Dr. Edward C. Posner
August 10, 1933, to June 15, 1993

Ed Posner was born in New York City on August 10, 1933, and graduated first in his class from Stuyvesant High School in 1950. Two years later, he received his B.A. in physics, and then his M.S. and Ph.D. (in 1957) from the University of Chicago. While a graduate student, he married Sylvia Kouzel. They have a daughter, Joyce, and a son, Stephen. After four years of teaching mathematics at the University of Wisconsin and Harvey Mudd College, he joined JPL's Communications Systems Research Section in 1961. During the next 32 years, he worked extensively in information theory, communications, and neural networks. He was Supervisor of the Information Processing Group (1962–1967), Deputy Manager of the Communications Systems Research Section (1967–1973), a member of the TDA Planning Office (1973–1978), and Manager of the TDA Planning Office (1978–1983) before being appointed the TDA's Chief Technologist in 1981. In 1982, he became editor of the *TDA Progress Report*.

In addition to his JPL activities, Ed held a joint appointment on Caltech's faculty from 1970 until his death. In this capacity, he supervised numerous Ph.D. students, in research topics covering a variety of communications subjects that generally differed from his JPL communications interests. He founded and, for more than 20 years, organized the Caltech Electrical Engineering Systems Group seminar. He was a founder of Caltech's and JPL's program in neural networks. He sponsored many Summer Undergraduate Research Fellowship (SURF) students and cofounded the SURF satellite program. He also served on the freshman admissions committee.

Ed was a fellow of the Institute of Electrical and Electronics Engineers and a member of the Board of Governors of its Information Theory Society and of the Neural Networks Committee. He served as chairman of the Neural Information Processing Systems Foundation. He was a member of the committees of professional mathematics and engineering societies, program chairman or general chairman of several conferences, and a member of the editorial boards of four journals.

Dedication

This issue is dedicated to the memory of Dr. Edward C. Posner, who died in a tragic traffic accident while bicycling to work on June 15, 1993. He will be greatly missed.

Dr. Posner was the editor of this publication from December 1982 to June 1993. During his tenure, he succeeded in continually improving the technical quality and integrity of this quarterly report. It is widely circulated to 97 organizations in 19 countries.

The editing of this issue had been substantially completed by Dr. Posner. I am honored to have the privilege to complete this issue for him.

To express some of the feelings of those of us who had come to know Ed Posner, two passages follow from Dr. Lew Allen, Director of the Jet Propulsion Laboratory from 1982 to 1990, and Dr. Eberhardt Rechtin, a founder of the Deep Space Network.

Joseph H. Yuen

It was my great pleasure to work closely with Dr. Edward C. Posner in several respects. His contributions to the Deep Space Network have been recounted elsewhere and they, of course, continued during my time as Director. Ed was known nationally and internationally as a leading expert in communications with very low-level signals in a noisy environment. He applied this knowledge to several important problems involving national security. His contributions to these areas were recognized by the customer as very innovative and valuable.

Ed was an excellent teacher. He held a joint appointment with the Electrical Engineering Department at Caltech. He enjoyed working with students and was especially active in creating summer research opportunities for undergraduate Caltech students. His wit and wry view of many matters caused him to be a joy to students and fellow workers. He encouraged and mentored young scientists and engineers at JPL in a way that will be particularly missed.

Ed and I worked together on a few civil applications of communication technologies; here also, his deep understanding of underlying principles was very important. And, I also knew him as a friend. JPL will miss the services of Ed, and I and many others will miss him as a friend.

Lew Allen

The Deep Space Network is a very human organization, for all of its stations, accomplishments, "firsts," and fame. It has a soul. Ed Posner was at the center of that soul—a renaissance man, a teacher, and a brilliant technologist. He understood the importance of unmatched excellence under stress, of performance so high as to be taken for granted, and of deep dedication beyond self. But, without relief, such things make for somber surroundings and, worse yet, somber people who take things too seriously and who fail hard. Ed was a master of the gentle jibe that reminded us that being in the DSN could be—must be—fun. He had the technical and intellectual credentials to get away with it and the tact not to jest too deep.

The *TDA Progress Report* has been an essential part of the DSN from its inception. The report is an expression of how and why the DSN performs as it does—with high standards, integrity, and respect for those it serves. Excellent journals come from excellent organizations, of course. But, it is also true that excellent organizations result from the discipline, responsibility, and pride that comes from writing of one's work in a first-rate publication. Our Progress Report editor is responsible for making and keeping it so, for "keeping the flame," and revealing the soul of the DSN.

Ed Posner understood all that. Being an editor is a tough job. There's not much glory in it. He volunteered for it, among all his other careers. He seldom talked about his feelings, but I suspect he deeply loved the Deep Space Network and its people. As editor, he told their story. He was a lively, gentle, understanding, and brilliant part of their soul. We will miss him more than he could have imagined.

Eb Rechtin