NOAA's Educational Partnership Program
with Minority Serving Insitutions

The National Oceanic and Atmospheric Administration

Summer 2004

NCAS Leads International Research Study Aboard *R/V Ronald H. Brown*

Against the backdrop of an expansive, nearly cloudless sky and churning blue waters beneath, an international research team of scientists and students led by the Howard University NOAA Center for Atmospheric Sciences (NCAS) completed a nearly month long

NOAA R/V Ronald H. Brown

research expedition aboard the NOAA ship Ronald H. Brown. The Howard-led team was granted the use of the ship to conduct the Trans-Atlantic Saharan Dust AERosols and Oceanographic Science Expedition (AEROSE). The comprehensive mission, encompassing both atmospheric and oceanographic research, satellite validation experiments, and technique development, took place from February 29 through March 26, 2004. The fundamental purpose of the AEROSE mission was to provide a set of critical measurements to characterize the impacts and microphysical evolution of Saharah dust aerosol transport across the Atlantic Ocean.

The Principal Investigator and Co-Chief Scientist of the mission was Howard University Associate Professor Vernon R. Morris. Dr. Morris is the Principal Investigator and Director of NCAS, a research center supported by a $7.5 million cooperative agreement with NOAA, which was initiated in October 2001. The Chief Scientist of the mission was Dr. Pablo Clemente-Colón of NOAA NESDIS. Howard graduate students and NOAA's National Environmental Satellite, Data, and Information Service (NESDIS) scientists provided shore-side support for AEROSE through meteorological forecasting and satellite data analysis. Howard University participants also included Dr. Everette Joseph (Department of Physics and Astronomy), and doctoral graduate students Francis Mensah, Lizette Roldán, and Michelle Strachan.

Other participants included faculty and students from the University of Puerto Rico at Mayagüez (UPRM), the Canary Institute of Marine Sciences (ICCM), the Spanish Institute of Oceanography (IEO), the Laboratory of Atmospheric Physics Siméon Fongang (LPASF) in Dakar, the University of Miami Rosenstiel School of Marine and Atmospheric Science (RSMAS),

EEP Request for Proposals for FY'05

The National Oceanic and Atmospheric Administration (NOAA) Educational Partnership Program with Minority Serving Institutions (EPP/MSI) announces its FISCAL YEAR 2005 call for proposals under the Environmental Entrepreneurship Program (EEP). The program's goal is to strengthen the capacity of MSIs to foster student careers, entrepreneurship opportunities and advanced academic degrees in the sciences directly related to NOAA's mission (http://www.noaa.gov).

Environmental Entrepreneurship is defined as a mechanism to provide student training in the application of NOAA sciences for the creation of business opportunities. This is achieved by MSIs establishing partnerships with NOAA, the academic community, and the public/private sector to engage students in a compliment of entrepreneurial training and technical skills in environmental sciences that will promote commerce and economic development.

In fiscal year 2005, the program expects to make available a total of $6 million (on a competitive basis) to support projects at eligible Minority Serving Institutions as identified on the most recent U.S. Department of Education list (e.g., Historically Black Colleges and Universities, Hispanic Serving Institutions, Tribal Colleges and Universities and Alaska Native and Native Hawaiian Serving Institutions). Proposals will not be accepted from non-profit organizations, foundations, auxiliary services or any other entity submitted on behalf of MSIs. Proposals will only be accepted and reviewed that include a total budget of no more than $500,000 (in the high school science pipeline or environmental demonstration category) for up to a five year period. Approximately twelve proposals will be funded, with anticipated start dates of March 1, 2005.

The Announcement of Federal Funding Opportunity can be found on: http://fedgrants.gov/Applicants/DOC/NOAA/GMC/11481MSIEPP063004/Attachments.html#Full+Announcement+1

For more information about the Environmental Entrepreneurship Program contact Jewel G. Linzey, EEP Program Manager at (301) 713-9437 x 118; or email: jewel.griffin-linzey@noaa.gov.

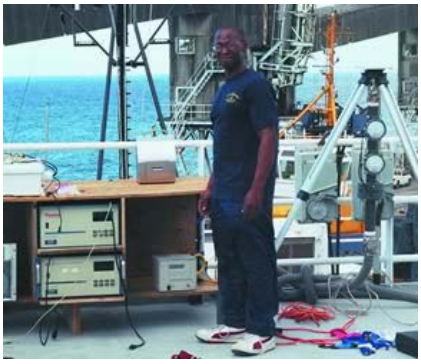
Continued on Page 2

AEROSE Cruise, Continued from Page 1

the University of Washington Applied Physics Laboratory (UW/APL), and the NOAA CREST center at CUNY, the NASA Goddard Space Flight Center (GSFC), the NASA Jet Propulsion Laboratory (JPL) and NOAA/NESDIS/ORA.

