A satellite is shown in space, emitting a beam of light that illuminates a portion of the Earth's surface. The satellite is a complex structure with various instruments and antennas. The Earth's surface is depicted with a mix of green, brown, and blue, representing different terrain types. The background is a dark, starry space.

GOES – A User's Perspective

**Brig. Gen. David L. Johnson, USAF (Ret.)
National Oceanic and Atmospheric Administration
Assistant Administrator for Weather Services**

Thank You!



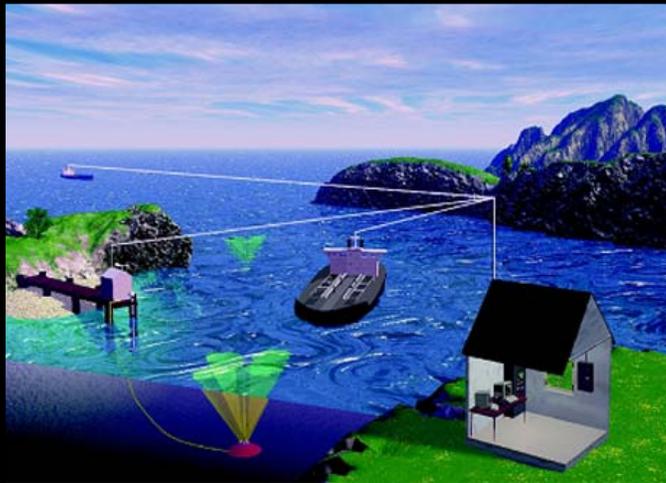
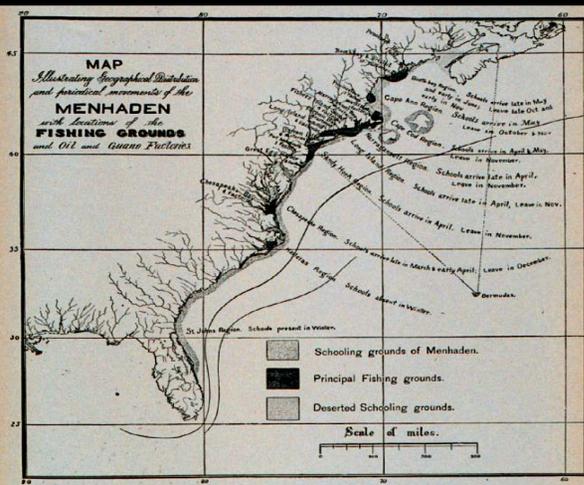
Outline

The background of the slide is a composite image. At the top, there's a blue sky with white clouds. Below that, a dark space scene shows a satellite in orbit around Earth. The Earth is partially visible on the right side, showing continents and oceans. The overall theme is space and satellite technology.

- The NOAA Vision
- GOES Capabilities
- Services
 - New Services
 - Improve Existing Services
- Summary

