MELPAR-A-GRAPH

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

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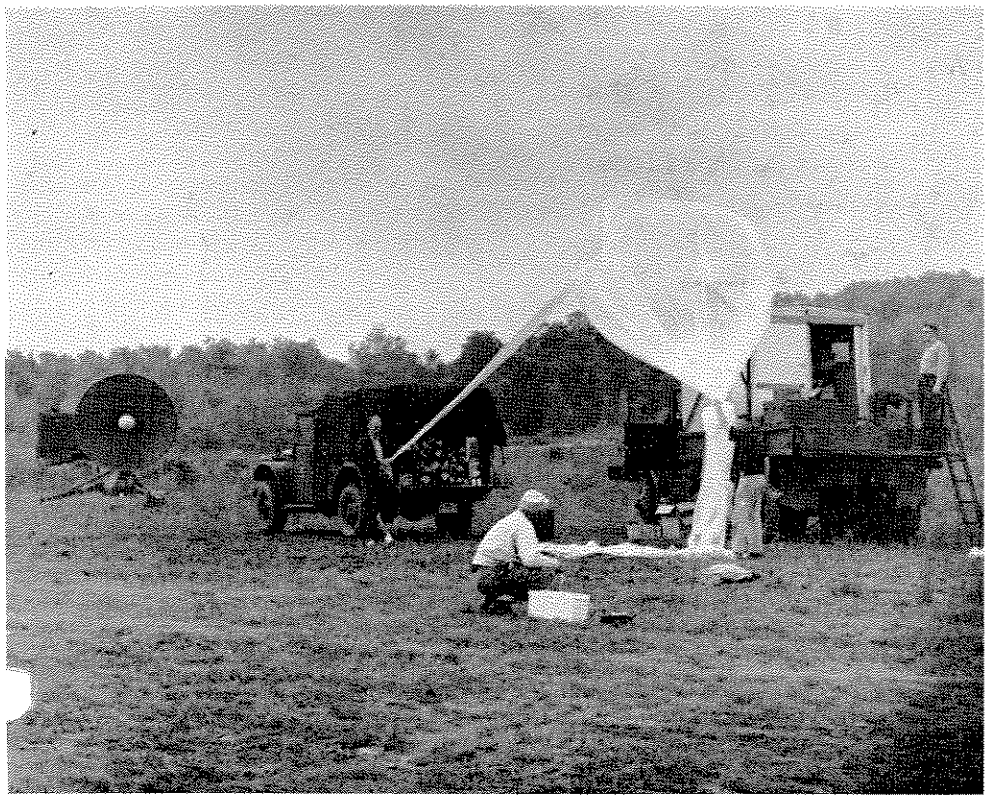


BLOWING UP A BALLOON in preparation to launching are, left to right Research Engineer W. R. Wysong, Senior Technician W. A. Knefley, and Research Engineers F. M. Tingley and F. T. Davidson. The launching, which took place at the Gardner, Massachusetts Airport, is part of a high altitude acoustics study being pursued by the Research Department. Photo by Dr. G. E. Fellows, Research Department.

NEW CONTRACT FOR ANTENNA DESIGN ACQUIRED AT FC

A contract for design and development of a second group of antennas for the AN/ALQ-27 Electro-magnetic Countermeasures System, to be used in connection with the B-52 bomber, was signed last week. The new work is in addition to an earlier group of antennas for this program which have been under development at Melpar for some months, both

...er contract from Sperry Gyroscope ...ompany.

The work is being carried on under the direction of Section Head H. T. Ward of D. C. Cleckner's group.

REMINDER

Just "days away" is registration for courses to be taught during the fall semester, 1958.

The Capital Radio Engineering Institute will hold registration on Tuesday, September 2. George Washington University and American University registration will be on Monday, September 15. Tuesday, September 16 will be the University of Virginia registration day.

Remember, the number of students enrolled in each course will determine whether the course will be scheduled in the Plant. Check the notice on the Bulletin Board for full details as to the courses offered and the time and place for each registration period.

2 MELPAR EQUIPPED MISSILES PERFORM IN PUBLIC TEST

With the list of Melpar's contributions to the nation's missile programs growing every day, it was only a question of time before one missile carrying Melpar developed equipment was used to intercept another missile also carrying Melpar developed equipment.

