

Business Plan Overview

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



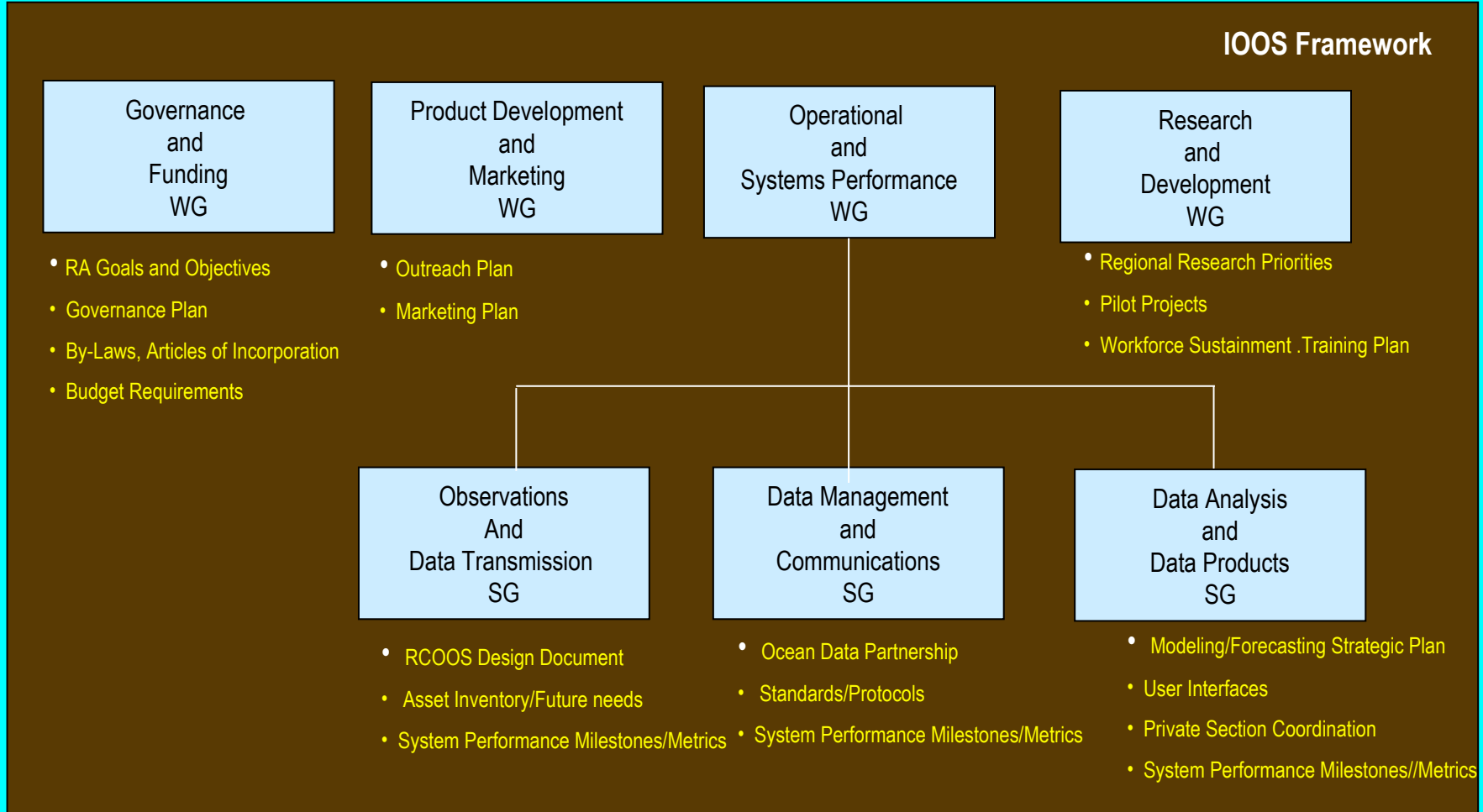
**SECOORA Meeting
June 11-12, 2007**

SECOORA Planning Framework

GEOSS Framework

IEOS or GOOS Framework

IOOS Framework



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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B. Bendix, C. Merz, D. Savidge, E. Buckley G. Morrison, J.
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 obs 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