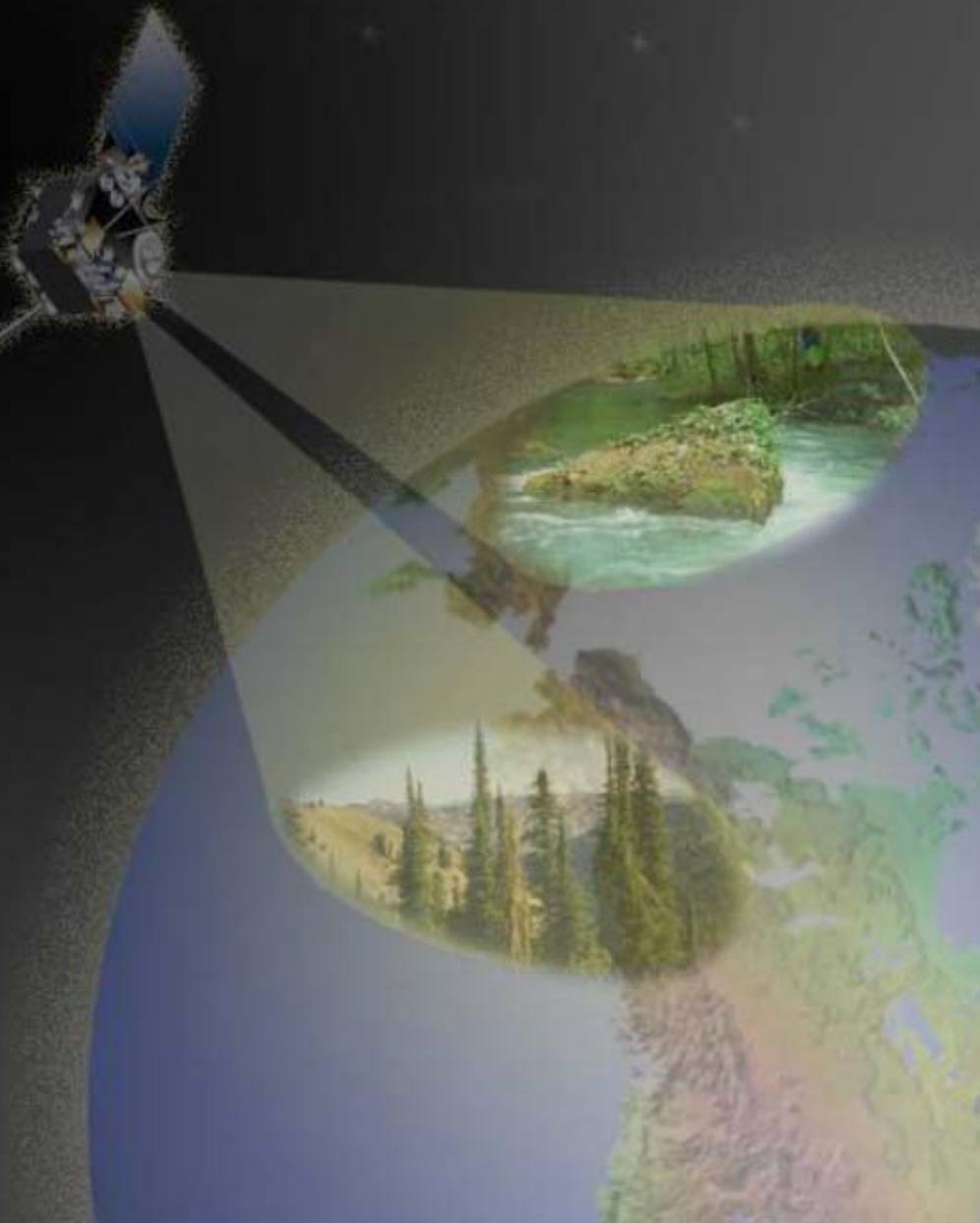
NOAA Vision

- To move NOAA into the 21st Century scientifically and operationally, in the same interrelated manner as the environment that we *observe and forecast*, while recognizing the link between our global economy and our planet's ecology.