The first publicized firing of the Army's new target missile Kingfisher, held on August 12, 1958, at White Sands Missile, Range, New Mexico, saw a Talos anti-aircraft missile intercept and theoretically destroy the new missile.

The Kingfisher, which utilizes a scanning antenna system designed and developed by Project Engineer H. H. Hibbs' group of the Falls Church Antenna Section, is equipped with a firing error indicator to record automatically either hits or miss-distance and pass-angle of the interceptor weapon. Melpar's portion of the work was done under subcontract from Lockheed Aircraft Corporation.

Carrying a Melpar developed fuze, Talos has proved so effective that the Army is using it as an anti-aircraft weapon. Production of the fuze, developed by sections headed by C. M. Volk and E. S. Conrad, is being carried out at the Arlington Division by Manufacturing Manager B. Thomasian's group, with Assembly Supervisor O. J. Kennel and Foreman N. J. Haines heading the effort. Project Planning is handled by Supervisor W. R. Davis' group. Alignment and testing of the fuzes, prior to shipment, is accomplished by the Quality Control group under Test Supervisor S. A. Armstrong.

Talos fuze development was carried out under supervision of the U. S. Naval Ordnance Laboratory at Corona, California.

The Kingfisher is 38 feet long and has a wingspan of 10 feet. It weighs more than 7,600 pounds and is 20 inches in diameter. It is recoverable by parachute and nosespike to allow reflight, time and again.

VARELA APPOINTED TO DEFENSE RADAR ADVISORY GROUP

The appointment of A. A. Varela as a member of the newly formed Advisory Group on Radar to the Department of Defense was announced last week.

Long acknowledged as one of the country's leading authorities in the field of radar, Mr. Varela was awarded the Presidential Certificate of Merit for his contributions to the state of the art during World War II. In 1950, Mr. Varela was appointed as a member of a special mission on radar data handling systems and

Arthur A. Varela

sent to England to review developments in radar in that country. In June of this year, he served as Moderator of the Ranging and Tracking Session of the National Convention on Military Electronics sponsored by the IRE.

Mr. Varela was recently awarded a patent which provides not only for a new type of transistor, but for greatly improved methods of producing transistors with small dimensional tolerances, such as the so-called "surface-barrier" transistor.

Mr. Varela was employed by the Corvey Engineering Company in June 1954 and joined Vice President for Research and Engineering C. B. Raybuck's staff after that company was acquired by Melpar. He was previously employed by the Naval Research Laboratory, serving as Head of the Search Radar Branch and later as Consultant on Radar.

Mr. Varela received a Bachelor of Electrical Engineering Degree from Johns Hopkins University and did graduate work in Law. He is a member of the District of Columbia Bar Association.

Acceptable Delivery Of Purchases Aim Of QC Vendor Group

Anyone concerned with the procurement of hardware for Melpar is likely to have contact with the Vendor Quality Control group supervised by O. T. Paul. Having as their objective the delivery of acceptable purchased items to Melpar, the group covers the United States working with suppliers.

Presently devoting full time to this work are five Engineers, J. H. Mullin, operating in the New York area; I. J. Bearer, in Boston; G. Prender and C. W. Norris, from the Falls Church Plant, while W. J. Lunglhofer operates from the Arlington Plant. From time to time other Quality Control Department personnel have been assigned to help handle peak loads.

The job, divided into two basic functions: preventive and corrective, requires tact and the ability to deal effectively with people whose thoughts may be wandering far afield from our purchase order quality control requirements. Board knowledge of test and inspection equipment and techniques, quality control systems and procedures, as well as the specific requirements of the item now being bought, are all tools used by these men.

The preventive part of the job includes surveys of the facilities of prospective vendors and visits during the early stages of manufacture to clarify our specific requirements for the procurement. The facilities survey, most often a team function including Purchasing and Engineering representatives, results in a decision as to whether a vendor is initially qualified to be a supplier to Melpar.

