JANUARY '68 VOLUME XIV NUMBER 1

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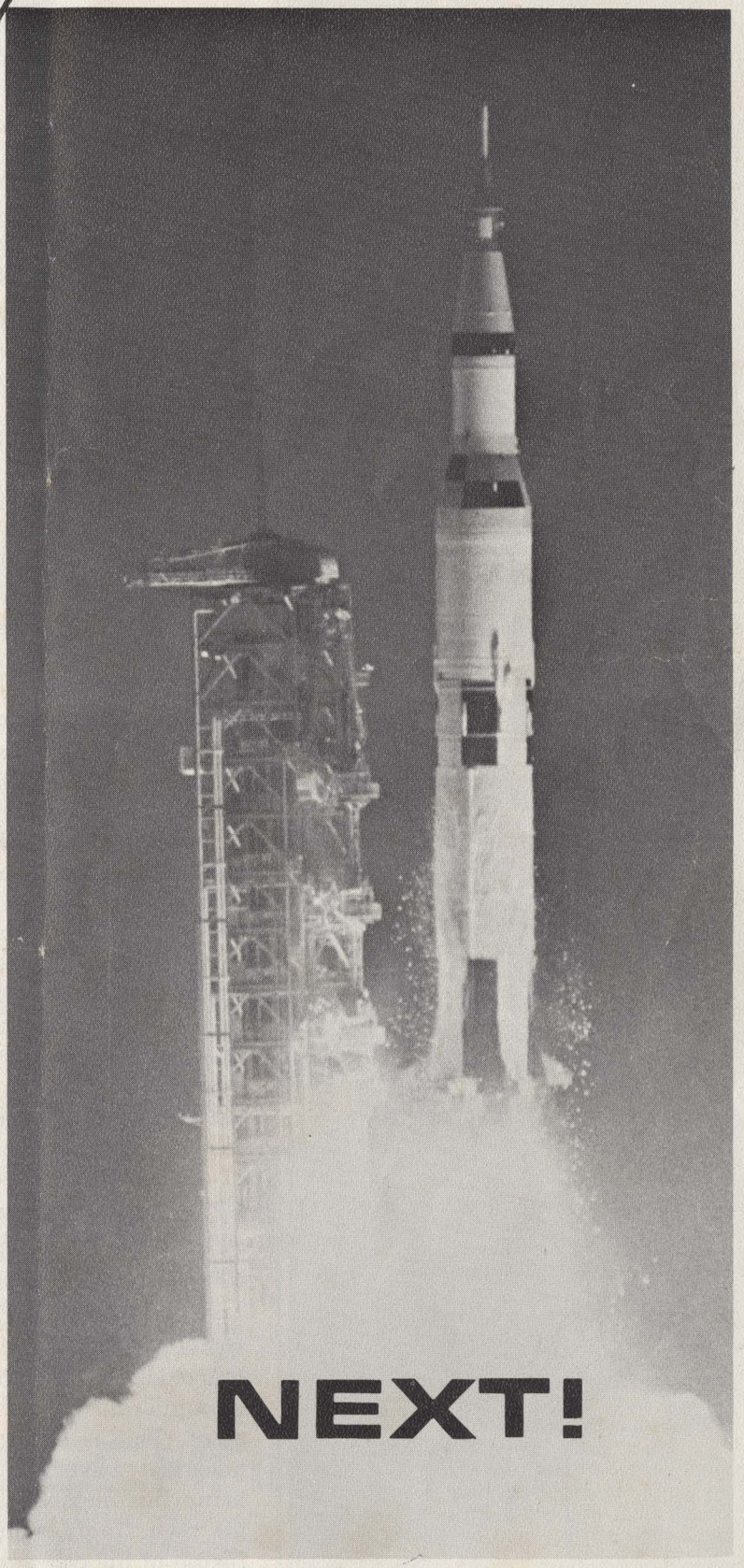

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YOUR CHALLANGE FOR 1968!

THE CHAIRMAN SPEAKS GUNTHER KARGER

Within your lifetime, you will travel from your community area to the airport in the express pneumotube, hop on the AIRBUS and get to your office 200 miles away within 45 minutes. You will hold a conference with people sitting in their offices in Sydney, London, and Hong Kong using the VIDEOPHONE CONFERENCE NETWORK without even getting up from your chair!

