

# *High Seas Session*

**Identify a suite of integrated information products**

**Determine the types of analyses that are required and, in turn, the specific data sets and observing systems that are needed to support these analyses; and**

**Establish quasi-discrete geographic areas/climatic regimes where the analyses leading to information product development will be carried out.**

# *General Discussions/Notes*

- **Large variety of analyses and applications, some within the same general topics**
- **Significant impact of other parameters noted on many of the different analysis, such as El Nino, PDO, Mesoscale Eddies**
- **The scale of the analysis varied, from local, regional to national**
- **Goal of PRICIP: standardization of analysis and facilitation of products to users**
- **Need for more user involvement within process**

# Current Analyses

## Waves

- Empirical Parameterizations of Wave Runup
- Decadal trends of increasing average winter wave heights and periods and projections of extreme values
- Correlation of various climate/storm indices to winter wave height/residuals
- Seismic to Wave Reconstruction
- Eastern Pacific Wave Analysis
- “Storminess” from non-tide residuals
- Storm Surge Model (GOM)
- Wave data at Remote Locations in Pacific (CREIOS)
- Mean Wave Event Frequencies (Remote Pacific)

# *Current Analyses* *Water Levels*

- Annual/monthly max/min exceedence probabilities
- Mean Relative Sea Level Trends
- Interannual Variations of mean relative sea levels
- Number of extreme sea level events as daily deviation above a threshold
- Time-longitude plot of altimeter track data
- Gridded altimeter SSH contours and geostrophic currents
- Beach Hazard Ratings Website (Oahu)
- Sea Level Variability Estimates
- Topex/Posiden Sea Level Anomalies measurements
- Oregon Coastal Inundation Visualization Tool
- Vertical Datum (V-Datum) tool

# *Current Analyses*

## *Erosion/Shoreline Change*

- Lidar analysis of changes in sand volumes (Netarts Cell, OR)
- Probabilistic assessment of coastal vulnerability
- Exceedence probability curves of extreme wave runup onshore
- Annual coastal erosion rates and aerial coastal imagery (Hawaii)
- Quasi-probabilistic decadal-scale shoreline change predictions based on climate variability
- Hot spot erosion
- Coastal Vulnerability Assessment

# *Current Analyses* *Hazards*

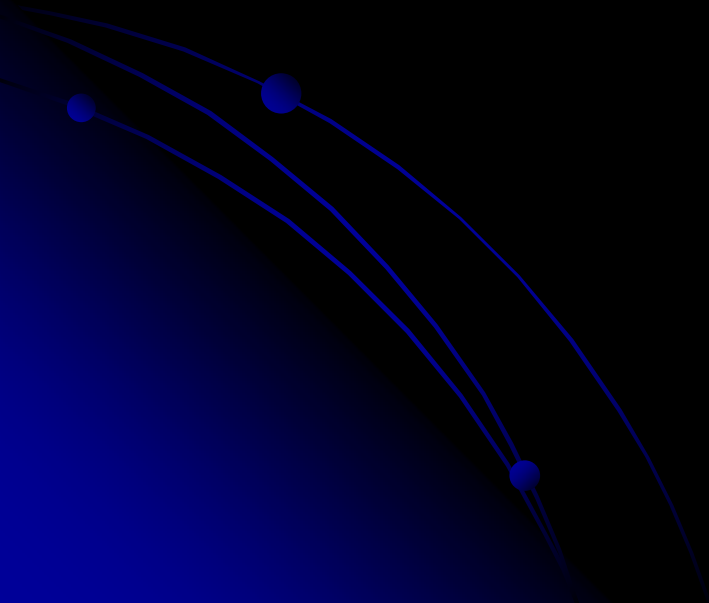
- **Online Hazards Assessment Tools**

## *Existing User Input*

- **Hurricane Isabel Assessment – User Needs Assessment**
- **Island Coastal Zone Managers Meetings**

# *Other existing data sites*

- nowCOAST web portal
- NOAAWatch web portal



# *Proposed/Future Products*

- **Beach Hazard Warnings**
- **Forecasts of Mesoscale Eddies**
  - **Emergency measures for beach protection**
- **Forecasts of water level damage to coastal beaches**
- **Coastal Set-Back Estimates**
- **Future Erosion Hazard Zones**
- **Sea Level Change Prediction on a range of time scales**