



COMMUNICATIONS TECHNOLOGY GROUP

Volume 2 Number 1

September, 1965

MESSAGE FROM THE EDITOR, G. KARGER

TABLE OF CONTENTS

	Page	Column
Newsletter Function	1	1
Editor's Message	1	2
Chairman's Message	1	2
1965-66 Committee Directory	2 & 3	
Committee Reports	3	2
Chapter Reports	4 & 5	
Boulder Convention Notes	6	1
1966 IEEE Communications Conference	6	1 & 2
NEC Dinner Announcement	6	2
NEC Program	6 & 7	
Network Hotline (including news of Ed Dingley)	8	2
Membership	9	1
General Interest	9-12	

The 1965-66 IEEE Season has arrived. We have been asked to serve another term and will do our very best to bring all members news of events important to the Communications Community. The Newsletter will support the publicity needs of your Administrative Committee (AdCom), Standing, Operating, Technical and Translation Review Committees and all Comtech sponsored events including conferences and events at Global, Regional and Local (chapter) levels. Furthermore, it is desired to make appropriate announcements concerning the professional and personal progress of the persons who actively support the Communications Community, as well as their corporate sponsor which allows them to do so.

Members are encouraged to submit "Letters to the Editor" and provide comments on relevant matters. Suggestions for improving our service are always welcome and will be carefully considered. This issue contains a complete listing of officers and committee chairmen. You are urged to contact the appropriate person in the event you should like to contribute or have questions. In the event it is inconvenient to do so, feel free to contact the Editor by mail or phone as noted on this page, and your questions will be answered promptly and courteously.

IT IS THE PURPOSE OF THIS NEWSLETTER TO SERVE AS THE COMMUNICATION LINK BETWEEN THE COMMITTEES AND ALL MEMBERS ON A TWO-WAY BASIS.

Maximum Effort will be expended to implement this policy.

MESSAGE FROM THE CHAIRMAN, Dr. R. K. Hellmann

It is a pleasure to introduce to the members of the Group the Administrative Committee for the 1965-66 year, whose names appear in this issue of the Newsletter. With only a few exceptions, all committees had already constituted themselves in June and all are now actively engaged in carrying forward their stated objectives.

As our "First Annual Communications Convention" which took place in Boulder, Colorado on June 7-9, demonstrated beyond doubt, the Group has passed the trial of the interim year and has emerged as the full-fledged heir to the traditions established by its two predecessors. We have a plan for technical meetings which now extends into 1969, and have a single technical publication. Both membership and number of chapters are increasing significantly. We have also become more aware of problems that the Group must yet solve in the interest of giving its members the kind of professional service which they expect. Rather than dwell on accomplishments, I would list some of the things still to be done.

1. Paper Reviews - Striking a balance between timely publication of important contributions in the TRANSACTIONS on the one hand, and conscientious screening of papers through review and discussion on the other hand, is a difficult process. As the procedure is set up now, it places a large burden on the chairmen of the Technical Committees. They have been urged to share this load with the members of their committees without, however, prolonging the process. This creates opportunities for many more Group members to participate in one of the most important activities of the Institute. Please respond to the call.

2. Chapters - Many Sections are looking to their Chapters to organize monthly Section meetings. As demonstrated by the unusually high percentage of sessions sponsored by ComTech at major IEEE meetings our Chapters have access to "red hot" technical subjects which can provide desirable material for Section meetings. Study the topics presented at our major meetings and use them.

NEWSLETTER FUNCTION

This NEWSLETTER is published Quarterly for the Administrative Committee of the IEEE Communication Technology Group, and serves as a vehicle for the dissemination of news items of current importance and interest to members of the COMTECH Group.

Technical Committees and other operating elements of the Group are invited to use this publication as its NEWSLETTER.

Items covering Committee, Chapter, Call for Papers, Meetings, Personal and Professional, and other appropriate news are solicited and should be submitted to the Editors as follows:

General News, Committee Activities, etc.
 Gunther Karger, Editor
 IEEE COMTECH Group Newsletter
 RADIATION INCORPORATED
 725 Rosada Street
 Satellite Beach, Florida 32937
 Office Phone: 305-723-1511, Home: 305-262-5894

All Chapter Activities
 Ray Bogdan, Associate Editor
 IEEE COMTECH Group Newsletter
 TYPE CORPORATION
 55 Touhy Avenue
 Skokie, Illinois 60076
 Phone: 313-676-1000

The deadline for the December, 1965 issue will be November 1st. All items must be received prior to this date.

3. Professional Contacts - Next to reading and listening to papers, and on occasion, writing one, engineers want the IEEE to help them to establish personal professional contacts at Institute meetings. To facilitate this, your AdCom has considered scheduling informal dinners at those meetings which heretofore did not offer ComTech members from across the country an easy opportunity to meet. Please watch for notices of such arrangements for NEC in Chicago and the International Convention, March 1966, in New York.

So that the Group can concentrate on participation in the above-mentioned two "national" meetings and on our own June Communications Conference, your AdCom decided last year to discontinue sponsorship of the Communications Symposium which for many years took place in Utica, New York, in October. This year the Mohawk Valley Section who have undertaken the task of transforming this meeting into an event of considerable regional importance, we extend our best wishes for a successful affair.

The next AdCom meeting is scheduled for Monday, October 25th, in Chicago, where I hope to greet many of the Group members.

1965-66 COMMITTEE DIRECTORY

Officers

Chairman	Dr. R. K. Hellmann Hazeltime Corp. Little Neck 62, N. Y. Tel. 212-FA 1-2300
Vice Chairman	Dr. W. B. Jones, Jr. School of Engineering Georgia Institute of Technology Atlanta 32, Ga.
Secretary	Dr. A. B. Giordano Brooklyn Polytechnic Institute 333 Jay Street Brooklyn 1, N. Y. Tel. 212-643-5720
Treasurer	Mr. D. L. Solomon Office of the Secretary of Defen. Post Office Box 537 Alexandria, Va. Tel. 202- OX 5-3136

2. Members-at-Large and Ex-Officio Members

a) Members-at-Large To July 1, 1968	L. A. DeRosa, Techn'l Dir. ITT U. S. Defense Space Group 500 Washington Ave. Nutley 10, N. J. Tel. 201-284-2347
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Dr. R. L. Shuey General Electric Co. Schenectady, N. Y. Tel. 518-346-8771	Mr. B. Goldberg Army Signal R&D Ft. Monmouth, N. J. Tel. 201-535-2471
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Dr. R. K. Hellmann Hazeltime Corp. Little Neck 62, N. Y.	
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Dr. W. B. Jones, Jr. School of Engineering Georgia Inst. of Tech. Atlanta 32, Ga.	To July 1, 1967 F. D. Reese Automatic Elec. Labs., Inc. P. O. Box 17 Northlake 64, Ill. Tel. 312-562-7100, x520
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Mr. R. C. Kirby Nat'l Bureau of Standards Boulder, Colo. Tel. 303-442-2161, x484	H. E. Weppler American Tel. & Tel. 195 Broadway New York 7, N. Y. Tel. 212-393-3291
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To July 1, 1966

