Recycling concrete
When a building comes down at Sandia, what happens to all the concrete and other materials? Under the Labs’ P2 pollution prevention program, most of the building materials are recycled, often to be reused right on site. Photos on page 6.

Remembering 9/11
Archie Koenemund (4849) was a member of the New York Fire Department on Sept. 11, 2001. For most of us, 9/11 is a historical event that even now is receding into the past. For Archie, every day is 9/11. Read his story on page 8.

Paul Hommert on homeland security
Div. 8000 VP Paul Hommert, who heads Sandia’s Homeland Security and Defense SMU, shares his views on national homeland security priorities. Story on page 3.

Sandia/ LANL researchers quietly aided DHS in 2007 Minneapolis bridge disaster
When catastrophe occurs, government decision makers need immediate information on the scope of damage to determine the proper remedies. After the Minneapolis bridge disaster of Aug. 1, 2007, damage mitigation decisions were made easier for the Department of Homeland Security by the work of NISAC — the National Infrastructure Simulation and Analysis Center. NISAC researchers from Sandia and Los Alamos national labs provided information within a day to help DHS decision makers put in perspective the economic and security consequences of the tragic event.

“NISAC staff create computer models and perform analyses using data from public and other sources,” says NISAC technical lead Theresa Brown (6321). “In this case, we used publicly available data on traffic flows and commodity transport in the area of the collapsed bridge.”

While studies from NISAC are provided to some policy makers on a regular basis, others studies — like the one on the failed bridge — are tied to the immediate impacts of a one-time event.

The NISAC study found that disruptions to key societal components were likely to be minimal. These included emergency transport to hospitals, food and oil flow, and educational sites.

NISAC is composed of approximately 90 scientists, who participate on a part-time basis from Sandia and Los Alamos national laboratories and from DHS. NISAC studies are distributed through the National Incident Command Center to response and recovery groups.
That's that

Corporateaviator Myra O'Ganna has helped us out at the Lab Now I don't know how many times over the years. Whenever we find ourselves needing to know about something that happened at Sandia 30, 40, or 50 years ago, we call Myra. She always seems to know just what to come up with. A few weeks ago, I asked Myra for some help tracking down that green chile stew recipe* I mentioned in this column, the recipe Chef Hank Perez used to such magical effect in that miraculous Coronado Club concoction.

In the course of her search, Myra came across an item in Sandia's archive collection that she thought I might be interested in. It's a cookbook published in 1954 by the Sandia Base Woman's Club, whose members included members of both Air Force and Sandia Corp. personnel. The cookbook, called Karetic Secrets, offers a window on a world now long gone. A better world! I don't know that I'd say that, but it sure was different. (For one thing, there's not even a green chile stew recipe in the book!)

The cookbook was supported by advertisers, dozens of advertisers, optimistic folks who stepped to the plate to support the Sandia Base Woman's Club (all the proceeds from the cookbook went to charity). Those businesses, they're almost all gone now, replaced by other businesses run by other optimistic folks.

Albuquerque has changed so much in 50 years. America has changed. Sandia has certainly changed. We didn't vote for it, nobody asked us about it. That's the thing about change: it just happens. It happens even when we don't want it to and wish it didn't. And it happens right under our noses, before our very eyes.

... Still, some things at Sandia don't change. Though our forebears at this laboratory might have known on "tuna, spaghetti, and cheese casserole" (from Karetic Secrets) they shared a trait that stays with us to this day: They were deeply involved in their community. More than five decades ago, we know, the employees Caring, Program, or ECP. Today, 50 years on, we're still at it, donating millions of dollars to worthy charitable causes, contributing thousands upon hours dedicated to the betterment of the community. That's just Sandia culture.

And speaking of our culture, here's something you don't find everyday: People asking to give money back. You know that settlement we reached with the Department of Labor? The one under which some 2,600 nonexempt employees (those paid by the hour and eligible for overtime pay) are getting checks? It's all related to the way Sandia documented hours worked under the 9/80 schedule. There's no suggestion in the settlement that anyone was underpaid, by the way. You can read the details in the story beginning on page 1.

More than a few eligible Sandians, commenting in the Lab News Interactive internal only website and elsewhere, say they don't want the money they've been compensated appropriately for every hour they've worked. Some say they'd like to refuse the money, some say they intend to donate the money to charity. Whatever. That's a personal decision, and Sandia has absolutely not suggested that people shouldn't accept the check or that to do so would reflect badly on them.

