

M. KANT

13-14 JUNE
1960

REPORT
to
Professional Group on Radio Frequency Interference
on the
2nd NATIONAL SYMPOSIUM
on
RADIO FREQUENCY INTERFERENCE

Washington, D. C.
June 13-14, 1960

SUMMARY:

The 2nd National Symposium sponsored by RFRFI attracted 406 registrants. Twenty industrial firms cosponsored the Symposium and helped defray the cost of some of the activities.

The Symposium presented four technical sessions and made an award for the most interestingly presented paper. A Symposium Digest was issued and distributed to each registrant. A field trip to the FCC Laboratory and Monitoring Station at Laurel, Md. was provided.

Social activities included a reception, a luncheon and a banquet. Arrangements were also made for women's activities.

The financial success of the Symposium is indicated by its income of \$6289.50 and its expenses of \$5150.97 leaving a surplus of \$1138.53.

September 30, 1960

Chairman, Administrative Committee
IRE Professional Group on Radio Frequency Interference

Sir:

As Chairman of the 2nd National Symposium sponsored by PGRFI which was held at the Shoreham Hotel in Washington, D.C. on June 13-14, 1960, it is my privilege and pleasure to submit this report of the Symposium and the activities related thereto.

The 2nd Symposium was an outstanding success thanks in large measure to the effort and devotion of the Symposium Executive Committee, the ready advice and assistance of the Advisory Committee, the cooperation received from your own Administrative Committee which sponsored the Symposium, and the financial assistance rendered by our industrial cosponsors.

May I take this opportunity to thank each individual who shared in this work. For without this cooperation, my task would have been hopeless.

1. HISTORICAL BACKGROUND

The First National Symposium sponsored by PGRFI was held in New York in June 1959. The desire to perpetuate this Symposium on an annual basis prompted the Washington Chapter of PGRFI, in December 1959, to extend an invitation to the Administrative Committee to hold the 1960 Symposium in Washington. The Administrative Committee viewed the invitation favorably and requested that a date be set, that a budget be prepared and that a theme be established. The Washington Chapter was given an informal "go-ahead" in January and received formal approval in March.

Pursuant to the suggestion of the Chairman of PGRFI Administrative Committee a Steering Committee was organized. This Committee met on January 26, 1960 when it decided upon a theme and laid the groundwork for the organization of working committees.

2. ORGANIZATION

Under the guidance of a chairman, a vice-chairman and a secretary, the work of the Symposium was carried on by eight committees. The officers of the Symposium and the committee chairmen constituted the Symposium Executive Committee and are listed below:

Symposium chairman
vice-chairman
secretary

James S. Hill
Herman Garlan
Aaron E. Sullivan, Jr.

Committee chairman	Richard W. Bullock
finance	Kirke G. Schaefer
registration	Donald R. J. White
program	Edward P. Mischler
public relations	William C. Green
arrangements	Jack W. Carter
hospitality	Joseph Berliner
banquet	Jules Deitz
field trip	

The complete list of persons that assisted in the work of the Symposium is attached as Appendix I.

Work on the Symposium started with a meeting of the Program Committee in February. The Symposium Executive Committee held its first meeting on March 10 and met thereafter at about two week intervals. Three meetings were held after the Symposium to hear reports and to wind up affairs in preparation for a report to the Administrative Committee.

3. ADVISORY COMMITTEE

Once the work of the Symposium was organized, the Steering Committee was reconstituted as an Advisory Committee. Members of the Advisory Committee attended meetings of the Symposium Executive Committee and their advice contributed to the overall success of the Symposium. Appendix II lists the members of the Advisory Committee.

4. FINANCES

The Second National PGRFI was a financial success, ending up with a surplus of income over expenses of more than \$1,100. Finances were handled by the Finance Committee which established a checking account in the name of the Symposium at a local bank. Checks drawn on this account required the signature of the Symposium Chairman and the Finance Committee Chairman.

Initial financing was from a loan of \$800 from the PGRFI Administrative Committee which was repaid shortly after the conclusion of the Symposium. Revenue was obtained from registrations which yielded \$1,308 and from sponsor contributions which yielded \$2,000. Chief expenses were the reception which cost \$136.30, printing and mailing - \$806.10 and the digest - \$130.90. The banquet and luncheon were essentially self liquidating. A detailed statement of income and expenses is attached as Appendix VI.