During your vacation trip some year from now, you will become ill and go to the nearest DIAGNOSTIC CENTER, present your identity card, step onto the ANALYZER and probably find out in three minutes what's wrong while a prescription slip is printed out in front of your eyes! What happened? The ANALYZER simply sensed your present conditions, compared it with the data stored in the DIAGNOSTIC NETWORK DATA BANK, assessed it against variations from your standard condition and printed out possible causes listed in order of highest probability.

Your wife will no longer need money and she is prevented from breaking your budget! You simply give her a credit card coded to include her allocated budget for a given time period.

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EXCERPTS..... FROM BOOKLET

THE ENGINEERING SOCIETY — A STUDY IN VALUES

BY W. K. MACADAM.... .....PRESIDENT IEEE

What is membership in a professional Engineering Society Worth?

To the individual engineer and engineering manager — a compounded investment in himself — in his lifelong fight against technical obsolescense. To the industry or organization encouraging and supporting professional society participation — a continuing leadership in the rapidly changing technical environment.

Today, social and economic progress is increasingly dependent on sound engineering judgement. Most of this is applied to the job at hand — in the laboratory, operations center or in management. To this extent the judgement is impersonal and externally directed. There are, however, other decisions, equally important, which engineers must make with respect to themselves and their own future competence. These affect the outcome of the continuing fight against personal technical obsolescens and for this reason, merit the serious attention of the individual and the support of the organization with which he is associated.

It also entails a contribution of valuable time and energy in support of active participation in professional affairs. The decision obviously has a first-order negative bias.

For probably a much larger segment of Institute membership however, the indirect not so obvious, returns become an important and in many cases controlling factor in their decision. These higher-order effects are many and varied — the individual advantages have a different value for each member. They are a cafeteria display from which he can make a choice to suit his taste and appetite in relation to what he is willing to invest. But despite their variety, all these supplementary advantages have one basic characteristic: They require a further investment in time, energy, and interest in order to release their reward. The motivation for the investment is often indirect but, because of its importance, it deserves careful analysis and understanding by all who are interested in the future of our Institute.

- ***For the Researcher — A Ride on the Forward Wave of Technology**
- ***For Manager, Designer, Planner, Operator — Broad Technical Awareness**
- ***For Industry and Institutions — A Key to Progress and Innovation**

In view of the fact that our Institute publishes about one tenth of the world's primary technical papers in the electrical field, currently in 42 journals, his need for careful study of selected articles in the appropriate Group Transactions is the key to professional effectiveness and advancement. This is almost his only sure way of riding the crest of the technological wave. The publications and conferences of the Institute also bring this member another substantial value — the opportunity to report his own findings and, equally important, to test them in a worldwide forum of his colleagues.

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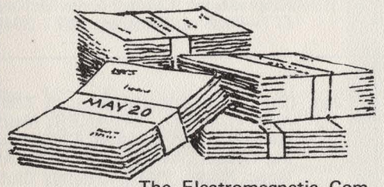
REPORT

EMC & STUDENT PAPER CONTEST



The Electromagnetic Compatibility (EMC) Chapter of the Canaveral Section held its second meeting of the year at Ramon's in Cocoa Beach, Florida. The meeting was a luncheon, and the program consisted of a Chapter business meeting and a technical speech by Mr. Samuelson of Fairchild Electro - Metrics Corporation. Several new topics of business were discussed. D. T. Montgomery agreed to investigate the renting of a bus for a G - EMC tour to central Florida EMC facilities. It was also agreed to have a committee work shop prior to the January meeting. Also, the Canaveral G - EMC will sponsor a student paper contest which will be held on May 20, 1968.

JAN. 22, COM-TECH MEETING

DONALD T. WORTHINGTON

DEFENSE COMMUNICATIONS AGENCY

ADVANCES IN STRATEGIC COMMUNICATIONS SYSTEMS

The next meeting of the Communication Technology Group, Canaveral Chapter, IEEE will be held on 22 January, 1968.

