



CDR Philip Hall, NOAA
Aircraft Operations Center
MacDill AFB, FL



Office of Marine and Aviation Operations

NOAA Structure



**Oceanic &
Atmospheric
Research
(OAR)**

**National
Ocean
Service
(NOS)**

**National
Environmental
Satellite, Data
& Information
Service
(NESDIS)**

**National
Marine
Fisheries
Service
(NMFS)**

**National
Weather
Service
(NWS)**

**Programming,
Planning &
Integration
(PPI)**

**Office of
Marine &
Aviation
Operations
(OMAO)**



Office of Marine and Aviation Operations



Office of Marine and Aviation Operations

Twin Otter Missions

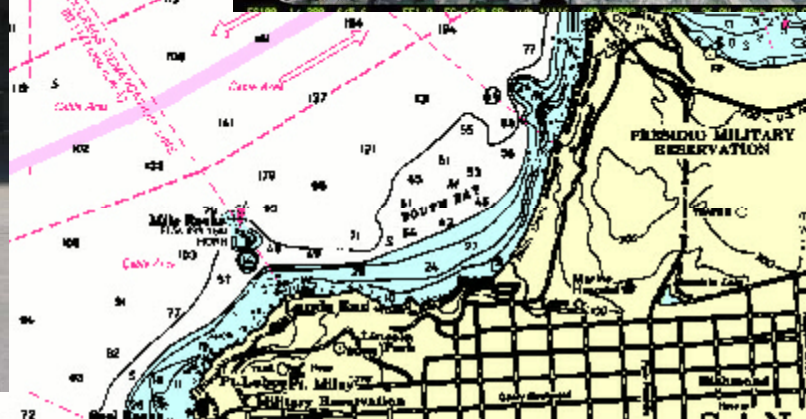
- Marine Mammal Research
- Fisheries Assessments
- Remote Sensing
- Air Chemistry



Office of Marine and Aviation Operations

King Air Missions

- Coastal Mapping
- High Altitude Photogrammetry
- Airport Photography



Office of Marine and Aviation Operations

Turbo Commander Missions

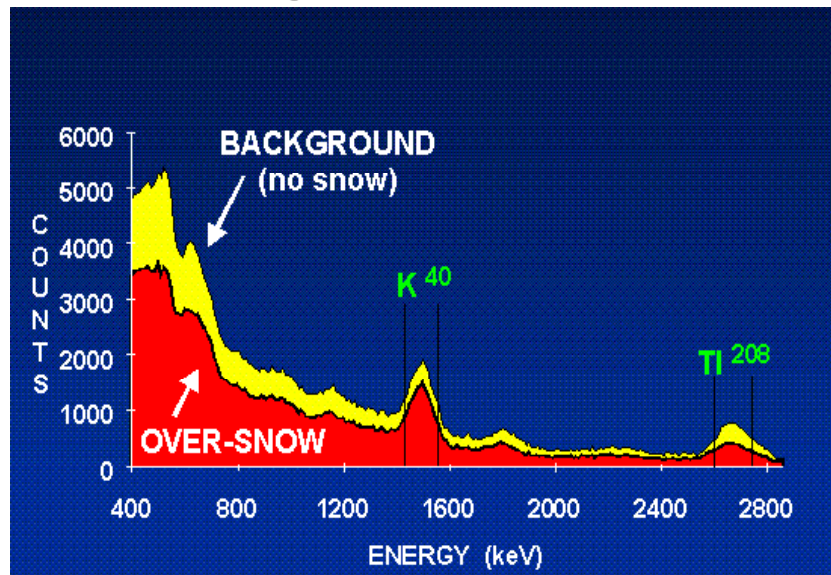
- Photogrammetry
- Obstruction Charting
- Coastal Mapping
- Snow / Moisture Survey



Office of Marine and Aviation Operations

Shrike Missions

- Snow /Moisture Survey
- Flood Forecasting
- Fisheries Assessments
- Flight Edit



