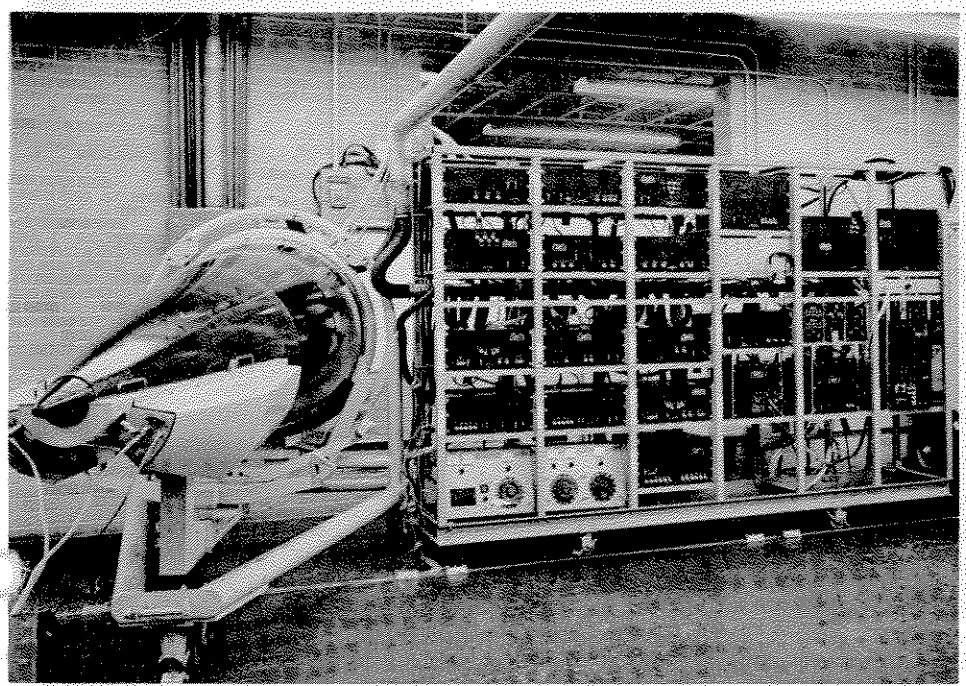
MELPAR-A-GRAPH

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

Volume 5, Number 5 May, 1960

# Melpar Ships Another ALD-4 to the Air Force



THE ALD-4 . . . and aft-radome assembly are shown under test prior to being shipped to the Air Force by Melpar.

Another model of the Electronics Reconnaissance Set AN/ALD-4, designed by Melpar's Reconnaissance Systems Laboratory, was shipped to the Air Force during the week of May 23, according to Program Coordinator J. M. Cryer.

Presently Melpar's largest engineering contract, the dollar value of the ALD-4 program—including tactical ground support equipment being developed by the Company—exceeds 36 million.

As reported in the last issue of the MELPAR-a-graph, the Company has received a commendation letter from the Air Force for our performance on the prototype delivery of the equipment.

Among other things, the Air Force letter stated "Melpar's delivery of the prototype must be regarded as the planned results of good management, unselfish perserverance, hard work and a solid determination to meet the delivery date established."

The ALD-4 program, one of the largest airborne electronic systems ever developed, has been a team effort involving most of Melpar's diversified Engineering, Production and support activities.

Although the basic equipment was designed by E. J. Diehl's Reconnaissance Systems Lab, several other Engineering groups have been instrumental in the Company-wide program. Antennas for the equipment were designed by W. O. Puro's Section of the Antenna Laboratory and the ground support equipment is being designed by the Ground Support Equipment Laboratory, managed by G. F. Wagner.

The model just shipped was fabricated by the Hardin Street Production Department. Many other groups, including Quality Control, have contributed to the progress of the program.

## AMC Credits MEL-INK With Eliminating Circuitry Bottleneck

The Air Material Command, in its April Conservation Bulletin, cites Melpar' development of the MEL-INK stencilling process as being responsible for eliminating a major bottleneck in printed circuitry.

