

**Foster, Wood Receive Meritorious Presidential Rank Award:** Nancy Foster, NOS director, and Helen M. Wood, director of NESDIS's Office of Satellite Data Processing and Distribution have received the Meritorious Presidential Rank Award, one of the highest honors for Federal employees.

Foster received the award in recognition of her "vision and leadership over the past eight years" in positions at NMFS, which "changed the face and business practices" of the agency.

In her position at NESDIS, Wood directs the operation of a system that pro-

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cesses and distributes real-time data gathered by NOAA and other environmental satellites. The data are used to support weather forecasting, coastal ocean monitoring, sea ice detection and prediction, and search and rescue.

**1998 Atlantic Hurricane Season 'Deadliest':** The 1998 hurricane season brought an above-average number of hurricanes and tropical storms—including the devastating Hurricane Mitch—making it the deadliest Atlantic region season in more than 200 years in terms of storm-related fatalities. A contributing factor to the increased activity—50 percent more hurricanes and 30 percent more tropical storms than normal—was La Niña, a climate phenomenon that brought cooler-than-average sea-surface temperatures in the central tropical Pacific.

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### Sanctuary Staff Responds to Local Fire

## Calif. Sanctuary Pier Burns

As the historic Santa Barbara Wharf, near NOAA's Channel Islands National Marine Sanctuary in California, burned last month, sanctuary staff joined with the Santa Barbara County Fire Fighters, US Coast Guard, and Santa Barbara Harbor Patrol to fight the raging blaze.

On November 18 at 10:00 p.m., NOAA Corps officers Lcdr. Edward R. Cassano, manager of the sanctuary, Lt. Stephen Beckwith, sanctuary executive officer, and sanctuary volunteer Adam Petuskey saw that the wharf was fully engulfed in

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## Aquanauts Begin Training for Deep Sea Exploration

Six months after NOAA, the National Geographic Society, and the Richard & Rhoda Goldman Fund announced the Sustainable Seas Expeditions, a five-year deep ocean exploration of NOAA's National Marine Sanctuaries, the first class of aquanauts have begun their training.

Seven marine educators and scientists took turns at the controls of DeepWorker 2000, a one-person submarine for two days in early October. Within the confines of a 13-foot deep, 30-foot wide pool at the Monterey Bay Aquarium Research

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## Administration's Clean Water Plan Has Renewed Federal Support

NOAA and its Clean Water Action Plan (CWAP) partners held their second retreat in Shepherdstown, West Virginia, last month to review the progress of the action plan, to frame and present issues to the attending principals, and to set priorities for implementation in 1999.

At the retreat, the Administration reaffirmed its commitment to the Action Plan. One of the major initiatives in the second year of implementation is to continue work on Unified Watershed Assessments (UWAs) and conduct restoration activities in priority watersheds that were identified by states and tribes.

In the second year of the Plan's implementation, the Federal partners will focus on the creation of Federal regional coordination teams. These structures will coordinate Federal

support for locally based clean water activities. Regional leadership will be charged with enhancing watershed management on Federal lands and supporting states, tribes, local organizations and private landowners in watershed conservation and restoration activities. Each region will determine how to organize its boundaries, considering hydrologic units, existing coordination mechanisms and other factors. NOAA will participate in the development of these teams and provide assistance in



appropriate regions.

The retreat highlighted several outstanding accomplishments that were achieved this year by the Plan partners. These included the conditional approval of all 29 state coastal nonpoint source programs, the receipt of

completed UWAs from all states and U.S. territories, and the development of the Animal Feeding Operations Strategy. The assistant secretaries of the partners applauded the efforts of individuals who have worked so diligently to implement the plan and encouraged them to continue their commitment to protecting and restoring our Nation's waters.

For more information on the Clean Water Action Plan, visit the plan's Web site at: <http://www.epa.gov/cleanwater>.

—Marc Suddleson and Kim Swaggard

### Santa Barbara Pier Burns; Sanctuary Staff Responds

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flames and responded on the sanctuary research vessel Ballena, which was equipped with a fire fighting pump. Sanctuary staff provided all of its resources to the community to assist with the disaster and stayed on site for four hours until the county fire department had the situation under control. The Sanctuary's visitor center is located on the wharf and only sustained minor damage to its water pump.

