

PPPL Safety Coordinators Honored

For PPPL Employees Joseph Frangipani and Susan Pontani, attention to safety has paid off.

The two, recently named "PPPL Area Safety Coordinators (ASCs) of the Year," will be heading toward palm trees, the home of Shamu, and a world-famous zoo for a week in October. As recipients of the top ASC award at the Lab, they won trips to San Diego, where they will take part in the Department of Energy's (DOE's) Third Annual Occupational Safety and Health Conference and the National Safety Council Congress and Exposition.

Departmental Awards

Frangipani and Pontani were among sixty-six ASCs and Cognizant Area Supervisors (CASS) honored during the annual ASC/CAS Luncheon in June at the Princeton Marriott in Forrestal Village. Six departmental awards were also presented to eight ASCs. In addition to Frangipani and Pontani, the awardees were Joseph Carson, III, Michael E. Karl, George Peak, Jr., William Persely, Gloria D. Pollitt, and Gerald Satkofsky.

"You as a group of Area Safety Coordinators and Cognizant Area Supervisors are indeed the front line in providing a safe work environment," said PPPL Director Ronald Davidson during his remarks at the luncheon. "I want to thank you for your efforts in this important area that ensures the well-being of the employees and ultimately the envi-



Eight Department Award winners received plaques recognizing six PPPL departments. Department Award winners, from left, are Gerald Satkofsky, (TFTR Project), William Persely (Engineering Department), George Peak, Jr. (Miscellaneous Groups), Susan Pontani (Engineering Department), Michael Karl (Office of Resource Management), and Gloria Pollitt (Office of Human Resources and Administration). Department winners not pictured are Joseph Carson (Physics Department) and Joseph Frangipani (TFTR Project). At the podium is PPPL'er Joe Smith.

ronment, and also instills confidence in fusion."

Guest speaker Joann V. West, President of Pryme Safety Services in Carlstadt, N.J., reiterated Davidson's appraisal of safety supervisors, calling those at PPPL the "granite rock foundation" of the Laboratory.

West also encouraged the safety supervisors to praise their employees, to conduct frequent informal safety audits of the workplace, and to share information about accident investigations. "Everybody should learn from somebody else's incident," said West.

Prevent Accidents

Mac Hays, the Lab's ASC Program Coordinator, said during a



PPPL's Elmer Fredd was instrumental in bringing the pictures of the moonwalk to TV viewers 25 years ago. See page 3. (Computer pictures of the moon and moonwalk are courtesy of NASA. They were retrieved through the Lab's computer system, with the help of Andy Soccio.)

Continued on page 2

ASCs

Continued from page 1

subsequent interview that PPPL's intent is to prevent accidents from happening. If they do occur, they are investigated and steps are taken to keep them from reoccurring. "Our top goal is to spot a potential problem and prevent accidents from happening," he said.

Excellent Safety Record

Hays said the Lab's ASCs do monthly safety inspections, as well as informal walk-throughs. "PPPL has an excellent safety record and also a very good method of tracking itself," he said.

The ASC Program Coordinator noted that a measure of the Lab's safety success can be seen through a method in which DOE research contractors are ranked by a cost index of industrial safety performance, rather than one of the injury and illness incidence rate. The method takes into account the severity and number of accidents, as well as the amount of time employees are out or on restricted duty due to an accident. In the latest analysis, the Lab's cost index dropped, and PPPL has maintained a low cost index when compared to industry.

"If you went into any private industry that does what we do, you



Joann West

would find that our cost index is lower," said Hays, adding that the ASC Program contributes to this success. "I would stack our ASCs up against anybody's safety professionals. They are just super... The heart of the safety program is the ASC," said Hays. ●

Emergency Techs Trained on HEARTSTART

Sheathed in bright orange is a new addition at the Lab's Emergency Services Unit (ESU) that'll make your heart jump.

Now on line at ESU is HEARTSTART, a defibrillator that provides electrical impulses to the heart. The new equipment is used in emergency situations for heart attack victims who are unconscious, not breathing, and without a pulse. "Cardiac defib-

rillation previously was an advanced life support skill used by paramedics. With the development of the Semi-Automatic External Defibrillator, emergency medical technicians (EMTs), with training, can administer what may be a lifesaving shock to a heart attack victim," said ESU's Kevin Rhoades.