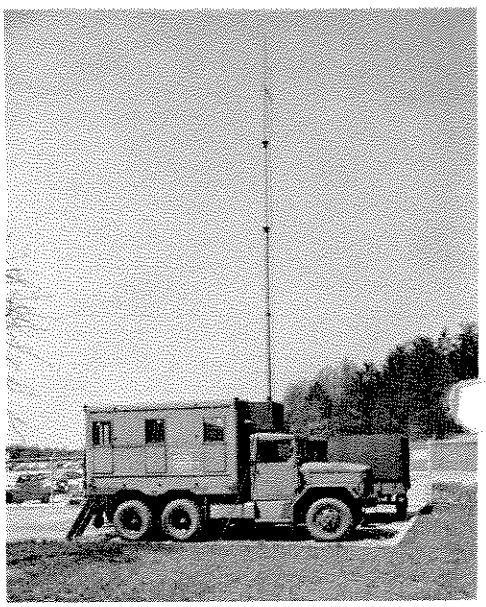
The corrective part of the job includes visits, telephone calls, and correspondence with vendors who have shipped us discrepant items, to assure that the vendor understands fully the nature of the discrepancies, and has taken effective action to prevent recurrence.

The Vendor Quality Control group, because of the large number of vendors covered, works closely with Incoming Inspection and Test groups, calling upon them to perform source product inspection where required.

DETAIL OF SYSTEM DELIVERY MADE IN JUNE RELEASED

Details concerning a Ground Surveillance System designated AN/MSS-2, delivered to the Army Signal Research and Development Laboratory during June, can now be released.

The system was a joint Boston-Falls Church effort. The Research phase of the contract was carried out under the direction of Research Branch Leader Dr. G. E. Fellows, while circuit development and system construction were accomplished by Project Engineer R. F. Thiem's group.

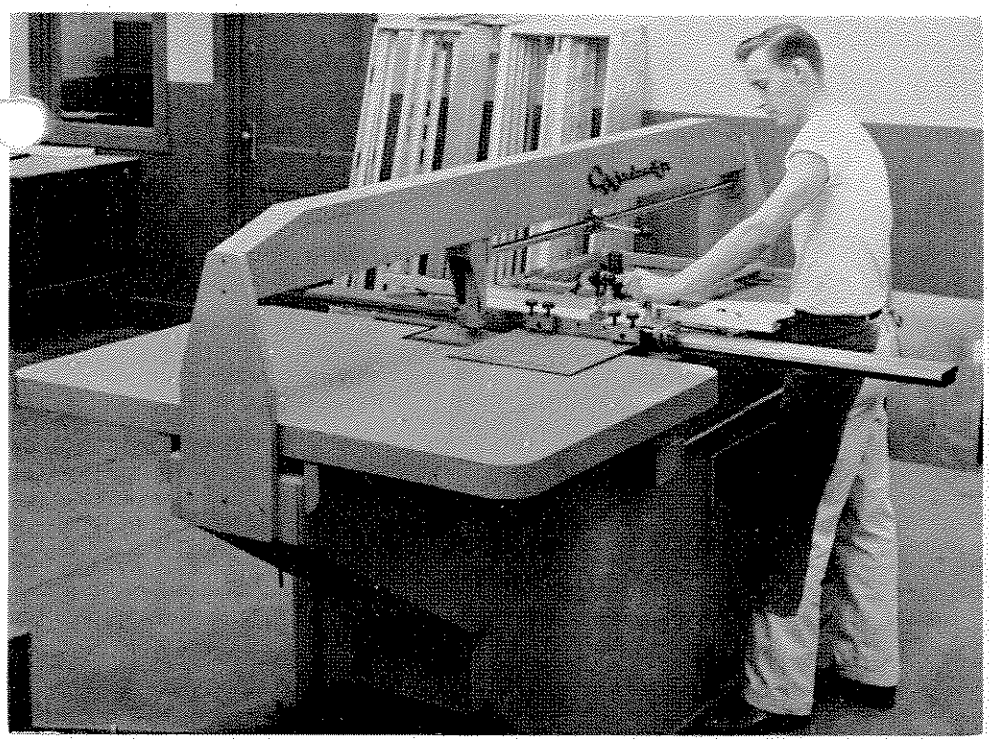


OPERATIONS CENTRAL, a data processing unit, is only one part of the Ground Surveillance System which was delivered during June to the Army Signal Corps. photo by Norton

The system is made up of three different types of units—an Operations Central, an automatic remote system consisting of a Detector, and a Receiver-Transmitter Radio. Operations Central is a data processing unit and is housed in a standard Army 6 x 6 Shop Van. The remote portion of the system was designed to operate unattended for a period of several days.

