

Keynotes

May 2000

Atlantic Oceanographic and Meteorological Laboratory

Volume 4, Number 5

**Poem for the decommissioning
of the NOAA Ship
Malcolm Baldrige
(formerly the Researcher)**

*This vessel meant a lot to me,
Her gentle roll in a moderate sea,
The curtain swaying at my
stateroom door
And a pencil rolling in an empty
drawer.*

*The steady pounding of her
sturdy hull
And the raucous cry of a
wheeling gull,
The sibilant sight as a swell
slides by
On a moonless night 'neath a
starry sky.*

*Her ensign snapping in a
spanking breeze
And flying foam from wind-
whipped seas,
The silent splendor of a rising sun
And a few hours sleep when your
watch is done.*

*The creaks and groans of an
aging ship
Were friendly sounds on her
final trip.
And those who worked on her
at sea
Will know the joy of these things
for me.*

Harris B. Stewart
August 23, 1996

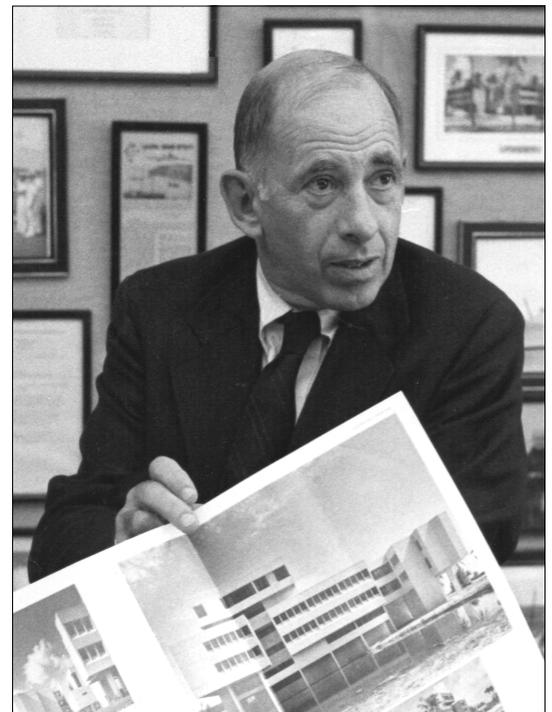
Harris B. Stewart, AOML Founder and First Director, Dies

Dr. Harris B. Stewart, Jr., AOML's much beloved founder and first director, died of cancer on April 25, 2000 at his home in Naples, Florida. He was 77 years old. Dr. Stewart, or "Stew" as many called him, leaves behind a remarkable career in marine science that spanned more than 40 years and a multitude of caring friends and colleagues.

Born in Auburn, New York in 1922, Harris Stewart entered Princeton University in 1941. After the bombing of Pearl Harbor on December 7th of that same year, Stewart interrupted his academic studies to enlist in the U.S. Army Air Corps. During his four years with the Air Corps as a transport pilot flying above the broad expanses of the Coral Sea and the islands of the southwest Pacific Ocean, he developed a deep respect and love for the sea. After the war, he returned to Princeton to earn a degree in geology and went to work for the U.S. Navy Hydrographic Office, participating in survey cruises in Kuwait and the Persian Gulf.

Stewart's love of the sea led him to the Scripps Institution of Oceanography in the early 1950s where he earned a doctoral degree in oceanography. He became a certified scuba diver, participated in marine geology expeditions in the Gulf of Alaska and south Pacific, and also worked as a diving geologist for a group that performed underwater geological mapping off the coast of California. In 1957 he was called to Washington, D.C. to become the U.S. Coast and Geodetic Survey's Chief Oceanographer. His seafaring days continued with oceanographic research expeditions to the Caribbean Sea, South China Sea, and the Atlantic, Pacific, and Indian Oceans.

The Department of Commerce created a new agency in 1965, the Environmental Science Services Administration (ESSA, forerunner of NOAA), formed primarily by merging the functions of the U.S. Coast and Geodetic Survey and the Weather Bureau. Dr. Stewart became Director of ESSA's new Institute of Oceanography. *(continued on page 2)*



Dr. Harris B. Stewart, Jr.
(1922-2000)



A memorial gathering for Harris Stewart will be held on Wednesday, May 24, 2000 in the picnic area at 3:00 p.m. All are invited to attend.



