

NPOESS

National Polar-orbiting Operational Environmental Satellite System



The NPOESS Mission is to provide environmental data to support civilian requirements and military missions. This data will be

acquired from low earth polar orbit and down-linked in real-time to field terminals, with stored data distributed to processing centers in near real-time. The data

include: global and regional environmental imagery, and specialized meteorological, climatic, terrestrial, oceanographic, solar-geophysical, and other related data.

Civilian Benefits

- **Timely, accurate, cost-effective public warnings and forecasts of severe weather events, reducing the potential loss of human life and property and advancing the national economy**
- **Support of commercial and general aviation, agriculture, and maritime communities aimed at increasing U.S. productivity**
- **Commitment to support long-term data continuity for environmental monitoring and Global Change Assessment**

Military Benefits

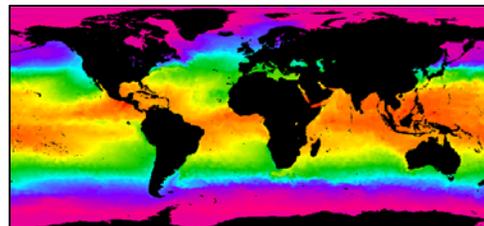
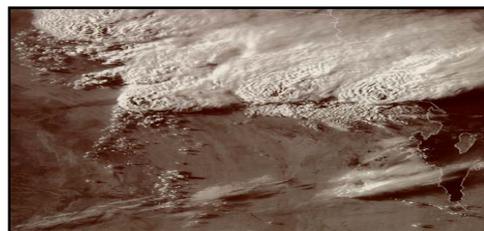
- **Shift tactical and strategic focus from “coping and avoiding the weather” to “anticipating and exploiting” atmospheric, oceanographic, and space environmental conditions**
- **Weather permeates all aspects of military operations. NPOESS data will provide improved situational awareness which is critical to strategic planning and tactical superiority.**

National Benefits

Accurate forecasts are critical to the preservation of life, safety, and property.

NPOESS data will improve forecasts and warnings, reducing loss of life and property, and benefit US industry through increased productivity.

NPOESS will provide long-term data continuity for climate monitoring and assessment.

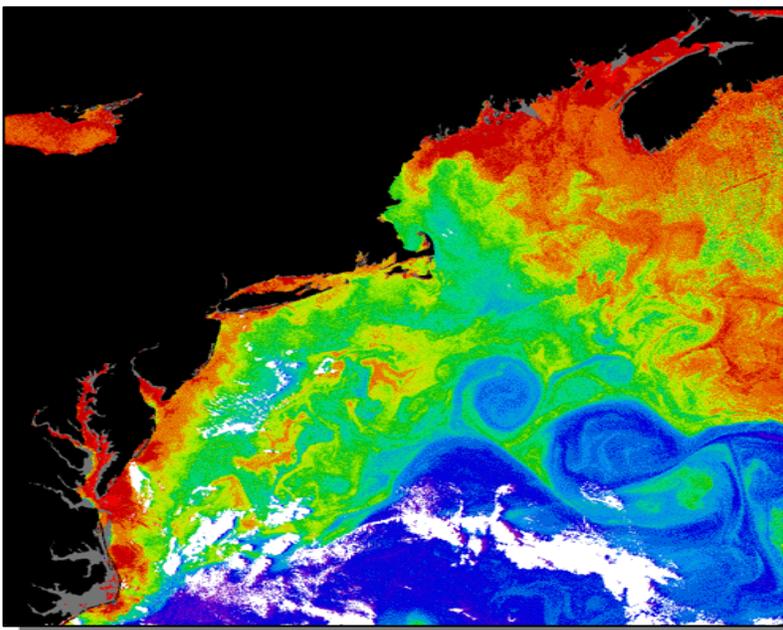
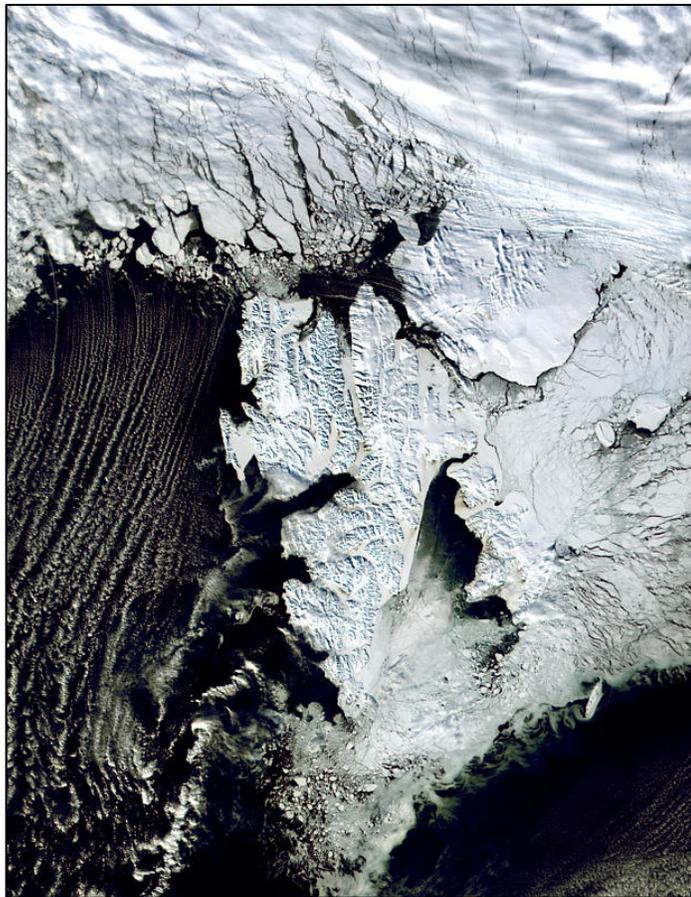


Background

NOAA's Polar-orbiting Operational Environmental Satellite (POES) and the DoD's Defense Meteorological Satellite Program (DMSP) have served the nation for over 40 years.

In 1994, the Administration recognized that converging the Department of Defense (DoD) and Department of Commerce (DOC) systems would result in a more cost effective and higher performance integrated system. As a result, in May 1994, a convergence plan was submitted to the U.S. Congress.

The President endorsed this initiative, signing Presidential Decision Directive NSTC-2, "...establishing a single, converged, operational system [that] can reduce duplication of efforts in meeting common requirements while satisfying the unique requirements of the civil and national security communities. A converged system can accommodate international cooperation, including the open distribution of environmental data." The Directive also established an Integrated Program Office (IPO) to manage the NPOESS program.



Objectives

- Provide a single, national, polar-orbiting remote-sensing capability to acquire, receive, and disseminate global and regional environmental data
- Incorporate new technologies from the National Aeronautics and Space Administration's (NASA's) Office of Earth Science (OES) program
- Encourage international cooperation

The current national architecture includes NPOESS satellites in two orbits to meet the combined civil and military requirements. Complementary data from EUMETSAT's MetOp satellite in the mid-morning orbit will be shared to enhance global coverage and refresh rates for real-time environmental monitoring.