MELPAR-A-GRAPH

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

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HALF-YEAR RESULTS REVEAL GAINS

FOURTH SERIES OF IN-PLANT COURSES OPENS NEXT MONTH

The Company's fourth semester of college accredited, in-plant courses will begin in late September at Falls Church and Arlington. Since the program began, in November, 1955, a total of 111 Melpar people have saved time, effort, and money by taking advantage of this in-plant study method.

Even greater savings will accrue to Melpar people as this fourth semester opens; in addition to the reduction in total cost of a particular college course, Melpar's Tuition Refund Plan will return 50% of its net cost to any permanent full-time employee successfully completing it.

A George Washington University course priced at $48 on campus is listed at $36 for our in-plant program. The Company's Tuition Refund Plan thus results in a net cost of $18 for that course.

Registration for in-plant courses to be conducted by George Washington University instructors will be held in the main conference room of the Falls Church laboratory on September 12, from 9:30 a.m. to 12:00 noon.

Registration for courses to be conducted by University of Virginia instructors will be held at the Northern Virginia Center, 1206 North Quincy St. (Washington and Lee High School), Arlington, through September 25. The registration office is open from 9:00 a.m. to 8:00 p.m. Monday through Friday, and from 9:00 a.m. to 1:00 p.m. on Saturday.

Classes will meet two evenings each week, from 5:45 p.m. to 7:15 p.m. either on Monday and Wednesday, or on Tuesday and Thursday. The Personnel Department has distributed a tally sheet to all employees, on which they can indicate preference among the courses in Electrical Engineering and Mathematics, and can name other courses of interest.

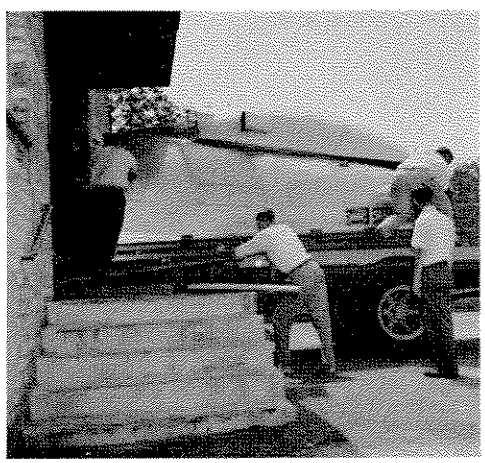
It is possible to conduct six different courses in one semester at Falls Church by using the main conference room, the employment office reception room, and the cafeteria. Two courses can be held each semester in the conference room of Arlington's Building 9F.

A. KING McCORD BECOMES NEW WABCO PRESIDENT

A. King McCord will assume the duties of President of Westinghouse Air Brake Company on Tuesday, September 4. Election of Mr. McCord was announced recently by E. O. Boshell, Chairman of the Board.

Since 1951, Mr. Boshell has served both as Chairman of the Board and President of the Company. The extensive diversification program now effected made it advisable to separate the responsibilities of the two posts, Mr. Boshell stated.

Associated with The Oliver Corporation, makers of agricultural and construction equipment, since 1930, Mr. McCord has been president of that company since 1950.



A SMALL PART of a big shipment . . . *Cockpit of the F101A Simulator is being rigged onto a truck bed in preparation for loading into an enclosed van. Three trucks were required to move the 35,000-pound installation from Falls Church to its USAF Destination.*

ALL PHASES OF OPERATION CONTINUE UPWARD TREND

Steady progress on all fronts was the watchword for Melpar during the first six months of 1956. Employment rose to new heights each month, keeping pace with expanding sales and shipments. New contracts, covering a wide variety of research and development and production activity, were assigned the Company by government agencies and prime contractors.

During the half-year, Melpar employment rose from 1850 to 2297, a gain of 24 per cent. However, our recruiting campaign continued, and will continue, unabated as we gear our effort toward even greater volume in the future.

Our sales for the six months ending June 30 totalled $12,468,256. Outstanding in an extensive list of items shipped during the period were the five AN/MSQ-1A Ground Support Radar sets under sub-contract with Reeves Instrument Corp. Production of many more of these complex equipments is continuing in our Arlington Division.

Other first-half shipments included ordnance equipment, many types of antennas, training aids, a central data processing system, a d-c computer system, and electronic sub-assemblies produced by our Mini-Mech automatic assembly machine.

