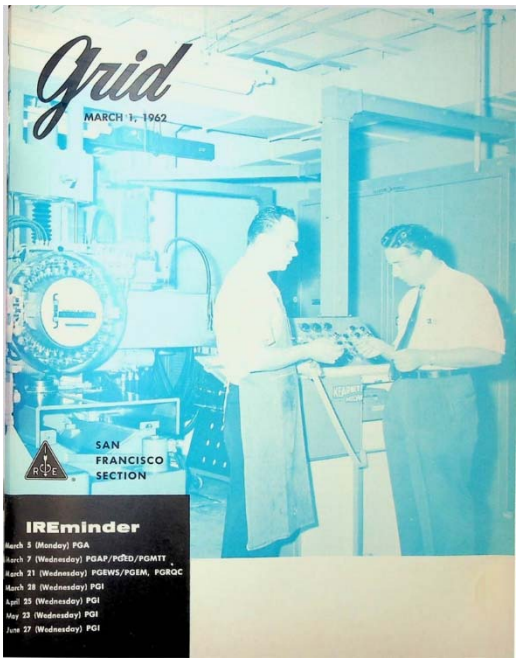
EDITOR'S PROFILE of this issue

from a historical perspective …

with Paul Wesling, SF Bay Area Council GRID editor (2004-2014)



March 1, 1962:

Cover: A numeric-controlled milling machine, programmed with paper tape, installed at H-P. It is described more fully on page 6, for the Group on Product Engineering and Production.

p. 7: Several letters are printed discussing the potential merger of IRE with AIEE. One writer doesn't like the proposed name of "Institute of Electrical and Electronics Engineers" (IEEE) and prefers the one suggested by the L.A. Section: "Society of Electronic and Electrical Engineers" (SEEE). Another writer thinks the AIEE should be left alone to die.

p. 8: The Spring Joint Computer Conference kicks off in San Francisco. Doug Engelbart of SRI has a talk on "Man-Machine Cooperation". Doug goes on, in 1968, to give the "Mother of All Demos" at the ACM/IEEE Fall Joint Computer Conference. He demonstrates many new technologies: the mouse, networking, the graphical display, hypertext, video conferencing and more in his 1.5 hour demo. This work at the Stanford Research Institute (SRI) spawned Xerox-PARC's Alto computer (in 1973), and inspired Steve Jobs to design the Apple Lisa and Macintosh. I met Doug at the Computer History Museum at one of the presentations there. I also participated in restoration of an Alto computer with Ken Shirriff in Marc Verdiell's basement in Atherton (see figure); it was neat to bring up the WYSIWYG word processor. Read about them in SPECRTUM.

p. 12: William (Bill) Perry of Sylvania is awarded the US Army's Outstanding Civilian Service Medal, its highest honor, for development of highly sophisticated electronic-warfare systems. He goes on to found ESL to advance Sylvania's analog methods into the digital realm.

p. 16: This announcement says the new Palo Alto Cabaña Hotel will include the Space-Electronics Executive Club, to include a 1,400-chair auditorium; corporate memberships go on sale soon. Built by Doris Day and Jay Sarno, it's where the Beatles stayed in 1965 and the Jefferson Airplane played in 1966. I don't think the Executive Club got off the ground.

The Alto during restoration, in Marc Verdiell's basement.
(Source: KenShirriff)

Archive of available SF Bay Area GRID Magazines is at this location:
https://ethw.org/IEEE_San_Francisco_Bay_Area_Council_History

At time of scanning, the bound volumes are held by Paul Wesling. January, 2021 Contact p.wesling@ieee.org

Grid

MARCH 1, 1962

SAN FRANCISCO SECTION

IREminder

March 5 (Monday) PGA
March 7 (Wednesday) PGAP/PGED/PGMTT
March 21 (Wednesday) PGEWS/PGEM, PGRQC
March 28 (Wednesday) PGI
April 25 (Wednesday) PGI
May 23 (Wednesday) PGI
June 27 (Wednesday) PGI

volume 8
number 7

Grid

March 1, 1962

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cover

WATTS' WATT

Milwaukee is famous for various things. Among tool engineers it may very well be this self-reliant piece of production equipment that comes first to mind. Part of the Hewlett-Packard plant armamentarium, it sits there choosing its own tools and happily milling, drilling, and boring all the proper surfaces and holes a punched paper tape says belong to various -hp- products. Our PGPEP people paid it a visit in January and a review of that meeting is on page 6. The cover photo, showing Hal Hampel and Alan Watts, was made available by the company's publication, Watt's Current.

section officers

MEETING CALENDAR

PROFESSIONAL GROUPS

Antennas & Propagation

8:00 P.M. • Wednesday, Mar. 7

(Tutorial series on millimeter waves—joint with PGED and PGMTT)
Lecture No. 4
"New Techniques for the Generation of Millimeter and Sub-Millimeter Radiation"
Speaker: Paul Coleman, University of Illinois
Place: Room 101, Physics Lecture Hall, Stanford University