Dr. Morris stated that the global transport of desert dust has been acknowledged as a significant factor in atmospheric radiative balance, atmospheric oxidizing capacity, the deposition of limiting nutrients into the upper ocean, transport of fungi and microorganisms, and in the indirect aerosol effect via cloud modification.

"NCAS is part of an ongoing research initiative at Howard University in the Atmospheric Sciences to investigate issues of



Dr. Vernon Morris, Principal Investigator and Co-Chief Scientist of the mission

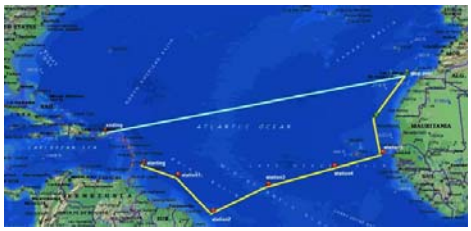
national importance, with impacts on the global community in general and the African Diaspora in particular, " said Dr. Morris.

Saharan dust events are an excellent example of these investigations. The dust storms inject over two billion (2 x 10 9) metric tons of material into the atmosphere on an annual basis. A large portion of this material makes its way across the Atlantic Ocean into the US, the Caribbean, Gulf of Mexico, and eastern US seaboard. While this phenomenon is not a new one, it is likely to have been an active process as long as the Saharan desert has been in existence. However, the frequency and intensity of the dust storms have apparently increased and the increased density and types of aerosols in the atmosphere have a largely undetermined affect on several key processes affecting climate change.

Dr. Morris explained that the Saharan dust events also provide a unique laboratory for conducting real time experiments on natural atmospheric aerosols. During the spring and summer months the

dust is usually traveling out over the open ocean without significant influence from land. Saharan dust storms are easily discernible from the space and the largest of storms can have spatial extents comparable to the size of the continental US.

The key areas of focus during AEROSE were climate impacts of aerosols, heterogeneous chemistry, aerosol microphysics, atmospheric deposition and impact. The three central questions guiding the science in AEROSE are:



AEROSE Cruise Tracks

(1) How does Saharan dust affect atmospheric and oceanographic properties during trans-Atlantic transport?
(2) How do the Saharan dust aerosol distributions evolve physically and chemically during transport?
(3) How well are the above processes resolved from satellite measurements?

First, the AEROSE mission obtained high-resolution column measurements of both the atmosphere (through the entire troposphere – upwards of 25,000 ft) and ocean (down to 2000 ft below the surface) along the cruise track from Barbados to the Canary Islands and back to Puerto Rico. The column measurements were complemented by nearly continuous in-situ sampling and observations of ozone, carbon monoxide, aerosols, radiation, and a full suite of meteorological measurements. This work was performed by Howard, UPRM, NOAA, and University of Miami scientists.

Secondly, a comprehensive suite of aerosol measurements and size-segregated sampling were performed to identify mass distributions, number densities, black carbon content, PM2.5, aerodynamic size, and chemical composition throughout the cruise. Samples were obtained in various portions of the plume to characterize the chemical aging of the dust as it crossed the Atlantic Ocean. This work was performed by Howard scientists and students.

Finally, AEROSE provided satellite validation experiments for three satellite instruments: NOAA's AVHRR (measuring sea surface temperature, skin temperature, and column water), NASA's Moderate Resolution Imaging Spectrometer (MODIS) (measuring column water, temperature profile, and aerosol optical thickness) aboard the AQUA and TERRA satellites, and the Atmospheric Infrared Sounder (AIRS) (measuring air temperature, surface temperature, and column water) also aboard the AQUA satellite. Plans to provide validation for a fourth satellite instrument, the NASA Geoscience Laser Altimeter System (GLAS), aboard the ICESAT satellite were cancelled due to instrument problems aboard this platform. The validation experiments consisted of hourly sun photometer measurements, 3-hourly radiosonde launches, and sea-surface temperature (SST), skin temperature, and surface temperature measurements taken every minute throughout the cruise. This work was a collaboration between Howard and NESDIS scientists.