With the exception of radio frequency power circuits, the remote system was designed to use transistors throughout. Over 2200 transistors and 1600 semiconductor diodes are used in the remote portion of the system.

After evaluation by the Engineering Group at USASRDL the system will be tested at the Army's Electronic Proving Grounds at Fort Huachuca, Arizona. Melpar personnel will be called upon to supply engineering service for the system at that time.



PUNCHING OUT a template on the Arlington Sheet Metal Shop's new layout tool is Kenneth Birdsall. The machine effects significant savings in layout time. Photo by Norton.

ARLINGTON SHEET METAL SHOP ADDS LAYOUT EQUIPMENT

Accuracy and significant savings in man-hours of layout time are the outstanding features of a Wiedemann "Coordinator" recently put into operation at the Arlington Division's Sheet Metal Shop.

The machine is a precision layout tool for making templates, drill jigs and other work in flat sheet metal or plate.

Any layout point can be quickly determined by use of rectangular coordinates and two optical type position indicators. At the desired locations the machine drills holes which may either be used as a pilot for further punching, or for use on the turret punch press as the master template sheet.

Handling sheets up to 36 x 42 x 3/8, the machine has an accuracy of hole location to plus or minus .002 and allows templates and layouts to be made in a fraction of the time previously required.

WATERTOWN GAINS ADDITIONAL PLANT SPACE

Acquisition of an additional 11,500 square feet of plant space for the Watertown Plant was announced jointly last week by Anthony Abate, Watertown Plant Manager and R. B. Marsh, Director of General Services.

The additional space, adjoining that presently occupied, will be used for expansion of Engineering and shops at the Watertown Plant. Total space now occupied by the Watertown Plant is 43,600.

CLECKNER APPOINTED TO IRE POST

Section Head-in-Charge D. C. Cleckner, of the Falls Church Plant, has been elected Vice Chairman of the Professional Group on Engineering Management of the Washington Chapter of the IRE. Mr. Cleckner previously served as Secretary-Treasurer of the group.