(continued from page 1)

When ESSA announced its intention to build a multi-million dollar oceanographic research laboratory and ship base along the eastern seaboard in late 1965, Dr. Stewart was appointed Chairman of its Site Evaluation Committee. From 1966-1967, Dr. Stewart and committee visited 115 sites from Maine to the Virgin Islands. With ESSA's announcement that Virginia Key-Dodge Island had been chosen as the new home for its oceanographic lab in 1967, he moved to Miami, Florida. Over 100 marine scientists and researchers relocated to Miami with Dr. Stewart, director of the new facility.

The building of the Atlantic Oceanographic and Meteorological Laboratory, however, was a difficult task. A last minute cut from President Johnson's FY-1970 federal budget eliminated funding that was to begin construction of the facility. Dr. Stewart successfully appealed to Miami's community leaders for help to get the funds reinstated, and on February 9, 1973 AOML officially opened its doors. If not for the dedication of these individuals and their belief in Dr. Stewart, construction of the lab would have never begun or been completed. According to Jack Kofoed, Stewart's former deputy director, "The depth of loyalty and respect of his friends was unbelievable, and it was true all the way back to his school days. Stew achieved the near impossible goal of being both a brilliant scientist and charismatic manager."

Dr. Stewart served as director of AOML until October 1978, at which time he retired from federal service. His next four years were spent as Director of the Center for Marine Studies at Old Dominion University in Norfolk, Virginia before retiring altogether from his career with the ocean.

In 1998, Dr. Stewart was reunited with many of his old friends and colleagues when he visited Miami to participate in AOML's Silver Anniversary celebration. He was AOML's honored guest, much praised for the vision, leadership, and political savvy that took the concept of AOML from the realm of mere creative potential to that of full-blown reality—a dream manifested.

He was a prolific writer, publishing over 120 scientific articles during his years as a marine scientist. He also authored 12 books with topics ranging from oceanography, poetry, to humor. Dr. Stewart is survived by daughter Dorothy Barrett, son Harry, brother John, and countless numbers of colleagues, admirers, and friends.

Remembering "Stew"

"Think where man's glory most begins and ends, and say my glory was I had such friends" (William Butler Yeats)

Here's how some of Harris Stewart's friends and former colleagues remember him:

It was during a balmy evening at sea on a shake-down cruise for the newly commissioned U.S. Coast and Geodetic Survey Ship *Discoverer* (OSS-02) that Dr. Harris B. Stewart, Jr. and the ship's Operations Officer sat down on the fantail using two side-by-side hawser bollards for seats. Stew was his usual enthusiastic and energetic self, discussing the wonders of the deep and the many discoveries yet to be made. The young ESSA officer, his lieutenant commander's insignia hardly tarnished by the salt air, sat and listened in rapt attention: a 15-minute conversation between the apprentice and the master that changed a young life and that of his family forever. Seven years afterwards, with the gold-oak leaf symbols long hidden in the back of a drawer, a new Ph.D. was granted and Stew reminded his friend of sitting together on the fantail and dreaming of wonders yet to be known. Twenty-five years later, with tears streaming down my cheeks, I write this and remember a man who, in a few short minutes, changed a life and set him sailing off to another world. I too hope I can do that for just one of my students, in this my third career, and truly my greatest gift from the sea. *George A. Maul, Professor of Oceanography, Florida Institute of Technology*

