

Some GREAT things that happened in Oak Ridge in 2011! Part 5 (As published in *The Oak Ridger's Historically Speaking* column on February 14, 2012)

As we continue the focus on positive accomplishments in 2011, I continue to get input and am amazed at the variety of achievements that are forthcoming. I hope to wrap up the series soon with a look to the future. This installment will include some insights Gordon Fee shared...remember, he is the person who initiated this whole series by his email questioning why he did not see more positive stories reported.

I am so very pleased to see the annual month-long newspaper emphasis, *Progress*, a look at progress in our area, sponsored by The Oak Ridger and its advertisers. Gordon's initiative and my response by creating this series of *Historically Speaking* articles have been complimentary to that effort, I believe. We have looked at some very unique advances that might not have been included in the *Progress* series.

Gordon notes that the forward movement of the airport studies should also be included in significant accomplishments in 2011. He identified Sitel adding 150 new jobs in Oak Ridge as significant as well.

There are two things that will impact Oak Ridge for years and years. The decision by DOE headquarters to adopt the "Base Commander" organization structure. We are lucky to have John Eschenberg to fill the top position locally and to have his intense interest in what's good for Oak Ridge.

The other thing is the decision to marry the Pantex and Y-12 management contracts. This decision was not favored by federal elected officials, state or city officials. Gordon Fee sees these two items as MOST SIGNIFICANT ISSUES that surfaced in 2011 and that will have substantial impact on Oak Ridge in the foreseeable future.

The award given B&W Y-12 for managing Y-12 may be the most ever given to a contractor...\$56 million. As the new contract that combines Pantex and Y-12 with possible elements of Savannah River Site, the ability to keep contributions from the contractor here in Oak Ridge may be more of a challenge than it has been in the past. It is imperative that community support be an integral part of the new contract regardless of the location of the NNSA office of oversight. Our city leaders MUST keep their eye on this issue.

Other things Gordon Fee identified were: The opening of Sexton Motors in Oak Ridge; Oak Ridge science students winning the National Siemens Competition; and a list he saw in the Knoxville MetroPulse newspaper.

The list was labeled "**New Influential People for Oak Ridge.**" If you did not see that list, here it is: UCOR President, Leo Sain; new Police Chief, Jim Agaki; new Fire Chief, Darryl Kerley; new Executive Director at Tech 20/20, John Morris; Gerald Boyd moving to the private sector, UT replacement for Homer Fisher, Fred Tompkins; John Eschenberg and ORNL's Technology Transfer Division Director, Mike Paulus.

Gordon's last two items were ORNL's invention of the Smart Truck retrofits now being implemented on truck fleets across the nation and the startup of UT and Oak Ridge National Laboratory's new degree program in Energy Science and Engineering. I would like to also remind us of Y-12's developing partnership with UT as well.

Now, let's take a look at the top accomplishments of the Oak Ridge National Laboratory. I appreciate Leigha Edwards and Bill Cabage for their response to my request for this information. Please remember that we are talking here about the largest basic research laboratory in the Department of Energy system and the home of some of the world's most powerful computers as well as other renowned scientific research facilities.

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We have technologies being developed that most of the rest of the world cannot even comprehend, so explaining the significance of the accomplishments is sometimes a challenge. The general public often does not appreciate the details, they will only tolerate simple explanations and even then seem to take much of what is done at ORNL for granted. Sad, I know, but I believe it has been proven true. Still, the truth is that ORNL is a superbly fine scientific research facility of which we can all be proud!

Looking at ORNL's top achievements listed for 10 months during the year, with hyperlinks for additional detail on most months, we begin with **January**. The first accomplishment reported was that UT-Battelle supports high school distance learning with a \$450,000 gift. Now that is an important and consistent aspect of ORNL's managing and operating contractor, UT-Battelle. They constantly contribute funds to support community efforts. I am proud to list that one first!

Also in **January**, President Obama gives ORNL's high-performance computing an unexpected mention in his State of the Union address. This mention by the president of the United States, while taken in stride by ORNL's management, DOE and even the citizens of Oak Ridge, really was substantial. It recognizes that the achievements of the laboratory have significance well beyond the lab itself.

