NOAA Satellites and Information Service

Preventing Critical Single Points of Failure

The National Requirement: The Nation requires contingency capabilities that will continue processing and delivery of mission-critical products and services to users if the primary processing centers suffer a catastrophic outage.

NOAA's Response: NOAA Satellites and Information Service determined that its Central Environmental Satellite Computer System (CEMSCS) and Satellite Data Distribution System (SDDS) lack the contingency capabilities to continue to deliver products and services if they suffered a catastrophic outrage.

Together, these two systems ingest, process, distribute, and temporarily archive all the environmental data and information received from NOAA satellites, Department of Defense (DoD) meteorological satellites, select NASA research missions, foreign environmental satellites, and commercial providers. CEMSCS and SDDS facilities are critical, single points of failure for every operational environmental satellite data product and service that the Product Processing and Distribution program provides to NOAA's National Weather Service (NWS) and other users, such as U.S. Air Force and U.S. Navy. Since environmental satellite data represent more than 99 percent of the input to numerical weather prediction models used by NWS, the loss of these data and information products would be catastrophic to the Nation.

NOAA is developing a permanent contingency capability so that mission-critical products and services will continue to be delivered to customers and users if the primary CEMSCS and SDDS computing systems are disabled. From the contingency location, NOAA Satellites and Information Service Product Processing and Distribution program will continue to provide data and information products that CEMSCS and SDDS provide that are critical to support protecting life and property from severe weather events.

Partners and Customers: NOAA National Weather Service, NOAA Offices (Research, Fisheries, Ocean and Coasts), Department of Defense, Federal Emergency Management Agency, Federal Aviation Administration, and US Department of Agriculture. Other users include state and local governments, academia, the general public, and users world-wide.

Financing: The FY 2005 Budget Request includes **$2.8 million** to continue implementation, testing, and operational check-out of the CEMSCS and SDDS contingency capabilities.

For additional information: www.nesdis.noaa.gov