Waves and Water Level Hazards Data Framework Development Workshop: SOPAC, PI-GOOS and Data Management in the South Pacific

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Cook Islands
Outline

• SOPAC: Regional Context

• South Pacific Data Issues
Acknowledgements

• NOAA

• East-West Centre

for generously funding my attendance at this workshop
South Pacific Applied Geoscience Commission

- CROP Intergovernmental Organisation (est 1972)
- Regional centre
  [technical expertise, capacity building & support]
- Vision for Sustainable Development
- 3 Programs
  - Ocean & Islands
  - Community Risk
  - Community Lifelines
The South Pacific: Regional Issues

- Unique fragile environments
- Large ocean & of economic importance to South Pacific Island Nations (SPINs)
- Limited natural resources & low economic diversification
- Geographic isolation of SPINs
- Frequent natural disasters (eg. tropical cyclones, flooding, tsunamis)
- Susceptible to impacts of climate variability (eg ENSO) & change (eg sea level rise)
- Lacking an ability to locate, catalogue & disseminate information
- Desperate need for integrated marine/coastal/water management
Established to confront challenges of the region via long-term ocean observations that provide baseline data for improved:

- Marine & coastal water quality and physical characteristics
- Mariculture development (eg pearl & seaweed industries)
- Coral reef health
- Climate observations
- Capacity building
- Research interests in the region
Will assist in the:

- Protection of public health including forecast & mitigation of natural hazards/disasters
  (eg tsunami warning)

- Planning for efficient & safe marine operations

- Protection & restoration of ecosystem health

- Promotion of economic development
  (eg Cook Island Black Pearling)

- Sustainable development & management of natural resources
PI-GOOS 2005-2007

- Operational Oceanography
- Marine Scientific Research
- Palaeo-Environmental Research
- Data & Information Management

- Remote Sensing
- Capacity Building
- Regional Network Development (GRAND)
Data Management Issues

• What data is available?

• Where is it?

• Quality of data?

• PI-GOOS and GLOSS
What data is available?

- Online access to international databases
- Data available via CD-ROM to island countries
- Data housed at SOPAC or in-country
- SP Climate & Sea Level Monitoring Project (part of GLOSS)
- CITIES Project and SOPAC Mapserver (Map data - basic topography, water features, roads etc.)
- Bathymetric Mapping (EEZ Marzone Project & EDF8/9)
- MSR Database (not updated)
Where is the data?

- SOPAC
- Island Countries
- International clearing-houses (eg. SPSLMP- Australia, SOPAC and Hawaii)
- Universities and international research institutions
- Hard copy archives
- Digital storage
Quality of data?

- Mostly poor!
- Discontinous collections of data (esp. in island countries with little access to technical maintenance expertise to ensure that data collection equipment operates.
- Short time-frames
- Non-digital archives
- Few back-ups
- Poor ICT throughout region-limited access to any data available
Data and Information Management

- Stronger data framework required in the South Pacific
- Development of ocean products
- Use of PI-GOOS Web-portal and development of Ocean Server based at SOPAC with collaboration from IPRC
- Update of MSR Database based at SOPAC
- Improved Training initiatives for Pacific Islanders
- Improved ICT Links and other methods for improved data access in region.
- Encourage collaboration between PI-GOOS, PI-GCOS, PacIOOS, PRiMO-H and GLOSS
Vinaka Vakalevu!

Questions?