OS41P-06 1005h

Decadal Oscillations And Regime Shifts, An Empirical Characterization Of The Chesapeake Bay Marine Climate

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The Chesapeake Bay spawning activity can be characterized by a progression from up-river spring anadromous spawning to summer Bay spawning, and finally to fall-winter shelf spawning. Although there is significant interannual variability, important low frequency patterns in temperature, discharge and wind characterize the Bay climate as regimes (warm-wet or cool-dry) of decadal oscillatory waves, and sudden regime shifts. The most characteristic regimes are the cool-dry 1960's and warm-wet 1970's and 1990's. Principal Components Analysis of environmental data from 1960 to 2000 reveal abrupt climatological regime reversals in 1972 and 1977. These climatological regime shifts are reflected by impacts in the ecosystem through variation in oyster condition and spatfall, and juvenile fish and blue crab recruitment. The 1972 reversal is most pronounced in the Maryland riverine system by non existent on the shelf, where as the 1977 reversal is significant on the shelf but not recognizable up-river. Knowledge of the prevailing background climate regime can provide managers the relative chance for success of a management plan as reflected by recruitment patters or water quality to be expected during the dominant production regime.

OS41P-07 1020h

Spawning and Habitat Responses of the Bay Anchovy (*Anchoa mitchilli)* to ENSO-related Variation in Inflows to Florida Estuaries

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During the 1997-98 ENSO period, a high-resolution sampling routine was used to track daily spawning responses to an isolated inflow event of exceptional magnitude. Spawning was initially interrupted at the onset of the event, which lowered salinities in the spawning ground by >10 psu. Within 5 d, the large, event-generated plume front began to retreat landward toward its more typical position. As the front retreated, spawning intensified landward of the front, despite the strong reduction in salinity that had occurred there. Other studies evaluated ENSO-related shifts in habitat use by larvae, juveniles and adults. Stage-specific distributions shifted upstream and downstream in response to inflow variation, with the upstream shifts being associated with decreased abundance. In general, the bay anchovy was found to be highly adaptive to the large-scale inflow variations associated with climatic oscillation, and high inflow levels were found to be associated with improved juvenile recruitment.

OS41P-08 1035h

Potential Impact of Climate Change on Susquehanna River Flow and Chesapeake Bay Salinity

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Models of Chesapeake Bay salinity and flow of the Susquehanna River were developed with the aim of predicting how these variables will respond to future climate change. Temperature, precipitation and streamflow observations between 1900 and 1987 from the Susquehanna River basin were analyzed and used to calibrate a simple, spatially lumped water balance model. The model reproduces the mean annual cycle in streamflow and captures 75% of the monthly mean streamflow for the 88-year record. Autoregressive statistical models of monthly salinity variations in Chesapeake Bay were developed from salinity and streamflow observations between 1984 and 1994. Up to 93% of the variance in salinity is captured by these models. Output of four climate models run for a doubling of atmospheric carbon dioxide was used to drive the water balance model. Three of the models predict annual mean streamflow increases of approximately 30%, while the fourth predicts a 4% decrease. The response of salinity to these changes is simulated to be between +3.5% and -27.5% near the mouth of the Susquehanna River, to between +0.1% and -0.7% near the ocean. In the highest streamflow increase scenario, mid-bay isohalines recede by approximately 55 km, about 17% of the length of the bay.

OS41P-09 1050h

ENSO Impacts on Fresh Water Input and Salinity in Tampa Bay, Florida

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Estuarine salinity distributions reflect a dynamic balance among the processes that control estuarine circulation. At seasonal and longer time scales, freshwater inputs into estuaries represent the primary control on salinity distribution and estuarine circulation. El Niño-Southern Oscillation (ENSO) conditions influence seasonal rainfall and stream discharge patterns in the Tampa Bay, Florida region. The resulting variability in freshwater input to Tampa Bay influences its seasonal salinity distribution. During El Niño events, ENSO sea surface temperature anomalies (SSTAs) are significantly and inversely correlated with salinity in the bay during winter and spring. These patterns reflect the elevated rainfall over the drainage basin and the resulting elevated stream discharge and runoff, which depress salinity levels. Spatially, the correlations are strongest at the head of the bay, especially in bay sections with long residence times. During La Niña conditions, significant inverse correlations between ENSO SSTAs and salinity occur during spring. Dry conditions and depressed stream discharge characterize La Niña winters and springs, and the higher salinity levels during La Niña springs reflect the lower freshwater input levels.

OS41P-10 1105h

Contrasts in Particle Flux Below the Southern California Current in Late 1996 and During the El Nino Event of 1997-98

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The vertical flux of particulate matter at 330m depth in the San Lazaro (Soledad) Basin off Baja California ranged from 63 to 587 mg.m^{-2}.d^{-1} between 23 August and 26 November, 1996. Organic carbon contents were between 5.6 and 14.8%, yielding organic carbon flux rates of 9-40 mgC. m^{-2}.d^{-1}. In December 1997 and January 1998, total mass and organic carbon fluxes (47-202 mg. m^{-2}.d^{-1} and 3-8 mgC. m^{-2}.d^{-1}, respectively) indicated unexpectedly comparable vertical fluxes during the height of the strong 1997-98 El Nino event. The February-June records, however, reveal sharply reduced levels of total particle flux (1-6 mg. m^{-2}.d^{-1}) and organic carbon (0.2-0.8 mgC. m^{-2}.d^{-1}).

Marine snow made up 20-80% of the trap material. Fecal pellet fluxes were low (18-2350 m^{-2}.d^{-1}), and roughly followed the changes in total mass flux, with ovoid forms dominating over rod-shaped pellets. The plankton remains indicated a shift from a diatom-rich, radiolarian, silicoflagellate and coccolith assemblage in late 1996 to a coccolith-dominated assemblage (including the contents of fecal pellets), during the El-Nino period. The particulate organic matter (POM) collected in 1996 was predominantly autochonous (δ^{13}C = -22 ppt ; C/N = 8). The variation in δ^{15}N (8.3 to 11 ppt) suggests an alternation of new and regenerated production, possibly associated with fluctuations in the intensity of deep mixing in the fall of the year. The relatively high organic matter fluxes in December 1997 appear to be associated with regenerated production. The average POM composition from February to June 1998 (δ^{13}C = -23.6; δ^{15}N = 11.7; C/N = 10.5), suggests that the sediment trap had collected either degraded material of marine origin or terrestrial material possibly transported over large distances.

Regime changes within each of the trap collection periods are evidenced by concurrent shifts in most of the measured parameters (including trace metals). Temperature-salinity profiles, plankton analysis and chlorophyl contents of the upper water column indicated that the large diatom bloom, normally associated with seasonal wind-induced upwelling along the Pacific coast of Baja, did not occur during spring of 1998. Similar mid-day primary production rates in December 1997 and April 1998 (about 60 mgC.m^{-2}.h^{-1}) are thus surprising. In spring local conditions favored the dominance of nanoflagellates (94%) and apparently limited the export of particles from the photic zone.

OS41Q HC: 314 Thursday 0830h

Circulation in Marginal and Semienclosed Seas I

Presiding: **H Peters,** RSMA/MPO, University of Miami**; J D Pullen,** Marine Meteorology Division, Naval Research Laboratory

OS41Q-01 0830h

Red Sea Outflow Experiment (REDSOX): New Energetic, Large-scale Eddies in the Gulf of Aden and the Spreading of Red Sea Water

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A major objective of REDSOX was to identify the transport mechanisms that spread Red Sea Water (RSW) eastward from Bab el Mandeb through the Gulf of Aden and ultimately to the open Indian Ocean. To meet this goal, two high-resolution CTD/lowered ADCP/shipboard ADCP surveys were conducted in the Gulf of Aden, and 50 acoustically-tracked RAFOS floats were deployed at the RSW level (650 m), during cruises in February-March and August-September 2001. These time periods correspond to the peaks in the NE and SW Monsoons, and to the maximum and minimum outflow RSW transport through Bab el Mandeb. The In situ observations have revealed for the first time the hydrographic and velocity structure of large, energetic, deep-reaching mesoscale eddies in the Gulf of Aden. Both cyclones and anticyclones were observed, with horizontal scales up to 250 km (i.e., the width of the Gulf). Azimuthal velocities were observed to exceed 0.3 m/s, and speeds as high as 0.2 m/s reached down to the RSW level and deeper. The volume transport associated with one large anticyclone was about 20 Sv. Comparison of the velocity and salinity structure indicates that these eddies are vigorously stirring the RSW as it enters the Gulf of Aden, and possibly overwhelming any self-sustaining outflow boundary current. Post-cruise analysis of SeaWiffs imagery suggests that these eddies form in the Indian Ocean and propagate into the Gulf. Float trajectories will further reveal their structure and impact on RSW spreading.