Audio

8:00 P.M. • Monday, Mar. 5

"Speech Analysis & Perception"
Speaker: Dr. Dorothy A. Huntington, speech and hearing department, Stanford University
Place: Conference Room B, Stanford Research Institute
Dinner: 6:30 P.M. (Cocktails 6:00 P.M.), Ramor Oaks, 3435 El Camino Real, Atherton
Reservations: Herb Ragle, EM 9-7111, Ext. 596

Electron Devices

8:00 P.M. • Wednesday, March 7

(Tutorial series on millimeter waves—joint with PGAP and PGMTT, see above)

Engineering Management

8:00 P.M. • Wednesday, Mar. 21

(Joint meeting with PGEWS, see below)

Engineering Writing & Speech

8:00 P.M. • Wednesday, Mar. 21

(Joint meeting with PGEM)
"PERT (Program Evaluation Reporting Technique), a New and Valuable Management Tool"
Speaker: R. M. T. Young, senior staff specialist, Polaris missile systems project control, Lockheed Missiles and Space Co.
Place: Lockheed Auditorium, 3251 Hanover Street, Palo Alto
Dinner: 6:30 P.M., L'Omelette Restaurant, 4170 El Camino Real, Palo Alto
Reservations: Doris Gould, IRE Section Office, DA 1-1332, by Mar. 20

---

instrumentation series

AWESOME HARDWARE

PGI is planning a series of meetings commencing Wednesday, March 28, on the state of the art of electrical measurement and data presentation. Well below a threshold of sophistication requiring digital computers, data loggers, data processors, and related exotic systems is an area of instrumentation demanding engineering ingenuity in lieu of an unlimited budget.

Between the transducer that monitors the physical phenomenon and the final assimilation of the data is an impres-

Grid reporters

EBSS: JAMES B. WRIGHT, SANDIA CORPORATION
PGA: STANLEY OLESON, STANFORD RESEARCH INSTITUTE
PGAP: RAYMOND D. EGAN, GRANGER ASSOCIATES, PALO ALTO
PGB: JAMES GABBERT, KPEN-FM, SAN FRANCISCO
PGBME: JAMES BLISS, STANFORD RESEARCH INSTITUTE
PGCS: OWEN E. THOMPSON, SECODE CORPORATION
PGCT: R. C. KIESSLING, ITT LABORATORIES
PGEC: DONALD L. EPLEY, ELECTRICAL ENGINEERING DEPT., STANFORD
PGED: WILLIAM E. WATERS, MICROWAVE ELECTRONICS CORP., PALO ALTO
PGEM: LEONARD M. JEFFERS, SYLVANIA EDL
PGEWS: DOUGLAS DUPEN, ASSOCIATED TECHDATA, INC., PALO ALTO
PGI: MALCOLM McWHORTER, STANFORD ELECTRONICS LABORATORIES
PGIT: BERNARD ELSPAS, STANFORD RESEARCH INSTITUTE
PGMIL: J. WETTSTEIN, LOCKHEED
PGMTT: P. H. VARTANIAN, JR., MELABS
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production staff

ASSOCIATE EDITOR: MARY HAYLOCK
EDITORIAL ASSISTANTS: EMMA SCARLOTT, MARJORIE SILVA

MEETING CALENDAR

Instrumentation 8:00 P.M. • Wednesday, Mar. 28

(First in a series of four meetings)

"Instrumentation in Data Systems—Preliminary Considerations"

Speakers: James R. Cunningham, systems manager, Systron-Donner Corp.; and Joseph L. Hussey, consultant

Place: To be announced

Instrumentation Wednesday, Apr 25, May 23, June 27

(Series of four meetings)

Details to be announced

Microwave Theory & Techniques 8:00 P.M. • Wednesday, March 7

(Tutorial series on millimeter waves—joint with PGAP and PGED, see above)

Military Electronics 7:30 P.M. • Tuesday, Mar. 6

"Operation of Air Force Satellite Control Test"

Speaker: M. Tolson, requirement evaluation and integration section, Satellite Test Center, Sunnyvale

Place: Lockheed Auditorium, 3251 Hanover Street, Palo Alto

Dinner: 6:00 P.M., Red Shack Hofbrau, 4085 El Camino Way, Palo Alto

Reservations: None required

Reliability & Quality Control 8:00 P.M. • Wednesday, Mar. 21

"Reliability Models for Complex Ground Systems"

Speaker: K. Hall, development engineer, Sylvania reconnaissance systems laboratory, Mountain View

Place: Physics Lecture Hall, Stanford University

Dinner: 6:30 P.M., Chez Yvonne, 1854 El Camino Real, Mountain View

Reservations: None required

---

ive (if not awesome) array of more or less standard items of electrical hardware as well as a number of routes from input to output from which to choose. The analog-or-digital choice, for example, is not always obvious as will become apparent in the discourse on the following topic areas: transducers, scanners, signal conditioning, measurement devices, storage devices, recorders, and data processing.

A series of four meetings is planned to allow some depth in the discussion and to bring out opposing points of view. Watch the **Grid** for information on later meetings in the series.

from the editorial chair

GRID SECONDARIES

Finally, the step has been taken, and in your name at that, which brings still another magazine to your desk each month. That this first bi-monthly issue of the **Grid** should appear in a 16-page format may be a bit hair-raising to members who recall the first hesitant two-page edition in February 1955 and the fact that it was a year later before the first 16-page issue appeared, announcing a total of six meetings.