Mr. W. Lyons Tele-Signal Corp. 198 Miller Place Hicksville, N. Y. Tel. 516-WE 8-7110	D. L. Solomon Army Signal Communications Engineering Agency P. O. Box 537 Alexandria, Va. Tel. 202-OX-5-3136
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R. L. Marks Rome Air Develop. Cntr. Griffiss Air Force Base Rome, N. Y. Tel. 315-FF-6-3200	P. T. Sproul Bell Telephone Labs Whippany, N. J. Tel. 201-TU-7-1000, x3581
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b) Ex-Officio Members

Mr. L. G. Abraham Bell Telephone Labs, Inc. Murray Hill, N. J. Tel. 201-582-4262	Mr. L. G. Abraham Bell Telephone Labs, Inc. Murray Hill, N. J. Tel. 201-582-4262
R. L. Marks Rome Air Develop Cntr. Griffiss AFB Rome, N. Y.	D. S. Rau 141 Meadow St. Garden City, N. Y. Tel. 516-PI 1-1991

3. Chairmen and Vice Chairmen of Technical Committees, and Chairmen of Translated Journals Committees

(Note: Only the Chairmen are voting members of AdCom)

a) Technical Committees

Communication Switching	S. B. Weiner, Chairman Stromberg-Carlson Corp. Rochester 3, N. Y. Tel. 716-482-2200
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Mr. A. J. Leininger V. C. Illinois Bell Telephone Co. 208 W. Washington St. Chicago 6, Ill. Tel. 312-727-4269

Communication System Disciplines	C. A. Strom, Chairman 2000 Bedford St. Rome 40, N. Y. Tel. 315-FF-6-3200. x4911
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J. Schlaikjer, V. C. ITT Communications 320 Park Ave. New York 22, N. Y. Tel. 212-PL 2-6000

Telemetry	W. F. Cruess, Chairman Dresser Controls P. O. Box 2726 Houston 1, Texas Tel. 713-SU 1-1911
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Communication Theory	Dr. G. R. Cooper, Chairman Purdue University School of Elec'l Engr. Lafayette 7, Ind. Tel. (Lafayette) 92-4247
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Radio Communication	I. T. Corbell, Chairman ITT Kellogg 2912 Wake Forest Rd. Raleigh, N. C. Tel. 919-828-4441
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L. L. Robinett, V. C. American Tel. & Tel. Co. Long Lines Dept. 32 Avenue of Americas New York 13, N. Y. Tel. 212-393-6022

Space Communication

Mr. C. Mannal, Chairman General Elec. Co. 1 River Rd., Bldg. 36-626 Schenectady 5, N. Y. Tel. 518-374-2211, x52203
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Dr. J. G. Barry, V. C. Mitre Corp. P. O. Box 208 Bedford 30, Mass. Tel. 617-271-2098
--

Wire Communication

J. C. Leffel, Chairman Michigan Bell Telephone Co. 23500 Northwest Hwy, E-145 Southfield 76, Mich. Tel. 313-727-4052
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A. F. Culbertson, V. C. Lenkurt Elec. Co., Inc. 1105 County Road San Carlos, Calif. Tel. 415-591-8461

Data/Telegraph

W. G. Vieth, Chairman Western Union 60 Hudson St. New York 13, N. Y. Tel. 212-577-4312
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R. M. Kalb, V. C. Remington Rand Univac Division St. Paul 16, Minn. Tel. 612-698-2451

3. (b) Translated Journals Committees

"Radio Engineering and Electronic Physics"	Prof. L. S. Schwartz, Chm. New York University School of Engr. and Science Bronx 53, N. Y. Tel. 212-584-0700, x367
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"Telecommunications and Radio Engineering"	Mr. A. Minc, Chairman Tele-Signal 198 Miller Place Hicksville, N. Y. Tel. 516 WE 8-7110
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"Electronics and Communications in Japan"	Dr. W. Miller, Chairman Fairchild Stratos Corp. Electronic Systems Div. 600 Orinoco Drive Bayshore 6, N. Y. Tel. 516-MO 5-8880
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4. Chairman of Standing Committees

Chapters	R. McSweeney ITT World Communications Inc. 67 Broad Street New York 4, N. Y. Tel. 212-797-5142
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Publications	R. D. Slayton Teletype Corp. 5555 Touhy Ave. Skokie 78, Ill. Tel. 312-676-1000, x6354
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Meetings	F. D. Reese Automatic Elec. Labs., Inc. P. O. Box 17 Northlake, 64, Ill. Tel. 312-562-7100, x520
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Membership

W. C. Burnett Southern Bell Tel. & Tel. Co. P. O. Box 2211 Atlanta 1, Ga. Tel. 404-529-8487

Liaison with Other GROUPS

L. G. Abraham Bell Telephone Labs, Inc. Murray Hill, N. J. Tel. 201-582-4262

Standards Liaison

W. Y. Lang Bell Tel. Labs., Inc. 463 West Street New York, N. Y. Tel. 212-CH 3-1000, x3454
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Safety Liaison

C. E. Smith 8200 Snowville Rd. Cleveland 41, Ohio Tel. 216-526-4386
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Awards -
Nominations -
Bylaws -

COMMITTEE REPORTS

Several committees will meet during the National Electronics Conference (NEC), Chicago. The schedule is listed as follows:

Meetings Committee	Monday, Oct. 25, 11:30 A. M. 208 W. Washington, Rm. 2005 (Includes Lunch)
Administrative Committee	Monday, Oct. 25, 8:00 P. M. McCormick Place, Rm. C
Wire Communication Committee Task Force on Longitudinal Balance Standardization	Tuesday, Oct. 26, 2:00 P. M. McCormick Place, Rm 14
Wire Committee Regular Committee Meeting	Tuesday, Oct. 26, 7:00 P. M. McCormick Place, Rm. B
Radio Communication Committee	Tuesday, Oct. 26, 2:00 P. M. Room to be assigned
Communication Switching Committee	Tuesday, Oct. 26, 5:30 P. M. McCormick Place, Rm. D

Wire Communication Committee

Chairman: J. C. Leffel, Michigan Bell Telephone Co., Southfield, Mich.

The Wire Committee looks forward to another good year. Ten technical sessions are planned for three meetings scheduled during the year. Hopefully, one or two of these will be joint sessions with the Switching and/or Radio Committees' sponsorship too.