OS41Q-02 0845h

Red Sea Outflow Experiment (REDSOX): New Observations of the Descent and Spreading of Red Sea Water

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Detailed surveys of the dense outflow plume from the Red Sea were conducted during two recent cruises in January-February and August-September 2001. Shipboard hydrographic and ADCP data from these cruises and previous moored current meter data are used to study the initial development of the Red Sea outflow plume in the western Gulf of Aden. The two cruises were timed to coincide with the climatological maximum (January) and minimum (August) periods of dense ouflow from the Red Sea. The measurements reveal a complicated plume structure in the western Gulf with three main pathways for the high salinity Red Sea waters. The topography divides the descending plume into two main branches, one running along a narrow deep channel in the northern Gulf and the second along a broader deep channel in the south. A third vein of high salinity water is found overlying these dense plumes at a depth of about 150 m along the southern rim of the basin that appears to have reached an equilibrium density within the stratification, and is no longer descending into the Gulf. Records from current meters and moored temperature-salinity recorders deployed in the two deep outflow channels show that both dense plumes vary seasonally and that the northern channel has faster speeds and carries relatively less-diluted Red Sea water. This is also verified by the shipboard observations. The combination of the two outflow channels and different mixing intensities along these pathways leads to variable penetration depths of the Red Sea plume between 450-900 m in the Gulf of Aden. The seasonality of the outflow strength also appears to contribute to variable penetration depths of the individual plumes.

OS41Q-03 0900h

Red Sea Outflow Experiment (REDSOX): Turbulence and Mixing in the Descending Plume

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The plume of dense Red Sea water descending down the shelf in the western Gulf of Aden was observed during two cruises in February/March and August/September 2001. Measurements include CTD/LADCP stratification / current profiles and ADCP current profiles from a "Bottom Lander." The CTD/LADCP profiles allow characterizing the plume in terms of its transport, vertical current structure, stratification and Richardson number. We will attempt to extract turbulent overturning scales from the raw 24-Hz CTD data in order to assess mixing and entrainment on the upper interface of the plume. The Bottom Lander consisted of a CTD and an upward-looking 5-beam 600-kHz ADCP, the latter providing profiles of horizontal and vertical currents between 3.5 m and 30-45 m above the bottom. During times of sufficiently strong current speeds, larger than about 0.5 m/s, the bottom lander was also able to resolve the turbulent Reynolds stress in a range of heights above the bottom much smaller than the range of the velocity data.

OS41Q-04 0915h

Turbulent Mixing in the Red Sea Outflow Plume From a High-Resolution Nonhydrostatic Model

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An intercomparison study is conducted between the field data collected in the Red Sea overflow under the REDSOX-1 observation program and a numerical model. The intercomparison study is focused on the part of the outflow that flows along a long narrow channel, referred to as the "northern channel", which naturally restricts motion in the lateral direction such that the use of a two-dimensional model provides a reasonable first-order approximation to the dynamics. This channel carries about the 2/3rd of the total Red Sea overflow transport, after the overflow splits into two in the western Gulf of Aden.

A two-dimensional, nonhydrostatic model integrating transport equations for vorticity, salinity and temperature is configured with a grid spacing of approximately 10 meters in the horizontal and vertical directions. The model is forced with temperature and salinity profiles from REDSOX-1 cruise near the inlet to a 70 km long section of the channel, and with radiation boundary conditions at the other end, with the objective of simulating the interior dynamics.

The evolution of the overflow in the numerical simulations can be characterized in two phases: the first phase is highly time-dependent, during which the density front associated with the overflow propagates along the channel. The second phase corresponds to that of a statistically steady state. In this phase, the model solution is compared with the observations from REDSOX-1 and exhibits good agreement. It is found that the variability in the second phase is induced primarily by topographic effects. The time scale of this variability appears to be controlled by the details of mixing, the time scale required for perturbations over regions of high slope-gradient to grow to finite amplitude, and to propagate along the slope.

OS41Q-05 0930h

Tides in the Bab el Mandab Strait

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The Bab el Mandab Strait is where the transition occurs between two noticeably different tidal regimes: the Gulf of Aden, where tidal fluctuations are mixed and have a range in excess of 2 m, and the Red Sea, where the tides are semidiurnal and their range is less than 1 m. Within the Strait, observations collected between May of 1995 and July of 1997 indicate that tidal currents are a mixed type and dominant constituents are K1 and M2 components. The vertical structure of the tidal currents is complicated, differs between semidiurnal and diurnal constituents, and depends on the location and stratification. In addition, the seasonal stratification impacts more the vertical distribution of the diurnal tidal currents than the semidiurnal tidal currents. The major part of this signal is barotropic but energetic baroclinic currents are observed near Perim Narrows and the Hanish Sill during the winter stratification period. Results from a two-dimensional finite element model (ADCIRC-2DDI) indicate that average barotropic energy fluxes over a tidal period are small and their direction depends on the constituent. The K1 component has one source of energy, which is the advective flux from the Gulf of Aden, while there are two sources of energy for the M2: one from the Gulf of Aden and another from the Red Sea. In addition, these results show that the major part of the tidal energy for both constituents is dissipated within the Strait itself.

