Researcher quantifies meteor false-alarm rate for nuclear test monitoring system

by James E. Rickman

A Los Alamos National Laboratory researcher is helping to provide an extra measure of confidence in an international array of listening posts that keep an ear out for clandestine nuclear weapons tests.

Doug ReVelle of Atmospheric, Climate and Environmental Dynamics (EES-2) presented calculations showing the number of false alarms in international monitoring stations that can be attributed to meteors. ReVelle presented his findings at the American Association for the Advancement of Science's annual meeting in Denver recently.

ReVelle and his Los Alamos colleagues operate a series of stations that listen for infrasonic signals — very low frequency sound waves that lie below the range of normal human hearing. The stations are part of an international monitoring system that is used to detect, among other things, rogue atomic tests. Such tests create infrasonic signals, and researchers can analyze data from the stations to pinpoint the location and even the magnitude of a clandestine blast.

But incoming meteors also create infrasonic signals. When a meteor enters the atmosphere and continues traveling through it, it creates a pressure wave — the infrasonic signal. The pressure wave is akin to a pressure wave created by an explosion. Because of this, ReVelle often discusses meteor size in terms of explosive yield: the larger the yield, the greater the diameter of the meteor.



Detectors such as this infrasound array operated by the Laboratory have helped detect meteors and missiles and have played a key role in helping scientists determine the frequency by which giant meteors enter Earth's atmosphere. Photo courtesy of Atmospheric, Climate and Environmental Dynamics (EES-2)

Recently, ReVelle teamed up with researchers from Sandia National Laboratories, the University of Western Ontario, ET Space Systems and U.S. Space Command and looked at sound and light signatures from large meteors that had entered the atmosphere during the last eight years. From these data, the researchers were able to more precisely calculate the size and energy of incoming meteors.

In addition, ReVelle was able to calculate the frequency of meteor encounters with the atmosphere. A meteor that's 100 feet in diameter — with the energy equivalency of

a one-megaton explosion — enters the atmosphere about every 100 years. But smaller meteors enter more frequently.

ReVelle looked at the number of meteors in the one-kiloton energy range (or meteors just under 10 feet in diameter) to determine the number of false alarms that might be seen on international monitoring stations worldwide. Based on his calculations, ReVelle found that individual monitoring stations would see, on the average, about five meteor signals a year.

"This research will help give added confidence to the international monitoring system," ReVelle said.

Senior Executive Team approves recommendations from group leaders

The Laboratory's Senior Executive Team recently approved a series of recommendations from group leaders aimed at improving business processes at the Laboratory.

Interim Laboratory Director Pete Nanos views group leaders as vital to implementing business and system changes. "Group leaders are critical to the success of the Laboratory," Nanos said. Last month he initiated a series of "solution-group sessions" with group leaders to solicit their input.

Group leaders were asked what message about performing the work of a group leader would they like to convey to Nanos; what are the greatest impediments to fulfilling responsibilities as a group leader; and what solutions they have to address the issues.

One hundred sixty group leaders participated in the survey with a subset of 31 group leaders, which made up the "Group

Leader Team, "meeting for "solution sessions" over two days. Their recommendations were presented to the SET early in February. Those recommendations and the SET actions are as follows:

- Endorse the roles and responsibilities of the group leader The SET endorsed this and tasked the group-leader team with providing a description.
- Implement a suite of training-and-development options based on group-leader needs The SET endorsed replacement of the required management training with a "boot camp" that is based on the needs assessment. The associate directors for administration and operations will develop additional options within 120 days.

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One site — loads of information

There is a new Web site for employees — a "one-stop" location to read about Interim Director Pete Nanos' initiatives, personnel changes and what's happening during these turbulent and challenging times. ... Page 5

Elevator in Otowi Building out of service

The Otowi Building at Technical Area 3 is without elevator service because of mechanical failure. Repairs have begun on the elevator. Page 5



Claritin: No prescription needed



Recently the Food and Drug Administration approved the sale of Claritin as an overthe-counter drug; consumers no longer have to have a doctor's prescription to

Employee honored with his own comet

Technical staff member Douglas ReVelle has done more than thank his lucky stars; he had one named





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Los Alamos National Laboratory is operated by the University of California for the National Nuclear Security Administration (NNSA) of the U.S. Department of Energy and works in partnership with NNSA's Sandia and Lawrence Livermore national laboratories to support NNSA in its mission

Los Alamos enhances global security by ensuring safety and confidence in the U.S. nuclear stockpile, developing technologies to reduce threats from weapons of mass destruction and improving the environmental and nuclear materials legacy of the Cold War. Los Alamos' capabilities assist the nation in addressing energy, environment, infrastructure and biological security



FROM THE TOP



Concerns regarding UC contract/UC pension

have received many questions about what would happen to University of California pensions if UC no longer administers the Lab's management contract. This is an understandable concern, and I want to address it candidly and as completely as possible.

