Imaging the maelstrom about Z’s center: Now we can do it

By Neal Singer

Peering into the center of Sandia’s Z machine as it fires had been a feat unachievable for a decade. “The energies in there are insane,” says Sandia researcher Daniel Sinars (1673) of the maelstrom of X-rays released at Z’s firing. Other than a nuclear bomb, Z is the most powerful generator of X-rays on the planet. Last year, its central mechanism, called a Z-pinch, fused isotopes of hydrogen to create nuclear fusion.

Now, by inserting a two-inch-long crystal that reflects only a single frequency, Dan’s group has managed to visually filter out the bedlam of more than 99 percent of the energies generated by Z. Using the energy of a rela-

tively weak laser beam passing through Z and reflecting off the crystal, the researchers have emerged with a series of pictures of the machine’s key process — the dissolution of a wire cage (about the size of a spool of thread) into ionized gas particles.

By viewing the dissolution nanosecond by nanosecond, Z experimentalists will be able to understand more rapidly and accurately how changes to the wire array will affect the final outcome

in order to fine-tune Z’s driving forces. These alterations will achieve still more powerful outputs for weapons studies and, eventually, controlled nuclear fusion that could produce unlimited energy from seawater.

(Continued on page 5)

“The energies in there are insane”

Photo by Randy Montoya

Sandia to more closely follow DOE order requirements for security-concern incidents

By Chris Burroughs

No more ‘near miss’ warnings, says Michael Schaller

DOE Order 471.4 lists reportable categories of incidents of security concern in an Impact Measurement Index (IMI) table. Incidents of security concern are categorized, using a graded approach, in accordance with their potential to cause serious damage or place safeguards and security interests and activities at risk.

Four categories of security incidents have been established based on the relative severity of the incident. Each of the four categories is identified by an Impact Measurement Index (IMI) number, from most severe to least severe IMI-1, IMI-2, IMI-3, and IMI-4.

The four categories are further subdivided into

(Continued on page 5)

63 Sandians advance to “Senior” and “Distinguished” rank in tech, admin jobs

Sandia organization chart updated to reflect management changes over past year

(Continued on page 4)
What's what

After reading one of the recent long-lines-at-the-gates stories in the Sandia Daily News, Kelley Garcia (10861) observed: “Maybe if more people rode the bus or carpooled, the wait would be smaller.

“Maybe we could install an HOV [high-occupancy vehicle] lane.

“Maybe commuters could park in an off-base parking lot then catch a bus to the gate.

“Maybe people could find a job somewhere else.

“Heck, working here is a whole lot better than standing in an unemployment line!"

“Thanks! I feel much better now.”

Kelley may be wasting her time working as an electrical systems engineer. Maybe she should take up motivational speaking.

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This is not a Santa Fe joke. The Z wonks experimented with a new wrinkle recently. They added a crystal in the target area of the famed “arcs and sparks” machine and fired.

And, no. . . it didn’t throw off a hologram of Shirley MacLaine.

Find out what it did in Neal Singer’s story on page 1.

A recent report on the karaoke group’s farewell performance at the Coronado Club brought word from pretty-dang-good baritone Andy Bogulich (12342) that the group is now meeting in the Mountain View Club’s basement Ground Zero Lounge. If you don’t sing, he says, there’s a pool table, foosball table, well-stocked bar, food from the kitchen, and entertainment from those who do sing.

The group meets there every Thursday, 5:30-9:30 p.m.

Well, the election’s over and some of my candidates won, there’s no use crying over that.

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National laboratory women gather at LBL to explore employee pipeline issues

150 women from four labs meet in Laboratory Women's Forum

By Nancy Garcia

"Widening the winner's circle" is how Rep. Ellen Tauscher, D-Calif., described the way the US will retain dominance in the 21st century in her remarks at the third Laboratory Women's Forum, "Women of Influence at the National Laboratories.”

Convened at Lawrence Berkeley National Laboratory (LBL) last month, the forum was attended by more than 150 participants from Sandia, Lawrence Livermore, Los Alamos, and Lawrence Berkeley National Laboratories.

Richard Nolan, director of the Berkeley Site Office of DOE’s Office of Science, echoed Tauscher’s message. Attracting and retaining talent, he said, is of critical importance to DOE and to the world because under-utilization of women seriously impinges on the security needs of the nation. "It’s clear we need you," he said, "to lead us forward into the 21st century."