I first met Harris Stewart in 1971 when I came to work for the Tropical Atlantic Biological Laboratory (now the Southeast Fisheries and Science Center) across the street from a vacant lot that eventually became the permanent home for the AOML. I was a young brand new oceanographer fresh out of school from the west coast and not knowing one end of an XBT or current meter from the other. During the year I was at the fisheries laboratory my wife Kathy and I had the pleasure of attending a reception for visiting oceanographers from some of our neighboring Caribbean countries held at the Stewart home. I remember that we had to sign a guest book. That was the first time I ever signed a guest book and was most certainly impressed. During that time I also remember contacting Harris about borrowing a current meter from AOML to be used on a bottom moored tripod array just off Ft. Lauderdale. Harris gave his permission, we picked up the meter, received a quick lesson on how to open, remove the data, and close it. One week later we recovered the meter, removed the data and redeployed. I also remember not sealing it correctly and flooding the instrument. Hence, my short career with current meters and a greater focus on XBTs. Harris Stewart was a very personable man, took the time to talk to anyone, including a fledgling oceanographer, and made an impact on everyone who met him. Looking back over 30 years of NOAA personalities I've known, I can, without equivocation, observe that Harris Stewart was, indeed, the right person, at the right time and in the right place to create the AOML at which we presently have the honor to be employed. I wish I knew him better but am pleased that I knew him at all. *Steve Cook, Oceanographer, Physical Oceanography Division*

The thing I remember most about Stew was his kindness. When I first came to work here in October 1970, he brought me into his office and told me how glad he was that I was here. Made me feel like family. He was at once both kind and charismatic, a rare combination with a gift for leadership. This was a man you would follow into hell. We are all the poorer now that he is gone. *Dennis Mayer, Oceanographer, Physical Oceanography Division*

"To the scientist who studies her, the sea is a magnificent addiction; once exposed to her complex interrelationships, once made aware of the sheer joy of learning her secrets, of exploring her vast uncharted reaches, he is a willing slave to the pursuit of more knowledge of her."

Harris B. Stewart
"Deep Challenge," 1966

The NESDIS Miami Regional Library at AOML has collected all of Harris Stewart's published articles, papers, and books. They will be on display in the library in the near future.

Remembering “Stew” (continued)

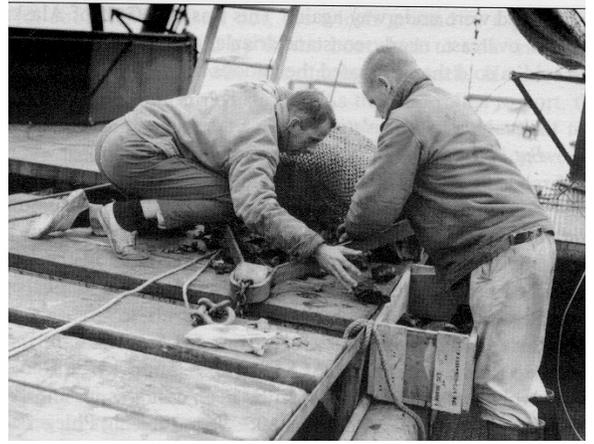
In the 19th century the U.S. Coast and Geodetic Survey (USCGS) was a U.S. and world leader in oceanographic research, and its leaders were nationally preeminent scientific figures. During the first half of the 20th century, urgencies of charting the coastal waters in support of rapidly growing maritime commerce and two world wars preempted resources from more basic research. By the late 1950s Admiral Arnold Karo, then director of the USCGS, envisioned restoration of “The Bureau” to its former glory, and recruited Dr. Harris Stewart to help bring his vision to fruition. “Stew” had just the right instincts for working the Washington scene of the time, and was perfectly positioned to influence the structure of oceanographic research in the Department of Commerce as the coalescence of several agencies into the Environmental Science Services Administration (ESSA), the progenitor of NOAA, was being developed. In 1966 basic research, including that from the USCGS, was reorganized into four Institutes for Environmental Research in ESSA (not likely the admiral’s ideal). One of these was the Institute for Oceanography, headed by Stew. The IO initially was composed of four Laboratories, the reason for the use of plural on our street sign. The Laboratories were for Marine Geology and Geophysics, Physical Oceanography (with the progenitors of PMEL, JIMAR, and JISAO all as wholly-owned subsidiaries), and Sea-Air Interaction co-located in Silver Spring, Maryland and Land and Sea Interaction located in Norfolk, Virginia.