This present development, we expect, will be greeted with both enthusiasm and dismay; we hope for a preponderance of the former because it is a logical step in keeping pace with a Section currently scheduling about 15 meetings a month and involved, with its nearly 5200 members, in a multitude of new activities.

Attempts to fill this gap and equalize the time lag between announcements and meeting dates for different periods of the month by means of mimeographed notices has been exorbitantly expensive. Not only that, dependence on these notices has deprived groups of the opportunity to attract other section members to meetings and possibly to subsequent group membership.

We are presenting here our best effort toward a palatable substitute and one that can be expected to be financially self-sustaining. We will be deeply interested in comments of all kinds, should you care to make them.—F.H.

Alan Watts, speaker at the PGPEP meeting, discussing the operation of the tape-controlled Milwaukee-Matic milling, drilling, and boring machine
—Harmon R. Traver photo

meeting review

FALLING CHIPS

The January meeting of PGPEP started with a talk by Alan Watts, tool engineer for Hewlett-Packard Company, on the operation of a tape-controlled Milwaukee-Matic milling machine. His illustrated discussion was followed by a demonstration of the machine producing parts in the microwave division of Hewlett-Packard.

The Milwaukee-Matic makes use of a horizontal spindle that can be positioned accurately in three axes by instructions punched into an eight-channel tape. An index table, on which can be located a pallet with a fixture for holding the part to be machined, provides rotation of the part through 360 deg with indexing every 45 deg.

It is thus possible to do a number of milling, boring, drilling, reaming, and tapping operations on various surfaces of a part — such as a casting — by mounting the parts only once on a simple fixture.

The machine automatically selects and changes the necessary tools from a rotary magazine holding 30 tools. With the tool in the spindle, a total of 31 tools is available. As a result of this automatic selection and changing of tools, the Milwaukee-Matic is able to be cutting chips actually about 90 per cent of the time. It can thus achieve a higher utilization of machine time than conventional machine tools.

An additional feature is the use of two shuttle tracks at either side of the index table. An 18 in.-by-18 in. pallet with the fixture, into which a part is loaded by the operator, shuttles on to the index table at the start of the machining cycle. A second pallet, holding an entirely different part, is on the other shuttle track and moves into position automatically as the machining is completed on the first part and its pallet is shuttled onto its own track.

There is almost no machine time lost since the operator is able to load one part while another is being machined. The only limitation on the combination of the two parts to be machined is that they not require more than a total of 31 different tools. Two interlocked tape readers are used to control the operation of the shuttle mechanism and the machining of the parts. It is also possible to machine a complicated part in two stages by doing parts of the operations successively on opposite sides of a fixture.

The spindle locates within ±0.0005 in. of a zero position in the X and Y axis with a repeatability of ±0.0003 in. This would give a ±0.001 tolerance on location between two holes. The Z axis positions within ±0.001 and gives a ±0.002 accuracy between two milled surfaces. The spindle has a travel of 24 inches along the X axis, 20 along the Y axis, and 16 along the Z axis. By the use of coding rings, 961 different tools can be recognized, insuring that the proper tool is used for each operation. If the proper tool had not been placed in the magazine, the machine would continue to search for it until the operator stopped it and made the necessary correction.

One of the biggest advantages of the machine is the reduction in tooling time and lead time. A reduction of 8 to 1 or better in both tooling costs and lead time is normally achieved. Other advantages include virtual elimination of scrap, ease of making changes, consistency of parts, and a reduction in inventory costs.

The machine installed represents a cost of about $165,000 and cost of operation is about twice that for conventional machines.

In addition to the other advantages listed, an average reduction of 3.4 to 1 in machining time has been achieved. The performance of the machine has been such that purchase of a second machine is under consideration since the original machine, put in service in late 1960, is now running on a two- or three-shift basis.

Watts served his tool design apprenticeship with the Bristol Aeroplane Co. in Bristol, England, during which period additional studies resulted in his receiving the equivalent of BS degree in mechanical engineering. He remained with the company for 14 years altogether as a tool designer and process engineer. In 1952 he went to Canada and a year later to the United States. He worked first with Ford in Chicago as a production equipment designer and then with the Visking Division of the Union Carbide Company as a senior mechanical design engineer. While with Visking he worked on the development of an automatic machine for making

(Continued on page 8)

meeting review

PROBLEM ORIENTATION

New equipment was the subject matter of the late January meeting of PGEC, held at Lockheed. Norman Krueder, manager of design logic, and Clark Oliphant, manager of central systems, of the Electrodata Division of Burroughs Corp. reviewed the design philosophy and internal organization of that company's B5000 system. Oliphant began the presentation with a review of the present state of the computer art and pointed out the trends toward problem-oriented computer languages; reduction of operator interference with computer operation, and multiprocessing. He went on to state that the B5000 was designed to deal effectively with these situations.

Krueder then briefly described the B5000 system and the novel aspects of the B5000 that allowed it to compile quickly and multiprocess efficiently. The implementation of the stack, memory exchange, and output exchange were discussed. Oliphant then showed how the innovations in the B5000 system were used in programming the system. Particular emphasis was given to the Polish string logic principle which is used in the B5000 to attain fast compiling speeds.