First, Laboratory employees can be assured that we, and the university, will do everything possible to ensure that the University of California continues to manage this Laboratory. That's a first, important objective, and, as I said in our recent all-hands meeting, I will need your best efforts to help make sure that we are in the best possible position to successfully realize this objective.

If, for any reason, we are not successful, the normal practice would be for the university and the Department of Energy to negotiate a transition for the management of the Lab. This negotiation would, necessarily, address a variety of complex operational and administrative issues, including what happens with the pension plan and retiree medical benefits. Of course, such a transition would take a good deal of time.

Second, you should know that pensions are protected by federal and applicable state laws, and any pension benefits that are already accrued cannot be altered by a contractor change.

I want to stress that we are not in this situation today and with hard work, good will and the support of employees, the community and the University of California, we will get through this difficult period. I also want you to know that while this process may be challenging, I believe that at the end of it, we will be a better and stronger Laboratory that continues to provide essential support to the country's national security mission.



Interim Laboratory Director Pete Nanos

I know this may not be as definitive an answer as some would like, but it's the best we can provide at the moment given the hypothetical nature of the question and all the variables involved. Again, my intention is to make sure UC continues to manage the Lab.

Finally, please know that UC Senior Vice President Bruce Darling and I, and all the other administrators we're working with, are committed to providing you and the rest of the Lab community with as much information throughout this process as is available.

In addition to our all-hands meetings and these kinds of communications, you also can stay informed by going to the following Web site: http://www.universityofcalifornia.edu/ news/losalamos/welcome.html.

Senior Executive Team approves ...

continued from Page 1

- · Give group leaders the authority and flexibility to structure their staffing and cost recovery in a way that best supports the group's goals and mission — SET action includes tasking the ADA to ensure a process is in place to rapidly fill need positions. Division and group leaders will work with Human Resources (HR) Division staff to determine organizational structures and staffing needs. ADA will review the tax structure for implementation of possible changes in $FY\overline{04}$. The ADA also will provide organizational development support to interested group leaders.
- Enforce the chain of command The ADA and Laboratory Counsel will establish one point of contact for all incoming actions that affect the contract. All SET members and the division leaders are to encourage the upward flow of information. All directives will go through the chain of command with thought given to priorities and work load.
- Create a policy office that reports to the SET The ADO is to establish a single policy office within the current Quality Assurance structure. This office will review all policies and Laboratory implementing requirements. The ADA will review and improve the Administrative Policies and Procedures Manual.
- Develop a centralized problem-solving resource, a help or action desk/service **center** — The ADA is to begin by developing a responsibility matrix. The service center is to be implemented within 90 days.
- Establish a group-leader problem-solving action council John Immele will sponsor this group.

The full report can be found by going to the Feb. 12 online Daily Newsbulletin at www.lanl.gov/orgs/pa/newsbulletin/2003/02/12/ and clicking on the appropriate links or by going to the Path Forward Web site at int.lanl.gov/communications/.

Out and about ...

Interim Laboratory Director Pete Nanos has been out and about Northern New Mexico recently getting acquainted with state and local officials and community leaders. He also helped brief National Nuclear Security Administration and Department of Energy officials on business practices and other process improvements at the Lab and found time to talk with ABC World News Tonight anchor Peter Jennings about the Lab's role in stockpile stewardship, including nonproliferation.







Briefing NNSA, DOE officials

Officials from the National Nuclear Security Administration and the Department of Energy heard update reports on business practice and other process improvements the Laboratory and University of California has implemented during a visit to the Lab. Pictured from left to right in the Director's Conference Room at Technical Area 3 are Interim Laboratory Director Pete Nanos; Bruce Darling, UC's senior vice president for university affairs; Michael Anastasio, Lawrence Livermore National Laboratory director; Robert Van Ness, UC assistant vice president for Laboratory administration; Carolyn Mangeng of the Director's Office; Ralph Erickson, NNSA/DOE Los Alamos Site Office manager; Kyle McSlarrow, DOE deputy secretary; and Linton Brooks, acting NNSA administrator and acting undersecretary for nuclear security. Photo by LeRoy N. Sanchez



Talking nonproliferation issues

Above: ABC World News Tonight anchor Peter Jennings, left, interviews Interim Laboratory Director Pete Nanos in the J. Robert Oppenheimer Study Center at Technical Area 3. Jennings and Nanos discussed Los Alamos' role in stockpile stewardship but primarily focused on nonproliferation issues, including weapons of mass destruction and their accessibility by terrorists. Next to Nanos adjusting a light stand is television news photographer Tom Zannes.