Dr. Morris stated that the AEROSE mission was an "overwhelming success… By using a combination of satellite observations and meteorological forecasts, we were able to steer the vessel directly into one of the largest dust storms observed during March in their

Continued on Page 3

AEROSE Cruise, Continued from Page 2

Outcomes and Outlooks

recorded history. The AEROSE team encountered at least three separable dust events, completed the intensive column measurements to secure a unique and valued open ocean data set, successfully obtained the validation data for three US satellite instruments, and obtained a rich data set of aerosol properties before, during, and after a major dust event. We nailed our primary objectives on this cruise and look forward to presenting the results as well as pursuing the follow-on cruises."

Additionally, the AEROSE mission was unique in its first-rate science return and focus on interdisciplinary and a crosscutting science plan. It deliberately linked together a comprehensive set of satellite, atmospheric, oceanographic measurements for a single, integrated purpose – making it a powerful demonstration of the ***Ronald H. Brown*** as a flagship scientific platform. This aspect of the mission was recognized by the NOAA administrator, Vice-Admiral Conrad C. Lautenbacher, Jr., US Navy (Ret.) in a press release issued during the second leg of the AEROSE mission as "… one example of the continuing efforts by NOAA and its partners to advance understanding of natural activities and how they interrelate on this planet we share."

AEROSE was also distinguished by the composition of its scientific leadership team and the fact that it was the first to be led by an HBCU and an African-American scientist, and the first to have a majority of scientists from African-American and Puerto Rican descent. Middle school students from St. Thomas More in Washington, DC and elementary students in San German, Puerto Rico followed the cruise experiments through an interactive web site at: **http://orbit- net.nesdis.noaa.gov/orad/sar/oceansar/AEROSE2004/**.

This site featured a daily log from the ship, location-tracking, satellite imagery, question-and-answer communications between the science team and students (although, many non-students contributed questions), and photos of the research activities.

Dr. Morris will host a special session at the upcoming 2004 International Joint Assembly of the American Geophysical Union (AGU), the Canadian Geophysical Union (CGU); the Society of Exploration Geophysicists (SEG); and the Environmental and Engineering Geophysical Society (EEGS) in Montreal, Canada during May 16-22, 2004. This will be the first venue during which preliminary scientific results from AEROSE will be presented. A large series of scientific papers and presentations are expected to follow his presentations.

AEROSE is the first of three-planned NCAS research cruises in the Atlantic Ocean. Follow-on sea-based research expeditions are anticipated for summer 2005 and winter 2006, with the third cruise in collaboration with Chile and Spain. Howard University is planning the atmospheric science components of each of these missions. Further information on NCAS research can be found at: **http://www.gs.howard.edu/atmosci/default.htm**

Graduate Scientist Says 'Aloha' to Pacific Region Headquarters (PRH)

DaNaCarlis

Through NOAA's Educational Partnership Program (EPP) Graduate Sciences Program (GSP), DaNa Carlis accepts a full-time position in the National Weather Service (NWS).

The GSP has two primary objectives. First, to offer candidates with college degrees in math, science, economics, law, social science, and engineering who have been accepted into a graduate program in a NOAA related science entry-level employment and hands-on research and work experience at NOAA. Secondly, the program seeks to improve NOAA's outreach and recruitment efforts of under-represented individuals in the scientific mission-related occupational fields.

Carlis is a graduate student at Howard University pursuing a Ph.D. in Atmospheric Science. He spent most of last fall at the Honolulu WFO performing sensitivity experiments on the Weather Research Forecast (WRF) model to determine which parameterization schemes provide the most accurate forecasts of localized heavy precipitation events that lead to flash flooding. During that time he also worked with Dr. Yi-Leng Chen at the University of Hawaii. During the latter part of his internship, Carlis had the opportunity to visit the Guam WFO and take an introductory course in tropical meteorology. For the spring semester, Carlis returned to Howard University to complete his coursework and qualifying exams.

Carlis moved to Hawaii permanently on July 9, 2004 and immediately began working with Bill Ward, the new Scientific Services Meteorologist at Pacific Region Headquarters (PRH). His early tasks included setting up simulations using the WRF model over the Hawaiian Islands on systems at PRH. Next, he will complete a summertime validation study on the model over the Island of Maui looking for similar patterns in model winds, temperature, and quantitative precipitation versus observational data. Other interests include tests in the models initial conditions by ingestion of more observational data sets, scatterometer winds from Quickscat, and WRF modeling over the West Pacific including the Marianas Islands.