Stew’s vision was for a coastal laboratory site away from the distractions of Washington, with full research capabilities, more or less on the Woods Hole Oceanographic Institute or Scripps Institution of Oceanography models. At the time, these institutions were about the age that AOML is now. I expected that these developments would take several years, and were irrelevant to my plans to return to the University of Washington. I underestimated Stew’s energy as a hustler, however. To keep the momentum going, he organized a Site Evaluation Committee and a campaign that stirred excitement the length of the Atlantic coast, and with them personally visited 115 (as I remember) proposed sites for the Institute from Portland, Maine to St. Croix, U.S. Virgin Islands (see the historical exhibits in the first floor hallway). I think that Stew’s personal preference might have been for the northeast, but he was careful to preserve objectivity. In just over a year Miami had been selected (largely because of the preexisting hurricane research activity here, I still believe), and the move was underway.

By then, the cost of the war in Vietnam had begun to cast a long shadow over funding for construction of planned facilities. The metamorphosis of ESSA into NOAA had little impact on AOML. Stew renewed his efforts far and near and, against all odds, succeeded in competition with programs of the Great Society as well as a futile war. AOML as we know it now had

become a fact, although its programs and components have undergone major changes, and two large NOAA research vessels were once berthed in Miami. I had followed the move to Miami as an adventure rather than as a commitment, but became convinced that Stew was creating an attractive research environment, and that I could make needed contributions to it. He thereby determined the course of the second half of my life, and substantially influenced those of my children and grandchildren as well.

I think that the fun went out of it for Stew as additional layers of management impeded his access to the machthabers in Washington, and higher management grew less responsive to his view of the oceans. He revealed his decision to move on to new endeavor first to his Laboratory Directors, but soon to all. I have often wondered whether in those first moments he might have been dissuaded, but he presented his decision so firmly that none of us thought to try. Now we can never know. *Donald Hansen, former Director, Physical Oceanography Division*



Harris Stewart as a graduate student aboard the Scripps Institution of Oceanography R/V *Horizon* examining manganese nodules dredged from a North Pacific seamount during the 1951 Northern Holiday Expedition.

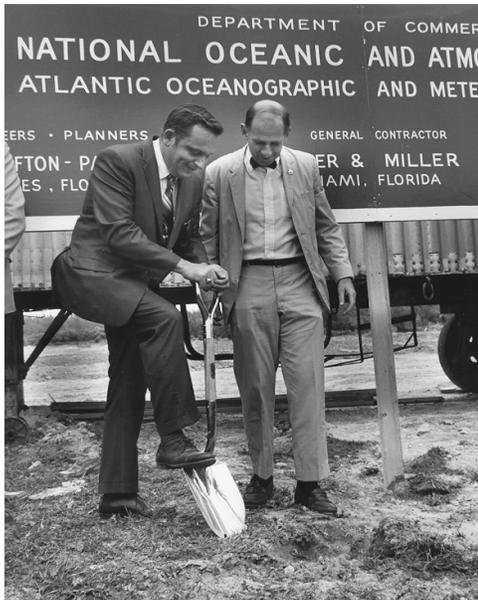


Stewart in full skin-diving regalia, preparing for a geological dive off the coast of California in 1956.



901 South Miami Avenue was the temporary residence for the ESSA scientists who relocated to Miami with Harris Stewart in 1967-1968. A limited budget precluded funds for facility maintenance. Every other Friday afternoon Stewart and staff would tend to cleaning both offices and grounds themselves. Dr. Stewart is shown trimming bushes with his daughter Dodie. Other ESSA scientists appear in the background performing various maintenance tasks (photo courtesy of George Berberian).

Remembering “Stew” (continued)



Harris Stewart at the groundbreaking ceremonies for AOML (October 19, 1970).

After being apprised of Harris Stewart’s failing health and that a visit, sooner rather than later was imperative, John and Maria Proni, Judy Gray, and I visited Stew at his home in Naples on April 22nd. To our pleasant surprise upon entering, he was having a lively telephone conversation with his publisher about his latest book that had just been mailed that morning. Within minutes he greeted us with his normal enthusiasm, despite the toll cancer, radiation therapy, and the recent death of his wife had taken on him. He started the conversation on a heavy note describing the events of the recent past including the circumstances of his wife’s death and the discovery, treatment, and prognosis of his cancer. With

“As a youth, one looks ahead to the future. With advancing years, one looks less ahead and reflects more on the past. For me, there is an unknown number of decades ahead, but there are almost eight of them behind me. And they have been good years, filled with rewarding and productive times at sea, working with dedicated sea people, doing marine research, and facilitating the research of other marine scientists.”