Left: While at Los Alamos, Jennings, right, and Nanos traveled to Technical Area 18 where they continued their discussion on terrorism and weapons of mass destruction. Jennings' interview with Nanos aired Feb. 13 on World News Tonight. Photos by LeRoy N. Sanchez



Dining with Hispano legislators

Interim Laboratory Director Pete Nanos stressed the importance of New Mexico's diversity at the 11th annual tribute to Hispano legislators dinner last month in Santa Fe. Nanos spoke briefly about the Laboratory's efforts to improve its business practices and the Lab's continued excellence in science. He also noted the contributions Hispanic scientists and engineers have made and are making to the nation through their work at Los Alamos. The Laboratory was a gold sponsor at the event, sponsored by the Hispano Round Table of New Mexico.

Left: Nanos, right, talks with New Mexico Gov. Bill Richardson and Bruce Darling, left, University of California senior vice president for university affairs, at the Governor's Office in Santa Fe. The Lab's Government Relations Office (GRO) and UC initiated the get-acquainted meeting with Nanos and Richardson, a former Department of Energy secretary, New Mexico congressman and United Nations ambassador. Photos by LeRoy N. Sanchez



Visiting Española, meeting with the mayor

Española Mayor Richard Lucerco, left, explains the historic relevance of the arches in the Española Plaza to Interim Laboratory Director Pete Nanos during a recent visit by the director to Española. The visit was one in a series to neighboring communities, as Nanos attempts to better understand community interests that may impact the Laboratory. Discussions included park-and-ride, the Española industrial park, regional water concerns and economic development interests. Nanos also emphasized his desire to support community interests with common business principles that make sense and are practical for all involved. Photo by Christina Armijo, Community Relations Office (CRO)



Tag your bags Security depends on you

Recently, Jim Dalton of Diversified Facilities (FWO-DF), building manager of the Otowi Building, and Emergency Management and Response (S-8) held a "tag-your-bag" event. In a push to encourage members of the work force to put identifying tags on their briefcases, purses, gym bags, etc., tags were available on the spot. Unidentified bags of all sorts, when left unattended, become security concerns. The Lab's Hazardous Device Team (S-8) is called out regularly to "render safe" such unattended articles. It is not unusual, especially in the summer months, for Otowi Building employees and others to have to evacuate while "suspicious" objects are taken care of. Don't let your gym clothes, tuna sandwiches or your latest view-graph presentation become objects of attention for the Hazardous Device Team — remember to tag your bag! Irene Martinez of the Otowi Building's Tag-Your-Bag Team and Internal Security (ISEC) is shown with Dalton and a basket of tags at the Otowi event. To get tags for your bags, contact EM&R at 7-6211. Employees also can go to EM&R's Web page at emr.lanl.gov/tagbag.html or send EM&R an e-mail with the information needed to make the tags. To report suspicious objects, bags or parcels, call EM&R at 7-6211. Photo by LeRoy N. Sanchez

Visa replaces Diners Club as Laboratory's official travel card

Beginning March 1, Visa became the Lab's new travel credit card, replacing Diners Club. The new travel card program is operated in conjunction with the University of California and is similar to one in place at Lawrence Livermore National Laboratory.

Following are a few of the major points covering the new program:

- Diners Club cardholders, whose accounts were active and in good standing, were automatically enrolled in the new Visa program. Cards were mailed to the employee address shown in the Lab's Employee Information System and began arriving the week of Feb. 17. The new Visa card can be activated upon receipt by the cardholder. It should be noted that, over time, line management will be engaged in determinations regarding an employee's need for a travel credit card.
- All balances due Diners Club remain the responsibility of the cardholder and

should be paid promptly. Employees should be aware that the new Visa card is for official travel use only; no personal charges of any kind will be permitted. Delinquent cards will be monitored by the program card administrator in Accounting (BUS-1) and notifications issued to employees who fail to submit payment within program guidelines.

• Employees who were not Diners Club cardholders and would like to sign up for the new program may do so on the Travel Web site at businternal.lanl.gov/bus1/travel/usbank/default.htm. Cards should be received within seven to 10 days of application submission. The new Visa card program is

available to University of California employees only.

• The new Visa card program offers Lab travelers worldwide acceptance, 24-hour-emergency customer service, travel-accident and rental-car insurance and cash-advance privileges. Additional benefits are shown on the Travel Web site.

Direct questions on the new travel card program to Guy Sandusky at 5-0459 or *sandusky@lanl.gov*.

Complete details on the program are on the Travel Web page located at businternal.lanl.gov/bus1/travel/usbank/default.htm

2003 Laboratory Fellow nominations sought

The deadline to submit nominations for 2003 Laboratory Fellow for outstanding achievement is April 18.

Nomination criteria include sustained high-level achievements in programs of importance to the Laboratory, a fundamental or important discovery that has led to widespread use or having become a widespread authority in a field, including outside recognition and outstanding record of publications.

To nominate an individual for Laboratory Fellow, forward the original three-hole-punched nomination package plus 15 double-sided, three-hole-punched copies to Allen Hartford, director of the Science and Technology Base Programs (STB) Office at Mail Stop M714 by 5 p.m. April 18.

Do not submit extra letters of endorsement or "bound" or extraneous material, such as preprints, reprints or published material. Nomination packages that are out of compliance will not be considered.

To read a master management memo about 2003 Laboratory Fellow nominations, go to *int.lanl.gov/memos/MasterManagement/MM1660_ADS1820.PDF*, or call the STB Program Office at 7-7978 or write by to *hartford@lanl.gov* by e-mail.

LabUPDATE

New UC publication highlights Los Alamos, UC national labs

LabUpdate, a new University of California publication that highlights the work of Los Alamos, Lawrence Livermore and Lawrence Berkeley national laboratories recently published its inaugural issue.

The issue includes a message from UC President Richard Atkinson, information on management changes at the Laboratory, and science and technology efforts related to homeland security involving the Lab and LANL, among other information.

To read LabUpdate, go to www.university of california.edu/news/losalamos/ online.

The Community Relations Office (CRO) has a new toll free number 1-888-841-8256



Mamos > Path Forward: Communicating Directly With You

One site — loads of information

by Judy Goldie

Phere is a new Web site for employees a "one-stop" location to read about Interim Director Pete Nanos' initiatives, personnel changes and what's happening during these turbulent and challenging times. Path Forward, located at http://int.lanl.gov/ communications/, is an "aggregate" site with

News from DOE

links to myriad information and designed to keep the work force up to date

Nanos' strong emphasis on communication is underscored with this site. On the 'Path Forward' are messages from Nanos to employees and links to the Lab's media theater to view Nanos' meetings, the Lab in the news and the Lab's event calendar.

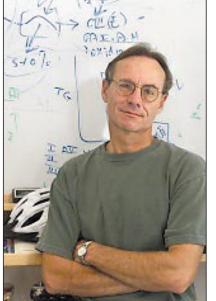
Under "Improving Business Practices:

Procurement," employees can choose to read the University of California interim report on procurement-card transactions; information on the new Purchase Card Program; and for managers, the latest on purchasing account information on "My LANL," a portal that is a business-decision tool for managers that gives access to data about their organizations.

"Property Accountability" links to information about the wall-to-wall property inventory; "Organizational Changes" provides employees with a link to memos on management changes, the U.C. oversight board and U.C. President Richard Atkinson's reporting relationship memo.

Other links include "What Every Employee Can Do" and "Reports," including the recent report on the roles and responsibilities of group leaders.

The site is updated by Alison Grieggs, Katherine Norskog and Michelle Gilliam of Communication Arts and Services (IM-1) as new information becomes available.



Edward "Eddy" Rubin

Edward "Eddy" Rubin, an internationally known geneticist and medical researcher, has been named Director of the Department of Energy's Joint Genome Institute. The Joint Genome Institute, established in 1997, is one of the largest and most productive publicly funded genome sequencing centers in the world. Lawrence Berkeley National Laboratory Director Charles Shank announced the appointment on behalf of the three University of California laboratories that manage the JGI: Los Alamos and Lawrence Livermore national laboratories and LBNL. Rubin, who had been serving as interim director of JGI since spring 2002, was selected for the position after a nationwide

Rubin new director of DOE's Joint Genome Institute

search. Rubin also was named director of LBNL's Genomics Division. "Dr. Rubin's international reputation in genomics studies makes him an ideal candidate" for the JGI directorship, Shank said. "All of us (at the DOE laboratories) owe him a tremendous debt of gratitude for

his exemplary leadership thus far, and I know I speak for all of us when I express optimism and excitement about the possibilities for the future."

