

The 1980 MTT-S International Microwave Symposium

LAWRENCE R. WHICKER, FELLOW, IEEE

THE 1980 International Microwave Symposium, related workshops, and exhibitions were held at the Shoreham Hotel, Washington, DC, during the week of May 26–May 30, 1980. As has been the case in the past few years, the Symposium is continuing to grow. Approximately 1000 people attended the Symposium and workshops while an additional 450 people registered for the exhibitions.

This year five workshops were scheduled on May 26 and May 27. All were well attended with particularly large attendance at the “Gigabit Logic for Microwave Systems” workshop and the workshop on “Monolithic Microwave Analog IC’s.” The combined attendance at workshops on May 26 was about 200 with approximately 300 people attending workshops on May 27.

One of the highlights of the Symposium was the opening session in which the Symposium attendees were addressed by Dr. Steve Adam, MTT AdCom President, Dr. Leo Young, IEEE President, and Keynote Speaker, Dr. Arden L. Bement, Deputy Under Secretary of Defense (Research and Technology). In his address, Dr. Bement outlined the Department of Defense research thrusts for the 80’s and indicated that there is a strong future for research and technology in the microwave area. This opening session was followed by well attended technical sessions. This year, the sessions on millimeter waves and those on microwave solid-state drew large audiences. The three invited sessions dealing with the U.S. export market, European satellite systems, and Japanese satellite systems all created good interest.

The highlight of the week’s activities by all standards was the outstanding social program planned by my wife, Margaret. The social program included the following.

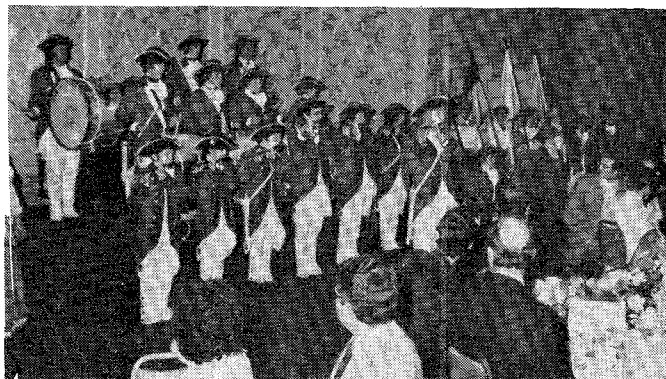
Champagne and Dessert Tour of Washington, DC, which was attended by over 150 conference attendees, spouses, and children, provided an exciting introduction to the Nation’s Capitol.

Three Spouses Tours included a Georgetown House Tour, a Capitol Hill Tour, and a tour of Mount Vernon and Alexandria, VA. Some of the highlights included a VIP Tour of the White House, a Reception at the Indonesian Embassy, and lunches at the Capitol Hill and Congressional Clubs. These tours provided a unique insight into the Washington scene.

The Annual Banquet was a gala affair with participation by the John Hanson Musical Group, the Combined Services Color Guard, and with entertainment by Mark



Head table at the banquet.



John Hanson musical group at banquet.



Comedian Mark Russell entertaining at banquet.



Larry Whicker addressing banquet.



Dr. S. B. Cohn addresses banquet after accepting Microwave Career Award.



Dr. Kleen accepts Microwave Career Award from Steve Adam.



Don Parker accepts his Past President's pin.

Russell. In addition to our many normal awards, Dr. S. B. Cohn and Dr. W. J. Kleen received the "Microwave Career Award." Dr. Bruno Weinschel received the IEEE/USACD Award for Engineering Professionalism. Some of the many dignitaries in attendance at the banquet included Dr. A. L. Bement, Deputy Under Secretary of Defense, Dr. J. Feinstein, OUSDR&E, Dr. L. Young,

IEEE President, Dr. R. Damon, Candidate for IEEE President, and Dr. B. Weinschel, IEEE Treasurer.

The Symposium exhibition was bigger and better than ever with 135 booths occupied. Exhibition-only registrations totalled 450 this year as compared to 300 in each of the past two years. The exhibit portion of the Symposium was so successful that a total of 110 booths were com-