Office of Marine and Aviation Operations

WP-3D Missions

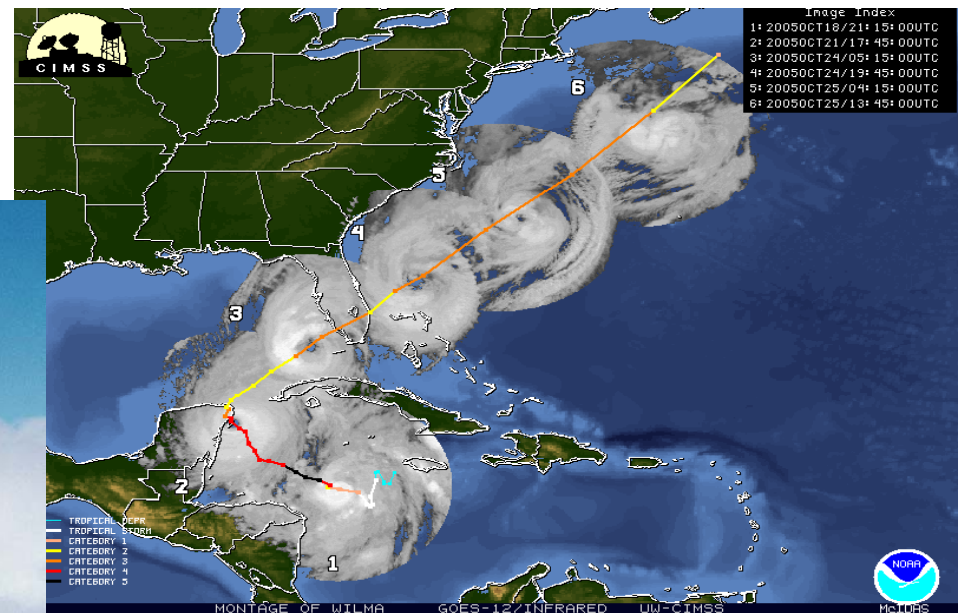
- Hurricane Research
- Air Chemistry Research
- Severe Storm Research
- Global Weather Research
- Cloud Physics Research
- Satellite Instrument Development
- Arctic/Antarctic Ice Research



Office of Marine and Aviation Operations

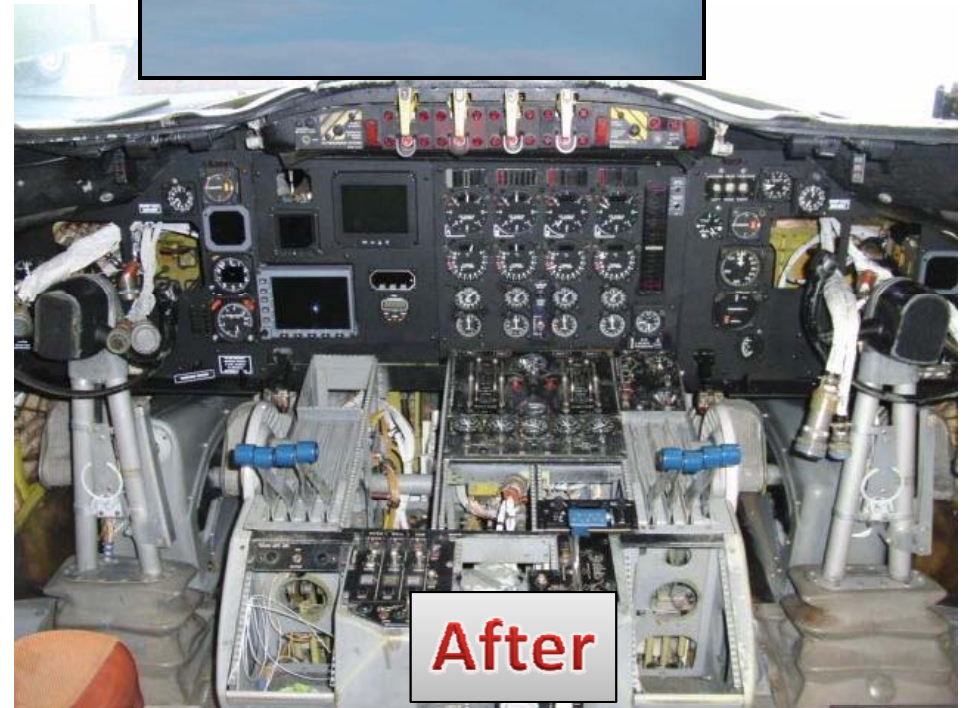
Gulfstream IV Missions

- High Altitude Weather Research
- Atmospheric Research
- Hurricane Surveillance
- Hurricane Research