The Finance Committee also maintained a running check of financial commitments made by individual committee chairmen. It also prepared statements showing what our position would be as the number of registrations varied. As expenditures were made and invoices were received or firm prices tendered, the budget was revised accordingly.

To control expenditures, the Committee prepared a list of individuals responsible for the various items in the budget and required these individuals to initial invoices when submitted. These were then checked against the budget before a check was drawn. This together with the two signatures required on checks provided a double control over expenditures and operated satisfactorily. We are indebted to Mr. Bullock for this system of expenditure control.

5. PROGRAM

The Program Committee was initially faced with the problem of making up a symposium technical program with an extremely short lead time. It was agreed that it would be impossible to do this job within four months by the usual procedure of issuing a call for papers. The alternative was to make up a skeleton program of papers and select authors to furnish these papers. This was done and invitations went out to authors early in April. By the end of April the program had been almost completely firmed up so that it could be turned over to the Public Relations Committee as the basis for the printing of the advance program.

The program format was made up for a two day duration with two sessions each day. On the first day the morning session featured the keynote speaker, Mr. Henry Randall, and a group of papers on Prediction Processes. The afternoon session was devoted to Measurement of Equipment Characteristics. The morning of the second day scheduled a Round Table Discussion on the Interference Specifications referenced by the various armed services and the Rules and Regulations of the FCC. Mr. Albert R. Hall gave a paper which led off the discussion. The afternoon session dealt with Design Considerations and Equipment Testing. A copy of the program is attached as Appendix III.

The Program Committee also arranged to gather the paper summaries for the Symposium Digest. Arrangements were made with the armed services and the FCC to have a supply of the Interference Specifications and Parts 15 and 18 of the FCC Rules available for distribution at the Round Table Discussion session.

During the Symposium the Committee made arrangements for introduction of the speakers and briefing of the session chairmen. The work of this committee was ably directed by Mr. D. R. J. White.

6. REGISTRATION

Registration at the Symposium totaled 406 divided as follows:

Members of PGRMI	155
Members of IRE (other than PGRMI)	144
Non members of IRE	101
Student members	9
Press	5
Women registrants	22
TOTAL	<u>406</u>

Although payment was received, 11 advance registrants did not attend.

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Registration at the Symposium totaled 406 divided as follows:

Members of IRE	155
Members of IRE (other than IRE)	214
Non members of IRE	101
Student members	9
Press	5
Women registrants	22
TOTAL	405

Although payment was received, 11 advance registrants did not attend.

We estimate that about half the registrants came from local areas and half came from areas beyond commuting distance. The breakdown by geographical areas is:

District of Columbia	98	California	19
New York	62	Pennsylvania	19
Maryland	54	Massachusetts	17
Virginia	37	Florida	6
New Jersey	36		

with the remainder scattered over some 14 states. It is noteworthy that 1 registrant came from Canada and 1 from Israel (studying in the U.S. on a UN grant).

During registration we enrolled 37 new PGRPI members, 5 IRE members and 1 PGAP member.

All matters pertaining to registration were handled by the Registration Committee under the leadership of its hard-working chairman Kirke Schnoor. The forms used for advance registration and at the door were prepared by this committee which also received the advance registrations and supervised registration at the door. Money collected at the Symposium was turned over to the Finance Committee daily. The Registration Committee also handled membership for IRE and PGRPI and the sale of IRE publication. The extra burden placed on the registration desk by the latter activities produced some delays. It is recommended that these activities be handled away from the registration desk at future symposia.

7. PUBLIC RELATIONS

The Public Relations Committee arranged for publicity, printing, and mailing of the advance notice and other Symposium publications. This Committee also handled the make-up and format of printed items such as the Advance Program, Digest, and Registration Forms.

The Public Relations Committee compiled the mailing list which covered the entire PGRPI membership as well as all of the IRE members in the Washington Section. In addition certain other PG's in Regions I, II, and III were included. In all, the mailing list totaled over 8,000 names. An advance notice was mailed in April and the final program in May. The expenses for these mailings were kept to a minimum by using the services of IRE Headquarters for addressing of envelopes and by using the Washington Section mailing permit for postage as a non-profit organization.

Publicity was handled with all of the cognizant technical publications. Representatives of many of these were entertained at the Symposium. The resulting publicity will help to establish the Symposium as an annual meeting. Mr. Edward Mischler contributed a great deal of his experience and time in handling all of the details involved in this assignment.

