

# President's Message—The Microwave Spectrum, Our Resource for the Future

ROBERT A. RIVERS

**M**ANY areas of technical activity are involved with the more effective utilization of scarce resources. New products are continually being introduced to make more efficient use of resources. Many times resources are human time and work. In the case of microwave engineering we use a resource (the electromagnetic spectrum) to acquire or transmit information. We use this resource to make more efficient use of human time and energy. In other cases we use this resource to transmit energy itself. When used, these energy transmission techniques are evaluated and used competitively with other means of energy transmission. In both cases, we must use our re-

source to do the job. From the point of view of the microwave engineer he is involved with a relatively inexpensive resource. It is only in certain limited communication bands that the spectrum is scarce. Generally speaking, the spectrum is crammed full up to 500 MHz. Between 500 and 1000 MHz there is little activity. From 2 to 12 GHz, only the communication bands are significantly utilized. Overall, and considering the near term usable spectrum of 300 GHz, we have not scratched the surface of our basic resource. While we should see that this basic resource is not wasted, our problem is one of finding new uses for this resource. Perhaps a major role for the MTT is in promoting the use of microwave techniques. This could be a service to our Microwave Industry, ourselves as Engineers, and to the public.

R. A. Rivers is the 1974 President of S-MTT. He is with Aircom, Inc., Union, N. H. 03887.

## The 1974 International Microwave Symposium

G. P. RODRIGUE AND GORDON R. HARRISON

**T**HE 1974 IEEE S-MTT International Microwave Symposium was hosted by the Atlanta Joint Chapter of MTT and AP and held on the campus of the Georgia Institute of Technology and at the Sheraton-Biltmore Hotel, Atlanta, Ga., June 12–14, 1974.

The period of June 5–June 14 saw an unprecedented concentration of technical symposia at Georgia Tech. In addition to the Microwave Symposium, four other technical meetings were held in that period. These others were: International Conference on Submillimeter Waves and Their Applications, June 5–7; 1974 International IEEE AP-S Symposium, June 10–12; USNC/URSI Meeting, June 11–13; Twelfth Symposium on Electromagnetic Windows, June 12–14. The theme of the meetings, "Together in '74," was obvious. Attendees had the unparalleled opportunity to "sample the merchandise" in many related technical areas. The large number of joint registrations (roughly one-third of the total) proved the validity of holding contiguous conferences.

The Microwave Symposium accented "Man—Microwave Applications Now—," in one complete session and in several papers interspersed throughout the program. The technical program also contained joint sessions

with the Antennas and Propagation Symposium dealing with phased arrays and with technology assessment and forecasting.

The Symposium was attended by 610 registrants from the United States and around the world. Technical Sessions were dispersed on the Georgia Tech campus in the Electrical Engineering, Space Science, Textiles, and Physics Buildings and on Wednesday evening at the Sheraton-Biltmore Hotel. To our knowledge no one was lost on the shuttle buses.

Sixteen industrial concerns supported the conference by exhibit booth purchases and eighteen more through digest listings or coffee break sponsorship. The Georgia Institute of Technology and other local firms cited below generously provided time for many committee members as well as secretarial assistance.

### TECHNICAL PROGRAM

The technical program, as prepared and planned by the Technical Program Committee, consisted of 20 technical sessions and 6 special sessions. A list of these technical sessions with the approximate attendance to each session is listed as follows: