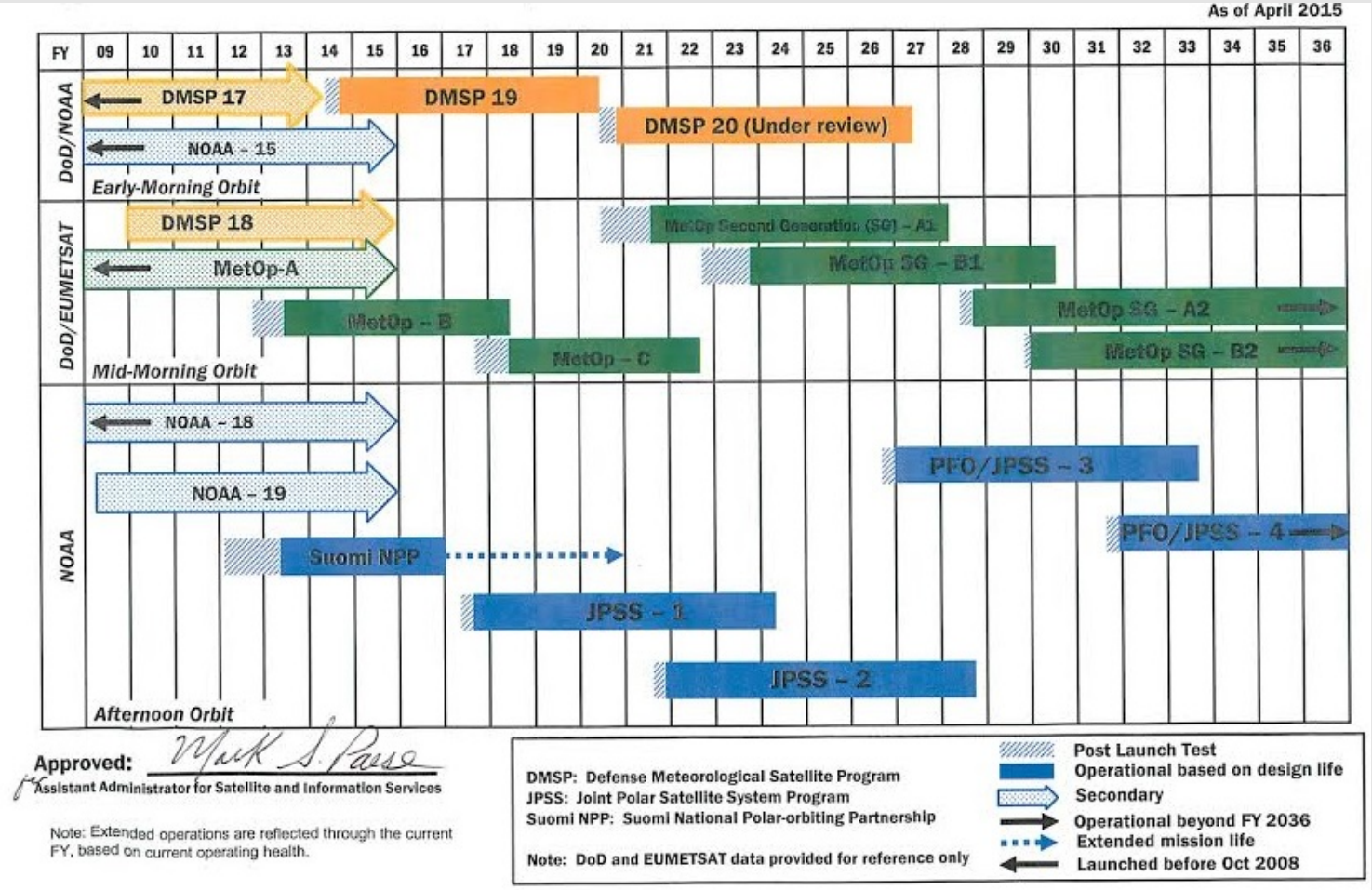


NEIO

Polar Flyout Chart

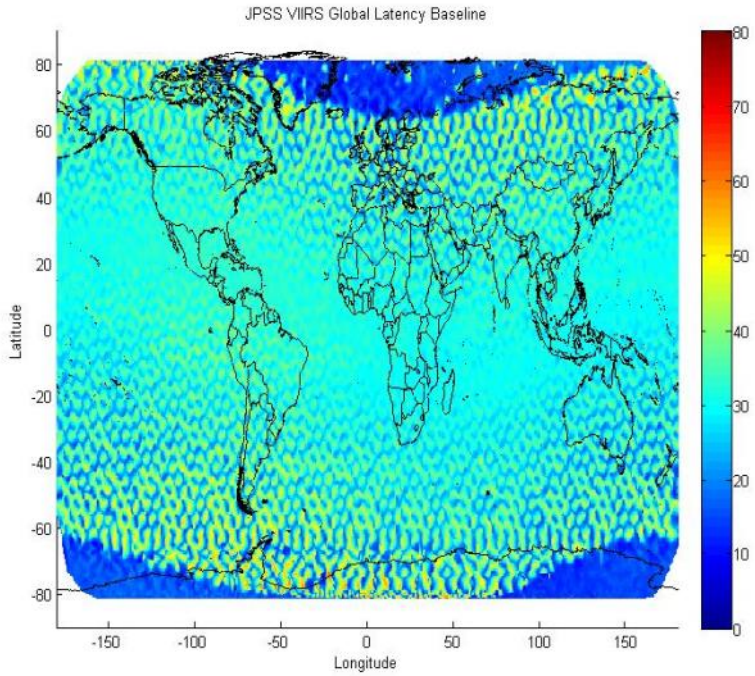
JPSS-1 becomes NOAA-20

NOAA-20 ahead of SNPP by 50 minutes