MEL-INK's ability to mark circuit boards so that the markings remain stable after the chemical solvent cleaning process is described in the article.

In the new process, epoxy stencilling MEL-INK is sprayed on the boards and then heated for a short period. When dry the ink is impenetrable by lacquer and enamel thinners, alcohol and other commonly used cleaning agents.

Part identification numbers were formerly stencilled on circuit boards with ink or enamel. Chemical solvents not only cleaned the boards but removed the stencilling as well.

MEL-INK is one of the new products being marketed by Melpar's Special Products Department. White or black MEL-INK is available and can be applied equally well to metal, plastic, glass or wood.

## *Ralph I. Cole Elected NAECON Vice President*

Melpar's Manager of Military Project Planning, Ralph I. Cole, was elected Vice President of the National Aeronautics and Electronics Conference for 1961 at the NAECON executive board meeting on May 4.

Held annually in Dayton, Ohio, NAECON is a major national attraction focusing attention on areonautics and space progress.

## HOLIDAY

**One of the Company's seven paid holidays will be observed by Melpar employees during May. Memorial Day—Monday, May 30—is an official Company holiday. Employees are off May 28-30 and will return to work on Tuesday May 31.**

SIMULATION PRESENTATION . . . Mr. K. C. Streeter, Manager of Melpar's Simulation and Training Systems Laboratory (standing), presented a survey of the Company's simulation and training systems capabilities in the area of missile handling and launch activities at a meeting in the Falls Church plant recently. Attending the meeting were (l to r): Captain John S. De Witt and Major Harvey C. Clymer from the Ballistic Missiles Division of the Air Research and Development Command and Mr. Robert Holmes of Space Technologies Laboratory. Photo by Sakamoto

# Dr. David Van Meter Is Named Applied Science Division Manager

The promotion of Dr. David Van Meter to Manager of Melpar's Applied Science Division was announced by Research and Engineering Vice President C. B. Raybuck on April 28.

Mr. Raybuck also announced the designation of Mr. John Gerdes as the Division's Assistant Manager.

Dr. Van Meter

The Applied Science Division, located in Watertown, Mass., employs approximately 250 people engaged in some of the Company's top research projects.

Dr. Van Meter received a Bachelor of Science and a Master of Science degree from Massachusetts Institute of Technology in 1943. He also holds an M. A. and a Ph. D. from Harvard University. He joined Melpar in 1955 and was formerly head of the division's Technical Planning Staff.

He is currently visiting lecturer on random processes and information theory at Harvard University and has served as Assistant Professor of Electrical Engineering at Pennsylvania State University.

At Melpar, Dr. Van Meter has been primarily engaged in: application of information theory and statistical decision theory to the problems of electronic warfare; feasibility studies on new types of radar and communication systems; and the application of statistical theory to classificatory problems.

Mr. Gerdes has been with Melpar since 1956. He was awarded a B. S. and an M. A. degree by Boston University in 1950 and 1952, respectively, and received an M. S. degree from Northeastern University in 1955.

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## *New Book To Feature H. L. Williams' Article*

Herman L. Williams, Supervisor of Melpar's Human Factors Engineering, has received word from Ohio Wesleyan University that one of his articles will be featured in the schools future volume entitled *Human Factors Engineering: A Selection of Readings.*

Selected for inclusion in the work is Mr. William's article "Reliability Evaluation of the Human Component in Man Machine Systems," which was published in Electronic Manufacturing magazine in 1958.

## Report by Campanella Published in Magazin

Mr. S. J. Campanella, Technical Staff Assistant to Melpar's Chief Engineer, is the author of a special report entitled "Analog and Digital Computers" published in the March issue of Logistics, magazine of the American Ordnance Association.

Mr. Campanella's report briefly describes digital and analog techniques and points out a trend which may reflect the state of computers in the future—utilization of both analog and digital techniques in the same machine by selecting each in accordance with the function it best performs.

The report was prepared with the assistance of Mr. Paul Cohen of the Sperry Gyroscope Company and Mr. Franklin E. Dailey, Jr., of Stromberg-Carlson.

## *A. A. Lawson Gives Paper At Engineering Conference*

Project Engineer A. Arnold Lawson presented a paper entitled "The C[illegible] cept of Modular Design for Mechani[illegible] Assembly" at the Design Engineering Conference and Show held at New York's Coliseum on May 23-26. The Conference is sponsored by the American Society of Mechanical Engineers. Mr. Lawson presented his paper at the Automation technical session at 9:30 AM on May 25.

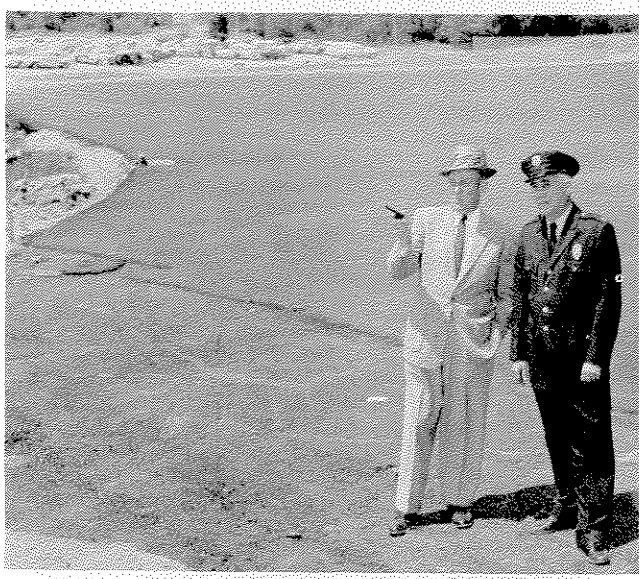
The paper has been published in pamphlet form by the ASME for sale to members and the general public. It is also scheduled to be published in the ASME's Technical Digest.

## Feldman and Riley Speak At Washington IRE Meet

Molecular Electronics Section Head Charles Feldman and Supervisor of the Chemical Engineering Branch John E. Riley, both of Melpar's Physical Sciences Laboratory, were guest speakers at a meeting of the IRE's Washington, D. C., Chapter on May 2.

Dr. Feldman spoke on "Research Aspects of Developing Molecular Circuitry" and Mr. Riley discussed "Anticipat[illegible] Production Problems in Manufacturing and Using Molecular Circuitry." The talks were given to a joint meeting of the Professional Groups on Production Techniques and Component Parts.

# Melpar Security Directorate Plays Key Operations Role



NEW PAVED PARKING AREAS . . . are expected to aid the flow of traffic to and from the Falls Church plant. Security Director E. M. Lane discusses traffic plans with Guard Captain Walter R. Rogers.

CHARGED with maintaining the best possible industrial security within the Company, Melpar's Security Directorate has a multitude of responsibilities and duties.

Among its primary duties, Security—headed by Director E. M. Lane—is responsible for safe-guarding, proper handling and documentation of all classified information held by the Company. It also obtains employee security clearances, controls various closed or classified areas of operation, runs the Company's security guard force, handles plant visitor procedures and maintains a system of checks on the inventory of classified documents.

Mr. Lane was appointed the Company's first Director of Security in January 1959. To facilitate the many security functions, Mr. Lane has two groups—an administrative staff and a guard force.

The administrative staff is headed by Security Officer M. A. Harlowe. Mrs. Harlowe's staff runs plant-wide perpetual inventories on all classified information and documents and records all classified mail received by the Company.

In addition, the staff is responsible for a number of industrial security forms, including completion and initiation of the employee security questionnaire for security clearance applications. This group also obtains security clearance for employees to visit other classified installations and for proposed visitors to Melpar facilities.