Task Force activity is expected to remain at about current levels. Work is practically completed in the fields of Telephone Set Testing and Carrier Coordination, but is just beginning in Continuing Education for Engineers, and is very active in the field of Longitudinal Balance. As described elsewhere, we are planning two interesting sessions on Longitudinal Balance at the NEC on Tuesday, Oct. 26th.

We expect to do further work in organization to simplify paper review. Also, each member is being asked to stimulate activity which will develop interest in the ComTech Group at the local section level. In addition, two of our members are serving on the AdCom Membership Committee.

The Wire Committee is sponsoring three other sessions at the NEC in addition to the sessions on Longitudinal Balance. The session on Monday afternoon concerns Coaxial Cable and Systems and PCM Carrier. Wednesday morning and afternoon, the sessions cover a variety of subjects and specialty applications. The Wire Communication Committee will meet at 8:00 P. M. on Tuesday, Oct. 26th, (location later).

Wire Committee Plans Unusual Program

A major technical problem that is faced by designers, manufacturers, and users of a wide variety of communications equipment is being actively tackled by a task force of the Wire Communication Committee.

Noise and other unwanted voltages in communication circuits, equipment, and systems have been recognized as a major problem not only in telephone systems but also by those who make and use many other sorts of communication equipment. For example, a high common mode rejection is essential in certain transducers.

The effect of unwanted voltages on circuit dis-symmetry in creating noise interference will be the subject of an unusual 2-part program at the NEC meeting in Chicago in October.

A morning session will present several tutorial papers; a related afternoon session will be a wide open discussion of all aspects of the problem.

It is expected that the sessions will be of major interest to manufacturers of equipment for government services, "telephone" people, and electrical engineering faculty.

The sessions are being planned by the Task Force on Longitudinal Balance of the Wire Communication Committee.

Chapter's Committee Report

For the benefit of members that may have changed locations, we are again listing the 25 ComTech Chapters officially on record. Any interest by former members now residing in the inactive areas and wishing to revive Chapter activities would be indeed welcomed.

ComTech Chapters

Baltimore (Inactive)	Long Island	Orlando
Boston	Los Angeles (Metro.)	Philadelphia
Canaveral	Mohawk Valley	San Francisco
Chicago	New Jersey Coast	Seattle
Connecticut	(formerly Monmouth)	Southeast Michigan
Dallas	Nebraska	Syracuse (Inactive)
Denver-Boulder	New York (Metro.)	Toronto
Florida West Coast	North Jersey	Twin Cities
	Oklahoma City (Inactive)	Washington, D. C.

Committee Officers

Unfortunately, we have not heard from all of the active Chapters and, consequently, all of the names of the officers for the new term are not listed. If your Chapter listing is missing, please contact (phone, write or wire) your Associate Editor so that the names can be listed in our next issue.

Ray Bogdan
Teletype Corp.
5555 Touhy Ave.
Skokie 76, Ill.
Phone: 312-676-1000
TWX: 910-223-3611
TLX: 02-5451

CHAPTER REPORTS

<u>Baltimore</u>	Inactive
<u>Boston</u>	Chairman Edward T. Boston Vice Chairman Dr. Glenn E. Fellows Vice Chairman William Floyd Secretary Saul Fast

It is reported that the Boston Electro-Magnetic Compatibility Group has been merged into the Boston ComTech Group. The initial meeting of the combined group will be held on Sept. 20th, in the new Sylvania Auditorium with Mr. Henry B. Ray of the Martin Co. lecturing on the subject of "Electrical-Electronic Interference Control for the MAN-RATED Gemini Launch Vehicle."

<u>Canaveral</u>	No report
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Chicago

The 1965-66 slate of officers has not been elected as yet. As we understand, the election will take place within the next few weeks.

Connecticut

Chairman	R. Alfred Gogolen The So. N. Eng. Tel. Co.
Vice Chairman	Dr. Leslie S. Radnay Litton Systems, Inc.
Secretary & Financial Officer	David E. Ostrom The So. N. Eng. Tel. Co.

The initial meeting of the Connecticut Chapter was held jointly with the IEEE Connecticut Section Communication Subcommittee on April 6th at the Southern New England Telephone Co., in New Haven, Conn.

Mr. Frite Zernike, Research Physicist of the Electro-Optical Division, Perkin-Elmer Corp. in South Wilton, Conn, and Guest Speaker of the evening, reviewed laser principles and discussed possible applications of lasers in the field of communications. Twenty-five members and guests attended.

Dallas

Chairman	Hugh Tomlinson
Vice Chairman	Frank Reisch
Secretary	Curtis Ritchie

The first Chapter meeting will be held during the latter part of September, and will feature a paper by Dr. Dayton Eden, "The Application of Coherent Optics to Data Processing for the Solution of Communications Problems."

Denver-Boulder

Chairman	Quintus Wilson Ball Bros. Research, Boulder
Vice Chairman	Richard C. Webb Colorado Instruments, Broomfield
Secretary	Neal Kindig University of Colorado, Boulder

Congratulations are in order for all of the Chapter members who contributed to the success of the Annual Communications Convention held in Boulder on June 7-9. It is reported that there were 1,000 registrants. Some 200 papers were delivered with eight sessions running simultaneously at most times. There were 20 exhibit booths rented and a 780 page Conference Record was published and made available at registration. As we understand, the convention was operating on a \$30,000-plus estimated budget. Mr. Platt Wicks, Ex-Chairman of this Group feels confident that a balance will be remitted to the Com Tech Group after the accounting is completed. He also expresses his sincere thanks to all participants contributing to the success of the meeting.

During the past year, the Denver-Boulder Chapter held five meetings with an average attendance of 27. Currently, the Chapter membership is 53.

Florida West Coast

No activity reported.

Long Island

Chairman	J. C. Hepburn RCA Communications, Inc. N. Y.
Vice Chairman	Walter Arndt Airborne Instruments Lab. Melville, N. Y.

The Long Island Chapter is participating with the Long Island Section in sponsoring lecture series on the subject of Oceanography and Deep Submergence. The series will consist of five (5) lectures covering the deep sea environment, communication and navigation, and manned and unmanned deep sea vehicles. The first lecture will be given on October 21, 1965, at the Graduate Center, Polytechnic Institute, Farmingdale, L. I., New York. Watch Pulse for further information.

Los Angeles

The last meeting was held on June 16 with 67 members in attendance. Dr. Lemm from ASEA - Sweden, was the speaker lecturing on the subject "Extra High Voltage DC Transmission (ground effects and earth currents)."

On June 8, Mr. Martin Cooper from Motorola, Inc., covered the subject of "Improved Mobile Telephone Systems." Forty-seven members were in attendance.

