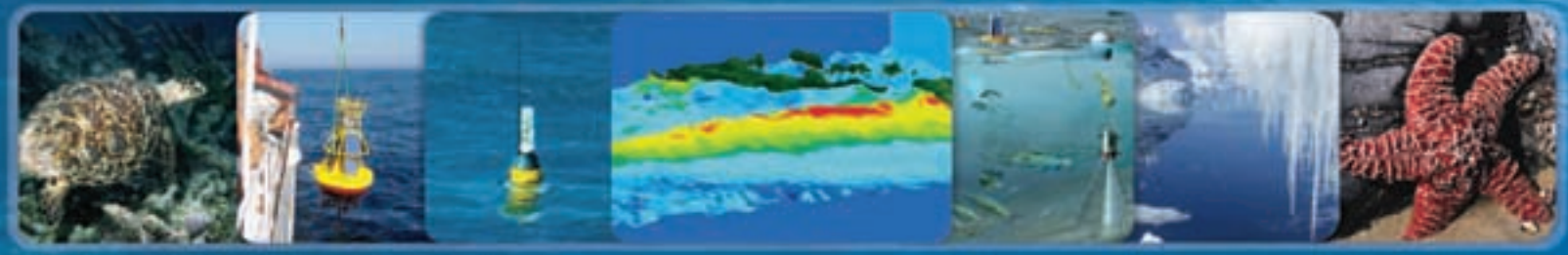
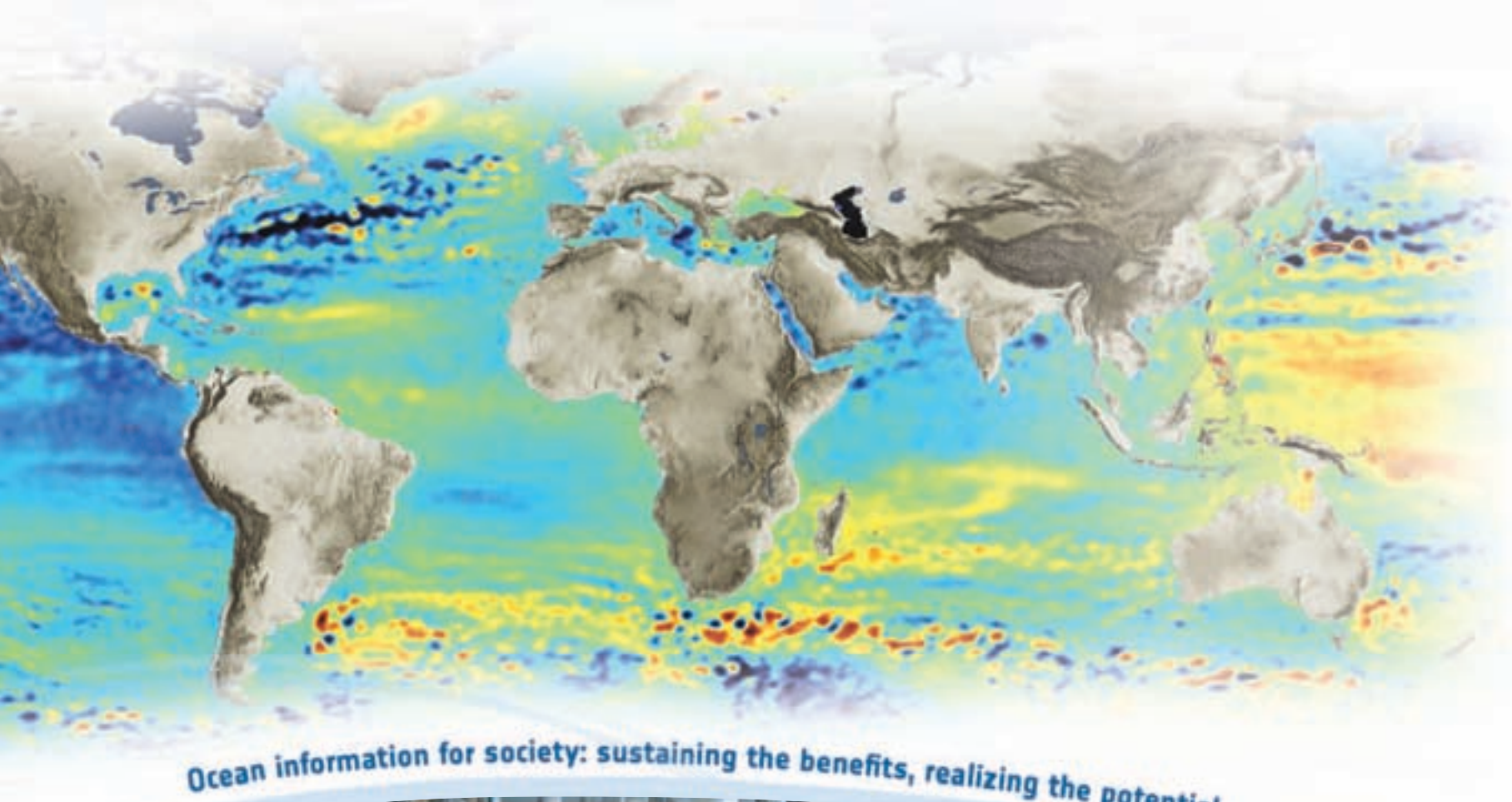
OceanObs'09