8. ARRANGEMENTS

All of the arrangements with the Sherham Hotel were the responsibility of the Arrangements Committee. In addition the procurement of projection services and equipment from the Film Center was also handled by this committee. It was necessary to provide a set of slide projectors for each session as well as a movie projector for the luncheon.

Arrangements with the hotel involved numerous details. Meeting rooms and seating arrangements were selected; luncheon, banquet, and reception food reservations and guarantees were made; physical facilities for registration, public address systems, and the Press Room were among the numerous items handled by this committee ably headed by Mr. William G. Green. The cooperation of the hotel staff significantly simplified the operation of the Symposium.

9. HOSPITALITY

The Hospitality Committee under the capable leadership of Jack Carter, performed two functions. It solicited cosponsors to underwrite a portion of the Symposium costs. It also handled the women's activities and assisted with the reception.

Twenty cosponsors, listed in Appendix V, for the most part those active in RFI activities, contributed \$100 apiece for a total of \$2,000. This sum covered the cost of the reception, \$136.30, and made it possible for the Symposium to print and distribute a Digest at a cost of \$130.90. For their contributions, the cosponsors received three credit lines: a write-up in the Symposium Digest, a listing on the banquet program and a listing on the napkins used at the reception.

A Hospitality Room was open each morning for a coffee get-acquainted hour for the women, but received limited attendance, probably due to the small number of wives at the Symposium. Since the cost was negligible, \$16.50, the good will toward the few wives present was worthwhile.

10. RECEPTION, BANQUET, AND LUNCHEON

The social highlight of the Symposium was the reception followed by the banquet on Monday evening June 13. All the registrants and their wives were invited to the reception underwritten by our industrial cosponsors. The banquet was enjoyed by 177 registrants, wives, and guests who listened with interest to an illustrated talk on the National Radio Astronomy Observatory at Green Bank, W. Va. by Dr. John W. Findlay, Assistant to the Director. Commissioner Robert E. Leo of the FCC acted as toastmaster and Captain Luther F. Gerhart, Chaplain Corps USN, delivered the invocation. The banquet program is attached as Appendix IV.

11. FIELD TRIP

The Field Trip to the FCC Laboratory and Monitoring Station was taken by 67 people (21% of the total registration.) These installations are located near Laurel, Maryland which is 25 miles from the Sheraton Hotel. The trip took 5 1/2 hours of which travel time was 1 1/2 hours.

There was a fairly even distribution of passengers among the three trips that were offered on Monday afternoon, Tuesday morning, and Tuesday afternoon. The D.C. Transit Bus that was used was new and air conditioned. Cold drinks were distributed without charge. Total expenses were \$121.60 including a \$5 gratuity for the bus driver for bus courtesy and helpfulness, while income from ticket sales was \$108.75.

The two hours available at Laurel were divided between the Laboratory and the Monitoring Station. Those that made the trip considered their time well spent since they appreciated the opportunity of observing equipment and demonstrations not normally encountered outside of the FCC. The Commission's staff acted as guides and were most cooperative in explaining operations and answering questions concerning the equipment. Special thanks is due to the FCC, its staff, and especially to Jules Deitz, chairman of the Field Trip Committee, for making these trips enjoyable and instructive for the participants.

12. PAPERS AWARD

Early in the discussions, the Symposium Executive Committee agreed to make an award of \$25 for the "most interestingly presented paper." The participants in the round table discussion on interference specifications could not be included because of the nature of their presentations.

The award went to Donald McClenon of Naval Research Labs for his presentation of a paper entitled "Strong Signal Receiver Problems."

To facilitate objective rating of the presentations, an award rating sheet, Appendix VII, was prepared for the use of the judges. Thanks is due the following who acted as judges:

- H.E. Dinger, IRL
- R.A. Peering, Frederick Research Corp.
- G.R. Miller, RGVAC, Griffis AFB
- Dr. O.H. Salati, U. of Pa.
- Dr. R.M. Showers, U. of Pa.
- A.G. Skrivsoth, FCC
- L.M. Thomas, Bu. Ships
- W.P. Thomas, Princeton U.
- J.F. Veatch, RCA

13. CONCLUSION

The Second National Symposium made a noteworthy contribution by providing a meeting ground for engineers engaged in the field of interference. In so doing it also provided a platform for an announcement and explanation of the new Department of Defense program dealing with the prediction and measurement of interference. Through the special effort of Henry Randall in expediting its release, we were able to make the initial distribution of the new DOD standard MIL-STD-449, "Measurement of Radio Frequency Spectrum Characteristics," at this Symposium.