The use of the defibrillator at PPPL is possible through training provided by the Helene Fuld Medical Center, which recently sponsored two eight-hour defibrillator training sessions at the Lab, instructing a total of 24 ESU employees.

Two instructors from Helene Fuld led each session, which included a lecture with slides and hands-on instruction using a mannequin. The course concluded with a written exam and a practical test. The rest of the ESU staff will go through defibrillator instruction this fall.

"Part of our job in ESU is to respond to medical emergencies. We now have 24 people on site who are

qualified to use the defibrillator, which is available around the clock," said Rhoades.

Jump Starts Heart

To use the defibrillator, a technician turns on the monitor and hooks up two leads to a person's chest. The defibrillator identifies a shockable rhythm at the operator's command and shocks or "jump starts" the heart, Rhoades said. He noted that defibrillators have been used by paramedics since the 1970's.

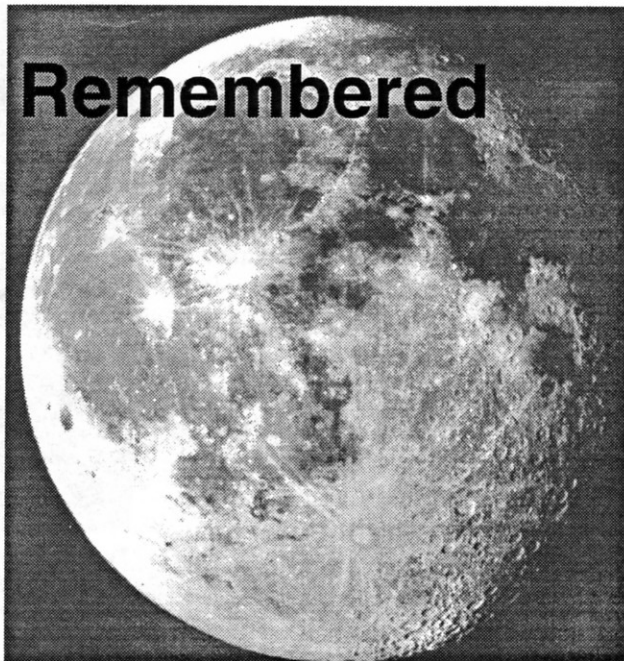
Training EMTs on the defibrillator means a higher survival rate for people who have heart attacks, said Rhoades. He added that the training benefits the community, as well as the Lab. "If someone at Forrestal Village has a heart attack and the Plainsboro Fire Squad calls us, we can respond and use the defibrillator," said Rhoades. "Patient care can be initiated before the ambulance arrives, which increases a patient's chance of surviving." ●



Kevin Rhoades (left) and Allen Davis, of the Lab's ESU, use HEARTSTART.

Lunar Landing Remembered

Elmer Fredd Reflects on His Role during the 25th Anniversary of the Moonwalk



The moment Neil Armstrong took that first “small step for man” onto the moon’s jagged surface, PPPL’s Elmer Fredd relied on instinct to bring the historic image to television viewers.

“My hands just did what they had to do to get the picture on the monitor,” recalled Fredd of operating the machine that converted the slow scan video from the moon to the standard TV video on earth. “It was more instinct than anything else for me—kind of a reflex action of what to do to get the video locked in and displayed and out to NASA in Houston.”

Within seconds of Fredd’s “reflex action,” a primitive, black-and-white picture of Armstrong’s movements was broadcast to nations of watchers.

As this summer marks the 25th anniversary of the lunar landing, Fredd recollected his role in the event.

Glass Enclosed Area

It was a cool, sunny, afternoon in Sidney, Australia, twenty-five years ago, as he faced his monitor in a glass-enclosed area of the Overseas Telecommunications Center. Fredd, who was working for RCA Astro, was surrounded by a couple of NASA staffers, a recording company employee, and radio, TV, and newspaper media as everyone awaited the astronauts’ arrival on the moon.