The presentation was followed with a coffee break and then a lively question period ensued.

—WILLIAM H. DAVIDOW

TO MERGE OR NOT

Mill Valley, Calif.
February 16, 1962

Editor, The Grid,
Dear Sir:

Being only a lowly Associate, I have no vote or voice in the matter, but I can point out one factor that might be considered:

When the Palo Alto Subsection was disbanded and the San Francisco Section moved to Palo Alto, it left a couple of hundred members in the San Francisco area with only a mail-order organization. Not many are willing to travel fifty to a hundred miles after a normal day's activities to attend a meeting.

These members get some benefit from attending AIEE meetings in San Francisco, particularly those whose interest lies in such fields as communications. Since the demise of The San Francisco Engineer, there is some difficulty getting information about the AIEE meetings, and certainly the AIEE should get some material support from those who benefit from their meetings, though not many members feel justified in carrying membership in both organizations.

Merger would solve this problem, though I realize it represents a small part of the total picture.

Very sincerely yours,
Joseph Kotzum.

San Luis Obispo, Calif.
February 13, 1962

Editor, the Grid
Dear Sir:

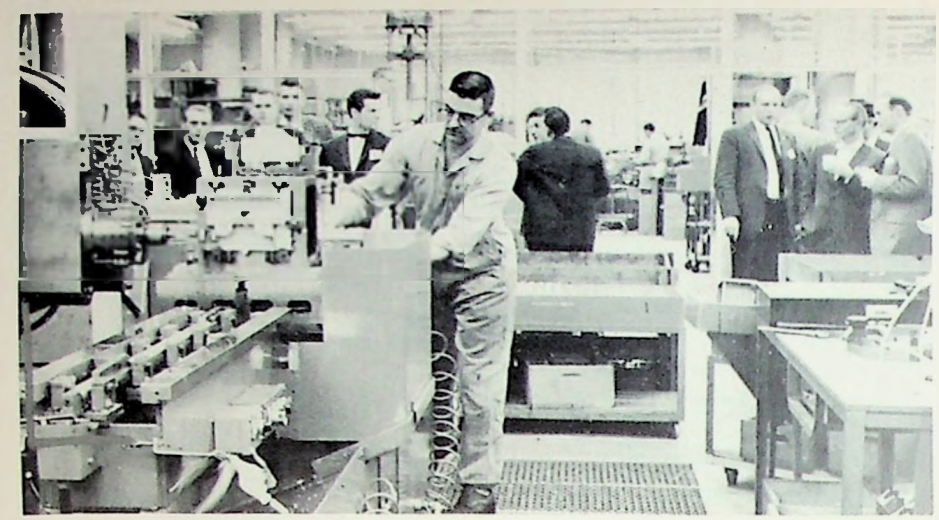
I know that you and all the members of the Executive Committee of the San Francisco Section of the IRE are vitally interested in the name of the new society which will replace the IRE and the AIEE.

The name proposed by the Los Angeles Joint AIEE-IRE study group, namely: SOCIETY OF ELECTRONIC AND ELECTRICAL ENGINEERS, should receive the wholehearted support of all who are interested in the field of "electronic engineering" and the "electronic industry."

The name proposed by the national AIEE-IRE merger committee, namely: INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, is certainly not so appropriate as that suggested by the Los Angeles group.

1. In Dr. Berkner's letter to section chairmen, dated Oct. 20, 1961, he repeatedly refers to "electronic" engineering and the "electronic" profession, never to "electronics" engineering. In

(Continued on page 8)



Members of the PGPEP look on as John MacVicar prepares to remove a machined part from the Milwaukee-Matic
—Harmon R. Traver photo

MORE CHIPS

skinless hot dogs. Since 1959 he has been with Hewlett-Packard as a tool engineer, having been assigned to the Milwaukee-Matic in August of 1960.

Hal Hampel, who is in charge of the section operating the Milwaukee-Matic, and Bill Linz assisted with the demonstration of the machine following Watts' talk. Considerable interest in tape-controlled machining was indicated by the many questions asked by those in attendance from several of the major manufacturers in the area.

—HARMON TRAVER

sjcc news

COMPUTER CONTRIBUTIONS

A technical program offering 37 papers in 11 sessions has been set for the 1962 Spring Joint Computer Conference at the Fairmont Hotel in San Francisco May 1-3. Sponsor of the conference is the American Federation of Information Processing Societies.

Dr. Richard I. Tanaka, manager of computer systems logical design for Lockheed Missiles and Space Co., Palo Alto, is technical program chairman. He has released early details on the conference expected to attract upwards of 3,500 registrants from across the country.

Tanaka said the professional presentations will place focus on new developments, suggest trends and, in general, try to nail down the contributions computer technology are expected to make in the near and distant future.

Accordingly, one session entitled "Peace and the Role of Computers" will describe the part computers may be expected to take in man's search for world peace. Dr. Louis Fein, Palo Alto consultant, will serve as chairman for this symposium.

Tanaka is being assisted in developing the conference program by Dr. Robert S. Minnick, senior research engineer at Stanford Research Institute, vice chairman; John E. Sherman, manager of analog computing for Lockheed at Sunnyvale, associate chairman; and R. J. Andrews, industry analysis manager for IBM at San Jose, chairman of a special education program.