*Since a number of folks have asked, here's Chef Hank Perez's green chile stew recipe: Cut beef into cubes, put green chile in the pot with the beef, add water with beef base and cook until ready. Add already cooked beans and potato stew recipe: Cut beef into cubes, put green chile in the pot with the beef, add water with beef base and cook until ready. Add already cooked beans and potato cubes, garlic, cumin, onion powder, and cilantro (oil is best; use fresh if the water with beef base and cook until ready. Add already cooked beans and potato cubes, garlic, cumin, onion powder, and cilantro (oil is best; use fresh if the...
Winning the 'long war' against terror through long-term R&D diligence

Note: This opinion piece written by Div. 8000 VP Paul Hommert has been submitted for external publication to HSToday, a homeland security trade publication.

The events of Sept. 11, 2001, created a sense of urgency and immediacy in this nation not seen since the early days of the Cold War. Various sectors — including private industry, national laboratories, government, and academia — responded and have done a great deal to now position our country to better protect the nation. Airports are much stricter than they once were. Security at our ports and borders has been bolstered. Advances in technology have helped detect and deter terrorism and responding to terrorist attacks through real-time, noninvasive drug remedies in real-time, noninvasive mass spectrometry (MS) and produce drug remedies in real-time, noninvasive drug remedies in real-time.

We should not forget, however, that the last two terrorist attacks against the United States occurred within the first year of a new administration. So it is not unreasonable to suggest, as some already have, that al Qaeda is devising its next attack now, at the time when homeland security is not as prominent on our national radar screen.

When considering a long-term commitment to homeland security and R&D, it helps to recall the role that nuclear weapons have played in the national security of this country. Since 1945, this nation has successfully developed and maintained a deterrent that has served as the backbone of our military arsenal. Technological superiority with long-term investment played a critical role in winning the Cold War. Similarly, winning the "Long War" — combating the potential use of weapons of mass destruction (WMD) by terrorists — requires a comparable level of diligence and enduring vigilance. Breakthrough technologies and resilience both played important roles during the Cold War and continued to do so through today's Long War. During the Cold War, the nation faced the challenge of being resilient against possible nuclear attack, with the populace aware of, and participating in, air raid drills. While we don't wish to return to that environment, our societal preparedness in recovering from a WMD event is of great importance.

Science and technology advances can be critical enablers of deterrence and resiliency. One can imagine some "grand challenge" research success that would have immense impact — such as the ability to remotely detect special nuclear materials, detect biological threats and produce drug remedies in real-time, noninvasively determine the intent of terrorists, or thwart cyber threats by creating trusted networks using untrusted components. What we are able to do in the first hours of an attack makes an enormous difference in the consequences to our nation.

These are "game-changing" homeland-security capabilities. For any of these to have a chance at becoming a reality the following needs to take place:

- We must establish a relevant risk-based, long-term national strategy and investment in homeland security R&D.
- We must maintain national vigilance to address high-consequence, low-probability threats posed by WMD.
- We must ensure societal resiliency to future attacks by addressing response and recovery levels and use.
- We must encourage the use of systems analysis tools and methodologies to guide development and engineering solutions that operate effectively in complex and dynamic conditions.
- We must devise processes to transition promising R&D concepts into operation and use by first responders.

This is why, finally, we must perform a comprehensive review of different governance structures to determine the best ways to integrate the national R&D community — academia, industry, and national labs. A successful war on terror and WMD will require a thorough and enduring effort, one that can be expected to last for decades. The need for vigilance and dedication to homeland security R&D is essential.

This is why, finally, we must perform a comprehensive review of different governance structures to determine the best ways to integrate the national R&D community — academia, industry, and national labs. A successful war on terror and WMD will require a thorough and enduring effort, one that can be expected to last for decades. The need for vigilance and dedication to homeland security R&D is essential.

Pollard's arrest, played a key role in the spy's takedown. Of convicted Israeli spy Jonathan Pollard. Olive, the agent in charge of counterintelligence for the Naval Criminal Investigative Service at the time of Pollard's arrest, played a key role in the spy's takedown. He tells the story in his 2006 book about the case, Capturing Jonathan Pollard: How One of the Most Notorious National Security Rivals of the Cold War Escaped Justice.