The Field Trip to the FCC Laboratory and Monitoring Station at Laurel was arranged because this facility has rarely been visited by an engineering group yet it is one of the oldest measuring installations in the interference field.

The Symposium Digest was an innovation in that it made available a complete set of summaries of the papers at time of the meeting. It also provided the Round Table Discussion paper by Mr. Albert R. Hall in toto. It was felt that a Symposium publication was highly desirable but since complete papers could not be made available in time to distribute at the Symposium the Digest was devised. It was also attractive from a budget standpoint.

In retrospect there are many things which could have been changed with a consequent improvement. The greatest improvement could have been made if sufficient lead time had been available to formulate and arrange the technical program. There was no time available to issue a general call for papers. Several desirable papers had to be omitted since they came to the attention of the committee after the program had been finalized.

The time table for mailing of the first notice and the final program and registration forms was too condensed and resulted in insufficient advance timing for some people. This should be under better control with the increase in lead time.

Finally it is worth noting that about 25% of the attendees were not members of PGRI or of IRE. It would appear that many people formerly not interested in radio matters are now concerned with RFI and should be a fertile field for recruiting for IRE and PGRI membership.

In conclusion it has been a rewarding personal experience to work with such a dedicated group as the members who have served on the Symposium Committees. To them is due the credit for contributing their time in handling the many details which have made the past Symposium a success.

Respectfully submitted,

James S. Hill
Symposium Chairman

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Ralph M. Showers,	University of Pennsylvania
Leonard W. Thomas,	Bureau of Ships

Field Trip

- Trip 1 Monday.....Bus leaves 2 p.m.—returns 5:40 p.m.
Trip 2 Tuesday.....Bus leaves 9 a.m.—returns 12:40 p.m.
Trip 3 Tuesday.....Bus leaves 1 p.m.—returns 4:40 p.m.

Symposium Digest

The Symposium Digest will be distributed free to all registrants. It will include abstracts of all papers presented plus the complete paper on "The Present Status of RFI and Compatibility Standards." Additional copies are available at a cost of \$2.00.

Round Table Discussion of Standards and Specifications

Our guest speaker will endeavor to show up the inconsistencies and ambiguities and loopholes in the Military specs and FCC Rules and Regulations. The experts on the panel are well qualified to defend MIL-I-16910, MIL-I-6181, MIL-I-26600, and Parts 15 and 18. This session may be controversial but its purpose is to develop constructive criticism and to find answers to our mutual problems. We hope the discussion period will clear away some of the smog that has been obscuring the goal of the interference control program. Copies of the specs and rules and regulations will be distributed at this meeting.

Luncheon

The highlight of our luncheon will be a film entitled "TIROS", an Experimental Weather Satellite sponsored by the Astro Electronic Products Division, RCA, jointly produced by NASA, RCA, and the Signal Corps. A speaker from RCA will be on hand to answer questions.

Reception

The social highlight of the Symposium is the Reception which has been underwritten by a group of interested industrial firms. All registrants and their wives are invited to gather in the Foyer of the Terrace Banquet Room to meet our honored guests. Refreshments will be served from 6:30 until 7:30 p.m. Plan to attend the Banquet which follows the reception.

Banquet

The Symposium Banquet will be held on Monday evening following the reception. Attendees are urged to bring the ladies to enjoy a fine meal from the Shoreham's famous cuisine. Tables seating 10 may be reserved. FCC Commissioner Robert E. Lee will act as toastmaster for the program of entertainment which will include an illustrated talk on "Radio Astronomy" by Dr. John W. Findley, Assistant to Director, National Radio Astronomy Observatory. Dress—optional, Tickets \$6.00.

Washington Welcome

The Nation's First City welcomes you and your family. To help your family plan a tour of the city, representatives of the Washington Convention and Visitors Bureau will be at the registration desk with information and advice.

Hospitality Program for Ladies

A Hospitality Room will be open each morning at 9:00 for a get-acquainted hour. Hostesses will serve coffee and provide information on places to go and things to do. An Embassy Tea is being arranged.