Mr. Donald T. Worthington, System Engineer, Research and Development Division, Defense Communications Agency, Washington, D.C. will speak on ADVANCES IN STRATEGIC COMMUNICATIONS SYSTEMS.

RESERVE EARLY

PHONE: Harry McElveen, 636-9007 TIME: 6:30, Meet the Speaker; 7:00, Dinner; 8:00, Meeting; PLACE: Cape Kennedy Hilton, Cape Canaveral.

Members and guests are invited to attend the "Meet the Speaker" social hour starting at 6:30 PM, and dinner starting at 7:00 PM.

THE TOPIC — Trends for further communications requirements are analyzed to determine the type of traffic that the strategic communication system must transmit. An analysis of these future requirements indicates that current system design practices may be deficient. Three basic future strategic system designs are discussed (a. extension of current system design, b. all digital system design, and c. hybrid digital/analog system design) with respect to the predicted future communication requirements. This analysis leads to generalized conclusions which indcates that strategic communications system in the next two decades will evolve from an analog system through the hybrid system to a future all digital system.

THE SPEAKER — Mr. Worthington is a Systems Engineer in the Research and Development Division of the Defense Communications Agency. Since 1948, he has had engineering assignments in the communications industry. His present position involves the determination of R & D required to support the mission of the Defense Communications System, especially in the fields of transmission technology, voice and data bandwidth compression.

* * *

Mr. Worthington has a BSEE degree from the University of Kentucky and is a senior member of IEEE.

G-EMC WORKSHOP

On January 15, 1968, at 5:30, a committee workshop will be held to work on plans for the proposed Second Regional EMC Symposium to be held in Cocoa Beach in May, 1968, and a student papers contest.

The committees are: Arrangements Committee,
Exhibits Committee,
Publicity Committee,
Student Papers Contest Committee.

Anyone wishing to participate in this workshop should contact: Dean McKay, ITT - Federal Electric Corporation, 867-3949 (KSC).

CALENDAR

LOCAL

Jan. 15: "Trends in EMC Instrumentation"; SPEAKER: Don White, President of White Electromagnetics, Senior Member, IEEE: Place: Cocoa Beach; WORKSHOP: 5:30; DINNER: 7:00; MEETING: 8:00; Reservations, Contact Dean McKay, ITT—Federal Electric, 867 - 3949.

Jan. 22: "Advances in Strategic Communications Systems"; SPEAKER: Donald T. Worthington, Defense Communications Agency, Washington, D.C.; PLACE: Cape Kennedy Hilton, Cape Canaveral; MEET THE SPEAKER: 6:30; DINNER: 7:00; MEETING: 8:00.

Jan. 18: "Operational Aspects of Technical Progress"; SPEAKER: Major General David M. Jones, Commanding Officer, AFETR; PLACE: Atlantic Room, PAFB Officers Club; COCKTAILS: 7:00; DINNER: 8:00.

Mar. 18: "Frequency Control Analysis (FCA)" Facility at Cape Kennedy, Air Force Station; SPEAKER; Jim Kress, Pan American, Member IEEE, G-EMC; PLACE: Kennedy Space Center; DINNER: 5:30; MEETING: 6:30; TOUR: (Security Clearance required) 8:00.

ENGINEERING MANAGEMENT GROUP MEETING

Jan. 11: "Engineering Management in Major Systems"; SPEAKER: Arthur W. Vernon, Vice President, Radiation, Inc.; PLACE: Ramon's, 520 Causeway; Social: 6:00; Dinner: 7:00; Meeting: 8:00; PRICE: $4.00; RESERVATIONS: Don Madrid, 784-3489

ATTEND LOCAL MEETINGS!!! SUPPORT OUR SECTION

JAN. 15TH EMC MEETING

SPEAKER: DON WHITE

PRESIDENT, WHITE ELECTROMAGNETICS

TRENDS IN EMC INSTRUMENTATION

For over eighteen years Mr. White has been engaged in system analysis and in the research, design, and development of electronic-communications systems and related instrumentation. During the past six years, he has served as president of White Electromagnetics, Incorporated, a firm which specializes in design and manufacture of automatic systems and components for spectrum scanning, signal recognition, and display.

