Laurence E. Peterson appointed director of the UCSD Center for Astrophysics and Space Sciences

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LAURENCE E. PETERSON CHOSEN TO DIRECT UCSD CENTER FOR ASTROPHYSICS AND SPACE SCIENCES

Laurence E. Peterson, an astrophysicist who helped to pioneer gamma-ray astronomy and guide the development of the field over the past 30 years, has been appointed director of the Center for Astrophysics and Space Sciences at the University of California, San Diego.

Peterson, a professor of physics at UCSD, has been on leave since January 1986, serving as assistant director for science in the astrophysics division of the National Aeronautics and Space Administration. Before taking the NASA post, he had served as associate director of CASS since its founding in 1979.

He will succeed E. Margaret Burbidge, one of the world's most renowned astronomers, who has directed CASS since its creation. She is stepping down to devote full time to her research and teaching as a university professor in the University of California system.

"I am delighted that Larry Peterson has agreed to accept this position," said Harold K.Ticho, UCSD vice chancellor for academic affairs. "His outstanding record of research achievement and his experience with NASA should enable him to provide strong leadership for CASS in the years to come. I'm very much looking forward to working with him to continue the preeminence of CASS in space science research."

CASS is an Organized Research Unit, the second largest at UCSD after Scripps Institution of Oceanography. Its staff of nearly 100 people includes astronomers, physicists, cosmochemists, engineers, computer specialists, technicians and support personnel. By uniting their expertise in a single organization, CASS has been able to coordinate large, mission-oriented projects and cross-disciplinary activities in fields such as space plasma physics that are difficult to accommodate within academic departments.

A Wisconsin native, Peterson first came to UCSD as an assistant research physicist in 1962 after completing his Ph.D. in physics at the University of Minnesota. He has been a professor of physics since 1971.

Since the inception of high energy astrophysics in the late 1950s, Peterson has helped to guide the growth of X-ray and gamma-ray astronomy. His research involves investigations of some of the most violent phenomena, highest temperatures and most energetic objects in the universe--gamma-ray bursters, supernovae, neutron stars, black holes, galactic cores and quasars.

The Earth's atmosphere is opaque to gamma-rays, so these observations must be made from spacecraft or high-altitude balloons. For almost three decades, Peterson has served on various NASA Space Science steering committees, the National Academy of Sciences Space Science Board and was U.S. vice president to COSPAR, the international Committee on Space Research.

A research team under Peterson's leadership designed one of the four experimental packages aboard the High Energy Astronomical Observatory satellite launched into Earth orbit in August 1977. The following year, NASA honored him with an Exceptional Scientific Achievement Award and the American Institute of Aeronautics and Astronautics selected him for the 1978 Space Science Award "for his outstanding contributions to the study of solar and cosmic X-rays and gamma-rays with orbiting solar observatories and for his continuing highly successful efforts to improve X-ray observations from spacecraft."

In 1985, Peterson was chosen to become a fellow of the American Physical Society for his "pioneering work in gamma-ray astrophysical observation and instrumentation."

At NASA during the past year, Peterson has helped to orchestrate and fund the American scientific effort to capture gamma-ray data from the supernova that burst on the scene in February 1987, the nearest exploding star observed from Earth in 400 years. The effort has involved reprogramming existing satellites and launching an array of instruments into suborbital space aboard high-altitude balloons, research rockets and the NASA infrared astronomy airplanes.

"Since the supernova was discovered, the nation's programs in astrophysics have been revitalized," Peterson says.

Under Peterson, CASS had already developed an extensive high-altitude balloon program for observing gamma-ray emissions. Recently his research group won contracts to design and build a hard X-ray detector to be launched aboard the X-ray Timing Explorer satellite in 1994 and to study the possibility of doing gamma-ray spectroscopy from the planned Nuclear Astrophysics Explorer spacecraft.

Other groups at CASS are designing detectors for the Global Geospace Program satellite series to study the Earth's magnetic field and the solar wind. And in 18 months, the Hubble Space Telescope is scheduled to be launched, carrying the Faint Object Spectrograph, an instrument designed and built under the direction of a CASS team led by Margaret Burbidge.

"That's the good news," Peterson says. "The bad news is that funding for ground-based and theoretical astronomy is being cut back severely at the National Science Foundation. One of my first tasks as director will be to reevaluate our activities in optical and infrared astronomy, determine which are most important and try to find the funds to revitalize them."

For instance, NSF has dropped all support for the Mt. Lemmon Observatory in Arizona, operated jointly by the UC system and the University of Minnesota, and the facility is being "maintained on a caretaker basis" now, he noted. The 60-inch Mt. Lemmon telescope has long served as a training facility for young astronomers and a place to test instrumentation in infrared astronomy.

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