Session Titles and Chairmen

In addition to the symposium to be headed by Fein, the sessions and chairmen will be as follows:

"Computer Systems," James H. Pomerene of IBM research center, Yorktown Heights, N. Y.; "Circuits and Memory Devices," Jack I. Raffel of MIT's Lincoln Laboratory, Cambridge, Mass.; "Information Retrieval," Jacob Goldberg of Stanford Research Institute, Menlo Park; "Man-Machine Cooperation," Dr. Douglas C. Engelbart of Stanford Research Institute.

"Theoretical Problems in Artificial Intelligence," Russell A. Kirsch, National Bureau of Standards, Washington, D.C.; "Data Analysis and Model Construction in the Study of the Nervous System," Dr. Belmont G. Farley of MIT's Lincoln Laboratory; "Programming and Coding," Dr. Bernard A. Gallery of the University of Michigan computing center, Ann Arbor.

"Study of Business Systems," Dr. Frederick M. Tonge of the graduate school of business, Stanford University; "DDA and Hybrid Computation," Dr. Harold K. Skramstad of Naval Ordnance Laboratory, Corona, Calif.; and "Analog Applications and Techniques," Vernon L. Larrowe of the analog computing laboratory, University of Michigan.

MORE MERGER

addition he states, "Because of the basic evolution of each institute toward the broad methods of electronics on which both societies are founded and the emergence of electronics in the broad sense, has brought both societies into more intimate juxtaposition." The implication here is that the name of the new society should (1) include the designation of "electronic engineers" and not "electronics engineers" and (2) that the term "electronic" has emerged as the broad field and therefore should precede the term "electrical" in the name of the new society.

2. IRE senior past president, Dr. Weber, always used "electronic engineering" when writing to college engineering students in the Student Quarterly.

3. Classified ads for engineers are showing a decided preference in favor of "electronic engineer" rather than "electronics engineer."

4. The Federal Civil Service Commission, FCC, FAA, NASA, Dept. of the Army, the Navy, and the Air Force adopted "electronic engineer" as the official position title several years ago.

5. McGraw-Hill in its extensive series of engineering texts in our field uses the series title "Electrical and Electronic Engineering."

6. At least one well-known British journal has adopted the name "Electronic Engineering" and not "Electronics Engineering."

7. Three extensive industry and trade associations have now operated for several years under the names Electronic Industries Association, Electronic Manufacturers Association, and Western Electronic Manufacturers Association.

8. There are complex phonetic problems in the use of "electronic" or "electronics." Grammatical construction alone cannot be the determining factor. Neither can committee rules be the determining factor in the selection. Usage is probably the important consideration.

Sincerely,
Clarence Radius

To almost any proposal that will keep the terminal "s" off the adjectival form, say we "Amen."—Ed.

San Jose, Calif
February 17, 1962

Editor, the Grid
Dear Sir:

Disagree to the merger. The aims of the two organizations have been historically different and will remain so. It is a breach of faith to the founders of IRE. AIEE was in existence at the time of IRE founding and if they have allowed themselves to stagnate, to founder, and eventually to die, that is too bad. Why let them ride in on the coat-

(Continued on page 10)

"Red" Johnson ELECTRONICS

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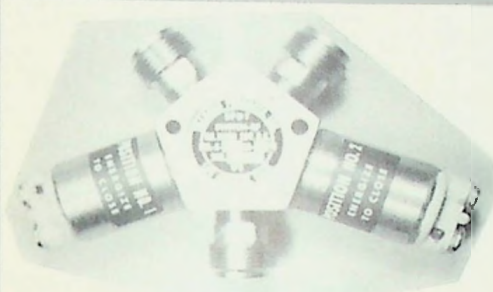

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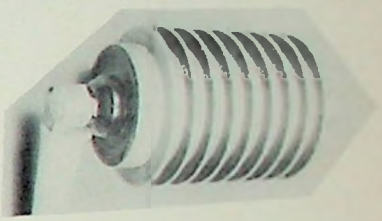

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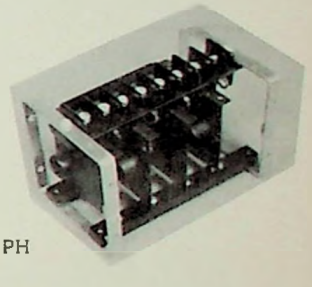

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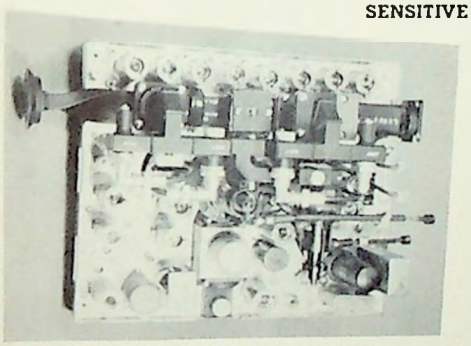

