

mission's Advisory Committee on Nuclear Material Safeguards.

Roger was named LLNL's sixth director in 1971, and served from 1971 to 1988—more than one-third of the laboratory's history. He is credited by colleagues with providing the leadership that allowed LLNL to expand and diversify its scientific base. He increased research areas in energy, particularly magnetic and inertial confinement fusion energy, high-power lasers, seismic analysis, and atmospheric sciences. Under his leadership, LLNL's laser program completed Shiva and Nova, lasers built for research in laser fusion, and developed laser isotope separation.

Roger personally considered one of his greatest achievements to be the establishment of a vibrant biomedical science program that would pave the way for the human genome program. With his strong support, biomedical research at LLNL made great strides in genetics, biodosimetry, and other areas of promise for revolutionizing modern medicine.

After a decline in weapons research during the 1970s, LLNL took on new weapons projects during the Ronald Reagan administration in the 1980s, including warhead design assignments, studies of particle beams, x-ray lasing and ballistic missile defense. Director Emeritus Edward Teller credits Roger with positioning the laboratory to help accomplish the nation's primary mission at the time: winning the cold war.

Roger inspired the confidence of many of LLNL's customers. Quiet and soft spoken, he empowered his deputies and associate directors to run programs the way they saw fit. Colleagues remember him as an attentive listener who, when he spoke, was direct, insightful, and persuasive. They also recall that, even after he became director, he never lost his passion for laboratory chemistry work and would return to the laboratory to help analyze samples brought in from the Nevada test site. Although he retired in 1988, Roger continued to serve LLNL as a consultant until his death.

Among his many honors, Roger was a fellow of the American Association for the Advancement of Science and a recipient (in 1982) of one of the Department of Energy's highest awards: the Distinguished Associate Award.

A resident of Danville, California, Roger enjoyed fishing, hunting, and horseback riding. He also enjoyed crafting stained glass with his children, square dancing, doing the jitterbug, and going to club workouts

with his wife Edwina.

Roger left as his legacy a strong and diverse LLNL, well poised to continue putting science to work in the national interest. He will be missed by all who knew and worked with him.

C. BRUCE TARTER

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Jean Heidmann

Jean Heidmann, like the cosmos he studied, was always in motion. An accomplished researcher and astronomer, he was an enthusiastic spokesman for science. Heidmann died in surgery on 3 July in Paris.

Born 18 May 1923 in Jeumont, France, Heidmann earned an undergraduate degree in engineering from the prestigious Ecole Centrale Paris in 1946, after which he sought a job in industry. In only a few weeks, Heidmann realized he wished to turn his attentions to matters of more universal import—the study of cosmic rays—and ultimately earned his PhD in physics in 1951 from the Ecole Polytechnique. The examination board for his doctorate included Louis de Broglie and Louis Leprince-Ringuet.

Heidmann joined the Paris Observatory at Meudon in 1959 and remained there for his entire career. His fields of interest were cosmology and galaxies, and he is probably best remembered for research on clumpy galaxies. He spent 1969 in Austin, Texas, working with Gerard de Vaucouleurs on galaxy morphology and the determination of the Hubble constant.

By the late 1970s, Heidmann's reputation had developed sufficient nimbus that he was entrusted with the editorship of the then-new journal *Astronomy and Astrophysics*. Heidmann helped shepherd this bold, multinational publishing enterprise into a respected journal for astronomical research.

Heidmann frequently collaborated with radio astronomers outside of France. He had visited Groningen in the Netherlands in the late 1970s, joining Dutch astronomer Hugo van Woerden and me in a project to investigate a certain class of compact galaxies. The results, while interesting, were hardly extraordinary. But to my surprise, Heidmann later reevaluated some of our data, claiming they might be telling us more than merely the dynamical parameters of a distant galaxy: They could be deliberate signals from space. Heidmann had



JEAN HEIDMANN

become interested in the search for extraterrestrial intelligence (SETI) in the 1980s, and he postulated that at least one of the many point sources in the fields we had observed was a transmission from an advanced society orbiting a nearby star.

Although he later dismissed this suggestion, Heidmann's commitment to SETI was substantial. It was a field in which he was both active and creative. He encouraged interest in the subject with media appearances and popular writings; well known among his many books are *Cosmic Odyssey* (Editions Denoel, 1986) and *Extraterrestrial Intelligence* (Editions Odile Jacob, 1992). In recent years, Heidmann energetically promoted steps to ensure that SETI could establish an observatory on the moon, shielded by that satellite's bulk from the cacophonous radio interference of Earth. He was a dependable speaker at SETI gatherings, encouraging the idea that the Saha Crater, which lies just beyond the lunar limb, would be an ideal site for such a project. The legacy of Heidmann will be long felt on this world, and may yet extend to its nearest neighbor.

