



RELIABILITY GROUP NEWSLETTER

APRIL 1973 Vol. XVIII · Issue 2

Editor: Paul Gottfried

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Editor's Notes

A year has passed since the Newsletter began carrying employment advertising. At the time, we mentioned our concern about built-in delay times and indicated the possibility of an increase in publication frequency if warranted by advertising response.

Response to individual position-wanted ads has been good; as many as six inquiries resulting from one ad have passed through the Editor. (Response to the two help-wanted ads is not known, as those ads were not blind and the replies did not involve the Newsletter.) Publication delays do not seem to have represented a major problem. The total volume of advertising has not justified any change in publication schedule.

Although the employment situation seems to have improved substantially, Newsletter employment advertising appears to be meeting a definite, but limited, need. We intend to continue providing this service to the membership as long as it continues to be used.

"Material for the July issue must be in the Editor's hands by May 25."

Chapter Chairmen

Baltimore	Dr. Richard A. Kowalski Westinghouse Electric Corp. P. O. Box 1897 Baltimore, Md. 21203	New Jersey Coast	Mr. Weldon V. Lane 57 Throckmorton Avenue W. Long Beach, N.J. 07764
Binghamton	Mr. Joseph J. Rexford 20 Merrill Street Binghamton, N.Y. 13905	New York - Long Island	Dr. Martin L. Shooman 12 Broadfield Place Glen Cove, N.Y. 11542
Boston	Mr. Paul E. Curtis 12 Autumn Lane Waltham, Mass. 02154	North Jersey	Mr. Stanley M. Cherkasky 61A Salisbury Road Wayne, N.J. 07470
Canaveral/Daytona	Mr. Jack R. Lykins 285 Carissa Drive Satellite Beach, Fla. 32935	Philadelphia	Mr. Irving Hyams 134 East Cheltenham Ave. Philadelphia, Penna. 19120
Chicago	Mr. Charles W. N. Thompson 240 Randolph Street Chicago, Ill. 60022	San Francisco	Mr. Gilmore Bowers 766 Berkley Avenue Menlo Park, Calif. 94025
Connecticut	Mr. J. R. Breton 320 Ocean Avenue New London, Conn. 06320	Twin Cities	Mr. Stephen J. Pech 109 East Golden Lake Lane Circle Pines, Minn. 55014
Florida West Coast	Mr. Robert P. Dalton 2170 College Drive Clearwater, Fla. 33516	Washington	Mr. William E. Wallace, Jr. 304 Wayne Avenue Silver Spring, Md. 20910
Los Angeles	Mr. Robert B. Babin 26822 Hawhurst Drive Palos Verdes, Calif. 90274		
Mohawk Valley	Mr. George Kasouf 1513 Bette Road Utica, N.Y. 13502		

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Send Form 3579 to IEEE Inc. 345 East 47th Street, N.Y., N.Y. ■

Chapter NEWS

Baltimore

The first meeting of the new year was held on January 15. Naomi J. McAfee, Quality and Reliability Assurance Manager at Westinghouse, spoke on "The ASQC Reliability and Quality Engineer Certificate Programs." On March 19, Willis J. Willoughby, former Director of Apollo Reliability, Quality, and Safety Programs for NASA, discussed "Some Aspects of Apollo Reliability." The presentation was highlighted with Apollo mission films.

The final meeting of the year is scheduled for May 15, with the speaker yet to be determined.

In February, William B. Reese, Junior Past Chairman, was selected to head the nominating committee which will propose a slate of officers for the 1973-74 season.

Connecticut

The chapter reports an excellent meeting held on January 12 with some 20 persons in attendance. The meeting included presentation and approval of reorganization of the chapter, a lecture on "Microelectronics Reliability -- Failure Causes, Prediction Techniques, Self-Repair Design" by Dr. W. W. Gaertner, and a tour of the United Aircraft Research Laboratories.

A presentation on "Reliability of Power Transmission Systems" by Dr. Robert Ring Lee is planned for the May 15 meeting. Contact chapter chairman J. R. Breton for further information.