Office of Marine and Aviation Operations

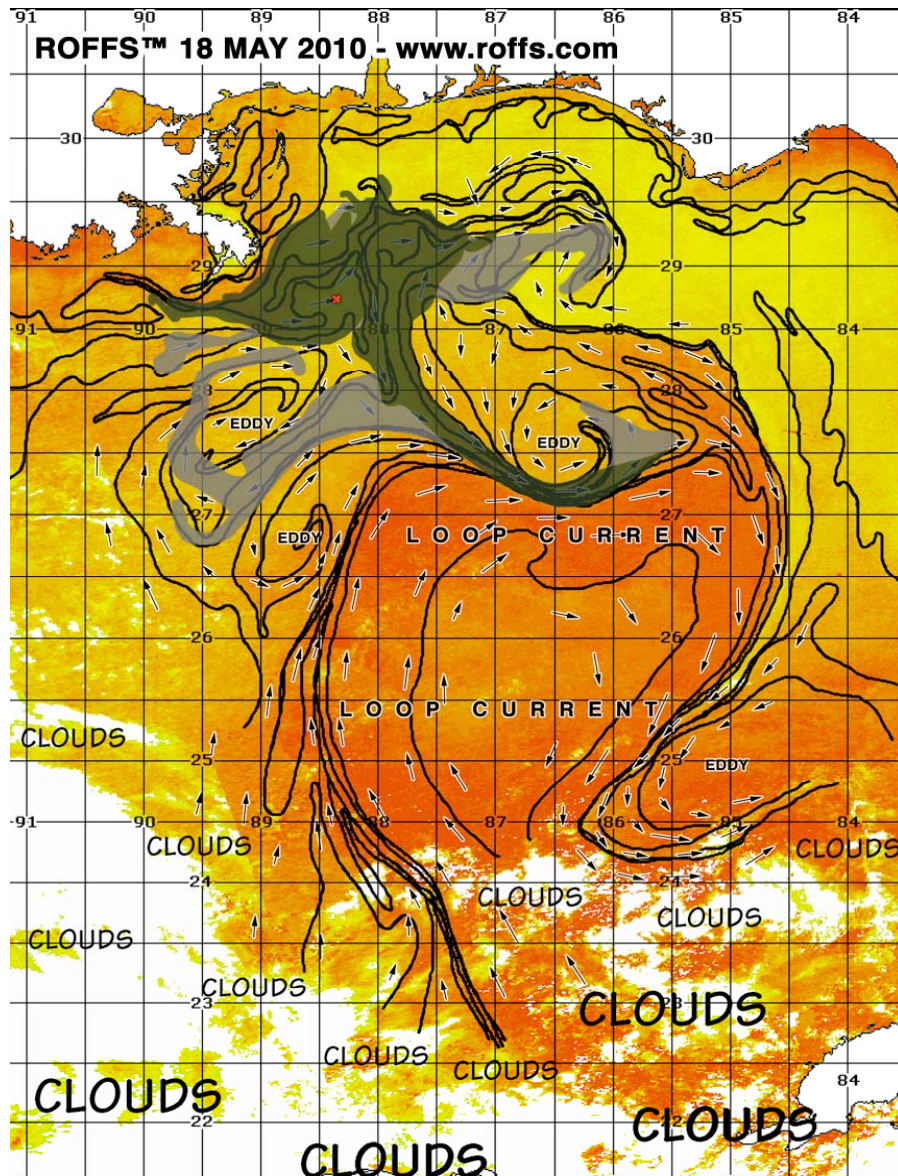
Third P-3 – N44RF



Deepwater Horizon Support



Office of Marine and Aviation Operations



Deepwater Explorer WP-3D Missions



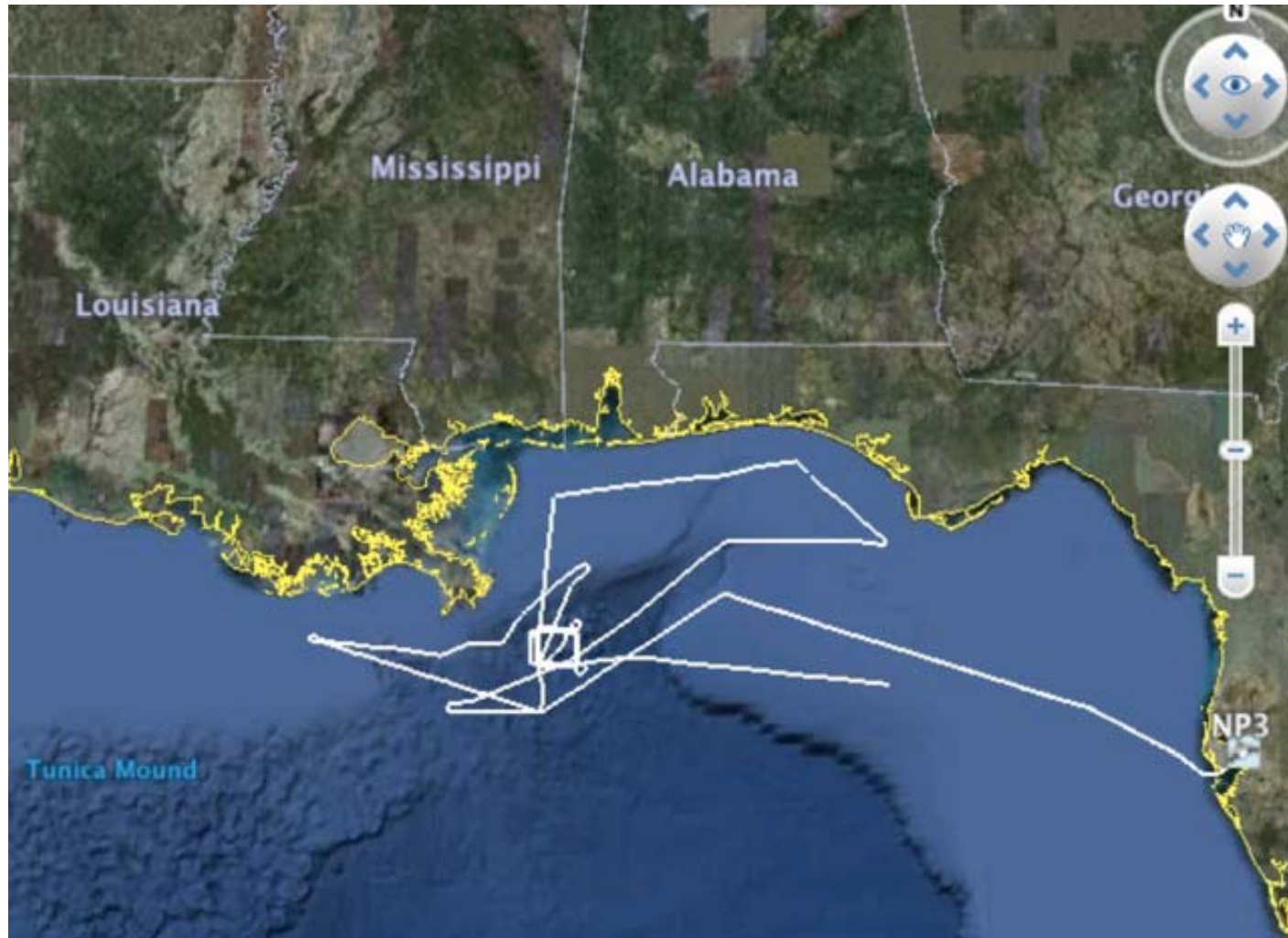
Office of Marine and Aviation Operations

