



NATIONAL ENVIRONMENTAL SATELLITE SERVICE FY 2012 BUDGET HIGHLIGHTS

National Environmental Satellite Service (NESS) requests \$2,015.4M in FY 2012, reflecting a net increase of \$616.9M from the FY 2010 Enacted. The President's FY 2012 Budget proposes to transfer \$111.0M in Data Centers and Information Services to assist with the formation of the new Climate Service line office. This budget request supports NOAA's management of all aspects of satellite acquisition programs and supports data processing for advancing our understanding of climate change. These activities support NOAA's missions to monitor the earth, manage resources, support the Nation's economy, and protect lives, property, and critical infrastructure.

Joint Polar Satellite System (JPSS) +\$687.8M: This increase will continue to address NOAA's requirements to provide global environmental data in the early afternoon orbit that are used in National Weather Service numerical weather prediction models for near-term (1-3 day) and mid-term (3-5 day) forecasts. The JPSS budget will support continued development and operations of the ground system which is needed to acquire and process the data from the NPOESS Preparatory Project. The request will also continue the development of instruments and spacecraft for the JPSS-1 and JPSS-2 spacecraft. These development activities will be conducted under the close supervision of a strong government program and system engineering team at NOAA and NASA.

Restoration of Climate Sensors +\$30.4M: This increase supports the continued acquisition of space-based climate sensors which continue measurements of stratospheric ozone, earth radiation, and solar irradiance. The sensors ensure NOAA's ability to provide current, accurate, and timely climate information to the scientific community.

Jason-3 Altimetry Mission – Sea Surface Height +\$33.0M: The increase supports continued development of the Jason-3 mission in time for a 2014 launch. The Jason-3 mission will continue a 20 year record of space-based sea surface height measurements that are used to monitor intensification of hurricanes and support climate change assessments such as global sea-level rise and surface wave forecasting. European partners contribute approximately one-half of the total funding of the Jason-3 satellite mission.

Deep Space Climate Observatory (DSCOVR) - Space Weather Observations +\$47.3M: This funding will be used to initiate the refurbishment of the DSCOVR spacecraft as a space weather mission in time for a 2013 launch. Society's reliance on technology that is vulnerable to space weather events makes it necessary to refurbish DSCOVR which will provide data that will support timely and accurate forecasts and warnings of geomagnetic storms. NOAA has partnered with NASA to refurbish the existing DSCOVR satellite and

NESS FY 2012 Budget Request (\$ Millions)

	FY 2010 Enacted	FY 2011 CR	FY 2012 Request	FY 2012 Request vs. FY 2010 Enacted
ORF	\$199.2	\$197.1	\$117.9	(\$81.3)
PAC	\$1,199.3	\$1,199.4	\$1,897.5	\$698.2
TOTAL	\$1,398.5	\$1,396.4	\$2,015.4	\$616.9

with the US Air Force who will provide launch services. This interagency partnership is the most expeditious and cost effective option for making DSCOVR operational in time for the approaching Solar Maximum.

Constellation Observing System for Meteorology, Ionosphere, and Climate (COSMIC-2) +\$11.3M: This funding will be used to initiate a partnership with the Taiwan National Space Organization to replenish and upgrade the current COSMIC-1 satellite constellation to continue NOAA's access to GPS radio occultation (GPSRO) data. GPSRO data from COSMIC-1 has proven to be an extremely accurate, bias free source of atmospheric temperature and moisture profiles over the oceans and land which has greatly improved NOAA's operational weather forecasting accuracy. NOAA, with technical expertise from NASA, will develop 12 radio occultation (RO) sensors; Taiwan will develop the spacecraft and integrate the sensors.

Geostationary Operational Environmental Satellites- R Series (GOES-R) -\$50.1M: The request preserves the GOES-R 2015 launch date by continuing current satellite engineering development and production activities for GOES-R and GOES-S. The request also provides funding to begin the acquisition of two additional satellites (GOES-T-U). The GOES-R series will provide significantly improved observations in both time and scale which will improve our ability to detect and predict severe weather events such as hurricanes, and also provide key enhancements in observational capabilities for climate, oceans and coasts, and the space environment.

Information Technology (IT) Satellite Security +\$3.1M: This increase will allow NOAA to implement needed enhancements to protect its most critical IT assets from cyber attacks. NOAA must provide its data 24X7 without compromise to weather forecasters and emergency managers so that life, property, and critical infrastructure can be protected.