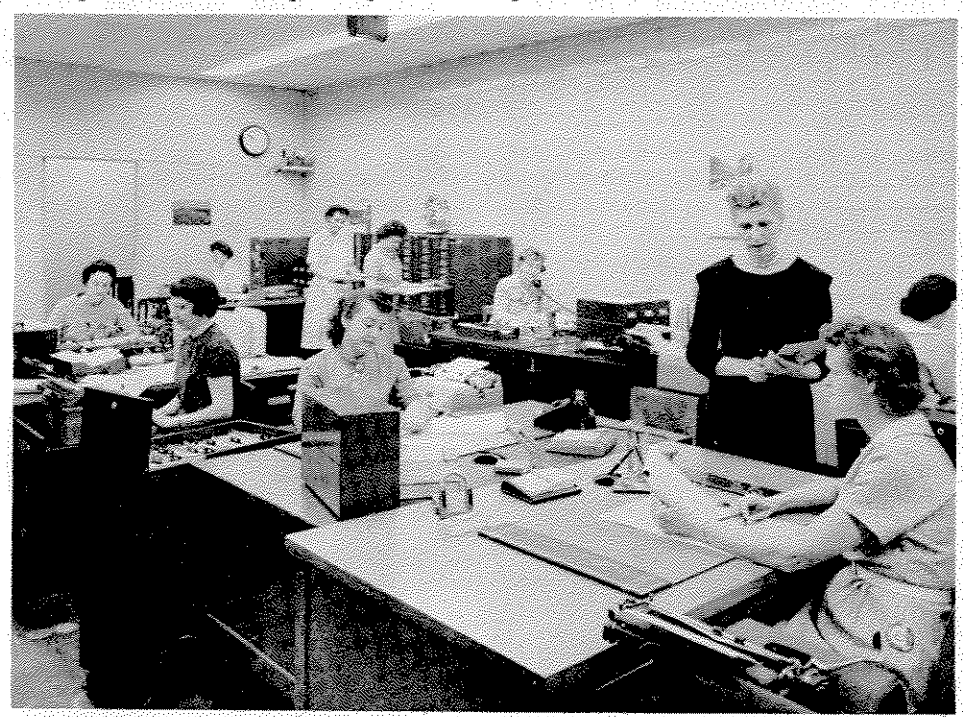
Fingerprinting, photographing employees and making employee badges is another major function of the staff.

The guard force — 107 strong — is headed by Guard Captain Walter R. Rogers. Operating from 35 guard posts, (21 require three shifts per day, seven days per week) the Security Guard is responsible for protecting the building structures, the property in the buildings, occupants and visitors. He is expected to enforce security rules, serve as a watchman, firefighter and police officer. He also controls the plant sign-in books.

To guard against possible security leaks, Mr. Lane and Facilities Security Officer Clair S. Keena make frequent area inspections—checking for possible security violations. They also schedule frequent indoctrinations to explain security regulations affecting national defense and Melpar.

Since Melpar is engaged in a large number of military defense projects, Security is expected to continue playing a very important role in our Company's operation.

"IT'S A BIRDIE . . ." is inscribed beneath the little pink bird used to hold the attention of employees having their security badge pictures taken. Betty Harmon (center) operates the camera and Jeanette Dick takes employee fingerprints.



URITY'S ADMINISTRATIVE STAFF . . . is headed y Mrs. M. A. Harlowe (standing, foreground). This group processes employee security clearances and, among other duties, documents classified mail and information, and makes continual inventories of classified documents.

Photos by Norton

**WHO'S THE CULPRIT?** Technician George Jenkins of Quality Control's Test Equipment Repair and Calibration section takes a long look at 66 electronic test meters that he and other members of his section must repair. The meters, all damaged by Melpar employees, represent the number received in a two week period by QC from all plants. The number of broken meters has increased almost 100 percent in the past couple months, according to Test Equipment Supervisor F. L. Carau. Most of the damage is due to careless handling, e.g., dropping, bumping or using the wrong electrical scale for measurements. These careless acts not only put the meters temporarily out of operation but result in time consuming and costly repairs. DON'T YOU BE THE CULPRIT, HANDLE ALL EQUIPMENT CAREFULLY.