Air Chemistry



Office of Marine and Aviation Operations

Air Quality Flights



Office of Marine and Aviation Operations

2-Twin Otters



Office of Marine and Aviation Operations

Marine Mammals, Sea Turtles and Law Enforcement Observations

- 82 Missions

- 236 flight hours

- Data used to:
determine animal
distribution and status,
fishing vessel location
in relation to fishery
closure area



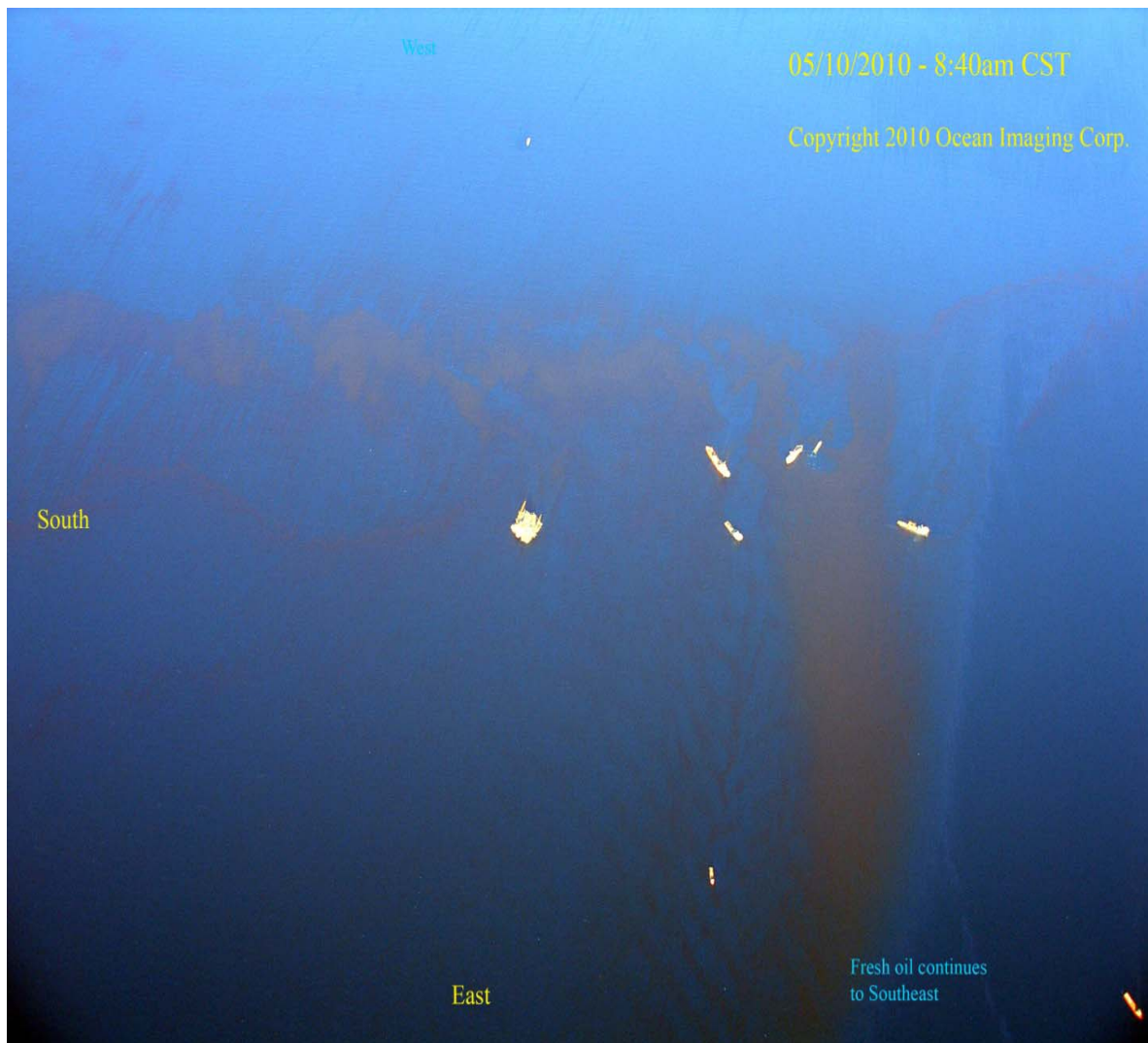
Office of Marine and Aviation Operations