Hotel Accommodations

Symposium headquarters will be at the Shoreham Hotel, 2500 Calvert Street, N. W. A block of rooms is being held for Symposium registrants. The Shoreham is completely air-conditioned and in addition has an outdoor swimming pool for the use of its guests. The Shoreham Motor Inn rooms include an efficiency kitchen. Indoor and outdoor parking is available. Please make your own hotel reservations. For those unable to obtain reservations, we suggest the Sheraton-Park, which is one block from the Shoreham.

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2nd

NATIONAL SYMPOSIUM



ON

RADIO FREQUENCY INTERFERENCE

WASHINGTON, D. C.

JUNE 13-14, 1960

Sponsored by:
Professional Group
on
Radio Frequency Interference

GENERAL INFORMATION

Conference Theme

In light of the high power transmitters, large gain antennas, highly sensitive receivers, and the large number of emitters radiating in the spectrum, the problems of radio frequency interference have reached ominous proportions. In order to realistically and confidently handle the ever increasing demands on interference prediction and suppression, high speed, general purpose digital computer simulation techniques have been developed. In order to bring these powerful tools to the attention of the engineers and scientists responsible for interference control, the first session of the 1960 National IRE Symposium on RFI will review the status and capabilities of these techniques. Other sessions will report on the present ills and plans for updating standardization needs.

Registration

Registration will take place in the lobby of the hotel. The cost of advance registration is: PGRFI Member: \$2.00; IRE Member, \$3.00; Non-Member \$5.00. The cost of registration at meeting is: PGRFI Member, \$3.00; IRE Member, \$4.00; Non-Members, \$6.00. The registration desk will be open at the following times:

Sunday.....4 p.m. to 8:00 p.m. (EDT)
Monday.....8 a.m. to 5:30 p.m. (EDT)
Tuesday.....8 a.m. to 1:30 p.m. (EDT)

Field Trip—FCC Laboratory—FCC Monitoring Station

The Federal Communications Commission invites you to visit its facilities near Laurel, Maryland. Commission Engineers will conduct a tour of these facilities and will be able to give authoritative answers to your questions.

At the Laboratory you will see interference measurement facilities for receivers and transmitters, radar and TV; the calibration range for field intensity meters and signal generators. The Measurement Range for diathermy, electronic stoves, and other RFI sources.

The Monitoring Station has facilities for locating illegal stations and sources of RFI; monitoring receivers for net communications across the frequency spectrum; automatic field strength recorders and spectrum analyzers; frequency measuring equipment.

New air-conditioned buses will leave the Shoreham according to schedule. Select your trip and buy your ticket early. The bus capacity is 44 passengers. One bus has been engaged for each trip. Bus ticket \$1.25.

Monday, June 13, 9:15 a.m. - 12:00 p.m.

West Ballroom

- 9:15 INTRODUCTION: James S. Hill, Symposium Chairman
9:30 KEYNOTE SPEAKER: Henry Randall, OSD-DDR&E
GETTING ON TOP OF THE NATION'S RFI PREDICTION
AND MEASUREMENT EFFORTS

RADIO FREQUENCY INTERFERENCE PREDICTION

Chairman: Ralph M. Showers, University of Penna.

- 10:00 CHARACTERISTICS NEEDED FOR RFI PREDICTION
D. R. J. White, Frederick Research Corporation,
Wheaton, Maryland
10:25 THE JANSKY AND BAILEY RFI PREDICTION MODEL
Delmer C. Ports, Kenneth G. Heisler, Jr., Jansky and
Bailey, Inc., Washington, D. C.
10:50 INTERMISSION
11:05 THE AMF COMPUTER SIMULATION MODEL
Wilbur G. James, American Machine and Foundry,
Alexandria, Virginia
11:30 THE GE COMPUTER SIMULATION MODEL
John M. Lambert—Joseph P. Frazier, General Electric
Co., Syracuse, N. Y.
12:00 LUNCHEON—Blue Room

Monday, June 13, 2:00 p.m. - 8:00 p.m.