Carlis will be employed at PRH as a Physical Scientist. One of DaNa's goals is to help increase K-12 interest in meteorology because he feels that there are many avenues to contribute to this field. He also hopes to contribute to NOAA's effort to increase diversity by reaching out to young minorities interested in obtaining degrees to consider pursuing careers in Atmospheric Science.

Salish Kootenai College Visit Great Lakes Environmental Resources Lab

By Brian Eadie/Senior Physical Scientist/GLERL

From May 23 – 26, 2004, GLERL hosted three faculty and five undergraduate students from the Environmental Chemistry Program of the Salish Kootenai College(SKC) in Montana. The visit was part of a NOAA Environmental Entrepreneurship Program for Minority Serving Institutions, with GLERL as the collaborating laboratory. The goal of the grant is to expose undergraduates from this Native American college to the activities of an environmental laboratory with the possibility of building further research collaborations on their reservation. All Environmental Chemistry Program B.S. candidates must complete a senior research thesis. Most graduates of the program remain on the 8,000 sq. mile reservation in various environmental positions.

There were several hours of informal discussions with the students from SKC about their interests and plans. A number of GLERL scientists gave presentations in areas of chemistry and biology that stimulated considerable discussion. The groups then traveled to Muskegon for a half -day cruise on Lake Michigan aboard the *RV Laurentian,* where they collected water and sediment samples, picked benthos, and sampled several pieces of electronic equipment. The SKC Environmental Chemistry program has an interest in developing a research program on Flathead Lake, a third of which is on reservation land. It is the largest lake west of the Mississippi. One of the visiting students returned in June as a summer student fellow to work on contaminant bioassay techniques. Further information on the Salish Kootenai College can be found on the website: http://www.skc.edu.

GLERL staff with students from Salish Kootenai

Corporation Values Clark Atlanta Student's Experience

Having previously completed a few environmental-related internships, Kirkwood Russell, then a senior civil engineering student at Clark Atlanta University (CAU), readily welcomed the opportunity to participate in a program funded by the Environmental Entrepreneurship Program. According to Russell, the objective of the program was in keeping with his goal of a career in environmental engineering; first working with a company that was addressing the nation's environmental pollution problems and later forming his own company to do the same.

Russell was one of six student participants in the 2001-2002 environmental demonstration programs at CAU. He successfully completed a summer internship at the Skidaway Institute of Oceanography and Severn Trent Laboratories, in Savannah, Georgia, during which he was exposed to a wide range of environmental pollution issues and scientific/technological approaches to solving these issues. An opportunity in the environmental industry became available when environmental scientists and engineers from one of the project industrial partners, Weston Solutions, Inc., made a presentation on the company activities in environmental restoration at the students' weekly group meetings.

The company recognized his interest, enthusiasm and capabilities and offered him employment in February 2003, following his graduation in December 2002. Currently, Russell is a civil engineer based in Atlanta and working as a member of Westons' team conducting Atlanta's Sewer System Evaluation Survey. Russell's work on this project will have far reaching effects on mitigating further pollution of the Chattahoochee River.

Clark Atlanta University Environmental Entrepreneurship Alumni Kirkwood Russell

Environmental Entrepreneurship

Program Development & Enhancement:

Barry University is developing environmental science research, educational and hands-on training opportunities for students in partnership with NOAA's National Marine Fisheries Service, Atlantic Oceanographic and Meteorological Laboratory and National Ocean Service as well as, other governmental, academic and research partners.

Laredo Community College (LCC) is developing and enhancing environmental science coursework; internships; site visits; and hands-on training opportunities in coordination with NOAA's National Weather Service Forecast Office and National Marine Fisheries Service and other educational, governmental and private partners.

Clark Atlanta University (CAU) is enhancing its atmospheric and environmental science programs through curriculum enhancement; research experiences; site visits and internship opportunities in collaboration with NOAA's Atmospheric Turbulence and Diffusion; NOAA's Environmental Technology Laboratory; NOAA's Air Resources Laboratory; NOAA's National Weather Service; and NOAA's Coastal Services Center.

Elizabeth City State University is providing undergraduate students with instruction, hands-on training and research experiences in the study of protected species behavior using remote sensing technologies in collaboration with the NOAA Center for Coastal Fisheries and Habitat Research.