Multi Spectral Imager (Oil Thickness/ Density Flights)

-73 Missions

-218 flight hours

-Data used to:
determine oil
distribution and
thickness, direct
boom/skimmer
operations, validate
AVIRIS,



King Air BE-350ER

-35 Missions

-161.4 flight hours

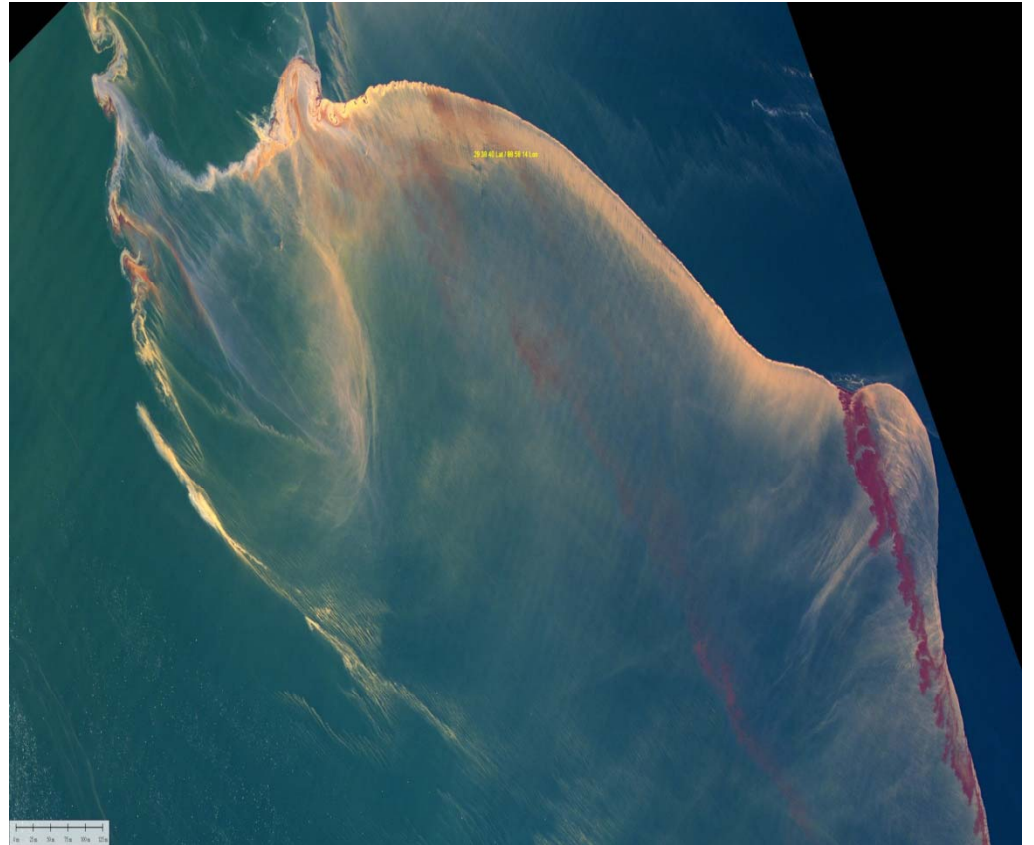


Office of Marine and Aviation Operations

King Air DWH

Data disseminated to:

- NOAA ERMA (Environmental Response Management Application)
- Google Oil Spill Crisis Page
- USGS HDDS: Direct download of tiled mosaics and WMS feed

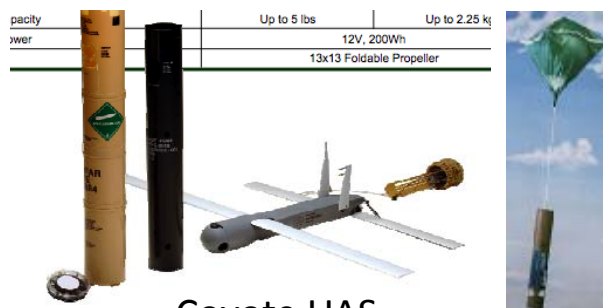


Office of Marine and Aviation Operations

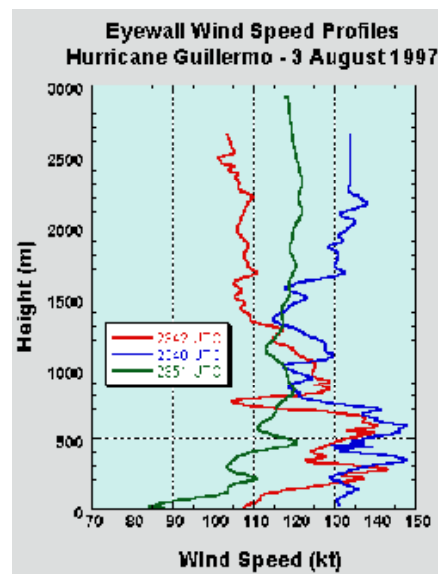
Improved Use of Observations

- In-situ**

- Wind, press., temp.