“People were very quiet while this was going on. They were all focused on this monitor in front of me,” said Fredd. “I was surprised at how calm I was when the first video came down. Of course, I had operated the scan converter the previous December for the ‘Christmas Show,’ which was what we called the astronauts’ first trip around the moon. So I was familiar enough with the equipment to know an instant after the signal was received.”

Relayed to NASA

The video from the moon was sent down a narrow communications channel to a large-dish antenna at a remote site south of Sidney. It was then transferred by microwave link to the Overseas Telecommunications Center. After it was converted, it was relayed to NASA via a communications satellite over the Pacific Ocean.

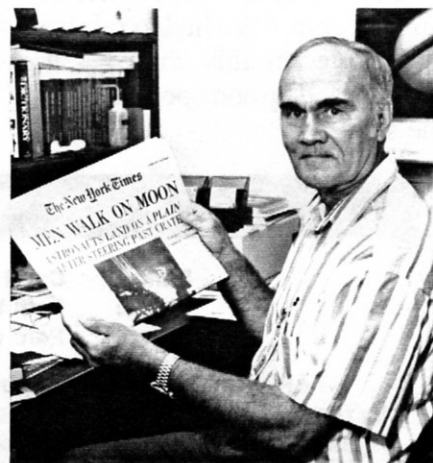
Fredd said that when Armstrong’s awkward movements first came into view, those around Fredd—including the observers around the glass-enclosed area—began cheering.

“Everything was working correctly and that was a relief,” said Fredd, an electrical engineer who is currently Head of the ICRF engineering section of TFTR. “The as-

tronauts, too, seemed to be having a good time. We sat back and watched the video. After the astronauts had been on the surface for about an hour, someone brought in a big bag of hoagies and a few bottles of Foster’s beer and we had our little celebration. For awhile after that day, all of our pictures were in the Australian newspapers and magazines.”

Fredd, who had previously been involved in the Ranger Program exploring landing sites on the moon

Continued on page 4



Elmer Fredd

Moon

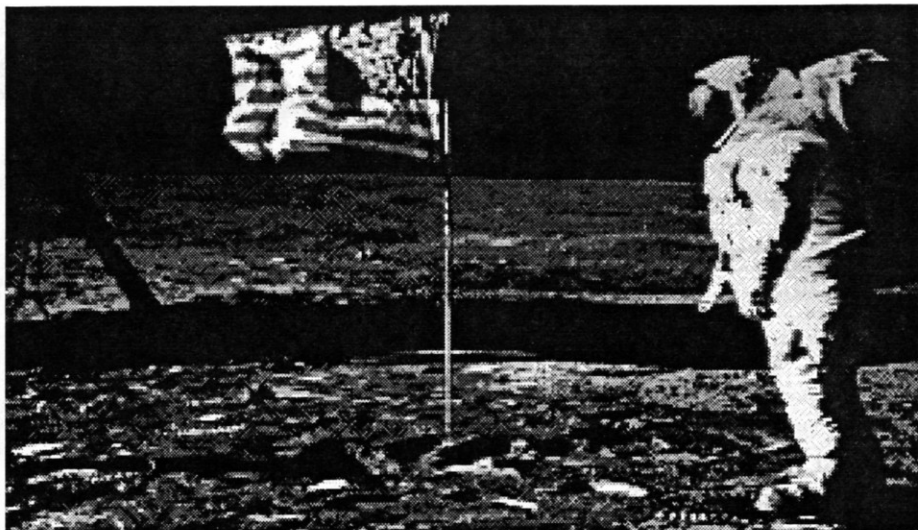
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by taking pictures of its surface, added, "I didn't realize what I had done until the day after when I looked at some of the Sidney newspapers and found out how many people had viewed this thing and what all of them thought about it. The engineers were so involved in the equipment that we didn't have time to think what this was going to mean to everybody else. We just thought about what it meant to us, and that was to have that box [the converter] working."

Test Communications Links

Fredd's work in Australia had actually begun three weeks before the lunar landing. "Like a lot of projects in those days, the scan converter wasn't completely done by the time we shipped it out the door. I was there about three weeks before they launched in order to get everything set up and all the communications links tested," said Fredd, who had designed portions of the scan converter.