SETH SHOSTAK

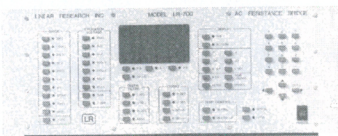
*SETI Institute
Mountain View, California*

Oswald Francis “Mike” Schuette

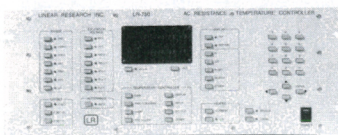
Oswald Francis “Mike” Schuette, a noted atomic and molecular physicist, died of a stroke at his home in Columbia, South Carolina, on 6 August.

Born in Washington, DC, on 20 August 1921, Mike graduated with a

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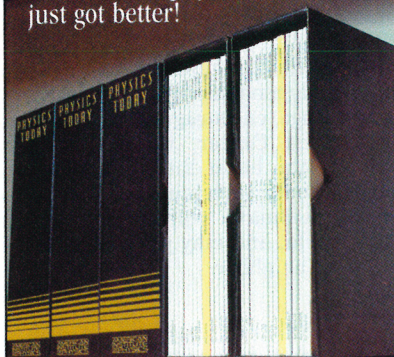
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BS in physics from Georgetown University in 1943. As a naval officer during World War II, he worked aboard minesweepers at sea, developing mine countermeasures and becoming an expert on mines. He served on a national committee concerned with mine warfare for the remainder of his life. He obtained a master's degree in physics in 1944 from Yale University and a PhD in physics in 1949, as a student of W. W. Watson, also from Yale. His thesis addressed the separation of the helium-3 and helium-4 isotopes.

In 1948, Mike accepted the position of associate professor of physics at the College of William and Mary. He worked there until 1953, when he was selected to be a Fulbright research professor at the Max Planck Institute for Chemistry in Mainz, Germany. He served simultaneously as a science liaison officer for the US Navy scientific and technical unit. On returning to the US in 1958, he joined the staff of the National Academy of Sciences in Washington, DC. From 1960 to 1963, he was deputy special assistant for space in the office of the director of defense research and engineering.

He left Washington in 1963 to become the chairman of the department of physics and astronomy at the University of South Carolina, a position he held until 1979. He led the department through its fledgling years as a PhD-granting organization. His experience was invaluable in obtaining grants, as well as recognition for new faculty members, several of whom he successfully nominated for fellowship in the American Physical Society. He hired more than a dozen young faculty members, several of whom have since achieved international recognition. He was a member of the boards of the Oak Ridge Associated Universities, the Southeastern Universities Research Association, and Fermilab.

He received the Verdienst Kreutz Erster Klasse, the highest civilian honor of the German government, for his many efforts to link the University of South Carolina with German universities for the exchange of professors. Of note was the link with the Martin Luther University at Halle-Wittenberg, which had political philosopher and jurist Francis Lieber as a common bond with the University of South Carolina because Lieber served on both faculties. Mike organized and contributed to symposia about Lieber and also about Alexander von Humboldt.

He also visited South Africa nearly a dozen times, trekking across the



OSWALD FRANCIS "MIKE" SCHUETTE

continent through Namibia in one case. He developed close ties with many South African researchers, who reciprocated with visits to the University of South Carolina. He felt that the political and scientific climates in South Africa and South Carolina had many similarities and that the university could help the situation in South Africa.

Mike had a great interest in the political aspects of physics, stemming from his father, one of the earliest White House press correspondents. Furthermore, his stint at the National Academy of Sciences put him in touch with many of the most important US scientists. I (R.D.E.) can well recall political discussions with Mike and his mother in Washington, in which I learned more about the private lives of senators and congressional representatives than I believed possible—and certainly more than was in print. Mike used his political savvy to persuade the then (in 1991) vice chancellor of Germany and minister of foreign affairs, Hans-Dietrich Genscher, to receive an honorary degree from the University of South Carolina. Mike continued his affiliation with the university until his death.

Mike was a history buff, world traveler, and expert on German scientists, such as Humboldt and Lieber. We shall remember him for the physics department at the University of South Carolina, which he nurtured through its growth to prominence, and for the international collaborations that he established with researchers in South Africa and Germany.

RONALD D. EDGE
CHARLES P. POOLE

*University of South Carolina
Columbia ■*