In **February** the Smart Truck technology (capable of saving 1.5 billion gallons of diesel fuel and \$5 billion in fuel costs in a year) was developed with help from simulations performed on the ORNL Jaguar supercomputer. For more details, see:

http://www.ornl.gov/info/press_releases/get_press_release.cfm?ReleaseNumber=mr20110209-00

UT-Battelle gives \$140,000 for Melton Hill waterfront pavillion. For more details, see:

http://www.ornl.gov/info/press_releases/get_press_release.cfm?ReleaseNumber=mr20110215-00

March: Massive earthquake and tsunami strike Japan, resulting in a nuclear plant accident and a call for DOE expertise. ORNL's work in Fukushima response along with Gulf spill and nuclear nonproliferation, earned awards from the Secretary of Energy. For more details, see:

http://www.ornl.gov/info/press_releases/get_press_release.cfm?ReleaseNumber=mr20111107-00

May: DOE's Steve Koonin and Pete Lyons help dedicate the Consortium for the Advanced Simulation of Light-Water Reactors. For more details, see:

http://www.ornl.gov/info/press_releases/get_press_release.cfm?ReleaseNumber=mr20100528-00

ORNL's first multi-level parking facility opens. The first all-electric Leaf owners plug in to recharging stations, including the Lab Director Thom Mason. For more details, see:

http://www.ornl.gov/info/press_releases/get_press_release.cfm?ReleaseNumber=mr20110525-00

June: ORNL charts 7 million hours without a lost-time injury, a record.

ORNL wins seven R&D 100 awards, maintaining its lead among national labs. For more details, see:

http://www.ornl.gov/info/press_releases/get_press_release.cfm?ReleaseNumber=mr20110622-00

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July: The Spallation Neutron Source charts 10,000 megawatt hours of operation. It replaced its mercury target for the third time earlier in the year. The SING (SNS Instruments – Next Generation) project finishes delivering five instruments to the SNS. For more details, see:

http://www.ornl.gov/info/press_releases/get_press_release.cfm?ReleaseNumber=mr20110816-00

Office of Science Director Bill Brinkman dedicates the \$95 million Chemical & Materials Sciences Building with a "wow." Researchers move in to the state-of-the-art, Recovery Act-funded facility.

UT-Battelle donates \$25,000 to the local Alvin Weinberg Memorial effort. For more details, see:

http://www.ornl.gov/info/press_releases/get_press_release.cfm?ReleaseNumber=mr20110720-00

August: ORNL's Guest House opens on Chestnut Ridge. It provides sleeping quarters for researchers who work around the clock.

UT-Battelle contributes \$250,000 to the Emory Valley Center.

October: ORNL raises \$960,000 for the United Way.

November: Jaguar stays at No. 3 in the list of the world's top supercomputers; meanwhile, its upgrade to Titan begins, which will boost its speed to 10 to 20 petaflop's. Wow! For more details, see:

http://www.ornl.gov/info/press_releases/get_press_release.cfm?ReleaseNumber=mr20111011-00

Amit Goyal wins the prestigious E.O. Lawrence Award. For more details, see:

http://www.ornl.gov/info/press_releases/get_press_release.cfm?ReleaseNumber=mr20111128-00

December: Two Oak Ridge High School students who did their projects at ORNL win big in the national Siemens competition. For more details, see:

http://www.ornl.gov/info/features/get_feature.cfm?FeatureNumber=f20111117-00

If you follow these links and read about the amazing details of these accomplishments, you will surely swell with pride to be associated with such world-class scientific achievements. ORNL is right here in Oak Ridge and that's surely something we must not take for granted but must seek to acknowledge and promote.

I wish we had a public ORNL exhibit hall similar to what I found at Los Alamos! Maybe with the Manhattan Project National Historical Park, we will be able to include a more publicly accessible venue to showcase ORNL's scientific accomplishments and tell the story of the world-wide impact of our lab.

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The Chemical & Materials Sciences Building opened to researchers in the summer of 2011. Recovery Act funding accelerated the construction of the \$95 million, 160,000-square-foot research facility that provides a state-of-the-art, energy efficient setting for ORNL materials researchers.

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ORNL Director Thom Mason plugs in his Nissan Leaf as fellow electric vehicle owner Kathy Huczko looks on. ORNL provides solar charging stations for the new EVs, part of new energy and environmental sustainability practices being implemented at the laboratory.