Spies in American History Was Brought to Justice

Pollard was a civilian analyst for the US Navy from September 1979 until his arrest in November 1985. In his talk, Olive described the first time he met Pollard, the reports of suspicious activity. An investigation began a few days later. Olive described how Pollard brought suitcases of documents to transport TS and secret compartmentalized information without being searched. After much anguish, the coworker reported the suspicious activity. Olive realized that he had no idea who he was dealing with. He then applied to be a naval defense intelligence analyst. When contacted during the Navy's background check, the CIA claimed no knowledge of Pollard. Olive was the start of the biggest breakdown in the history of American espionage," said Olive. "The CIA misunderstood the policy and thought that it would be a violation of Pollard's security clearance to share the fact that they had rejected him and why."

The roller coaster of pretrial notification continued. Olive described Pollard's attempt to start a back channel collection operation in South Africa, and cowokers' reactions to him. "Half of the people thought he was a wacko and the other half thought he was the best analyst they'd ever seen," Olive said.

Pollard's security clearance was downgraded but later restored, and he was promoted repeatedly. As his security clearance was upgraded, his ability to access the intelligence declined. He also received a courser card, allowing him to transport TS and secret compartmentalized information (SCI) without being searched.

Contacted Israeli officer

Olive shared a story of a colleague who scheduled an interview with Pollard for an internal position. Pollard showed up late for the interview, looking dirty and disheveled. His excuse for his tardiness and appearance was that his wife had been kidnapped by the Israeli Republican Army and he'd been negotiating her release all weekend. Olive said that while the colleague did not believe this story, he also did not report Pollard's behavior to anyone.

In June 1984, Pollard contacted an Israeli colonel and began giving US secrets to the Israeli government. Olive described how Pollard brought suitcases of documents to drop-off locations and removed 15 to 20 boxes of TS/SCI from his office at a time.

In the summer of 1985, Olive transferred to the Washington field office as the agent in charge of counterintelligence for the Naval Criminal Investigative Service. On Aug. 11, a coworker saw Pollard carry two clas-sified envelopes into a car driven by his wife. The coworker stopped the car and told Pollard that he had planned to shred the envelopes for containing weapons of mass destruction. After much anguish, the coworker reported the suspicious activity. An investigation began a few days later. Video surveillance conducted in Pollard's workplace showed him emptying files from his desk into a briefcase. Olive shared a clip of this video and audio testimony from the coworker who reported him. (Continued on next page)
DOL settlement
(Continued from page 1)

Individual check amounts vary for each nonexempt employee based on criteria and a formula provided by the DOL. The formula takes into account each person’s history of participation in the 9/80 schedule during the settlement period. Payment amounts range from $18 to $1,860 in California.

“Sandia believes that its employees have been fully and fairly compensated for overtime hours worked and that the DOL findings are related to record-keeping deficiencies that have been corrected.”

— HR and Communications VP John Slipke

“Sandia believes that its employees have been fully and fairly compensated for overtime hours worked and that the DOL findings are related to record-keeping deficiencies that have been corrected,” says John Slipke, VP for Human Resources and Communications Div. 3000. “Sandia’s policies clearly indicate when an employee should be paid for overtime and how employees appropriately record the hours they work.”

What the DOL investigation found

The DOL’s two-year-long investigation included an extensive review of Sandia’s timekeeping system and records, corporate policies, and employee payroll data, as well as interviewing both nonexempt employees and Sandia officials. The logic behind the negotiated settlement with DOL is complex.

Sandia’s 9/80 schedule allows nonexempt employees, with manager approval, to work 80 hours in nine work days over a two-week period, taking every other Friday as a day off. The 9/80 is a common and valued compressed work week.

To accommodate the 9/80 schedule and adhere to federal law and Sandia’s policies, Sandia’s timekeeping system was set up so that each work week begins and ends at midday Monday through Friday. Thus, each Friday straddles two work weeks. This ensures that each work week—midday Friday to midday Friday—is 40 hours of work with no matter which Friday is taken as a day off.

In reviewing Sandia’s record-keeping practices, however, the DOL could not find adequate documentation of a fixed midday because employees sometimes vary their Friday work hours. Without a fixed Friday midday, according to the DOL, it is difficult to demonstrate that a person who arrives at work early on a Friday morning (and also leaves early the same day), for example, can’t be due overtime for the week that ends at midday.