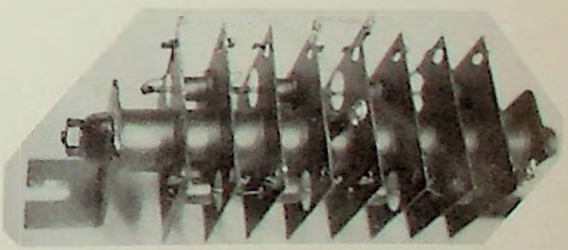

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WRITE FOR COMPLETE CATALOG, MENTION THE GRID

Al Morris, right, receives an appreciation plaque from Don Duncan, president of Duncan Electronics and his successor as chairman of the Wescon board of directors. The award, in recognition of four years service on the board, was made at the January meeting of the San Francisco Council of WEMA.

grid swings

IT IS REPORTED:

W. Noel Eldred, vice president of marketing at Hewlett-Packard, has been appointed regional and major gifts chairman for the San Francisco Peninsula in **Stanford University's** $100 million fund-raising PACE program.

Cephas Patch has been appointed senior research scientist of **Beckman & Whitley**. In this new position Patch will be concerned with research and development in the areas of physical chemistry and biochemistry. Before joining Beckman & Whitley Patch was research chemist for Operations Research, Inc., Silver Springs, Maryland.

Appointment of **William J. Schoenberger** as marketing manager of the western development laboratories of **Philco** has been announced. Schoenberger was Philco's Northeast regional manager of marketing, headquartered at Burlington, Mass.

James S. Heaton Company of Redwood City has been named distributor sales representative for **Eitel-McCullough, Inc. O. H. Brown,** manager of the San Francisco regional sales office for Eimac, will continue to serve original equipment manufacturing accounts.

Isolation Products Incorporated, set up last year in Vista, Calif., to produce ultra-high-voltage standoff insulators, feed-through bushings, and special related products, has completed a move of all facilities to 716 Stierlin Road, Mountain View.

Joseph D. Bianco continues to be manager of applications and sales.

Lyle R. Groberg has been named chief engineer, government products engineering, at **Lenkurt Electric Co.,** Inc. He succeeds **Norman N. Epstein,** who has resigned.

(Continued on page 12)

Eldred

Patch

Schoenberger

Groberg

MORE MERGER

tails of the more dynamic, forward-thinking organization? They are trying to dictate terms when they should appear as supplicants. They long refused to believe in the future of the vacuum tube, saw the light with the transistor and are now trying to catapult to leadership again. Individual members can always join the IRE but no merger—NO MERGER!

C. F. Brown, Mem. IRE

box score

PROFESSIONAL GROUPS

Following are figures showing the membership standing of the 18 professional groups having functioning chapters in the San Francisco Section.

Antennas & Propagation, 256; Audio, 205; Bio-Medical Electronics, 159; Broadcasting, 45; Circuit Theory, 483; Communications Systems, 240; Electron Devices, 545; Electronic Computers, 581; Engineering Management, 258; Engineering Writing & Speech, 93; Information Theory, 214; Instrumentation, 199; Microwave Theory & Techniques, 534; Military Electronics, 223; Product Engineering & Production, 81; Radio Frequency Interference, 42; Reliability & Quality Control, 83; and Space Electronics & Telemetry, 320.

IRE MEETINGS SUMMARY

Mar. 1-3—**8th Scintillation and Semiconductor Counter Conference.** Shoreham Hotel, Washington, D.C. Exhibits. Program: Dr. George A. Morton, RCA Laboratories, Princeton, N.J.

Mar. 13—**Parametric Amplifiers, Masers, and Lasers,** tutorial lecture in Cleveland Section annual technical symposium. Registration: Cleveland Section IRE, c/o Grace Electronics, 5148 East Sprague Road, Cleveland 41, Ohio.

Mar. 26-29—**IRE International Convention.** Coliseum and Waldorf Astoria Hotel, New York, N.Y. Exhibits: W. C. Copp, IRE Adv. Dept., 72 W. 45 St., New York 36, N.Y. Program: Dr. D. B. Sinclair, chairman 1962 technical program committee, 1 East 79 St., New York 21, N.Y. Convention records: order from IRE Headquarters.

Mar. 28-29—**3rd Symposium on Engineering Aspects of Magnetohydrodynamics.** University of Rochester, New York. No exhibits. Program: George W. Sutton, MIT Room 3-254, Cambridge 39, Mass.

May 1-3 — **Spring Joint Computer Conference.** Fairmont Hotel, San Francisco. Exhibits: John Ball, Pacific Telephone Co., 3240 Arden Way, Sacramento. Program: Richard I. Tanaka, Lockheed, Dept. 58-51, Palo Alto.

May 11-12 — **Bay Area Symposium on Reliability and Quality Control.** U.S. Naval Post Graduate School, Monterey.

May 24-26—**Seventh Region Conference.** Olympic Hotel, Seattle, Washington. Exhibits: Century 21 Fairgrounds. Program: T. G. Dalby, 3220 99th N.E., Bellevue, Washington.

NON-IRE LOCAL EVENTS

Mar. 1-3—The division of engineering at **San Jose State College** Open House. Information: Shel Kulick, San Jose State College, San Jose.