Harris B. Stewart
“The Unpredictable Mistress,” 1996

“Stew” was a great man and for the last several years a supporter of my work at AOML from behind the scenes. He wrote me little notes regularly when he found something to comment on in *Keynotes*. We made fast friends at AOML’s Silver Anniversary where he was the honored guest. This past winter he and his wife Louise invited my husband Michael and me to Naples at the time of a Greek church festival (it is so characteristic of Stew that he would pick a time when there would be something special in it for Michael also). Stew’s wife, who passed away just weeks before him, was a most gracious hostess and a lovely, lovely lady. It was a marvelous weekend that the Katsaros’ will treasure in memory for as long as we live. How lucky we were to have that opportunity! Little did we know then that they were both so short for this world. I am forever grateful for those precious hours we spent together. We miss having them on the Earth with us, but will treasure the memories and the wisdom he conveyed always. *Kristina Katsaros, Director, AOML*

Years ago, a woman that lived temporarily in an apartment behind Stew’s home received complementary Pampers by mail for her baby. One day she moved to another area, but the diapers kept coming to Stew’s home. Danny, my son, was a baby at that time, so for a couple of weeks Stew took the time to deliver those Pampers personally to my office. It was heartwarming to see the Director of AOML carrying a big box of Pampers under his arm in the mornings. Through the years, whenever he visited AOML, he would stop by to see me and, after giving me a big hug, he would say affectionately, “How’s my ‘Cuban Mafia’ doing these days (his Cuban AOMLers).” Then, even though he could barely see anymore, he would tell me “you look as beautiful as ever!” and I knew he meant it, because he always looked at people with his heart, not with his eyes. *Gladys Medina, Executive Secretary, Office of the Director*

One of the things I appreciated the most about Dr. Stewart was the way he encouraged senior AOML researchers to mentor the younger scientists and teach them how to conduct scientific research and get their results published. He also taught an entire generation of AOML scientists that a solid academic background combined with hard work, determination and an uncompromising trust in the scientific method would ultimately result in meaningful scientific contributions to our respective fields. Thank you for showing us the way Dr. Stewart! *Evan Forde, Oceanographer, Remote Sensing Division*

Oceanography is Dangerous!

*The Exec has spent two weeks in traction,
The Chief has a cut on his head,
The Doctor is missing in action
With a burn that has sent him to bed.*

*Various others have bruises
And legs and backs that are sore.
The dangerous parts of these cruises
Are the motorbikes ridden ashore.*

*Arch E. Benthic, a.k.a. Harris B. Stewart
“The Id of the Squid,” 1970*

that said, the following two hours took on a much lighter air with the exchange of “sea stories,” some revisited, some new. Throughout that afternoon, his mental acuity, wit, and zest of spirit remained intact, it was only the body that was failing. During the ride home we all agreed that we were glad we took the time for the visit and were heartened that his condition was apparently better than we had anticipated. It was the latter that provided added surprise to the announcement of his death just three days later. Although gone, there remains both tangible and intangible evidence of his being in the forms of the unique facility we work in and pleasant memories of yesteryear, a legacy anyone could take pride in. *Terry Nelsen, Oceanographer, Ocean Chemistry Division*



Kristina Katsaros with Harris Stewart at his home in Naples, Florida in February 2000.