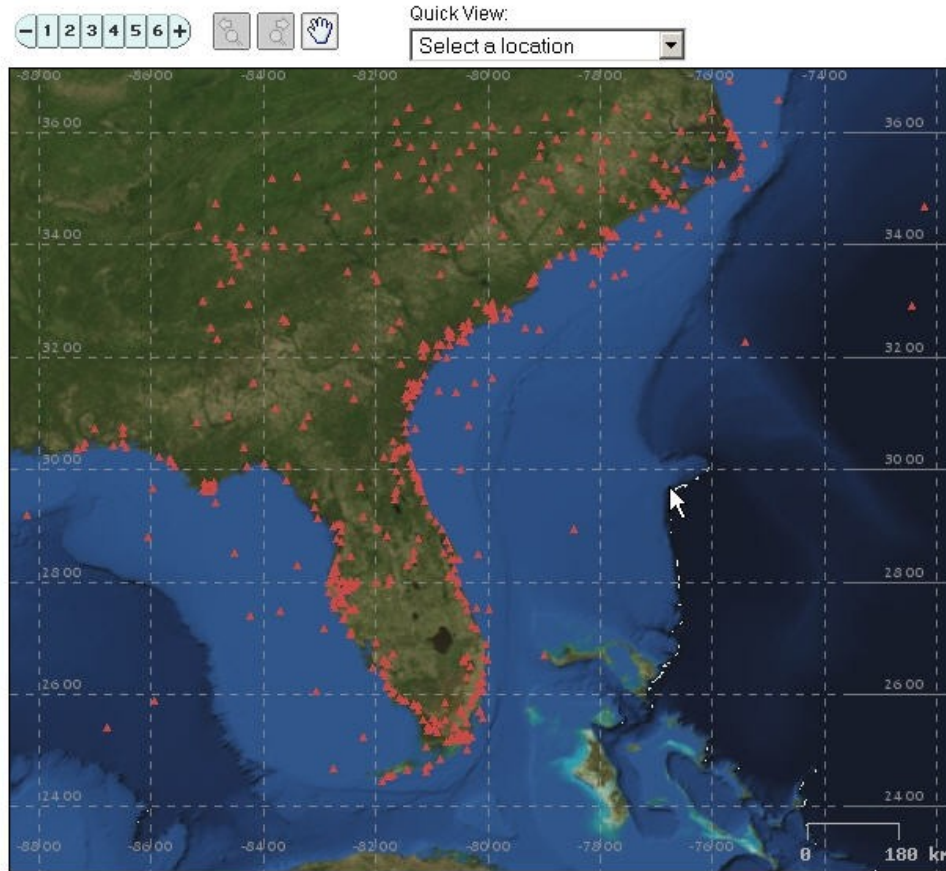
Observations and Data Transmission

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).

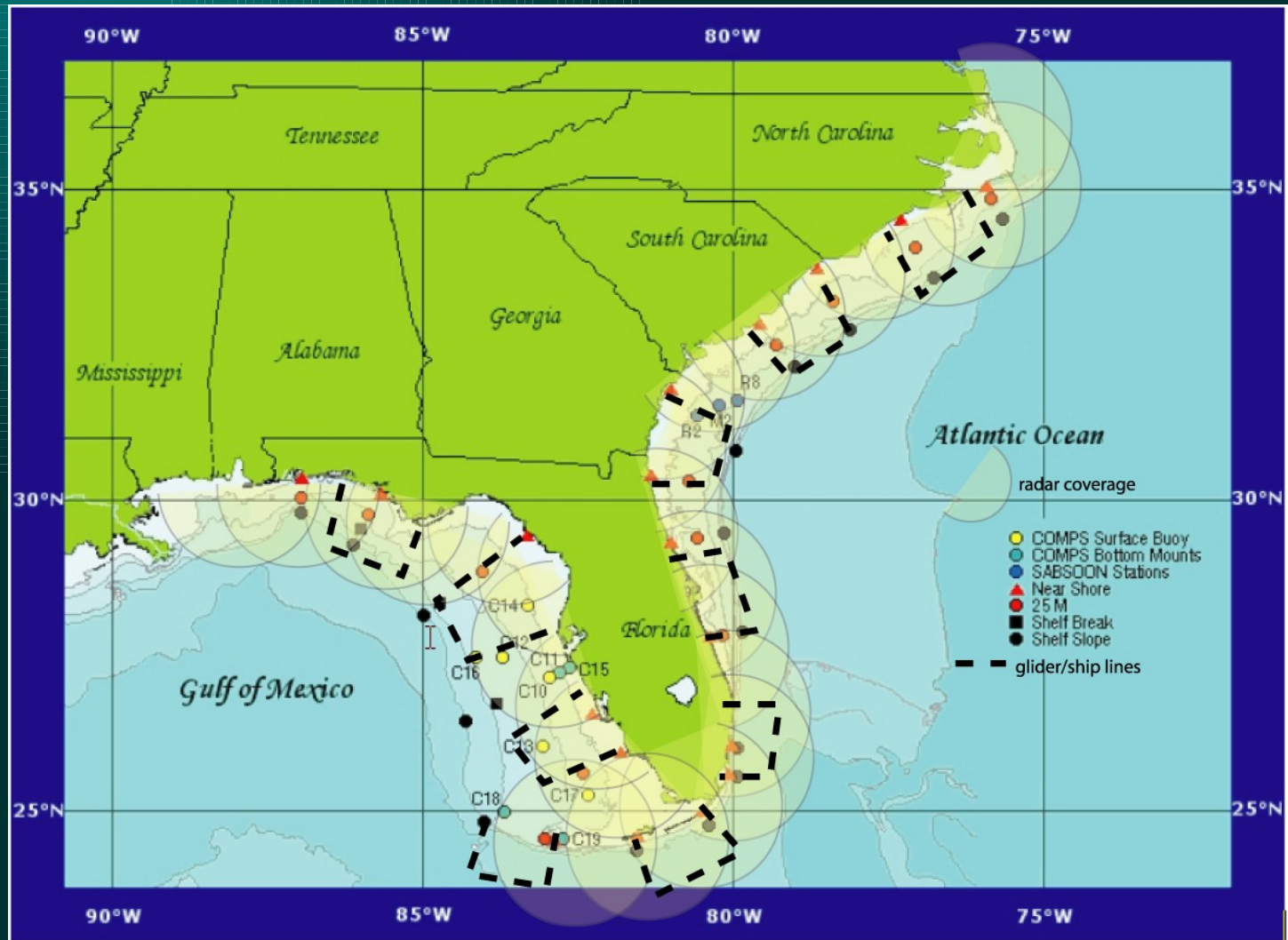


Observations and Data Transmission

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