Sandia’s position is that its standard work week and compressed work week are clearly defined in its corporate policies, as are its processes specifying how Sandia recognizes and pays for overtime. Nonexempt employees are instructed to record all hours worked, and they are compensated for all overtime as reported on their approved timesheets. (Sandia’s policy can be found at www.im.sandia.gov/hr/policies/Benefits/Time.html.)

In May, as a DOL-approved solution, Sandia asked that managers meet with each nonexempt employee and agree on and document a consistent 9/80 schedule with a fixed midday, and to begin recording all data from that fixed schedule (Lab News, May 9, 2008). In addition, Sandia plans to introduce for nonexempt employees an improved schedule tracking system this month and a revised timesheet in January that will permanently correct the problem.

“The 9/80 option is a flexible work policy that many employees enjoy,” says John. “However, this investigation brings to light an opportunity to raise awareness of the policy’s requirements and ensure that all employees understand and follow them. That’s the best way to ensure that this option is available to all of us in the future.”

For details, see Sandia’s DOL settlement website at www.im.sandia.gov/settlement.

Capturing Pollard
(Continued from preceding page)

In another misstep in the case, the video surveillance was not monitored as it looked, Elfego said, to see what was being captured. On Nov. 18, 1985, Olive and colleagues interviewed a NNSA employee. Before the interview, Pollard called his wife and through a coded word (cactus plant) told her to clean out the apartment.

Her cleaning job was incomplete, however, as a permissive search of the apartment turned up 13 TS/SCI documents under the dirty laundry. He was asked to submit to a voluntary polygraph.

Stealing the most secrets

“Pollard told me that he could pass a polygraph if they only asked about the Soviet Union and Soviet bloc countries,” said Olive. “At this point we didn’t know who he was working for or to whom he was giving this information and who the guy was who he was giving this information to. Gradually it became apparent.”

Pollard eventually told Olive everything, except he said that he had given the information to a CBS reporter. On Nov. 21, 1985, he attempted to seek asylum in the Israeli Embassy, where he stayed for over two years. Pollard agreed to work with the government in assessing the damage. On June 4, 1986, he pleaded guilty to one count of conspiracy to deliver national defense information to a foreign government and was sentenced to life in prison, where he remains today. He could be released only by parole or through a presidential pardon.

Pollard has the distinction of stealing the most secrets and the most highly classified material in a single, uninterrupted period of time. According to Olive, it’s estimated that Pollard stole 360 cubic feet of material, which encompassed over one million classified documents.

One controversy of the Pollard case is that his sentence of life with a recommendation against parole is excessively severe, especially since he is accused of spying for an ally of the United States. In a November 2006 opinion piece entitled “Spying, Nothing New,” for The Jerusalem Post, Olive wrote that: “The judge sentenced Pollard to life in prison based on the magnitude of his crime and Pollard’s guilty plea. The espionage statutes do not differentiate between adversaries and allies. . . . No one in the history of the United States who spied for an ally or adversary came close to causing the colossal damage Pollard did to our national security, given the quantity and quality of information he took in just an 18-month period.”

While the Pollard case is now more than two decades old, Olive said it still has nightmares for everyone who works in national security.

“It’s everyone’s responsibility to report suspicious activity. Everyone involved still has nightmares over Jonathan Pollard,” he said. “The coworker who reported him, that guy is my hero. And to this day, no one, not even Jonathan Pollard, knows that person’s name.”
Microencapsulation project gives local entrepreneur warm glow

Cosmetics manufacturer works with Sandia under Small Business Assistance Program

By Bill Murphy

Microencapsulation isn’t a new technology, but it’s always finding new applications. Familiar uses include the scratch-and-sniff perfume ad in magazines, certain time-release pharmaceuticals, and (perhaps mostly for an older generation) carbonless copy paper. Now Sandia’s resident microencapsulation expert, Duane Schneider (Q453), is working with a local Albuquerque company to use microencapsulation technology in a novel self-warming hand and body lotion.

Microencapsulation, as its name suggests, is the creation of a tiny capsule (or, in practice, lots of tiny capsules), usually just microns in diameter, containing a particular material. In practice, microencapsulation entails placing a spherical shell composed of a synthetic or natural polymer completely around another chemical. That shell delays or slows the release of the core material. When the polymer shell dissolves or is ruptured by pressure, the material it encapsulates is released.

In addition to the familiar uses noted above, microcapsules have found uses in the pharmaceutical, agricultural, cosmetic, and food industries, and have been used to encapsulate oils, aqueous solutions, alcohols, and various solids.

