

EDITOR'S PROFILE of this issue

from a historical perspective ...

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

February, 1964:

Cover: A 10-foot section is prepared for installation in Stanford's MARK III electron linear accelerator, made up of 31 such sections. Contrast this to the 1,000 similar sections that will be installed in the 2-mile-long electron linear accelerator (SLAC) now being constructed behind the campus.

Page 3: Bernie Oliver, head of research at HP, is appointed a vice president of the newly formed IEEE.

Page 4: It's time again for the annual Engineers Week. It is traditionally held during the third week of February in honor of George Washington, one of the great engineers.

Page 8: WESCON has grown so large that it is now split between venues – most of it at the LA Sports Arena, but some at the Hollywood Park Racetrack. The exhibits are split into nine categories and placed/grouped according to a survey run the previous year at WESCON in SF.



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.

July, 2021

Contact p.wesling@ieee.org



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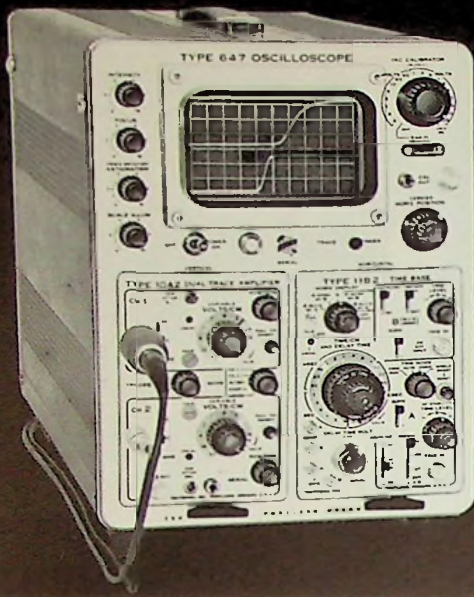
FEB. 1, 1964

INSTITUTE OF ELECTRICAL
AND
ELECTRONICS ENGINEERS



reminder

February 12 (Wednesday) PTGAP
February 17 (Monday) PTGR
February 19 (Wednesday) PTGPEP/PTGMIL, PTGA
February 20 (Thursday) SCVSS
February 25 (Tuesday) PTGSET
February 26 (Wednesday) PTGAP/PTGTT



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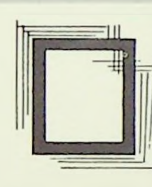
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Address all mail to:

IEEE OFFICE, SUITE 2210, 701 WELCH ROAD, PALO ALTO, CALIF.

Mailing office of publication: 363 Sixth Street, San Francisco 94103. Second class postage paid at San Francisco, Calif.

Subscription: \$4.00 (members); \$6.00 (others); overseas, \$7.00 per annum.

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cover

New gun barrel for shooting electrons at nuclear targets is being installed on Stanford University's billion-volt Mark III linear accelerator. The

31 ten-foot sections of copper pipe for the Mark III contrast with 1,000 sections that will be needed for the two-mile accelerator under construction.

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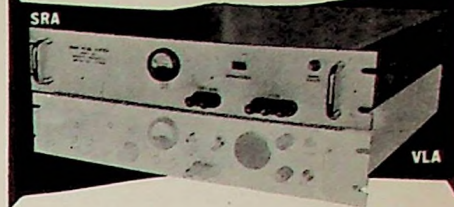
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BROADBAND PERFORMANCE

Eric D. Daniel, director of research, Memorex Corporation, will discuss problems in obtaining broadband performance in magnetic recording at the February 12 meeting of the PTC chapter on Audio.

A brief description of ac-biased recording will be given in terms of an-hysteresis. Several different models will be used to illustrate particular aspects of the recording process. These will demonstrate that there is a conflict between the efficient recording of short and long wavelengths. To obtain maximum short-wavelength performance, short-record gaps and low values of ac-bias are required and the smoothness of the tape, both physically and magnetically, must approach that of an optical surface. The demands made on the tape will be illustrated by showing electron-micrographs of tape surfaces and sections, and by calculations based on current achievements in broadband recording.



Daniel

Rumsey

meeting ahead

SUBMERGED ANTENNAS

Prof. Victor Rumsey of the University of California at Berkeley will discuss submerged antennas at the February 12 meeting of the PTC chapter on Antennas and Propagation. The group will meet in Room 277 of Cory Hall.

A bus for Berkeley will depart the Stanford Shopping Center at 6 and Dalmo Victor Co. at 6:15. Reservations for the dinner and bus transportation must be made in advance with A. S. Dunbar, LSMC, RE 9-4321, Ext. 26114, or W. J. Welch, TH 5-6000, Ext. 3539, before Feb. 10.

publication notes

NEW WORK ON SIDEBAND

E. W. Pappenfus, vice president-engineering, Granger Associates, is author with Warren B. Bruene and Edgar Schoenike of Collins Radio Co. of a new technical reference on "Single Sideband Principles and Circuits," published by McGraw-Hill Book Co., New York. The book covers the theory and engineering practices of single sideband in the propagation and reception of radio signals.

MEETING CALENDAR**SANTA CLARA VALLEY SUBSECTION**

Thursday, February 20

San Francisco Engineering Council banquet for Engineers' Week

John Haanstra, president, general products division, IBM

Place: Lou's Village, 1465 W. San Carlos, San Jose

TECHNICAL GROUP**Industrial**

7:30 P.M. • Wednesday, February 26

Digimux—a fresh approach to supervisory and control equipment

John Haynes, chief engineer, Pacific Communications and Electronics

Place: Physics lecture hall, Room 101, Stanford University

No dinner

PROFESSIONAL TECHNICAL GROUP CHAPTERS**Antennas and Propagation**

8:15 P.M. • Wednesday, February 12

Submerged antennas

Prof. Victor Rumsey, University of California

Place: University of California, Berkeley, Room 277, Cory Hall

Dinner: 7:00 P.M., Faculty Club, University of California

Reservations: For bus transportation and dinner, call: A. S. Dunbar, Lockheed—

RE 9-4321, Ext. 26114, or W. J. Welch, University of California, TH 5-6000.

Ext. 3539, before Monday, February 10

Antennas and Propagation

8:00 P.M. • Wednesday, February 26

(Joint with PTGMTT. See below)

Audio

8:15 P.M. • Wednesday, February 19

Some problems in obtaining broadband performance in magnetic recording

Eric D. Daniel, director of research, Memorex Corp.

Place: Stanford Research Institute, Conference Room B

Dinner: 6:30 P.M., Atherton Club, 3391 El Camino Real, Atherton

Reservations: Herb Ragle, 248-3344, Ext. 60 by February 11

Microwave Theory and Techniques

8:00 P.M. • Wednesday, February 26

(Joint with PTGAP)

Recent developments in high frequency ultrasonics

Dr. Richard M. White, University of California

Place: Physics lecture hall, Room 100, Stanford University

No dinner

Military Electronics

8:00 P.M. • Wednesday, February 19

(Joint with PTGPEP)

Fibre Optics

Dinner: 6:30 P.M., Red Shack, 4085 El Camino Way, Palo Alto

Product Engineering and Production

8:00 P.M. • Wednesday, February 19

(Joint with PTGMIL. See above)

Reliability

8:00 P.M. • Monday, February 17

(Joint with Maintainability Society)

Reliability—maintainability interface

Panel meeting—R. Owen Holbrook, moderator

Place: Physics lecture hall, Room 100, Stanford University

Dinner: 6:30 P.M., Ed's Chuck Wagon, El Camino Real, Mountain View

Reservations: Tom King, 639-4321, Ext. 24211 by February 17

Space Electronics and Telemetry

8:15 P.M. • Tuesday, February 25

Understanding of PGM frame synchronization coding

Robert G. Masching, research specialist, LMSC, Sunnyvale

Place: Lockheed Auditorium, Bldg. 202, 3251 Hanover St., Palo Alto

Dinner: 6:15 P.M., El Camino Bowl, 2025 El Camino Real, Mountain View

Reservations: Robert H. Light, 968-6211, Ext. 2748, 2755 by noon, February 25

meeting ahead

RELIABILITY/MAINTAINABILITY

The PTC chapter on Reliability will meet jointly with the Maintainability Society on February 17 for a panel discussion on reliability-maintainability interface. Moderator will be Owen Holbrook, chairman of PTGR. The maintainability side will be represented by John Decker of Sylvania EDL and Joe Hockman of LSMC. The reliability viewpoint will be presented by Alan Albert of Philco WDL and William Blakely of Sylvania SES West.

Some of the aspects to be discussed are: the definition of availability =

meeting ahead

PCM FRAME SYNC CODES

Robert C. Masching, research specialist, Lockheed Missiles & Space Co., Sunnyvale, will discuss understanding pulse code modulation frame synchronization coding at the February 25 meeting of the PTC chapter on Space Electronics & Telemetry.

Numerous analyses of the problem of pulse code modulation frame synchronization coding have been published, resulting in criteria for defining optimal code formats. Such cri-

ieeee elections

FOUR FROM REGION 6 NAMED

Four officers from the Region 6 area have been elected by the membership or appointed by the IEEE Assembly, according to a January announcement.

Walter E. Peterson, president of Automation Development Corp., Los Angeles, was elected IEEE vice president. He is also a member of the board of directors and a former chairman of the Los Angeles Section.

B. M. Oliver, vice president, research and development, Hewlett-Packard Co., Palo Alto, was appointed vice president of IEEE. He is a former

international news

WINTER POWER MEETING

The first Winter Power Meeting of IEEE, sponsored by the Power Division, will be held February 2-7 in the Statler Hilton Hotel, New York City, and will feature a 48-session technical program on insulated conductors, power generation, power system communications, system engineering, protective devices, relays, rotating machinery, and transmission.

J. H. Kinghorn, of the American Electric Power Service Corp., N.Y., is the general chairman, assisted by E. J. Merrell, Phelps Dodge Corp.

A special awards lunch will be held Monday, February 3, at which the Habirshaw Medal will be presented to L. M. Robertson of the Public Service

MTBF
MTBF + MTTR; the definition of up time, down time, and readiness time; trade-off of reliability for maintainability; level of maintenance at part or equipment levels; reliability predictions, (failure rates or mean-time-between failures) used to enable determination of quantity of spares; and the problem of spares which deteriorate because of shelf life or spares which didn't work in the first place; effect of miniaturization upon both reliability and maintainability. The audience will also participate.

teria exhibit wide and/or apparent difference of opinion, and lack of standard symbology further complicates any attempt of unifying these varying approaches. The basic factors underlying the problem will be examined in a simplified manner, the approaches of various authors will be explained, and a fusing of several approaches will result in a more understandable, more unified and simplified set of criteria.

chairman of the San Francisco Section and has served IEEE in numerous capacities.

Eugene C. Starr, consultant, Bonneville Power Administration, Portland, Oregon, was elected director-at-large for a one-year term.

Bruce S. Angwin, manager, western region, receiving tube department, General Electric Co., Los Angeles, was elected Region 6 director for a one-year term. He is a former chairman of the Los Angeles Section and has been active in regional affairs for many years.

Company of Colorado, Denver. An open forum to discuss plans for inauguration of the Professional Technical Group on Power will be held Monday afternoon following the luncheon and the general session. The initial administrative committee will present the program for general membership participation through professional technical group format. Organization, publication, and activities as planned will be open for review and discussion before submission to the IEEE executive committee.

The San Francisco Section will be represented by a group led by J. E. Barkle, interim chairman of the PTGP chapter.

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professional notes

ENGINEERS' WEEK

Dr. Richard M. Fulrath of Berkeley, professor of ceramic engineering at the University of California, has been appointed general chairman for the Bay Area's annual Engineers' Week.

Engineers' Week is observed nationally during the week of the birthday of George Washington, one of the great engineers.

The week is proclaimed nationally by the President and sponsored by the National Society of Professional Engineers in order to bring to the public's attention the important, if little known, work engineers do.

In the Bay Area, the Engineers' Week executive committee is devoted to finding outstanding high school senior science and mathematics students and honoring them with scholarships and awards. The winners in the ten Bay Area zones will be announced early in February.

Zone winners will be guests at the annual Engineers' Week banquet at the Sheraton-Palace Hotel during the week of February 17-22. At the banquet the winners of the four scholarships will be announced. There will be a top scholarship of \$1,000 and three runners-up of about \$800, depending on donations of local industry

pigmil news

FIFTH WINTER CONVENTION

Dr. Albert C. Hall, the Defense Department's new deputy director for space research, and Maj. Gen. F. H. Britton, Army Materiel Command director of research and development, will be headline speakers for the Fifth Winter Convention on Military Electronics in Los Angeles.

Dr. Hall's address on "The Objectives of the Military Space Program" is set for the convention's annual luncheon February 5, opening the three-day meeting at the Ambassador Hotel. The address will be the first official discussion for western industry on the U.S. military/space objectives. Dr. Hall was appointed DDR&E for Space last August.

General Britton will address the traditional banquet meeting February 6, on the topic, "Know the Mission."

Both speakers and the keynote panel discussion on "Weapons System Selection—1964," headed by the Defense Department's Dr. Eugene Fubini, are expected to draw a record attendance by representatives of government and industrial science.

and engineering organizations, including the section, whose contributions support the scholarships.

Banquet tickets will be available from the section office.

Dr. Fulrath announced the following appointments to his executive committee: co-chairman, James Vivrette, County Surveyor and Road Commissioner, Alameda County; assistant to chairman, William Enkeboll, Dames and Moore Engineering, San Francisco; secretary, William D. Harris, University of California Extension, Berkeley; treasurer, Dr. Donald Olander, University of California, Berkeley; finance chairman, J. L. Cunningham, Standard Oil Company, San Francisco; scholarship awards chairman, Jack T. Elmer, Kaiser Aluminum and Chemical Corp., Oakland; displays chairman, Edward Boyer, Atomic Energy Commission, Berkeley; contacts and speakers chairman, Jim See, San Francisco Bay Toll Crossings, San Francisco; public relations chairman, William J. Eisenlord, Shell Development Company, Emeryville; banquet chairman, Herman Spaeth, Pacific Fire Rating Bureau, San Francisco; co-chairman—finance, Robert Cromelin, Hayward City Hall, Hayward; co-chairman—scholarships and awards, C. C. Williams, Shell Development Company, Emeryville; co-chairman—contacts and speakers, Cliff Tabor, Bechtel Corp., San Francisco; and co-chairman—banquet, Donald D. Bentley, Bentley Engineering.

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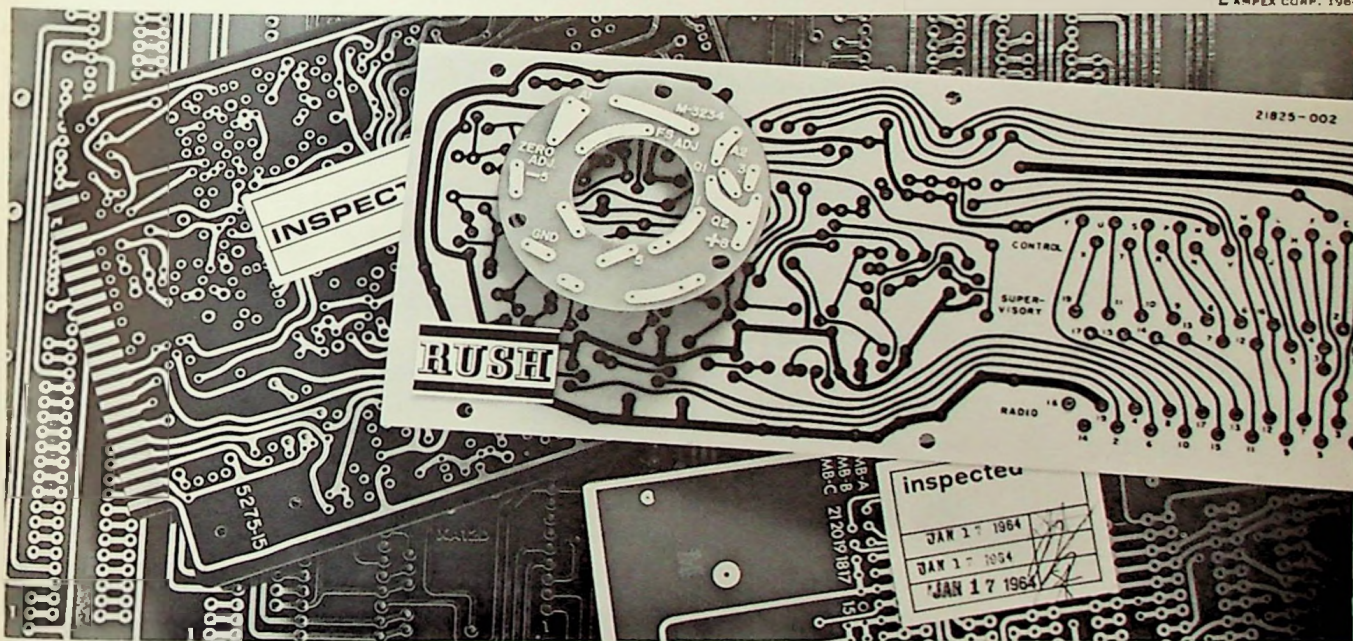
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NEW EXHIBIT FORMAT

WESCON has revealed its 1964 plans, including sharp departures in exhibit format for the show next summer in Los Angeles.

For the first time, 1,200-plus product and system exhibits will be divided into categories of interest—nine of them in all—positioned in the show according to related interest:

- At Los Angeles Memorial Sports Arena: measurement, production equipment, communications and detection, air and space systems, audio and closed-circuit TV, and publishers.
- At Hollywood Park Racetrack: components, automatic control, and data processing and conversion.

WESCON employed advanced techniques of audience research to arrive at the decision for categorization of the show and for placement of categories. A research project, conducted on WESCON's behalf by its public relations representatives, West Associates, surveyed the entire WESCON attendance of 40,000 persons in San Francisco in 1963, and utilized computer analysis of the answers to a carefully designed series of questions about viewer habits.

The result is expected to benefit both exhibitors and visitors significantly. Exhibitors will find their booth visitors to be specifically interested in their particular product field, and small and large exhibitors alike will benefit from the "complete review" of all new achievements of the year presented in one place.

"The WESCON board feels it now knows more about who comes to the show, and why, and how they act, than anyone has ever known before about a technical convention audience," Don Larson, manager, said.

events of interest

LOCAL NON-IEEE

Feb. 6, 11, 13, 18, 20—Welding, Brazing, and Soldering in the Electronics Industry, six lectures presented by the Santa Clara Valley Section of the American Welding Society in the Lockheed Auditorium, Bldg. 202, 3251 Hanover St., Palo Alto, 7:30 to 10:30 P.M. Participants: W. Dale Fuller, LSMC; Ed Annick, GE Tube; Fritz Budde, Eimac; Palmer Larsen, Larsen Electronic Glass; Lou DeGive, Varian; Jim Shaffer, Lockheed Electronics; John Helms, Texas Instruments. Tuition: AWS members \$10, non-members \$15. Information and reservations: W. C. Smith, 3306 Forbes Ave., Santa Clara, 248-4243.

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Write or call: Ernesto A. Montano or Rita Earnshaw, IEEE Grid, Suite 2210, 701 Welch Rd., Palo Alto, 321-1332.

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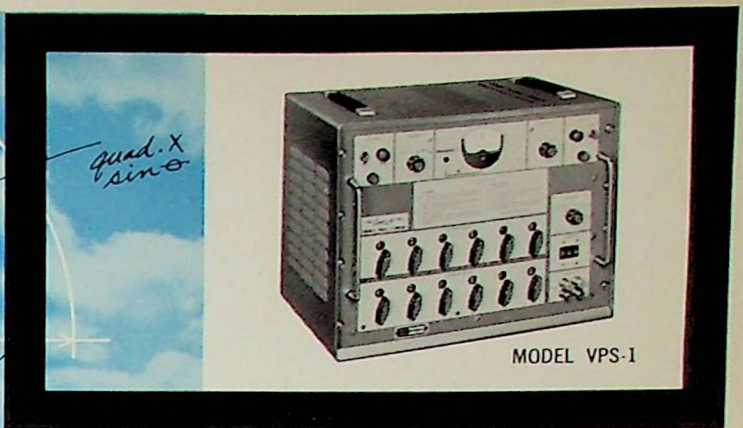
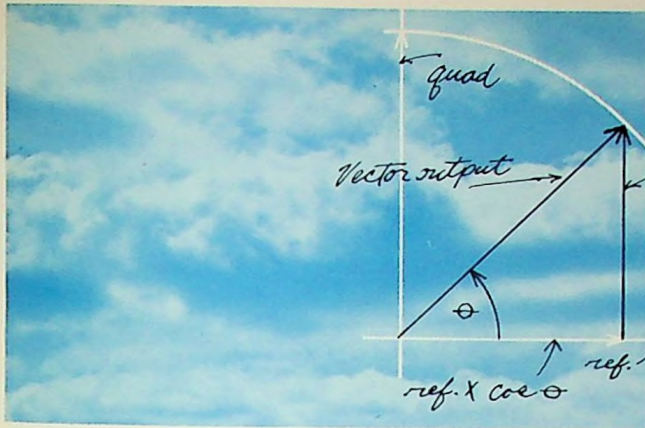


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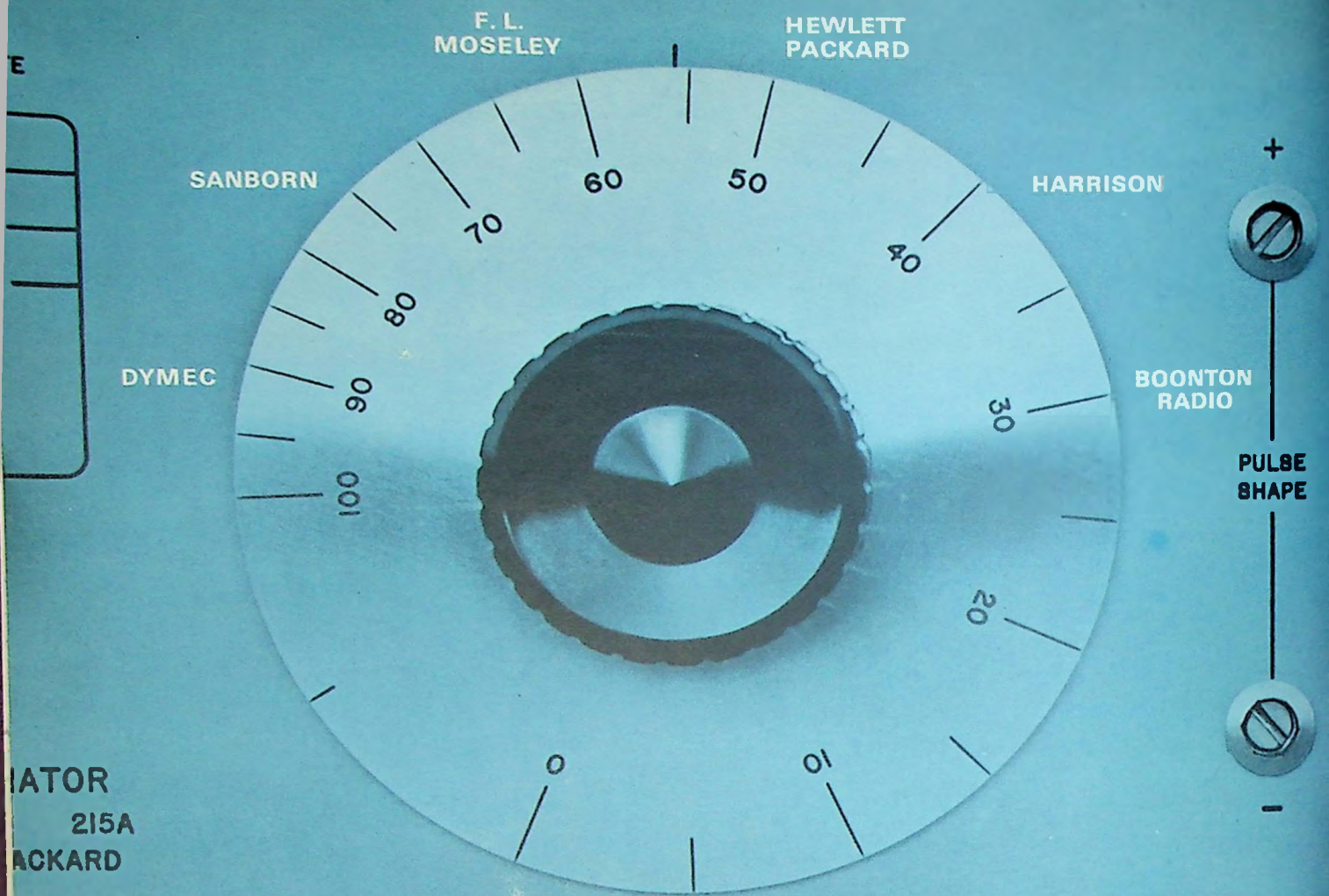
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