Rubin said he was "enormously enthusiastic and optimistic" about the JGI's "unique capabilities and strengths" — not only for its world-class genome sequencing capacity but for its emerging role as a cutting-edge biological research center. One immediate goal for the JGI, he said, would be to engage scientists at the DOE labs and the broader scientific community as users of the huge data sets being produced by the JGI's banks of DNA sequencers. "With this data we can do many unique things in science," he said.

Rubin received his bachelor's degree in physics from UC-San Diego, his master's degree from the University of Rochester Medical Center, and his doctorate in biophysics from the University of Rochester. Following a genetics fellowship at UC San Francisco, he became a research associate at the Howard Hughes Medical Institute.

Rubin joined LBNL in 1988 and became head of that lab's Genome Sciences Department in 1998. His research has involved the development of computational and biological approaches to the analysis of DNA sequence data.

Rubin's most recent work, supported by a Genomic Applications Program funded by the National Institutes of Health, has emphasized the use of large scale cross-species DNA sequence comparisons to identify regions of the human genome that encode important biological functions.

Rubin has been active in the Human Genome Project both in the United States and internationally. He served as co-chair of the Cold Spring Harbor Genome Sequencing and Biology Meeting and was scientific chair of the International Human Genome Organization.

Additional information and progress reports on JGI projects, including daily updates of sequence information and assembly statistics, are available at www.jgi.doe.gov.



Elevator in Otowi Building out of service

The Otowi Building at Technical Area 3 is without elevator service because of mechanical failure. Repairs have begun on the elevator.

Facility management personnel in the Otowi Building will work with groups in the building to develop accommodations for all occupants during this period. Lab personnel who don't work in the Otowi Building but use the building for official business, to dine in the cafeteria and other matters, are asked to remain cognizant of this situation and plan accordingly.

Individuals who are handicapped can access the Otowi Building's third floor through the west-side entrance, while access to the middle floor is available through the east-side entrance. The basement level isn't accessible to mobility impaired individuals; however, such individuals can call Diversified Facilities (DWO-DF) at 5-2272 or write to otowi@lanl.gov by e-mail and facility management personnel will attempt to accommodate them.



During inclement weather, dial UPDATE at 7-6622 or 1-877-723-4101 (toll free) to find out about delays or closures at the Laboratory.





Paul Gilna

Paul Gilna to lead Center for Human Genome Studies

Paul Gilna is the new leader of the Center for Human Genome Studies (B-5) in the Bioscience (B) Division.

Gilna's career began at the Lab in

1988 in Theoretical Biology and Biophysics (T-10), where he was a member of the Genetic Sequence Databank (GenBank) team. In 1994, he served as Biological and Environmental Research program manager. He left for Washington in 1988 and became program director for both the Computational Biology and Database Activity programs. Gilna returned to the Laboratory in 2000, joining the Bioscience (B) Division leadership team.

"Los Alamos has a distinguished history of contribution to the Human Genome Project dating from conception and initial technical implementation of the project through to completion this year of the sequencing of human chromosome 16, said Gilna. I am excited at the prospect of leading a project that will continue to apply our peoples' skills and capabilities to important Lab missions such as biothreat reduction and national energy security, as well as to B Division's strategic direction in the development of high-throughput genomics facilities," he said.

Gilna is a member of the National Institutes of Health, National Biomedical Computation Resource Advisory Body and is on a number of advisory and review panels at the National Science Foundation.

Gilna earned his bachelor's and doctoral degrees in pharmacology from the University College Dublin in Ireland.

Food to Work By

Calories eaten when you're working do count. Consider that 40 percent of food eaten away from home is consumed between 10 a.m. and 2 p.m., and that 57 percent of Americans consume meals and snacks away from home on any given day. For National Nutrition Month this March, the Wellness Center invites the work force to participate in "Food to Work By." This new motivational program will challenge you and your co-workers to eat healthier snacks in break rooms, at meetings and lunches. There will be prizes, partnering opportunities and team awards.

For more information visit the Wellness Center Web site at http://drambuie.lanl.gov/~wellness/index.htm online or call 7-7166.