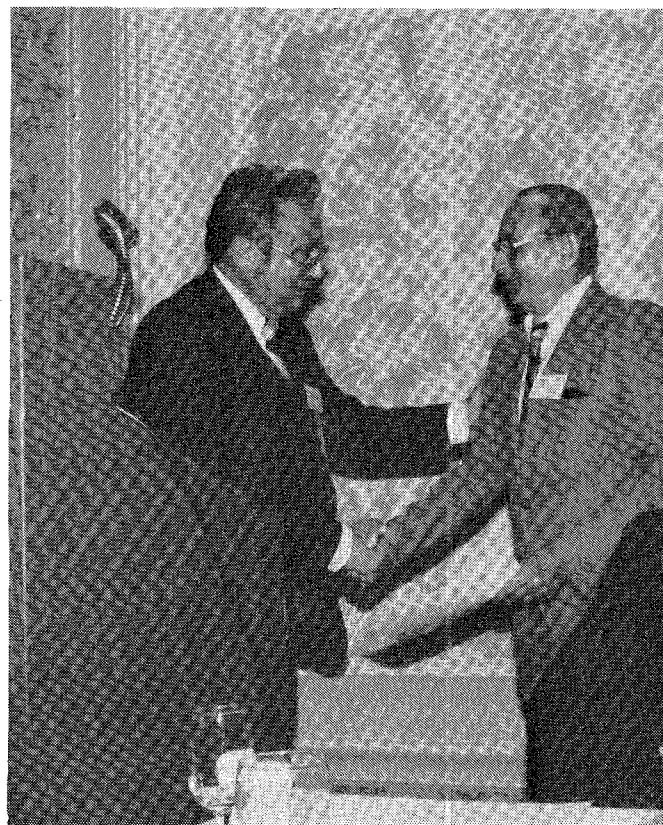
Erwin Belohoubek accepts Microwave Application Award.



Past National Lecturer Jim Wiltse addresses banquet.



Larry Whicker congratulates Ken Button for receiving Distinguished Service Award.



Rudi Henning receives Distinguished Service Award for his work as General Chairman for 1979 Symposium.

mitted for Los Angeles by the end of the conference.

An AdCom historical exhibit was organized by Ted Saad. A great deal of written material as well as hardware was collected and exhibited. During the week, some 537 people signed the registration book in the historical exhibit.

Specific details on the workshops and panel sessions are as follows.

- 1) One-day workshop on "Gigabit Logic for Microwave Systems" organized by Paul Greiling and attended by 98.
- 2) Two-day workshop on "Automated Radio Frequency Techniques," organized by Dick Swartley and attended by 70.
- 3) One-day workshop on "Millimeter Wave Devices using Gyrotropic Media," organized by Chuck Boyd



Lamar Allen receives Distinguished Service Award for Past Editor of Transactions.



IEEE President, Leo Young, presents IEEE/USAB Award for Engineering Professionalism to Bruno Weinschel.



E. R. Carlson, T. F. McMaster, and M. V. Schneider receive the Microwave Prize for 1979.



Harlan Howe receives Fellow Certificate from Leo Young.

and Dean Hodges attended by 74.

- 4) One-day workshop on "Electromagnetic Dosimetric Imagery (DOD)," organized by John Jacobi and attended by 84.
- 5) One-day workshop on "Monolithic Microwave Analog IC's," organized by Doug Maki and Eliot Cohen and attended by 159.
- 6) Evening panel session on "Solar Power Satellite Sys-

tem," organized by Bill Brown and Ron Gutmann.

- 7) Evening panel session on "Millimeter-Wave IC's-Challenge of the 80's" organized by Frank Sullivan and Paul Meier.

TECHNICAL SESSIONS

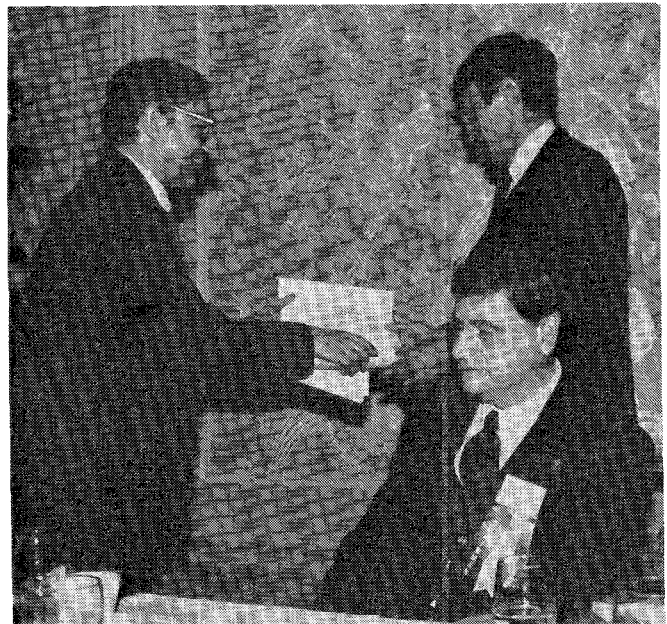
The 63 Technical Program Committee Members working through 16 subcommittees selected 160 contributed



Edward Crystal receives Fellow Certificate.



J. D. Rhodes receives Fellow Certificate.



Reinhard Knerr receives Fellow Certificate.

and invited papers for presentation at the Symposium. These papers were presented in 23 sessions. Three of these sessions were invited—two dealing with communication technology in Europe and Japan while the third dealt with the export of technology from the United States.