RESERVE EARLY

PHONE: Dean McKay, 867-3949 TIME: 5:30, Workshop; 7:00, Dinner; 8:00, Meeting; PLACE: Cocoa Beach.

Co-author of the Handbook on Electrical Filters; Synthesis, Design, and Application now in its fourth printing, he has published over seventy papers on such topics as electromagnetic compatibility, interference instrumentation and measurement techniques, mathematical modeling, and gaming applications to electromagnetic warfare and systems.

A registered professional engineer and Senior Member of IEEE, Don White has served as national chairman for the IEEE's Professional Group on Electromagnetic Compatibility, and as chairman of the Third National Symposium on Radio Frequency Interference. He receved his MS and BS degrees in Electrical Engineering from the University of Maryland; he is a member of Tau Beta Pi.

JOINT SECTION MEETING, JAN. 18

MAJOR GENERAL DAVID M. JONES

COMMANDING OFFICER, AFETR

OPERATIONAL ASPECTS OF TECHNICAL PROGRESS

A joint meeting of the Cape Canaveral Chapter of the Armed Forces Communications and Electronics Association and the Canaveral Section of the IEEE will be held on January 18 in the Atlantic Room of the Officers' Club at Patrick Air Force Base. The evening will begin with cocktails at 7:00 P.M. and dinner at 8:00 P.M.

RESERVE EARLY

PHONE: Harry McElveen, 636-9007 TIME: 7:00, Cocktails; 8:00, Dinner;
PLACE: Atlantic Room, PAFB "O" Club.

MAJOR GENERAL DAVID M. JONES

Major General David M. Jones was named Commander of the Air Force Eastern Test Range in May 1967, following an assignment as Deputy Associate Administrator for Manned Space Flight, NASA, Washington, D.C. In addition to his responsibilities as the Air Force Eastern Test Range Commander, General Jones also serves as Deputy to the Department of Defense Manager for Manned Space Flight Support Operations.

Born on December 18, 1913, at Marshfield, Oregon, General Jones attended the University of Arizona, from 1932 to 1936, where he enlisted in the Arizona National Guard. He served one year in the cavalry prior to entering pilot training in the summer of 1937, and has had continuous service since his graduation in 1938.

In early 1942 he volunteered for the Doolittle Project which was shrouded in secrecy. During the training phase of this project, he flew the initial evaluation flights on the B-25 aircraft which were specially equipped for the mission. After the Doolittle raid on Tokyo, he bailed out over China. The Chinese people assisted him in returning to the U.S. He received the Distinguished Flying Cross for his participation as a flight commander in the planning, training and completion of the mission.

In September 1942 General Jones was assigned as Group Commander of the 319th Bomb Group in North Africa. His belief in low level bombing and his experience with the Doolittle Project resulted in an assignment to develop low-level bombing tactics and techniques. On December 4, 1942, while on his fifth mission, he was shot down over Bizerte, North Africa, and spent two and a half years as a prisoner in Stalag Luft III.

General Jones' constant agitation and harassment of the enemy resulted in his being selected for the "escape committee" by fellow prisoners. The committee reviewed escape plans and directed escapes. After his liberation in April 1945, General Jones received a letter of commendation from the senior American officer in Stalag Luft III for his leadership among fellow prisoners.

General Jones has attended three major Armed Forces schools: Command and General Staff School, Armed Forces Staff College, and the National War College. For three years prior to attending the National War College, he was Wing Commander of the 47th Bomb Wing at Langley AFB, Virginia, and at Sculthorpe, England.

He formally started his research and development work in 1956 while assigned as DCS/Operations of the Air Proving Ground Command at Eglin AFB, Florida. His experience in bombardment-type aircraft and previous command staff assignments in research and development resulted in his being selected Director of the B-58 Test Force, organized in February 1958.

The B-58 Test Force was the first Test Force to be formally organized by the Air Force and was the largest organization (more than 1,000 men) under the new testing concept. Throughout this assignment, General Jones maintained his flying status in the B-58, TF-102, and T-33

Until assigned to the Wright Air Development Division, Wright-Patterson AFB, Ohio, as Vice Commander in September 1960, General Jones had flown more hours testing the B-58

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ANNOUNCEMENT

"GIT"

NEW MEMBERSHIP DRIVE

In January of 1968, THE I.E.E.E. will initiate a drive to enlarge its total membership by 10%, improve its operation as a service to its members, and encourage all members to attain the highest grade commensurate with their professional stature.