Women in science/technology

Although women represent about half the workforce, they accounted for only 19 percent of the science and technology sector in 1991, and 26 percent in 2003, he said, although that sector was growing more quickly than the rest of the workforce.

Tauscher experienced changing opportunities when she was one of the first women to join the New York Stock exchange after graduating from college in 1974. "Globalism hit financial markets before any other business," she said. "They needed people and talent. This was the wave of the future."

Tauscher inspired the first forum by asking laboratory women in Livermore to contribute ideas to the Commission on the Advancement of Women and Minorities in Science, Engineering, and Technology Development. Held in San Francisco in 2000, it resulted in policy recommendations regarding recruitment, recognition, workplace flexibility, and the image of women in technical fields. Two of the recommendations were forwarded to the National Academy of Sciences Commission on Women in Science and Engineering," said Jane Ann Lamph (8755), who recapped Tauscher’s message.

She said, "and our work is to build a ladder for them to places we couldn’t go. Unless we make this part of our own personal agenda, we cannot make sure this will be done. We will find the way, because we are meant to do it. It is for our legacy that they will work."
Real 'crystal power'

Expanding on work by Sergei Pikuz and Tanya Shekovenko of the Lebedev Institute in Moscow and Cornell mentor David Hammer, who each have published research on smaller machines, Dan realized that while the Z machine released huge energies in nanoseconds, it did so in a wide frequency band. He imagined shining X-rays generated by a relatively weak but single-frequency laser beam through the wire array as it crumbled. The image generated would be reflected by a crystal functioning in only that same frequency, spatially curved for better focus on a carefully placed external detector. Almost all of Z’s energies would be eliminated because they would not be reflected by the crystal — as eerie a phenomenon as vampire images absent in horror-movie mirrors — leaving the laser-generated image . . . unblotched.

Almost all of Z’s energies would be eliminated because they would not be reflected by the crystal — as eerie a phenomenon as vampire images absent in horror-movie mirrors — leaving the laser-generated image . . . unblotched.

A Sandia-developed decontamination foam used in the past to kill anthrax is now being studied for medical purposes came about because of new funding from outside sources, Anup said. It requires everyone to pull together. "Until our work, virtually every diagnostic on the Z facility simply measured the luminous self-emission from the Z pinch mass as it assembled on-axis and radiated," says Dan. "We have been able to observe plasma stages at any point in the process, not just the final stage when the

A grain of sand in a sand pile

The images provide quantifiable information about where the plasma mass is located, whether instabilities exist at any moment, what the wavelength and amplitude of such instabilities are, and where these instabilities are spatially correlated over large distances.

A Sandia-developed decontamination foam was presented at a poster session. The second interface she said is occurring between various Sandia organizations, while the third involves Sandia’s partnering with outside organizations.

"It’s interfacing science, technology, and engineering," she said. "Sandia is choosing the science problems we attack with national security in mind. We may see results of this work decades in the future."

The final interfaces she noted are between disciplines — bio, micro, nano — and between various funding agencies.

Bioscience at Sandia

In the late 1990s Sandia began to expand its work in biotechnology to enable the Labs to have an even greater impact on protecting national security by participating in efforts to counter bioterrorism and biowarfare. While Sandia had pursued some biotech research for more than 10 years, no concerted effort existed prior to this time to use this technology in a systematic way. Laboratory management created a Biotech Science & Technology Council to lead Sandia’s efforts in this area and formed several new departments to focus on biotech research efforts. Sandia researchers are participating in these research efforts, applying expertise, techniques, and equipment initially developed for physical, chemical, and material sciences bioscience problems ranging from studying protein interactions to improving microfluidic devices for detecting chemical and biological warfare agents.
Security

(Continued from page 1)

specific subcategories based on the security topical areas of physical security, protective forces, information security, personnel security, and nuclear material control and accountability. Violations of security policy identified within the IMI will — in most cases — result in the issuance of an infraction, Michael adds.

When an incident of security concern is reported, members of Dept. 4215 conduct inquiries. The inquiry official then has 24 hours to examine and document all pertinent facts and circumstances to determine whether the incident is reportable to DOE. During this 24-hour period, the suspected incident must be categorized by an IMI number. If it is determined that a reportable incident of security concern did not occur, then no further action is usually required.