OS41Q-06 0945h

Southeastward Current Pulses Along the Northern Italian Coast of the Adriatic Sea During Winter 2001

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The northern Adriatic Sea is a source area for deep-water formation for the eastern Mediterranean. Cold water is formed in the north end of the sea from air-sea interaction of intense winds on shallow waters. This water flows southeastward along the Italian coast until it encounters deeper topography in the central Adriatic; eventually it flows out the Otranto Strait below the Levantine Intermediate Water. To study the persistence, frequency, and structure of this phenomenon, an intensive study of the northern Adriatic is planned for the winter of 2003. During the winter of 2001, a pilot study was done in which one bottom mounted ADCP mooring was deployed in the center of the expected pathway of the cold water. Two additional bottom mounted ADCPs were deployed on either side of the main mooring during a two-week CTD survey in January/February. The central mooring recorded four periods of strong southeastward currents during its deployment period (late January to mid June). These pulses persisted for ∼5 days and had current speeds in excess of 30 cm/s. Strong winds blowing to the southwest (Bora) over the Gulf of Trieste preceded each current burst by 1 to 2 days as recorded by a meteorological buoy. A theoretical barotropic shallow water wave would propagate a disturbance down the Italian coast at speeds much faster than the propagation speeds implied by this time delay. Other strong southwestward wind bursts recorded by the buoy were not accompanied by strong persistent southeastward currents at the mooring site. The bottom temperature dropped significantly during the two southeastward current events that occurred in April. The bottom temperature dropped only slightly during the current event of February/March and did not noticably drop during the current event of January/February. During the January/February event all three moorings were deployed. Bottom currents were coherent at all sites (13 km total spacing) during this event.

OS41Q-07 1020h

Nested Modeling Studies of the Adriatic Sea

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We have conducted simulations of the Adriatic Sea using the Navy Coastal Ocean Model (NCOM), with surface forcing provided by the atmospheric component of the Coupled Ocean/Atmosphere Mesoscale Prediction System (COAMPS). Our aim is to document and investigate the response pattern of the Adriatic to the complex combined forcing of the bora winds and strong Po River run-off. Separate three-dimensional multivariate optimum interpolation (MVOI) analysis techniques are used to generate the initial conditions for both COAMPS and NCOM. First, we used a 6-km NCOM grid over the entire Mediterranean Sea, with forcing supplied by surface stresses from a 27-km COAMPS grid, also covering the entire Mediterranean Sea area. Both the atmospheric and ocean fields produced were part of independent 12-hour incremental data assimilation cycles over the time period of interest. The resulting NCOM forecasts were then used to define lateral boundary conditions for a series of higher resolution (2 km) NCOM forecasts of the Adriatic Sea. In these forecasts, NCOM was forced using surface stress fields generated by a nested 4 km COAMPS grid centered over the Adriatic Sea. In addition, the 2 km NCOM forecasts were forced by observed daily river discharge values from the Po River.

We have focused on the time period of winter and spring 2001 when there were several bora wind events documented by the pilot program observations taken in preparation for the winter 2002-2003 Adriatic Current Experiment (ACE). The main program ACE observations will include ADCP's, moored buoys, CTD sections, and radar sites. The observations by ACE will be augmented by the Euro-STRATAFORM program, which is directed at understanding how sediments carried by river run-off modify the shelf stratigraphy. The observational programs will generate much data about the circulation of this shallow sea subjected to river floods and strong bora wind events. The main goals of our work are to validate the modeled fields against observations, and to statistically catalog and analyze the canonical ocean and atmosphere dynamical response to intense episodic forcing.