Photo by Meinke

# *GOING UP!*

Falls Church promotions include J. H. Mullin to Senior Field Engineer, B. T. Lawler to Senior Illustrator, T. L. Poe to Senior Chemical Technician and V. W. Townsend to Junior Chemical Engineer.

Alexandria promotions include W. D. Allen to Supervisor of the Parts Breakdown Unit and R. S. Boreen to Supervisor of the EAM and Operations Unit. W. J. Harris was promoted to Spares Planner and W. M. McAdams advanced to Junior Spares Planner. D. C. Frost was promoted to Senior Technician at Arlington.

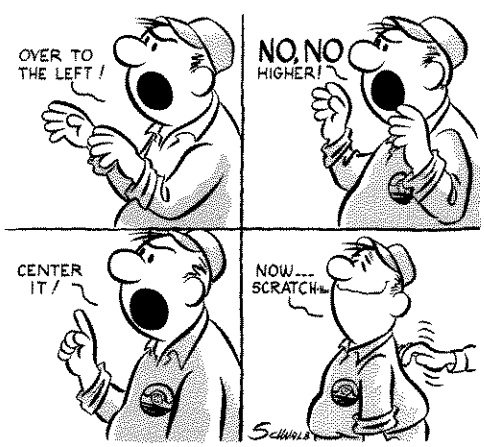
Columbia Pike promotions include P. N. Thomas and F. J. Sellinger to Engineer. T. J. Sable advanced to Junior Test Engineer and D. W. Spear rose to Test Engineer. M. L. Wood was promoted to Executive Secretary and H. E. White rose to Lead Porter.

Hardin Street promotions include R. M. Enos to Senior Engineer, C. L. Potter to Supervisor of Q. C. Methods and G. E. Smith to Senior Clerk Typist. C. R. Keller and R. L. Lotts advanced to Heavy Assembly Task Leader.

Bailey's Crossroads promotions include R. G. Ellis to Senior Planner and T. H. Smith to Test Engineer.

Leesburg Pike promotions include G. K. Smythers to Senior Design Engineer and R. W. Rasmussen and R. R. Townsend to Junior Engineer.

A. Casey was promoted to Engineer and F. J. Rastellini advanced to Senior Technician at Watertown. Field Service Division promotions include V. L. Cummiskey to Area Representative.




# Take It Easy!

Warm weather usually mean "vacation time" to a lot of Americans. Melpar people aren't necessarily affected by this annual craze to ge away from it all, primarily because the Company has a liberal policy allowing employees to take vacations at any time during the year.

However, for those employees planning vacations, it might be well to remember one way you can get the most from your vacation is to avoid having an accident. There isn't a sadder way to spend a vacation than in a hospital bed! Yet this happens all too often.

We in this organization are constantly striving to make this a safe place to work. On our vacations, let's remember to practice the sound and sensible safety precautions we exercise at Melpar. Please be careful--on the highways--around the home --whenever or wherever you spend your vacations.

# New Products Corner

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

## MELFOAM

### Ceramic Dielectric

MELFOAM C-100 meets the demand for a lightweight, foamed dielectric material which has high physical strength and is stable at elevated temperatures. This rigid ceramic is an excellent lightweight thermal insulator and has stable electrical properties over a wide temperature range. Also, MELFOAM C-100 is a low loss and low dielectric constant material even at temperatures up to 1200° F. These properties as well as the density of the material can be varied to suit specific customer requirements. Typical uses for MELFOAM include (1) lightweight dielectrics, (2) fillers for microwave devices such as high temperature microwave lenses, and (3) electrical and thermal insulators. MELFOAM is normally supplied as an eight-inch by eight-inch by one-inch block which can be easily machined. Larger and custom-formed shapes are available.