

GEO Coastal Zone Community of Practice Update

Dr. Paul M. DiGiacomo

NOAA/NESDIS
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and Research (STAR)

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NOAA Satellites and Information

National Environmental Satellite, Data, and Information Service



Coastal Zone Community of Practice Update

The **GEO Coastal Zone Community of Practice (CZCP)** objectives are to:

- Engage coastal users (e.g., managers and decision makers) and data providers to collaborate in the specification of requirements for *in situ* & remote coastal observations and derived Information products (variables to monitor, time-space resolution, accuracy, rate, forms and delivery methods in which data and derived products are needed);
- Evaluate current and projected observational capabilities against these requirements, identifying gaps, redundancies and activities that need to be strengthened;
- Promote the development of workshops and “proof of concept” pilot projects that both address these gaps and enable data integration for the provision of new or improved decision support tools;
- Promote the development/strengthening of networks of institutions globally, regionally, and across Communities of Practice (CPs) that contribute to and benefit from GEOSS;
- Advise the User Interface Committee, other CPs and GEO on matters relating to coastal zone observations and related societal benefits, and identify priority needs as well as areas for linkage, collaboration and support.

Coastal Zone Community of Practice Update

- CZCP Organizing group:

Jimmy Adegoke

Michael Bruno

Robert Christian

Franciscus Colijn

Paul DiGiacomo

Thomas Malone

Liana Talaue-McManus

Jose Muelbert

Hans-Peter Plag

- Numerous GEO member nations, as well coastal user interests & applications (e.g., sea level rise and inundation; water quality; habitat, resource and integrated coastal area management) are represented within the CZCP.
- Monthly (or better) group telecons of the above organizing group are taking place to facilitate discussion and plan CZCP activities.

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Recent and ongoing community engagement activities:

- An open invitation letter to participate in the CZCP was submitted to GEO Secretariat.
- Coastal users/organizations are being identified by the organizing group, guided by their broad/diverse user knowledge, interests, and national/international activities.
- A GEO CZCP list server (CP-COASTAL@LIST.GEOSEC.ORG) has been created to facilitate discussion with and between these coastal users; an FTP site has also been established, and a web site (hosted by GTOS) will also come online in the near future.
- The CZCP, in conjunction with IGOS, GOOS et al., has helped organize, plan, & run recent coastal user workshops and meetings, including:
 - => 3rd GOOS Regional Forum (Cape Town, South Africa, November 2006)
 - => Workshop on Regional Needs for Coastal Remote Sensing (New Hampshire, USA, October 2006)
 - => GEO Inland & Nearshore Coastal Water Quality Remote Sensing Workshop (Geneva, Switzerland, March 2007)

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Series of CZCP regional workshops: “GEOSS Support for Decision-Making in the Coastal Zone: Observing Requirements for Coastal Development, Urbanization and Hazards”.

Objectives include:

- Build on/extend previous efforts and specify data and information requirements of the Integrated Coastal Area Management (ICAM) community in developing and developed nations, particularly longer-term planners, policy makers, and educators.
- Discuss and prioritize data and information gaps identified in offline pre-workshop efforts. Identify the challenges to filling these gaps, as well as the emerging decision-making approaches and model-based solutions.
- Facilitate linkage of space-based observations, *in situ* measurements and models with sustained programs that will provide data and information needed to:
 - > Assess changes in susceptibility and resilience to coastal inundation and storm surge in high risk regions and
 - > Assess and forecast impacts on human health risks, the state of coastal ecosystems and the living resources they support

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Objectives (continued):

- Initiate planning for a Coastal Data Assimilation System pilot project (CODAS) and corresponding Integrated Coastal Decision Support System (ICoDSS) for data acquisition, analysis, modeling and integration toward improved decision-making across the land-sea interface in two or more target regions.
- Specifically, this workshop series will examine the state of coastal predictive models and decision-support systems and identify what steps will be needed to satisfactorily address user needs in developing nations.

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Series of CZCP regional workshops: “GEOSS Support for Decision-Making in the Coastal Zone: Observing Requirements for Coastal Development, Urbanization and Hazards”.

International Workshop Steering Committee:

- Michael Bruno (Co-Chair, USA)
- Hans-Peter Plag (Co-Chair, Germany)
- Jimmy Adegoke (AARSE, Nigeria)
- Mahmoud H Ahmed (NARSS, Egypt)
- Geoff Brundrit (GOOS Africa, South Africa)
- Robert Christian (Coastal GTOS, USA)
- Hans Dahlin (EuroGOOS, Sweden) (TBC)
- Paul DiGiacomo (PICO Co-Chair, USA)
- Tom Malone (PICO, USA)
- Jose Muelbert (PICO Co-Chair, Brazil)
- Kostas Nittis (MedGOOS, Greece)
- Jozef M. Pacyna (LOICZ, Norway)
- Nadia Pinardi (MOON, Italy)
- Michael Rast* (GEO Sec)

Coastal Zone Community of Practice Update

Series of CZCP regional workshops: “GEOSS Support for Decision-Making in the Coastal Zone: Observing Requirements for Coastal Development, Urbanization and Hazards”.

Workshop Logistics:

- A workshop prospectus was submitted to the GEO Secretariat earlier this year.
- Greece has kindly agreed to host the first of these workshops and we are working with the Greek GEO Office on the planning/organization of the workshop, likely to take place in Crete in April (possibly May) of 2008.
- A subsequent regional workshop in this series is tentatively planned for the Fall of 2008, potentially to take place in South Africa, with a focus on the needs of African coastal users. This will likely be organized in conjunction with GOOS Africa, the African Association of Remote Sensing of the Environment (AARSE), and regional LME Projects.

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IGOS Transition:

- At the recent IGOS-P-14 meeting, the IGOS Themes were asked to plan their transition into GEO.
- The IGOS Coastal Theme will transition its activities into the GEO Coastal Zone Community of Practice (CZCP), which it initiated, as well as work through the newly formed *Panel for Integrated Coastal Observations (PICO)*, a technical sub-panel of the GOOS Scientific Steering Committee (GSSC).
- The focus of the CZCP will continue to be on coastal users, and will work in concert with PICO, which will focus on technical issues associated with implementation of coastal observing systems and related capabilities and provide advice and guidance in this context to GEO on behalf of the users/needs represented by the CZCP.
- Note that the CZCP was submitted as a Geo Early Accomplishment for inclusion into the Annex of the Report of Progress for the upcoming GEO Ministerial Summit.

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Other upcoming activities:

GEOSS in the Americas Symposium, 17-19 September in Brazil

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Other upcoming activities:

The CZCP submitted and had approved several coastal-themed special sessions at upcoming AGU Ocean Sciences Meeting (Orlando, Florida, USA; March 2008):

(099) Susceptibility to Coastal Flooding: Effects of Changes in Near Shore Bathymetry, Topography, Habitats and Sea Level, On Daily to Decadal Scales

(139) Applications of Remote Sensing Data for Assessing and Monitoring Coastal and Inland Water Quality

(183) Interannual Trends in Phytoplankton Dynamics in Coastal Ecosystems

(137) Oceanic and Meteorological Measurements From Voluntary Observing Ships and Other Platforms of Opportunity