

Business Plan Overview

**The SouthEast Coastal Ocean Observing
Regional Association (SECOORA)**



**SECOORA Meeting
June 11-12, 2007**

SECOORA Planning Framework

GEOSS Framework

IEOS or GOOS Framework

IOOS Framework

Governance and Funding WG

- RA Goals and Objectives
- Governance Plan
- By-Laws, Articles of Incorporation
- Budget Requirements

Product Development and Marketing WG

- Outreach Plan
- Marketing Plan

Operational and Systems Performance WG

Observations And Data Transmission SG

- RCOOS Design Document
- Asset Inventory/Future needs
- System Performance Milestones/Metrics

Data Management and Communications SG

- Ocean Data Partnership
- Standards/Protocols
- System Performance Milestones/Metrics

Research and Development WG

- Regional Research Priorities
- Pilot Projects
- Workforce Sustainment . Training Plan

Data Analysis and Data Products SG

- Modeling/Forecasting Strategic Plan
- User Interfaces
- Private Section Coordination
- System Performance Milestones//Metrics

Business Plan – structure

- Executive summary
- Business concept/mission
- Operations Plan
 - Observations and Data Transmission
 - Data management and communication
 - Data analysis and modeling
- Marketing Plan
- Research and Product/Service Development
- Appendices (governance, conceptual design, details of operations and marketing plans)

Business Plan – Concept and Mission

➤ Concept and Mission

- Not-for-profit entity to provide information in a common manner based on sound scientific practice.
- Purpose: A partnership of and fiscal agent for interested parties to develop and operate an RCOOS that provides relevant coastal information to address user needs
- Defines location of RA – head-of-tide to EEZ boundary in NC, SC, GA and FL; recognizes overlap with adjoining RAs
- Defines initial objectives: safe and efficient marine operations (e.g. search and rescue), preserving and restoring healthy ecosystems (e.g. fisheries), predicting and mitigating against coastal hazards (e.g. coastal inundation)

Business Plan → Operations Plan structure

- For each subsystem
 - Current state
 - Desired future state and how to achieve transition
 - Gap analysis
 - Controls
 - Performance measures
 - Issues

Observations and Data Transmission Subsystem

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Law, J. Cleary, J. Nelson, J. Morrison, L. Leonard, M.
Neely, M. Muglia, N. Shay, P. Lumpkin, R. Harrell, R.
Styles, R. Jahnke, R. Cole, S. Vargo

Observations and Data Transmission ('05 sticky dots)