OS41Q-08 1035h

Non-linear neural networks forecasting of Sea Level Anomaly in the Alboran Sea

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Forecasts based on artificial intelligence (AI) concepts exploit past time series of satellite images to infer near future ocean conditions at the surface by feed-forward non-linear neural networks. The size of the AI problem is drastically reduced by splitting the spatio-temporal variability contained in the remote sensing data by using empirical orthogonal function (EOF) decomposition. The problem of forecasting the dynamics of a two-dimensional surface field can thus be reduced by selecting the most relevant empirical modes, and non-linear time series predictors are then applied on the time independent amplitudes only. In the present

case study, we use altimetric maps of the Mediterranean Sea and the Alboran Sea, combining TOPEX-POSEIDON and ERS-1/2 data for the period October 1992 to March 2000. The learning procedure is applied to each mode individually. The final forecast is then reconstructed from the EOFs and the forecasted amplitudes, and compared to the real observed field, the persistence and linear forecasts for validation purposes.

OS41Q-09 1050h

The Path of the Overflows From the Sills in the Sicily Strait

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The Sicily Strait forms a natural barrier to the passage of the deep waters from the eastern to the western basins of the Mediterranean. The strait has a complicated bathymetry with two near-parallel channels separated by a central bank that rises to within 100 m of the sea surface.

In the top 150 m of the strait there is an eastward flow of Modified Atlantic Water. Below this, Levantine Intermediate Water (LIW) flows westward. An energetic vein of LIW passes through the narrow eastern channel (sill depth 430 m) and a weaker, slightly cooler and fresher, vein flows through the broader western channel (sill depth 370 m). The region immediately downstream of the sills has been identified as a site for mixing between the overflow waters and Tyrrhenian Deep Water.

The flow across the sills and the area of mixing downstream of the sills was investigated during a research cruise in the strait in June 2000. High-resolution CTD and ADCP measurements were made using instruments on Autosub-2, an autonomous underwater vehicle (AUV), in addition to shipborne CTD, ADCP and LADCP profiles.

These measurements have allowed us to map the spatial distribution and the path of the deep overflow water in this region and to estimate the salt and heat fluxes along different paths through the sills. We are also using small-scale T-S variability to investigate the spatial variation of small scale mixing processes in the Sicily Strait in the vicinity of the two sills.

OS41Q-10 1105h

Hydrography and ADCP Observations of the Costa Rica Coastal Current in NW México

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The Costa Rica Coastal Current (CRCC) is the easternmost branch of the Eastern Tropical Pacific cyclonic circulation; it flows north following the coast of Central America and México before joining the California Current in feeding the North Equatorial Current. Despite its importance, there are very few studies of this current. We report the CTD and ADCP observations collected in November 2000 and May 2001. The surveys, the first of a 3-year program, were made in a box 200nm along shore by 100nm offshore (16-19°N, 101-106°W) in the SW of México. The hydrography shows the expected water masses (Tropical Surface Water, SubTropical SubSurface Water, Pacific Intermediate Water, and Pacific Deep Water) with some seasonal variation in the upper layers. In both surveys the CRCC was well developed, flowing to the NW with speeds exceeding 0.5 m/s in a coastal band some 50 km wide. Further offshore, strong horizontal shears were observed, which satellite altimeter data suggest are due to eddies.

OS41Q-11 1120h

Circulation on the Western Shelf of the Gulf of Mexico

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The seasonal to synoptic scale circulation on the western shelf of the Gulf of Mexico is studied using the Navy Coastal Ocean Model simulation of the entire gulf and analyzing different in situ data. It is shown that there is a strong seasonal component of the circulation variability of the shelf. During fall-winter a southward current dominates the circulation on the shelf. This counterclockwise current reaches the southern Bay of Campeche where it meets an opposing along-shelf current. During spring-summer, south of 27°N, a dominant northward circulation appears.

The seasonal circulation is accompanied by a strong temperature and salinity variability. During winter, fresh water from the Mississippi and Atchafalaya rivers is advected along the Louisiana-Texas shelf to the Tamaulipas-Texas shelf developing along-shelf fronts. Other rivers have local influence developing fronts along the coast.

Episodic cross-shelf currents can transport as much as 0.5 Sv, a magnitude similar to that of the along-shelf transports. Cross-shelf transports are associated with eddy-pair when they interact with the shelf break and to small eddies formed by meanders in the along shelf current.