Florida A & M University is developing and training a pipeline of students in interdisciplinary educational and research experiences in the area of environmental measurements and modeling to determine ecological impacts of several pollutants on the Apalachicola River ecosystem in collaboration with NOAA's Environmental Cooperative Science Center.

Florida International University is engaging undergraduate students in hands-on environmental science research projects, experiences, and internship opportunities at NOAA's National Hurricane Center and other partnering institutions.

The City College of the City University of New York is working collaboratively with the NOAA Cooperative Remote Sensing Science and Technology Center (CREST) and Hudson River National Estuarine Research Reserve (NERRS) to enhance students knowledge and skills in coastal, oceanic, environmental and remote sensing by enriching curriculum, engaging students in research projects and site visits.

The University of Texas (UTEP) is promoting, recruiting and training students in environmental science at the undergraduate and graduate level through curriculum enhancement, outreach, hands-on research, internship and training experiences in collaboration with the El Paso Area Forecast Office of NOAA's National Weather Service.

Environmental Demonstration:

California State University, through internships and research opportunities, and, in collaboration with NOAA's Southwest Fisheries Science Center, will train students in deepwater marine benthic habitat mapping and climate research

Texas A & M University-Kingsville (TAMUK) is working with NOAA's National Weather Service's Corpus Christi office to provide students with coastal and meteorological knowledge, this will include learning to assess the impact of urbanization on coastal bays and estuaries in South Texas

The University of Alaska is engaging students in internships and hands-on environmental science training opportunities including, carrying out a community watershed planning demonstration project, in collaboration with NOAA's Alaska Sea Grant Marine Advisory Program and other partners.

The University of Hawaii-Manoa are training students and providing hands-on learning experiences, knowledge and technical skills in watershed assessment, coastal water quality management and related environmental issues in collaboration with NOAA's Hawaii Sea Grant Extension Program.

The University of Maryland Eastern Shore is working in coordination with NOAA's Living Marine Resource Cooperative Science Center and Chesapeake Bay office to train students in the development of a production and planting business for submerged aquatic vegetation through classroom and experiential training opportunities that will impact restoration and mitigation of the Chesapeake and Coastal Bays.

Students from the University of Puerto Rico at Mayaguez

Students at work in the lab at Barry University

NOAA/CREST Establishes University Sponsored Chair

The School of Engineering at the City College of the City University of New York (CUNY) has established a "NOAA Chair" to lead significant research projects for the NOAA Center for Remote Sensing and Technology (CREST). The University will allocate funding for a high-tech professional for the maintenance and support a satellite receiving station. Additional funds will also be provided to support the research equipment needed by CUNY's faculty who are associated with the Center.

NOAA/CREST was established in 2001 through a cooperative grant from NOAA's Educational Partnership Program. The Center's research and training focuses on all aspects of remote sensing, including sensor development, satellite remote sensing, ground-based field measurements, data processing and analysis, modeling, and forecasting. The Center recruits and trains undergraduate and graduate students from underrepresented communities for professional opportunities in remote sensing and atmospheric sciences.

Bronx High School of Science Competes in National Science Competition

In only their second year of competition, a team from the Bronx High School of Science (BHSS) defeated twenty other teams to emerge as the winner of the New York State regional competition of the National Ocean Science Bowl. The team, coached by Mitchell Fox, a teacher of astrophysics and environmental science at BHSS, advanced to the national finals held April 23-26, 2004 in Charleston, S.C. At the finals, the team finished in 9th place. The EPP provided a grant to the City College of the City University of New York and to Bronx Community College to sponsor the team. Dr. Reid Strieby of Bronx Community College serves as the team's advisor.

EPP Co-Sponsors Congressional Forum for Native Americans

EPP and the Senate Republican Conference sponsored a Congressional Forum for Native American and Alaska Native Tribal Leaders and Tribal College Presidents, February 25-26, 2004 at the Library of Congress. EPP served on the planning committee for this event, along with staffers from the Senate Republican Conference, the Senate Indian Affairs Committee, the White House Initiative on Tribal Colleges and Universities, and representatives from the Department of Energy. In addition to the Republican Conference and EPP, other sponsors were the Southern Ute Economic Growth Fund, the Mashantucket Pequot Tribe, and Oak Ridge Associated Universities.

Tribal leaders, Tribal College presidents, Members of Congress, administration officials and business leaders from across the nation discussed education, energy and economic development, health disparities, and homeland security issues. Dr. David Sampson, Assistant Secretary for Economic Development, represented the Department of Commerce on the Energy and Economic Development panel. The reception included a special tribute to Army Specialist Lori Piestewa; with members of the Piestewa family and a Hopi Honor Guard in attendance.