Philadelphia

The February 20 meeting featured a talk on "Reliability in Rail Rapid Transit and Commuter Cars" by Richard H. Line of the Vertol Division of Boeing. Charles R. Heising of General Electric spoke on "Application of Reliability Concepts to Industrial Power Distribution Systems" at a meeting on March 21.

The chapter's continuation of an outstanding record was recognized again by G-R -- see the "Chapter Awards" item in this issue.

Twin Cities

"Screening Electronic Parts" was the title of the presentation given by Jim O'Rourke of DCA Reliability Laboratory, Mountain View, California, for the September meeting. At the November meeting, held jointly with the G-AES chapter, Stan Swinney of Honeywell discussed "Space Shuttle - the Pilot Interface." The February meeting featured Paul W. Hernicle, Electric Machinery Manufacturing Company, on "Insulating Large Electrical Machine Windings" and was held jointly with the Industry Applications Society.

A joint meeting with the Twin Cities Section is planned for April 11 and will be held at Nino's Steak Round-Up in Roseville, Minnesota. Robert J. King will speak on "Product Liability."

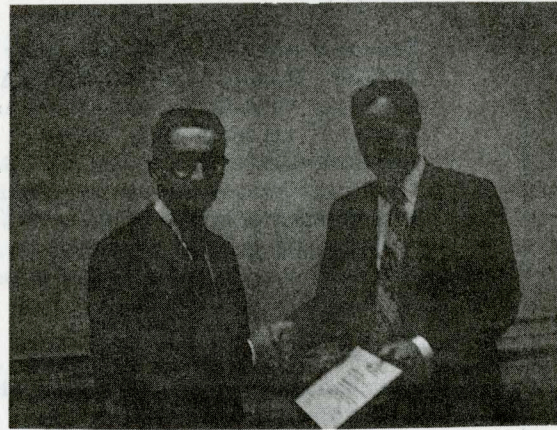
Current chapter officers include Stephen J. Pech, Control Data Corporation, Chairman; Richard F. Rappel, Honeywell, Inc., Vice Chairman; and Dean L. Hooper, Control Data Corporation, Secretary.

Washington

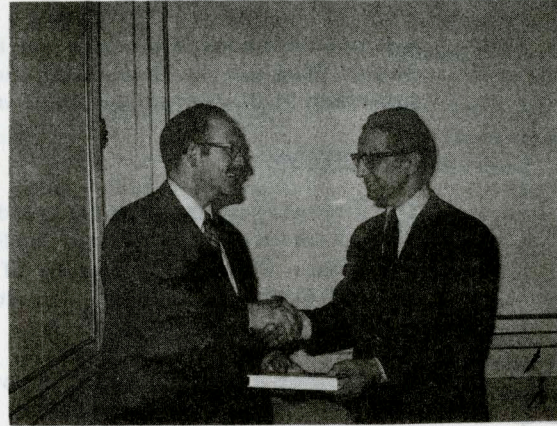
John E. Daveau of the Department of Defense (Installations and Logistics) addressed the December 12 chapter meeting on "Suggested Improvements for Maintainability Demonstration." On January 16, a joint meeting with the Power Engineering Society heard a talk on "Electric Utility Reliability" by William Balet of the Federal Power Commission.

Chapter awards

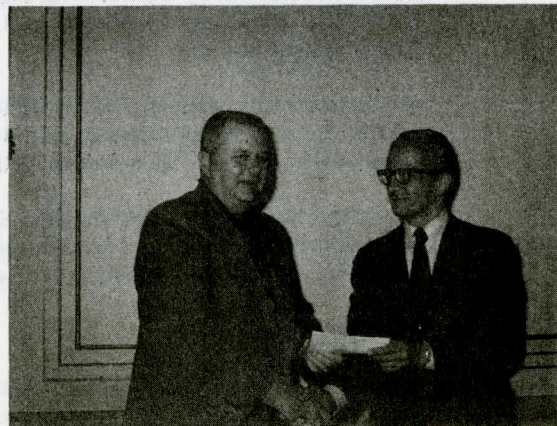
Chapter awards for the 1971-72 season were presented by outgoing President Val Monshaw at the AdCom meeting immediately preceding the 1973 R&M Symposium.