West Ballroom

COMMUNICATIONS ELECTRONICS EQUIPMENT CHARACTERISTIC MEASUREMENTS

(Techniques and Instrumentation)

Chairman: Octavio M. Salati, University of Pennsylvania

- 2:00 ANTENNA PATTERNS
Ernest Jacobs, University of Pennsylvania
2:25 AERIAL PATTERN MEASUREMENTS
Arnold L. Albin, Filtron, Inc., Flushing, New York
2:50 COMMUNICATIONS TRANSMITTER AND RECEIVER
SPECTRAL SIGNATURES
Charles E. Blakely, Georgia Tech, Atlanta, Georgia
3:15 INTERMISSION
3:30 RADAR TRANSMITTER AND RECEIVER SPECTRAL
SIGNATURES
Herbert M. Sachs, Armour Research Foundation, Chi-
cago, Illinois
3:55 STRONG SIGNAL RECEIVER PROBLEMS
Donald McClenon, Naval Research Laboratory,
Washington, D. C.
6:30 RECEPTION—Terrace Banquet Room Foyer
8:00 BANQUET—Terrace Banquet Room
Speaker: Dr. John W. Findlay, Assistant to Director,
National Radio Astronomy Observatory

Tuesday, June 14, 9:15 a.m. - 12:00 a.m.

West Ballroom

ROUND TABLE DISCUSSION RFI AND COMPATIBILITY SPECIFICATIONS

- 9:15 Moderator: Arthur Loughren, Airborne Instruments
Laboratory, Mineola, N. Y.
9:30 THE PRESENT STATUS OF RFI AND COMPATIBILITY
SPECIFICATIONS
Albert R. Kall, ARK Engineering Company, Philadelphia,
Pennsylvania
10:00 AIR FORCE SPECIFICATIONS
N. D. Flinn, Wright-Patterson Air Force Base, Ohio
10:15 NAVY SPECIFICATIONS
Leonard Thomas, BU Ships, Verne V. Gunsolley, BU
WEAPS, Washington, D. C.
10:30 SIGNAL CORPS SPECIFICATIONS
John F. Chappell, Hexagon, Fort Monmouth, New
Jersey
10:45 FCC RULES AND REGULATIONS
Edward W. Allen, Jr., FCC, Washington, D. C.
11:00 INTERMISSION
11:15 SUMMARY by Albert R. Kall
11:30 GENERAL DISCUSSION FROM FLOOR

Tuesday, June 14, 1:30 p.m. - 4:30 p.m.

West Ballroom

INTERFERENCE CONSIDERATIONS IN THE DESIGN AND TESTING OF EQUIPMENT

Chairman: John J. Egli, USASRD, Fort Monmouth,
New Jersey

- 1:30 THE ARMY'S ELECTROMAGNETIC ENVIRONMENTAL
TEST FACILITY
John H. Homsy, EETD, Fort Huachuca, Arizona
1:55 MAKING RFI PREDICTIONS IN THE FIELD
John E. McShulskis, Frederick Research Corporation,
Wheaton, Md.
2:20 REDUCING INTERFERENCE TO C-E SYSTEMS THROUGH
STANDARDIZATION
Major Lavern A. Yarbrough, GEEIA, Griffiss Air Force
Base, N. Y.
2:45 INTERMISSION
3:00 DESIGNING RFI REDUCTION INTO EQUIPMENTS
C. Raymond Billheimer, Navy Department, Wash., D. C.
Robert M. Keith, Jansky & Bailey, Inc., Wash., D. C.
3:25 THE ROLE OF PROPAGATION CALCULATION IN
INTERFERENCE PREDICTION
Henry R. Reed, University of Maryland
Thomas R. Evans, Jansky & Bailey, Wash., D. C.
3:50 SIGNAL ACCEPTABILITY CRITERIA
Richard F. Schwartz, University of Pennsylvania, Phil-
adelphia, Pa.

Industrial Sponsors

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Vitro Laboratories
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FCC

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Samuel J. Burruano
Nelson M. Cooke
Harold E. Dinger
John E. Durkovic
Christian L. Engleman

Zigmund V. Grobowski
Henry Randall
Bernard Schenker
Dr. Ralph M. Showers
Leonard W. Thomas

Banquet

Professional Group on
Radio Frequency Interference



INSTITUTE of RADIO ENGINEERS

Terrace Room

THE SHOREHAM
Connecticut Avenue at Calvert Street
Washington, D. C.

Monday

June 13, 1960

Reception

6:30 TO 7:30 P.M.

Courtesy of Industrial Sponsors

Dinner

8:00 P.M.