In celebration of NOAA's
30th Anniversary, AOML
and the Southeast Fisheries
Science Center present

Open House 2000



May 12, 2000:
9:00 a.m. - 3:00 p.m.
(Dade County Students)

May 13, 2000:
10:00 a.m. - 3:00 p.m.
(General Public)

- *Tour our facilities
- *science Poster displays
- *NOAA helicopter
- *research equipment
- *Board a Research Vessel

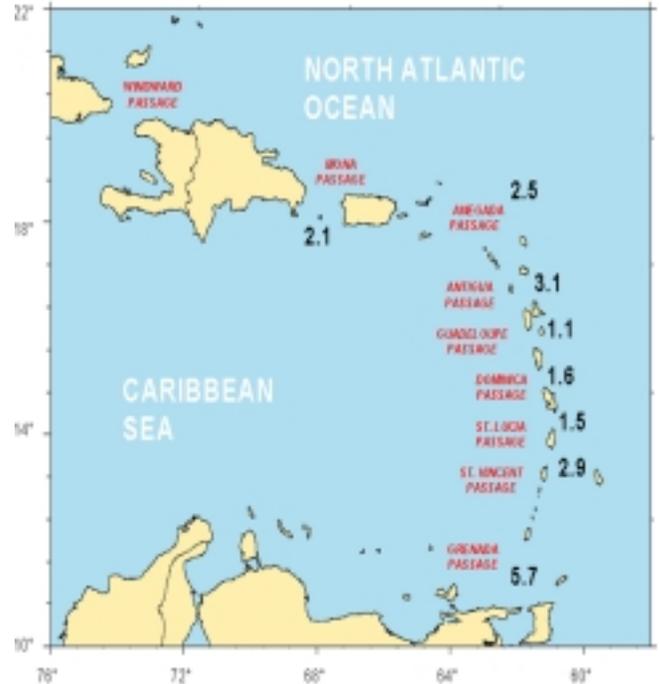
Contact Erica Van Coverden
for more information
(305-361-4541 or
coverden@aoml.noaa.gov)

(<http://www.aoml.noaa.gov/openhouse/>)

Windward Islands Passages Monitoring Project Studies Water Exchange between Atlantic and Caribbean

Erica Van Coverden, Outreach Coordinator, Office of the Director

Scientists from AOML's Physical Oceanography Division (PhOD) recently completed their 16th cruise along the Caribbean Island chains as part of the Windward Islands Passages Monitoring Project (affectionately known as WIMP), a joint research effort between AOML and the Rosenstiel School of Marine and Atmospheric Science (RSMAS). The WIMP project, which began in 1991, was designed to determine the origins and amount of upper ocean water exchange between the Atlantic Ocean and Caribbean Sea. Much of this warm water originates south of the equator, and is an important link in the Atlantic Ocean thermohaline circulation. It flows through the Caribbean Sea and Florida Straits, ultimately forming the Gulf Stream and warming the far reaches of the North Atlantic. As this water flow is part of the global ocean circulation pattern, understanding the rate of this flow and how it is balanced with the returning cold deep water moving south from the Arctic can help scientists determine how the ocean influences climate fluctuations. Continuous documentation and a solid understanding of how these waters move will also help improve our ability to understand and predict important climatic signals such as the North Atlantic Oscillation.



Map of the Greater and Lesser Antilles, focal point of the Windward Islands Passages Monitoring Project.

The WIMP plan was formulated by PhOD's Doug Wilson and Bill Johns of RSMAS in 1991 when they learned that the Coast Guards of the eastern Caribbean nations routinely made U.S.-supported patrols between the islands. Working from a Barbados Coast Guard vessel rigged with a winch for over-the-side operations, the first six cruises provided the first detailed picture of Caribbean-Atlantic exchange processes. Since then, cruises have continued on the NOAA Ship *Malcolm Baldrige*, the University of Puerto Rico's *Isla Maguayes*, and, most recently, the R/V *Seward Johnson*. Cruise tracks for these studies span seven major passages in the Greater and Lesser Antilles (see map above). CTD casts are made at five to eight stations along these passages, collecting water and sampling the temperature, salinity, and dissolved oxygen levels at depths up to 2000 meters. Additionally, larger research vessels such as the *Seward Johnson* are equipped to provide constant current profiling along the track.

An alternative and complementary method used to monitor ocean currents is with telephone cables. The flow of salt water (transport) through the earth's magnetic field creates an electric field that can be measured in submarine cables. By monitoring the low voltages found in the cables, scientists can determine the amount of water passing above them, 24 hours a day, 7 days a week. Such methods have been in use since the early 1980s to monitor the Florida Current using a cable that runs between West Palm Beach and the Bahamas, currently monitored by the Pacific Marine Environmental Laboratory (PMEL) and AOML. (continued on following page)

Holocaust Survivor Shares Story at Diversity Seminar

Rose Price, holocaust survivor, made a presentation at AOML on April 18, 2000 in honor of the Department of Commerce's Holocaust Memorial Week, Days of Remembrance. Rose was the child of orthodox Jewish parents living in Poland during the 1930s.

