NOAA/OMAO Operations



Tuesday, April 1, 2014 RDML Anita L. Lopez, Deputy Director for Operations Office of Marine and Aviation Operations



TAO Buoy Array



- Major component of the El Niño / Southern Oscillation (ENSO) Observing System
- NOAA Ships, UNOLS and others have partnered to maintain the array.



Hurricane Operations



- Two P-3 and one Gulfstream IV Hurricane Hunter aircraft provide storm data from both in the heart of the hurricane and the environment surrounding it.
- Tail Doppler Radar data now being ingested into HWRF

Airborne Climate Research

- Heavy aircraft provide versatile platforms for climate studies such as Arctic Flux – studying the potential affects of ice free ocean on Arctic and sub Arctic weather.
- Converted to a flying chemistry laboratory measuring atmospheric gases, aerosols and radiation, the WP-3D looks at the impact of both natural and anthropogenic emissions on climate on a regional scale in the U.S. with emphasis on urban areas.





Fisheries



Ichthyoplankton and Zooplankton Survey (May)

BASIS (August-September) Ichthyoplankton, zooplankton, juvenile fish



 NOAA RV Oscar Dyson supports research in the southeastern Bering Sea to understand climate-mediated effects on walleye pollock recruitment (largest single species fishery in the US) and salmon bycatch in the pollock fishery.



NESDIS Ocean Surface Vector Wind Validation and Calibration





- Calibration/Validation of current satellite missions (METOP/ASCAT-A;B, OceanSat-2/OSCAT, GCOM-W1/ASMR2) in regions of high winds, heavy precipitation and variable sea surface temperatures.
- Summer and winter operations with the P-3 aircraft hurricanes in the summer; North Atlantic cyclones in the winter

Monitoring and assessment of climate change effects on the ocean.



- Coral Reef Assessments and Monitoring
- Ocean acidification
 monitoring
- Habitat change mapping and biogeography
- Harmful algal bloom predications and monitoring





Snow Survey/Water Resources



- Two NOAA aircraft use Gama detectors to estimate Snow Water Equivalency and Soil Moisture
- Surveys typically cover the upper mid-west, the northeastern US, southern Canada and Alaska
- The data are incorporated into the National Snow Analysis



Unmanned Systems



- NOAA Pilots and Technicians contribute to NASA Global Hawk projects, including the Hurricane and Severe Storms Sentinel project to investigate storm formation and intensification over remote areas.
- NOAA utilizes small UASs for marine mammal surveys in the Arctic and Antarctic as well as the monitoring of marine sanctuaries.