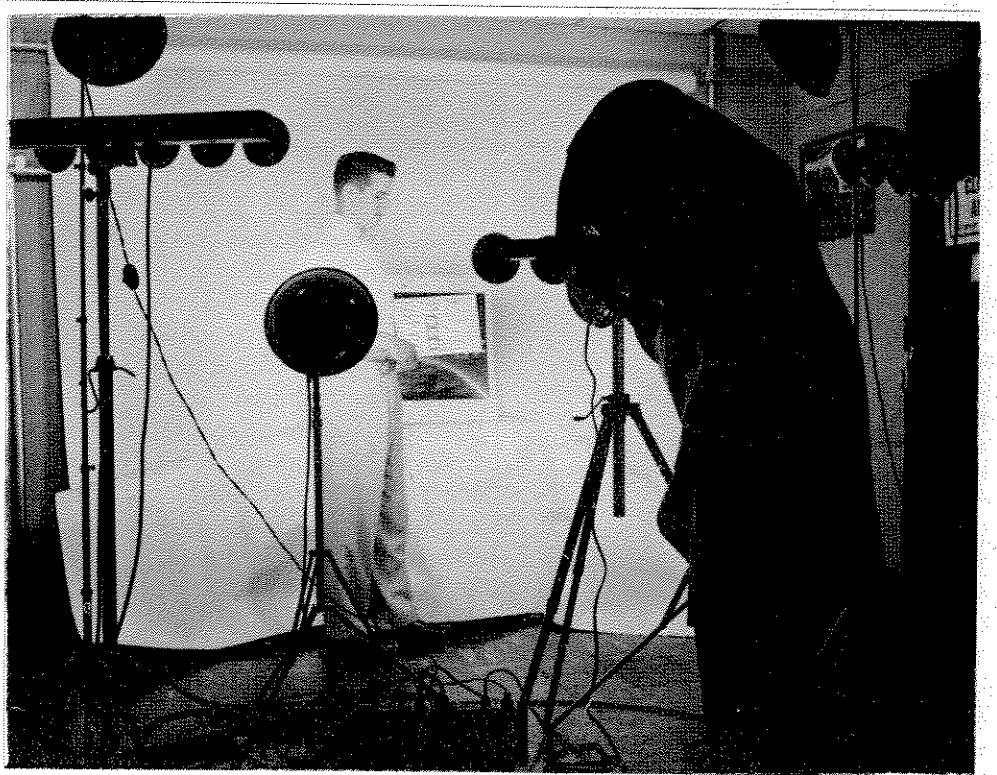
NEW MOVIE TO SHOW ICBM DISCRIMINATION METHODS

The Alexandria Plant was "location" for a new movie recently completed by the Photography Laboratory. Dealing with ICBM discrimination techniques, the full color movie will be shown to military procurement officials interested in such matters.

The film, part of a company sponsored effort in missile detection and discrimination, demonstrates new radar techniques developed by Section Head Leonard Kings and Project Engineer Donald Reiser, of the Alexandria Plant.

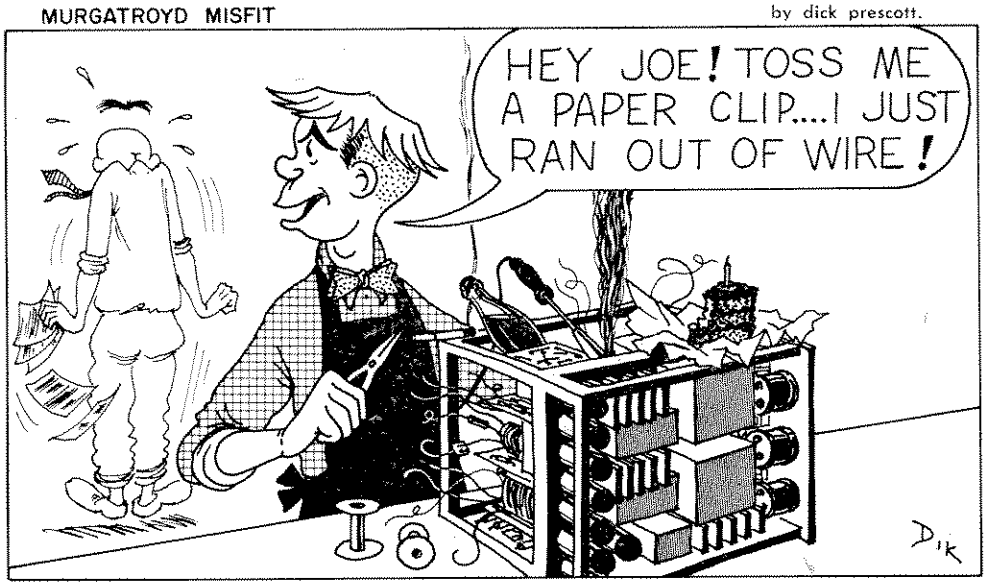
One of the first groups scheduled to view the film is the newly established Advance Research Projects Agency.

Actual shooting of the 1000 feet of film was done by Senior Photographer R. K. Sakamoto and Photographer G. L. Norton. Editing was a joint effort on the part of Mr. Reiser and Mr. Sakamoto, while certain sequences were prepared by Technical Illustrating under the direction of C. N. Allred.



TAKE ONE . . . Photographer G. L. Norton holds a scene card, while Senior Photographer R. K. Sakamoto, in foreground, checks the picture as they shoot a full color movie dealing with ICBM discrimination techniques. Photo by Tatroe.

MURGATROYD MISFIT by dick prescott.



Is this to "Mil-Specs," Murgatroyd ?

GOING UP!

E. J. Diehl, of the Bailey's Crossroads Plant and C. E. Bergman, of the Columbia Pike Plant have been promoted to Project Manager. Both are assigned to the newly designated Reconnaissance Systems Engineering Department. Also, D. R. Gibbs rose to Section Head and A. W. Vernon and F. J. Michel advanced to Project Engineer-in-Charge.

E. L. Cox has been promoted to Section Planning Supervisor. Also, at Falls Church, E. F. Henry, R. L. Kuchera and O. R. Kyler rose to Senior Engineer. At Columbia Pike, T. W. Beswick advanced to Engineering Assistant and A. J. Lyhus and M. E. Humphrey were promoted to Engineer.