Kevin Mallory, owner and president of Formulab, an Albuquerque-based contract manufacturer of materials, invited Mallory to come and observe the work in the Center for Integrated Nanotechnologies (CINT) facility on Eubank Boulevard, just outside the Eubank Gate. At CINT, Duane supports nanoscience research in the laboratory of Dale Huber (1132).

Mallory says his interaction with Sandia was invaluable. “This was like scratch course in microencapsulation; it really accelerated our learning curve. It helped us a tremendous amount,” he says.

Mallory characterizes the Sandia relationship as “absolutely fantastic,” and, speaking of the NMBA program says, “I’ve been thinking about how lucky I am to live in a community where this kind of help is available.”

Ultimately, the project ended on a positive note. “We were able to show that we could microencapsulate the materials,” Duane says, adding that a follow-on agreement with Formulab may involve looking at some alternative materials. “I think it’s fair to say,” Duane adds, “that [Kevin Mallory] found that what he was looking for wasn’t going to be as easy as he thought it might be but you can see now that it was doable.”

The Sandia-Formulab relationship was established to develop a proof of concept and that was done. Between that lab bench project and a commercial product there are still plenty of hurdles, but that’s the case with every product on the shelves. Kevin Mallory’s concept for a self-warming lotion is now one step closer to realization thanks in no small measure to the expertise of a Sandian who stepped to the plate years ago to fill a need when the Labs called.

Sandia MESA team wins NOVA award

The construction team responsible for completion of Sandia’s Microsystems and Engineering Sciences Applications (MESA) complex — three years ahead of schedule and $45 million under budget — was recognized with a NOVA award from Lockheed Martin at an Oct. 24 ceremony in Washington, D.C. The $538 million Sandia project is the largest federal investment in microsystem technologies and is the largest construction project ever undertaken by Sandia.

The team was selected “for implementing an essential capability at Sandia National Laboratories to meet the technology challenges associated with the US nuclear weapons mission.”

Sandia’s lead Bill Jenkins accepted the award for his group at the Smithsonian Institution’s National Air & Space Museum. The NOVA Awards represent Lockheed Martin’s highest honor, and are presented “to employees recognized as having outstanding contributions to business objectives.”

— Neal Singer

Team members:
Gilbert Aldaz
Ivory Alexander
Mateo Aragon
David Bailey
James Beals
Edward Sanchez
Karen Higgins
C. Bryan Drennan
Rhonda Dukes
Jon Eberhart
Karen Ritzi
Daniel Rensing
John Harding
Rick Hartzell
Ronald Jones
Karen Keyworth
Ernie Limon Jr.
William Kitzos
Lyle Lininger
Frank Martin
Krista Nuttall Smith
Jennifer Pummer
Edward Sanchez
Mark Schaefer
Andrew Zettler
When a building at Sandia comes down — like Bldg. 807, which came under the wrecker’s ball this year — most of the concrete and many of the other materials don’t go to a landfill. Thanks to efforts by the Labs’ P2 (pollution prevention) program, they are recycled, and in some cases, used right here at Sandia. As this sequence of photos indicates, concrete at a demolition site is broken up, sorted, fed into a grinding device, stored in a pile, and then used for roadway construction material around the site. Says P2 program lead Ralph Wrons, “Complete the loop, buy recycled!”
A big cloud was visible as Archie Koenemund (4849) and his firefighter comrades crossed the Brooklyn Bridge. It was Sept. 11, 2001.

The day had started like any other day for Archie. He dropped his son Jarrett at the subway station and went to teach a class to fire inspectors. Commotion from the hallway filled his classroom. A young man from the legal department was hysterical. Archie went to find out what was wrong. She told him about the twin towers. He left a student in charge of the class and dashed to his seventh-floor office.

Almost immediately, his boss tapped him on the shoulder and said, “Grab your gear and get on the bus!” Archie and 25 to 30 fire department personnel commandeered a city bus and proceeded to the World Trade Center site about two miles away.

Getting to the site was unbelievable. “People coming over the downtown area looked like they were coming over the Manhattan Bridge. It was Sept. 11, 2001,” says Archie.

A huge cloud of white dust was hovering over the downtown area. “We were all filled with disbelief,” he adds. “Over our radios we kept hearing, ‘Can’t find this crew, can’t find that crew, missing firefighters.’ They found Father Jarrett, the chaplain. My boss, Chief Barbosa, had not been found.

