MEMORIAL RESOLUTION

ALLAN V. COX
(1926 – 1987)

Allan V. Cox, Dean of the School of Earth Sciences, died January 27, 1987, in a bicycle accident near his home in Skylonda. He is survived by his sister Lois Weaver, a niece Del Anne Weaver, and a nephew Craig Weaver. Allan holds a place of respect and admiration in our hearts and those of many of our alumni.

Allan studied paleomagnetism, the magnetic memory of rocks, which preserves a record of the magnetic field that existed when the rocks hardened. By analyzing the magnetism of rocks formed at different times, he was able to trace changes of the Earth's magnetic field over millions of years.

The son of a house painter, Allan attended high school in Santa Ana. He pursued his education through independent reading during 3 years in the merchant marine (1945-48), 3 years of undergraduate chemistry at the University of California at Berkeley (1948-51), and 2 more years of independent reading as a private in the U.S. Army (1951-53). The most important event in his education, and the one that helped him choose geology as a career, was a summer job with the U.S. Geological Survey in 1950 as a field assistant to Clyde Wahrhaftig in Alaska. Allan received his B.A. (1955), M.A. (1957), and Ph.D. (1959) degrees from the University of California at Berkeley, where he was inspired by the teaching of John Verhoogen and Perry Byerly. He began his professional career at the U.S. Geological Survey in Menlo Park, where he helped establish what was to become one of the most successful paleomagnetic laboratories in the country. From 1959 to 1967 he worked as a geophysicist with the U.S. Geological Survey. In 1967 he joined the faculty at Stanford University, where he became Cecil and Ida Green Professor of Geophysics. He was elected to the National Academy of Sciences in 1969 and to the American Academy of Arts and Sciences in 1974. He became president of the American Geophysical Union in 1978. He received the Fleming Medal of the American Geophysical Union (1969), the Day Medal of the Geological Society of America (1975), and the Vetlesen Prize (1971). In 1979 he became the dean of the School of Earth Sciences. He was an author of over 100 papers in learned scientific journals. He established our Master's degree program in exploration geophysics, and was mentor to many students.

The essence of Allan Cox is a rare quality -- the ability and determination to bring out the very best in others. To a degree we've never seen in another person with his achievements, he had a most wonderful mix of personal humility with demanding standards, so that before a colleague knew what was happening, he or she was challenged into performing at a level not previously thought possible. And once that level was established those demands were never relaxed. The atmosphere was exhilarating.

His best-known research joined the paleomagnetism and radiometric ages of rocks collected from different parts of the world to find that before 700,000 years ago the geometric field had pointed south instead of north. Since the reversals were found to occur simultaneously everywhere, the polarity of the entire planetary field must have reversed. Together with his

colleagues, by 1966 he had established a radiometric polarity time scale for the past 4,500,000 years and had concluded that polarity changes had occurred at an average rate of 5 reversals per million years. They found that the time intervals between successive reversals were highly variable in length, the shortest being less that than 50,000 years and the longest greater than 1,000,000 years.

On February 3 a memorial service overflowed the Stanford Memorial Church. President Kennedy expressed our sentiments, "... [A] combination of creative scientific analysis and humane concern, more than anything else, characterized Allan as he moved among us. He was the very ideal of the teacher-scholar: the faculty resident and National Academy of Science member, the theater-lighter and the pioneer of magnetic reversal, the living proof that we were right to insist that such capabilities and interests can come together in one person. As a leader of a small school that was all things: graduate and undergraduate, basic and applied, theory and practice, he personally held in enthusiastic cohesion all the disparate forces that are so often elsewhere the enemies of collegial harmony."

"Reverence for nature, love of the land, respect for people. These are the qualities that stood out in Allan. Those of us who knew him know his fineness, know his compassion and commitment to others, and know that a generous and sensitive regard permeated all his human relationships. We loved him; we trusted him; and we still do. Most of all, we wish he were here -- so we could show him."

Jon Claerbout, Chair
Gordon E. Brown
Michael O. McWilliams
George A. Thompson