Bailey's Crossroads promotions include F. M. Ammos and G. C. Kinney to Specifications Engineer, while B. J. Panella rose to Engineer.

H. P. Treakle, of Arlington, advanced to Senior Methods Engineer and J. G. Garcia, J. E. Bledsoe and G. C. Dowdy moved up to Assembly Group Leader.

R. W. Voelker, of Bailey's Crossroads advanced to Technical Editor and D. R. Roberts rose to Specifications Engineer. W. F. Hamilton and D. J. Smith, of Falls Church, were promoted to Engineer, while W. E. McKnew moved up to Accountant.

Also at Falls Church, W. B. Stout and V. R. Talerico rose to Senior Technician, while at Arlington, G. M. Tharpe advanced to Light Assembly Task Leader and E. C. Neville was promoted to Line Inspector Task Leader. G. M. Fitzpatrick moved up to Electro-mechanical Inspector 1st Class Task Leader and D. E. Sisson to Assembly Group Leader.

At Columbia Pike, J. A. Palmer was promoted to Junior Engineering Assistant. Alexandria announced the promotion of W. R. Little to Junior Planner.

Other Arlington promotions saw V. L. Blanton, C. L. Ennis, H. R. Maddox and L. E. Sager rise to 1st Class Light Assembley Task Leader. J. F. Kennedy, of Columbia Pike, advanced to 1st Class Heavy Assembler while C. J. Utt rose to Junior Engineer.

M. E. McClosky was promoted to Junior Accountant, at Falls Church, and H. G. Hartley moved up to Junior Engineer from Technician. J. T. Chandler advanced to Lead Engineering Aid and R. A. Compher to Planner. C. N. Gammon and R. C. Wright moved up to 1st Class Wire Technician and G. L. Norton advanced to Photographer.

C. D. Chestnut was promoted to Senior Technician, at Falls Church. At Arlington, M. T. Hlousek rose to 1st Class Precision Assembler and J. W. McCartney advanced to Junior Methods Engineer. W. E. Roberts rose to Light Assembly Task Leader.

G. R. Gill moved up to Senior Planner and P. E. Bowen was promoted to Senior Technician. W. D. Timbrook, of Bailey's Crossroads, rose to Junior Planner and S. A. Catron, of Alexandria, was promoted to Secretary.

ARRIVAL OF SIMULATORS AT DISTANT STATIONS REPORTED BY ARMED FORCES PAPERS

Notice of the arrival of Melpar flight simulators was given in the publications of two widely separated military bases, earlier this month.

The Moffett News edited at the United States Naval Air Station, Moffett Field, California, noted that the A4D trainer will be used to "enable pilots to develop skills and knowledges relative to normal, alternate and emergency ground and flight procedures; aircraft flight characteristics; and instrument navigation techniques including radio procedures."

Meanwhile, halfway around the world an F-101 simulator was being put into operation by the 81st Tactical Fighter Wing at Bentwaters, England. The base paper, "Centurion" reported the arrival, not only of the simulator, but of Melpar Field Service Engineers R. K. Arnold and R. R. Gerber.

In a front page story, complete with pictures of the simulator, the publication related the move of the simulator to England from Bergstrom Air Force Base, Texas. Noting the quality of the dev[illegible] the paper said, "the simulator has co[illegible]pleted (at Bergstrom) 1,722 training hours with only 11 hours being out of operation."

DUDLEY ARTICLE FEATURED BY STANDARDS MAGAZINE

An article by H. L. Dudley, Project Engineer in the Operations Analysis Department at the Alexandria Plant, was featured in a recent issue of "Standards Engineering." Entitled "The Development of Standard Electronic Circuits," the article deals with Mr. Dudley's work, on the U. S. Navy's Bureau of Aeronautics contract, to evaluate preferred circuits under certain specified electrical and environmental conditions.

His article further touches on work done by Melpar in connection with Mini-Mech, a machine for automatically assembling component parts on printed circuit boards.

Mr. Dudley, a graduate of the University of Virginia, has been continuously engaged in the field of the selection proper electronic components for reliable operation of military communications equipment, not only at Melpar, but previously for the National Security Agency and Vitro Corporation.