Mar. 13—**American Society for Quality Control,** San Francisco Bay Area Section. "What SQC Has Done in Application in Weights and Measures Enforcement" by Robert McKennan, Bureau of Weights and Measures. Del Webb Towne House, San Francisco. Reservations: Arthur Brown, Friden, Inc., San Leandro, NE 8-0700.

Mar. 14—Santa Clara Valley Subsection **AIEE.** "The High Power Klystron" by Dr. Armand Staprans, Varian Associates. 8 p-m, Lockheed Auditorium, Stanford Industrial Park.

Mar. 15 — Northern California Section of the **American Society of Lubrication Engineers.** Industrial Gear Lubrication, by G. P. Maurer, Falk Corp. Spengers Fish Grotto, Berkeley. Dinner 7 p-m (social hour 6 p-m). No reservation required.

March 19—**Women's Association of the Electronic Industry.** Old Plantation Restaurant, 1030 N. San Antonio Road, Los Altos. Dinner: 7:00 p-m (social hour, 6:30 p-m). Speaker: William T. Kirk, director of technical information for Stanford Linear Accelerator Center, who will give a talk illustrated with slides. All interested women in electronic firms are welcome. Reservations: Margaret Paul, Hewlett-Packard, DA 6-7000.

Mar. 27—American Society for Quality Control, San Francisco Bay Area Section, and Stanford University, **Maintainability Seminar.** 9 a.m., Stanford University. Registration ($10 includes luncheon and transactions): Jack D. Crowley, 641 San Miguel Ave., Sunnyvale.

PAPERS CALLS

March 10 — Final closing for 500-word summaries for the National Symposium on Radio Frequency Interference (June 28-29; San Francisco). Send to: R. G. Davis, Technical Program Chairman, Dept. 58-25, Lockheed Missiles & Space Co., P.O. Box 504, Sunnyvale.

March 15—Title of paper and abstract of not more than 750 words for 6th National Symposium on Engineering Writing and Speech (Washington, D. C.; Sept. 13, 14). Send five copies of abstract and biographical sketch of author to: J. E. Durkovic, program chairman-PGEWS, c/o ARING, 1700 K St., N.W., Washington 6, D.C.

March 15—500- to 1000-word summaries for the International Conference on Precision Electromagnetic Measurements (Boulder, Colorado; Aug. 14-16). Send to: Dr. George Birnbaum, Hughes Research Laboratory, Malibu, Calif.

April 15—100- to 200-word abstracts, 500- to 1000-word summaries, and indication of technical field of the paper, along with title of paper and name and address of author for Wescon (Los Angeles; Aug. 21-24). Send to: Wescon business office, 1435 La Cienega Blvd., Los Angeles 35, Calif.

William J. Perry receives the Outstanding Civilian Service Medal from Major General Alva R. Fitch, Assistant Chief of Staff of Army Intelligence

MORE SWINGS

Dr. **William J. Perry,** director of the electronic defense laboratories of **Sylvania Electric Products Inc.,** has been awarded the Outstanding Civilian Service Medal by the Department of the Army. The highest honor the Army can bestow on a civilian, the medal was presented for major contributions to the development of highly sophisticated electronic-warfare systems and equipment.

Plans have been announced in Palo Alto for a complete, integrated, major service center for West Coast aerospace and electronic activities. Scheduled to open this summer, the new **Space-Electronics Executive Club** will be designed to serve the conference, exhibit, and social requirements of industry executives and military and government officials.

The club is to be located in the Palo Alto Cabana, a luxury 200-room garden hotel now under construction on a 12-acre site at El Camino Real and El Monte Street, in Palo Alto. **Eugene Paleno** has been appointed project director to organize the club on a non-profit service basis.

Services and facilities being considered include a 1400-seat auditorium, as well as accommodations for dining, entertaining, and recreation. Complete conference and exhibit facilities are also planned, including audio-visual equipment, mailing and reproduction services for papers and reports, press and twx facilities, and stenographic service.

Another feature planned for the club is a permanent Space-Electronics Museum of Honor, where electronic industry pioneers and leaders, as well as important current developments, can be given official recognition.

Margery L. Felton, formerly affiliated with Fairchild Semiconductor and Shockley Transistor, has established a personalized secretarial service in Palo Alto at 499 Hamilton Ave.

capsule advertisements

MILLIMETER MICROWAVE FLANGE

A positive-aligning Flange, Model MW-115, to easily connect and disconnect sections of millimeter microwave plumbing is being developed for MIT—Lincoln Lab and is now commercially available with prompt delivery.

The sections of waveguide to be joined are first placed in a precision soldering and refacing fixture to facilitate accurate assembly, and soldered to separate brass flanges. These flanges are then brought together in positive alignment through precision mating grooves. A split collar provides positive, quick connection or disconnection. Complete interchangability with accurate waveguide alignment is accomplished. The entire assembly is about the size of a dime. Price is about $15.

Wakefield Engineering, Inc., Wakefield, Mass.

HEAT DISSIPATORS

Newly developed Delta-T milliwatt transistor heat dissipators cover all major JEDC requirements with just two models. Unique extended fin design permits these coolers to give equally effective natural or forced convection performance with the axis of semiconductor either perpendicular or parallel to the direction of air stream.

