

S7 POC/MONITOR Topic Session

Application of Global Observing Systems to physics, fisheries, and ecosystems

Co-sponsored by Argo

Session Convenors: Michael G. Foreman (Canada), Vyacheslav B. Lobanov (Russia), Phillip R. Mundy (U.S.A.) and Sei-Ichi Saitoh (Japan)

Problems such as global climate change, carbon cycling, ocean circulation forecasting, and variability in biomass and fish abundance have necessitated a great increase in the variety and quantity of ocean measurements. In response to these growing demands, the last two decades have seen a proliferation of new technologies for remotely sensing the physical and chemical properties of oceans and the biological characteristics of organisms living in them. Noteworthy examples include the TOPEX/Poseidon/Jason and ERS/Envisat satellites for sea surface heights, SeaWiFS and MODIS for ocean colour, and Argo profiling floats for deep ocean velocities, temperatures, and salinities. Technologies such as these allow interdisciplinary, near-realtime sampling of the global ocean with unprecedented resolution in time and space. In this session we welcome papers on the application of global observing systems to the description and better understanding of important physical, fishery, and ecosystem processes in the North Pacific Ocean.

Tuesday, October 19, 2004 8:30-17:20

- 08:30-09:00 **W. John Gould and Dean Roemmich** (Invited)
The Argo Project: New observations of the physical state of the ocean and their potential application to climate, including fisheries and ecosystems impacts (S7-1981)
- 09:00-09:20 **William Crawford, Peter Sutherland and Peter van Hardenberg**
Origin and persistence of anomalously cold water in the halocline of the Eastern Gulf of Alaska, 2002 to 2004 (S7-2160)
- 09:20-09:40 **Toshiyuki Sakurai, Yukio Kurihara and Tsurane Kuragano**
A new daily SST product of JMA (merged satellite and *in-situ* data Global Daily SST) (S7-1911)
- 09:40-10:00 **Fan Wang, Pengfei Lin and Yongli Chen**
Seasonal cycle of topography in the Bohai Sea and Yellow Sea and its relationships with atmospheric forcing and oceanic adjustment (S7-2176)
- 10:00-10:20 **Coffee break**
- 10:20-10:50 **Masafumi Kamachi, Shiro Ishizaki, Norihisa Usui, Yosuke Fujii and Toshiya Nakano** (Invited)
Data assimilation in the Pacific Ocean as an application of an observing system to physical oceanography and climate research (S7-2029)
- 10:50-11:10 **George Shevchenko and Alexander Romanov**
Seasonal variations of Okhotsk Sea circulation from Topex/Poseidon satellite altimetry data (S7-1860)
- 11:10-11:30 **Michael Foreman, Josef Cherniawsky and Patrick Cummins**
A high-resolution assimilating tidal model for the Bering Sea (S7-1870)
- 11:30-11:50 **Gennady A. Platov and Elena N. Goloubeva**
Seasonal variation of the salinity belt structure off the Primorie coast: A numerical study (S7-1803)