—Colleen Angeles

### SC Lab to Focus on Coastal Ecosystems

Construction has begun for a state-of-the-art 78,000 square-foot laboratory to be built at the South Carolina Marine Resources Center in Charleston—the Marine Environmental Health Research Laboratory (MEHRL).

MEHRL's mission is to promote collaborative and interdisciplinary scientific research for a better understanding of marine resources and environmental health. MEHRL will contain the Nation's largest cryogenic specimen banking facility, analytical clean labs, and controlled environmental research laboratories such as challenge labs, biohazard labs, and bioassay labs with a range of seawater conditions and temperature.

"MEHRL will focus on the goals of measuring and understanding the health of the coastal ecosystems, protecting marine species and sustaining fisheries," said NOAA Deputy Under Secretary Scott Gudes at the October groundbreaking. "It will be a state-of-the-art research and teaching facility that will tackle issues such as genetics, marine toxicology, forensics and coastal ecosystem health."

South Carolina Senator Ernest Hollings echoed Gudes' statement.

"The more we learn about our marine resources and the complexity of today's environmental issues, the more we realize the

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## Flash Flood Watches and Warnings Save Lives in Zion National Park

On Monday July 27<sup>th</sup> a flash flood came down the North Fork of the Virgin River and through the Narrows of Zion National Park. The Narrows is one of the most popular hikes in the park with vertical walls of up to 1200 feet that are separated by only 25 feet in places. This flood killed two hikers in the Narrows, but the death toll could have been much worse if not for the timely issuance of flash flood watches and warnings by the National Weather Service.

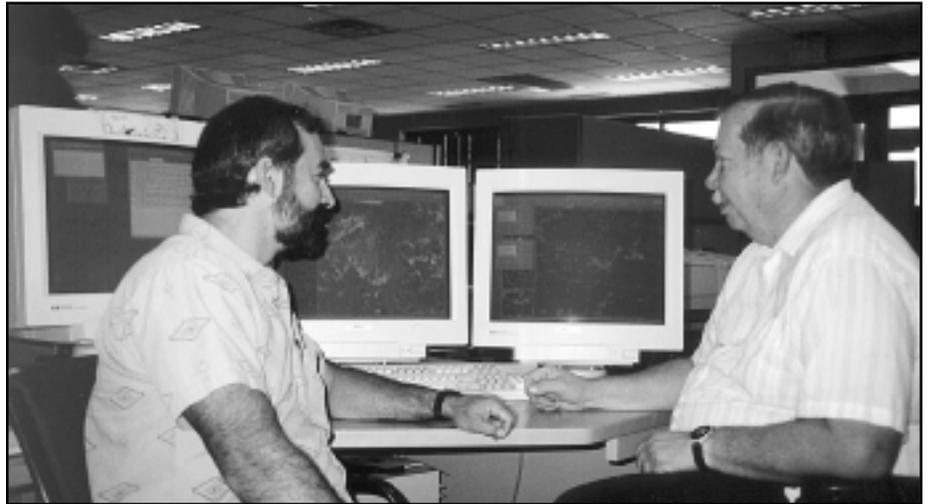
The National Weather Service office in Salt Lake City recently began issuing a flash flood potential product for southern Utah. Twice each day the forecast office provides Zion National Park and the other southern Utah National Parks and Monuments with a two day outlook of the flash flood potential. On the 27<sup>th</sup>, the flash flood potential was rated high.

## S. Carolina Lab Begins Construction

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need for collaborative research efforts," said Hollings at the groundbreaking. "MEHRL will ensure that we remain on the cutting edge of environmental and human health research."

NOAA is one of the five organizations that will participate in the laboratory. Others include the National Institute of Standards and Technology, the South Carolina Department of Natural Resources, the University of Charleston, and the Medical University of South Carolina. MEHRL will be managed by NOAA's National Ocean Service. ☺



Forecasters Peter Wilenski (left) and David Sanders (right) examine data on AWIPS, including radar and high resolution topography, before issuing a flash flood warning.

At 4:15 am on the 27<sup>th</sup>, about 12 hours before the flood, a flash flood watch was issued for the area alerting park officials that flash flooding was possible that day. The watch along with the flood potential are posted at the Zion visitors center and noted to all hikers on their backcountry permits.

