NOAA REPORT

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GOES-10 Satellite Replaces GOES-9: NOAA's GOES-10, the nation's newest geostationary weather satellite, was activated in July over the central United States (105 degrees West). GOES-10 will replace GOES-9, which is failing as it reaches the end of its planned life.

"Having a GOES satellite stored on orbit ready to back up the other two GOES satellites turned out to be an excellent idea," said Gerald Dittberner, NOAA's GOES program manager. "It's the first time we had ever had a backup satellite in place. Without such a satellite, we would have had to wait as much as 12 to 15 months to get a launch time slot."

News Briefs

NWS Flood Forecaster Lauded: John W. Patton, an award-winning hydrologist in the NWS San Antonio/Austin Forecast Office, added another prize to his career by accepting the Max A. Kohler Award, which recognizes consistent and outstanding contributions to the NWS's flood forecasting and warning mission.

For nearly 27 years, Patton has studied the often tricky nature of hydrology in the rugged terrain of Utah and Colorado and South Texas. When he graduated with a bachelor's degree in meteorology from Texas A&M University in 1972, Patton began working for the NWS as an intern at the Palmdale Federal Aviation Administration Air Route Traffic Control Center. Two years later,

continued on page 8

Helping with the groundbreaking were (left to right) Dr. M.R.C. Greenwood, Chancellor, University of California at Santa Cruz; Dr. Churchill Grimes, director, Santa Cruz Laboratory; Katherine McGinty, chair, White House Council on Environmental Quality; Rep. Sam Farr (D-CA); NOAA Administrator Dr. D. James Baker; Rolland Schmitten, NOAA Assistant Administrator for Fisheries.

Facility to Focus on Salmon, Rockfish Research

Ground Broken for New Santa Cruz Fisheries Lab

Leaders from NOAA, the White House, Congress and academia helped to break ground in June for the construction of a $19.4 million state-of-the-art research facility in Santa Cruz, Calif., for the National Marine Fisheries Service, designed to study salmon and West Coast groundfish.

It will replace an obsolete lab facility in Tiburon, Calif. When completed in early 2000, the new lab will employ more than 40 fisheries scientists and staff.

Coming the day before the opening of the National Ocean Conference in Monterey, Calif., the groundbreaking emphasized the importance of the ocean to life on Earth. At the ocean conference, government experts, business executives, scientists, and environmentalists came together to examine the opportunities and the challenges the nation faces to restore and preserve irreplaceable ocean resources.

"This groundbreaking ceremony demonstrates NOAA's national commitment to provide state-of-the-art scientific research facilities to study marine resources around the

continued on page 7

RECYCLED PAPER

Ground Measurements to Aid in Climate Research

Nevada Research Station to Monitor Sun's Radiation

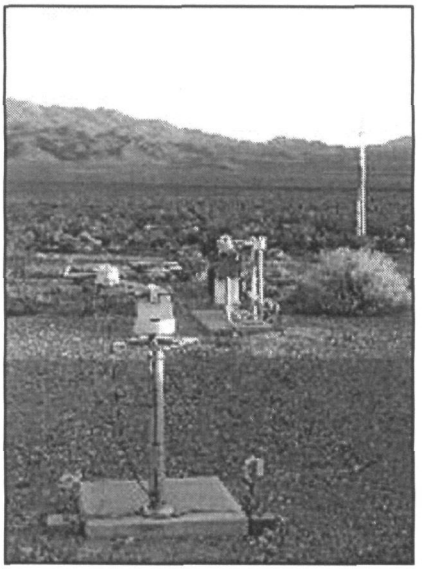
When we think of UV radiation, it's often in terms of how much sun screen to use or perhaps to look up the UV Index to see how intense the sun might be the next day. But measuring radiation is an important part of weather and climate research as well.

Understanding how much radiation is reaching Earth's surface around the globe, helps us better understand what's happening with our UV exposure and climatology.

Currently, most of our global understanding of surface radiation is based on satellite estimates but these need to be verified with ground-based measurements. This niche is being filled in the U.S. by NOAA's Surface Radiation Budget Monitoring Network, part of the Surface Radiation Research Branch (SRRB) of the Air Resources Laboratory located in Boulder, Colo.

Started in 1993 with support from NOAA's Office of Global Programs, the group's objective is to support U.S. weather and climatology research with continuous, long-term measurements of the surface radiation over the U.S.