- 11:50-13:00 **Lunch**
- 13:00-13:30 **Donald R. Kobayashi** (Invited)
Application of satellite remotely sensed environmental data to pelagic larval transport, growth, and survival (S7-2002)
- 13:30-13:50 **P. Ted Strub, Corinne James and Andrew C. Thomas**
Comparison of climatic signals (winds, satellite SSH, SST and surface chlorophyll-a pigment concentrations) in the NE and SE Pacific: 1993-2004 (S7-2044)
- 13:50-14:10 **Kosei Sasaoka, Sei-ichi Saitoh, Hiroaki Sasaki, Tsuyoshi Miyamura and Tsutomu Yoshida**
Bio-optical properties and in-water algorithm validation for ocean color remote sensing in the sub-arctic North Pacific (S7-1946)
- 14:10-14:30 **Hiroki Takemura and Sei-ichi Saitoh**
Temporal and spatial variability of phytoplankton biomass and productivity in the Eastern Kamchatka Current region and along the Kuril Islands (S7-2027)
- 14:30-14:50 **Angelica Peña and William Crawford**
Phytoplankton distribution in the Queen Charlotte Basin: Regions of high productivity (S7-2164)
- 14:50-15:20 **Coffee break**
- 15:20-15:40 **David Welch**
POST: The development of a permanent continental-scale acoustic tracking array for west coast fisheries research (S7-1832)
- 15:40-16:00 **Claudio Silva, Eleuterio Yáñez, Karen Nieto, María Angela Barbieri and Guillermo Martínez**
Spatial anchovy availability index for northern Chile (S7-1854)
- 16:00-16:20 **Sonia Batten, David Hyrenbach, William Sydeman, Ken Morgan, Mike Henry, Peggy Yen and David Welch**
Characterising meso-marine ecosystems of the North Pacific (S7-1819)
- 16:20-16:40 **Konstantin Rogachev, Eddy Carmack and Natalya Shlyk**
The impact of the wind stress curl on the sea level and boundary currents in the Pacific western subarctic (S7-1782)
- 16:40-17:00 **Gleb Panteleev, Dmitri Nechaev and Motoushi Ikeda**
Summer circulation in the Bering Sea derived as a variational inverse of climatological data (S7-1926)
- 17:00-17:20 **Mao-Chang Cui and Mo Jun**
El Niño Phenomenon in SODA data (S7-1801)

Posters

Yury N. Volkov, Igor E. Kochergin, Alexey F. Scherbinin, Pavel A. Fayman, Sergey I. Rybalko and Mikhail V. Mishchenko

Diagnostic simulation of Peter the Great Bay (Japan Sea) currents (S7-1967)

Pavel A. Fayman

Diagnostic simulation of the Japan Sea currents (S7-2010)

Pavel A. Fayman

Diagnostic simulation of the Okhotsk Sea currents (S7-2009)

E. Godínez-Domínguez, C. Franco-Gordo, G. Lucano-Ramírez, S. Ruíz-Ramírez, J. Rojo-Vázquez and J. Freire

Main effects of the 1997-1998 ENSO event in the tropical coastal ecosystem in the Mexican Central Pacific (S7-2189)

Victor I. Kuzin

North Pacific surface temperature fields analysis (S7-2090)

Michelle Li and Paul Myers

Mixed layer depth variability in the Gulf of Alaska from Argo and from ship-based observations (S7-2202)

Vyacheslav B. Lobanov

Regional implementation of GOOS in the Northwestern Pacific: Second phase of the NEAR-GOOS project (S7-2054)

Nikolai A. Maximenko and Pearn P. Niiler

Improved decade-mean sea level of the North Pacific with mesoscale resolution (S7-1810)

Sung Hyun Nam, Jong Jin Park, Yun-Bae Kim, Young Ho Kim, Duk-Jin Kim, Kyung-Ae Park, Jae-Yul Yun, Woo-il M. Moon and Kuh Kim

Observing systems in the East (Japan) Sea: A monitoring buoy with moored instruments, surface and subsurface drifting floats, and satellite measurements (S7-2006)

George Novinenko and George Shevchenko

Satellite data based determination of SST spatial structure and the forecast of seasonal changes in the Okhotsk Sea (S7-1861)

Jong Jin Park, Kyung-Ae Park, Kuh Kim and Yong-Hoon Youn

Upper ocean response to typhoons and tropical storms (S7-2007)

Dmitry D. Kaplunenko, Vladimir I. Ponomarev, Young J. Ro, Olga O. Trusenкова and Serge T. Trusenkov

Climate variations during the 20th century in the Northwest Pacific region (S7-1974)

Roberto M. Venegas, P. Ted Strub, Emilio Beier, Ricardo Letelier and Andrew Thomas

Interannual and seasonal variability of satellite-derived chlorophyll pigment, sea surface height, temperature and wind stress in the northern California Current system (S7-2196)