University of Texas-El Paso Senior Jon Schaper

Environmental Entrepreneurship Intern Recruited to Build New State Park

Jon Schaper, a senior Environmental Science major - geology concentration, worked as an undergraduate researcher in Spring 2004 supported by a NOAA EPP/MSI grant to the University of Texas at El Paso. Schaper was also selected to work as an intern with the Texas Parks and Wildlife agency during Summer 2004. He spent the summer working with Vulcan Materials Company, a contractor involved in the construction of Government Canyon State Park, a new state park located outside of San Antonio, Texas.

Schaper was obviously very effective in his internship and was offered a permanent position with Vulcan Materials. During his last semester at UTEP, he will work for the company on various tasks that can be completed from a distance. After graduation (December 2004), he will move with his family to San Antonio, where he will assume full-time duties as an Environmental Specialist under the direct supervision of an Environmental Manager.

During his internship, Schaper was involved in a variety of projects -spill response, visible emissions testing, and various source data collection and manipulation. Schaper learned about state environmental compliance issues, storm water issues, and completion of air permit applications to the Texas Commission on Environmental Quality (TCEQ).

Schaper also started a styrofoam recycling program for the company. He said his internship experience was incredible and offered him an abundance of opportunities to learn new things and gain experience and knowledge in the environmental field.

When asked what courses helped him the most, Schaper stated that the basic concepts of environmental science, communications, technical writing, and a knowledge of computers provided him with a strong foundation to complete his internship.

Undergraduate Scholars Participate in Chesapeake Bay Restoration and Clean-up Day

The 2004 Undergraduate Scholars volunteered for the NOAA Restoration Day event held on June 15, 2004. Approximately 90-100 NOAA employees from the D.C. Metropolitan Area helped make a difference by helping to restore the Chesapeake Bay. This was an opportunity for the students to work with NOAA employees and to make a difference through a variety of hands-on, in-the-field restoration activities. This event was held on the scenic Eastern shore of Maryland at the Chesapeake Bay Environmental Center (less than an hour from Washington, DC). The students participated in several restoration activities, including bay-grass growing and planting, oyster restoration, and shoreline stabilization. This was a fun-filled event bringing NOAA colleagues together while helping the nation's largest estuary stay healthy!

Undergraduate Scholar Charles Doxley (Mathematics major, Albany State University, Albany Georgia) works on a buoy during his summer research project. Charles was assinged to the Center for Operational Oceonographic Products and Services.

The Undergraduate Scholars met with Admiral Lautenbacher

Undergraduate Scholarship Class of 2004

Melissa Martinez, Biology Major
University of New Mexico, Alburquerque
NOAA Assignment: National Marine Fisheries Service
Office of Protected Resources
Research : "Spatiotemporal Relationships Between Commercial Vessels and marine Mammals: Implications for Noise Impacts"

Matthew Brown, Electrical Engineering Major
Florida A&M University, Tallahassee
NOAA Assignment: National Marine Fisheries Service
National Marine Sanctuary Program
Research : "The Use of Satellite Technologies in the National Marine Sanctuary Program"

Justin Stopa, Mathematics Major
University of Hawaii
NOAA Assignment: National Environmental Satellite, Data, and Informtaion Service
Office of Research and Applications
Research : "Hawaii SAR Demonstration and Remotely Sensed Wind Validation"

Donald Coulter, Computer Science Major
Bethune-Cookman College, Daytona, Florida
NOAA Assignment: National Weather Service
Office of Science and Technology
Research: "Daily Extensible Markup Language (XML) using National Digital Forecast Data (NDFD)"

Sherry Bethea, Biology Major
Edward Waters College, Florida
NOAA Assignment: Chesapeake Bay Office
Oyster Restoration Program, Horn Point Lab
Research: "Restoration Project in Oyster Hatchery"

Pierre Xavier, Computer Engineering
State University of New York at Stony Brook
NOAA Assignment: National Ocean Service
National Geoditic Survey
Research: "Analysis and interpolation of Topographic and Bathymetric LIDAR Data"

Maria Richardson, Environmental Science Major
University of Maryland Eastern Shore
NOAA Assignment: NOAA Chesapeake Bay Office, Oxford Lab
Research: "The Influence of Feeding on Serum Chemistry of Striped Bass (Morone Saxatilis)"