As the day progressed, widespread thunderstorms broke out and heavy rain began to fall about 20 miles north of the Narrows in the mountains that feed the North Fork of the Virgin River. NWS forecasters used their new AWIPS computer system to accurately identify exactly which drainage the heavy rain was falling into and issued a flash flood warning at 2:55 pm. The park was called and the rangers passed this information on to people who were considering hiking the Narrows. One spokesperson for the Park said he personally persuaded a group of 40 not to hike the Narrows after the warning was issued.

Between five and six that afternoon, the river increased in volume seven-fold, and a three foot wall of water came down through the Narrows.

The Park Service does not close the Narrows, and two people whose backcountry permit noted the flash flood danger was high and a watch had been issued were killed. But the partnership between NWS and the park no doubt saved many lives.

—Marilu Trainor ☺

## Public Affairs Chief Scouts Out NY Job

Lori Arguelles, NOAA's director of Public and Constituent Affairs, is leaving the agency on December 18 to become the public affairs director for the Girl Scouts of America in New York. Among her other achievements at NOAA, Arguelles was instrumental in the success of the National Ocean Conference in June 1998. We on her staff wish her the best in her new job, and offer the Southern California native this advice about living in New York: bean sprouts are not an option on a corned beef sandwich. ☺

# Focus On...

## Largest Estuarine Reserve Dedicated In Alaska

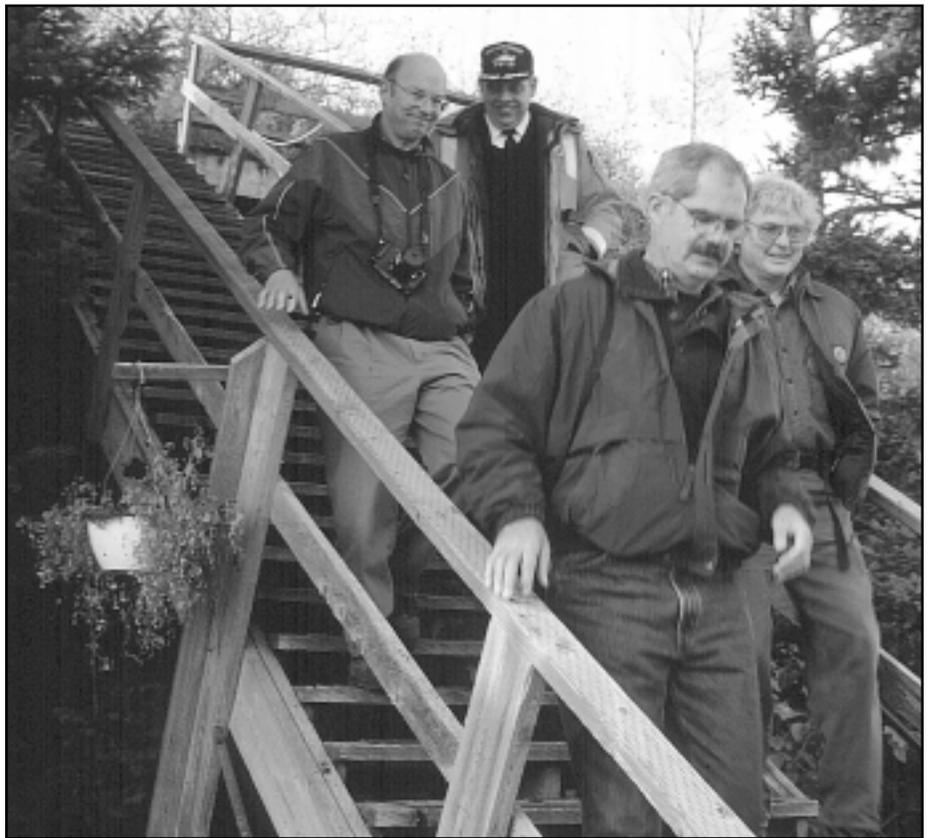
**O**n an unseasonably warm autumn day, surrounded by the Kenai Mountains, the Alaska Department of Fish and Game (ADF&G) joined with Federal, state and local officials to celebrate the state's effort to designate Kachemak Bay as Alaska's first, and the Nation's 23rd and largest, National Estuarine Research Reserve (NERR).