Chiarelli selected to receive Rhodes scholarship

Peter Chiarelli of the Michelson Resource (B-4) in the Bioscience (B) Division recently was selected a Rhodes Scholar and will receive a scholarship to do gradute work in magnetic and resonnance imaginary.

Rhodes scholarships are only given to 32 students in the United States. The scholarships are for two years with the possibility of a third year of study at Oxford University, London. The scholarship includes all educational costs, such as matriculation, tuition and laboratory fees. Each scholar also receives a maintenance allowance for termtime, with all vacations salaried.

Chiarelli has been a summer student at the Laboratory for two years and plans to return this summer. He currently is studying chemistry at Pomona University, Los Angeles.

While employed at the Lab, Chiarelli has published four papers and is slated to publish two more.

His mentor, Hsing Lin Wang, said, "Peter has made significant contributions to our research projects. His publication records easily exceed many of the doctorate candidates."

For Shankland, an honorific event

Geophysicist
Tom
Shankland estimates that he has presented papers at 60-odd scientific conferences and seminars during his 26-year career at the Laboratory. But at one of them — the Fall 2002 American Geophysical Union



Tom Shankland

conference held in San Francisco — he was asked to sit and listen as event coordinators identified the session as being in his honor.

Although AGU no longer formally endorses special sessions for individuals, this was, nonetheless, a special occasion for Shankland and a colleague of many years, Al Duba, whose name also headlined the event.

Colleagues worked up the session as a way to pay tribute to the two scientists for their contributions to basic rock physics.

continued on Page 7

In Memoriam

Robert M. Frank

Laboratory retiree Robert M. Frank, 82, a resident of White Rock died Jan. 31. Frank came to Los Alamos in 1953 and began working in the Theoretical (T) Division on the emerging field of high-speed computation. From 1968 until his retirement in 1993, he worked in the Computing (C) Division. Frank also founded the Integrated Computer Network (ICN) Office in 1972, now known as the Consulting Office.

After retiring, he worked as a vendor for High Performance Computing Systems (CCN-7) on "Fred," a line editor that uses large Fortran codes that he developed in the 80s.

Frank earned his bachelor's degree in mechanical engineering in 1941 and his doctoral degree in physics from Cornell University in 1951. His graduate studies were under the mentorship of Richard Feynman and Hans Bethe.

Frank served in the army in 1941 during World War II and was awarded the supreme "medal of honor" available outside of enemy combat situations for saving several of his comrades when an ammunition dump exploded.

Peng-Hsiang Tseng

Peng-Hsiang Tseng, a technical staff member in Hydrology, Geochemistry and Geology (EES-6), died Feb.1 following complications from liver cancer.

Tseng joined the Laboratory in 1998 as a technical staff member and was considered a specialist in computational and experimental hydrology. He also was recognized as an expert in snow-melting dynamics.

Tseng came to the United States in 1986 from Taiwan to attend the University of Colorado, where he earned a doctoral degree in civil engineering in 1991. Before becoming an employee at the Lab, Tseng was a post-doctoral research fellow at the University of California, Riverside.

Tseng earned his bachelor's degree in hydraulic engineering from Feng-Chia University in 1979 and a master's of science degree from the Chinese Culture University in 1981.

A memorial fund has been established to help Tseng's survivors. Contributions can be made to the Tseng Peng-Hsiang Memorial Fund, account number 0010212101, Los Alamos National Bank, 1200 Trinity Dr., Los Alamos, N.M. 87544.

John Webster

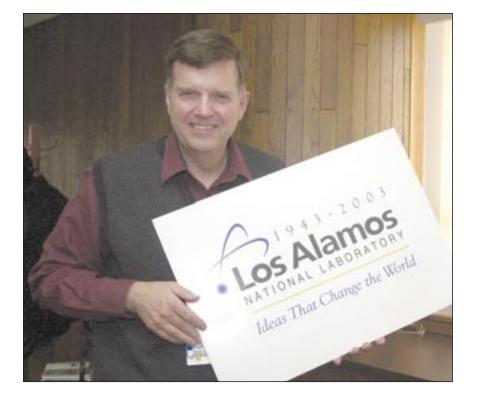
Laboratory retiree John Webster of Lexington, Ky., died of a brain tumor Feb. 6. He was 63. Webster retired from the Lab in October 1993 as the Public Affairs group leader; after his retirement, he was a consultant for both Community Relations and PA offices. Previously, he worked for many years as a journalist for United Press International in Albuquerque and served UPI as its Santa Fe news bureau chief.