	Current State	Transition Actions	Desired Future State (1 yr)	Transition Actions	Desired Future State (3-5 yrs)
Operations	<ul style="list-style-type: none"> ➢ Autonomous systems running quasi-independently ➢ Most systems research oriented and marginally "operational" 	<ul style="list-style-type: none"> ➢ Initiate observation asset inventory ➢ Characterize existing observation procedures/protocols ➢ Define./instantiate obs-related testbed activities ➢ Generate Operations Plan for confederated obs. system 	<ul style="list-style-type: none"> ➢ Existing obs resources/assets inventoried ➢ Focused testbeds addressing key obs-related applications/constraints ➢ Preliminary Obs operations plan in place 	<ul style="list-style-type: none"> ➢ Generate Operations plan for integrated observation system ➢ Generate Observation Metrics Plan ➢ Develop SLAs commensurate with support and expected use ➢ Complete engineering trades 	<ul style="list-style-type: none"> ➢ Optimized Obs operation strategy in place ➢ Cost/benefit metrics routinely collected ➢ Each assets works within a reasonable Service Level Agreement
Infrastructure	<ul style="list-style-type: none"> ➢ Large number of assets in place, but not effectively managed from an enterprise perspective ➢ Low bandwidth connections to instrumentation 	<ul style="list-style-type: none"> ➢ Generate Preliminary Development Plan for coordinating/evolving federated obs assets ➢ Set up effective cross-system linkages 	<ul style="list-style-type: none"> ➢ All obs assets inventoried and managed ➢ Coordinated regional approach for obs procurement/maintenance ➢ Clear link between required obs infrastructure and desired end use 	<ul style="list-style-type: none"> ➢ Develop Enterprise Obs Plan that response to desired architecture and leverages economies of scale 	<ul style="list-style-type: none"> ➢ Optimized observations infrastructure in place
Relationships and Procedures	<ul style="list-style-type: none"> ➢ Governance process still in development ➢ Roles and responsibilities between stakeholders not well defined ➢ Obs protocols not standardized 	<ul style="list-style-type: none"> ➢ Ratify TOR ➢ Use TOR to set up long-term governance structure ➢ Articulate obs roles and resp ➢ Generate 5-year Strategic Plan ➢ Generate work plan for this year ➢ Set up committee to oversee certification process ➢ Collect lesson learned from other RAs 	<ul style="list-style-type: none"> ➢ Effective governance mechanism in place ➢ Certification effort underway ➢ 5 year Strategic Plan in development with section on Obs/Data Trans. ➢ Viable annual work plan in place ➢ Effective liaisons in place with other RAs and relevant groups 	<ul style="list-style-type: none"> ➢ Generate an RA obs development plan consistent with top-down and bottom-up drivers ➢ Generate SECOOR obs protocol 	<ul style="list-style-type: none"> ➢ Fully certified RA ➢ SECOORA recognized as intellectual leader in RA development in obs coordination
Resources	<ul style="list-style-type: none"> ➢ High dependency on earmarks ➢ Limited coordination between projects ➢ Sustainment activities in infancy 	<ul style="list-style-type: none"> ➢ Generate viable Business Plan for obs sustainment 	<ul style="list-style-type: none"> ➢ Generate viable Value proposition ➢ Generate plan to diversify funding sources for obs sustainment 	<ul style="list-style-type: none"> ➢ Generate and execute tactical plans for ob sustainment consistent with the overall business strategy 	<ul style="list-style-type: none"> ➢ SECOORA can effective compete for grants, RFP, other opportunities related to obs sustainment ➢ There is significant local and private sector investment in obs sustainment

Observations and Data Transmission

➤ Operations

- Intra-regional coordination of data collection, formatting and QA/QC

➤ Infrastructure

- Inventory of assets, personnel, and redundancy
- Prioritization of infrastructure replacement
- Expansion plans

➤ Relationships

- Greater coordination among all partners and activities

➤ Resources

- Transfer of certain products to operation[s? al agencies]
- Define requirements and funding levels

Observations and Data Transmission

Will coordinate observing and to the extent possible support data collection related to SECOORA priorities in the SE

Current state:

- variety of ongoing observing activities
- inventory of regional observing assets – static at present