“A pile of debris three to four stories high was all that remained of one tower. Steel beams, crushed vehicles, concrete, building materials, and fires were visible; nothing else was definable.”

“My group began to clear an area for a command post where about 50 cars were burning,” he says. “Water was in short supply, but we managed to put out the burning vehicles. People were jumping. There was a lot of screaming, just mass confusion.”

Shortly after they arrived, the other tower came down. “We stood behind a bulldozer,” he says. “It was like a hundred freight trains roaring by. The pressure felt like a bomb had gone off. We were covered in a mass of dust and debris. It was as if darkness had set in.”

“A little while later they were assigned to the pile.”

As concerned as he was about saving people, at the back of his mind Archie was concerned for his son. Jarrett always stopped at the World Trade Center for breakfast, then walked to New York University. “I have no clue if he is alive or dead,” said Archie to his partner. “My son may be under all this. God forbid!”

“After regrouping and getting assigned to the pile, my group brought out a woman. She was alive,” continues Archie. “That gave us the rush that we needed to keep going.”

Later his team was pulled off the pile and told to go toward the river. Bldg. No. 7 was expected to come down. As they were heading up Chief Gancy’s body was brought out. “He was the chief of the department,” says Archie. “It had a profound effect on all of us.”

While regrouping after Bldg. No. 7’s collapse, Archie’s phone rang. It was Jarrett. He was alive and safe at home. He had witnessed both planes hit. After talking with Jarrett, Archie passed his phone to his group so they could call their families. “I don’t know why my phone worked,” says Archie. “Most of the cell service in the city was knocked out.”

Archie and his colleagues were ordered to go home, but nobody left. They kept digging. They wanted to find their friends and coworkers. “First responders from all over the East Coast began arriving,” says Archie. “Exhaustion finally took over and we went home.”

Leaving the site, it looked like the downtown area was bombed and strafed. “At headquarters, we were given bags to dispose of the clothes we were wearing,” says Archie. “They were not salvageable due to the contamination. No one really knew what was in the dust. It’s funny, isn’t it? We had to dispose of our clothing, but we wore paper masks that were useless for protection.”

“The area was worn in daylight. Crumpled buildings, dust and debris everywhere, fire and smoke, and the smell of death hung in the air.”

“The second day was somewhat more organized, but still no SCBA [self-contained breathing apparatus] or respirators, just paper masks,” says Archie. “Firefighters kept coming from neighboring cities. Within a week lots of heavy equipment was at the site. The fire burned for about three months underneath.”

Archie worked the pile for two 20-hour days, then was assigned to haul equipment and firefighters to and from the site, averaging eight to 10 trips a day.

After two weeks, he became part of the ceremonial division, attending four, five, and sometimes six memorial or funerals a day. Archie was on the ceremonial detail until March 2002, when he turned in his papers and moved to New Mexico, where he had previously lived.

“I would have become a drunk if I stayed in New York,” he says. “It started to affect me, as it did many others.”

“As concerned as I was about saving people, at the back of his mind Archie was concerned for his son. Jarrett always stopped at the World Trade Center for breakfast, then walked to New York University. "I have no clue if he is alive or dead," said Archie to his partner. "My son may be under all this. God forbid!"" says Archie. “I want to be alone,” he says. “I built a 9/11 memorial on his front lawn. More than 2,000 died that day — fire, police, EMS personnel, and civilians. Today many of the survivors suffer from post-traumatic stress disorder (PTSD), lung disorders, and different types of cancer.”

Archie’s best friend Kevin, who worked side by side with him, was diagnosed with leukemia in 2004 and died on July 30 this year.

“I was doing well,” says Archie, “until 2004 when Kevin got sick. PTSD hit me. I checked myself into the hospital and here I be. Never forget Sept. 11, 2001.”

Never Forget September 11, 2001

Archie Koenemund had been with the New York City Fire Department for 20 years before 9/11 changed his life. Today, Archie works in Fire Protection Engineering as an inspector/investigator. Normally, this is the kind of story the Lab News would publish on or near 9/11 to commemorate that day. But when Archie’s involvement in the rescue effort at the Twin Towers came to our attention, we decided to tell the story immediately because, for Archie, every day brings memories of 9/11, a day when he went toward danger to help save lives.