Mohawk Valley

Chairman	George R. Giles
Vice Chairman	Earl Selover
Secretary	Ray Burrows

New Jersey Coast (Formerly Monmouth)

Chairman	Arthur H. Rose USAEL Fort Monmouth, N. J.
Vice Chairman	Seymour Krevsky RCA - NYSL - 75 Varick St., N. Y.
Secretary	Peter Maresca USA - Satellite Comm. Agency Ft. Monmouth, N. J.
Treasurer	Ron Whalin Bell Tel. Labs., Holmdel, N. J.

A meeting was held on July 30 to discuss and plan the forthcoming sessions for the new year. Special attention was given to the proposed subject matter to attract a larger group attendance.

On May 12, the Chapter met at the Little Silver Fire House in Little Silver, N. J. The subject of the meeting was "Tropical Propagation Communications Research" presented by Mr. Lester G. Stur-gill of Jansky & Bailey, Research & Engineering Division of Atlantic Research Corp. The presentation covered investigations of radio propagation in the tropical environment of Thailand and dealt with propagation factors over the range 100 Kc to 10 Gc.

Another meeting was held at the same location on April 14 with Mr. Martin Masonson, Sr. Staff Scientist for the New York Systems Lab. of the Radio Corp. of New York presenting a paper on "System Adaptive Techniques."

Nebraska

No report

New York

No activity reported.

North Jersey

Chairman	A. A. Roetken
Vice Chairman	J. Harvey
Secretary	G. K. Helder
Financial & Facilities Officer	M. Westheimer
Publicity	J. E. Unrue, Jr.
Membership	B. Mindes
Liaison & Nominating	R. G. Chipp

It is reported that the North Jersey Chapter is looking forward to an active 1965-66 season. The first meeting is scheduled for October 5, 1965, at 8:00 P. M. at the Arnold Auditorium. Mr. O. E. De Lange of Bell Telephone Labs. will speak on the "Application of Coherent Light to Communications." It is anticipated that Mr. DeLange's talk will be of considerable interest to all who are not actively involved in the laser field. A large attendance is expected for this session.

Oklahoma City

Inactive

Philadelphia

Mr. J. C. Kaltenbach, Jr. was the speaker at a meeting held on April 19. His subject was "A VHF Pipeline System for the Richmond Petroleum Company." Fifteen members were in attendance.

San Francisco

Chairman	Fred Beale Lenkurt Electric Co.
Vice Chairman	Robert Howland Pacific Tel. & Tele. Co.
Secretary-Treas.	C. G. Griffith Lenkurt Elec. Co.

A meeting was held by the Chapter officers on June 9th at which time a schedule of sessions was formulated.

Five meetings are scheduled for the year ending in June, 1966. The first one is a social event on Sept. 22, when new and prospective members will be welcomed. It will be held at the Paul Masson Winery in Saratoga. Wine tasting at 7:00 P. M. will be followed by a barbecue dinner on the patio. This setting provides an outstanding panoramic view of the lower peninsula. Following dinner, a 30-minute program of chamber music will be given by the "STRAFILCHER STRING TRIO." The trio is composed of gentlemen who are prominent in different fields: Dr. Ephriam Engleman, M. D.; Mr. Chalmers Smith, Attorney at Law; and Mr. Craig Vittetoe, teacher and writer.

Both members and prospective members are invited with their ladies.

The remaining four meetings are scheduled for November, January, March and May.

The meeting topics will include Data and Telemetry, Power Communications, Video Transmission, and Public Telecommunications.

Members having suggestions on program material or locations are invited to call Mr. Howland, the program chairman, at 408-291-4039.

Seattle

Mr. H. Hugh O'Daniels from the Boeing Company was the speaker at a meeting held on May 18. He talked on the subject of "Lunar Orbiter Communications." Thirteen members were in attendance.

Southeastern Michigan

No report

Syracuse

Inactive

Toronto

No activity reported.

Twin Cities

Dr. Eugene R. Chenette, Associate Professor at the University of Minnesota, Elec'l Engineering Dept., presented and discussed two films for the ComTech Group on May 20, at the Andrews Hotel in Minneapolis.

The films, entitled "Minority Carriers in Semiconductors" and "Gap Energy and Recombination Light in Germanium" were prepared by the Semiconductor Electronics Education Committee. They were prepared primarily for use in the teaching of transistor electronics. Forty-six people were in attendance at the meeting.

Washington

A joint meeting with the Groups on Communication Technology and Military Electronics was held at the PEPSCO Auditorium on April 5. Mr. J. B. Snider, NBS, Boulder, Colorado, spoke on the subject of "Band Width Limitations of Tropospheric Beyond-The-Horizon FM Radio Systems." There was a spirited question and answer period following the presentation. Forty-six people were in attendance.

Chairman	M. Floegel, FCC
Vice Chairman	Dr. Wm. Mazer, Sys. Scien. Corp.
Secretary	D. L. Solomon, DOD

BOULDER, COLORADO COMMUNICATIONS CONVENTION

June 7-9, 1965

The ComTech Group is deeply indebted to the maximum efforts by Co-Chairman Dick Kirby, NBS and Prof. Platt Wicks, University of Colorado and their entire committee. Their hard work resulted in a

a highly successful convention with an attendance of approximately 1000. To the Communicators who were unable to attend, the Editor urges that the 1966 Convention be placed on the calendar, because it really is unwise to miss the opportunity of hearing so many new things and seeing everyone concerned with them at one time and place.

The GEMINI 3 Flight was accomplished during the convention. Communication Technology certainly played a most significant accomplishment of this venture. Accordingly, ComTech sent a congratulatory telegram to Dr. Geo. E. Mueller, Associate Administrator for Manned Space Flight, NASA, the wire and its answer is published for the record.

Dr. George E. Mueller, Director
Manned Space Flight Program
National Aeronautics & Space Administration
Houston, Texas

Your professional colleagues in the Communications Technology Group of the Institute of Electrical and Electronics Engineers, in session at their annual convention in Boulder, Colorado, send their heartiest congratulations and warmest regards to you personally, to the astronauts, and to all members of the fine NASA team which has made the Gemini flight an outstanding success.

We look forward with confidence to continuing demonstrations of United States achievements in space.

R. K. Hellman, Chairman
ComTech Group - IEEE

Dr. R. K. Hellman, Chairman
Communications Technology Group
IEEE
New York, N. Y.

Dear Dr. Hellman:

On behalf of NASA I would like to thank you, Jack Jatlow, and all of your colleagues who were in attendance at the annual IEEE convention in Boulder for your congratulatory telegram on Gemini 4. I was very sorry that I was unable to attend the convention this year.

We here at NASA are elated with the success of the mission and are most enthusiastic about the future success of the Gemini program.

Sincerely,

George E. Mueller
Associate Administrator
for Manned Space Flight

1966 IEEE COMMUNICATIONS CONFERENCE- June 15-17
Sheraton Hotel, Philadelphia, Pa.

All of the IEEE Groups in the area of communications and related fields are invited to participate in the major annual conference on Communications Technology to be held June 15-17, 1966, at the Sheraton Hotel, Philadelphia, Pa. The first of this new series of conferences, the successor to the GLOBECOM Conferences, was held in Boulder, Colorado, in June 1965.