Regaining first place was the Philadelphia Chapter, represented by Past Chairman Edmund Westcott. (If you find this photograph too dark, the same cast appeared in last April's issue.)



The Boston Chapter returned to second place. The award was accepted by 1971-72 Chairman Don Dawes.



The new arrival among award winners was the San Francisco Chapter, represented by Past Chairman Lew Finch.

New Fellows

The following G-R members were named Fellows of the IEEE effective January 1, 1973:

Algirdas A. Avizienis, "For fundamental contributions in the field of fault-tolerant computing."

Osamu Nishino, "For contributions to electrical and nuclear instrumentation and to engineering education."

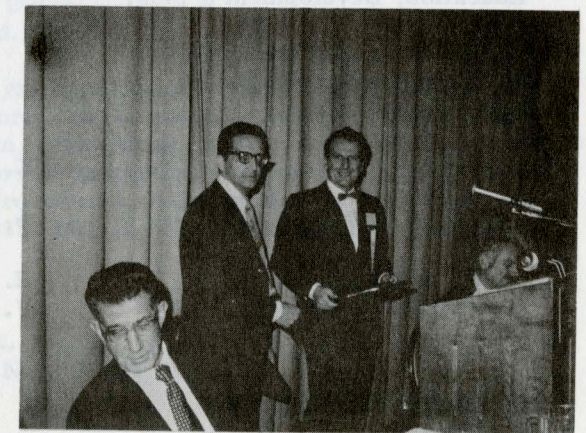
Marion P. Smith (a former G-R President and current AdCom member), "For contributions to the development and application of reliability engineering technology, and leadership of humanitarian organizations."

Stephen S. S. Yau, "For contributions to switching theory, the reliability of computing systems, and engineering education."

Symposium HIGHLIGHTS



The keynote speaker, Adm. Isaac C. Kidd, Jr., emphasized the continuing shortfalls in Reliability and Maintainability and the joint military-industry responsibility for increased realism in proposals and specifications.



Past President Val Monshaw (standing, left) presented the annual G-R Reliability Award to Dr. Jaques Eldin, 1965-72 Chairman of the TC-56 Committee of the International Electrotechnical Commission. The citation read "For significant contributions through effective and continuing leadership in the development of international standards on reliability management and analysis techniques as applied to electronic components and equipment."

1973 G-R Organization

President	C. R. Knight
Vice-President, Technical Operations	R. E. Kuehn
Maintainability	B. Retterer
Manufacturing Technology	G. Ebel
Human Effects	T. L. Regulinski
Software Reliability	H. C. Schock, Jr.
Reliability Physics	J. Naresky
Oceanography	M. Sims
Vice-President, Publications	P. K. McElroy
Newsletter Editor	P. Gottfried
Transactions Editor	R. A. Evans
Associate Editor	T. L. Regulinski
Vice-President, Meetings, Chapters & Membership	H. D. Williams
Speakers Committee (w/ASQC) Chapter Activities	H. W. Williams, Actg. H. D. Hulme
Vice-President, Education, Development & Stds.	R. M. Jacobs
Education & Training	M. Shooman
Standards & Definitions	J. Edelman
CARAD Liaison	C. Purdue
Treasurer	K. Greene
Secretary	D. Troxel
Awards, Nominations, Constitution & Bylaws	H. E. Reese (Sr. Past President) V. R. Monshaw (Past President)

Elected AdCom Members

Term expiring	12/73	12/74	12/75
	G. Ebel	P. Gottfried	D. F. Barber
	R. A. Evans	K. Greene	O. Bjorklund
	R. E. Kuehn	C. R. Knight	H. D. Hulme
	V. R. Monshaw	D. S. Peck	R. M. Jacobs
	M. P. Smith	M. L. Shooman	N. J. McAfee
	J. W. Thomas	H. D. Williams	P. K. McElroy

Employment advertising

The Newsletter accepts both "Help Wanted" and "Position Wanted" on a no-charge basis, subject to the following rules:

- Ads will appear in two successive issues unless cancellation notice is received before editorial deadlines.
- Text for each ad will be limited to ten lines plus identification, with a maximum of 45 characters and spaces per line.
- Ads may be open or blind, but blind "Help Wanted" ads should identify the type of business and the general geographic location of the vacancy.
- Submittals of "Position Wanted" ads should include IEEE membership number.
- "Help Wanted" advertising must fall in the "Equal Opportunity - M&F" category. Agreement to this requirement will be considered to be implied by the submittal of the ad and need not appear in the text.

