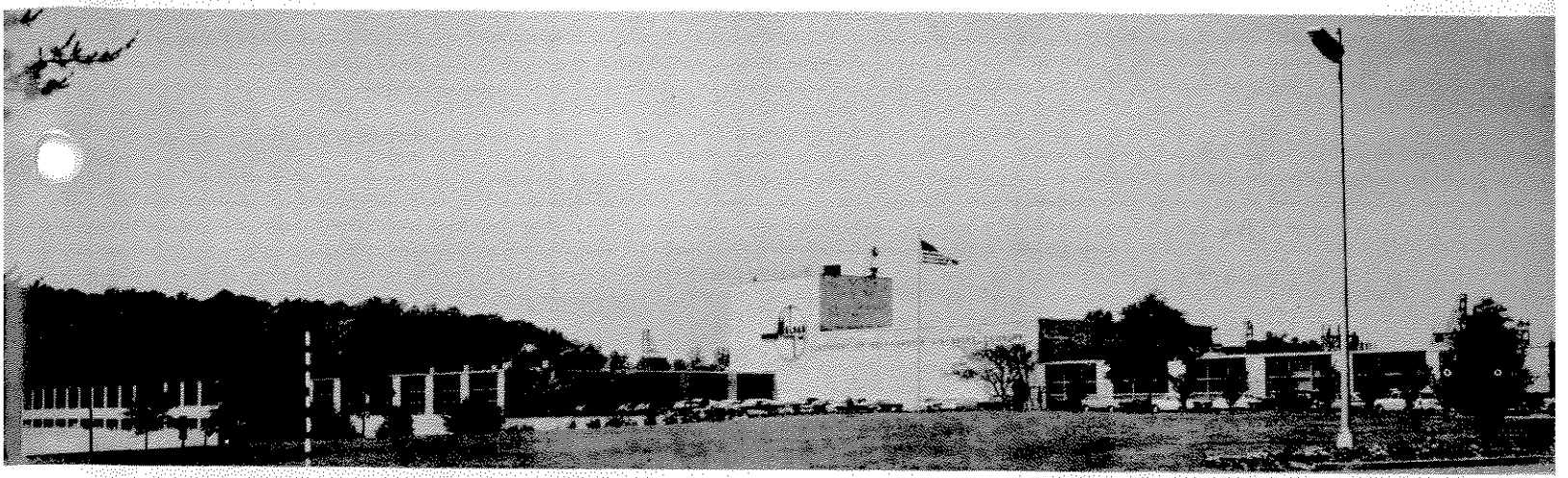


AN IMPRESSIVE SIGHT . . . Melpar's Falls Church plant's new $2.4 million annex (left of broken line) extends the Company's headquarters building majestically along Arlington Boulevard. When it is completed in early September, several of the Company's service groups will move from the main and other plants into the three-floor, 120,000 sq. ft. annex, leaving comparable space for Melpar's diversified electronic engineering operations. Paved parking areas will completely surround three sides of the Falls Church plant and accommodate over 2000 automobiles.

Photo by Allen

MELPAR-A-GRAPH

MELPAR, INC. • A SUBSIDIARY OF WESTINGHOUSE AIR BRAKE CO.

Volume 5, Number 6 **June, 1960**

New Contracts Added to Backlog in June

Several new contracts were added to Melpar's work backlog this month. Four of the contracts are:

Production Contract

The largest of the four contracts received during the month is valued at $1.4 million and calls for the Company to produce a quantity of target detecting devices for the Bureau of Naval Weapons.

The work has been assigned to Project Engineer Walter H. Rogers of the Columbia Pike Production Department.

Physical Sciences Award

Melpar's Physical Sciences Laboratory has been awarded a prime contract amounting to several hundred thousand dollars for the design of warning and detection systems and subsystems for the U. S. Army, according to Lab Manager E. Ritt.

First phase of the contract awarded by the Army Chemical Center is a comprehensive literature research program leading to laboratory investigations and feasibility studies.

The project is being directed by Lab Section Head D. M. MacArthur.

Applied Science Contract

The Applied Science Division, Watertown, Massachusetts, has been awarded a contract by the Frankford Arsenal of the U. S. Army Ordnance District, Philadelphia, to evaluate the capability of the Melpar developed and fabricated T-12 Dynamic Tester to check out the ground guidance portion of the Nike Hercules surface-to-air range system.

Under the contract, Melpar will adapt two T-12's to improve variance, prepare progress tapes and give feasibility demonstrations prior to running a field test and data reduction program.

System Analysis Contract

Melpar's System Analysis Groups have been awarded a contract by the Wright Air Development Division of the Air Force's Air Research and Development Command to determine trends for future airborne molecular electronics techniques.

The contract requires the Company to make a study of airborne electronics within aircraft, missiles and other airborne vehicles to determine the frequency, distribution, simularities and individual characteristics of electronic equipment and circuit functions within existing and proposed airborne electronic subsystems.

The study is expected to guide future physical, electrical and environmental applied research on molecular electronics, according to System Analysis Manager F. A. Browne.

Holiday

Hard working Melpar employees will have a three-day weekend to relax and enjoy the Summer weather during the first week of July.

July 4th or Independence Day—one of Melpar's paid holidays—is on Monday this year and, as usual, Company employees will not work Saturday, Sunday or Monday. Normal operations will be resumed on Tuesday, July 5.

MELPAR ITALIAN SUBSIDIARY DIRECTOR . . . Professor Guiliano Toraldo di Francia visited Melpar's Northern Virginia and Massachusetts facilities during a two-week tour in mid-June. Prof. Toraldo (center), an internationally famous authority on optics and microwaves, conferred with Melpar Antenna Laboratory Manager Dr. Wayne Masters (left) and Technical Consultant to the President Dr. Arthur Kohlenberg when he visited the Falls Church plant. Prof. Tiraldo also gave a one-hour talk on "New Developments in Antennas and Electromagnetic Devices at RSA" for members of the Antenna Lab. RSA is the abbreviation for Ricerca Scientifica Applicata, the official name of the Melpar Italian Subsidiary. Photo by Norton

Dr. R. W. Masters Named Manager Of Melpar's Antenna Laboratory

Dr. Wayne Masters, antenna research specialist, has been named Manager of the Melpar Antenna Laboratory, President Thomas Meloy announced recently. Dr. Masters comes to Melpar from the Boeing Airplane Company where he supervised the Antenna and Solid Dielectrics Research Groups.

Holder of 15 U. S. patents, and two pending, Dr. Masters' 20 years' experience in the antenna research field includes outstanding research achievements at RCA Victor Division and Ohio State University.

Dr. Wayne Masters

At RCA where he was Advanced Development Engineer (1941-1949), Dr. Masters distinguished himself for work in seaborne radar antennas and systems. This resulted in a successful omnidirectional U-antenna for radar use on submarine periscope masts.

Among patents which resulted from his RCA work is one for the Supergain antenna (square tower screen arrays), the well known Superturnstile (Batwing) broadband antenna suitable for operation in the lower 12 television channels, and an important power equalizing network.

While Associate Supervisor of Ohio State University's Antenna Laboratory, Dr. Masters also served as Chief Electronic Consultant on the multiple television antenna transmitting system on the tower of New York's Empire State Building. This antenna is now recognized as a significant advancement in the field.

At Ohio State, Dr. Masters also conducted research studies to determine the relative merits of radarvision apparatus compared with conventional systems.

Dr. Masters earned his Ph. D. in Electrical Engineering from the University of Pennsylvania, his M.S.E.E. from Ohio State University and is a B.S.E.E. graduate of the University of Alabama.

Listed in Who's Who in Engineering, Dr. Masters is a Senior Member of the IRE, Past Chairman of its Columbus, Ohio Section, and a member of several IRE professional sub-groups.

Special Products Dept. Sells First Equipment

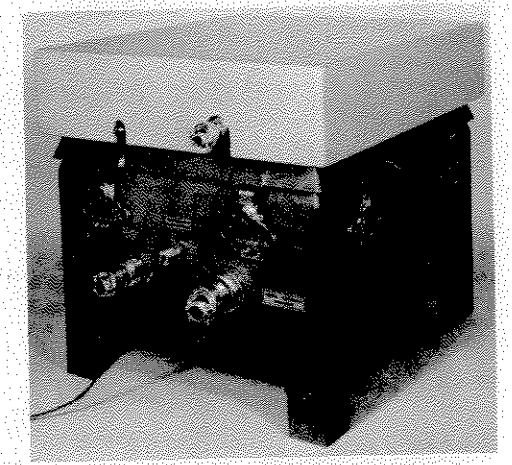
Melpar's Special Products Department, on May 27, delivered the first pieces of equipment—two T-400 Heat Transfer Test Fixtures—to be marketed by the new department, according to Manager E. H. Bradley.

The Heat Transfer Test Fixture provides previously unavailable facilities for obtaining a number of measurements, including accurate temperature and pressure measurements on electronic modules as large as 9" wide x 11" long x 4½" high.

Delivery of the electronic module testing units to the International Telephone and Telegraph Laboratories marks the Special Products Department's successful entry into the three major market fields—equipment, materials and services.

Special Products has previously marketed a host of materials (MEL-INK, MELVAR, MELFOAM, MELCOAT and MELPAK) and several national firms are presently utilizing the department's printed circuit layout, fabrication and assembly services.

The department is also marketing other lines of equipment, including a patented, miniature Photoelectric Reader that operates with a revolutionary single lens.



HEAT TRANSFER TEST FIXTURE
Model T-400

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Illustrating Section Captures Ideas, Designs with Fine Arts

PROOF positive that the fine arts still exist in American industry is reflected by Melpar's Illustrating group, a member of the Project Services' Publications team.

Headed by Supervisor C. N. Allred, Illustrating has the enviable job of artfully portraying ideas and designs for presentations, proposals, handbooks, dimensional displays, brochures and the many other Company communications media.

Equipped to produce anything from simple commercial line art to the finest full color renderings, the group's artists work in the fields of oil, tempera, casein, water color, wash and others.

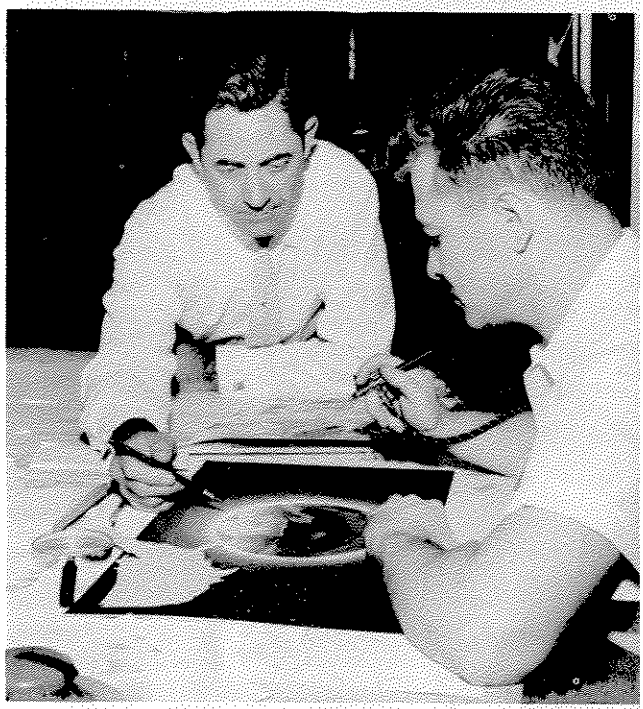
Much of Illustrating's work is designed and produced from rough sketches or verbal descriptions.

To accomplish its gigantic task, Illustrating has approximately 25 Senior Tech Illustrators, Tech Illustrators and Illustration Detailers. These craftsmen are divided in two working groups. One is headed by Senior Tech Illustrator Frank Brown, the other by Senior Illustrator Cliff Rader.

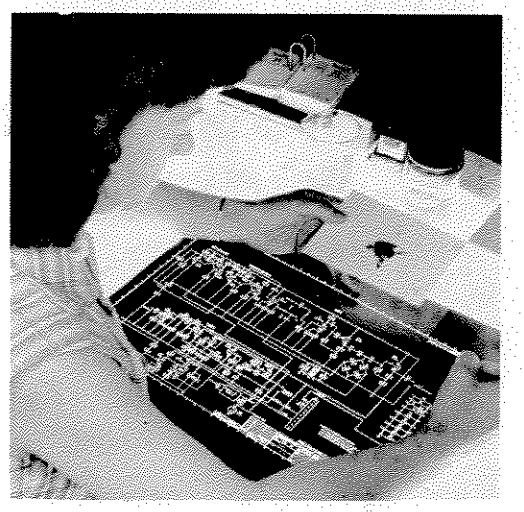
Among the services offered by Illustrating, the group retouches photographs, prepares artwork for both 35mm and 3¼ x 4" slides and glass mounts finished slides. Illustrating is also equipped for silk screen reproduction.

Recently the group obtained a new Filmotype machine. By using the machine, illustrating can set almost any size and style type for art layouts.

Illustrating's services are available to all Company operations.



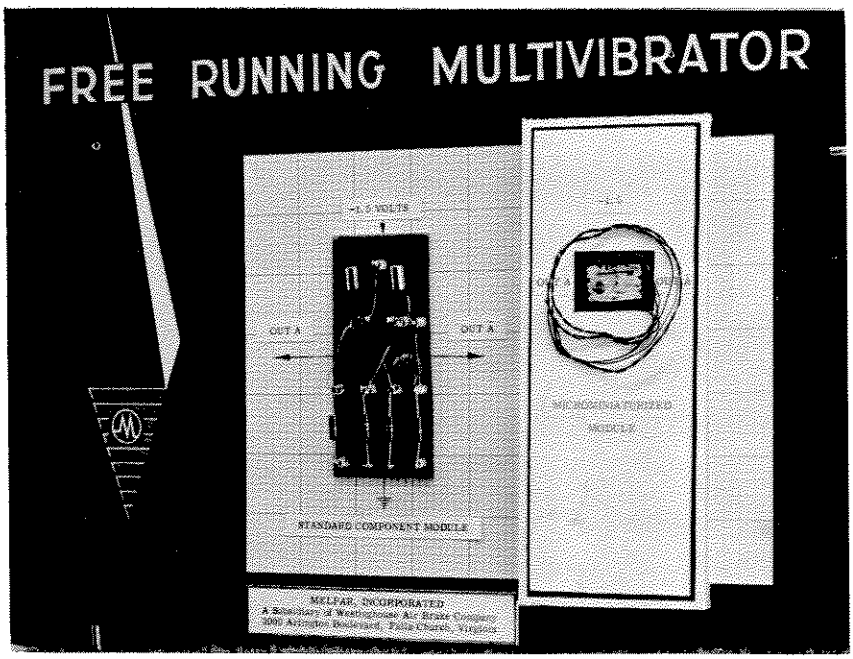
SUPERVISOR . . . C. N. Allred discusses a piece of air brush art with Illustrator George Schwald. Illustrating has approximately 25 Illustrators and Detailers to design and produce artwork.



OPAQUING . . . or touch-up of photographic negatives is also a function of Illustrating. Illustrator Estelle Williams is shown working at a light table.

Photos by Norton

ILLUSTRATING . . . turns out assorted types of artwork. This view shows a portion of the group's working area in the lower level of the Falls Church plant.



ONE OF TWO . . . Melpar displays recently exhibited in the Electrical Engineering Building lobby at Pennsylvania State University is shown above. Both Melpar displays, an IF Transformer and the Free Running Multivibrator, are among the continuously changing exhibits representing activities in the electrical engineering field, shown under the auspices of the National Electrical Engineering Honor Society at the University. The exhibits are used to (1) help prospective students and freshmen determine whether they should choose electrical engineering as a career; (2) illustrate electrical engineering research projects to attract excellent students into fields of advanced study; and (3) to inform graduating seniors of the related fields of activity being undertaken by various industries.

Pennsylvania State University Photo

Three Company Employees Listed Among GWU Engineering Grads

Three Melpar Engineers were among the 1960 graduates at George Washington University on June 1. All three men—after several years of diligent part-time studies—received their degrees in engineering.

Senior Engineer Roger E. Mulford, one of the three graduates, began his studies in 1951 when he joined the Company as a Junior Technician. A participant in the Melpar Tuition Reimbursement Plan since the program was established in 1956, Mr. Mulford graduated with a Bachelor of Science degree in Electrical Engineering.

Another June graduate, Senior Engineer Anthony Maestri, is a member of Melpar's Antenna Laboratory who completed his Electrical Engineering degree under a veterans training program. He joined Melpar in 1954 as a Technician and since that time has completed all the work toward his degree on a part-time basis.

Mechanical Engineer John M. Goto is the third 1960 George Washington graduate from Melpar. Mr. Goto joined the Company as an Engineering Aid in 1955. He has also taken courses under a veterans training program on a part-time basis and received a Bachelor of Science degree in Mechanical Engineering at the GW commencement exercises.

Several other employees taking advantage of the Tuition Reimbursement Plan are nearing completion of their degree programs, including some for Masters and Doctorate degrees.

GOING UP!

Promotions include D. M. MacArthur to Section Head, J. E. Chaney and F. B. Robbins to Senior Engineer, and V. A. VanCleef to Assembly Superintendent.

V. T. Loftin advanced to Planner, M. M. Scott was promoted to Engineering Assistant and D. M. Brown rose to Junior Planner. B. E. Oliver was promoted to Light Assembly Task Leader, E. M. Martzall advanced to Planning Aid, and H. R. Thompson and L. C. Simmons were promoted to Senior Clerk Typist.

B. J. Adams, P. H. Blair and J. M. Moyers advanced to Time Inspectors.

Engineers Scheduled To Give WESCON Papers

Four engineers from Melpar's Antenna Laboratory are scheduled to deliver papers at sessions of the 1960 Western Electronics Show and Convention to be held in Los Angeles, Calif., on August 23-26.

Three of the papers are scheduled for WESCON's Antenna and Propogation Session and one for the Microwave Devices Session. The papers will be presented by Principal Engineer D. Alstadter, Senior Engineer C. C. Phillips and Engineers D. F. Shea and J. P. Jones.

The papers, authors and sessions are:

"Beacon Antennas for Project Mercury" by D. F. Shea, D. Alstadter and W. O. Puro: Antenna and Propogation Session.

"A New Approach to Antenna Beam-Shaping—the 'Coke-Bottle' Antenna" by C. C. Phillips: Antenna and Propogation Session.

"A Non-Contacting, Broadband Rotary Joint and Four-Way Switch" by D. Alstadter and N. A. Dawson: Microwave Devices Session.

"Design Techniques for a Light-Weight, High-Power Spiral Antenna" by J. Jones and C. W. Morrow: Antenna and Propogations Session.

New Products Corner

(This is the fourth in our continuing series of reports on new products being marketed by Melpar's Special Products Department.)

MELCOAT

Excellent resilience and dielectric strength are the outstanding features of cured MELCOAT silicone rubber coatings which are dispersions of silicone rubber in an organic solvent. MELCOAT S-100, a thin rubber coating, has been used to cushion fragile components or miniaturized assemblies against shrinkage during encapsulation, to minimize corona and arc-over on open leads in compact electronic units, and to coat and impregnate glass fibre cloth for use as a heat resistant insulated covering for cable. As a coating, MELCOAT S-200 with its foam-like structure is performance-proved for production use as a heat barrier insulation ideally suited for applications where a thermal insulating coating is required. These coating compounds are applied by dipping, brushing or spraying.