Kirk Butler, Biology Major
Morgan State University, Baltimore, Maryland
NOAA Assignment: Chesapeake Bay Office
Virginia Institute of Science
Research: "Estimation of Relative Abundance of Important Juvenile Finfish in the Virginia Portion of the Chesapeake Bay"

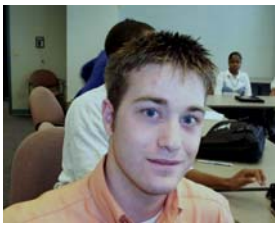
Undergraduate Scholarship Class of 2004

Charles Doxley, Mathematics Major
Albany State University, Albany Georgia
NOAA Assignment: National Ocean Service
Center for Operational Oceanographic Products and Services
Research: "Data Acquisition Systems"

Georgette Holmes, Meteorology Major
Jackson State University, Jackson, Mississippi
NOAA Assignment: National Environmental Satellite, Data, and Information Service
Office of Satellite Data Processing and Distribution
Research: "A Preliminary Evaluation of An Objective Dvorak Technicque"

Ezzard Charles, Electrical Engineering Major
Southern University, Baton Rouge, Louisiana
NOAA Assignment: National Weather Service
Office of the Chief Information Officer
Research: "How the Virtual Prive Network (VPN) was Implemented to Protect AWIPS"

Rickey Carreker, Computer Science Major
South Carolina State University
NOAA Assignment: National Ocean Service
Office of Ocean and Coastal Resource Management
Research: "An Introduction to OPeNDAP"



Shawn McCarroll, Computer Science Major
University of Oklahoma
NOAA Assignment: National Weather Service
Office of the Chief Information Officer
Research: "Disseminating Weather Observations and Using Extensible Markup Language (XML)"

Jonelle Baptiste, Mathematics Major
Elizabeth City State University, Elizabeth City, North Carolina
NOAA Assignment: National Ocean Service
National Geodetic Survey
Rearch: "A Comparision of Continuation Models for Optimal Transformation of Gravimetric Data"

Jonathan Bradford, Computer Science Major
Bowie State College, Bowie, Maryland
NOAA Assignment: Chesapeake Bay Office
Oyster Restoration Program
Research: "The Chesapeake Bay Office and How They Serve the Chesapeake Bay Neighborhood"

New Faculty and Staff

Dr. Henry N. Williams

FAMU Appoints New Director for Environmental Sciences Institute

Dr. Henry N. Williams has been named as Director of the Environmental Sciences Institute (ESI) at Florida A&M University (FAMU). Dr. Larry Robinson, FAMU Provost, made the appointment this summer.

Dr. Williams holds a B.S. degree in Biology from North Carolina A&T State University, and M.S. and Ph.D. degrees in Microbiology from the University of Maryland at Baltimore. Additionally, he served as an American Society for Microbiology Congressional Science Fellow; a researcher in a Summer Research Program in Recombinant DNA, Meharry Medical College; and as a participant in the Harvard Management Development Program.

In higher education, he has held such positions as Professor of Microbiology/Department of Oral and Craniofacial Biological Sciences in the Baltimore College of Dental Surgery; Assistant Vice President for Research at Morgan State University; and as Assistant Vice President for Research at the University of Maryland Graduate School. A veteran, Dr. Williams served as a Medical Technician at the U.S. Army Hospital in Fort Huachuaca, Arizona.

Dr. Williams has contributed more than forty articles in refereed journals, and has published fifty-five abstracts. In May 2004, he was elected to Fellowship in the American Academy of Microbiology. As a scholar, he is frequently invited to give presentations on research emanating from the topic "Ecology of Bdelloviborios in the Chesapeake Bay."

Dr. Kimani Kimbrough joins NOAA Research Staff

Dr. Kimani Kimbrough has joined the staff of NOAA's National Ocean Service Center for Coastal Monitoring and Assessment (CCMA). Kimani has joined the Chemical Impacts Team where he will be assessing contaminant fate and transport in coastal watersheds. Prior to joining CCMA, Kimani was an Environmental Cooperative Science Center Postdoctoral Fellow at Morgan State University (MSU). While at MSU, Kimani evaluated the relationship between landscape visual quality and development in coastal areas of the Chesapeake Bay. He earned a Ph.D. in marine science from the Virginia Institute of Marine Science, College of William and Mary, and a B.S. in marine and environmental science from Hampton University. His graduate and undergraduate research focused on evaluating the historic and present effects of urbanization on contaminant accumulation in wetland and estuarine sediments.