GOES Capabilities

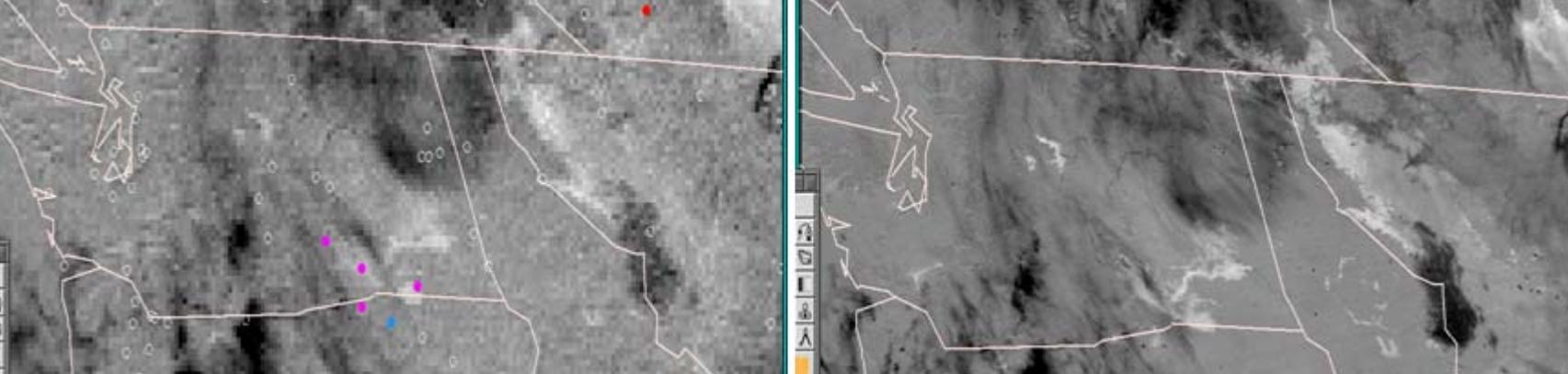
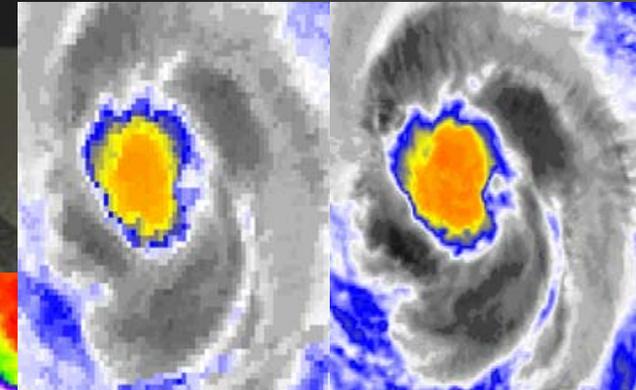
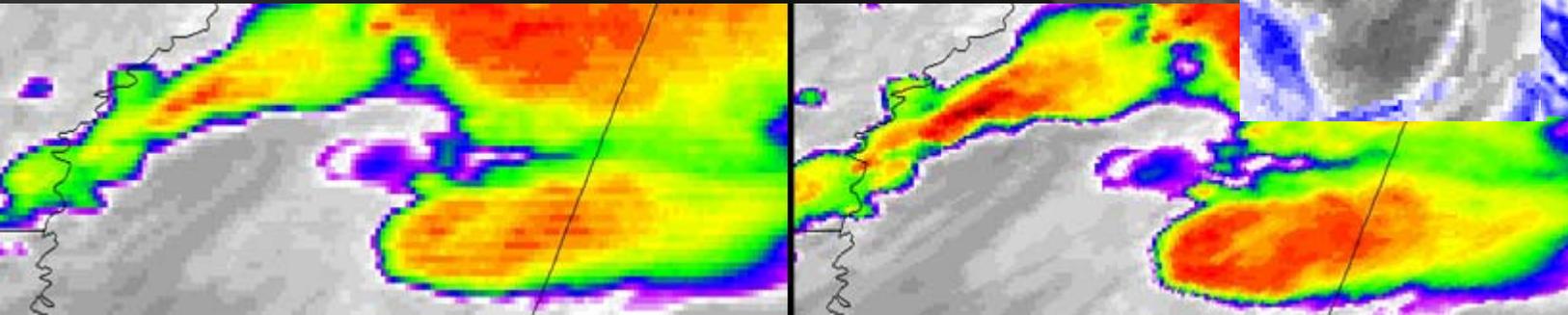
- Imagery
- Sounder
- Space Weather
- Dissemination
- Data Collection



GOES Capabilities

Imagery

- Where we are now (current GOES)
- Where we are going in the future (GOES-R)
- Why is this important?

