scientific societies. From 1946 to 1969, he was chairman of the National Research Council Subcommittee on Shipment of Radioactive Materials, which established regulations that have since been internationally adopted. In 1966–67, he was president of the Radiation Research Society, and in 1972–73 he presided over the Health Physics Society

Constantine J. Maletskos, who was a student and colleague of Robley Evans's, describes his former mentor as "a world class physicist with an . . . uncanny ability to see through a problem, to simplify it and get at the important roots and to set up an appropriate model for a seemingly simple solution to a complex analysis." His famous admonition in *The Atomic Nucleus*, "A little contemplation saves a lot of calculation," expresses it all.

GORDON L. BROWNELL Massachusetts General Hospital Boston, Massachusetts

Russell Lee Robinson

Russell Lee Robinson, a senior staff member at Oak Ridge National Laboratory, died on 25 March. In addition to having a long career in experimental nuclear physics, he served for 10 years as scientific director of the Holifield Heavy Ion Research Facility.

Born on 30 July 1931 in Louisville, Kentucky, Russell Robinson received his bachelor's degree from the University of Louisville in 1953, and his master's and doctoral degrees in physics from Indiana University in 1955 and 1958, respectively. He joined the staff of ORNL's physics division in 1958.

For the first 24 years of his career at Oak Ridge, he did basic research in nuclear physics. He was particularly active in the field of Coulomb excitation and in-beam studies of medium mass nuclei, often working in collaboration with Paul Stelson and Francis McGowan. He was a member of the team that did pioneering work on measuring the quadrupole and large hexadecapole deformations of the uranium and other actinide nuclei.

In 1974, he became the group leader responsible for the experimental facilities at ORNL's Holifield Heavy Ion Research Facility, then under construction. He also remained very productive in his research. In collaboration with a group from Vanderbilt University, Robinson explored nuclei with atomic masses of around 70. This work included the discovery of a new region of nuclear shape coexistence that included the "superdeformed" ground states of ⁷⁴Kr and ⁷⁶Kr.

Beginning in 1983, Robinson be-



RUSSELL LEE ROBINSON

came scientific director of the Holifield facility and spent the last decade of his career working as a scientific administrator. He served on a three-person board of directors that developed the concept for and managed the Joint Institute for Heavy Ion Research, which brought together funding from the Department of Energy, the state of Tennessee (through the University of Tennessee) and Vanderbilt University. The institute provided on-site user housing, office and meeting space and an active visitor's program. It was through his considerable efforts that Holifield developed an international reputation as a productive, userfriendly nuclear physics facility.

Robinson's untiring efforts and dedication were evident to the many scientists and students working at Holifield. ORNL is presently converting Holifield into a dedicated radioactive beam facility, to begin operation this fall. In preparing for the facility's future role, Robinson coordinated the specifications and procurement of a newly designed major experimental device, a third-generation recoil mass spectrometer. He also guided the design and construction of a new building addition to house this spectrometer, a hall that now bears his name.

Russell Robinson had an intense passion for nuclear physics. His gentlemanly, yet firm and fair, approach to dealing with people earned him the respect and affection of his peers and colleagues. His legacy at Oak Ridge will be long and fondly remembered by his friends.

JAMES BALL

Oak Ridge National Laboratory
Oak Ridge, Tennessee
JOSEPH HAMILTON
Vanderbilt University
Nashville. Tennessee

LeRoy Elsworth Doggett

LeRoy Elsworth Doggett, chief of the Nautical Almanac Office at the US Naval Observatory in Washington, DC, and an expert on calendars, astronomical phenomena, archaeoastronomy and astronomical history, died of cancer on 16 April 1996 in Washington, DC.

Doggett was born on 22 October 1941 in Waterloo, Iowa. He received a BS degree from the University of Michigan in 1964, an MS degree from Georgetown University in 1970, and a PhD in engineering mechanics from North Carolina State University in 1981. Starting in 1965, he worked as an astronomer in the Nautical Almanac Office; he headed that office from 1991 until his death.

For the last 20 years, he compiled and edited the US contribution to the Astronomical Almanac (Government Printing Office), the world standard authority for the precise determination of astronomical events and positions of celestial objects. As chief of the NAO, he was also responsible for the Nautical Almanac and Air Almanac, published by the US Naval Observatory, both of which are still widely relied upon for navigation purposes.

Doggett's doctoral dissertation was on the use of Chebyshev series for the generation of a high-precision theory of motion, or ephemeris, for Mars. His dissertation was the basis for introducing Chebyshev polynomials for representation of ephemerides in the *Almanac for Computers*, published under his name by USNO in 1976. The Floppy Almanac (NAO, 1986) was also based on developments that followed from his dissertation.