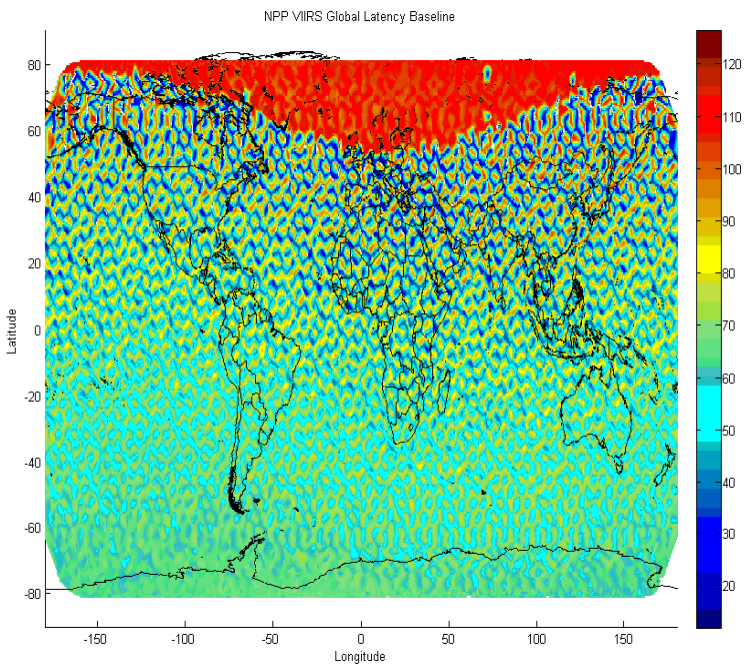


Driving requirements are global coverage of a wide range of environmental parameters with improved latency and high accuracy and reliability