However, management may still be required to submit corrective actions or a root cause analysis if the preliminary inquiry revealed process or procedural deficiencies within the organization. This analysis must determine which systems/functions performed correctly or failed to perform as designed and establish a basis for implementing corrective actions. The inquiry process includes interviewing all people having an interest or knowledge of the incident, including staff members, managers, directors, and vice presidents, if necessary. Once the inquiry is completed, inquiry officials will forward reports to appropriate management for action and to the Office of Security. The manager is responsible for

Michael Schaller back to his roots

Michael Schaller, Team Lead for the new Dept. 4215, says conducting investigations (DOE uses the word inquiries because one is generally not dealing with criminal investigations) is his background. He has 25 years of experience in law enforcement. He retired from the Albuquerque Police Department after 20 years where for 14 years he led homicide investigations and spent four years conducting internal investigations. After his retirement, he joined the DOE Central Training Academy for two years and then served as the deputy manager of Sandia’s Protective Force for 19 months.

Examples of Impact Measurement Index

Here are examples of the various Impact Measurement Indexes as listed in DOE Order 471.4. Violations of these may result in security infractions.

IMI-1 (the most severe)
- Confirmed or suspected loss, theft, or diversion of a nuclear device or component.
- Confirmed or suspected loss, theft, diversion, or unauthorized disclosure of weapon data.
- Confirmed or suspected loss, theft, diversion, unauthorized disclosure of Top Secret information, Special Access Program information, or Sensitive Compartmented Information, regardless of the medium, method, or action resulting in the incident.
- Instances of malicious code that allow unauthorized or undetected access to information systems containing classified information (Top Secret, Confidential, Special Access Program, or Sensitive Compartmented Information).

IMI-2
- Suspected loss, theft, or diversion of any radioactive material not categorized as special nuclear materials or dangerous materials that could pose a health threat or endanger security.
- Confirmed or suspected intrusions, hacking, or break-ins into DOE computer systems containing secret or confidential classified information.
- Loss of classified information that must be reported to other government agencies or foreign organizations.
- Detection of activities involving individuals who have been confirmed as physically watching/casing/autmenting a site in an effort to gather information to aid in the conduct of a terrorist-type attack.

IMI-3
- Bomb-related incidents at any DOE facility, including location of a suspected device.
- Confirmed or suspected unauthorized disclosure, loss, or potential loss of confidential matter by any medium, method, or action.
- Physical violence or threat of retaliation against facility security personnel.
- Intrusion attempts into information systems containing classified information.

IMI-4
- Unauthorized cellular phones and personal digital assistants introduced into a limited area, protected area, or material access area, where there is no potential for compromise of classified or sensitive information.
- Loss of security badges in excess of five percent of total issued during one calendar year.
- Failure to establish procedures contributing to the misuse or misprocessing of or failure to maintain security badges and passes.
- Peaceful demonstrations or protests that do not threaten facility or site security interests or activities.

Look familiar? KAFB traffic delays persist

TRAFFIC DELAYS at the KAFB gates serving Sandia have become more protracted in recent weeks due to heightened security concerns, more rigorous screening by base and Labs security personnel, and some KAFB personnel shortages. This was the view approaching the Wyoming Gate one morning last week. (Photo by Randy Montoya)
63 Sandians move into Distinguished, Senior ranks
Divisions announce DMTS, DMLS, DTNG, DASA, Sr. Scientist/Engineer appointments

Sandia’s special appointments — 63 individuals are so honored this year — represent employees from all areas of the Labs’ operations: Senior Scientist/Engineers, Distinguished Members of Technical Staff, Distinguished Members of Laboratory Staff, Distinguished Technologists, and Distinguished Administrative Staff Associates.

According to Corporate Process requirement documents, “Placement in the Distinguished Level signifies a promotion to the highest level of the Technical Staff, Laboratory Staff, Technologist, or Administrative Staff Associate Ladder. This level is different from the other levels in that it is subject to a 10 percent population limitation to preserve the distinction of the level.” Traditionally, one of the Labs’ key “total rewards” incentives has been the quality of the folks who work here. Being able to offer prospective employees the opportunity to work with the most highly regarded people in their fields is a powerful recruiting tool. The individuals pictured here represent the world-class quality of the Labs workforce at its best.