OS41Q-12 1135h

Contrasting Views of Shelf Circulation in the Northern Gulf of Mexico

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Ocean circulation over the continental shelf in the northwestern to northeastern regions of the Gulf of Mexico is described with Lagrangian drifter data. Near 350 ARGOS tracked surface drifters were air-deployed in a 150 km square over the Louisiana-Texas shelf between June 1993 and September 1994. An equal number of identical drifters were released on the northern Florida shelf from February 1996 through June 1997. Surface currents in the northwestern Gulf during the months of August through May are primarily toward the west along isobaths. Mean velocities are near 20 cm s^{-1}, slightly larger close to the shoreline. Gulf eddies force mostly offshore flow once the Mexican coast is reached. Surface currents during June and July are mainly along bathymetry toward the east with slightly reduced velocities. Surface currents in the northeastern Gulf are highly variable in both space and time. Monthly mean currents over the inner Florida shelf are only a few cm s^{-1}. Larger, more coherent flows exist along the outer-shelf, near the shelf-break. The shelf break flows are mainly toward the east and southeast along bathymetry during June and July, and are variable during other months. A semi-permanent eddy near DeSoto Canyon is the primary mechanism responsible for cross-shore flows in the northeastern Gulf. Drifters west of Cape San Blas are occasionally transported westward past the Mississippi Sound into the northwestern Gulf at speeds in excess of 50 cm s^{-1}. These strong westward shelf flows are forced by winds associated with the passage of strong low-pressure systems. Coherence among shelves exists only during summer months when flow is eastward, and during strong easterly wind events when strong westward jets are observed.

OS41Q-13 1150h

Observation of Deep Water Manifestation of Loop Current and Loop Current Rings in the Eastern Gulf of Mexico

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Deep currents beneath the Loop Current (LC) in the eastern Gulf of Mexico were observed using a mooring deployed near 87oW and 25.5oN with water depth of 3356 m, a strategic location that appears to lie in the path of every Loop Current Ring (LCR) formed in the Gulf of Mexico. The mooring was equipped with two ADCPs, one upward-looking at 140 m and the other downward-looking at 3200 m, and six Aanderra current meters set at 155, 750, 1500, 2500, 3000, and 3200 m in order to sample the entire water column. The successful initial deployment covers the period extending from June 1, 2000 to August 1, 2001. The water column sampled behaves basically as a two-layer system. The weakest currents were observed at 750 m which appears to be close to the interface between the upper-layer and the lower-layer. Currents in the upper-layer are dominated by the LC. The two strongest events are nearly 300 days apart, with observed maximum current speeds reaching approximately 150 cm/s at 60 m, corresponding to the time when the high-speed core of LC was sweeping past the mooring site. Once the high-speed core moved away from the mooring site, upper-layer currents weakened significantly. Currents in the lower-layer below 750∼1000 m are generally decoupled from the upper-layer currents. However, currents in the lower-layer are nearly depth-independent within the lower layer with maximum current speeds reaching 30∼35 cm/s between1500 m and 3200 m. Correlations between the currents in the two layers increase significantly during a few episodic events. Concurrent TOPEX/ERS-2 observations suggest that one of those episodic events coincided with the formation of a LCR, namely Millenium Eddy in early 2001. Effects of the bottom boundary layer can be clearly seen within 30 m of the bottom. Variability of lower-layer currents in terms of magnitude and frequency relative to the upper-layer currents will be discussed.

OS41R HC: 319 A Thursday 0830h

Scientific Communication, Publishing, and Libraries: What Lies Ahead?

Presiding: **E Uhlinger,** MBL/WHOI Library**; J Parker,** Librarian Moss Landing Marine Laboratories and the Monterey Bay Aquarium Research Institute

OS41R-01 0830h INVITED

Developing New Models for Scholarly Publishing

Heather Joseph (202-296-2296; heather@arl.org)

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Advances in technology are continuing to transform the scholarly communications process, and participants on all levels are finding their roles undergoing change. As traditional boundaries shift and new ones emerge, publishers, librarians and scholars alike are struggling to understand where they fit into the new landscape. Consequently, new collaborative initiatves are springing up as participants begin to work together to address the technical and financial challenge of distributing research results electronically. This talk will focus on examing a host of new initiatives that offer effective strategies and even some concrete solutions to address common concerns.

OS41R-02 0900h INVITED

Electronic Publication From one Researcher's Point of View

Michael Parsons (mparsons@hawaii.edu)

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Electronic publishing (E-publishing) linked with internet access can provide a valuable, yet precarious, avenue to research publications. Advantages of E-publishing may include lower costs for, and facilitated access to, publications. Disadvantages may include reduced access and increased expense to academics with no internet access, decentralization of scientific societies, a potential for lower quality peer review and editing procedures, and a threat to a manuscript's longevity. The present view of this researcher is E-publication will be an inevitable and significant avenue to disseminate research results, and that scientific societies should lead the charge rather than react to the change.

THU