In an example of good coming from bad, the new reserve was developed with nearly \$500,000 from the criminal settlement of the 1989 *Exxon Valdez* oil spill.

The ceremony, held on National Estuaries Day, October 3, in Homer, Alaska, recognized a nearly four-year effort by the State of Alaska to establish the reserve and join the NERR system. NERR sites around the country are partnerships between NOAA and state agencies to provide opportunities for estuarine science and education.

The dedication ceremony was part of a weekend-long community celebration of sea and shore wildlife in the Kachemak Bay area. The weekend included art exhibits, the opening of a new public boardwalk, and tours of the NOAA hydrographic survey ship *Rainier*. More than 200 residents of the Kachemak Bay area toured the ship and learned about NOAA's hydrographic survey work.

At the reserve dedication ceremony, Jeff Benoit, director of the National



MATT MENASHES

*(Top to bottom) NOAA Ship Rainier commanding officer Capt. Alan Anderson; Bruce Talbot of the Alaska Dept. of Natural Resources; Homer resident Will Files; and NOAA's Director of the Office of Ocean and Coastal Resource Management Jeff Benoit trundle down stairs at Halibut Cove in Kachemak Bay.*

Ocean Service Office of Ocean and Coastal Resource Management (OCRM), welcomed the partnership between Alaska and NOAA. Joined by ADF&G commissioner Frank Rue; Jim Ayers, chief of staff to Governor Tony Knowles; Homer Mayor Jack Cushing; and other state and local officials, Benoit highlighted the commitment of the citizens of the area to ensure the health and productivity

of Kachemak Bay. "I extend special congratulations to the citizens of this region. Without your support, the Kachemak Bay NERR would not have been possible," Benoit said.

That theme was echoed by Governor Knowles through Jim Ayers. "This is a wonderful example of grassroots organizing and local residents taking action to recognize the importance

of habitat to our natural resources. By applying sound science, we can better understand and enjoy the natural resources on which we depend," Ayers said

According to Benoit, Kachemak Bay will be the largest NERR at 365,000 acres. The reserve is biologically rich and includes many different habitat types such as glacial rivers, clear-water rivers, extensive salt marsh, and rocky inter-tidal habitat. The reserve boundary starts at the bay's mouth and includes all of its waters, as well as the Fox River Flats State Critical Habitat Area, Kachemak Bay State Park, and smaller parcels near the City of Homer.

—Matt Menashes ☺



MATT MENASHES

*Sea gulls at Gull Island, Kachemak Bay, the newest and largest of NOAA's National Estuarine Research Reserves.*

## MTS Meeting Celebrates Year of the Ocean

More than a thousand marine scientists and scholars attended this year's Marine Technology Society conference in Baltimore last month, celebrating the Year of the Ocean and examining the role the ocean plays in many aspects of our lives.

Topics discussed at the conference included sea exploration, ocean economics, balancing competing uses of the coast, and the influence of the ocean on weather and climate.

A NOAA ship, the *Bay Hydrographer*, was on public display during the four-day conference. The ship employs the latest hydrographic technologies for nautical charting and surveying.

NOAA Administrator D. James Baker was the conference's chairman, and NOAA Deputy Chief Scientist W. Stanley Wilson was its vice chair. ☺



*More than one thousand scientists and scholars attended this year's Marine Technology Society conference in Baltimore. Many conference attendees visited NOAA booths in the exhibition hall.*

## NOAA Collaboration Started During Peace Initiative

# Irish Marine Institute Begins Partnership For Research, Coastal Development

**D**r. Peter Heffernan, Chief Executive Officer of the Marine Institute, Ireland's government agency for marine and natural resources, came to Washington last month to meet with NOAA Administrator D. James Baker, line office assistant administrators, and NOAA program managers on how the two agencies can work together as part of a joint agreement which grew out of President Clinton's December 1995 visit to Ireland.

During that visit, as part of his Peace Initiative, then-Commerce Secretary Ronald H. Brown signed a joint statement between NOAA and the Marine Institute to collaborate on marine research and technology development, sustainable development, coastal zone management, and marine and coastal protected areas.