Employees selected for the new levels have been recognized with a special plaque and a nonbase salary award, in addition to this special mention in the Lab News. The Distinguished and Senior levels are part and parcel of the Integrated Job Structure (IJ)’s goal of providing multiple career paths for employees. The IJS’s dual-track structure — management and staff — makes it possible for employees to advance in salary, prestige, and recognition without following a management track.

As has been its tradition for many years, the Lab News presents photographs of Sandians who have received special appointments this year.

Not pictured:
Leonard Connell (9745), DMTS; Fernando Dominguez (4213), DTNG; Tammy Henson (5712), DMTS; Thomas Grasser (9112), DMTS; William Hart (9215), DMTS; Patrick Knupp (9256), DMTS; Daniel Kral (5733), DMTS; Dillon McDaniel (1640), Sr. Sci/Eng; Helen Quintana (2122), DASA; Daniel Segelman (9124), DMTS; Joe Siemers (5620), DMTS; John Torczyński (9113), DMTS; Charlene Wulf (12801), Sr. Sci/Eng and Christopher Young (5533), DMTS.

<table>
<thead>
<tr>
<th>Distinguished Member of Technical Staff (DMTS)</th>
<th>Nature of Work and Technical Expertise</th>
<th>Exercise Discretion/Direction Received</th>
<th>Creativity</th>
<th>Responsibility for External Contacts</th>
<th>Sphere of Influence/Potential Impact on Organizations</th>
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<tr>
<td>Utilizes advanced concepts spanning several specialized disciplines or comprehensive knowledge of one field. Conducts innovative engineering studies or scientific research. Advice is sought throughout the company; is recognized as an expert in professional field.</td>
<td>Work is conducted under consultative direction rather than by formal review.</td>
<td>Expected to develop new methods/processes as a result of identifying new perspectives and approaches in solving complex problems.</td>
<td>Is the program, project, or subject Principal Investigator with the sponsor/customer? As appropriate, expected to serve on committees of technical societies.</td>
<td>Leads or changes a knowledge area through developing new concepts, redirecting an approach, or redefining customer requirements that impact organizational operations or directions.</td>
<td></td>
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</tbody>
</table>

DMTS — Distinguished Member of Technical Staff
DMLS — Distinguished Member of Laboratory Staff
DASA — Distinguished Administrative Staff Associate
DTNG — Distinguished Technologist
Sr. Sci/Eng — Senior Scientist/Engineer

Photos by Bill Doty (N.M.) and Bud Pelletier (Calif.)
63 Sandians move into Distinguished, Senior ranks
Divisions announce DMTS, DMLS, DTNG, DASA, Sr. Scientist/Engineer appointments

DMTS — Distinguished Member of Technical Staff
DMLS — Distinguished Member of Laboratory Staff
DASA — Distinguished Administrative Staff Associate
DTNG — Distinguished Technologist
Sr. Sci/Eng — Senior Scientist/Engineer
Sandia’s Mentor Protégé Program helps small businesses strengthen supplier capabilities

Program begins recruiting new participants for fourth year

By Michael Padilla

Building on capabilities of small businesses to become better suppliers and create a positive economic impact in the region, Sandia’s Mentor Protégé Program (MPP) is beginning its recruitment process for next year.

A series of presentations have been scheduled this month and next to highlight participants’ technical capabilities, says Corina Gallegos (1302), program manager for Small Business Development.

“The presentations are a great way for participants to showcase their accomplishments,” says Corina.

The presentations are intended for both internal Sandia line and procurement staff and to external companies and organizations, including various companies and industries that may have an interest in the services/technology being presented.

The presentations also help generate ideas for new companies and mentors, says Corina, adding that companies and mentors are nominated then selected through a review process.

MPP, sponsored by Sandia’s Office of Advocacy and Small Business Development in collaboration with Sandia Supplier Information and Relations, is designed to help small businesses in New Mexico, Arizona, Colorado, Utah, Texas, and Nevada.

Boosts region’s economy

It features a one-year program with a second-year option including 12 full months of assisted business development. Teams establish a minimum of two goals, meet once a month, submit development reports, and attend four events a year.

Mentors consist of Sandia employees, and large and small suppliers. Protégés are small businesses in the region with a practice or process needing improvement.