In addition to the ComTech Group, the Philadelphia Conference is being sponsored by the Philadelphia Section of the IEEE and the Univ. of Pennsylvania. Participation by IEEE Groups to date includes the Group on Computers and the Group on Information Theory, and others have been invited.

The subjects to be covered by the sessions are expected to be of interest to persons engaged in research, design, analytical and theoretical studies, engineering, manufacture, and operation of communications equipment.

The program will include sessions on major growing areas such as commercial satellites, world-wide government systems, speech processing, community antennae, educational TV, and computers in communications.

It will also present papers covering common carrier, industrial, military and foreign designs and practices. Papers to be presented will be reviewed through the Program Committee which is comprised of representatives of the ComTech Group technical committees and

participating groups. One thousand word abstracts of accepted papers will be published in the program digest. The Committee invites members to suggest timely topics for which papers might be solicited as soon as possible. Papers and suggestions for the technical program should be sent by Feb. 25, 1966, to the Technical Program Chairman, A. E. Joel, Jr., Bell Telephone Labs., Inc., Room 2G-330, Holmdel, New Jersey. Printed digests of all accepted papers will be available at the meeting.

The Conference will also feature a banquet, a Keynote Session of general interest to all participants and an exhibition of the latest developments in communication technology. All inquiries regarding the exhibition should be addressed to:

Mr. Lewis Winner
152 West 42nd St.
New York 36, N. Y.
Phone: 212 BR 9-3125

General Chairman - W. H. Forster, Philco Corp. 4700 Wissahickon Ave., Philadelphia 44, Pa.

1965 NATIONAL ELECTRONICS CONFERENCE
October 25-27 McCormack Place, Chicago, Ill.

The ComTech Group is again cooperating with NEC by sponsoring technical sessions. Mr. A. J. Leininger, Illinois Bell Telephone and the supporting technical committees should be commended for their significant contributions in implementing the Group's objectives.

COMTECH DINNER
ALL ATTENDING COMTECH MEMBERS ARE INVITED TO
ATTEND GROUP DINNER ON MONDAY, OCTOBER 25 (cocktails
at 5:00 in Chicago Room, NEC Cocktail Party) 6:30 P. M. McCormack Place, Room D. MEET YOUR OFFICERS, COMMITTEE MEMBERS AND FELLOW ASSOCIATES. MAKE PLANS TO ATTEND.
PRICE IS \$6.00 - For information, contact:

A. J. Leininger
Illinois Bell Telephone Co.
208 W. Washington
Chicago 6, Illinois
Phone: Office: 312-727-4269
Home: 312-968-7919

Tickets may be purchased in advance by sending your name, affiliation, address, and check (\$6.00 per person) to:

National Electronics Conference
228 North LaSalle Street
Room 2104
Chicago 1, Illinois

FOR COMMITTEE MEETINGS DURING NEC - See page 3, column 2

NEC TECHNICAL PROGRAM SPONSORED BY COMTECH GROUP

Monday Morning - Oct. 25

- Switching Systems
Chairman: E. J. Glenner, Automatic Electric Labs., Inc.
- "A Time Division Switch of the DAIS Test Model"
L. C. Brown, Bell Telephone Labs.
 - "Concept for a Collection, Editing, and Distribution Facility for a Military Weather System"
M. Rubin, Communications Systems Inc.
 - "The Coordination of Sophisticated Nationwide Communications Systems"
J. E. Farley, G. R. Fitzmaurice, Illinois Bell Telephone Co.
 - "Non Parametric Aspects in the Grade of Service of Telephone Traffic"
I. Molnar, Stanford Research Institute
 - "U. S. Post Office Department Optical Reader Program"
R. W. Hessinger, U. S. Post Office Dept.

Monday Afternoon - Oct. 25

- Switching Systems - Components and Subsystems
Chairman: A. J. Leininger, Illinois Bell Telephone Co.
- "Line Group Busy Recorder for No. 5 Crossbar Telephone Offices"
G. Shirkey, Illinois Bell Telephone Co.
 - "Novel Switching Components for Electronic Telephone Exchanges"
J. R. Acton and J. R. Polard, Plessey Co., Ltd.
 - "Permanent Signal Circuit for the Non-Common Control Step-by-Step Office"
J. A. Hackett, Bell Telephone Labs., Inc.
 - "Toll Ticketing System, Las Vegas"
T. B. Careny, Stromberg Carlson Corp.
 - "Special Features of Toll Service Position"
M. Clement, Stromberg Carlson Co.

Wire Communication I
Chairman: J. Leach, Automatic Electric Labs., Inc.

- "Expanded Plastic Insulated Coaxial Cable For Carrier Systems Application"
R. R. Watt and R. Pardy, Northern Electric Co.
- "A Medium Route Coaxial System"
A. Curran and R. Story, Northern Electric Co.
- "A New PCM Exchange Carrier System"
F. S. Boxall, Vicom Corp.
- "Experimental 224 MB/S PGM Terminals Utilizing Pulse Stuffing Synchronization"
J. S. Mayo, Bell Telephone Labs., Inc.

Tuesday Morning - Oct. 26

New Switching Systems in the United Kingdom I
Chairman: A. E. Joel, Jr., Bell Telephone Labs., Inc.

- "A Survey of Electronic Switching Problems in the United Kingdom"
J. A. Lawrence and L. R. F. Harris, British Post Office
- "A Review of Electronic Switching Developments in the United Kingdom"
J. A. Lawrence and L. R. F. Harris, British Post Office
- "The PENTEX Electronic Telephone Exchange"
G. A. Matthews, Ericsson Telephones Ltd.
- "A Small Electronic Exchange Using Limited Availability Switches"
R. F. Rous, P. Sigrist and P. W. Ward, General Elec. Ltd.
- "A Time Division Multiplex Exchange with Alternating Routing"
J. S. Caplin, H. P. Reger, General Electric Ltd.

Panel Discussion - Wire Communication II
Chairman: J. N. Petrie, Automatic Electric Co.

Panel discussion on techniques for measuring longitudinal balance in communication equipment and circuits, conducted by the Task Force on Longitudinal Balance. This is a continuation of the October, 1964 panel discussion that generated so much interest.

Panelists:

R. Hanning, Siemens Haliske AG, Munich, Germany
C. S. Thaeler, Bell Telephone Laboratories
L. Nichols, Michigan Bell Telephone Co.
J. C. Mau, General Telephone Co. of Florida
L. O. Olson, Western Electric Co.

Tuesday Afternoon - Oct. 26

New Switching Systems in the United Kingdom II
Chairman: S. B. Weiner, Stromberg Carlson Corp.

- "REX-A Sectionalized Space-Division Switching System"
J. B. Warman, Associated Elec'l Industries (Woolwich). Ltd.
- "The Control of Sectionalized Space-Division Switch. Systems"
D. G. Bryan, Standard Telephones and Cables, Ltd.
- "Network Utilization in a Sectionalized Space-Division Switching System"
D. G. Fisher, Automatic Telephone & Electric Co., Ltd.

- "A Low Speed Time Division Multiplex Exchange System"
F. H. Bray, Standard Telephones and Cables, Ltd.

Panel Discussion - Multiple Access Systems
Chairman: W. Glomb, ITT Federal Labs.

Panelists:
E. Podraczky, Comsat Corp.
J. Aein, Institute for Defense Analysis
D. Campbell, ITT Federal Labs.

Wednesday Morning - Oct. 27

Wire Communication III
Chairman: F. R. Arnoldy, Southwestern Bell Telephone

- "Monte Carlo Analysis and Design Algorithm for a Crystal Controlled Oscillator"
Charles W. Kemp, Bell Telephone Labs., Holmdel, N. J.
- "Subscriber Loop Plant of Rural Telephone Systems"
R. E. Hitt and W. J. Lally, U. S. Dept. of Agriculture, Rural Electrification Administration.
- "Automatic Arrangement for Identification of Hotels/Motels Served by Remote Dial Offices"
E. L. Christian, Southern Bell Tel. & Tel. Co.
- A Communication Network for the General Electric AMRAC System"
G. E. Bell, Southern Bell Tel. & Tel. Co.

Panel Discussion - Microwave Equipment Design
Chairman: T. L. Lening, Collins Radio Co.

Panelists: R. H. Fricke, Radio Corp. of America
F. G. Griffin, General Elec. Co.
W. Marcle, Raytheon Co.
M. C. Harp, Lenkurt Elec. Co.
I. T. Corbell, ITT Kellogg
C. I. McDowell, Collins Radio Co.

Wednesday Afternoon - Oct. 27

Wire Communication IV
Chairman: R. W. LeForge, Illinois Bell Telephone Co.

- "Measurement and Correction of Impulse Noise on Cable Carrier Systems"
F. L. Burge and J. G. Eckert, Michigan Bell Telephone Co.
- "A New Impulse Noise Measuring Set"
J. J. Dwyer, Northeast Electronics Corp.
- "Power Contact Studies on Figure 8 Cable and Wire"
E. L. Fisher and J. B. Eppes, Jr., U. S. Dept. of Agriculture, Rural Electrification Administration.
- "Test System for Evaluating the Transmission Characteristics of Band Pass Networks"
M. A. Papadeas, Western Electric Co.

Radio Communication
Chairman: I. T. Corbell, ITT Kellogg

- "Incoherent Optical Polarization Pulse Code Modulation Communication System"
W. N. Peters, Westinghouse Elec. Corp.
- "Transient Response of Narrow Band Networks to Narrow Band Signals with Applications to FSK"
H. F. Hartley, Westinghouse Elec. Corp.
- "Analysis of a Solid State LF/VLF Pulse Radiation System Utilizing Energy Feedback to Obtain Increased Efficiency and Bandwidth"
H. F. Hartley, Westinghouse Elec. Corp.
- "A Solid-State Broadband Microwave Radio System for Long Haul Toll or Video Usage"
M. C. Harp, Lenkurt Elec. Co.

COMMUNICATION SATELLITE SYSTEMS

October 13, Wednesday, 10:00 AM Hotel Utica
 Session Organizer - Mr. Gordon F. Negus, RADC
 Moderator - Jerry Leiphart, NRL
 Lutz, S. G. - "Satellite Coverage and Overlap, with their Application to Multiple-Access Satellite Communication Systems" Hughes Research Labs., HAC
 Sugai, I. - "Advanced Orbital Analysis Techniques for Comsat System Simulation"
 Browne, S. - "Important Factors in the Performance & Economics of Satellite Communications Ground Stations", Page Comm. Engrs., Inc.
 Edwards, J. G., Rizzoni, E. M. & Silvestrini, A. - "System Design Criteria for Heavy Route Satellite Communication Link" Page Comm. Engrs., Inc.

COMMUNICATION PROPAGATION

October 13, Wednesday, 2:00 PM Hotel Utica
 Session Organizer - Frank J. Zawislan, RADC
 Moderator - W. F. Utlaut, NBS
 Rose, G. D. - "Laboratory Simulation of Multipath Propagation Effects on FM Systems", General Electric Co.
 Porter, G. C. - "Measurement of Polarization Statistics of Signals Received over a Short Range HF Path", Gen. Dynamics
 Kofoid, M. J. - "Permanently Magnetized Ferrite Antenna Windows for Improving Electromagnetic Wave Transmission Through a Plasma", Boeing Scientific Research Labs.
 Schermerhorn, J. G. - "Propagation Test in Long Distance Coastal-Plain X-Band Transmissions", Sylvania

COMMUNICATION SWITCHING SYSTEMS

Session Organizer - Frank Dozien, RADC
 Moderator - Peter M. King, ITT Federal Labs.
 Thrasher, P. M. - "Further Analysis of an Integrated Switching & Multiplexing (ISAM) System", IBM Corp.
 Rippon, S. G. - "Automated Technical Control", U. S. Army Strategic Communications Command
 Weber, R. A. & Duffy, P. A. - "The Autovon Simulation Model" Communications Systems, Inc.
 Moore, C. J. & Reid, J. P. - "Message Channel Monitoring in Autodin Message Switching Centers", RCA

INTERNATIONAL SYMPOSIUM ON ELECTROMAGNETIC SENSING OF THE EARTH FROM SATELLITES

University of Miami Coral Gables, Fla. Nov. 22-25
 This conference is sponsored by the University School of Environmental and Planetary Sciences, American Geophysical Union and the American Meteorological Society.
 The Symposium will discuss sensing of terrains and ocean surface properties, of ice and snow, of the atmosphere, and of atmospheric gases, clouds, and particulate matter. All portions of the electromagnetic spectrum will be considered, but particular emphasis will be placed on the infrared and microwave regions. It is hoped that this Symposium can make a useful contribution to the design of instrumentation and to the more effective use of weather satellites and surveillance satellites.
 A Steering Committee has been established consisting of: Dr. Chalmers Sherwin, Deputy Director of Research and Technology, Dept. of Defense; Dr. S. Fred Singer, Dean of the School of Environmental and Planetary Sciences, University of Miami; Dr. Jerome Spar, Director of Meteorological Research, Weather Bureau; Dr. Morris Tepper, Director of Meteorological Programs, National Aeronautics and Space Administration; and the Honorable Weston Vivian of the U. S. House of Representatives.
 Technical Program Chairman is Prof. Ralph Zirkind, Polytechnic Institute of Brooklyn, Graduate Center, Farmingdale, L. I., New York, to whom all program communications should be addressed.
 All communications concerning arrangements and registration should be addressed to: EM Sensing Symposium, University of Miami, P. O. Box 8131, Coral Gables 24, Florida.

