

The Role of the Global Observing System in Weather and Climate Prediction

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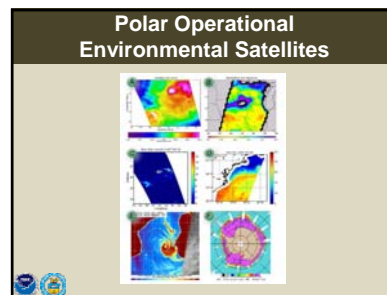
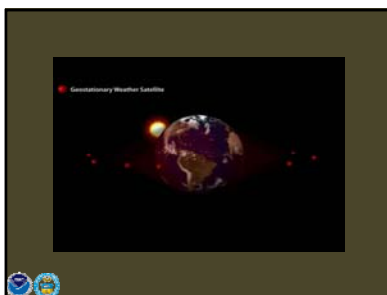
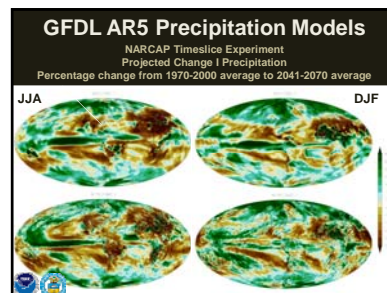
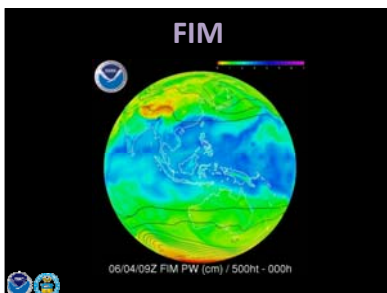


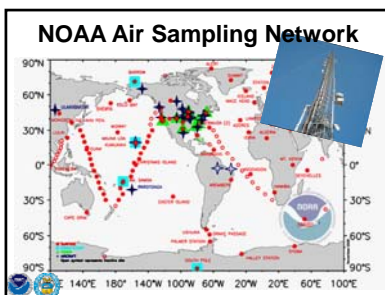
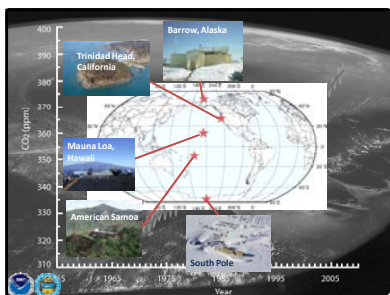
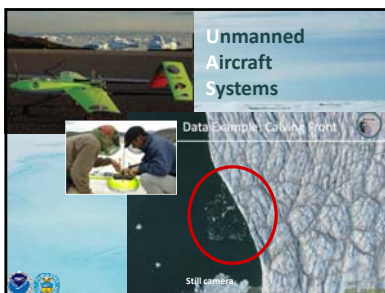
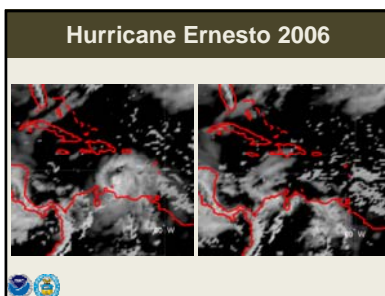
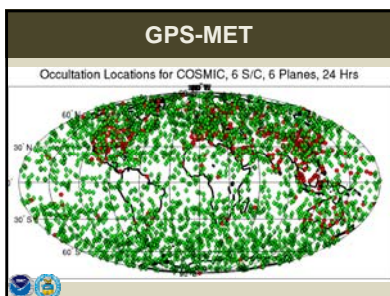
Societal Challenges

Weather Models – Next-Generation

FIM
Flow-following finite-volume
Icosahedral
Model

Icosahedral grid





Initial Global Ocean Observing System for Climate

The initial system is designed to meet climate requirements, but it also supports:

- Weather prediction
- Global and coastal ocean prediction
- Marine hazards warning
- Transportation
- Marine environment and ecosystem monitoring
- Naval applications

International Systems - all data is publicly available

- All use of EO2 platforms are primarily mission-specific
- Of these, EO2 are sponsored by NOAA

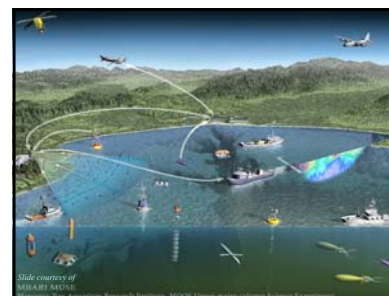
- Trill group stations
- Drifting buoys
- Thrust-limited buoys
- Profiling floats
- Ships of Opportunity
- Ocean Reference Stations
- Ocean Carbon Networks
- Acute Observing Systems
- Dedicated Ship Support
- Data & Automation Subsystems
- Management and Product Delivery
- Satellites - SST, Surface Topography, Wind, Color, Sea Ice

Global Ocean Observations on Google Earth

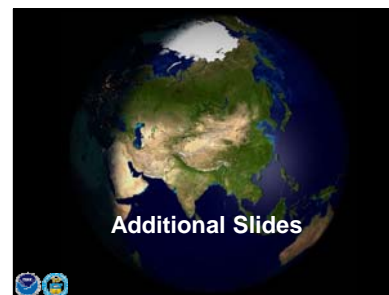


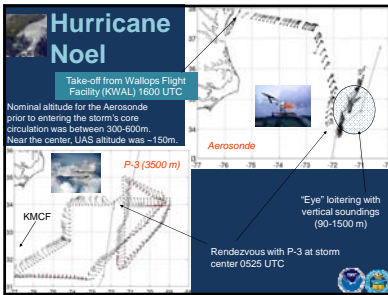
Exploring the western Pacific

Autonomous Underwater Vehicles



Societal Challenges





Global Hawk Test Planning

NASA Dryden Flight Research Center (DFRC)

- Two Global Hawks have been acquired by NASA DFRC, CA and will be used, in part, for earth science research and application studies
- NOAA (with NASA and NCAR) is building a dropsonde system (100ft), dropsonde sys. development coordinated by D. Fahey (NOAA)

The image shows a white Global Hawk unmanned aircraft on a runway. The aircraft is a high-altitude, long-endurance surveillance and reconnaissance aircraft. It has a V-shaped wing and a T-tail. The background shows a clear sky and a flat landscape.