Reminiscing about her childhood, she remembers being puzzled by the cruel remarks and gestures directed at her, her loving family, and other Jewish citizens in the community as they went about their daily lives. Their only crime? Being Jewish.



Rose Price

As Adolph Hitler's Nazi regime gained prominence and power, Rose and her family became engulfed in the rising wave of anti-Semitism that swept throughout Europe as the world edged closer into the years of World War II. One day she was told she could no longer attend school. Shortly thereafter, her family was evicted from their home and placed in a ghetto where they suffered many hardships and deprivations.

At the age of 10, Rose was removed from the ghetto and sent to work in a series of ammunition factories and camps that supported Hitler's war machine. She would never see her parents again. Only decades later would she discover they and other members of her family had died in the gas chambers of Treblinka.

Rose witnessed and endured five years of violence and brutality in the factories. She miraculously survived. In 1950 she came to the United States where the long journey of recovery and rehabilitation began.

From a legacy of suffering and anguish, of million of lives lost, Rose's voice rises up from the devastation, the ashes, to remind humanity of its responsibility in opposing inhumanity and of the horror that can result when tyrants go unchallenged. Rose will never keep silent.

(continued from previous page)

A similar cable extends from Trinidad to Grenada, across the Grenada passage, where the largest volume of South Atlantic water enters the Caribbean. As part of a joint effort between AOML, PMEL, and RSMAS, Agusta Flosadottir of PMEL joined the recent WIMP cruise to study transport across this cable line in preparation for the installation of monitoring equipment on the cable. Continuous monitoring of transport across this cable will be a significant step in reaching the goal of long-term, consistent monitoring of Atlantic Ocean circulation.

Joining the WIMP cruise for the ninth time was a group students and faculty from the University of the Virgin Islands (UVI). In addition to aiding with CTD casts and taking water samples, the UVI scientists were collecting data for their own Anegada Climate Tracers Study (ACTS). This study examines the inflow of mid-depth North Atlantic Deep Water that replenishes the bottom waters of the central basins of the Caribbean Sea through the Anegada Passage, the deep entrance to the Caribbean. ACTS is concerned with the significance of global climate on concentrations of carbon dioxide, freon, oxygen, and certain nutrients being exchanged between the two bodies of water, and monitoring deeper North Atlantic circulation.

Consistent with ACTS goals, student involvement is essential to the project. ACTS student participants have not only been able to assist in the acquisition of significant data but have also been able to interact with front-line scientists. The program has seen a number of returning budding scientists and, on this cruise, included its first female student.

I accompanied the WIMP scientific crew as a first time sailor to learn about physical oceanography in the Intra-Americas Sea. After a bit of a struggle with some emergency equipment resembling an orange Gumby suit, I helped out with CTD casts and worked the computers while firing Niskin bottles at appropriate depths.

For additional information about the WIMP program, visit web site <http://www.aoml.noaa.gov/phod/wimp/> or contact Doug Wilson (AOML) (wilson@aoml.noaa.gov) or Bill Johns (RSMAS) (wjohns@rsmas.miami.edu). Information about the ACTS study can be obtained by contacting Roy A. Watling (UVI) (rwatlin@uvi.edu).



WIMP scientific component: Doug Wilson, Christiane Fleurant, Erica Van Coverden (all from AOML), Agusta Flosadottir (PMEL), and Ryan Smith (AOML) at Maqueripe Bay, Trinidad with a tide gauge retrieved from the mouth of the Bay.



AOML outreach coordinator Erica Van Coverden on the deck of the *Seward Johnson* models the newest look in oceanographic research attire.



Memorial Day: May 29, 2000

Travel

Stanley Goldenberg has been invited by NOAA's Office of Global Programs to attend the Third Caribbean Climate Outlook Forum in Santo Domingo, Dominican Republic on May 3-5, 2000.

