

Acoustical Society honors four scientists

The Acoustical Society of America has selected four scientists to receive Society honors.

In June at a special ceremony at the Applied Research Laboratory, Pennsylvania State University, John C. Snowdon, professor of engineering research at Penn State, was presented the ASA Trent-Crede Medal. The award came at a time when Snowdon's health was deteriorating rapidly; he died on 9 July.

At the November ASA meeting in Los Angeles, Elfin J. Richards, OBE, Research Professor in Industrial Noise and Deafness at the University of Southampton, will be awarded one of the Society's highest distinctions, honorary membership. The fall meeting will also be the occasion for the presentation ceremonies of the Pioneers of Underwater Acoustics Medal and the Silver Medal in Speech Communication. Claude W. Horton Sr, professor of physics at the University of Texas at Austin, will receive the former and Gunnar Fant, professor at the Speech Transmission Institute, Royal Institute of Technology, Stockholm, Sweden, the latter.

John Snowdon was awarded the Trent-Crede Medal "for his multifaceted activities in the field of mechanical vibrations and shock..." In particular, his work concerned vibration in internally-damped structures, vibration and shock isolation and the dynamic mechanical properties of rubber-like materials. Snowdon received baccalaureate degrees from the University of London in 1952 and the following year. Imperial College, London granted him his PhD degree in physics in 1956. After his doctoral work, he was employed by the Philco Corporation for two years and then joined the University of Michigan Acoustics and Seismics Laboratory as a research associate; he later rose to be an associate research physicist. When he returned to England in 1960 Hawker-Siddeley Ltd. engaged Snowdon as a vibration engineer. The next year he came back to the US and joined the Penn State faculty. He remained working there until his death.

The Acoustical Society will confer honorary membership upon Elfin J.



SNOWDON



RICHARDS



HORTON



FANT

Richards in recognition of "his eminent contribution to combating noise pollution." Richards studied mathematics at the Universities of Wales (BSc, 1936) and Cambridge (MA, 1939). Following a year in industry as a structural engineer and just before the Second World War, he joined the National Physical Laboratory. There, Richards specialized in wing design. When the war ended he became assistant chief designer at Vickers-Armstrong, Ltd., where he designed the Viscount airliner and Valiant jet-bomber. He then became the first head of the aeronautics department at Southampton, building up the department "almost from scratch." During the 1960's Richards helped found the Institute of Sound and Vibration Research at Southampton and the *Journal of Sound and Vibration*. In 1966 he became vice-chancellor of Loughborough University of Technology and nine years later he returned to Southampton to take his present position. Throughout, Richards was a member of many planning and advisory committees dealing with noise and he also served as president of the Institute of Acoustics (UK).

The Pioneers of Underwater Acoustics Medal is to be awarded to Claude W. Horton to honor "his contributions... in the field of propagation, reflection, and scattering, signal processing, particularly methods in acoustic data treatment and interpretation." He earned a BA in 1935 and an MA in 1936 from Rice Institute of Technology (now Rice University). For the next year Horton worked as an assistant seismologist for Shell Oil Company, and then spent a school year at Princeton University doing graduate

work. He returned to Shell and was employed as a party chief until 1943 when he became a member of the Underwater Sound Laboratory, Harvard University. Horton spent the war years there working on the design of scanning sonars. After the war, Horton joined the Defense Research Laboratory (now the Applied Research Laboratory) at Texas where he made contributions to the theory of electromagnetic horn antennas, and dielectric waveguides and antennas—work which earned him a doctoral degree in 1948. Horton joined the Texas faculty in 1946 and works there to this day.

In honoring Gunnar Fant with the Silver Medal the Society cites "his scientific work in providing coherence and theoretical underpinnings to the complex human activity of speech production and for his qualities of leadership that have helped to bring this field to its present level." In the 1940's Fant began work on speech analysis at the L. M. Ericsson Company and at the Royal Institute of Technology. In 1949 he journeyed to MIT, where he started his studies on the acoustic theory of speech production. Three years afterward, Fant returned to the Royal Institute, later forming the Speech Transmission Institute. There Fant built an early transmission line analog of the vocal tract and developed the OVE synthesizer. He remains a professor there today.

The ASA has conferred eight honorary memberships since its first to Thomas A. Edison in 1929. The Trent-Crede Medal was introduced in 1968 to honor Horace Trent and Charles Crede, leaders in the science of mechanical vibration and shock. The Pioneers of

we hear that

Underwater Acoustics Medal was instituted in 1958 to honor five outstanding early workers in the field: H. J. W. Fay, R. A. Fessenden, H. C. Hayes, G. W. Pierce and P. Langevin. The Society established the Silver Medal in 1973 to recognize "contributions to the advancement of science engineering or human welfare through the application of acoustic principles or through research accomplishments in acoustics."