The Marine Institute and NOAA both have well-established, yet unique experience and expertise in conducting research and monitoring, and look toward the long-term conservation and sustainable use of coastal zone and marine resources. Also, both agencies are engaged in directed research and monitoring for significant coastal and marine resource management issues, such as resource mapping, fisheries, aquaculture, toxic algal blooms, and coastal development, but also science endeavors related to remote sensing, marine technology, and global climate change.

Since the signing of the Joint Statement, NOAA and the MI have engaged in a limited number of collaborations, including a data management workshop, participation in science review panels, and discussions on potential transfer of de-commissioned ships. In recent

months, a renewed interest on the part of both Ireland and the U.S. led to the development of an agreement for a five year, \$5 million collaboration between NOAA and the Marine Institute. The agreement in principal for such collaboration was announced as part of President Clinton's visit to Ireland this past September.

Dr. Heffernan said the collaboration, should benefit both sides. "More than anything, it should bolster the Peace Initiative by showing America's commitment to it," he said. "On the scientific front, NOAA and the MI will be collaborating on projects which interest us both, such as fisheries, algal blooms, and remote sensing." The projects are expected to include researchers and other staff from Northern Ireland. NOAA has had a number of discussions with several Northern Ireland agencies aimed at pursuing such collaborative activities. The goal of these efforts is to promote tri-lateral ocean exploration and resource management between NOAA, the Marine Institute and Northern Ireland.

Dr. Michael Crosby, Executive Director of NOAA's Science Advisory Board, has been asked by Dr. Baker to coordinate NOAA's efforts in support of this new initiative. "It is gratifying to have been involved with the development of the original Joint Statement as part of the President's Peace Initiative in Ireland, and to now see our collaboration with Ireland make a significant step forward. This is a great example of the value of science as a tool for creating new partnerships that positively influence societal evolution towards peaceful relationships where there was once conflict." He went on to explain that "the \$5M would be



*Dr. Peter Heffernan (above), chief executive officer of Ireland's Marine Institute, met with NOAA Administrator D. James Baker, assistant administrators, and program managers last month in Washington to explore the new five-year partnership between his agency and NOAA.*

equally shared between the Marine Institute and NOAA, spread over five years, and for NOAA will be 'in-kind' services such as existing satellite data, data buoys, ship surveys, staff time."

Further meetings took place at the Marine Institute Year of the Oceans Conference in Dublin Castle this month. Dr. Crosby gave an invited keynote presentation at the conference. He will also be leading a team of NOAA experts in discussions with their Irish counterparts to develop specific cooperative projects that will "kick-off" the first year of the five year collaboration in 1999. It is hoped that Irish Minister for Marine and Natural Resources, Dr. Michael Woods, and Commerce Secretary William M. Daley will be able to jointly announce this first year effort in January 1999. ☺

## Aquanauts Begin Training for Sanctuaries' Sustainable Seas Expeditions

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Institute, the divers maneuvered a sub only slightly smaller than a Volkswagen bug. The pool is located only a few miles from the vast Monterey Canyon, one of several scheduled dives into never-before-explored areas of the sanctuaries.

Beginning next April, trained marine pilots enclosed in DeepWorker will be able to travel to depths of 2,000 feet for up to four to six hours. What the explorers discover in the ocean depths—the unique animal and plant life—will give the nation an extraordinary opportunity to learn more about our oceans. Up to now less than one percent of the oceans, which cover 70 percent of the earth, has been explored.

The new sub, designed by Dr. Phil Nuytten of Nuytco Research in

Vancouver, B.C., will allow pilots to guide it using only floor pedals. This new design lets pilots steer their course while leaving hands free for photographing and documenting the view outside. A small Plexiglas dome, surrounding the pilot's head, is all that separates the diver from this new ocean world. DeepWorker also allows pilots to transmit the new found undersea world topside through videos and photographs.

Sustainable Seas Expeditions' landmark dives arrive more than a decade after marine biologist Dr. Sylvia Earle and an associate Graham Hawkes sketched on a cocktail napkin Deep Rover, a sub that could take her deeper into the wild ocean. Today Earle is now the National Geographic Society's Explorer-in-Residence and leader of the Sustainable Seas Expeditions to the 12

marine sanctuaries. The sub she and others will be navigating is an "evolution" of Deep Rover.

