



**Bill Pickering shows off a model of a Mariner spacecraft in 1967.**

discipline; he taught us precision; he taught us about humility.” He was everyone’s favorite professor and also taught his students “how important it was that things had to work, not just be.”

Rechtin described how the Deep Space Network was born—not in 1963 as officially stated, but back in the days before Explorer’s launch. Pickering understood “about the importance of that particular flight, of the interest that the world would have, and how important it was to measure it.” And when the Army declared a tracking system unnecessary, Pickering sent his tracking stations (“all we needed was a suitcase full of stuff and we could do anything”) to British Commonwealth friends around the world—the first international network, said Rechtin. “And it was the Nigerian station that first heard the signals from Explorer that told us of the existence of the Van Allen ionization belts. The Nigerians were listening at the

right time at the right place and they heard us.”

Tom Everhart, president of Caltech from 1987 to 1997, also mentioned the discovery of the Van Allen belts. For Pickering, he said, “it wasn’t enough to have a beeping satellite as the Russians had. Ours needed to do something useful and it did.” Everhart put that down to Pickering’s Caltech education. “He has stated that when he knew that Explorer I was successfully orbiting the earth, that was one of the proudest moments of his life.”

“I believe Bill Pickering will go down in Caltech history as a man who demonstrated that the Institute could take on a new role, leading a government-funded mission laboratory to make unprecedented discoveries about our planetary system,” said Everhart. “He emphasized the synergy and mutual dependence between science and engineering.”

Pickering received many honors during his long life,

among them the National Medal of Science, NASA’s Distinguished Service Medal, and the New Zealand Order of Merit. He was awarded an honorary knighthood by, as Dunn, the consul general, called her, “the Queen of New Zealand.”

New Zealand always claimed him as a “beloved son.” Dunn remembered seeing the first Mars pictures in 1965 and “the distinguished man with the odd American accent” presenting them. “I still remember my mother pointing to him and saying with pride, ‘That’s Dr. Pickering. Did you know he’s a New Zealander?’”

Donations in his memory may be made to the William H. Pickering Scholarship for New Zealand Graduate Students at Caltech.

He is survived by his wife, Inez, and his daughter, Elizabeth Pickering Mezitt. His son, William Balfour, died two days before him. □  
—JD

## HONORS AND AWARDS

**David Baltimore**, president of Caltech and Nobel laureate, was chosen by the Israel Academy of Sciences and Humanities to deliver the Albert Einstein Annual Lecture at the academy’s headquarters in Jerusalem on March 14, when he spoke on “Biotechnology—An Industry with a Future.”

**Andrew Blain**, assistant professor of astronomy; **Nathan Dunfield**, associate professor of mathematics; **Sunil Golwala**, assistant professor of physics; **Vadim Kaloshin**, associate professor of mathematics; **Re’em Sari**, associate professor of astrophysics and planetary science; and **Tapio Schneider**, assistant professor of environmental science and engineering have all received 2004 Sloan Research Fellowships. Intended to enhance the careers of the very best young faculty members nationally in the fields of chemistry, computational and evolutionary molecular biology, computer science, economics, mathematics, neuroscience, and physics, the highly competitive two-year, \$40,000 awards are available for any activity directly related to a Fellow’s research, including equipment, technical assistance, professional travel, or trainee support.

**David Charbonneau**, Millikan Postdoctoral Scholar in Astronomy, has been selected to receive the Astronomical Society of the Pacific’s Robert J. Trumpler Award, which “is given each year to a recent recipient of the PhD degree in North

America whose research is considered unusually important to astronomy.” The award consists of a plaque and a check for \$500. He has also been named to receive the Bar J. Bok Prize for “outstanding research by a recent graduate of the Harvard Department of Astronomy.”

**Serguei Denisov**, Taussky-Todd Instructor in Mathematics, has been selected to receive the Vasil A. Popov Prize in Approximation Theory. Established in honor of the late Professor Vasil A. Popov of Bulgaria, the prize is awarded every three years to an outstanding young approximation theorist with at most six years of professional experience. This year’s prize will be awarded in May at the Eleventh International Conference in Approximation Theory, in Gatlinburg, Tennessee.

