

SCIENCE

Energy development at U.S. dams could power more than 4 million homes

In a study of the energy-producing potential of untapped U.S. dams, ORNL researchers found that 54,000 dams not currently used to generate power have the capacity to generate more than 12 gigawatts, enough to power more than 4 million homes.

ORNL and Idaho National Laboratory researchers conducting a hydropower resource assessment for the Department of Energy calculated that the 100 dams with the highest energy potential could generate 8 gigawatts of power. The top 10 power-generating dams are along the Ohio, Mississippi, Alabama, Tombigbee, Arkansas and Red rivers.

Equipping existing dams with power-generating plants avoids additional environmental impacts because the dams are already operating. Additionally, installing hydropower won't change the timing of flows released from the dams.

"Most non-powered dams and potential capacity can be developed outside of critical habitat, parks and wilderness areas," said Brennan Smith, ORNL water power program manager. "Most of today's large dams that aren't generating power are used for navigation and flood control, but they have the potential to act as a renewable energy source."

ORNL found that hydropower energy is available in areas that are not rich in wind or solar power, such as the Ohio River Valley and the Southeast.

To determine the energy potential of non-power generating dams, ORNL researchers used data from the U.S. Geological Survey and the Army Corps of Engineers to map stream networks, dams and stream flows. Through geospatial processing techniques, ORNL researchers were able to overlay the mapped data and collectively define energy potential at each site. The flow and elevation difference of the dam determined the power potential and allowed researchers to compute how much energy the dam could produce.

Now that researchers have quantified the potential energy of non-power generating dams, the next step will be to figure out how much it will cost to build these hydropower plants.

"The high-value opportunities for development are likely to be at large dams operated by the federal agencies," Smith said. "The private sector can work with these agencies to develop projects that provide additional energy for the nation's electric power systems." —Emma Macmillan

"Most of today's large dams that aren't generating power are used for navigation and flood control, but they have the potential to act as a renewable energy source."

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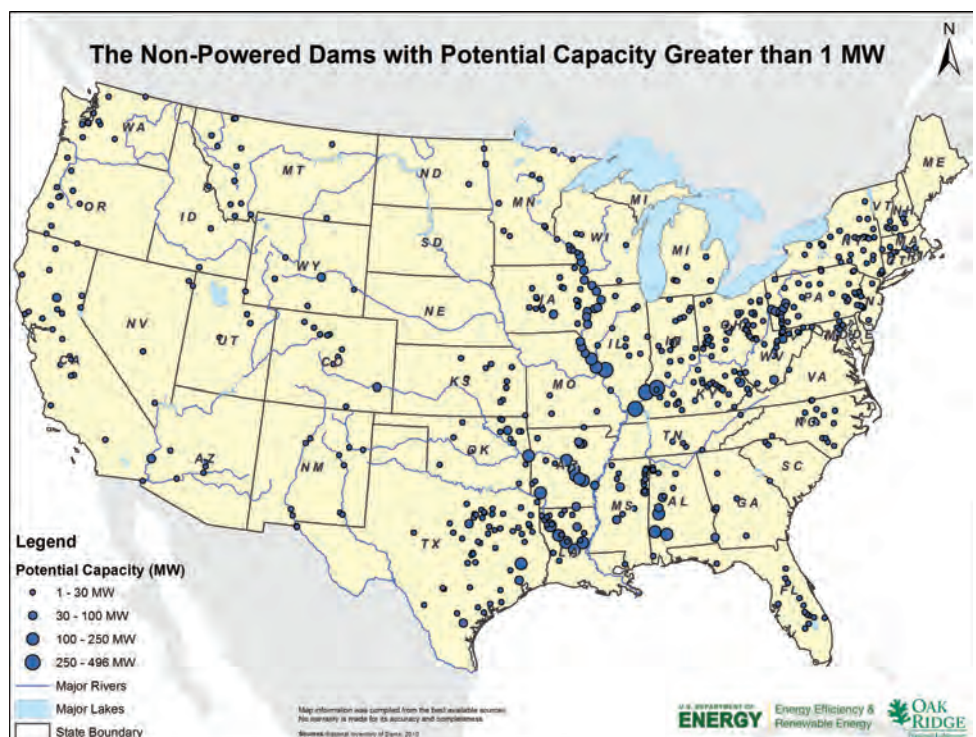
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Dots identify currently non-powered dams that each have a potential capacity greater than one megawatt.