Corina says there are numerous benefits to all program participants. Protégés help strengthen business practices and create awareness within Sandia and the community. Mentors assist with locating and evaluating potential teaming partners and have the chance to directly impact the quality and development of suppliers and businesses.

Vic Chavez (1302), Office of Advocacy and Small Business Development Manager, says the program boosts the region’s economy and helps foster a positive working environment among small businesses.

Vic says the program has been recognized nationally and continues to grow. Within the last three years, the program has had 35 mentors and protégés, 11 alumni, 14 business service advisors.

“The program is the only one of its kind in the country,” Vic says.

Bob Sachs from TEAM Specialty Products (TSP), a mentor in the program for two years, says as a Sandia “Strategic Partner,” TSP finds it important to give something back to the partnership because this is the essence of a true partnership.

“The highlight of the program was when we teamed with our protégé Reytek Corporation to win a contract to design and build a high-voltage measurement system for the Primary Standards Lab at Sandia.”

Employee death

Theresa Broyles of Explosive Technologies/Diagnostic Dept., 2554, died Oct. 28 after an illness. She was 47 years old.

Theresa was a technologist and had been with Sandia for five years. She is survived by her husband, Robin Broyles; daughter, Leslie Broyles; and sons, Kenneth and Marshall Broyles.

"The highlight of the program was when we teamed with our protégé Reytek Corporation to win a contract to design and build a high-voltage measurement system for the Primary Standards Lab at Sandia.”

Open Enrollment notices will be sent out later this month

Confirmations

Now that the Open Enrollment period has ended, the Benefits Department will mail Benefits Confirmation Statements to the home addresses of all employees and retirees. The statements will go out by the last week in November, regardless whether any elections or changes were made during Open Enrollment. Each employee statement will list the Sandian’s coverage for medical and dental plans and Voluntary Group Accident plan as of Jan. 1, 2005, and any elections made under the Reimbursement Spending Accounts and Vacation Buy plan for the 2005 calendar year. Please review your Benefits Confirmation Statement immediately and notify the Benefits Customer Service Center at 845-2363 if your statement is incorrect.

Paycheck Deductions

Employees: Your new premium share amounts for medical coverage will begin with your Jan. 13, 2005, paycheck.

Payroll deductions for those employees who enrolled in the Reimbursement Spending Accounts (RSA) and/or Vacation Buy Plan for 2005 will begin with the Jan. 13, 2005, paycheck.

If you are a new enrollee or have changed plan coverage under the Voluntary Group Accident Plan, your payroll deduction will begin with your Dec. 13, 2004, paycheck.

Retirees: If you are paying a premium share for medical coverage, your new premium amount, if applicable, will be deducted from your pension check beginning in January 2005.

Appeals: If you want to request an exception relating to the 2005 enrollment process, you must send a written appeal to the Open Enrollment Appeal Committee in the Benefits Department at MS 1022, P.O. Box 5800, Albuquerque, NM 87185-1022. Appeals must be received no later than Dec. 10, 2004.

Sandians support troops with ‘Care Packages’

For information on the presentations or the program, contact the Mentor Protégé Program office at 284-9012 or visit www.sandia.gov/busops/partnership/sbp/MP/content.
November 2004
Sandia's senior management team and organizational structure have undergone significant changes since the last time we published the Sandia org chart in September 2003. Notable changes include new VPs for Division 6000 (Larry Shephard replaces retiring Bob Egbert) and Division 3000 (Kimberly Adams replaces retiring VP Larry Cleveinger effective Nov. 29). There are dozens of changes at the Center level. An improvement this time that the VP Divisions are now arranged in numerical order.

November 8, 2004
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DOE awards Battelle Energy Alliance contract to run newly named Idaho National Laboratory

Secretary of Energy Spencer Abraham announced Tuesday (Nov. 9) that DOE has selected the Battelle Energy Alliance, LLC (BEA) to establish the Idaho National Laboratory (INL) as “the nation’s premier laboratory for nuclear energy research, development, demonstration, and education within a decade.”

The Idaho National Laboratory will combine the research and development components of the Idaho National Engineering and Environmental Laboratory and Argonne National Laboratory.