He remembered one glitch with the converter a couple of days prior to the lunar telecast. "One of the chips in the video disk failed," said the engineer. Using parts that were available, Fredd worked on rebuilding the chip. "We had to fabricate a substitute for this chip, get it installed, and up and operating again," he said.



Twenty-five years ago, Elmer Fredd converted the slow scan video from the moon to the standard TV video on earth, bringing images of the moon landing to millions of TV viewers.

Getting transistors and resistors from nearby electronics stores or using whatever resources were at hand was a sign of the times, according to Fredd. "You made do with what you had, especially when you were that far away from the plant," noted Fredd, who has been at the Lab since 1980.

Shooting Star

His mission ended when that of the astronauts was completed, and on the return flight home, he caught a glimpse of Apollo 11 during reentry. "I was in a plane between Sidney and Hawaii when Apollo 11 was coming back. It looked like a shooting star," he said.

He was also on a plane when the 25th anniversary occurred. "I just happened to get into a hotel room in San Francisco the exact time the

video started. It was quite an experience to see it again. The video was really terrible—primitive. But in those days, everyone thought it was great. They didn't care about the quality of the video, they just cared about the subject of the video," said Fredd.

Fredd, who became interested in electronics as a 14 year old who repaired neighbors' televisions, acknowledged that "a lot of water has passed under his bridge" since the Apollo 11 mission. Hand-in-hand with his projects has been the growth of technology, which he said has really exploded since Armstrong took that "giant leap for mankind."

"When you think about it, those astronauts were really on a wing and a prayer compared to the equipment they have nowadays," said Fredd. ●

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What's Happening at PPPL?



Volunteers from PPPL pitched in during the United Way "Day of Caring" in May, visiting residents at the Merwick Unit of the Medical Center at Princeton. The Lab group joined hundreds of employees in the Princeton-Delaware Valley region who volunteered at area United Way agencies. Participants from the Lab, from left, beginning with the front row, are Margaret King, Harry Mynick, Molly Tompkins, and Beverly Falkler; and, (back row) Linda Harmon and Catherine Iervolino. Not pictured are Hironori Takahashi and Linda Kinney.

"It was very fulfilling. We added a little something to their [the residents'] day," said Falkler, whose 12-year-old son, Jesse, joined her as a "Day of Caring" volunteer. "My son came away feeling good about himself, too."

Added Angelo Candelori, "The day was highly successful, and it provided the volunteers with rewarding experiences." Candelori, PPPL's Manager of Administrative Services, organized the Lab's volunteers for the "Day of Caring."



Laura Scimeca (left) discussed her science project on recycling with PPPL employees Rebecca Sesay (middle) and Marian Rahman, during PPPL's annual Science Fair Day. The Lab invited 19 students, grades four through 12, to display their Science Fair projects. The exhibit, which was in the Lobby for one day, featured the projects of 11 Science Fair winners, three Honorable Mention recipients, and five special guests. All of the students had participated in one of three local science fairs. Laura is the daughter of Lab employees Lena and Carl Scimeca.



PPPL physicist Douglass Post, who is currently a member of the International Thermonuclear Experimental Reactor (ITER) Joint Central Team in San Diego, was recently elected Vice Chairman of the American Nuclear Society's Fusion Energy Division. Post, who joined the ITER team last year but maintains his position as physicist at the Lab, will serve a one-year term as Vice Chairman.

PPPL's "Free Lunch" Scores Big!



Laboratory employees reveled in the sunshine and free lunch this summer during the PPPL picnic. Here, staffers line up for lunch.



At the grill, from left, are Lynne Rappaport and Pat Daly.



Employees pile their plates with salads and grilled sandwiches. From left are Michael Quigley, Thomas Ward, Westley Reese, Steven Green, Charles Morgan (with cap), and Steve Tureikas.



The picnic is in full swing.



Seated in the cafeteria, from left, are Andy Carpe, Jorge Micolta, and Robert Tucker.



Enjoying their lunch, from left, are Michael Bell, Richard Hawryluk, Forrest Jobs, and Ben LeBlanc.



Around the picnic table, from left, are Thomas Mershon, Vern Clift, Claudia James, and Margaret Jackson.