Installation is simplified by simple press fitting to the case. Spring action assures uniformly consistant thermal contact at root of fin, affording maximum contact between dissipator and case. Available in beryllium copper from distributor stocks.

Wakefield Engineering, Inc., Wakefield, Mass.

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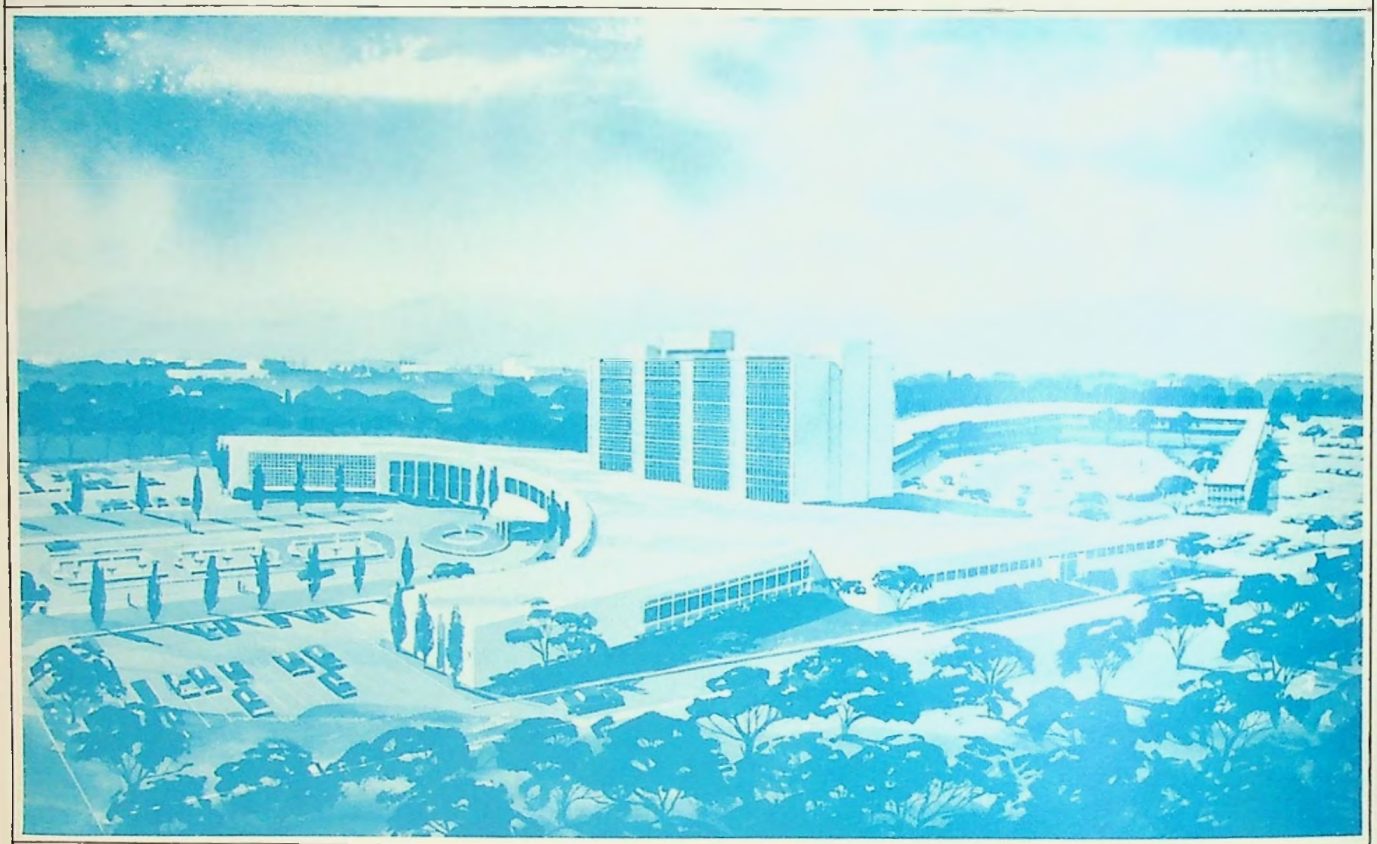

Exclusively Yours—in the ultra-modern Palo Alto Cabana Hotel

This summer according to present plans, The Space-Electronics Executive Club will open; providing the West Coast's only complete, integrated, service facility for executives of the aerospace/electronics industry and for military and government officials. The Club, to be operated on a non-profit basis, will be directed by a board made up of its own members. Club accommodations are being planned to include luxurious garden-hotel suites and rooms . . . distinctive lounge, dining, and entertainment facilities for large meetings and small groups . . . a 1400-chair auditorium . . . complete privacy for high-level conferences . . . facilities such as TWX, audio-visual equipment, mailing and reproduction for reports and papers . . . transportation services and arrangements . . . the Panorama of Technical Progress Exhibit. The Club will be located in the 8-story, 200-room Palo Alto Cabana Hotel, now under construction, and ideally situated to serve the Greater San Francisco Bay Area. Plans for the Club are now being finalized. Your comments and suggestions are sincerely welcome, as are non-obligating expressions of corporate or personal membership interest. Correspondence may be directed to:

MacLENNAN CORPORATION
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