SECOND SYMPOSIUM ON INTERACTIONS OF SPACE VEHICLES WITH AN IONIZED ATMOSPHERE

University of Miami Coral Gables, Fla. Nov. 26-27
 This conference is sponsored by the American Astronautical Society in cooperation with the University of Miami, School of Environmental and Planetary Sciences and URSI Commission 4.
 The subject matter of the Symposium deals with the wide range of problems which arise when an object moves through a rarified plasma such as exists in the ionosphere, or in interplanetary space. The object may be a large satellite, an antenna or plasma probe attached to a satellite, or a dust particle.
 General Chairman is S. Fred Singer, Dean of the School of Environmental and Planetary Sciences of the University of Miami.
 Technical Program Chairman is Adolf R. Hochstim, Institute for Defense Analyses, 400 Army-Navy Drive, Arlington, Va. All program communications should be addressed to him. The deadline for abstracts (200-400 words) is October 1, and for preprints Nov. 1.

1965 FALL URSI-IEEE MEETING

October 4-6 Dartmouth College Hanover, New Hampshire
 Commission 1 - Radio Measurement Methods and Standards
 " 2 - Radio Propagation in Non-Ionized Media
 " 3 - Ionospheric Radio
 " 4 - Magnetospheric Radio
 " 5 - Radio and Radar Astronomy
 " 6 - Radio Waves and Transmission of Information
 Jointly Sponsored by the IEEE Groups on:
 Antennas & Propagation Information Theory
 Circuit Theory Instrumentation & Measurement
 Geoscience Electronics Microwave Theory & Techniques

ADVANCE NOTICE - 1966 SPRING URSI-IEEE MEETING

The meeting will be held April 18-21 (Monday-Thursday; Easter is April 10) in Washington, D. C., at the National Academy of Sciences. The USNC will meet on the evenings of April 17 and 20 (Sunday and Wednesday). The AGU will meet in Washington April 19-22 (Tuesday-Friday) at the Sheraton Park Hotel.

CANADIAN ELECTRONICS CONFERENCE

October 4-6, 1965- Automotive Bldg., Exposition Parf, Toronto, Canada
 Monday, October 4
 2:30 p. m. to 5 p. m. - Microelectronics, Telemetry Quality Control, Electronics in Surgery, Microwave Techniques.
 7:45 p. m. to 10 p. m. - Canadian Space Program.
 Tuesday, October 5
 10 a. m. to 12:30 p. m. - Satellite Communications, Solid State Devices, Electronics in Biological Systems, Design Awards, Active Filters.
 2:30 p. m. to 5 p. m. - Satellite Design, Communications, Electronics in Medicine, Power System Applications, Signal Processing.
 Wednesday, October 6
 10 a. m. to 12:30 p. m. - Radio Astronomy, Antenna Design and Performance, Digital Circuits, Management, Networks.
 2:30 p. m. to 5 p. m. - Laser Applications, Design Automation, Measurements, Microwave Design.

PROGRAM - IEEE 1965 INTERNATIONAL SPACE ELECTRONICS SYMPOSIUM

Fontainebleau Hotel Miami Beach, Florida Nov. 2 - 4

DATE	SESSIONS	CHAIRMEN, NAME, TITLE, ORGANIZATION, ADDRESS
Tues. AM Nov. 2	Beyond Apollo	Mr. Neil P. Ruzic, President, Industrial Research, Beverly Shores, Indiana
Tues. AM Nov. 2	Unmanned Space Programs	Mr. Oran W. Nicks, Director, Lunar & Planetary Programs, NASA Headquarters, Wash. 25, D. C.
Tues. AM Nov. 2	Telemetry Techniques	CO-CHAIRMEN - Dr. Myron M. Nichols, Consultant, 2682 Idle Horn Lane, LaJolla, California AND - Mr. Lawrence W. Gardenhire, Principal Research Engineer, Radiation, Inc., Melbourne, Fla.
Tues. PM Nov. 2	Man In Space	Mr. G. M. Preston, Dep. Director, Launch Operations, John F. Kennedy Space Center, NASA, Kennedy Space Center, Fla.
Tues. PM Nov. 2	Satellite Communications	Dr. Joseph R. Feldmeier, Director, Franklin Institute Research Labs, 20th Street at Parkway, Philadelphia, Pa.
Wed. PM Nov. 3	Advanced Telemetry Systems	Mr. Ernest A. Neil, Research Administrator, Agronomy & Meteorology Division, Goddard Space Flight Center, Greenbelt, Md.
Wed. PM Nov. 3	Interplanetary Communications (AIAA Session)	Dr. J. W. Muehlner, Senior Member, Communications & Control Research, Electronic Sciences Laboratory, Lockheed Missiles & Space Company, Palo Alto, California
Wed. PM Nov. 3	Data Processing	CO-CHAIRMEN - Lt. Col. W. H. Lake, Asst. Chief Scientist, Hq, National Range Division, Andrews AFB, Maryland AND - Mr. C. R. Scott, Manager, RCA Data Processing, Patrick AFB, Florida
Thurs. AM Nov. 4	Ground Support Equipment	Mr. G. Denton Clark, Project Manager, RCA Missile Test Project, Patrick AFB, Florida
Thurs. AM Nov. 4	Tracking & Guidance	Mr. Stanley C. Mentzer, Aerospace Corp., El Segundo, Calif.
Thurs. AM Nov. 4	Adaptive Techniques	Dr. Earl F. Smith, Director, Advanced Communications Dept., Radiation, Inc., Melbourne, Florida
Thurs. PM Nov. 4	Propagation through Ionized Media	Dr. H. Poehler, PAA Technical Staff, Pan American World Airways, Patrick AFB, Florida
Thurs. PM Nov. 4	Technology of the Future	CO-CHAIRMEN - Dr. George Hess, Chief Scientist, National Range Division, USAF, Patrick AFB, Florida AND - Dr. Jerome P. Keuper, President, Brevard Engineering College, Melbourne, Florida

PICTUREPHONE SERVICE by "MA BELL"

Picturephone centers are operated by the Bell System in three cities: New York (Grand Central Station); Chicago (Prudential Bldg.) and Washington, D. C. (National Geographic Bldg.) New lower rates, which became effective June 10, are \$8 for the initial three minutes and \$2.50 for each additional minute between New York and Washington D. C.; \$10.50 and \$3.50 for the same period between Washington and Chicago; and \$13.50 and \$4.50 between Chicago and New York.

