

MELPAR-A-GRAPH

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Prototype F-101B Weapon Simulator Accepted



TAKING A CHECK FLIGHT . . . Major General Lloyd Hopwood, Director of Air Force Personnel Procurement and Training, watches as Colonel Bernice Barr, Chief of Special Training Devices Division of the Air Force, takes a check flight during tests of the prototype Melpar F-101B Weapon System Simulator. Photo by Meinke

Seven Melpar Representatives Attend World Flight Congress

Seven Melpar men, including President Thomas Meloy, took part in the World Congress of Flight held in Las Vegas, Nevada, from April 12-19.

Vice Presidents A. C. Weid and C. B. Raybuck, Engineering Services Director J. P. Chambers, Military Project Planning Manager R. I. Cole, and Engineering Representatives E. L. Becker and J. L. Hester, in addition to Mr. Meloy, attended the Congress' symposiums, conferences and demonstrations.

Over 5,000 leaders from industry, government and education attended the Flight Congress, first international event of its type ever held in this country. The Congress' program was highlighted by a gigan-

tic exhibition of aeronautical and electrical equipment.

Military flying and firepower demonstrations at Nellis Air Force Base were also attended by the Melpar representatives.

While at Nellis, Messrs. Weid, Raybuck, Chambers, Becker and Hester visited Melpar Field Service Engineers B. L. Snyder and H. A. Campbell who are stationed at the base. Field Service Area Representative S. V. Covaleski was there during the visit.

Weid, Raybuck, Chambers and Operations Analysis Director H. W. Riley also visited the Melpar Tuscon plant during the week of the Congress.

The Wright Air Development Center recently completed engineering acceptance tests on the prototype Melpar F-101B Weapon System Simulator. First of a number of F-101B's presently being built by Melpar for the Air Force, the simulator was shipped to Otis Air Force Base, Mass., on April 29.

Engineering acceptance of the simulator came after seven weeks extensive testing by representatives of the different agencies involved in the production and use of the actual aircraft.

The test team, composed of personnel from the Wright Air Development Center, McDonnell Aircraft, Hughes Aircraft and representatives of the Air Defense Command, started the tests in January and completed them in March.

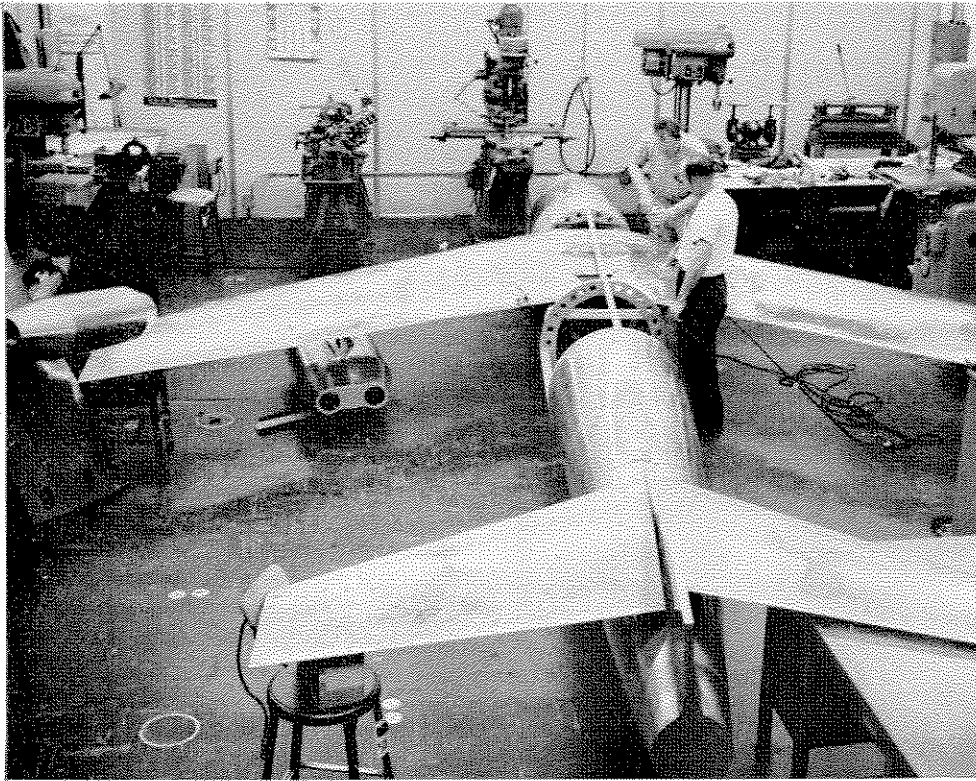
One of the largest analogue computing machines ever built, the F-101B Weapon System Simulator is designed to familiarize crews with the handling, mission operations and emergency characteristics of the F-101B Interceptor Aircraft.

Several top Air Force officials, including Major General Lloyd Hopwood, the Director of Personnel Procurement and Training, and Colonel Bernice Barr, Chief of Special Training Devices Division, observed portions of the prototype testing.

HOLIDAY

Melpar employees will enjoy a three-day weekend this month, the second in three months. As a matter of fact, five of the Company's seven paid holidays will be celebrated during three-day weekends in 1959, an event that will not be equalled until 1964.

Memorial Day, our next paid holiday, will fall on Saturday, May 30. We will observe that occasion with three days off on Friday, Saturday and Sunday, May 29-31.



MELPAR SHOP VERSATILITY . . . is graphically illustrated by the above photo. Falls Church Sheet Metal Men R. M. Campbell and L. D. Groer apply aluminum 'skins' to a 26-foot-long, wooden airplane frame in the Sheet Metal Shop. The wooden model frame was built in the Leesburg Pike Carpenter Shop. Group Leaders Darius Jose, Jr. and J. L. Sibole and Sheet Metal Men E. D. Pike, W. W. Goings and E. L. Lantz helped complete the aluminum fabrication. The one-quarter scale model will be used for measuring antenna patterns at Melpar test ranges.

Photo by Norton

NIGHT AND DAY

Skilled Melpar Builds Assorted

Fortified by a crew of 50 skilled men, Melpar's Carpenter force, under the direction of Assistant Maintenance Supervisors A. N. Strobeck and J. C. Koval, builds everything from plant partitions to precision scale mock-ups.

The group is equipped with a large assortment of permanently mounted power tools, most of which are located at the Leesburg Pike #1 plant. With these tools they build a continuous flow of wooden jigs and fixtures for the different Company departments.

The Carpenters also repair desks, build shipping boxes and scale models. Facilities for building mock-ups and jigs are also located in the Falls Church garage.

The Carpenter Shop at Leesburg Pike recently built a 26-foot wooden air-frame for a one-quarter scale model aircraft.

Nine members of the force are pres-

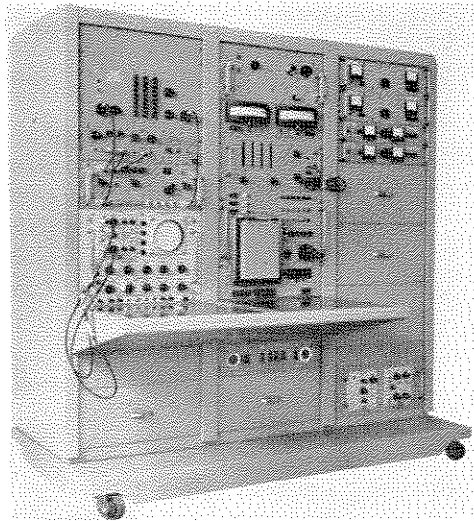
FIELD ENGINEERS RECEIVE ACCLAIM BY BASE PAPER

Paul Staiger, Melpar Field Service Engineer at Moody Air Force Base, Georgia, has recently received acclaim by that Base's newspaper for his innovations applied to the F-86 Training Simulator.

The paper's article, accompanied by a picture of Mr. Staiger with the Base Commander and the Commander of the Training Group, explains tie-in of the flight simulator operation directly with the Ground Control Intercept sites.

Basically, the tie-in arrangement allows simulator information to be fed to ground site computers and back to the Melpar simulator for use in creating a synthetic interceptor mission. This operation also allows the Controllers at the Ground Control Intercept sites to practice intercept problems without the use of aircraft.

The paper also gives credit to Melpar Field Service Engineer James G. Sofaly for wiring the new chassis and over-all tie in research for the project.



WATERTOWN'S BIG BABY . . . Melpar's Watertown plant is presently in the final stages of developing a self-contained unit designed to test modules and subassemblies of Shore Support Equipment for the POLARIS Missile. The unit is being built for the General Electric Company, subcontractor to the Bureau of Ordnance. Called the Maintenance Analysis Test Set (MAT5), the unit basically provides connections for testing pieces of the support gear's electronic equipment and facilities for monitoring the test signals. A versatile switching arrangement on the set allows an operator to put into operation only those units of the tester that are needed for a particular test.

Photo by Larkin



SETTIN' HIS SIGHTS . . . Cabinet Maker J. C. Oli that was recently built in the Leesburg Pike Carpe work performed by Melpar's Carpenter force.

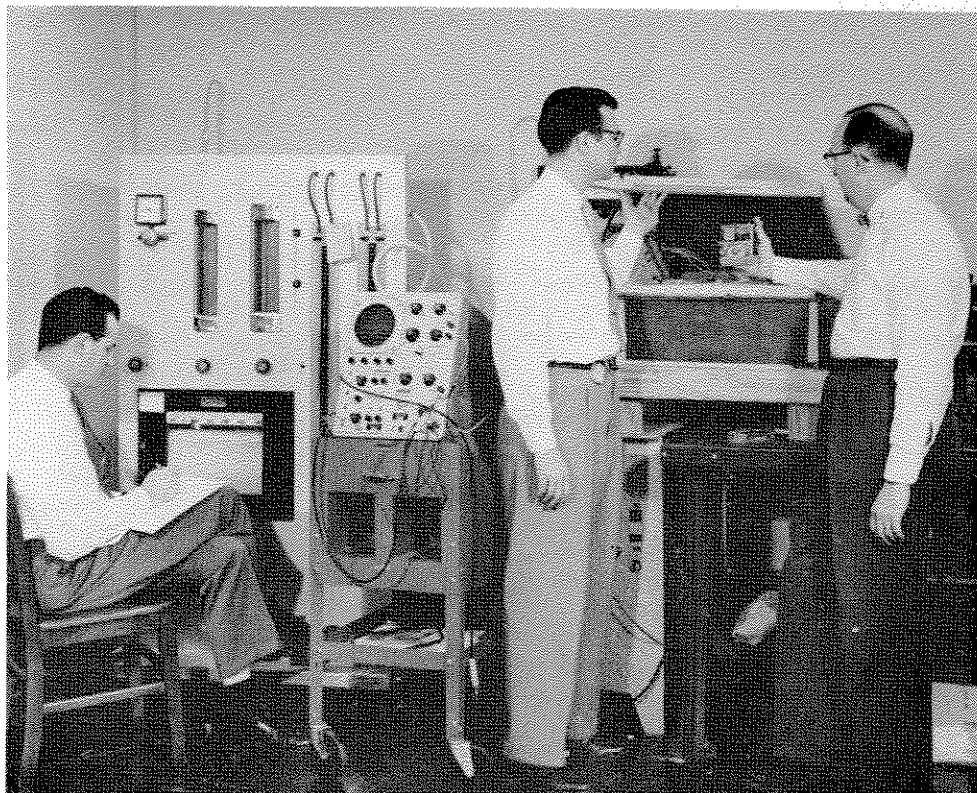
Carpenter Crew Jigs, Fixtures

ently engaged in one of the biggest jobs ever attempted by the Carpenters. A false floor, raised above the original floor to allow room for high current wires underneath, is being built at Leesburg Pike #4 for Project Finder.

The Field Carpenters are charged with the responsibility of preparing all new buildings for Company occupancy. Preparing the Shirley Highway plants for occupancy was one of the crew's biggest recent jobs.

Electronic equipment mock-ups are also built in the field (Manassas, Centerville, etc.) by the Carpenters.

Six members of the Carpenter force perform their duties at night. These men carry on any uncompleted work of the regular day crew and accomplish the maintenance work which cannot conveniently be done during the day.



GETTING SET AT ALEXANDRIA . . . Project Engineer H. L. Dudley (extreme right) prepares to insert a module board in the test fixture being held open by Senior Engineer A. M. Maher. Engineer H. F. Snelling takes temperature readings from the module test fixture that was designed and built by the three men.

Photo by Norton

Alexandria Group Develops Tester for Module Boards

Several new developments in the field of module boards, including a test fixture that describes the amount of cooling air necessary to keep a module operating reliably, have been devised by Project Engineer H. L. Dudley's group at the Alexandria plant.

The developments were conceived during the revision of MIL-E-19600-A (Aer) specification for the Bureau of Aeronautics, under a U. S. Naval Air Development Center contract.

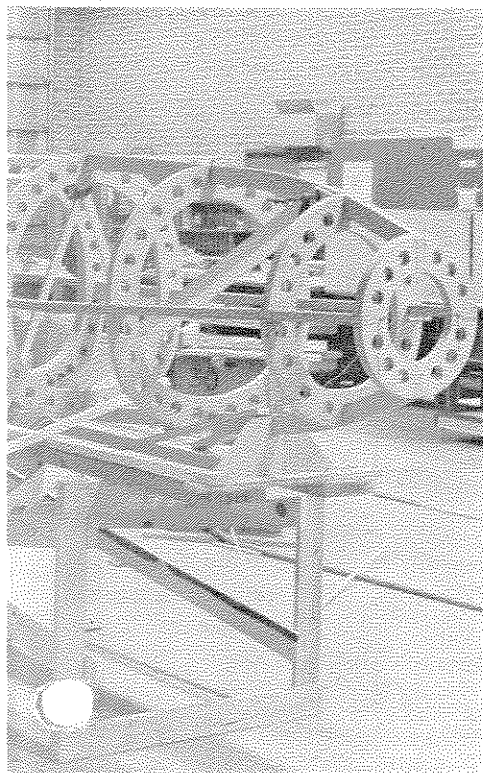
Apparently the first of its kind ever built, the module cooling test fixture was developed by Mr. Dudley, Senior Engineer A. M. Maher and Engineer H. F. Snelling. It is equipped with heated walls for maintaining effective insulating temperatures and may be adjusted to simulate higher or lower temperature environments.

Under the NADC contract, Mr. Dudley's group has designed several types of modules. These modules meet the new specification and are being tested in accordance with it.

The group has also devised a unique modular plug-in chassis, a novel means for power transistor mounting and a more efficient forced air method for cooling electron tubes and transistors.



SORRY MAC! YOU'VE
GOT THE WRONG SHIRLEY?



looks over a 26-foot wooden air frame fuselage mock-up in the variety of Shop. Mock-ups are included in the variety of Photo by Tatroe

GOING UP!

Falls Church promotions include J. F. Yarnall to Junior Accountant and E. M. Lavelle and R. H. Fink to Payroll Assistants. D. C. Trott advanced to Supervisor of Professional Employment and J. Spivak rose to Senior Buyer.

A. N. Jackson advanced to Engineering Services Representative and P. E. Reed and A. H. Singer were promoted to Chemical Engineers. S. A. Trolley rose to Junior Planner and C. A. Taylor became a Junior Chemical Engineer.

C. E. Sprenkle, P. J. Booth and G. B. Milstead were promoted to Junior Engineers. R. W. Wright advanced to Carpenter Group Leader and E. H. Murphy rose to Electrical Group Leader. B. L. Gates became an Engineering Assistant. J. C. Koval was promoted to Assistant Maintenance Supervisor and J. H. Myers rose to Assistant to Shipping and Receiving Foreman.

Bailey's Crossroads promotions include F. Brassfield to Senior Engineer and W. H. Kenney to Lead Duplicating Operator. H. M. Poulter advanced to Project Engineer and F. A. Haag rose to Junior Planner. C. W. Way became Assistant Fabrication Supervisor and W. E. Barnette advanced to Senior Draftsman.