The UV measurement program is supported by the SRRB's Central UV Calibration Facility which is one of the world's most advanced calibration facilities. It is operated in cooperation with the scientists at the National Institute of Standards and Technology and supports the UV networks of other U.S. agencies. Scientists in Boulder operate the network of UV monitoring stations at five sites within the U.S. The sites are located in climatologically diverse regions in Montana, Colorado, Illinois, Mississippi and the newest station at Desert Rock, Nevada,



The complete SURFRAD station at Desert Rock. Picured from foreground to background is the solar tracker, the main platform, and the ten-meter tower.

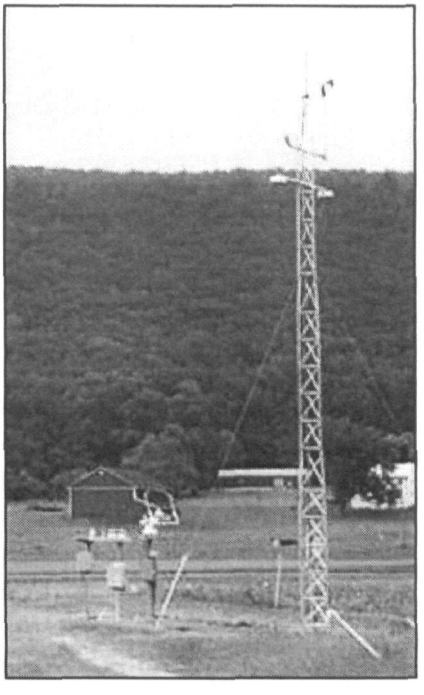
which became operational in March. A six th station will be added later this year near State College, Pa., in cooperation with the Meteorology Department of Penn State.

The network's primary objective is to support weather forecasting and global change and related research with continuous measurements of surface radiation. Long-term high quality measurements from the network are used for evaluating satellite-based estimates of the surface radiation budget, for validating hydrologic, climatology, and weather forecast models, as data for specialized research projects, and to monitor trends in parameters that affect the Earth's climate, such as the El Niño phenomenon. Soon, all stations will have high-frequency sky imagers that will assist in studying cloud effects on surface radiation. This represents the first time that a full surface radiation budget network has operated across the U.S., ranking it among the world's finest networks.

Generally, stations are located where the land form and ground cover are homogeneous over an extended regions so that the point measurements would be representative of a larger area for model and satellite validation work.

As with all stations in the network, Desert Rock is made up of three components, a main platform for downwelling radiation measurements, a tower for upwelling radiation and meteorological data, and a solar tracker from which direct and diffuse solar measurements are made. Other measurements include wind, temperature, relative humidity, station pressure, photosynthetically active radiation, broadband UVB radiation, and spectral solar measurements that, among other information, give total aerosol loading.

—*Barbara McGehan*



The radiation monitoring station at State College, Pa. (above) will come online later this year.

15 Member Board Meets to Advise Agency

NOAA's new Science Advisory Board, whose members will assist the agency in maintaining a complete and accurate understanding of scientific issues critical to the agency's missions, from forecasting weather to stewardship of the nation's fisheries, has met for the first time.

The 15-member advisory board, with technical expertise on both long- and short-term scientific issues, held its first meeting in the Department of Commerce building in Washington, DC Thursday, July 23, and Friday, July 24.

Composed of eminent scientists, engineers, resource managers and educators, the diverse membership of the group assures expertise reflecting the full breadth of NOAA's responsibilities. Members are appointed by NOAA Administrator Dr. D. James Baker to serve a three-to-five year term, with the possibility of renewing once.

During its first two-day session, the board was scheduled to review and discuss NOAA science programs and issues, how these programs support NOAA's resource management responsibilities, and research and development budget trends. The board will also hear from various constituent groups and members of the public regarding their concerns.