He earned a bachelor's degree in English and a master's degree in journalism from the University of Colorado. He graduated with distinction from the Air Force Officers' Candidate School and served five years in the U.S. Air Force, serving two years in the Vietnam War and received the National Defense Service Medal, the Vietnam Service Medal, the Small Arms Expert Marksmanship Ribbon and the A.F. Longevity Service Award Ribbon.

Webster served on the board of the Los Alamos Arts Council and was editor of the arts newsletter. He also was elected to the board of the Los Alamos Historical Society. He was a longtime member of the Santa Fe Opera Guild.

He is survived by his wife of 40 years, Patricia Webster, also a Laboratory retiree, and their two children.

The family suggests that those who wish to make contributions in his memory send them to the Friends of the Arboretum Special Gift Fund, Box 22175, Lexington, KY.



New 60th anniversary logo and slogan selected

Interim Laboratory Director Pete Nanos shows off the official logo for the Laboratory's 60th anniversary activities, scheduled to begin in April. The logo, designed by Andrea Gaskey of Communication Arts and Services (IM-1), and the slogan, from Jas Mercer-Smith of Thermonuclear Applications (X-2), will grace posters, letters and other material distributed for the anniversary. Mercer-Smith's slogan, "Ideas That Change the World," topped 106 other entries in a competition sponsored by the 60th Anniversary task force. In choosing the slogan, Nanos told Mercer-Smith, "Your entry best reflected the intent of our upcoming commemoration." Mercer-Smith was awarded a \$100 check, which he will donate to the Los Alamos Employees' Scholarship Fund, which is managed by the Community Relations (CRO) Office and the Laboratory Foundation. Photo by LeRoy N. Sanchez

Claritin: *No prescription*

Administration approved the sale of Claritin (loratadine) as an over-the-counter drug; consumers no longer have to have a doctor's prescription to buy the drug. Claritin products are no longer covered by the prescription drug plan through Blue Cross Blue

needed

Shield New Mexico.
As noted in the BCBSNM member benefit booklet, available at http://bcbsnm.com/Members/LG/lanl/lanl_hmo.htm online (under "Benefit Booklet"), over-the-counter drug products are specifically excluded and not covered under the pharmacy benefit.

Claritin had been the most prescribed, nonsedating antihistamine on the market. This change will have a dramatic impact on consumers — including those without health insurance — who now will be able to purchase Claritin, or loratadine, products at retail stores without first seeing their doctors for a prescription. Although this will save consumers the time and cost associated with a doctor visit, over-the-counter medications are not covered by most insurance companies, including BCBSNM, according to BCBS.

Retail stores are expected to stock all five formulations of Claritin, in anticipation of high consumer demand. The products will be available at their original prescription strength and include Claritin 10mg tablets, Claritin 10mg RediTabs, Claritin-D 12 Hour, Claritin-D 24 Hour and Claritin oral syrup.

Consumers can expect to pay about \$30 for a 30-day supply. Shering-Plough, Claritin's manufacturer, had charged pharmacies \$80 for the same amount. While this change may cost consumers more than they paid previously, the change will help decrease overall drug costs, a major component of rising costs in the health-care industry, according to BCBS.

Shankland ... continued from Page 6

Over a period of nearly 30 years, the two worked cooperatively, even though Duba spent most of his career at Lawrence Livermore National Laboratory while Shankland was at Los Alamos. Shankland, now retired, and Duba, now associated with the American Museum of Natural History, made key advances in the understanding of electrical conductivity of earth materials. Their work encompasses the effects of oxidation and experimental atmosphere as well as influences of carbon and fluids.

In addition, Shankland pioneered fundamental optical and elastic measurements on minerals, providing greater insight into Earth's deep interior.

The two began a funded collaboration in the early 1980s, when they wrote a joint proposal to what is now the Department of Energy's Office of Basic Energy Sciences for a project to make thermo-electrical measurements. That early effort resulted not only in funding for the first project but continuing funding for expanded research spanning nearly two decades.

"It's impossible to understand the history of Earth without knowing about its mantle and core — the engine that drives this planet," Shankland says. "So, we were delighted when the early funding supported basic research into mantle minerals."

As the government's research focus later shifted to the shallower depths of Earth's crust, which is the location of conventional energy sources, funding went that way and the continuing research followed.

Techniques based on knowledge of electrical conductivity at different levels and in different rock formations now yield valuable clues about what drilling rigs may find — whether it's steam, brine or oil.