R. J. Baxter wins IUPAP Boltzmann Medal

The International Union for Pure and Applied Physics Commission on Thermodynamics and Statistical Physics has awarded the third Boltzmann Medal to Rodney J. Baxter of the Australian National University, Canberra. Baxter was honored "for his brilliant contributions to the field of critical phenomena, in the form of exact solutions of several two-dimensional models." He was cited in particular for his solution of the eight-vertex model, a model that now generally carries his name and "whose solution has cast new light on the concept of universality." The Boltzmann Award consists of a gold medal and is given every three years in recognition of outstanding contributions to statistical physics.

Baxter received his master's degree in 1961 from Cambridge University and his PhD in 1964 from the Australian National University. He is currently a research fellow at ANU.

Cameron receives AAPM Coolidge Award

At its 22nd annual meeting and exhibition in Minneapolis, the American Association of Physicists in Medicine presented its William D. Coolidge Award to John R. Cameron, Farrington Daniels Professor of Physics and Radiology at the University of Wisconsin, Madison. The ninth scientist to receive the award since 1972, Cameron was recognized for his "outstanding contributions to the field of medical physics." The award, which is the Association's most prestigious, is named for the inventor of the Coolidge x-ray tube.

Cameron is noted for his development of lithium fluoride thermoluminescence dosimetry in the 1960's. He is also recognized as the "father" of bone-mineral measurement techniques employing radionuclide scanning. Quantitative diagnostic radiology is another area of Cameron's expertise.

Cameron's educational credits include a BS degree (1947) from the University of Chicago, and an MA



CAMERON

(1949) and a PhD in nuclear physics (1952) from Wisconsin. He began his career in 1952 as an assistant professor of physics at the University of Sao Paulo, Brazil. He joined the Wisconsin staff as a project associate in 1954 and then became an assistant professor of physics at the University of Pittsburgh the following year. Cameron returned to the Wisconsin faculty in 1958 as an assistant professor of radiology and physics. In addition to his named chair, Cameron also holds the directorships of the Biomedical Engineering Center and the Midwest Center of Radiological Physics.

James R. Killian, Jr., the country's first full-time presidential science adviser and long-time MIT educator, has been selected to receive the National Science Board's first Vannevar Bush Award. Bush directed the Office of Scientific Research and Development during the Second World War.

Gernot Kostorz, recently with the Max-Planck-Institut für Metallforschung, Institut für Werkstoffwissenschaften, Stuttgart, Federal Republic of Germany, has been appointed professor of physics at the Eidgenössische Technische Hochschule, Zurich, Switzerland.

Ronald Gerhard has become sole owner and president of Arenberg Sage, Inc., Jamaica Plain, Massachusetts.

The American Society for Testing and Materials has awarded an Award of Merit to **Robert I. Scace**, a physicist at the Electron Devices Division, National Bureau of Standards, Washington, D.C. He was honored "for his leadership in the development of standards for the electron device industry."

Alan J. Toepfer has been appointed director of the Radiation Physics Division at Physics International Co, San Leandro, California.

The University of Georgia has named **Nathan W. Dean** assistant vice-president for research. Dean was formerly professor of physics and assistant dean of sciences and humanities at Iowa State University.

The following physicists have joined the Northeastern University physics department: **William N. Celmaster**, formerly of Argonne National Laboratory; **Jorge V. José**, recently of Rutgers University; **Robert S. Markiewicz**, previously of General Electric Co, and **Stephen W. McKnight**, formerly of Naval Research Laboratory.

John P. Andelin, Jr., a physicist and long-time Congressional staff member, has joined the Office of Technology Assessment as assistant director of its science, information and transportation division.

The former Fermilab director, **Robert Rathbun Wilson**, has been appointed Pupin Professor of Physics at Columbia University.

Ralph J. Cicerone is the new director of the Atmospheric Chemistry and Aeronomy Division of the National Center for Atmospheric Research, Boulder, Colorado. He was previously a research chemist at the Scripps Institution of Oceanography, La Jolla, California.

New assistant professors at the Colorado School of Mines, Golden, Colo., are **James M. Lockhart**, formerly of Stanford University, and **Frank V. Kowalski**, formerly of the Joint Laboratory for Laboratory Astrophysics, Boulder, Colo.

George W. Brandenburg, previously of MIT, has joined Harvard University as associate director of the High Energy Physics Laboratory.

Kali Mukherjee has become a professor of metallurgy and materials science at Michigan State University. He was formerly head of the metallurgy department at the Polytechnic Institute of New York.

Nobel laureate **Burton Richter** of SLAC has been appointed to a newly-established chair at Stanford University—the Paul Rigott Professorship in the Physical Sciences.

New faculty members at Harvey Mudd College, Claremont, Cal., are assistant professors **James C. Eckert** (formerly of the University of Southern California) and **Richard C. Haskell** (previously of the Johns Hopkins University).