The Idaho National Laboratory will begin operating under this new name and contract on Feb. 1, 2005. The term of the contract is 10 years. BEA, owned by Battelle Memorial Institute, teamed with several institutions, including Battelle Memorial Institute, BWXT Services Inc., Washington Group International, the Electric Power Research Institute and the Massachusetts Institute of Technology.

“We are very pleased . . .,” Abraham said. “The Battelle team brings an outstanding reputation, an excellent plan and a superior management team that will make the INL a world-class multidisciplinary laboratory. This new laboratory was the missing element in our strategy to provide long-term energy security for the nation.

“We needed a laboratory that can work with the other labs in our complex, academia, and industry to advance nuclear power technology and create an entirely new type of nuclear energy plant for the longer term future.”

Feedback

Labs approves Mozilla as a COE browser

Q: We need a new browser for lots of reasons: 1) Netscape is years out of date for Mac, and the CCHD has stopped supporting it. (http://www-irn.sandia.gov/ orgsys/4000/chd/leaves/browsercr4000.htm) 2) Pop-up blocking & tabbed browsing.

Someone submitted a Feedback in February 2003 complaining about the Netscape browser on the UNIX side. The decision was made that summer to standardize on Mozilla, and the announcement was made in September of last year. CU Special Projects had already picked Mozilla for you, since in the spring of 2003 they released the Redhat 9 COE with Mozilla as the standard browser. Netscape was nowhere to be seen.

The only problem with this is that Mozilla is not “officially supported” yet, and the Timecard application likes to reach the hour that you change to your projects. How many years does it take to update the Timecard application? Somebody’s been dragging their feet.

The problem is not going to go away, it’s just getting worse. Microsoft no longer supports IE for Mac users, Sandia still “officially” supports it, but just don’t use it on parts of our internal network (See the web link above).

The previous Feedbacks on pop-up blocking are way off the mark. It works great in Mozilla and Firebird. We don’t disable it, and it is configurable. I know several PC users who who have switched from IE just for these reasons. The tabbed browsing is also a great feature.

It’s time to roll out the new Mozilla browser for the UNIX side, and you need to make a decision on a Mac browser ASAP. Otherwise your Mac users will pick different browsers on their own.

A: Because the Web plays such a critical role at Sandia and because so many groups are involved in a change to the browser environment (Web page developers, Web application developers, computer security, SWIFT, Tech Dev, CSIs, CCHD, and all end users) changes to the browser environment are done very infrequently in order to minimize the impact on everyone.

In point of fact, the current situation demands a browser change. In order to ensure all affected parties have a voice in the decision process, the Technology Infusion Team (TIP) to recommend the COE browser for all supported operating systems at Sandia has just been completed. The topic was heavily debated by domain experts and interested parties, with a final decision coming out of the Operations Planning and Action Group (OPAG).

The OPAG decision is Mozilla will be the default COE browser for UNIX, Mac, and Mac platforms. In addition, the OPAG approved deployment of an option whereby users can self select to download their own Web browsers to their Windows machines, from an internal source, in the event of an emergency MSIE shutdown.

Implementation of the browser decision outlined above is currently underway. Until the browser migration is complete, CCHD will continue to support IE on the Mac as best they can, given that the vendor no longer supports IE on the Mac.

— Don Schroeder (9620)

Q: When will the city widen Southern Blvd. eastbound from Eubank to Juan Tabo to two lanes all the way? Why all the growth in this area, this should have been done long ago.

A: The City of Albuquerque has no immediate plans to widen Southern Blvd. between Juan Tabo and Eubank. Parts of Southern Blvd. are being improved in conjunction with adjacent development through an “exaction” process. An exaction process is where the city or other government agency may require a developer to improve roads and other infrastructure because of the development activities. The remainder will be constructed when there is sufficient funding and when several environmental issues have been resolved. You may find more information from the city by accessing the Traffic Safety Committee Home Page http://www-irn.sandia.gov/facilities/ esd/traffic.htm and clicking on the “City of Alb. Traffic” link.

— Ed Williams (10864)

Q: I have noticed items that would be valuable to me, thrown out in construction dumpsters around the tech area. These are the type of containers that are brought in to an area close to the construction site where drywall and other types of construction rubbish are placed. The items I have seen are old rotary telephones, small electronic items, like vintage 1970 motion sensors, and door hardware. Clearly, items that Sandia places no value on.