The board is chaired by Dr. Alfred M. Beeton, of NOAA's Great Lakes Environmental Research Lab. Its executive director is Dr. Michael P. Crosby of NOAA's Office of the Chief Scientist. Other members include:

- Vera Alexander, Ph.D.; Dean, School of Fisheries and Ocean Studies, University of Alaska;
- Otis Brown, Ph.D.; Dean, Meteorology and Physical Oceanography, University of Miami;
- Peter M. Douglas, Executive Director, California Coastal Commission;
- Patricia Gober, Ph.D.; Professor, Department of Geography, Arizona State University;
- Susan Hanna, Ph.D.; Professor, Department of Agricultural and Resources Economics, Oregon State University;
- Diane M. McKnight, Ph.D.; Associate Professor, Civil, Environmental and Agricultural Engineering Department, University of Colorado;
- Arthur E. Maxwell, Ph.D.; Professor Emeritus, Institute for Geophysics, University of Texas;
- Leonard J. Pietrafesa, Ph.D.; Head, Department of Marine, Earth and Atmospheric Sciences, North Carolina State University
- Jake Rice, Ph.D.; Fisheries and Oceans Canada, Canadian Stock Assessment Secretariat;
- Joanne Simpson, Ph.D.; Chief Scientist for Meteorology, Earth Sciences Directorate, NASA Goddard Space Flight Center
- Soroosh Sorooshian, Ph.D.; Professor, Hydrology and Water Resources, University of Arizona;
- Denise M. Stephenson-Hawk, Ph.D.; Professor of Physics, Clark-Atlanta University;
- Warren Washington, Ph.D.; National Center for Atmospheric Research, Climate and Global Dynamics Division.

New OAR Chief, Fisheries Deputy Named

David Evans has been selected as the new director of the Office of Oceanic and Atmospheric Research. Evans, who was deputy assistant administrator of NOAA's National Marine Fisheries Service, will be replaced by Andy Rosenberg. Rosenberg was the NMFS Northeast regional administrator.

"I am delighted that Dave will head our research efforts," said NOAA Administrator D. James Baker. "His strong scientific credentials and outstanding management expertise will provide valuable leadership. Dave's background as a physical oceanographer is a perfect complement to the renewed national interest in the importance of both ocean and climate issues."

Evans has served as the deputy assistant administrator of NOAA Fisheries for the past year. Prior to that he was the acting deputy assistant administrator and senior scientist for NOAA's National Ocean Service. Before joining NOAA, he was the program manager for the Physical Oceanography Program at the Office of Naval Research. He was also professor of oceanography at the University of Rhode Island.

Rosenberg will succeed Evans as the deputy assistant administrator for NOAA Fisheries. He has extensive experience with fisheries issues, having served NOAA Fisheries since 1995 as one of five regional administrators. Prior to

continued on page 8

Focus On...

Behind the Scenes at the National Ocean Conference

All large-scale, high-profile events require extensive planning and logistical support. With President Clinton, First Lady Hillary Clinton, Vice-President Gore, the national media, and other dignitaries in attendance at the National Ocean Conference in June, NOAA and the Navy created a truly successful event.

The conference provided the opportunity for the sanctuary community to showcase the sanctuary and to demonstrate that the ocean, its health, and our own future are all intricately connected.

We at the Monterey Bay National Marine Sanctuary, with the help of many local residents, had as much fun planning and supporting the event as we did at the actual conference. Virtually everyone on the sanctuary staff got involved. John Robinson, our public affairs officer, and Colleen Angeles from the Channel Islands National Marine Sanctuary worked shoulder-to-shoulder with NOAA public affairs Director Lori Arguelles and the White House advance team for over two months. A partial reward came on Friday morning, June 12, when John accompanied Vice-President Gore on a kayak trip in the kelp beds off Monterey's fabled Cannery Row.

Liz Love and Kip Evans led the planning for the community's Oceans Fair, where local ocean-oriented organizations showed their commitment to ocean education, research, exploration and commerce. Seven other national marine sanctuaries—Hawaiian Islands, Florida Keys, Channel Islands, Gulf of the Farallones, Cordell Banks, Gray's Reef, and Flower Gardens provided exhibits and outreach materials.

Monterey Bay National Marine Sanctuary education specialist Maris Sidenstecker (left) helped young children and their parents at the "Whales on Wheels" booth at the Oceans Fair.

The Monterey Bay Sanctuary demonstrated its urban runoff monitoring program. Over 10,000 people attended the Oceans Fair including Congressmen Sam Farr and George Miller who presented awards to sanctuary volunteers and to local school children who created artwork for the event's poster.

Our work didn't stop at the shoreline. An offshore diver, connected via remote access to a high-technology pavilion at the Oceans Fair, sent back underwater reports. The sanctuary also helped staff an open house on NOAA's David Starr Jordan and shuttled visitors, including Dr. Baker

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andAdm.Stubblefield,fromthe sanctuary'sboattotheNOAAship anchoredoffshore.