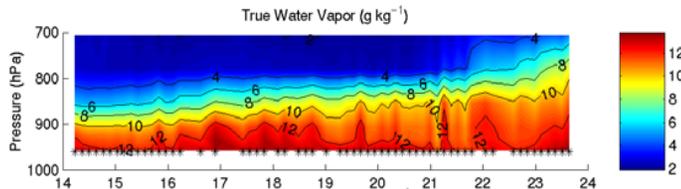


GOES Capabilities

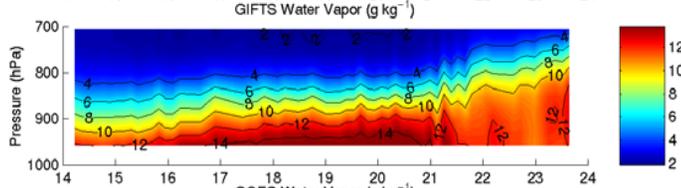
Sounder

- Where we are now (current GOES)
- Where we are going in the future (GOES-R)
- Why is this important?

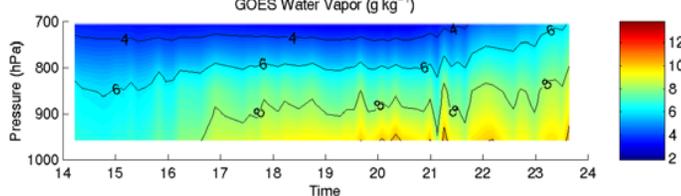
TRUTH



GIFTS



GOES 8



GOES Capabilities

Space Weather

- Where we are now (current GOES)
 - SEM (EPS, HEPAD, XRS, magnetometer)
 - SXI
- Where we are going in the future (GOES-R)
 - SIS (XRS, SXI, EUVS)
 - SEISS (MPS, EHIS, SGPS, magnetometer)
- Why is this important?

GOES Capabilities

Dissemination

- Where we are now (current GOES)
 - EMWIN
 - WEFAX/LRIT
- Where we are going in the future
- (GOES-N/P)
 - EMWIN
 - LRIT
- Why is this important?

GOES Capabilities

Data Collection

- Where we are now (current GOES)
- Where we are going in the future (GOES-R)
- Why is this important?

Services

- What we need
 - Environmental Situational Awareness
 - Environmental Situational Understanding
 - Action!
- How do we get there?
 - New Services
 - Air Quality
 - National Digital Forecast Database (NDFD)
 - Space Weather
 - Tsunami Warnings
 - Improve existing services
 - Aviation
 - Climate
 - Hydrologic
 - Public

New Services

Air Quality Forecasts

- Vision
 - NWS will provide operational AQ models and generate forecast pollutant concentrations
- Lives and property at risk from poor AQ
- AQ Forecast guidance produced 2 times daily
- Phased Deployment
 - Implemented September 2004 for Northeastern US (next-day, ozone)
 - Deploy Nationwide by 2009
 - Develop particulates forecasts capability in 5 year timeframe

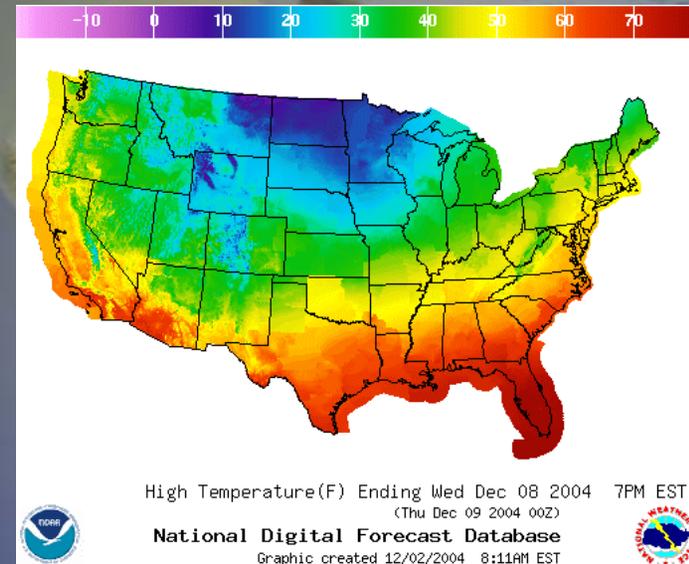
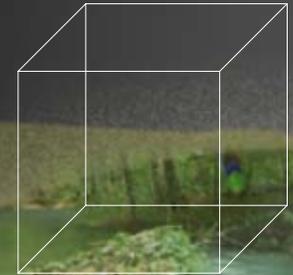