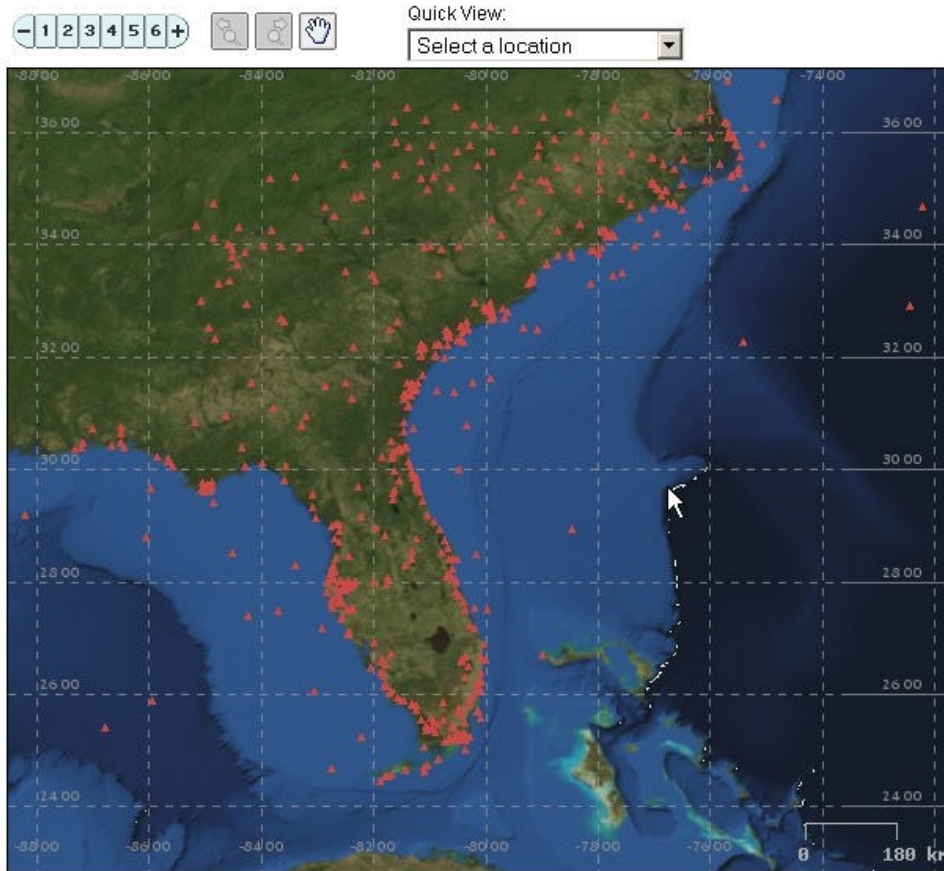
Observations and Data Transmission

Station and Variable Inventory

This map is a static overview of known observation stations monitoring the coastal ocean of the Southeast US.

The dataset for this map is also available as an [Excel Spreadsheet](#) • [ESRI Shapefile](#)

This map and dataset were created as an improvement the SECOORA Asset map completed in Fall 2005. The data were further single dataset containing ~543 stations. Questions? Contact Jesse Cleary (jcleary at email dot unc dot edu).



Observations and Data Transmission

Year 1 goals:

- should move to dynamic inventory (that includes sensor metadata) to monitor system-wide performance
- define desired initial sampling scheme consistent with priorities
- compile operating requirements from existing programs
- develop operating agreements (SLAs?)
- establish pilot programs (on system accuracy, new observing technologies...)
- coordinate planning with National Backbone

Observations and Data Transmission



Observations and Data Transmission

Year 5 vision:

- a robust, effective observing system has evolved through testing, gap analysis
- performance and maintenance requirements are well established
- established logistic and infrastructure support coordinated with Backbone resources
- automated monitoring of system components and measures of system performance (virtual operations center)
- ecological and biogeochemical sensing systems increasingly operational
- regional technical and engineering expertise established and coordinated

Observations and Data Transmission

Gap Analysis:

- initial – comparison of desired outcome of physical state estimation system with existing inventory
- test utility of the observing system to specific applications in pilot studies
- re-evaluate based on testing outcomes
- repeat procedure for non-physical observing system

Observations and Data Transmission

Controls:

- timely response to repairs, maintenance, tactical/adaptive sampling->distributed network of support teams along coastline
- balance redundancy/timeliness against cost-effectiveness of centralized operations
- should consider vessel support, onshore infrastructure, personnel, existing capabilities
- should require adherence to reporting (e.g. metadata) and QA/QC standards

Observations and Data Transmission

Performance measures:

- use virtual operations center to monitor system components
- VOC to provide feedback on performance to data providers
- flag data gaps, track failure point, use to target evaluation and upgrade efforts
- short list of metrics: # of reporting stations/sensors, # of obs/month, transmission delay, accuracy, # of streams including QA/QC

Observations and Data Transmission

Issues:

-coordination with National Backbone and among regional partners on:

- location of assets
- regional priorities
- logistic support – ships, comms, calibrations
- robust regional satellite remote sensing
- developing and testing new observing technologies
- test-bed support
- sufficient pool of trained personnel