Coyote UAS

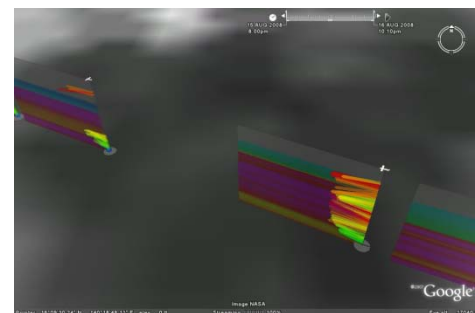


- Expendables**

- Dropsondes
- AXBT, AXCP, buoy

- Remote Sensors**

- Doppler Radar
- SFMR
- DWL (ONR)
- WSRA
- Scatterometer/ profiler
- UAS



Office of Marine and Aviation Operations

Rob Rogers, AOML/HRD



Office of Marine and Aviation Operations



Office of Marine and Aviation Operations

Backup Slides

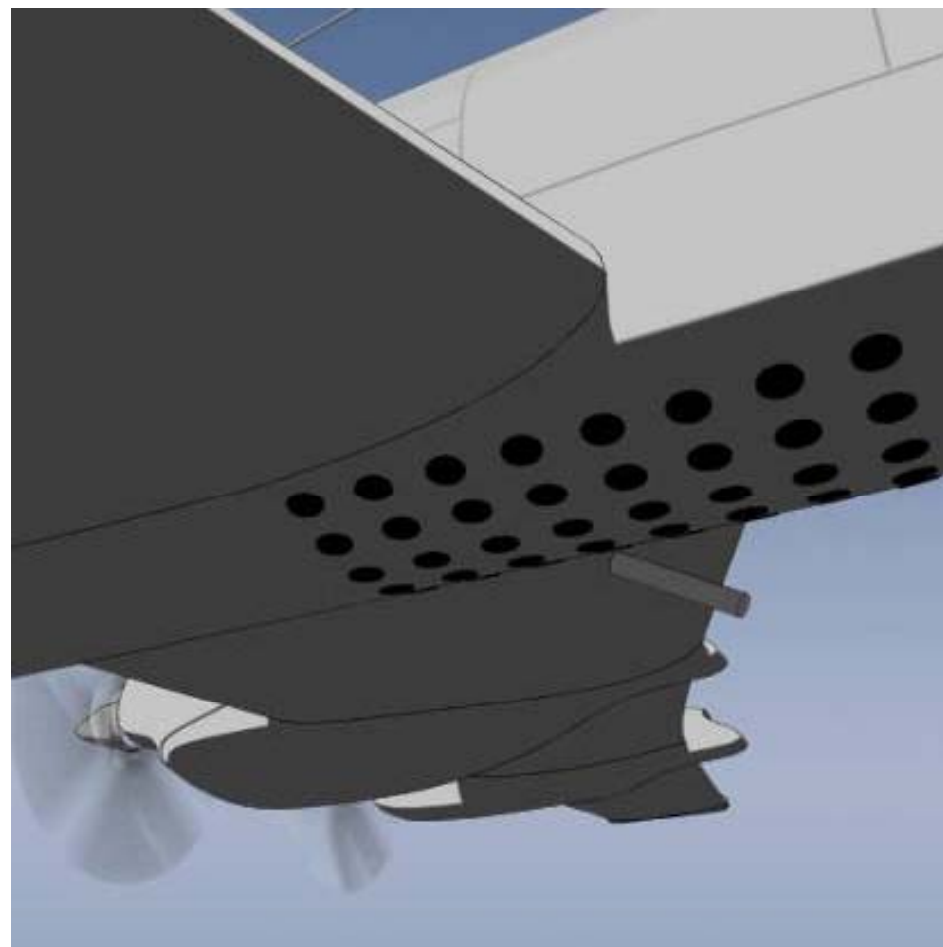
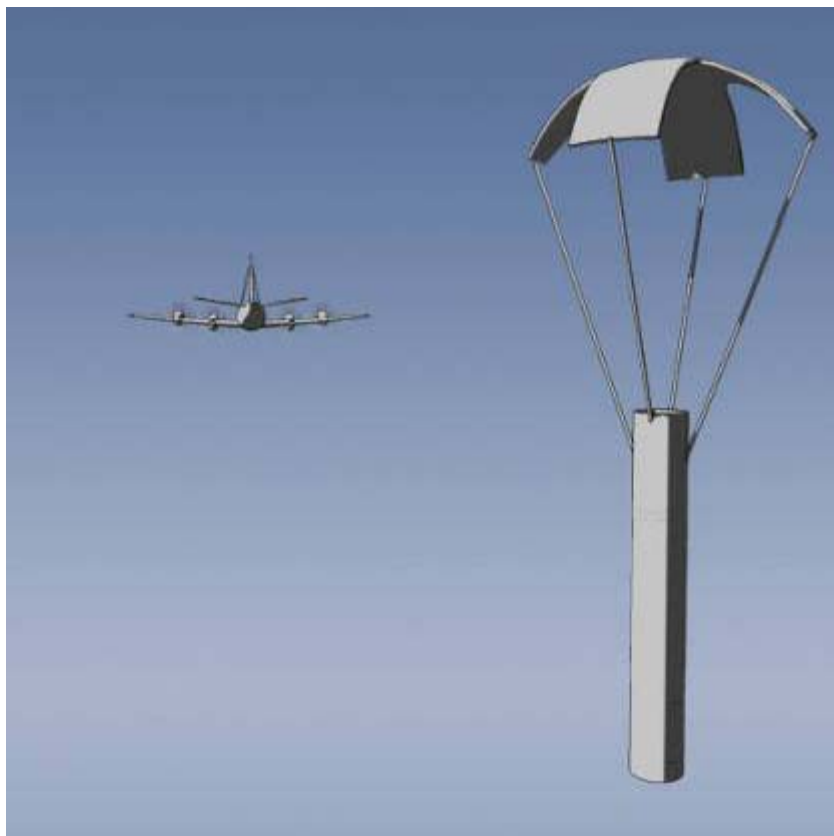