J. M. Turkiewitz was promoted to Engineer and A. D. Hale rose to Senior Engineering Assistant.

Leesburg Pike promotions include E. F. Evers and R. W. Freeman to Engineer. W. R. Anderson advanced to Senior Engineer and W. R. Goode rose to Junior Planner. R. A. Thompson became a Senior Engineering Assistant and H. S. Townsend was promoted to Lead Porter.

At Arlington M. E. Garner advanced to Project Engineer and W. F. Clifton rose to Senior Material Control Clerk. R. E. Kelly was promoted to Junior Engineer and C. L. Ennis rose to EMI Group Leader.

Alexandria Promotions include W. C. Rhodes and R. Andrel to Senior Engineers.

Boston and Watertown promotions include W. B. Floyd to Assistant Brach Leader and W. J. Velmure to Model Maker. G. F. Ruggiero was promoted to Senior Engineer.

Columbia Pike promotions include J. W. Land to Junior Engineer and E. A. Spangler to Engineer. J. L. McLean was promoted to Senior Personnel Representative.

Shirley Highway promotions include A. W. Dawkins to Secretary and T. L. Alnutt to Senior Engineer.

ANOTHER STEP FORWARD

New Applied Science Division Added to Company's Facilities

The creation of Melpar's Applied Science Division, the Company's third completely integrated division, was announced by Executive Vice President and General Manager E. M. Bostick on April 22.

The establishment of the new division is one of Melpar's many organizational and physical expansion moves in past months. The Company only recently moved into new plant space at the Leesburg Pike, Manassas and Shirley Highway plants.

Dr. Thomas P. Cheatham, Jr., has been appointed Manager of the new division, which embraces Melpar's two Massachusetts plant facilities in Boston and Watertown.

The Applied Science Division, in the words of Mr. Bostick, "... augments Melpar's overall capability for handling major study and design projects ..."

The new division is organized into two separate but integrated departments—the Research Department in Boston and the Advanced Design Department in Watertown.

Dr. David Van Meter has been appointed Manager of the Research Department and Dr. Glenn E. Fellows was appointed Manager of the Advanced Design Department.

Taking its place with Melpar's Engineering and Production Division, the new division is dedicated to Melpar's maintained leadership in research and design.

JONES TO GIVE REPORT

Senior Engineer Stanley R. Jones of the Antenna and Radiation Systems Engineering Laboratory will present a report on "Polarization Control with Oppositely Sensed Circularly Polarized Antennas" at the National Aeronautical Conference to be held in Dayton, Ohio, on May 4.

Co-author of the report is E. M. Turner of the Wright Air Development Center.

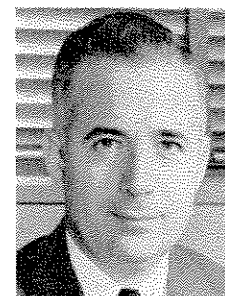
WILLIAMS' ARTICLE IS MAGAZINE TOPIC

"Human Performance Criteria in Man-Machine Systems" is the title of an article by Human Factors Engineering Supervisor H. L. Williams, featured in the February issue of the *Missile Design & Development* magazine.

In his article, Mr. Williams explores the question of frequency of success-

ful human performance in connection with the development of man-machine systems.

He also stresses the importance of a need for a program to collect, classify and disseminate human performance data.

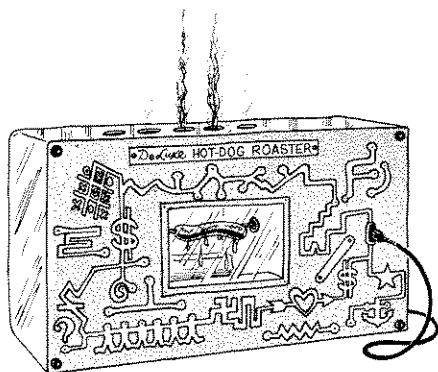


H. L. WILLIAMS

"Certainly such information, if abundant, would provide an additional tool for design and reliability engineers which would assure greatly improved man-machine system performance," Mr. Williams states in his article.

IN THE INTEREST OF SCIENCE

by DIK



"...THE SECRET OF ITS SUCCESS LIES IN THE CIRCUIT CONFIGURATION..."