Technical program sessions and session chairmen are listed below.

- Session A:* Welcome and Keynote Address
—Chaired by L. Whicker.
- Session B:* Microwave Power Transistors
—chaired by F. Hasegawa.
- Session C:* Millimeter Receivers and Components
—chaired by J. Smith.
- Session D:* Microwave Acoustics and Magnetostatic Waves

- chaired by D. Webb.
- Session E:* Microwave Engineering for Export
—chaired by E. Wolff.
- Session F:* Millimeter Wave Power Generation
—chaired by A. Cardasmenos.
- Session G:* High Power Devices and Techniques
—chaired by H. Goldie.
- Session H:* Microwave Systems—1
—cochaired by P. Greiling and F. Ivanek.
- Session J:* Microwave Filters and Multiplexers
—chaired by R. Levy.
- Session K:* High-Power Solid-State Circuits
—chaired by D. Parker.
- Session L:* Satellite Communication Systems in Europe (Invited Session)
—chaired by P. deSantis.



Symposium Steering Committee

Front Row (Left to Right): J. Degenford, R. Neidert, A. Friend, R. VanWagoner, E. Wolff, M. Cohn, B. Spielman, J. Douglas.

Second Row (Left to Right): H. Ellowitz, G. Kantor, B. Sheleg, J. Jacobi, M. Whicker, L. Whicker, H. Willing, C. Rauscher, R. Kaul, L. Young.

Not Pictured: H. W. Cooper, T. F. Curry, R. V. Garver, J. Kaiser, H. Schrank, L. M. Schwab, J. Shiue.

- Session M:* Guides and Components
—chaired by T. Itoh.
- Session N:* Ferrite Applications
—chaired by A. Yarranton.
- Session O:* Millimeter Wave IC's
—chaired by N. Jansen.
- Session P:* Satellite Broadcasting in Japan (Invited Session).
- Session Q:* Guided Wave Optics & Interactions
—chaired by T. Giallorenzi.
- Session R:* Biological Applications and Effects
—chaired by E. Bostow.
- Session S:* GaAs FET Circuits
—chaired by E. Cohen.
- Session T:* Computer-Aided Techniques
—chaired by W. Ku.
- Session U:* Microwave Measurements
—chaired by H. Olman.
- Session V:* Field Theory
—chaired by L. W. Pearson.
- Session W:* Microwave IC Components
—chaired by E. Derlinger.
- Session X:* Microwave Systems—2
—chaired by G. Schaffner.

DIGEST

The outstanding 500-page digest was edited by Len Schwab and Jim Douglas in a highly professional, efficient manner. It can be ordered by IEEE Catalog No. 80CH1545-3 MTT-S.

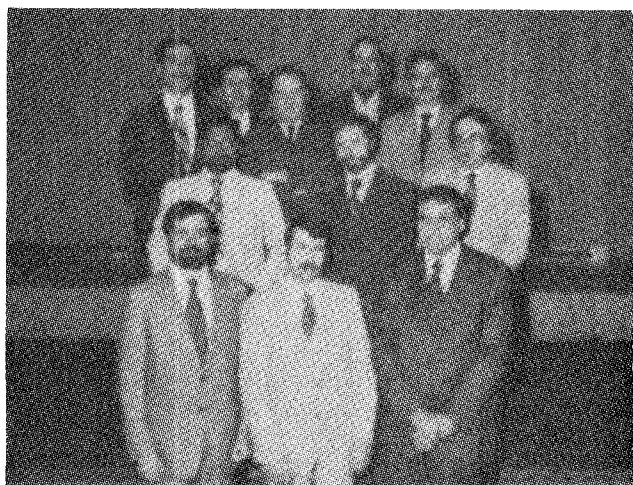
ACKNOWLEDGMENT

The 1980 Symposium owes its success to the hard working team of many individuals who spent so much time before and during the Symposium on a wide array of tasks. Listed for special recognition are the members of the Steering Committee and the Technical Program Committee. Others include Ted Saad for his outstanding job on the historical exhibit; the highly efficient courteous

and capable convention staff of the Shoreham Hotel; the listed employers of the committee chairmen and members of AdCom and its technical committees.

1980 SYMPOSIUM STEERING COMMITTEE CHAIRMEN

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First Row Left to Right: R. VanWagoner, S. March, L. Whicker.

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Third Row Left to Right: M. Yoder, W. Pearson, E. Belohoubek.

Fourth Row Left to Right: H. Howe, B. Spielman, N. Vanderplaats.



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First Row Left to Right: J. Smith, M. Maury, Jr., R. Levy.

Second Row Left to Right: W. Glenovatch, P. Greiling, H. Goldie.

Third Row Left to Right: C. Boyd, D. Hodges, R. Garver.