John Murray enjoys being a tax man



John Murray stays busy as a volunteer for multiple organizations. (Photo: Jason Richards)

John Murray has mixed emotions when the clock strikes midnight each April 15.

When the tax deadline arrives, John concludes another three-month period involved with helping others to fill out their federal tax forms.

John and Marilyn – his wife of 54 years – co-manage the Volunteer Income Tax Assistance (VITA) Oak Ridge office. VITA is a national organization sponsored by the IRS that provides free tax preparation assistance to millions across the United States. John just finished his 22nd year with Oak Ridge VITA, which is supported by United Way of Anderson County and has computer support from Roane State Community College.

“Our services get more popular each year,” John said recently while taking a break from his volunteer work at the American Museum of Science and Energy. “Our office this year processed 1,882 returns for folks from 19 Tennessee counties and eight states besides Tennessee. A lot of people are in town for either business or pleasure, or they are students here from elsewhere and want to get their taxes taken care of.”

John’s career with tax preparation started one night while he was reading.

“I had done my taxes and my family members’ taxes for years before I read an IRS ad that was seeking volunteers to work in this program,” said John, who worked 36 years in ORNL’s old Central Engineering group. “I had to get some training to do this and that training is updated each year for everyone involved in the program.”

John and Marilyn oversee a staff of about 40 – many of them retirees – who sit at the computers with their clients each year to assist with tax preparation. One of the great challenges toward this year’s tax deadline was the problem of computer malfunction.

“We were down to the last week and all of our computers went down,” John said. “Some people had to wait a long time, but they were patient. I was finally able to get a local computer guy to come in and get everything fixed.”

Helping folks with their taxes is just one of the volunteer activities keeping John busy. In addition to his work at the front desk of AMSE greeting and helping visitors, John also served

for many years as a public tour guide in Oak Ridge. He had to give it up a year ago for health reasons.

“I miss doing the bus tours, but I can still tell visitors at the museum a lot of things about Oak Ridge,” said John, a Florida native who graduated from Duke and served three years as a Navy line officer before arriving in Oak Ridge.

Lissa Clarke, AMSE’s public information officer and a coordinator of the summertime DOE Oak Ridge Public Tour, praises John for his volunteer efforts.

“Whether it be the tour, his work at AMSE or other volunteer endeavors, John is one of the most committed and dedicated people you’ll ever meet,” Lissa said. “His knowledge of the history of Oak Ridge, coupled with his ability to talk about science in a way that everyone can understand, further emphasizes why John’s caring and sharing personality is appreciated by those he meets.” —Fred Strohl

“John is one of the most committed and dedicated people you’ll ever meet.”

—Lissa Clarke

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We’re transitioning the Reporter to an online or email format. Please send your email address to ornlreporter@ornl.gov if you would like to receive the newsletter as an email. You can also access the Reporter online at <http://www.ornl.gov/info/reporter/>.

Service Anniversaries

June

45 years: **William H. Hopwood Jr.**, Global Nuclear Security Technology

40 years: **John K. Munro Jr.**, Measurement Science & Systems Engineering; **Stanley L. Milora**, Fusion Energy

35 years: **Annetta Paule Watson**, **Glenn F. Cada**, **Thomas J. Wilbanks**, Environmental Sciences; **G. Randall Wetherington Jr.**, **William H. Andrews Jr.**, Measurement Science & Systems Engineering; **Wallace D. Porter**, Materials Science & Technology; **Bill Nelson**, Information Technology Services; **Hal L. Jennings**, **Leslie Kevin Felker**, **Eric Craig Bradley**, **William H. Hermes**, Fuel Cycle & Isotopes; **Marti I. DeVall**, Nuclear & Radiological Protection; **John Edgar Long**, Fabrication, Hoisting & Rigging; **David C. Giles**, Center for Computational Sciences

30 years: **Diana Lynn Tucker**, Global Nuclear Security Technology; **Gerald R. Sullivan**, **John W. Shaw Jr.**, Nonreactor Nuclear Facilities; **David E. Williamson**, US ITER Project Office