JPSS

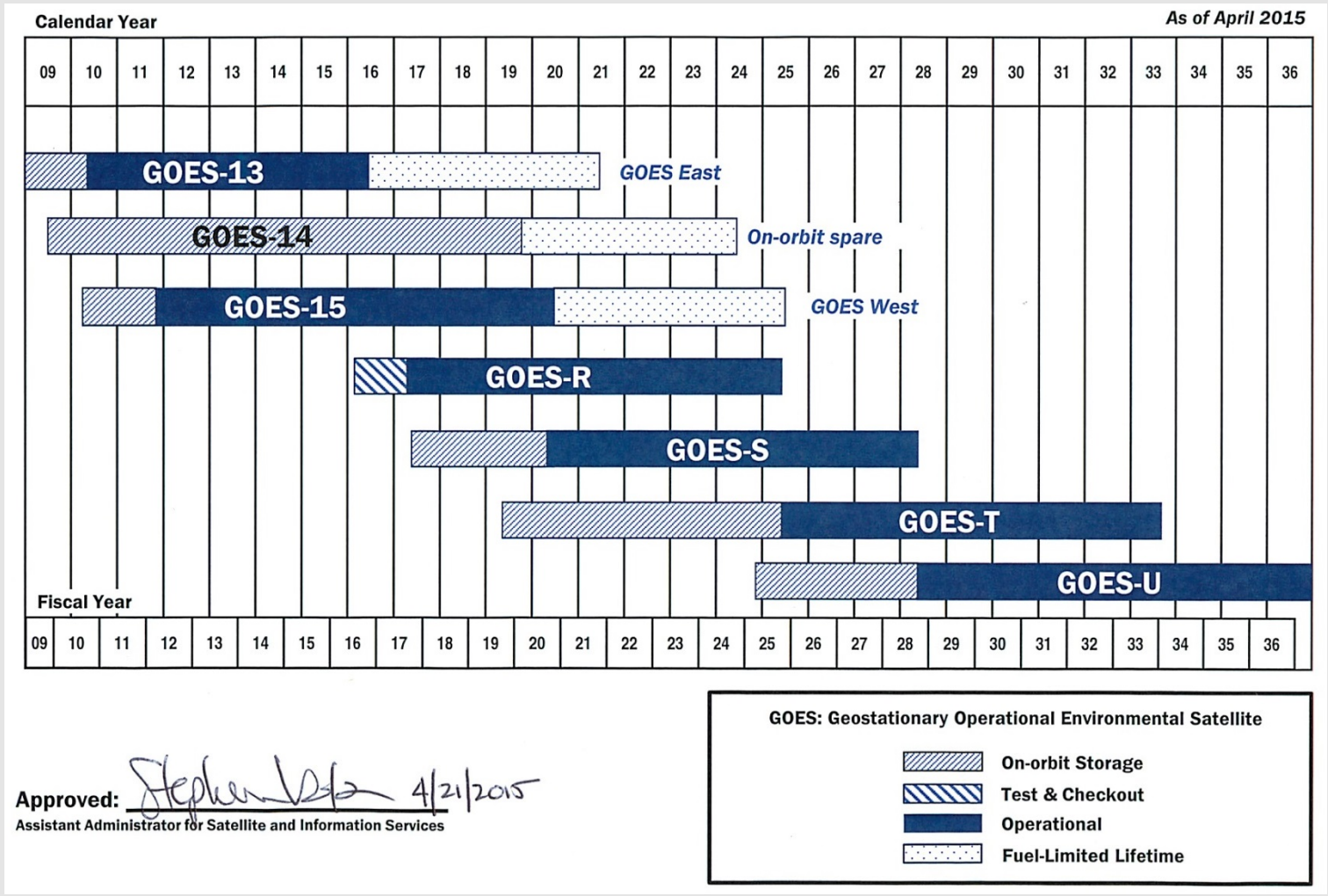


SNPP



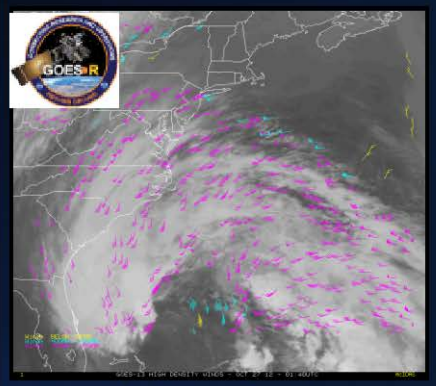
Polar region latency improved from 2 hours to 10 minutes
95% of the data is within 50 minutes (taking into account BUFR conversion, etc.)
Between +- 50 degrees latitude ~ 30 minutes
Actual performance will be 50% better than specification