Ocean information for society: sustaining the benefits, realizing the potential

Conference Statement





Ocean information for society: sustaining the benefits, realizing the potential

Developing a vision and framework for the coming decade of ocean observations

Earth is in fact an Ocean planet – the growing realization that we on land depend on the ocean for life has led to an imperative for better observations and information about the oceans and their impact on human society.

Over 600 ocean scientists gathered in Venice in September 2009 at the OceanObs'09 conference to take stock of a decade of progress, and more importantly to imagine the coming decade of ocean observations creating information useful to society.

The conference was the culmination of a year-long effort in consensus-building and visioning, backed by over 90 community-written white papers, over 40 plenary presentations, and nearly 300 submitted contributions.

This brochure summarizes the negotiated Conference Statement.

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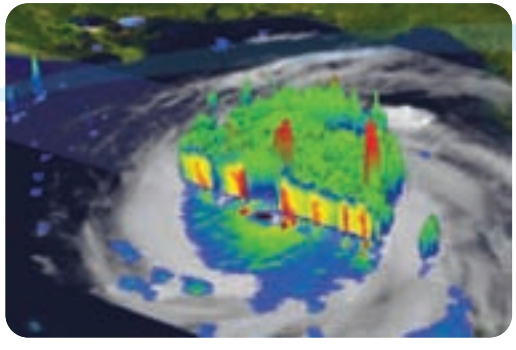
Observations of the ocean are at the core of understanding and prediction

BECAUSE **systematic observation** of the properties of the ocean **and the information derived are changing what we know** about the ocean **and its implications for society**.

BECAUSE **the real-time flow of these observations underpin** the development, production, and delivery of many **ocean services** and support **coastal zone management**.

BECAUSE global ocean information is critical to support **forecasting of climate, weather and natural hazards** from daily to centennial time scales.

BECAUSE the development of **an increasing range of ocean assessments and climate services** for planning, early warning, adaptation and mitigation, **depend upon availability of accurate observations and models** of the world ocean.



All human society is linked, directly or indirectly, to the oceans' future

BECAUSE **the ocean is an important sink of anthropogenic CO_2**, and o**cean acidification potentially has significant impacts** on marine ecosystems.

BECAUSE **sustainable management of marine living resources** depends on timely and accurate **monitoring of and information on biogeochemical cycles and ecosystem function**.

BECAUSE **biodiversity** is understood to be a **key factor in ensuring sustainable ecosystem function**.

BECAUSE **healthy coastal environments and their interactions with the open ocean are important to society**.

No single nation can perform all necessary ocean observations to meet society's needs

The Conference Vision:

Provision of routine and sustained global information on the marine environment sufficient to meet society's needs for describing, understanding and forecasting marine variability (including physical, biogeochemical, ecosystems and living marine resources), weather, seasonal to decadal climate variability, climate change, sustainable management of living marine resources, and assessment of longer term trends.

An integrated ocean observing system providing sustained information for public good and stewardship

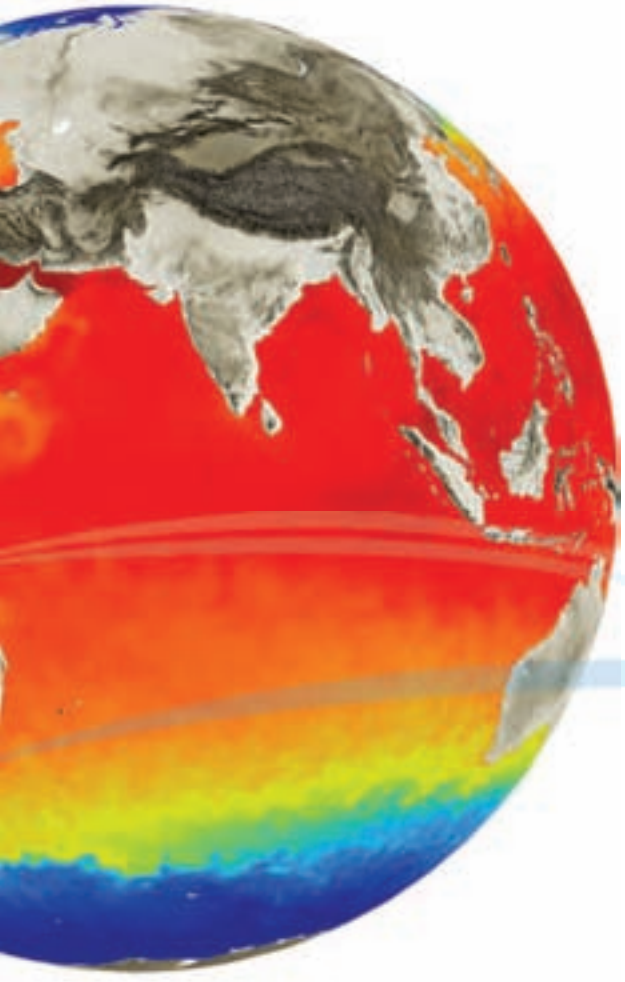
The conference called for **significantly enhancing internationally-coordinated provision of sustained observation and information of the world ocean**, as a part of the larger earth system observing effort, for public good and stewardship.

