

NASA Facts

National Aeronautics and
Space Administration



John C. Stennis Space Center
Public Affairs Office
Stennis Space Center, MS 39529-6000
(228) 688-3341

May 2006

APPLIED RESEARCH AND TECHNOLOGY

NASA Stennis Space Center plays a key role in NASA's Science Mission Directorate. This division of NASA is dedicated to understanding the sun and Earth, changes in the Earth-sun system and the consequences of the Earth-sun relationship for life on Earth. Research results from this investment provide important predictive information on weather, climate and natural hazards. Applied research and technology projects demonstrate the value of NASA's research to society by helping to solve practical problems and providing information for better decision-making.

Applied research and technology projects focus on the pathways between research and operations to dramatically reduce the adoption cycle for new science and technology to serve the nation. This effort contributes to expanding and accelerating the use of Earth observations, predictions and other research resulting from current and future NASA missions.



Applied Research and Technology helps turn remote sensing data into practical systems that help save lives and property.

Enhancing decision-support systems

Where NASA's charter to extend the benefits of its research results overlaps with other agencies' goals to improve operations and decision-support systems, NASA applied research and technology project leaders establish partnerships to meet both goals.

Through these partnerships with other federal agencies and national organizations, the Applied Research and Technology Project Office at Stennis Space Center is supporting the evaluation, benchmarking and verification and validation of these enhancements to decision-support systems in twelve areas of national importance. Stennis Space Center is also identifying and supporting crosscutting solutions that provide enhancements in multiple application areas.

Meeting priority national needs and opportunities

Successful applied research and technology can save lives and money, and enhance the quality of life while identifying, conserving and protecting natural resources. NASA's Science Mission Directorate has established the following Applications of National Priority:

- Agricultural Efficiency
- Air Quality
- Aviation
- Carbon Management
- Coastal Management
- Ecological Forecasting
- Disaster Management
- Energy Management
- Homeland Security
- Invasive Species
- Public Health
- Water Management

The Applied Research and Technology Project Office focuses on the Coastal Management area.

Coastal Management — Coastal communities can better plan for and mitigate the effects of sea-level change and other coastal hazards by examining the effects of natural and man-made changes on coastal ecosystems. Remote sensing data can also help provide advanced warnings of hypoxia and harmful algal blooms.

The Applied Research and Technology Project Office's function in this nationally important area is critical. The office supports identification of the decision-support systems that would benefit from NASA's science missions and models. This critical role calls upon Stennis Space Center's unique technical expertise and on-site capabilities.



Satellite images such as this one showing the Mississippi River sediment plume in the Gulf of Mexico can support efforts to conserve fragile coastal ecosystems.

For more information on remote sensing applications research and development, contact the Stennis Space Center Applied Research and Technology Project Office at (228) 688-2042, or access the ARTPO Home Page at www.asd.ssc.nasa.gov.