25 years: **Barbara J. Snow**, **Anita S. Benn**, Reactor & Nuclear Systems; **Easo P. George**, **Paul A. Menchhofer**, **Peter Julian Blau**, Materials Science & Technology; **Linda A. Lewis**, Chemical Sciences; **Cheryl D. Parks**, Business Services Dir.; **Juanita Kay Hunt**, Homeland Security & Advanced Programs; **Robert L. Cummins**, Research Accelerator; **Miriam E. Kelmers**, Human Resources Dir.; **Titonia K. Sawyer**, Chemical & Engineering Materials; **Don E. Maxwell**, Center for Computational Sciences; **Milton Nance Ericson**, Measurement Science & Systems Engineering; **Robert F. Peacher**, Global Nuclear Security Technology

20 years: **Tonia L. McPeters**, US ITER Project Office; **Dale E. Perkins**, **Stephen Hood Lyles**, **John H. Eubanks**, **Kenneth Paul Curtis**, **Michael K. Hodgson**, Nuclear & Radiological Protection; **Pamela J. Olszewski**, Energy & Transportation Science; **W. Jay Pruitt**, Physics; **W. Jerry Bohannon**, Environmental Protection & Waste Services; **Linda K. Woods**, PSD Integrated Research Operations; **Sheryl Maki Draime**, Safety Services; **Lance Lewis Snead**, Materials Science & Technology; **Laura Kay Harvey**, **Clint Ausmus**, Fuel Cycle & Isotopes; **Bruce Balkcom Bevard**, Reactor & Nuclear Systems; **Kenneth Alan Lowe**, Environmental Sciences; **Kara J. Clayton**, Business Services; **Michael Gregory Sergent**, Laboratory Protection

July

40 years: **George F. Flanagan**, Reactor & Nuclear Systems; **Mary L. Johnson**, Global Nuclear Security Technology

35 years: **William L. Jackson**, Computational Sciences & Engineering; **Mary Ann Collins**, Research Accelerator; **Charles Kenneth Valentine Jr.**, Environmental Protection & Waste Services; **Joseph Gregory Winfree**, Information Technology Services; **Brenda C. Gouldy**, Energy & Transportation Science; **Robin L. O'Hatnick**, **John David Randolph**, Global Nuclear Security Technology; **Jeanie Johnson Vivyan**, Research Reactors; **Candace Meade**, Contracts; **Gary Q. Kirk**, Quality Systems & Services

30 years: **Leslie Robert Dole**, Fuel Cycle & Isotopes; **Sherl Reed**, **Steven W. Cox**, Fabrication, Hoisting & Rigging; **Stephen J. Pennycook**, Materials Science & Technology; **Kathy M. Brooks**, Laboratory Protection

25 years: **Michael Roy Moore**, Measurement Science & Systems Engineering; **Walter S. Koncinski**, Communications; **Kirby L. Wilcher**, US ITER Nuclear Systems; **Charlene M. Patrick**, Reactor & Nuclear Systems; **W. Brian Ray**, Computational Sciences & Engineering; **Timothy J. Theiss**, Energy & Transportation Science; **Scott B. Ludwig**, Global Nuclear Security Technology; **Richard Howell Goulding**, Fusion Energy; **Jeff Patton**, Research Accelerator; **Steven J. Pawel**, Materials Science & Technology

20 years: **Shari C. Butters**, Safety Services; **Dustin Travis West**, Facilities Management; **Mary Jo Woods**, Strategic Business Services; **Ramie Vanessa Wilkerson**, Office of Integrated Performance Management; **Gregory John Hirtz**, Research Reactors; **Harry M. Meyer III**, Materials Science & Technology; **Brenda G. White**, Global Nuclear Security Technology; **John Allen Keaton Jr.**, Nuclear & Radiological Protection; **Valerie E. Rivas**, Research Accelerator; **James D. Rhyne**, Information Technology Services



Half-century of science: Holifield Facility closes out in style



The Holifield Radioactive Ion Beam Facility at ORNL has ceased operations after a half-century of science. (Photo: Jason Richards)

Holifield Radioactive Ion Beam Facility (HRIBF) operations have ended in style, with researchers scurrying to complete three exciting experiments before the program's last day on April 15. The final day was initially scheduled for April 1, but the user program

received a two-week "reprieve" to finish the three experiments.

"The facility ceased operations at midnight on April 15," said Physics Division Director David Dean. "Our highly dedicated technical staff of facility operators, engineers, and scientists, led by HRIBF Director Jim Beene and Alan Tatum, have pushed themselves and the facility to new heights to complete this unique science program."

Slightly less than a month before user operations ended, the HRIBF marked the 50th anniversary of one of its primary components. March 18, 1962, was the day operators of the Oak Ridge Isochronous Cyclotron circulated its first light ion beam. ORIC, which produces the initial light ion beam for radioactive ion beam production at HRIBF, was one of the first isochronous cyclotrons in the world.

The ensuing half-century has produced volumes of research through beams of, initially, light ions, then heavy ions and, after 1996 when the HRIBF was commissioned, short-lived, radioactive nuclei. The HRIBF has been the experimental resource and training ground for researchers located across the low-energy physics scientific community, from all corners of the world.

The HRIBF has offered nuclear scientists unique beams for studies of the forces that hold protons and neutrons together into an atomic nucleus. HRIBF is the only facility in the world that produces unique, short-lived proton-rich beams such as fluorine-17 as well as neutron-rich beams.

Besides the one-of-a-kind beams the HRIBF produced, the facility was unique in itself: For example, the massive shield doors for the cyclotron vault were the largest the supplying safe company had ever produced. The 100-foot-tall electrostatic tandem accelerator – the silo-shaped Lab landmark – has generated an electrostatic voltage of 32 million volts, which might still hold the record for the highest voltage ever produced by a man-made device.

The stream of researchers who came to ORNL inspired the establishment in 1982 of ORNL's initial collaboration with state of Tennessee universities – the Joint Institute for Heavy Ion Research, located near the HRIBF.

The end of the HRIBF user program was announced in the February 2011 budget request for fiscal year 2012. The cost-saving measure was coupled with the end of another, much larger physics facility, Fermilab's Tevatron, whose mission has been supplanted by Europe's Large Hadron Collider.

Other missions for the HRIBF are under consideration now that operations have ceased. Meanwhile, a needed two-month maintenance period for the tandem accelerator began immediately.

"We're hoping we can get approval to run some experiments on the tandem, which is relatively cheap to run," said the Physics Division's Michael Smith, whose nearly two-decade ORNL tenure in astrophysics has been based at Holifield. "We hope to carry out forefront measurements as well as commission new detector and target systems for use in next-generation facilities."

In the meantime, the last flurry of radioactive ion beam experiments recalls a half-century of science produced by a unique, at times quirky, but resilient workhorse.

"It's been hectic and exciting," Smith said. "We've had all these different groups in the facility simultaneously doing different experiments. A new laser ion source, new platform, new detector system, new reactions, and a lot of exotic beams that can't be done anywhere else in the world. It's an incredibly productive way to do science." —Bill Cabage 🌱

"It's been hectic and exciting. We've had all these different groups in the facility simultaneously doing different experiments."
—Michael Smith

Club ORNL events

Get the details and latest news online via <https://info.ornl.gov/sites/clubornl>. Request an XCAMS account, which will allow you to participate in these events or contact Lara James at 865-576-3753 or jamesla@ornl.gov.

- June 16** Tennessee Smokies vs. Birmingham Barons
- June 16** Wahoo Ziplines
- August 11** Whitewater Rafting Trip
- August 31** *Backwards in High Heels*, Cumberland County Playhouse

June 30 is enrollment deadline for new health care plans

ORNL's health care coverage for retirees over age 65 is changing as of July 1, 2012. Retirees will have the opportunity to choose the medical, dental and vision coverage that best meets their needs. ORNL will continue to provide prescription drug coverage through the Medco plan, which is not changing. ORNL will also continue to assist you with the cost of coverage by creating a special tax-free account called a Health Reimbursement Arrangement (HRA). You can use the HRA to reimburse yourself for insurance premiums and other eligible medical expenses.

If you are currently enrolled in the ORNL United Health Care Major Medical Medicare Supplement Plan, remember that your coverage will end as of June 30, 2012. If you have not already enrolled in a new plan with Extend Health, please call 1-888-592-8348, 9 am – 9 pm ET, Mon- Fri to enroll in a medical plan. To avoid a gap in coverage, you must enroll no later than June 30, 2012. New coverage goes into effect July 1, 2012.