Core principles of participation in the sustained observing system include recognition that users require **rapid access** to all relevant data, free of charge. **An integrated system**, making use of remotely sensed and in-situ observations **is essential**.

Observations are **openly shared in near-real - time when technically feasible**. They are **collected, analyzed, archived, and distributed to internationally agreed standards with agreed best practices**.

Despite the profound importance of marine information to meet the needs of our societies, the **resources** necessary to observe, assess and forecast global marine conditions **are fragile and insufficient**.

An integrated ocean observing system will need many advocates



A **true global partnership with strong local benefits requires involvement of all stakeholders**. All nations must work together for **mutual benefit**, through educational programs and development of national capacity.

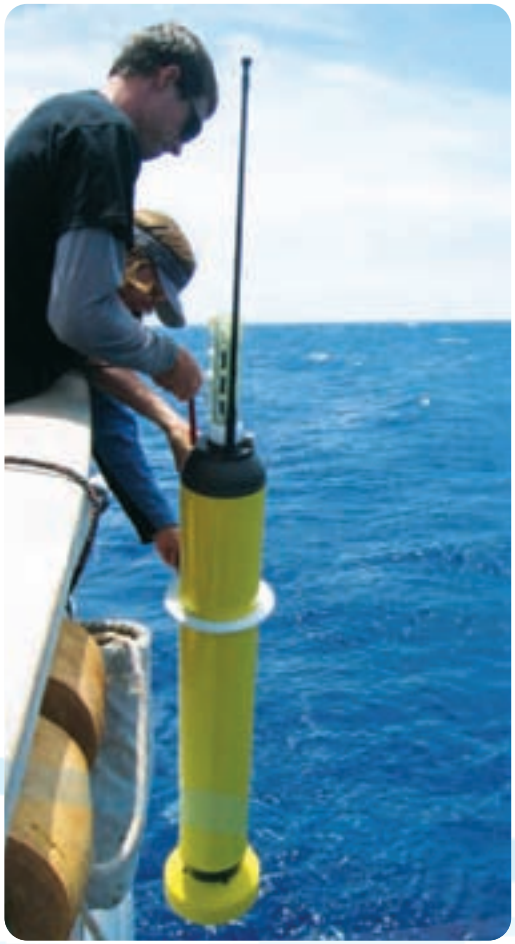
The following international organizations, all stakeholders in the ocean observing system, pledged at the conference to work together towards an integrated system:

- **GEO Group on Earth Observations**
- **CEOS Committee on Earth Observation Satellites**
- **POGO Partnership for Observation of the Global Oceans**
- **SCOR Scientific Committee on Oceanic Research**
- **GCOS Global Climate Observing System**
- **GOOS Global Ocean Observing System**
- **JCOMM Joint WMO-IOC Technical Commission for Oceanography and Marine Meteorology**
- **PICES North Pacific Marine Science Organization**
- **ICES International Council for the Exploration of the Sea**
- **CoML Census of Marine Life**
- **IGBP International Geosphere-Biosphere Programme**
- **WCRP World Climate Research Programme**

They were supported by many regional and national organizations, among them the sponsors of the conference.

A call for national and collective action

In solidarity, the Conference:



(1) Calls on all nations and governments to fully implement by 2015 **the initial physical and carbon global ocean observing system** originally envisioned at OceanObs'99, and refined at OceanObs'09.

(2) Calls on all nations and governments to commit to the implementation and international coordination of **systematic global biogeochemical and biological observations**, guided by the outcomes of OceanObs'09, and taking into account regional variations in ecosystems.

(3) Invites governments and organizations to embrace a **framework** for planning and moving forward with an **enhanced global sustained ocean observing system** over the next decade, **integrating** new physical, biogeochemical, biological **observations while sustaining present observations**. Recommendations on this Framework, considering how to best take advantage of existingstructures, will be developed by an post-Conference **working group** of limited duration.

(4) Urges the ocean observing community to increase our efforts to achieve the needed level of **timely data access, sensor readiness and standards, best practices, data management, uncertainty estimates, and integrated data set availability**.

(5) Asks governments, organizations, and the ocean observing community to increase their efforts in **capacity-building and education**.

www.oceanobs09.net