

WE HEAR THAT

AGU SALUTES OUTSTANDING WORK IN GEOPHYSICS

At last month's meeting of the American Geophysical Union, held in San Francisco, six individuals received medals for their achievements.

The 1990 Fleming Medal for research in geomagnetism, atmospheric electricity and aeronomy was presented to Kenneth M. Creer, a professor of geophysics at the University of Edinburgh. The award citation praised Creer for introducing the concept of representing paleomagnetic data by plotting apparent-polar-wander curves; he also calculated the first such curve for any continent, the citation said, providing "the basis for the first physical test of Wegener's hypothesis of continental drift" (the concept of fragmentation and movement of land masses on the surface of the Earth). In recent years he has concentrated on geomagnetic and paleoclimatic applications of paleomagnetism.

Creer received a PhD in geophysics from Queens' College, Cambridge, in 1954. From 1967 to 1973 he was a professor of magnetism at the University of Newcastle-on-Tyne. Since 1973 he has been at Edinburgh.

Also at the December meeting, Macelwane Medals were given to three individuals: Ellen M. Druffel of Woods Hole Oceanographic Institution, Steven M. Gorelick of Stanford University and Paul Segall of the US Geological Survey. The Macelwane Medal recognizes outstanding work by young researchers.

Druffel's award citation praised her use of radiocarbon from thermonuclear bombs and natural sources "to detect, explain and predict oceanographic and climatic processes." She has applied this technique to a number of problems, including reconstruction of El Niño-Southern Oscillation events and measurements of carbon dioxide created by fossil fuel burning and by natural sources during the past 150 years.

Druffel received a PhD in chemistry from the University of California, San Diego, in 1980. In 1981 she joined

Woods Hole, where she is now an associate scientist.

Gorelick, a specialist in hydrogeology and groundwater systems, was cited for his development of an aquifer simulation and management method "capable of including both a nonlinear objective function and nonlinear constraints." He also developed a statistical technique for estimating the transport parameters.

Gorelick received a PhD in geology from Stanford in 1981. From 1981 to 1988 he worked at the US Geological Survey in Menlo Park, California, after which he became a professor in the applied Earth sciences department at Stanford.

Segall has made "critical contributions to fields as diverse as the evolution of faults and joints, seismic activity induced by fluid extraction, and inversion of geodetic data," the award citation said. He is currently using data from the Global Positioning System to study crustal movements on the San Andreas Fault and around the Hawaiian volcanoes.

Segall received a PhD in geology from Stanford University in 1981. He is now a geophysicist with the USGS and an associate professor of geophysics at Stanford.

The biennial Waldo E. Smith Medal, which recognizes extraordinary service to geophysics, was given to Naoshi Fukushima, a professor emeritus of geophysics at the University of

Tokyo. Fukushima is known for his pioneering work in studying geomagnetic disturbance and ionospheric electric currents. AGU cited him for "creating a sense of community among international geophysicists," in particular, for his contributions to the International Association of Geomagnetism and Aeronomy, of which he was secretary general from 1975 to 1983.

Fukushima received a doctorate in geophysics from the University of Tokyo in 1953, after which he joined the faculty there. He became a professor of geophysics in the university's Geophysics Research Laboratory in 1965 and director of the lab in 1973.

Carl I. Wunsch of MIT received the 1990 Maurice Ewing Medal, awarded jointly by AGU and the US Navy for leadership in marine geophysics. The citation called Wunsch's 1978 paper on the application of inverse theory to the circulation of the North Atlantic "probably [the] most influential" of his contributions to physical oceanography. The citation also praised Wunsch's leadership in organizing the World Ocean Circulation Experiment.

After earning a PhD in geophysics from MIT in 1966, Wunsch joined the faculty there. He is currently Cecil and Ida Green Professor of Physics and Oceanography in the department of Earth, atmospheric and planetary sciences at MIT.

ACOUSTICAL SOCIETY RECOGNIZES RESEARCH AND SERVICE

At the Acoustical Society of America meeting held in San Diego in November, several individuals were recognized for their contributions to the field and to the society.

Richard V. Waterhouse of American University received the Walter Clement Sabine Award for his "fundamental contributions to the under-

standing of sound fields in rooms." Waterhouse's research in architectural acoustics has centered around making accurate measurements in sound-wave fields in enclosures, the award citation said. During the past decade, he has been developing techniques for mapping sound intensity streamlines and methods for comput-