Dr. Andrea Johnson

Dr. Andrea Johnson Join UMES Faculty

Dr. Andrea Johnson has joined the University of Maryland Eastern Shore's faculty as a Research Assistant Professor affiliated with the NOAA-Living Marine Resources Cooperative Science Center (LMRCSC) program. She completed her BS in marine science at the University of Miami and her MS in Marine Science at the University of South Florida and earned her doctoral degree at North Carolina State University College of Veterinary Medicine.

Dr. Johnson joins UMES having previously worked as a marine biologist for the South Carolina Department of Natural Resources in Charleston, SC, a research biologist for the Florida Department of Environmental Protection, and as a research assistant for the National Marine Fisheries Service, Beaufort Laboratory, in Beaufort, NC.

Her primary research interests are in marine fisheries with a focus on physiology, endocrinology and overall fish health. Most recently, her research has focused on the health status of Atlantic menhaden, an important estuarine-dependent species, in several major estuarine systems in North Carolina. She has also studied the reproductive physiology of red grouper and conducted age and growth studies on several species of reef fish in the Gulf of Mexico.

Love is LMRCSC Post-Doctoral Research Scientist

Dr. Joseph W. Love is a community ecologist and fisheries scientist, with an interest in suitability modelling and restoration ecology. He conducted his dissertation work under Dr. Christopher Taylor at Mississippi State University and is originally from Louisiana.

NOAA's Educational Partnership Program is designed to provide financial assistance to minority serving academic institutions for the support of collaborative research and training of students in the NOAA-related sciences. The program's goal is to increase the number of students who are trained and graduate in sciences directly related to NOAA's mission. It also seeks to increase collaborative research efforts between NOAA scientists and researchers at minority serving academic institutions, as defined by the Department of Education.

The City College of the City University of New York
NOAA's Cooperative Remote Sensing Science and Technology Center (CREST)
Dr. Reza Khanbilvardi, Director
T-107 Steinman Hall
City College of CUNY
140 Street @ Convent Avenue, New York, NY 10031
Phone: 212-650-8379
Fax: 212-650-8097
Email: noaa-crest@ccny.cuny.edu
Web: http://icerd.engr.ccny.cuny.edu/noaa/
Partners Institutions:
Lehman College
Bronx Community College
Hampton University
University of Puerto Rico at Mayaguez
Bowie State University
University of Maryland Baltimore County
Columbia University

University of Maryland Eastern Shore
NOAA's Living Marine Resource Cooperative Science Center
Dr. Joseph Okoh, Acting Director
LMRCSC Building
University of Maryland Eastern Shore
Princess Anne, Maryland 21853
Phone: 410-651-6023
Fax: 410-651-7869
Email: jokoh@mail.umes.edu
Web: http://www.umes.edu/osp/marine/
Partner Institutions:
Delaware State University
Hampton University
Savannah State University
University of Maryland Marine Biotechnology Institute
University of Miami

Florida A&M University
NOAA's Environmental Cooperative Science Center
Dr. Larry Robinson, Director
Office of the Provost
Florida A&M University
Tallahassee, Florida 32307
Phone: 850-599-3276
Fax: 850-599-8123
Email: larry.robinson@famu.edu
Web: http://www.famu.edu/acad/colleges/esi/
Partner Institutions:
Delaware State University
Jackson State University
Morgan State University
South Carolina State University

Howard University
NOAA's Center for Atmospheric Sciences
Dr. Vernon Morris, Director
NCAS/Howard University
525 College Station
Washington, DC 20059
Phone: 202-806-5450
Fax: 202-667-7865
Email: vmorris@howard.edu
Web: http://www.gs.howard.edu/atmosci/default.htm
Partner Institutions:
Jackson State University
University of Texas at El Paso
University of Puerto Rico at Mayaguez

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The EPP/MSI Staff:

Jacqueline Rousseau
EPP/MSI Program Director

Chantell Haskins
Scholarship Programs

Jewel Griffin-Linzey
Environmental Entrepreneurship

Linda D.Belton
Outreach

Sabrina Tucker
Program Administration

Dr. Meka Laster
Rotational Assignment

1315 East West Highway
SSMC3/10th Floor
Silver Spring, Maryland 20910
Phone: 301-713-9437
Fax: 301-713-9465