**James Heath**, the Gilloon Professor and professor of chemistry at Caltech and one of the scientific founders of Nanosys Inc., has been recognized “for devising a method for producing ultra-high-density arrays of aligned nanowires and nanowire circuits,” which constitute “a key architecture and technique in several of Nanosys’s electronic systems.” The recognition came as part of

the *Chemical and Engineering News* Nanotech & Molecular Electronics Highlights for 2003.

**Charles Elachi**, Caltech vice president, director of the Jet Propulsion Laboratory, and professor of electrical engineering and planetary science, was named to the William Gould Dow Distinguished Lectureship, which is “the highest external honor” bestowed by the University of Michigan’s department of electrical engineering and computer science, and recognizes the accomplishments of individuals outside the university system “who have made outstanding contributions” in the field of electrical engineering and computer science. Elachi spoke on “Space Exploration in the Next Decade—Challenges and Opportunities.”

**Alexander Kechris**, professor of mathematics, has been elected president of the Association for Symbolic Logic, an international organization supporting research and critical studies in logic by providing a forum for the presentation, publication, and critical discussion of scholarly work in this area. He began his term in January and will hold the presidency for three years.

**Joseph Kirschvink**, professor of geobiology, and **Yuk Ling Yung**, professor of planetary science, have been elected fellows of the American Geophysical Union. The honor recognizes scientists who have achieved eminence in the geophysical sciences and is bestowed on only a tenth of a percent of the union’s membership in any given year.

**Christof Koch**, the Troendle Professor of Cognitive and Behavioral Biology and professor of and executive officer for computation and neural systems, and **Melissa Sáenz**, postdoctoral scholar in biology, have been selected by the

Mind Science Foundation to receive a 2004 Tom Slick Research Award in Consciousness. Named after the late entrepreneur, explorer, philanthropist, and author Tom Slick (1916–1962), the awards were initiated “to fulfill his vision of studying the mind as a means for improving the condition of humankind.”

**Mark Konishi**, the Bing Professor of Behavioral Biology, has been selected to receive the first Edward M. Scolnick Prize in Neuroscience, the highest award of the McGovern Institute at MIT. Named in honor of the former president of Merck Research Laboratories, the

award was created in 2003 to recognize an outstanding discovery or significant advance in the field of neuroscience.

**Richard Marsh**, senior research associate in chemistry, emeritus, has been selected by the American Crystallographic Association (ACA) to receive its first Kenneth N. Trueblood Award, which “recognizes exceptional achievement in computational or chemical crystallography.” As part of the award, Marsh will give the keynote lecture in the Trueblood Symposium, to be organized in his honor during the 2004 ACA annual meeting. □

**George Rossman stands alongside a poster of rossmanite, a tourmaline mineral species named in his honor.**



**ROSSMAN WINS FEYNMAN PRIZE**

“Best professor at Caltech.” “Probably the best, clearest, and most exciting teacher I have ever had.” “Such a great lecturer that he can make the class and each mineral very funny.” Comments such as these from professor of mineralogy George Rossman’s students gained him this year’s Richard P. Feynman Prize for Excellence in

Teaching, Caltech’s most prestigious teaching award. According to the citation, “Rossman has been teaching with enthusiasm and with superb results since he joined the Caltech faculty in 1971. His style of teaching exploits the beautiful and beguiling qualities of minerals and their relationships to geological processes. He employs a series of mind-stretching demonstrations, often including liquid nitrogen and irradiated crystals. He tells stories about minerals. He asks probing questions about their color, and then leads students to think in general about the proper approach to scientific questions.” “Rossman also originated the concept, and helped to fund the reality, of field trips to localities not easily accessible to students. Recently, undergraduate and graduate students have gone to Alaska, Greece, Turkey, South Africa, and Brazil.” The award is made possible by the generosity of an endowment from Ione and Robert E. Paradise, along with additional contributions from Mr. and Mrs. William H. Hurt. □

**Answer to puzzle on page 11: Pat, Lee, and Sydney are in the room with Renay.**