TheNationalOceanConference broughtleaderstotheMontereyBay Sanctuary'sbackyardtocelebratethe YeareftheOcean.Weseizedthis chancetohighlightouraccomplishmentsofthepastfiveyearsandto showwhatcanhappenwhencitizens andtheirgovernmentworktogether toprotectthemarineenvironment. Webelievewesucceeded.

—*WilliamJ.Douros*

Mr.Dourosisthesuperintendentofthe MontereyBayNationalMarine Sanctuary.

CongressmanSamFarr(D-CA)andthestudentswhoseartworkbecametheOceansFair poster.Thestudentshadtheirpostersautographedby FirstLadyHillaryClinton.

David Starr Jordan Joins Ocean Conference Festivities

KidslovedtheboatridetotheDavidStarrJordanonthesanctuary'sSharkCatasmuchas theydidtheship'sopenhouse.

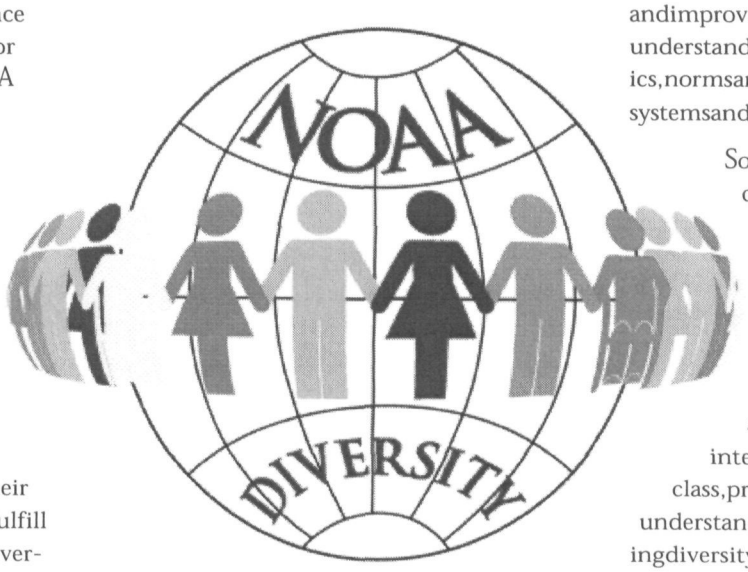
Morethan200visitorsbraveda longwaitandahalfmilesmall boatridetoreachtheNOAAShip *DavidStarrJordan*attheNational OceanConference,anchoredin MontereyBay.

Joiningthe*Jordan* crewinhosting theopenhousewerescientistsfrom NOAA'sSouthwestFisheriesScience CenterandMontereyBayNational MarineSanctuary,theUnitedStates GeologicalSurvey,theNavalPostgraduateSchool,andnearbyMoss LandingMarineLaboratory.These groupssharedsomeoftheiractivities withthepublicthroughposters presentedintheship'slaboratory spaces.

continuedonpage6

Change Agent Course Wins Award

NOAA's Diversity Office has been awarded the Trainer's Conference Distinguished Service Award for content and design of the NOAA Change Agent Course. The award was also given to Horizons Consultants, which aided the Office with the course.



This course, a requirement for all NOAA Diversity Consultants, also known as change agents, provides the basic foundation, tools and techniques that the consultants need to fulfill their roles in assisting management fulfill NOAA's vision for managing diversity. NOAA's Diversity Consultants, found in every Line, Staff and Program Office, both in Headquarters and field locations, help people understand the way they think and why; modify behavior as appropriate; and improve the organization's understanding about group dynamics, norms and organizational systems and processes.

So far, four sessions of the course have taken place, with a fifth scheduled for the first week in August. More than 60 of the nearly 100 NOAA Diversity Consultants have attended. The course, an intense, week-long, offsite class, provides them the skills to understand the concept of managing diversity; personal and interpersonal relationships; the impact of

continued on page 8

NOAA's *David Starr Jordan* Holds Open House at Monterey Ocean Conference

continued from page 5

Young visitors enjoyed zipping across the water in the skiff and exploring the ship. They also gleefully devoured the commemorative cake served by *David Starr Jordan* 's stewards department. The requirement to do na life jacket for the boat ride added to the adventure for the youngsters.

Another public boat load leaves the David Starr Jordan's open house during the Oceans Fair.

Those touring the ship included NOAA Administrator D. James Baker, Deputy Administrator Terry Garcia, and NOAA Corps Director Rear Admiral William Stubblefield.