Positions wanted

Electronics reliability design assurance engineer. Completely familiar with batch and timeshare computer use as a tool. Experience includes five years in circuit design and eight years in design assurance including predictions, worst case analysis, failure mode & effects analysis & design review. Some experience in maintenance analysis (field) and maint. assurance contract monitoring. BSEE MIT, MSEE. NASA project experience.

Reply to Box 2, c/o Editor
Paul Gottfried
9251 Three Oaks Drive
Silver Spring, Md. 20901

QC & Reliability Engr--5 yrs experience specializing in Radar, ECM systems, and stripline hybrid microcircuits. Background incl. failure analysis, corrective action, predictions (R&M), circuit analysis, design review presentations, supv. of inspection personnel, writing of insp. & mfg. trouble-shooting procedures, solution of mfg. problems. Know MIL-M-38510, MIL-Std-883, MIL-S-19500, MIL-Hdbk-217A/B, RADC. BSEE, 24 yrs. old.

Reply to Daniel J. Momot
460 South Main St.
North Syracuse, N. Y. 13212
(315) 458-3812

NATO

To Sponsor Advanced Study Institute

A NATO-sponsored advanced study institute, "Generic Techniques in Reliability Assessment", will be held at Liverpool University in England July 17-28. The institute will be interdisciplinary and will include tutorial as well as research papers.

Persons interested in attending and/or presenting papers can contact:

Prof. E. J. Henley
Cullen College of Engineering
University of Houston
Houston, Texas 77004

or Dr. Jack Lynn
University of Liverpool
Liverpool, England

NBS

Offers Standards Information Services

A reference collection of engineering and related standards is maintained by Standards Information Services at the National Bureau of Standards. The collection includes over 20,000 standards, specifications, test methods, codes, and recommended practices issued by more than 380 U.S. technical societies, professional organizations, and trade associations. The collection also contains specifications and standards of the several states and U.S. agencies, and of other governments and international agencies.

The collection is open Monday through Friday, 8:30 a.m. to 5:00 p.m., in Room B151, Technology Building, on the NBS campus at Gaithersburg, Maryland. Information also can be obtained by writing (mailing address is Washington, D.C. 20234) or by calling (301) 921-2587.

-short COURSES

Newsletter policy with respect to short-course announcements, as established by the AdCom, is to provide publication for information only. No endorsement is implied, and no check on course content or instructor qualifications has been accomplished.

ARINC Research Corporation

Reliability & Maintainability Techniques: May 14-18. Five days, \$325. Contact: Educational Programs Office, ARINC Research Corporation, 2551 Riva Road, Annapolis, Maryland 21401.

University of California at Los Angeles

Economics of Reliability: June 18-22. Five days, \$325. Contact: Continuing Education in Engineering and Science, University Extension, UCLA, P.O. Box 24902, Los Angeles, California 90024.

University of Michigan

Human Factors Engineering: July 9-20. Ten days, \$375; either week, \$250. Contact: Engineering Summer Conferences, Chrysler Center - North Campus, The University of Michigan, Ann Arbor, Michigan 48105.

Operations Research and the Management Sciences, A: Methods and Tools, B: Recent Developments: July 30-August 10. Ten days, \$500; either week, \$300.

Design and Analysis of Engineering Experiments: August 6-17. Ten days, \$375; either week, \$250.

University of Wisconsin

Product Liability: Design and Product Safety: May 17-18. Two days, \$100. Contact: University of Wisconsin-Extension, Department of Engineering, 432 N. Lake Street, Madison, Wisconsin 53706.