His research centered on celestial mechanics, and, more recently, on calendars. He investigated calendars from all over the world, both ancient and modern. He wrote the "Calendar" ${\bf chapter\ of\ the\ } Explanatory\ Supplement$ to the Astronomical Almanac, which is probably the most practical description of the various calendars. He wrote scholarly articles on calendars, and at his death was working on an encyclopedia of calendrical topics, including associated chronological eras and cycles. Doggett was the leading US expert on the subject and was frequently consulted by other scientists, the media and the general public on astronomical phenomena, calendars and the history of astronomy.

In response to numerous and persistent questions concerning the first sighting of the lunar crescent for Islamic calendar purposes, he organized nationwide Moon watches, which pro-

vided a massive collection of observations for critical cases over the United States. With Bradley Schaefer, he collected, analyzed and published the data that has been the definitive basis for improved prediction methods for lunar visibility.

Doggett was active as the secretary/treasurer of the historical astronomy division of the American Astronomical Society at the time of his death. He was past chairman of the Washington section of the Institute of Navigation.

Doggett was coeditor of Sky with Ocean Joined: Proceedings of the Sesquicentennial Symposium of the US Naval Observatory and the coeditor of the special issue "Astronomy under the Soviets" of the Journal for History of Astronomy. He also served as associate editor of Archaeoastronomy, Archaeoastronomy and Ethnoastronomy News and Celestial Mechanics and Dynamical Astronomy.

Doggett enjoyed a wide knowledge and deep appreciation of classical music. While a graduate student, he served as music reviewer for the newspaper of North Carolina State University. During the 1980s, he was active with the Friends of Music at the Smithsonian Institution, serving for two years as the group's president.

P. K. SEIDELMANN
US Naval Observatory
Washington, DC

Bernard Bruno Kinsey

Bernard Bruno Kinsey, a British-born physicist who played a major role in the development of Canada's nuclear physics research and who later taught at the University of Texas at Austin, died on 22 November 1995 in Austin. Born in London on 15 June 1910, Kinsey earned his BA in 1932 from the University of Cambridge, where Lord Rutherford oversaw his first publication. After receiving his BA, Kinsey accepted a Commonwealth Fellowship (equivalent to a Rhodes Scholarship) at the University of California. There, from 1933 to 1936, Kinsey worked on the earliest linear accelerator designs with Ernest O. Lawrence.

Kinsey left Lawrence's laboratory to pursue a PhD at Cambridge, which he earned in 1937. From 1936 to 1939, he lectured at the University of Liverpool. During World War II, Kinsey first worked on airborne microwave radar technology as a scientific officer with the Ministry of Aircraft Production (1939–42), and then on the British atomic bomb project as a research scientist at Cambridge (1942–44).



Leybold's Coolpower™ 4.2GM is the only two-stage Gifford-McMahon cryocooler that delivers 0.5W at 4.2K, and a remarkable no-load bottom temperature of <3K. Forget the hassle of liquid helium or the high cost and complexity of a third stage.

Superior Performance

- 0.5W capacity at 4.2K
- Tested and certified to less than 2.9K

Reliability

- Standard two-stage design
- Meets MIL-S-901D and MIL-STD-167-1 shock and vibration tests
- Smooth, quiet running

Get the cold facts on the Two-Stage Coolpower. Call today!



Leybold Cryogenics North America 8 Sagamore Park Road Hudson NH 03051 Phone (603) 595-3270 Fax (603) 595-3280

Circle No. 146 on Reader Service Card to Receive Literature
Circle No. 147 on Reader Service Card to have a sales representative contact you

INTERNET RACK MONITOR

"The Complete VME Data Acquisition System"



FEATURES

- Operates as an INTERNET Node via the TCP/IP protocol
- Ethernet LAN Interface
- Optional SCSI Interface
- Motorola 25 MHz MC68040 Processor
- LABVIEW Drivers Available
- 64 Channel Multiplexed A-D
- 8 Channel 12-bit D-A
- 8 Bytes of Digital I/O
- 4 or 8 Mbytes of dynamic RAM
- 512 Kbytes Static RAM with Battery Backup
- 8 Kbyte NVRAM with time-of-day clock
- 19° 3U Chassis with Power Supply, Cooling Fan, Relay Rack, and 3-Slot VME Card Cage
- Two additional VME slots and two Industry Packs for expandability

You can view the I.R.M on our WEB site: http://www.bira.com

Bi Ra systems

Established in 1972

Innovations in CAMAC • VME • FASTBUS • NIM

2404 Comanche N.E. Albuquerque, N.M. 87107 1-800-731-8887 Ph: (505) 881-8887 E-Mail: info@bira.com Fax: (505) 888-0651

Now Accepting VISA/MASTERCARD