GOES Flyout Chart

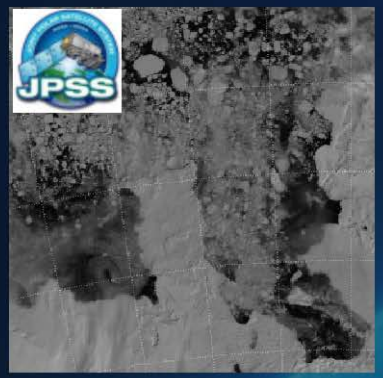


Satellite Proving Ground

Supporting demonstration and utilization of new capabilities by the end users
Facilitating the transition of GOES-R and JPSS to operations
Incorporating user feedback for product improvements

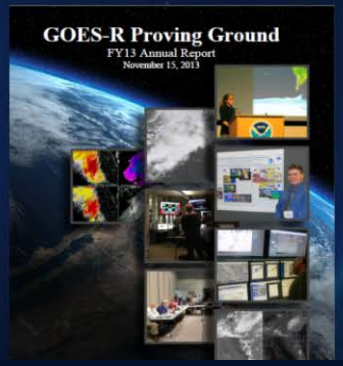


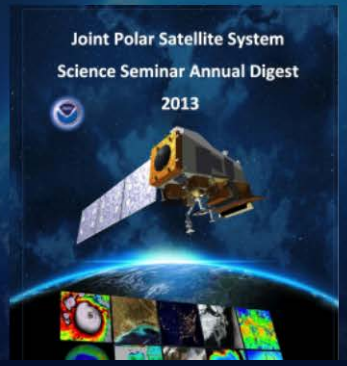
Hurricane Sandy-
GOES High Density
Atmospheric Motion Vectors

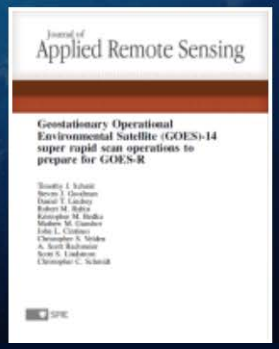


S-NPP Day/Night Band
Ice Detection

NOAA Hazardous Weather Testbed (HWT)

