The Pacific Regional Oceanographic Atlas

Rusty Brainard
John Sibert
Russell Moffitt
William Skirving
Overview

Project Goal
Participants
Distribution Format
  • Electronic Atlas
  • Printed version
Geographic Coverage
Web Interface
Time Line (milestones)
The Atlas Project

GOAL:
To provide a single point of access to oceanographic data for use by scientists and managers of fisheries and coral reefs

Participants:
• JIMAR
  • PFRP
• NOAA
  • NMFS
  • NESDIS
  • NODC
Distribution Format

Electronic atlas
- static ⇒ *initially*
- near-real-time ⇒ *after printed version*

Printed version
- static ⇒ *periodically updated*
Atlas functionality

Electronic Atlas:

- Interactive visualization of data
- Plotting and overlay different data sets
- Archive and access to unique data
- Links and instructions to non-unique data
Geographic Coverage

Sub regions
- Hawaiian Archipelago
- American Samoa
- Marianas Archipelago
- US Pacific Remote Island Areas
- Freely Associated States of Micronesia
- The Great Barrier Reef

Pacific Basin
Geographic Coverage

Pacific Basin

Sub regions:
- Hawaiian Archipelago
- American Samoa
- Marianas Archipelago
- US Pacific Remote Island Areas
- Freely Associated States of Micronesia
- The Great Barrier Reef
- Kure Atoll
- Pearl & Hermes Atoll
- Maro Reef
- French Frigate Shoals
Geographic Coverage

- High Resolution
- Regions
  - In situ
  - CREWS
  - Loggers
  - Long term data
  - Time series
  - Trends
  - Historic analysis
- Satellite
  - 4km initially
  - 1km eventually
What will the Web Atlas look like?
Web Interface
Web Interface
Scope of Atlas

Variables under consideration:
Note: each variable will have multiple products, i.e. climatologies, trends, anomalies, etc.

- Sea surface temperature
- Sub-surface temperature
- Thermocline depths
- Air temperature
- Barometric pressure
- Sea surface height
- Wind speed and direction
- Wind stress
- Chlorophyll
- Turbidity
- Currents
- Tides
- Surface solar radiation
- Sub-surface solar radiation
- Surface UV
- Sub-surface UV
- Wave height and length
- Bathymetry
- Mixing parameters
- Dissolved oxygen
- Dissolved organic matter
- Salinity
- Coral bleaching indices
- etc
Time line

1. **April ’04** ⇒ demonstration version of Hawaiian Atlas at least one variable from each data type

2. **July ’04** ⇒ complete static version of Hawaiian Atlas
   - in situ ⇒ buoy and logger data
   - satellite data ⇒ AVHRR, SeaWiFS, etc.
   - model outputs ⇒ NLOM, OSCAR, etc.
   - long term data sets ⇒ ERSST

3. **October ’04** ⇒ near-real-time updates of Hawaiian Atlas

4. **November ’04** ⇒ Move to the American Samoa Atlas
   - add new variables/products
   - produce new static atlas