CDR Philip Hall, NOAA
Aircraft Operations Center
MacDill AFB, FL
NOAA Structure
Twin Otter Missions

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

- Coastal Mapping
- High Altitude Photogrammetry
- Airport Photography
 Turbo Commander Missions

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

- Snow /Moisture Survey
- Flood Forecasting
- Fisheries Assessments
- Flight Edit
WP-3D Missions

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

- High Altitude Weather Research
- Atmospheric Research
- Hurricane Surveillance
- Hurricane Research
Third P-3 – N44RF
Air Chemistry
Air Quality Flights
2-Twin Otters
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
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
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
Improved Use of Observations

• **In-situ**
  – Wind, press., temp.

• **Expendables**
  – Dropsondes
  – AXBT, AXCP, buoy

• **Remote Sensors**
  – Doppler Radar
  – SFMR
  – DWL (ONR)
  – WSRA
  – Scatterometer/ profiler
  – UAS

Rob Rogers, AOML/HRD
Backup Slides
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

- Flying to Target (<20 sec)
- Release & Climb-out
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

Office of Marine and Aviation Operations
Unmanned Aerial Systems
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