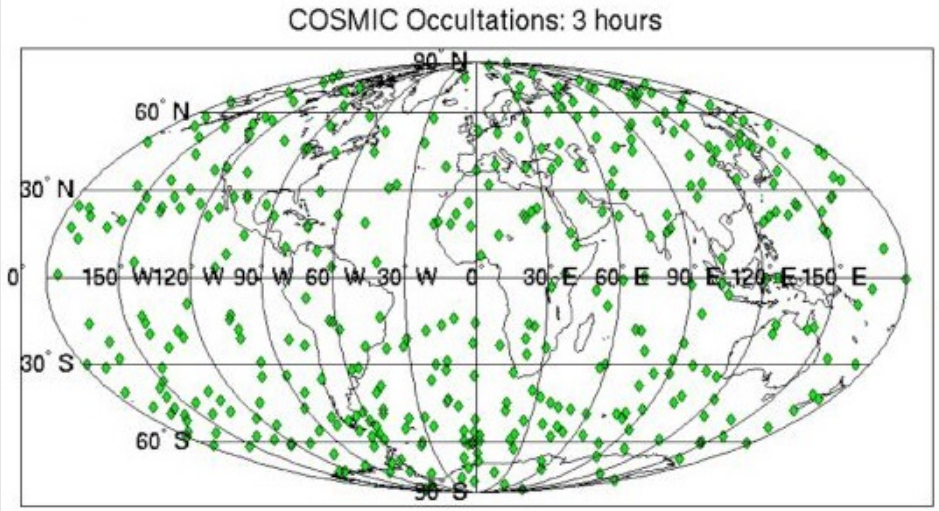


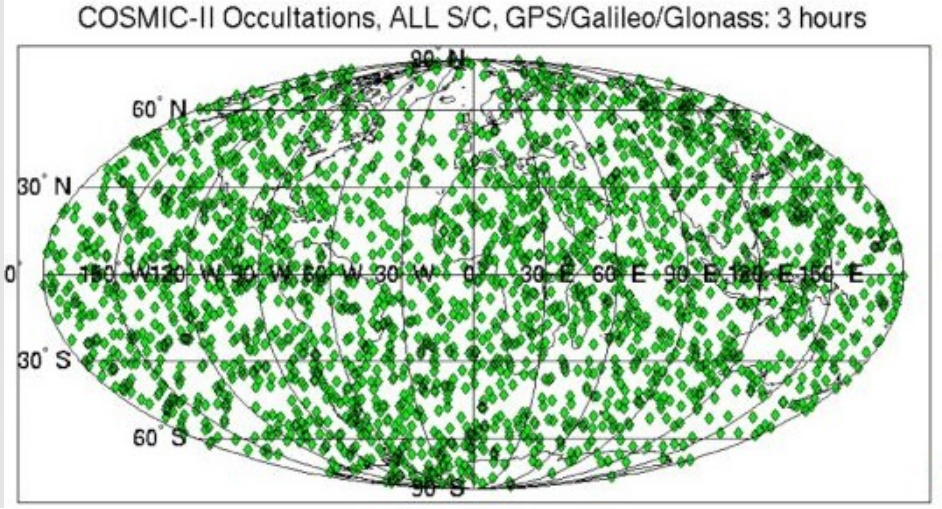




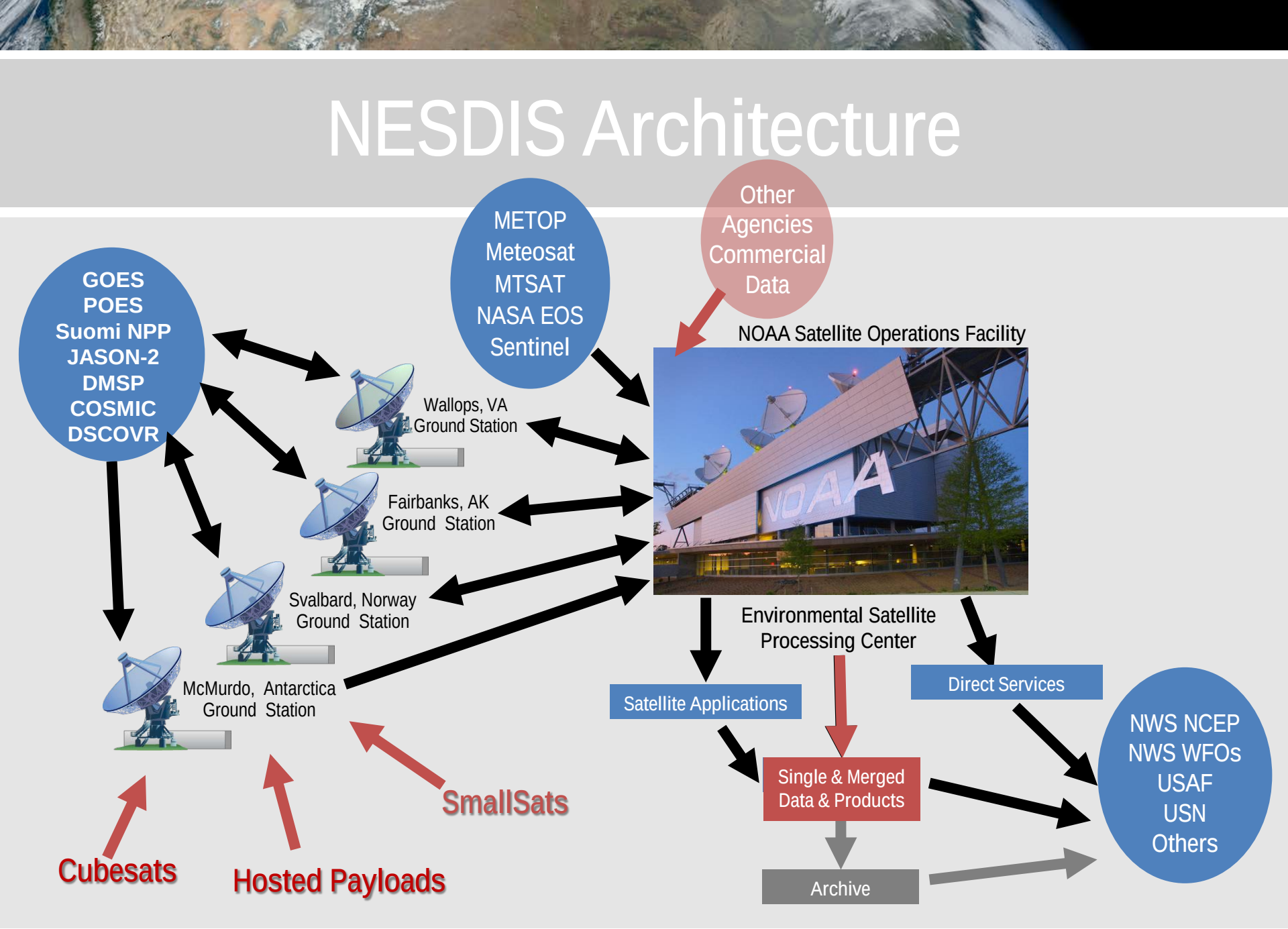
COSMIC-2

- The Constellation Observing System for Meteorology, Ionosphere, and Climate, or COSMIC, mission is a Partnership with Taiwan, NASA, and the U.S. Air Force
- Will provide global radio-occultation measurements of ionosphere, temperature and water vapor information to improve weather forecasts
- Valuable data due to non-biased quality, accuracy and depth
- Shown here is a comparison of sounding distribution over three hour periods between COSMIC and fully-implemented COSMIC-2 (12 satellites)
