

DRAFT AGENDA
PaCOS
Pacific Coastal Observing System
SCIENCE PLANNING MEETING
Watertown Hotel, Seattle Washington
September 3-5, 2003

Meeting Objectives

The primary objective of this meeting is to draft a plan for an observing system for the US Exclusive Economic Zone (EEZ) of the Pacific Coast that supports the fishery resources, protected species, and ecosystem responsibilities of the National Marine Fisheries Service (NMFS). The observing system shall focus on species under current federal management, and candidate species; provide abundance and environmental information needed for stock assessments and biological opinions; track ecosystem relationships of federally managed species; monitor ecosystem consequences of bycatch; and importantly, place all observations in an appropriate environmental context for understanding and predicting the effects of changes in ocean climate on these species and their ecosystem.

A secondary meeting objective of the meeting is to identify research needed to enhance present capacities for biological and environmental observation.

Meeting Strategy

- ! **Design an optimal observing system:** Participants are requested to design an optimal system, keeping in mind as best as possible the existing systems. The NMFS and other organizations sustain a substantial observing systems in the EEZ of the west coast of the US.

- ! **Working Groups and Plenary Sessions:** After introductory information, participants will separate into four cross-discipline *Species Working Groups*: *Highly Migratory Species*, (albacore, and bluefin tuna, mako, thresher and blue sharks, striped marlin, swordfish and others); *Coastal Pelagic species*, (sardine, squid, mackerel, anchovy and others); *Groundfish Species* (hake, rockfish, flatfish and others), and *Protected Species* (salmon, marine mammals, turtles, and birds). These working groups will be requested to design an optimal observing system for their respective group of species. Subsequently, in plenary session, the separate species group plans will be combined into a single comprehensive plan and new discipline-based working groups will be formed to draft the sections of the comprehensive plan.

- ! **Terms of Reference for Species Working Groups:** Design an optimal observing system to: 1) measure trends in abundance and key life table characteristics of species in assigned species group; and 2) place species observations into an ecosystem and ocean climate context. The geographic scope shall be the fraction of the California Current

Ecosystem included in the US EEZ with a focus on shelf, slope, and open ocean communities with the very near shore ecological zone being included only to the extent that the nearshore zone is important to federally managed species. Design system using existing (proven) technology. In a separate section identify research in advanced observational technologies that would improve the observation specified system.

The observing system plan must specify:

- 1) Methods of species observation, optimal spatial coverage, frequency and seasonality of observations needed to monitor trends in abundance and key life table characteristics of species in the group (Indicate the extent international collaboration for observations in Canadian and Mexican waters are needed).
- 2) Observational requirements for important or influential forage and predator species of the species group.
- 3) Observational requirements for placing species observation in an appropriate ocean climate context for understanding and ultimately forecasting the effects of interannual and decadal changes in ocean climate on population productivity and distribution of managed species and on the state of the ecosystem.
- 4) Research in advanced observational technologies that would improve the observation capabilities of the specified system.

! **Observation requirements:** Several Regional Associations, and seven or more federal agencies shall contribute to Integrated Ocean Observing System for the west coast of the US. Their observing systems shall support a wide variety of observing needs including public health, national security, marine services, near shore resources and ecosystems, ocean climate and other goals(Ocean.US, 2002 Integrated and sustained ocean observing system (IOOS) for the United States: design and implementation). The extent these organizations may provide physical and biological oceanographic observations and data products needed to place current-wide species observation in the proper context for assessing effects of ocean climate, and assessing change in the California Current Ecosystem is unknown. Thus it is important that an observation plan developed for a NMFS budget initiative focus on *observation requirements* for environmental and ecosystem observations rather than advocating specific kinds of measurement devices, approaches, or platforms because some requirements may be met by the observing activities of the Pacific coast Regional Associations, other federal agencies, and collaborative enterprises.