Office of Marine and Aviation Operations

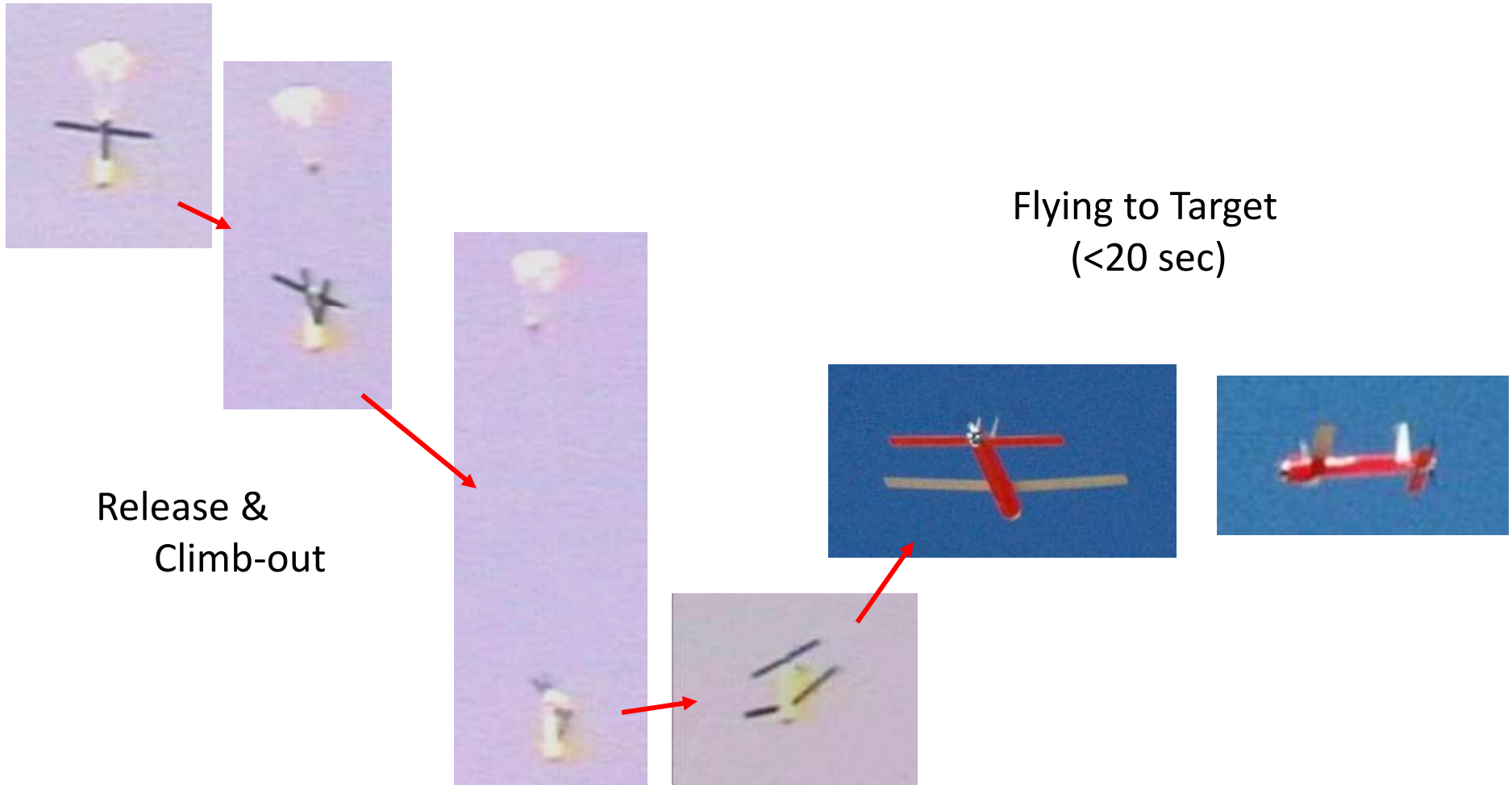
Coyote UAS

Partnership with NAVAIR and BAE Systems
Packaged in sonobuoy tube
Deployed from WP-3D free-fall chute
Demonstration flight 20 Sept 2009
Telemetry data streamed to GCS on WP-3D





Coyote – Mission Sequence



Quadrocopter UAS

- First and only NOAA owned UASs
- Based at AOC. Agreement with MacDill to conduct training and field testing flights on base.