- Launch in 2016 of the first set of six COSMIC-2 satellites





NESDIS Architecture

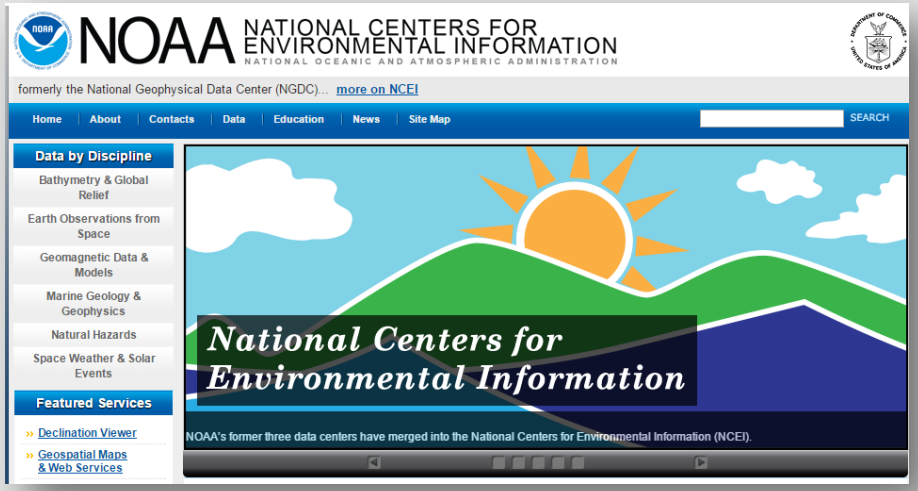


Environmental Information

National Climatic Data Center

National Ocean Data Center

National Geophysical Data Center



https://www.ncei.noaa.gov/

Maximize the Return on Investment of the Nation's Earth Observing Satellites Systems

Ensure a high scientific quality satellite data stream

Develop science to maximize the utilization of the different satellite data

Analyze and interpret data for decision making purposes