New Services

National Digital Forecast Database

Vision:

- Official status on December 1
 - Max Temperature
 - Min Temperature
 - PoP 12
- Improvements necessary before declaring these grids operational
 - Temperature
 - Dew Point
 - QPF
 - Snow amount
 - Sky cover
 - Wave heights
 - Wind direction and speed

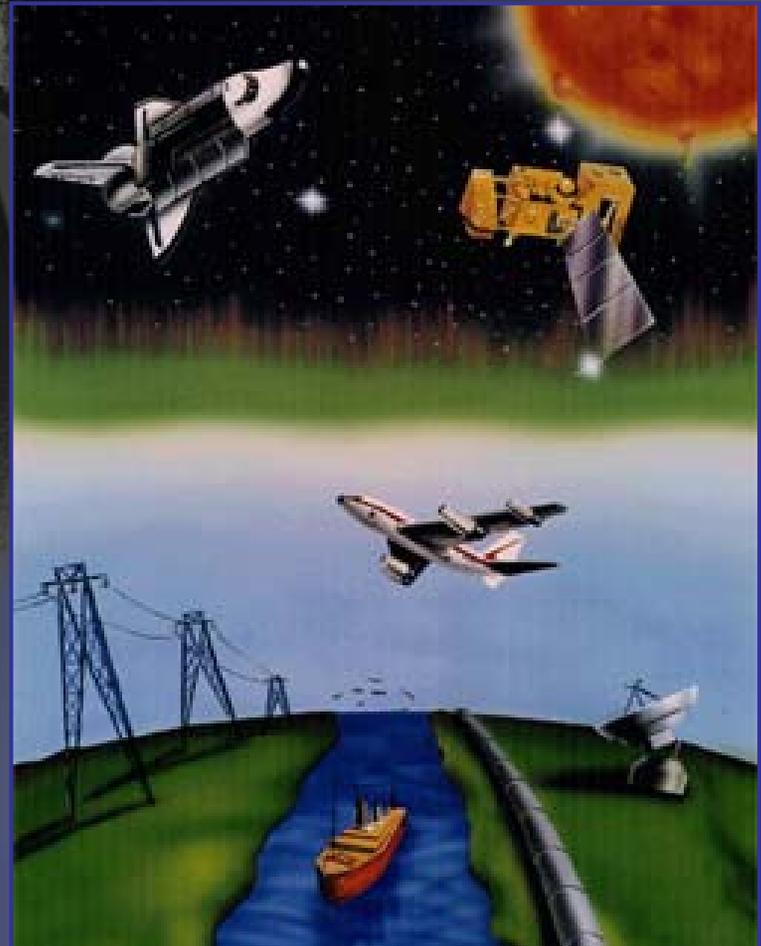


New Services

Space Weather

Space Environment Center Transfer to NWS

- Vision:
 - NOAA's mission relates to space weather
 - describe and predict changes in the Earth's environment
 - protect life and property and enhance the economy
 - SEC will be placed within the National Centers for Environmental Prediction