- Photogrammetry in remote and challenging locations
- Field project Antarctica January 2011



Quadrocopter UAS

28



Office of Marine and Aviation Operations

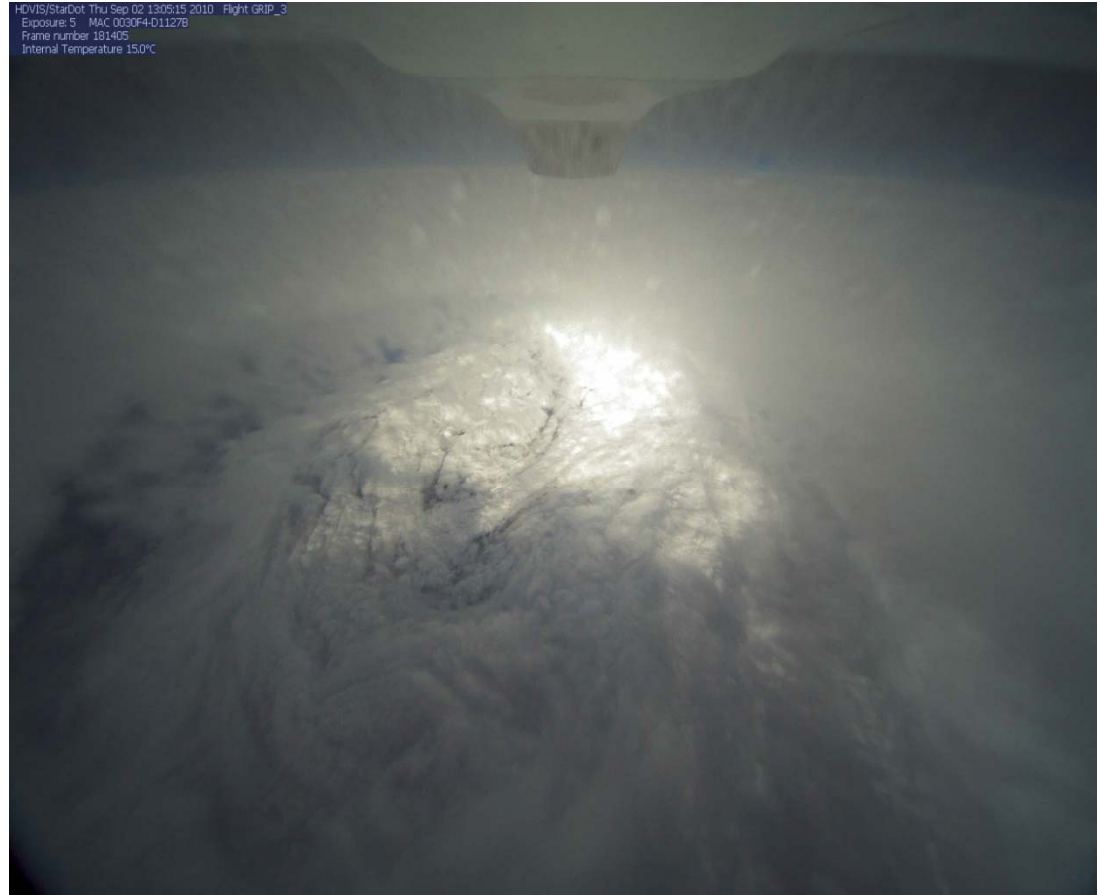
Unmanned Aerial Systems



Office of Marine and Aviation Operations

Global Hawk UAS

- NOAA partnership with NASA and Northrup Grumman
- Participating in NOAA/NASA/NSF 2010 hurricane research
- Successful flights over eye of CAT 4 Hurricane Earl



Office of Marine and Aviation Operations