Banquet Menu

FRUIT CUP, MARASCHINO

CELERY

OLIVES

BREAST OF CHICKEN, MUSHROOM CAP

POTATOES PARISIENNE

BROCCOLI, HOLLANDAISE

SALAD: HEARTS OF LETTUCE, TOMATO

FRENCH DRESSING

SHOREHAM PARFAIT

COFFEE

Program

INVOCATION CAPTAIN LUTHER F. GERHART
Chaplain Corps, United States Navy

INTRODUCTION MR. JAMES S. HILL
Symposium Chairman

TOASTMASTER MR. ROBERT E. LEE
Commissioner, Federal Communications Commission

DISTINGUISHED GUESTS

MR. JOHN DURKOVIC
*Chairman, Washington Section
Institute of Radio Engineers*

MR. JAMES P. McNAUL
*Chairman,
PGRFI Administrative Committee*

GUEST SPEAKER DR. JOHN W. FINDLAY
*National Radio Astronomy Observatory
Green Bank, West Virginia*

INDUSTRIAL CO-SPONSORS

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INCOME	FINANCIAL	STATEMENT	EXPENSES
Advance from IRE	\$ 800.00	Digest	\$ 430.90
Sponsors	2000.00	Printing and mailing	806.10
Registration	1308.00	Arrangements	162.82
Luncheon tickets	675.50	Luncheon	617.55
Banquet	1020.00	Refunds on tickets	15.75
Field trip	108.75	Postage to	
IRE membership	65.00	Washington IRE Section	80.50
PGRFI membership	74.00	Field trip	121.60
FGAP membership	4.00	IRE memberships	113.00
Digest copies	20.00	Repayment of IRE advance	800.00
Repayment of advance		Public address service	40.00
for registration	100.00	Registration costs	
Cashier error	1.00	(includes \$200 advance)	112.27
Collected from		Banquet	1063.71
advance "no shows"	32.75	Gratuities	41.00
Postage refund from		Ladies activities	16.50
Washington IRE Section	80.50	Reception	436.30
	<u>5289.50</u>	Spoker refunds	12.00
		Administrative expenses	114.57
	5150.97	Signs	11.50
surplus \$	1138.53	Papers award	25.00
		Miscellaneous	39.90
			<u>5150.97</u>

ITEM	Budget Amt	Actual	Balance	Above
Projector operator & rental	\$ 186.00	\$ 162.82	\$ 23.18	\$
Digest	500.00	430.90	69.10	
Reception	750.00	436.30	313.70	
Registration cards	15.00	28.56		13.56
Printing banquet menu	55.00	65.28		10.28
Typewriter rental	5.00	5.15		.15
Award	25.00	25.00		
Cokes at Laurel	16.00	16.00		
Banquet (excluding food)	61.00	46.00	15.00	
Luncheon " "	25.00	16.25	8.75	
Ladies activities	50.00	16.50	33.50	
Gratuities		41.00		41.00
Bus for field trip	130.00	105.60	24.40	
Public address service	20.00	40.00		20.00
Administrative expenses		114.57		114.57
Printing and mailing	850.00	806.10	43.90	
Misc. including telephone	60.00	48.76	11.24	
Tickets	30.00	29.07	.93	
Signs	15.00	11.50	3.50	

Paper	Speaker
Title	

AWARD RATING SHEET
 HENRY 2nd National Symposium
 June 13-14, 1960
 Shoreham Hotel Washington, D.C.

1. Rate only on basis of presentation - not on content of paper.
 2. Use a separate sheet for each speaker.
 Instructions: 3. Rate the speaker on each item tabulated below by inserting
 a check in the appropriate column.
 4. Turn this rating sheet over to the session chairman.

		Fair	Good	Excellent	Weight	RATING
1	How well did the speaker hold the attention of the audience				3	
2	Was the audience reaction favorable?				3	
3	Speaker's choice of language (Did he avoid unusual words and too many complicated sentences.)				3	
4	Did speaker use his time wisely (did not have to hurry at end of talk)?				1	
5	Did speaker talk loudly enough to be heard? (Used microphone effectively)				1	
6	Was speaker at ease?				1	
7	Did speaker talk slowly enough to be readily understood?				1	
8	Did speaker use visual aids effectively?				1	
9	Were the visual aids well prepared?				1	
10	Your impression that speaker knew his subject				3	
11	Overall evaluation of the presentation				3	
					TOTAL →	

Judge	Date
Affiliation	

6-7-60