This Program will be known as "Operation GIT", standing for Growth, Improvement and Transfer. As members of the Canaveral Section, we should invite and encourage our Engineering colleagues to visit Group or Section meetings and better acquaint themselves with the advantages of membership.

Headquarters is planning to recognize those sections making outstanding contributions to the program and the Canaveral Section itself will undoubtedly plan suitable recognition within its own operation.

As you know, we are having substantial growth with very small effort so that very little added emphasis would be required to do an outstanding job.

As always, your Membership Committee stands ready to assist in any way to supply literature, application blanks, etc.

CHAIRMAN cont'd from cover

Wherever she shops, the purchased amount is substracted from the allocated budget through a data link between the "Cash Register" and your bank and when she exceeds her budget . . . . . TILT!

You will read about the first MINING EXPEDITION TO MARS searching for pressingly needed minerals. Radically new propulsion systems will make this possible.

You will have the opportunity to take a short vacation in a SEADOME where you can firsthand observe the wonders beneath the tropical seas.

WHAT WILL YOU DO in 1968 to prepare for the TECHNOLOGY REVOLUTION? Will you contribute to its making or just reap the benefits? Have you staked out your part to help engineer the WORLD OF TOMORROW?

Will you write, on a piece of paper, the answers to the following questions?

WHAT WILL I BE DOING 10 YEARS FROM NOW?

WHAT MUST I DO NOW TO PREPARE MYSELF FOR THIS GOAL?

YOU HAVE THE CHALLENGE! WILL YOU ACCEPT IT THROUGH POSITIVE ACTION?

W. K. MACADAM cont'd

A Compound Investment

What is professional society membership worth? To the alert and progressive scientist, engineer, educator, or technical manager, it can represent a compound investment in himself, in his company, in industry and society. It can serve as a coupling link with the outside world. But its value is not obvious. The motivation for increasing the coupling factor through enlightened self - interest is more subtle — and its realization thus more rewarding.

EXECUTIVE COMMITTEE CANAVERAL SEC. IEEE

The Membership and Transfers Committee of the Canaveral Section of the IEEE submits the following status report for the period of 19 September 1967 through 30 November 1967.

MEMBERSHIP

Last reporting date	19 Sept. 1967	951
Current reporting date	22 Nov. 1967	1080
Net change during period		+129
New members		100
Resigned		1
Deceased		0
Reinstated		8
Higher Grade		2
Delinquent in Dues		8
Incoming Transfers		62
Outgoing Transfers		32

MAJOR GENERAL JONES cont'd

than any other USAF pilot. He participated in design speed dashes, low-level penetrations, night, weather, formation and inflight refueling missions.

On April 1, 1961, General Jones was named Vice Commander of the Aeronautical System Division, Wright-Patterson AFB, Ohio. In October 1961, he was named Deputy Commander/GAM-87 "Skybolt" at ASD. When that Project was cancelled, General Jones became ASD Deputy for Systems Management and later acted again as the Vice Commander. In August, 1964, he was assigned as Deputy Chief of Staff/Systems at Headquarters Air Force Systems Command, Andrews AFB, Maryland, and was named to his NASA assignment in December of that same year.

A highly decorated officer, General Jones holds the following awards: American Defense Service Medal; American Campaign Medal; Asiatic Pacific Campaign Medal; Europe, Africa, Middle East Campaign Medal; World War II Victory Medal; Legion of Merit; Air Medal; Distinguished Flying Cross with one Oak Leaf Cluster; Purple Heart; Yum Hwei from the Chinese government; National Defense Service Medal; Air Force Commendation with one Oak Leaf Cluster; the Air Force Longevity Service Award with six Oak Leaf Clusters; and the NASA Exceptional Service Medal.

General Jones and his wife, Anita Maddox Jones, have three children; Jere J., David M., Jr., and James M.

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