A 1958 summa cum laude graduate of Harvard College, Shankland received his masters and doctoratal degrees in solid state physics there in 1960 and 1966. He taught geology at Harvard before joining the Los Alamos staff in 1975.

Retired now, Shankland is a regular in his old Laboratory office where, he says, "I'm writing the papers that I should have written when I was being paid to do it."

403(b) program contribution limits have changed

The University of California has adjusted the limits that eligible UC employees can defer from income tax through its tax-deferred 403(b) plan.

Employees who want to participate in the tax-deferred 403(b) plan designate a portion of their gross salary to contribute on a pretax basis. Income taxes are calculated on remaining pay, thus reducing the participant's taxable income. Taxes on contributions and any earnings are deferred until the participant withdraws the money.

The changes to the limits are shown in the table below:

Year	Basic limit and over add	AGE 50 and over limit	Age 50
2003	\$12,000	+ \$2,000	=\$14,000
2004	\$13,000	+ \$3,000	=\$16,000
2005	\$14,000	+ \$4,000	=\$18,000
2006	\$15,000	+ \$5,000	=\$20,000

UC Lab employees can make changes to their 403B limits online. All UC employees, except students who normally work fewer than 20 hours a week, are eligible to participate in the tax-deferred 403(b) plan.

For more information, including how to change limits and sign up for the tax-deferred 403(b) program, go to http://int.lanl.gov/worklife/retirement/403b/index.shtml#change online. Additional background information on the program can be found at http://atyour service.ucop.edu/forms_pubs/misc/ar02403b.pdf online (Adobe Acrobat Reader required).

Employee honored with his own comet

by Lecole Trujillo

Technical staff member Doug ReVelle of Atmospheric, Climate and Environmental Dynamics (EES-2) has done more than thank his lucky stars; he had one named after him. The Triennial Meeting of Asteroids, Comets and Meteors is held in various locations to present research findings and name a minor planet after someone who has contributed work to meteor physics and other disciplines dealing with solar-system astronomy. Unbeknownst to ReVelle, he was nominated for this honor by colleagues.

Last year's meeting was held in Berlin, Germany, and the next meeting will be in Rio de Janeiro, Brazil, in 2005.

ReVelle was socializing at the meeting when he noticed that one of his colleagues was extra friendly. This friend persuaded him to approach a large balcony, where they were about to announce the names of the people to be honored. When they announced ReVelle's name, he was shocked because he was unaware that he had even been nominated.

It has been 42 years since an American meteor physicist or astronomer has had an asteroid named after him or her.

There were 600 attendees from 34 countries at the meeting. ReVelle was one of 30 people nominated and only three of these were meteor physicists. He said, "It's really neat for me and also for the Laboratory, which has at least half-a-dozen people studying this field of science."

The planet is called ReVelle=1998 TA34, and its number is 13358. It is a main-belt asteroid and was discovered on Oct. 14, 1998, by the Lowell Observatory Near-Earth Object Search at the Anderson Mesa Station. The planet is 15 kilometers across and in the belt between

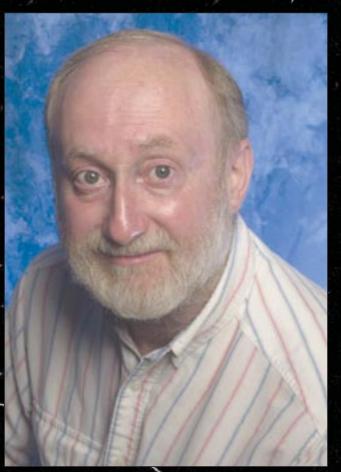
Mars and Jupiter.

ReVelle is well-known for his pioneering theoretical work in meteor physics and astronomy based on theoretical aerodynamics, meter acoustics and in the interpretation of infrasonic meteor observations. He is a member of American Geophysical Union, Acoustical Society of America, American Institute of Physics, American Meteorological Society and International Astronomical Union.

ReVelle received his bachelor's in meteorology and oceanography in 1968, his master's in aeronomy and planetary atmospheres in 1970 and his doctorate in atmospheric science in 1974. All of these degrees were in the department of atmospheric ocean and space sciences from the University of Michigan, Ann Arbor. His thesis for his doctorate program was about acoustics of meteors.

To view pictures of ReVelle =1998 TA34, visit the EES Web site at http://www.ees.lanl.gov/archive_index/index.shtml online.

Earth Distance: 1.951 AU Sun Distance: 2.881 AU



Doug ReVelle

Jupiter

Mars

Verus

13358 Revelle

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