The first class included NOAA Sanctuary Research Director Steve Gittings and Education Director Laura Francis. With the rest, they learned the intricacies of DeepWorker's life support system and how to maneuver the sub that contains relatively few instruments (oxygen sensor, carbon dioxide blower and an altimeter which measures cabin pressure).

"DeepWorker compares to other subs I've used like a Nobel Prize compares to a Christmas bonus," says Gittings. "The thing is a hot rod as subs go. She makes about three knots and literally turns on a dime. It's like having an underwater helicopter."

Even those unfamiliar with subs will find DeepWorker easy to operate says Francis, who is enthusiastic about the *Expeditions* plan to train a high school teacher.

"It will be a wonderful opportunity for a teacher to capture on film the undersea sights and to share his or her experience with students and other teachers," says Francis.

"Whatever else is achieved, however, the ultimate success will be in the project's overall impact on dispelling ignorance about the sea," says Dr. Earle. "With knowing comes caring, and with caring there is hope that an ocean ethic will arise that will secure a sustainable future for ourselves, and for the seas."

Currently, Sustainable Seas Expeditions plans to train 48 pilots in the aquarium's tank through January 1998. Ocean dives are scheduled to begin in April 1999.

—Nancy O'Donnell ☺



*NOAA Sanctuary Education Director Laura Francis tries the DeepWorker 2000 on for size. Francis was one of seven educators and scientists to use the one-person submarine as part of the Sustainable Seas Expeditions.*

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"The art of forecasting is better than ever, thanks to our talented people and our investment in science and technology," said Commerce Secretary William M. Daley.

"Our investment in technology has enhanced our ability to make better hurricane predictions," said D. James Baker, NOAA administrator. "We, as a Nation, need to continue striving toward better hurricane track forecasts. The payoff is less disruption caused by needlessly evacuating areas that aren't affected, and longer lead times in which to evacuate people and safeguard property in areas that are."

**Rebuilding Plan for Bluefin Tuna:** The United States was successful in estab-

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lishing the first-ever mandatory plan to rebuild overfished Western Atlantic bluefin tuna at the annual meeting of the International Commission for the Conservation of Atlantic Tunas in Santiago de Compostela, Spain last month. In addition, the U.S. delegation's strong stance on quota compliance and accountability for overfishing compelled the European Community to lower its 1999 bluefin quota to make up for past overharvests.

"We are extremely pleased to have taken a major step towards stabilizing and rebuilding Western Atlantic bluefin tuna," said Assistant Secretary of Commerce for Oceans and Atmosphere Terry Garcia, representing the Secretary of Commerce at the meeting. "The rebuilding plan is the first comprehensive long-term approach of its kind developed at ICCAT, and it reflects the commission's goal of maintaining populations at levels that allow maximum sustainable catch. And, we note the high degree of cooperation between our colleagues from Canada and Japan in achieving this step." ☺



*NSSL Director Jeff Kimpel (right) greets Oklahoma Lt. Governor Mary Fallin and Secretary of Veteran Affairs Norman Lamb outside the NOAA facilities in Norman.*



*Oklahoma Governor Frank Keating (front) gets a first hand look at the Storm Prediction Center operations area. SPC Director Joe Schaefer (left) provides an overview.*

## Oklahoma Governor and Cabinet Visit Severe Storms Lab & Prediction Center

**G**overnor Frank Keating of Oklahoma, along with Lieutenant Governor Mary Fallin and members of his Cabinet, were joined by members of the City of Norman Chamber of Commerce during a recent visit to the National Severe Storms Laboratory (NSSL) and the National Weather Service Storm Prediction Center.

Dr. James "Jeff" Kimpel, NSSL director, described NSSL's severe weather and tornado research focus and its linkages with corporate, Federal, and State partners. Dr. Kimpel also discussed some highlights in the Laboratory's history, including its role in the development of the National WSR-88D NEXRAD radar system now deployed across the Nation. He concluded by mentioning the Laboratory's recent growth, and its role in projects like OK-FIRST.

The Weather Center, a Federal and State partnership, employs nearly 650 people and has an annual

expenditure of \$47 million. Governor Keating remarked that in the future he would welcome scientific input from the Norman weather research community on policy matters involving drought, water management, and fires. ☺

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