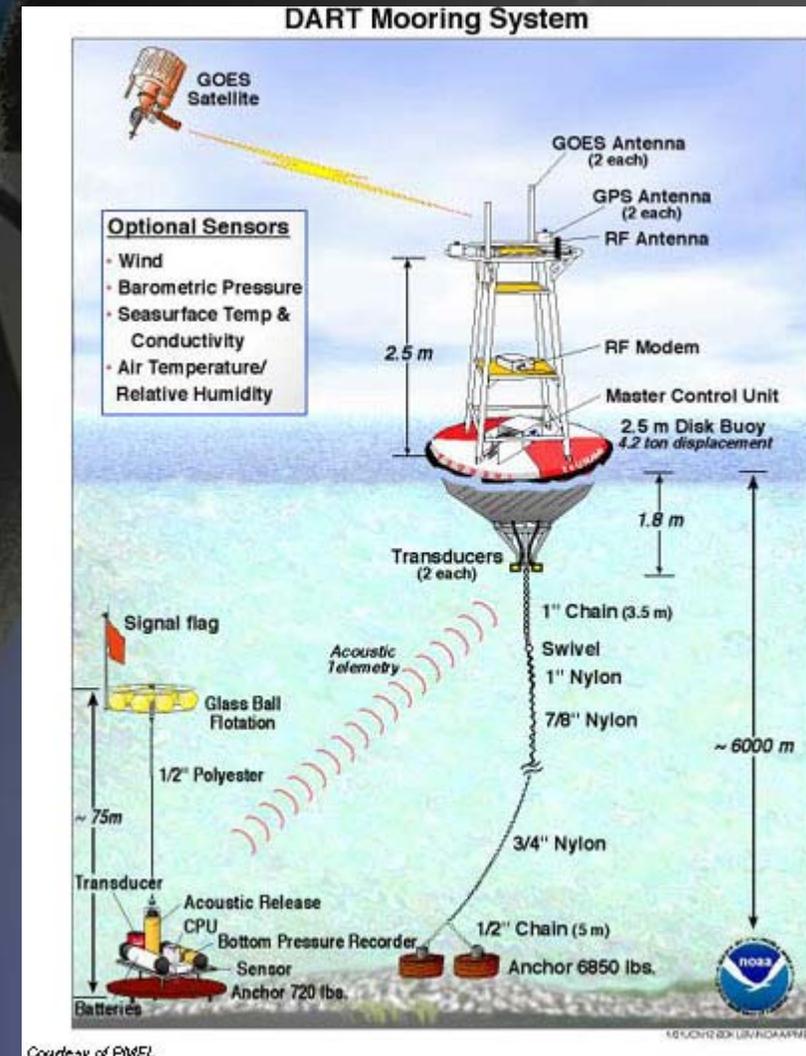
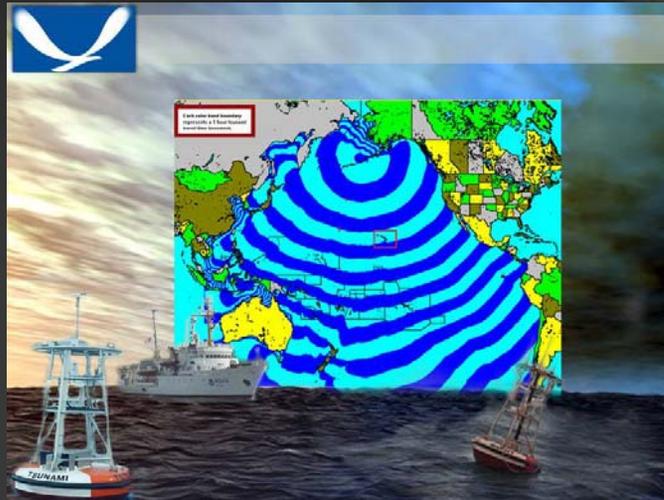


New Services

Tsunami Warnings

Vision:

- Develop and implement a capability for the early detection and real-time reporting of tsunamis in the open ocean
- Reduce the loss of life and property
- Eliminate false alarms and the high economic cost of unnecessary evacuations



Improve Existing Services

Aviation

Vision:

- Support FAA's safe and efficient National Airspace System.
 - Increase use and effectiveness of environmental information.
 - Reduce number of accidents.
- Low Ceiling and Visibility
 - Issue accurate warnings an average of 6 hours in advance for specific airports to provide aircraft enough time to reschedule and/or reroute to avoid hazardous conditions.
- Turbulence and Icing
 - Issue accurate warnings an average of 5 hours in advance along flight corridors to allow aircraft to reroute around dangerous areas.

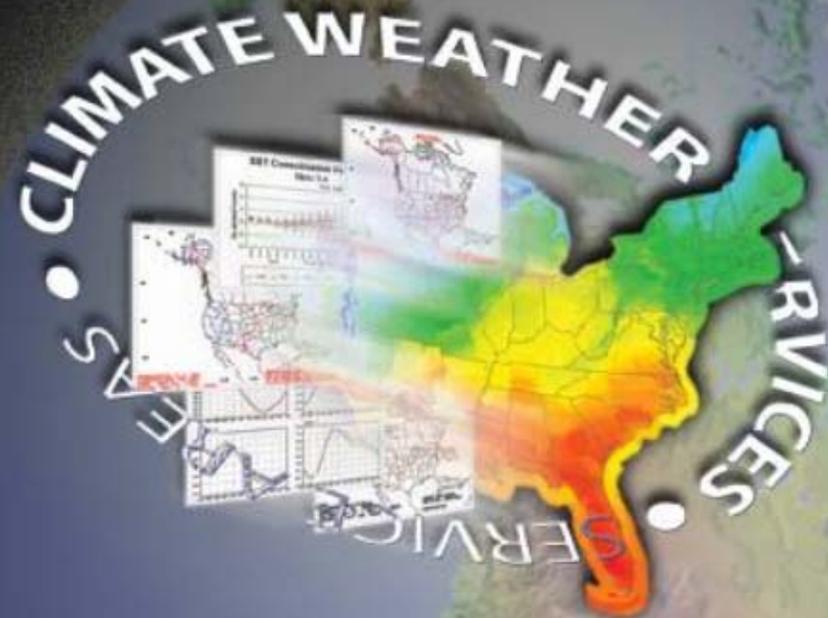


Improve Existing Services

Climate

Vision:

- An end-to-end system of integrated global information of key atmospheric, oceanic and terrestrial variables.
- Issue reliable probabilistic forecasts.
- Predict climate variability and change, at time and space scales relevant to ecosystem models.



Improve Existing Services

Hydrologic

Vision:

- Water Resources
 - Provide high-resolution water and soil moisture information and forecasts where and when needed.
- Flash Floods
 - Increase warning lead time for counties to as much as 1 hour.
- Water Quality
 - Provide reliable surface and sub-surface water quality forecasts.



HYDROLOGIC WEATHER SERVICE
SERVICES AREAS

The logo is a circular emblem. The top half of the circle contains the text 'HYDROLOGIC WEATHER SERVICE' in a white, sans-serif font. The bottom half contains the text 'SERVICES AREAS' in the same font. The center of the circle features a composite image: on the left, a house is partially submerged in floodwater; on the right, a green map of a region with various colored areas and lines is overlaid on a landscape background.

Improve Existing Services

Public Weather

Vision:

- Through teamwork, reach every person in the nation with information when and where needed.
- Satisfy customer and partner requirements for consistent, timely, and accurate weather services, products, forecasts, and warnings.
- To support evolving services to support national needs.



Summary

- Users value GOES data
 - For what it has done
 - For what it is doing
 - For what it promises in the future
- GOES will form a foundation to build on GEO and GEOSS
- Improve partnerships, nationally and internationally
 - *Weather enterprise focus*