Immediately following the open house, the *David Starr Jordan* weighed anchor and hurried south to California's Channel Islands for a study of fish egg production and habitat in several marine reserves, under the direction of Russ Vetter from the Southwest Fisheries Science Center.

—Lt. Cmdr. John Herring

NESDIS, OAR Scientists Win Prestigious Research Award

NOAA scientists Troy L. Holcombe of NESDIS, Lisa A. Taylor of NESDIS, and David F. Reid of the Office of Oceanic and Atmospheric Research, together with their colleagues John S. Warren of the Canadian Hydrographic Service, and Charles E. Herdendorf of Ohio State University, are the recipients of the prestigious Chandler-Misener Award, given by the International Association for Great Lakes Research at their 1998 Annual Conference, held in Hamilton, Ontario, Canada.

This award is presented annually to the authors of the peer-reviewed scientific paper in the current volume of the *Journal of Great Lakes Research* judged to be "most notable." Papers are evaluated on the basis of originality, substantial research contribution, and clarity of presentation by a panel of five to eight judges chosen from the Association's officers and general membership.

The winning paper "Lakefloor Geomorphology of Western Lake Erie" included a large full-color bathymetric map of western Lake Erie and presented a wide-ranging discussion of western Lake Erie

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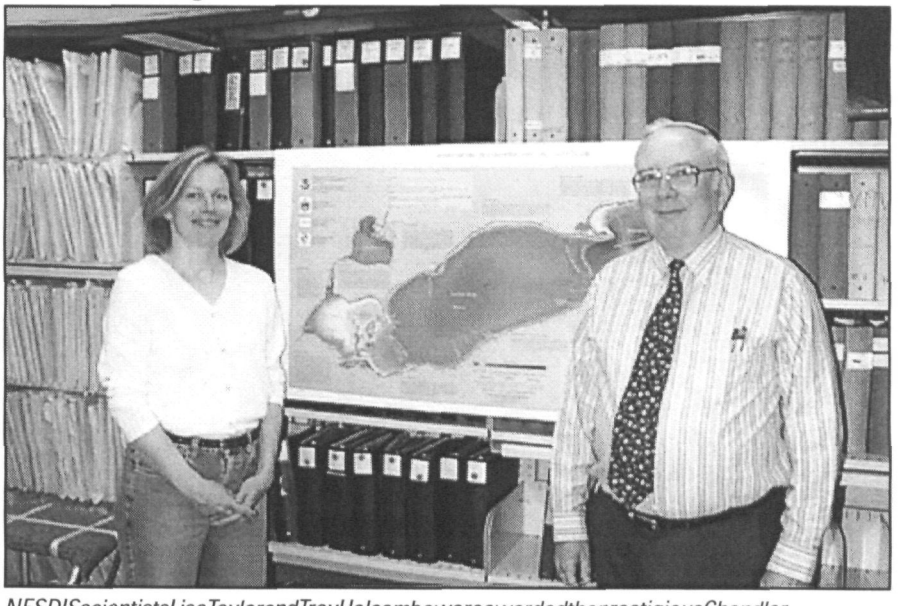

NESDIS scientists Lisa Taylor and Troy Holcombe were awarded the prestigious Chandler-Misener Award for a paper published in the Journal of Great Lakes Research. A paper included a bathymetric map of western Lake Erie, seen in this picture.

New Santa Cruz Fisheries Lab to Focus on Salmon, Rockfish

continued from page 1

country," said NOAA administrator D. James Baker. "The synergy that comes from partnering with academia and other local institutions to tackle science for tough fishery issues will be tremendous."

"Oceans sustain life on earth and provide us with many vital resources," Baker added. "They area source of food, energy, commerce, medicine and recreation. They shape our weather, and link us to other nations. In the 21st century, we will look increasingly to the oceans to meet our everyday needs."

"What better way to open the National Ocean Conference than to break ground for a world-class marine lab," said Representative Sam Farr (D-Calif.). "This fisheries service lab is one of more than 20 venerable institutions that call the Monterey Bay area home. Their presence here underlines the importance of the oceans to the economic and environmental well-being of our community and the world."

The 53,400 square foot Santa Cruz laboratory will be located adjacent to the University of California Long Marine Laboratory, and the University's Marine Discovery Center that is currently under construction. The new facility will join a growing number of marine science facilities in the Monterey Bay area providing the opportunity for additional partnerships with state, federal, academia and private research entities.