IEEE ANNOUNCES AVAILABILITY OF MEMBERSHIP DIRECTORY

A comprehensive directory, listing the members of the Institute of Electrical & Electronics Engineers, the world's largest engineering society, will be made available toward the end of this year, it was announced today by D. G. Fink, General Manager of the Institute.
 "This new Directory will be the first one published under the aegis of the IEEE," commented Mr. Fink, "and therefore represents an especially valuable compendium. The member information found in the directory will be compiled using the Institute's new computer; and will include grade of membership, position title, and business address. We anticipate that the new IEEE Directory will contain over a thousand pages."

Also included in the new IEEE Membership Directory, will be a brief description of the IEEE, a listing of the Institute's major awards and its past winners, and listings of the Institute's Honorary Members and Fellows. The membership listing will be alphabetical.
 Future editions of the Directory may also include such information as the individual member's progression in membership grade. Such information had been published in previous directories of the Institute's predecessor societies, but is not planned for the present issue owing to space and time limitations.
 The new IEEE Membership Directory will not contain advertising or product listings, nor will there be any membership listing on a geographic basis. It will be available to IEEE members at \$8.00 per copy and to nonmembers at \$25.00 per copy.

PAN AMERICAN CONGRESS OF ELECTRICAL, ELECTRONICS,
AND MECHANICAL ENGINEERING AND CORRELATED BRANCHES

October 9 to 17, 1965

Mexico City

Mexico City will be host to the first Pan-American Congress of Elec'l Electronics and Mechanical Engineering and correlated branches to be held from Oct. 9-17, under the sponsorship of the following engineering associations:

The 300.00 pesos registration fee (24.00 U. S. Cy) will entitle participants to assist to all technical sessions, and receive copies of all papers and publications. (Lunch included during working days).

TECHNICAL SESSIONS

1. Experience and information interchange among engineers, as a factor of Industrial Integration in the American Continent.
2. Participation of the engineer in the economical and social activities of the American Continent.
3. The influence of the industrial development in the economical life of the American Continent and the problem of incorporating the rural population into the industrial activity.
4. The complementation and integration of industry in the different countries of America considering their different markets, national resources and financial possibilities.
5. The establishment of common specifications and quality controls throughout the American Countries.
6. Transportation and Communications. Present status and future needs in the American Countries.
7. Energetics. State of development and resources in the American Continent.
8. New techniques in production and distribution of industrial products and energy.
9. New procedures of analyzing and calculating mechanical, electrical and electronic problems.
10. Consequences of modern developments, with particular attention to industrial automation.
11. Basic industries established in the continent. Their present distribution and recommendations for future development.

Hotel Accommodation

"Package" prices have been fixed with several hotels, which will include 5 nights accommodation, transportation from and to the airport, welcome reception party and farewell banquet, as follows:

	Single Room (U. S. Cy.)	Double Room (U. S. Cy. p/p)
Economical plan	40.00	28.00
First class plan	52.00	40.00
Luxury plan	90.00	60.00

Further Information

For further information, registration, hotel reservations, and presentation of papers, please contact:

COLEGIO DE INGENIEROS MECANICOS Y ELECTRICISTAS,
or I. E. E. E. Mexico Section.

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MEXICO 28-84-99

MEXICO CITY TELEX

017-533 from October 1st to October 20th, 1965.

MERGER FORMS NEW GROUP ON AEROSPACE & ELECTRONIC
SYSTEMS

A newly formed Group on Aerospace & Electronic Systems, resulting from the merger of four IEEE Groups (Aerospace, G-30; Aerospace & Navigational Electronics, G-11; Military Electronics, G-24; and Space Electronics & Telemetry, G-10); formally elected its first Administrative Committee and also elected as Chairman, Dr. L. C. Van Atta, Assistant Director for Electromagnetic Research at the NASA Electronics Research Center in Cambridge, Mass.

The newly created Group's field of interest will be the study and advance of the state of the arts in equipment, procedures, and tech-

niques applied to the organization, development and operation of functional systems designed to meet stringent performance requirements for Earth and Space programs. A functional system is here construed to mean a complex interacting assembly of major components designed comprehensively to accomplish and functions.

IEEE INTERNATIONAL SYMPOSIUM ON INFORMATION THEORY

Jan. 31 - Feb. 2, 1966

ANNOUNCEMENT & CALL FOR PAPERS

The IEEE International Symposium on Information Theory will be held Jan. 31 - Feb. 2 at UCLA.

Topics to be covered include: coding and decoding for digital and analog communication systems, studies of random channels and signals, detection theory, prediction and filtering theory, signal design, pattern recognition, adaptive and learning systems, automata, theory, application to biological systems, application to data processing.

Papers are invited in these and related areas.

There will be two kinds of contributed papers. One is the hitherto standard kind of 30 minute duration papers. These "long" papers will be accepted on the basis of complete manuscripts which should reach the symposium chairman before Oct. 1, 1965. The second kind is the "short" paper limited to 10 minutes each. The abstracts of these papers--not to exceed say 200 words--should reach the chairman before Dec. 1, 1965. The "long" papers are to be published in a separate issue of the G-IT Transactions. The abstracts of all the papers will be available in the Symposium Program.

Please address manuscripts and other correspondence pertaining to the conference to: A. V. Balakrishnan, Chairman
IEEE Intern'l Symposium on
Information Theory, 1966
University of Calif., Dept. of Eng.
Los Angeles 24, Calif.

ANNOUNCEMENT OF NEW PUBLICATION

Transmission Loss Predictions for Tropospheric Communication Circuits, by P. L. Rice, A. C. Longley, K. A. Norton and A. P. Barsis, National Bureau of Standards Technical Note 101, May 1965, two volumes, 378 pages, \$2.00 (Order from the Supt. of Documents, U. S. Govt. Printing Office, Washington 2, D. C. or from local U. S. Dept. of Commerce Field Offices.)

This two-volume Technical Note presents comprehensive methods for predicting cumulative distributions of transmission loss for a wide range of radio frequencies over any type of terrain and in several climatic regions. Such quantitative estimates of propagation characteristics help to determine how well proposed radio systems will meet requirements for satisfactory service, free from harmful interference. Thus they should provide an important step toward more efficient use of the radio frequency spectrum.

The report covers detailed point-to-point prediction methods. The prediction of long-term median reference values of transmission loss is based on current radio propagation theories. Meteorological parameters are used to distinguish between climatic regions, and largely empirical predictions of long-term variability are based on radio data recorded over more than a thousand propagation paths in various parts of the world.

This Technical Note is the last one of a series (Nos. 93 through 103) on tropospheric radiowave propagation which was prepared by CRPL under sponsorship of the U. S. Air Force.

NOTE: Foreign remittances must be in U. S. exchange and should include an additional one-fourth of the publication price to cover mailing costs.



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