Tsung-Hung Peng has been invited to serve as an external reviewer for Taiwan's National Center for Ocean Research in Taipai, Taiwan on May 6-16, 2000. He has also been invited by the Department of Energy to attend DOE's Energy Ocean Carbon Sequestration Center Committee Meeting in Oakland, California at Lawrence Livermore National Laboratory on May 18-19, 2000.

Christopher Landsea will attend the 2000 Houston/Galveston, Texas hurricane workshop entitled "1900 Storm: Can it Happen Again?" on May 9-10, 2000.

Craig Engler will participate in a high density XBT cruise aboard the TMM *Morales* on its run between La Spezia, Italy, and Miami, on May 10-25, 2000.

Howard Friedman will attend a NOAA EEO Council Meeting in Silver Spring, Maryland on May 11-12, 2000.

Gregg Thomas will participate in a high density XBT cruise aboard the CSX *Hawaii*, which maintains a bi-weekly run between Port Elizabeth, New Jersey and San Juan, Puerto Rico, on May 12-16, 2000.

Silvia Garzoli has been invited to participate as a member of the review panel to evaluate the Laboratoire d'Océanographie Dynamique et de Climatologie (LODyC) in Paris, France on May 21-24, 2000.

Alberto Mestas-Nunez will visit the Scripps Institution of Oceanography in La Jolla, California to collaborate with Arthur Miller on a review of southern hemisphere climate variations and to present a seminar entitled "Climatic associations of eastern equatorial Pacific ENSO and non-ENSO SST Variability" on May 20-25, 2000.

A large component of staff from the Hurricane Research Division will attend the American Meteorological Society's 24th Hurricanes and Tropical Meteorology Conference in Ft. Lauderdale, Florida on May 28-June 2, 2000.

It's a Girl!

Congratulations to Stanley Goldenberg, Meteorologist with the Hurricane Research Division, and his wife, Barbara, on the birth of their eighth child, Leah Rose, born Tuesday, April 25, 2000 at 5:29 p.m. Leah Rose, Stanley and Barbara's fifth daughter in a row, was born at Deering Hospital and weighed in at 8 lbs, 0.2 oz. Stan now claims he has "My Three Sons" and "Tevye's Five Daughters." The big question, however, is: "Eight is Enough?"



May Informal Research Reports*

May 2, 2000

Real-Time Airborne Remote Sensing and Analysis of Surface Winds and Rain Rates in Hurricanes, a New Era in Hurricane Reconnaissance

Dr. Peter Black
Hurricane Research Division

May 3, 2000[†]

How Does the Atmosphere Respond to Tropical SST-Related Heating?

Dr. Chunzai Wang
Physical Oceanography Division

May 11, 2000

Further Results for a Two-Layer, Linear, Semi-Spectral Hurricane Tracking Model

Dr. Robert Jones
Hurricane Research Division

May 19, 2000

Linking Long-Term Data Gathering and Compliance Monitoring in Anthropogenic Discharges

Dr. John Proni - Dr. Terry Nelsen
Remote Sensing - Ocean Chemistry Divisions

May 30, 2000

Assimilating Data into HYCOM

Dr. Carlisle Thacker
Physical Oceanography Division

*Presentations begin at 3:00 p.m. in the first-floor conference room. Coffee and tea are served at 2:45 p.m.

[†]Presentation begins at 10:00 a.m.; coffee and tea served at 9:45 a.m.

Keynotes is published monthly by the Atlantic Oceanographic and Meteorological Laboratory. Contributions are welcome and should be submitted prior to the last week of each month to ensure inclusion in the following month's edition. Please address all correspondence to: Office of the Director, 4301 Rickenbacker Causeway, Miami, FL 33149. Contributions may also be submitted by fax at (305) 361-4421 or by email (derr@aoml.noaa.gov).

Editor - Kristina Katsaros
Writer/Publishing Editor - Gail Derr

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Keynotes can be viewed online in PDF format at the following World-Wide Web Internet address:
<http://www.aoml.noaa.gov/keynotes>