A: The policy of employees removing items that are in clear view, at the top of the dumpster and do not require digging in the dumpster? Also, would it be permissible to take the items home? If I was able to ask the construction worker for the items, before the rubbish was tossed in the dumpster, would I be allowed to take them home? After all, the items are going to the landfill and not property reapplication.

— Don Schroeder (10720)

Q: I agree there are many interesting items placed in dumpsters during clean up and construction and it is tempting to take them home. Don’t all items in the dumpsters are government property and is a violation of our ethics and principles. In addition, construction contractors are never authorized to dispose of material by giving it to private parties and are only rarely allowed to salvage some material on a contract specific basis.


— Ed Williams (10864)
This column highlights Sandia Lab News items from 50, 40, 30, 20, and 10 years ago, but each column does not necessarily include items from each decade.

50 years ago... Computers were already in use at Sandia. According to the Nov. 5, 1954, issue, a new “electronic genius,” the General Purpose Automatic Digital Computer, was being used exclusively for research by Sandia mathematicians, providing answers “via a special typewriter — somewhat like an old-time player piano.” And it didn’t care for human errors in programming or command. If such errors were introduced, the story said, “the magic brain sort of ‘flips its lid’ with a flash of lights and a rush of incoherent numbers onto the typewriter paper.”

40 years ago... The Nov. 6, 1964, Lab News announced that the Defense Department’s Advanced Research Projects Agency had authorized Sandia to design, build, and test a prototype land-based Unmanned Seismological Observatory, further involving Sandia in remote detection, verification, and nonproliferation R&D activities. The new detection work followed outstanding success of the Vela Detection Satellite program, a joint Sandia/Los Alamos military program for detecting and destroying intercontinental ballistic missiles. Gerry had directed Sandia’s Pulsed Power Sciences program before taking the SDIO post. He returned to Sandia several years later and is now the Labs’ principal scientist and VP and leads the Advanced Concepts Group.

30 years ago... A Nov. 1, 1974, special issue was published celebrating Sandia’s 25th anniversary. It included a replica of the letter from President Harry Truman to AT&T President LeRoy Wilson asking AT&T to direct Sandia’s operations. The letter contains the now celebrated sentence, “In my opinion you have here an opportunity to render an exceptional service in the national interest.” All was not well, however, during the Labs’ 25th anniversary year. The next regular Lab News on Nov. 8 announced that a special early retirement incentive was being offered to selected staff employees because Sandia was facing “substantial reductions in funding for FY ’75.” Eligible employees could collect a special allowance of one year’s salary in addition to their regular pension by retiring during the following month.

20 years ago... A full page interview in the Nov. 9, 1984, issue with Gerry Yonas, then Strategic Defense Initiative Office (SDIO) Chief Scientist, emphasized the huge technical challenges and political considerations that the US was facing as it began serious efforts to develop a strategic missile defense system for detecting and destroying intercontinental ballistic missiles. Gerry had directed Sandia’s Pulsed Power Sciences program before taking the SDIO post. He returned to Sandia several years later and is now the Labs’ principal scientist and VP and leads the Advanced Concepts Group.

10 years ago... Sandia’s 10 user facilities that the Labs had opened for collaborative research with US industry and universities were featured in the Nov. 11, 1994, issue. The story noted that the Combustion Research Facility at Sandia/California was the Labs’ first user facility and that Sandia was quickly opening more. Today Sandia has nearly two dozen such facilities; see http://www.sandia.gov/busops/partnerships/tech-access/facilities/index.html.

— Larry Perine

MatHEMATICIAN Dale Young enters data into the General Purpose Automatic Digital Computer in 1954.

CHIEF SCIENTIST Gerry Yonas discusses his new post with the Strategic Defense Initiative Office in 1984.

DIGGING IN — Volunteers from Sandia, KAFB, and AFOTEC helped landscape the Habitat for Humanity Habitat Park in the La Vida neighborhood at 46th Street and Central SW in Albuquerque for Make a Difference Day. Sandia paid for the plants and trees. The volunteers were led by project manager Dale Leonard. Amy Faucett (7107) designed the park.

(Photoby Bill Doty)

In celebration — A Nov. 1, 1974, special issue of the Lab News celebrating Sandia’s 25th anniversary carried the famous Truman letter.