Fourth Row Left to Right: G. Oltman, G. Engen, R. Sparks.



Technical Program Committee

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Second Row Left to Right: J. Kuno, R. Kagiwada.

Third Row Left to Right: E. Cohen, G. Kantor, T. Lukaszek.

Fourth Row Left to Right: B. Berson, J. Whelehan, T. Itoh, A. Cardeosmenos.

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H. Schrank, Westinghouse
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E. Wolff, NASA Goddard
L. Young, Naval Research Laboratory

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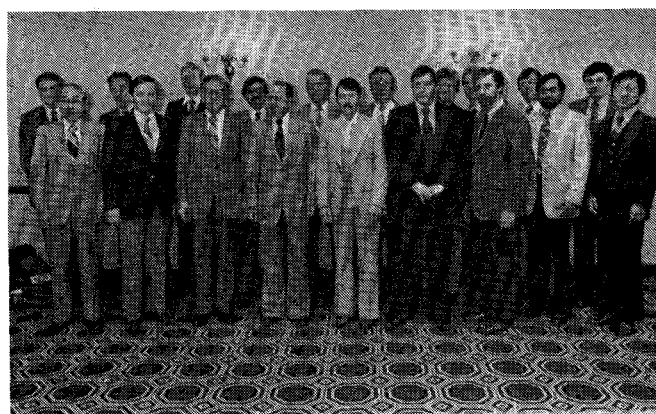
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 T. S. Saad

1979 MTT Awards

H. SOBOL, FELLOW, IEEE

AT THE annual Symposium Banquet, MTT-S President Steve Adam presented the following MTT Society awards announced in October of 1979.

Microwave Career Awards—{ Seymour Cohn
 Werner J. Kleen }

Microwave Prize—{ Eric R. Carlson
 Martin V. Schneider
 Thomas F. McMaster }

Microwave Application Award—Erwin Belohoubek

IEEE President Leo Young presented Fellow Certificates to E. G. Cristal, H. Howe, R. H. Knerr, and J. D. Rhodes. J. B. Horton, a former president of AdCom and K. J. Button, a present member and organizer of the International Conference on Submillimeter Waves and their Application received Distinguished Service Awards.

MTT SOCIETY AWARDS

Microwave Career Award

The Microwave Career Award is presented aperiodically to an individual for a career of meritorious achievement and outstanding technical contributions in the field of microwave theory and techniques. Two outstanding individuals, Seymour Cohn and Werner J. Kleen were named in 1979 to receive Microwave Career Awards in recognition of their extensive contributions.

Dr. Cohn began his microwave activity at the Harvard Radio Research Laboratory during World War II and continued at Sperry, Stanford Research Institute, Rantec, and for the past thirteen years has served as an independent consultant to the microwave industry. He has made many very significant contributions to the art and science of microwaves in field theory, waveguide structures, strip-

line, and filters. He is an IEEE Fellow, served as MTT AdCom Chairman, and received the Microwave Prize and the IEEE Lamme Gold Medal.

His Career Award Citation reads, "for a career of meritorious achievement and outstanding technical contributions in the field of microwave theory and techniques." As a recipient of the Microwave Career Award, Dr. Cohn received a certificate, plaque, and a check for \$500. Further biographical information on Dr. Cohn and a copy of his certificate follows.



Seymour B. Cohn (S'41-A'44-SM'51-F'59) was born in Stamford, CT, on October 21, 1920. He received the B.E. degree in electrical engineering from Yale University, New Haven, CT, in 1942, and the M.S. and Ph.D. degrees in engineering sciences and applied physics from Harvard University, Cambridge, MA, in 1946 and 1948, respectively.

From 1942 to 1945 he was employed as a Special Research Associate by the Radio Research Laboratory of Harvard University, and also represented that laboratory as a Technical Observer with the U.S. Air Force. From 1948 to 1953 he was with Sperry Gyroscope Company, Great Neck, NY, where he advanced to the position of Research Engineer. From 1953 to 1960 he was with the Stanford Research Institute, Menlo Park, CA, as Head of the Microwave Group and from 1957 as Manager of the Electromagnetics Laboratory. In 1960 he joined Rantec Division, Emerson Electric Company, Calabasas, CA, as Vice President and Technical Director. In 1967 he formed S. B. Cohn Associates, Inc., and since that date has practiced as an independent consultant to various companies in the microwave industry.

Dr. Cohn is a member of Tau Beta Pi and Sigma Xi. In 1954 he received the Annual Award for the Advancement of Basic and Applied Science given by the Yale Engineering Association. He is a former member and ex-chairman of the G-MTT Administrative Committee, and was the recipient of the G-MTT 1964 Microwave Prize. He is an Associate Editor of the Microwave Journal, and a member of the