Extend Health's licensed benefit advisors will assist you in choosing a plan that best meets your specific health needs and budget. The advisors are available to support and assist you in making your health care decisions. They will guide you through the entire process.

If you have enrolled in an individual Medicare plan through an organization other than Extend Health, please call Extend Health to let us know. Remember, your current group coverage will end as of June 30, 2012.

For more information visit <http://benefits.ornl.gov/retireeinfo/default.aspx> or Extend Health at www.extendhealth.com/ornl



COMMUNITY

Last Oak Ridge nature walk scheduled for July 14

The 2012 series of spring and summer nature walks ends with an expedition featuring invasive plants across various sites on the Oak Ridge Reservation.

Date: Saturday, July 14

Location: Meet at west guardhouse, Oak Ridge Turnpike (Hwy 58)

Time: 9:00 a.m. to noon

Leader: Mike Ryon

Limit: 20 (children under the age of 10 not allowed)

This walk will be mostly carpooling to different sites on the reservation to discuss the variety of invasive plants and impacts to local flora and fauna. Walking will be limited at each site.

Reservations for this walk must be made in advance by calling Tracy Clem at 865-574-5151 no later than noon Thursday prior to that particular weekend.

Participants should dress in layers, wear sturdy shoes, use bug spray and carry a container of water. Pets are not permitted. Children are allowed on the walks, but there is a limitation on the number of participants. There is no cost to the public to attend.

If inclement weather forces cancelation, a message will be posted at least two hours beforehand on ORNL's Information Line at 865-574-9836.

More information is available by calling Trent Jett at 865-574-9188 (jetttr@ornl.gov) or Neil Giffen at 865-241-9421 (giffennr1@ornl.gov).



THE NEWS

OAK RIDGE NATIONAL LABORATORY

A Publication by and for the ORNL Employees of Carbide and Carbon Chemicals Company, Union Carbide and Carbon Corporation

Vol. 5—No. 1

OAK RIDGE, TENNESSEE

Friday, July 18, 1952

Happy Anniversary to Us!



A GLANCE AT THE DATELINE of this issue of the NEWS shows that it is Volume 5, No. 1—the beginning of the fifth year of publication. The actual date of the first issue was June 25, 1948, but several holiday hiatuses, when no paper was published, have pushed the anniversary number into its present time zone. In a future issue, a picture-story of how the NEWS goes to press will be presented. For the present, the staff members thank the many loyal correspondents who have done so much to enliven the paper in the past four years. We hope for many happy returns of the day!

NSA Chapter Lists 12 ORNL Girls As Charter Members

Twelve ORNL employees enrolled as charter members of the newly formed Oak Ridge chapter of the National Secretaries Association, at installation ceremonies held last Friday night in the Starlight Room of the Oak Terrace. Helen Zang and Edith Zarzecki, ORNL, were installed as vice-president and treasurer, respectively, of the organization.

Dr. C. P. Keim, director of the Isotope Research and Production Division at ORNL, was guest speaker at the meeting. The local Chapter now has a roll of 24 charter members.

Other ORNL secretaries listed as charter members are Mary Andrews, Dorothy Kelly, Lovelle Thompson, Margaret Castleberry, Louise Coman, Helen Combs, LaWanda Estes, Erma Howe, Barbara Masters, and Margaret Stewart.

President of the Chattanooga chapter, Virginia Townsend, and Virginia Blanchard, vice-president of that chapter, installed the local girls.

CAFETERIA SPECIAL

The cafeteria special for Wednesday, July 23, will feature braised sirloin steak tips with mushrooms, choice of two vegetables, salad or dessert, tea or coffee, rolls and butter, for 75 cents.

Dr. W. L. Davidson, Former Oak Ridger, Visits Lab Monday

Dr. William L. Davidson, director of the Atomic Energy Commission's Office of Industrial Development in Washington, D. C., visited Oak Ridge National Laboratory on Monday, during a one-week stay in the city to confer with AEC and contractor officials.

Dr. Davidson attended the first class in reactor technology at Oak Ridge National Laboratory, and worked in the field of neutron-diffraction theory.

The Office of Industrial Development was established by the AEC on May 1 to help administer the commission's industrial-participation program, involving studies of power generation. The office also is to assist in the expanding areas in which all types of industry may find an interest in the atomic energy program.

Among the functions of the organization is making available, to those interested, details of developments in the national atomic energy program that may have application in industry.

Besides his visit to ORNL, Dr. Davidson was also scheduled to talk with key personnel in the other Carbide installations here, and with officials of the Oak Ridge Operations Office of the AEC and the Oak Ridge Institute of Nuclear Studies.

Carbide First-Aid Contest Featured In National Safety Council Magazine

The Carbide annual first-aid contest, held in Oak Ridge, is the subject of a feature article in the June 1952 issue of *National Safety News*, monthly publication of the National Safety Council.

Entitled "Big Event in Oak Ridge," the article outlines the story of the development of a strong, workable first-aid program at the Carbide Oak Ridge plants, beginning with K-25 in 1943 and now including the Y-12, X-10, and Paducah installations. Particular stress is laid on the cooperation between

Carbide and the U. S. Bureau of Mines; the bureau assisted in providing personnel for the training in the early days of the program, and Carbide's instructors today are designated as representatives of the Bureau of Mines for purposes of instructing, examining, and recommending trainees for Bureau of Mines first-aid certificates within the Carbide-operated atomic energy facilities.

The sixth annual contest will be held this year on August 23 at Blankenship Field, and eight teams from Oak Ridge National Laboratory are scheduled to compete. Forty teams from the four Carbide plants participated in last year's contest, which was won by the Paducah team.

As in previous years, plant-team participation will be coordinated by the Training and Methods Department of ORNL. Training sessions will be held in R-132

Continued on page 3

Don Cowen Named Associate Chairman Of Chest Campaign

Don D. Cowen, superintendent of Oak Ridge National Laboratory's Information and Reports Division, has been named as one of the associate chairmen of the 1952 Oak Ridge Community Chest fund-raising drive. The other associate chairman is Joseph C. Smith, deputy manager of Maxon Construction Company's Oak Ridge operations.

The announcement was made this week by Phil Rueff, assistant to the director of ORNL, who is campaign director of the drive. Cowen will be in charge of publicity and miscellaneous services, the announcement stated.

Technical Meetings

Chemistry Seminar at 3:15 PM, July 23, in the Training School Lecture Room. Dr. H. C. Urey, from the University of Chicago, will speak on "The Abundancies of the Elements."

Oak Ridge Physics Seminar at 4:00 PM, July 25, in the east lounge of Ridge Hall. Dr. Haakon Haraldsen, of the University of Oslo, will speak on "Magnetic and Structural Properties of Various Transition Element Compounds."

U-T Expects 2450 In Summer Quarter

Approximately 2450 students were expected to enroll this week for the second term of the University of Tennessee's summer quarter, according to an announcement made by U-T admissions dean R. F. Thomason.

Registration began yesterday, July 17, and will continue through Monday, July 21. Classes begin Monday morning, and will run through August 22. Dean Thomason said. First-term classes end today.

The dean estimates that 400 new students will enter U-T for the second term. His figure includes 150 graduate students and 250 undergraduates. In addition, he reports that 1300 undergraduates and 750 graduate students now at U-T plan to continue their studies until the end of the summer quarter.

Sixty years ago this month

Taken from *The ORNL News* for July 1952

- A 17-year-old Illinois high school student, Edmund Richards, won second place at the third annual National Science Fair in Washington D.C., by building a working reactor for \$35. This achievement came about as a result of Edmond's earlier visit to Oak Ridge.
- The Atomic Energy Commission and the Oak Ridge Institute of Nuclear Studies (ORINS) signed a contract for ORINS to continue operation for another five years. ORINS specialized programs include courses in the safe and efficient handling of radioactive isotopes, the operation of a long-range program on the treatment of malignant diseases and the operation of the American Museum of Atomic Energy.
- ORNL Director Dr. Clarence Larson and Union Carbide and Carbon Corporation praised employees for piling up 1,500,000 working hours without a lost-time accident. This represented the third time in the history of the Laboratory this record had been achieved.
- An ORNL physicist, Francis Pleasonton, succeeded in organizing a local group of the larger national Committee for Recording Books for the Blind. Approximately 20 ORNL personnel volunteered to receive special training to record textbooks for blind college students, many of whom were WWII veterans. Recording equipment was set up in a soundproof room at Oak Ridge High School.—prepared by ORNL History Room volunteers

From the Lab Director

ORNL's reputation was reinforced recently by a visit from a long-time friend of the Lab, Senator Howard Baker.