Material Failure - Analysis and Prevention: May 24-25. Two days, \$95. Contact: 600 W. Kilbourn Avenue, Milwaukee, Wisconsin 53203.

Statistical Experimental Design: August 20-24. Five days, \$275. Contact address: Madison.

conferences

- April 30-
May 2 IEEE Symposium on Computer Software Reliability (G-R and IEEE Computer Society Eastern Area Committee), Americana Hotel, New York, New York
- May 1-2 1973 IEEE Electron Device Techniques Conference (G-ED, AGED), United Engineering Center, New York, New York
- May 14-16 1973 Electronic Components Conference (G-PHP, EIA), Statler-Hilton Hotel, Washington, D.C.
- May 15-17 1973 Electrical & Electronics Measurement & Test Instrument Conference (G-IM, Ottawa Section), Skyline Hotel, Ottawa, Canada
- June 4-7 1973 IEEE Power Industry Computer Applications Conference (PES), Radisson Hotel, Minneapolis, Minnesota
- June 20-22 1973 International Symposium on Fault-Tolerant Computing (IEEE Computer Society), Palo Alto, California
- June 20-22 1973 IEEE International Symposium on Electromagnetic Compatibility (G-EMC, New York Section), New York Hilton Hotel, New York, New York
- June 25-29 1973 IEEE International Symposium on Information Theory (G-IT), King Saul Hotel, Ashkelon, Israel
- July 18-20 First International Conference on Electronic Crime Countermeasures, Pollock Hall, Edinburgh University, Edinburgh, Scotland
- July 23-26 1973 IEEE Conference on Nuclear and Space Radiation Effects (G-NS Radiation Effects Committee, Utah State University), Logan, Utah
- August 12-18 1973 (Fifth) Pan American Congress of Mechanical, Electrical & Allied Engineering Branches, Bogota, Colombia
- August 13-17 1973 Intersociety Energy Conversion Engineering Conference (G-AES, G-ED, AIAA, ACS, AIChE, ANS, ASME, SAE), University of Pennsylvania, Philadelphia, Pennsylvania
- August 22-24 PLP-73: 1973 Product Liability Prevention Conference (G-R, Newark College of Engineering, numerous others), Newark College of Engineering, Newark, New Jersey
- September 24-27 1973 Intersociety Transportation Conference (IEEE, AEA, AIAA, AIIE, ASME, EIC, ORSA, SAE, SNAME, TIMS), Brown Palace Hotel, Denver, Colorado

September 25-28

1973 IEEE International Conference on Engineering in the Ocean Environment (Oceanography Coordinating Committee, Seattle Section), Washington Plaza Hotel, Seattle, Washington

September 30-
October 4

11th Electrical Electronics Insulation Conference, Palmer House, Chicago, Illinois

October 1-3

International Electrical, Electronics Conference and Exposition (Canadian Region), Automotive Building, Exhibition Park, Toronto, Canada

1974

January 29-31

1974 Annual Reliability and Maintainability Symposium (G-R, ASQC, ASME, AIIE, ASM, AIAA, IES), Biltmore Hotel, Los Angeles, California

publications

From the National Bureau of Standards, available through the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402:

Methods of Measurement for Semiconductor Materials, Process Control, and Devices (Quarterly Report April 1 - June 30, 1972), NBS Tech Note 743, SD Catalog No. C13.46:743, 57 pages, \$1.00.



MEMBERSHIP APPLICATION
RELIABILITY GROUP

Send to: IEEE Headquarters, 345 East 47th Street, New York, N. Y. 10017

Name _____ IEEE Membership No. _____

Mailing Address _____

Company _____

Field of Interest _____

I am a _____ member of IEEE and hereby apply for membership in the
(Grade) Reliability Group. I enclose a check for the Group fee*
(made payable to the IEEE).

I am not now a member of IEEE but would like to join. Please send information.

I am interested in becoming a Reliability Group Affiliate. Please send information.

*Fee: \$5.00 for IEEE members of all grades except Student.
Student fee is \$2.00.

Full rate on payments received September 1 through February 28 (payments received
September 1 through December 31 applied through December 31 the following year).
One half rate on payments received March 1 through August 31.