"This new laboratory includes a seawater system to provide our scientists the tools to study crucial salmon and rockfish biology and population dynamics along with other important environmental research," said Rolland Schmitten, director of the National Marine Fisheries Service.

The salmon fishery off the California coast is important to both recreational and commercial fishermen. The need for salmon-related research has increased recently with the reduction of salmon stocks along the West Coast and the listing of several salmonid species under the Endangered Species Act.

Environmental research conducted at the new facility will focus on the nearshore waters along the central California coast and San Francisco Bay.

continuedfrompage1

hebecameanoperationalhydrologist at the Salt Lake City-Colorado Basin River Forecast Office, where he calibrated a river forecast model that helpedforecasterspredicttheinflowof waterintoreservoirsinArizona.

News Briefs

In a letter nominating Patton for the Award, Roy D. Sedwick, executivedirectoroftheTexasFloodplainManagement Association, wrote: "...[Patton] hascaptivatedmanyanaudiencewith his highly informative presentations, especially when he talks about the state's active flood history ... he has alwayssupportedtheAssociationinour efforts to promote sound floodplain managementinTexas."

New OAR Chief, NMFS Deputy

continuedfrompage3

that,Rosenbergservedinavarietyof capacitiesatNOAAFisheries,including actingchiefoffisherymanagement andoperationsintheNortheast region,researchspecialistatheadquarters,andchiefofthecoordination sectionattheNortheastFisheries Center.BeforejoiningNOAA,hewas onthefacultyoftheImperialCollege ofScienceinLondon.

"NOAAwillalsobenefitgreatlyona broaderscalefromAndy'sexpertise andexperienceintheNational MarineFisheriesService,"Baker added."Hisextensivebackgroundin developingandimplementing recoveryprogramsforendangered fishstocks,andhisscientificworkon populationdynamics,resource managementpolicyandriskassessmentwillbeofgreatvaluetoNOAA Fisheriesoverall."

Course Helps in Diversity Training

continuedfrompage6

organizationalcultureandsystems; thecycleofchange;andtoolstohelp themdevelopaschangeagents. Courseevaluationsareconsistently enthusiasticandpositivewith studentspleasedwithboththe qualityandimpactofthecourse. Manystudentsreportthattheclass wasthebesttheyhadeverattended.

Commentsfromstudentstellthe storybest.AnOFAstudentcommentsthat"diversityis*not* asking someonetochangetheircorevalues. Itiscreatingandmaintainingan environmentwhichallows *all* employeestocontributetotheir fullestpotential...ThemainthingI cameawaywithisthatdiversityisa wayoflifeinvolvingallthewalksof mylife.It'sokayifI'mjustapebble inthepond.WhatIstartmay 'ripple'outandhelpothers."

AstudentfromNMFSvalues gaining"toolsforworkingmore effectivelyasamanagerandplanner ...theclasswillhelpmedopresentationsthatcanbemoreeasilyunderstoodandacceptedbyourstaff"of scientists.AndastudentfromNWS appreciatedthewarmwelcomehe receivedastheonlyemployeefrom hisLineOfficeintheclasshe attended,andtheopenatmosphere thatallowedhimtospeakfreely.This studenttellsus"allofmydiversity questionswereansweredandI obtainedvaluableskillswhichhave betterpreparedmeandNOAAfor thetwenty-firstcentury."

InFY1999,theNOAAchange agentswillhaveanopportunityto furtherenhanceandpracticetheir skills.

Formoreinformation,seethe Diversityhomepageat *http://www.rdc.noaa.gov/diversity.html.*

PaperWinsAward forScientists

continuedfrompage7

geologyasrevealedbynewbathymetry,whichtheauthorscompiled.

Thebathymetryandresultingpaper areanoutgrowthoftheESDIM-sponsoredGreatLakesDataRescue Projectandwascarriedoutjointlyat theNESDIS/NationalGeophysical DataCenterandtheOAR/Great LakesEnvironmentalResearch Laboratoryincollaborationwiththe CanadianHydrographicService.An internationalagreementbetween NOAAandtheCanadianHydrographicServiceprovidedthebasisfor US-Canadacooperativeeffortsto assemblenewbathymetry

forthefourGreatLakessharedby thetwocountriesbyusingand incorporatingthedataholdingsof bothcountries.

Thisisthesecondyearinarowthat NOAAscientistshavewonthe award.

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