Our conversations with Senator Baker offered an important reminder about the importance of our resources and work. Senator Baker heard a series of overviews in the EVEREST lab by Thomas Zacharia (on high-performance computing), Doug Kothe (on the Consortium for Advanced Simulation of Light Water Reactors), Craig Blue (on additive manufacturing), Paul Gilna (biosciences) and Budhu Bhaduri (on geospatial information systems). Throughout, Senator Baker also asked penetrating questions, including this: What are ORNL scientists thinking about that has the potential to change the world? We talked about historic discoveries such as the harnessing of electricity, and how an understanding of nitrogen allowed the food supply to keep pace with global population growth. (The conclusion for today: clean water.) Senator Baker was a valuable friend to ORNL during his tenure in the Senate and as President Reagan's chief of staff, and he reminded us that sage statesmen expect ORNL to bring our resources to bear on matters of global consequence.

One area of ORNL research with potential to directly contribute to our nation's energy independence is our work on carbon fiber. Jim Roberto and Tom Rogers are to be congratulated for the continued growth of the Oak Ridge Carbon Fiber Composites Consortium, which now has 40 member companies and drew more than 80 people to a recent two-day meeting at the Lab. During the gathering, Ford Motor Company and Dow Automotive Systems announced that they're working together to develop low-cost carbon fiber and component-level manufacturing processes. ORNL is a partner in the collaboration through its previous work with Dow Chemical Company, and the Lab was included in the national announcement about the Ford-Dow initiative.

Locally, I updated the East Tennessee Economic Council on how the Lab has positioned itself to continue making breakthrough contributions in science and technology. Our success in modernizing facilities, improving safety performance and aligning budgets with federal forecasts allows us to focus now on applying our world-leading expertise in neutron sciences, computing, nuclear and materials science to some of the most pressing issues of our time, from clean energy to climate change to global security.

Finally, Team UT-Battelle is assisting Aid to Distressed Families of Appalachian Counties with a home build to mark its 25th anniversary. We've contributed \$10,000 to ADFAC in its anniversary year, and we're calling all volunteers to participate in construction. ADFAC, a United Way partner agency, is an important resource for needy families who are trying to become stable and self-sufficient through direct assistance and educational services.

Thom Mason



“Senator Baker was a valuable friend to ORNL during his tenure in the Senate and as President Reagan's chief of staff, and he reminded us that sage statesmen expect ORNL to bring our resources to bear on matters of global consequence.”



Senator Howard Baker visited the lab and received updates on ORNL research in the EVEREST facility. (Photo: J.W. Nave)



ORNL research in carbon fiber is contributing to the growth of the Oak Ridge Carbon Fiber Composites Consortium, which is creating new collaborations between companies like Ford Motor and Dow Automotive Systems. (Photo: Charles Brooks)



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Bldg. 4500-North's mail robots retiring

The automatic mobile mail delivery system that has carried the plant mail in Building 4500-North for decades, retired April 30 after “32 years of loyal service,” reports Mail Services manager Bob McKnight.

The two robots have been familiar fixtures for residents of the Lab's large administration building as they beeped down the long corridors of the E-shaped structure. They have also astounded visitors with their high-techiness, even though the commercial carrier technology has been around at least since the 1970s.

Bob says the robot's retirement will save more than \$19,000 this year in maintenance contract costs and avoid more than \$100,000 in replacement costs. The mail carriers, he says, have exceeded their operational life expectancy.

The carriers were adopted by ORNL in 1980 after a researcher saw one on a visit to the Pentagon. The carriers are programmed to halt at designated mail stops along a green-striped route.

Mail in 4500-North will henceforth be delivered by hand by existing staff, reversing the typical human-to-robotic transition.



The mobile mail carriers have intrigued countless Lab visitors, including this lad at a 1992 open house.