New contracts, valued in excess of $15,000,000, will keep the Company active in many familiar phases of electronics, and lead it as well into new aspects of this constantly expanding field. The new work assigned us ranges from research in military logistics to the production of radar beacons. It includes a communications system and new terminal equipment, new antenna designs and further work in speech compression. We are to develop a radar target simulator, and build airborne radar. While we are evaluating the nation's civil defense communications system, we will be working on an advanced tape recorder and a countermeasures trainer.

OPINION

The word 'cooperation' has led a rugged life in recent years. So mauled and battered has it been, that Mr. Noah Webster would not recognize it. If he did—he might disown it.

Much too often, it seems that the sole use of the word is as a negative . . . he, or they (but seldom we), "won't cooperate". Translated—the other guy is too bullheaded to do some simple little thing the **right** way. The fellow who ducked, and let the rolling pin clobber the bric-a-brac, didn't cooperate.

Cooperation is no mechanical thing. The various parts of an assembly don't 'cooperate'. No designer can apply a tolerance to cooperation. The measure of concerted application to the task at hand is the degree of cooperation achieved, by individuals and enterprises. It is simpler to describe a lack of cooperation, rather than its existence. And it's more fun. The descriptive words available are so much more colorful.

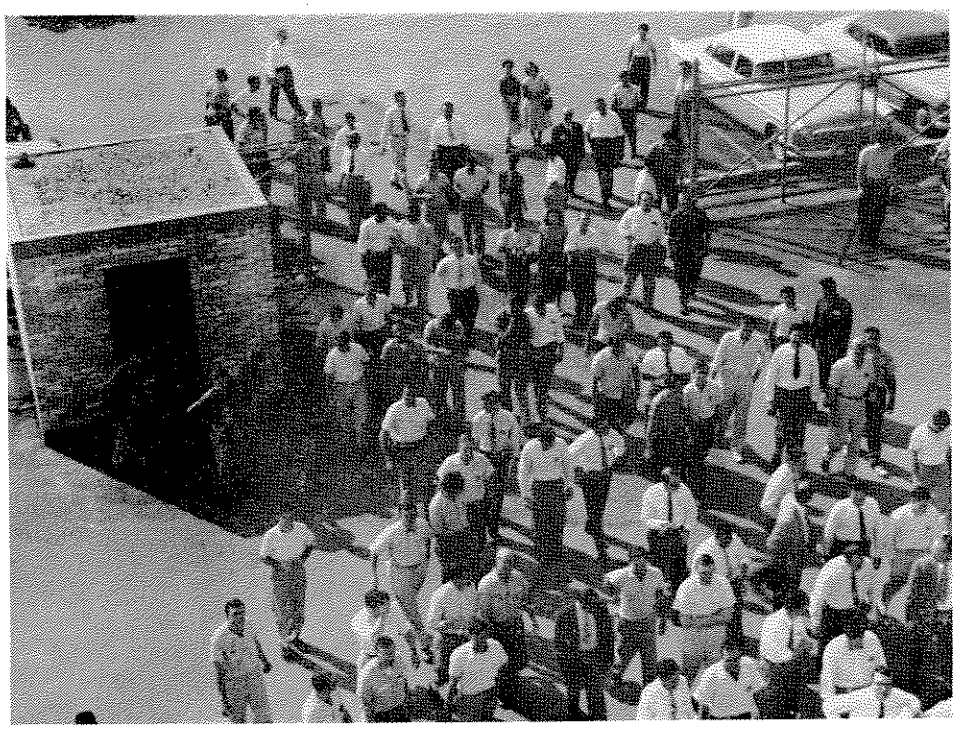
Scrabbling around in the grab-bag of language for a plain definition (like the child's: 'a hole is to dig') of the word, it comes up that cooperation is when reasonable people pretty much pull together and get something done in sensible fashion.

That doesn't leave any room for drum-beating, and doesn't produce any one day heroes. As a slogan, it won't sell much salt. But, if you care to subscribe to it—it will make the work you do a bit easier, more productive, more satisfying. Especially when you discover that the next man is willing to go along with it, too.

Try looking around for signs of cooperation in our every day affairs. They're there. This Company didn't get where it is by charging off in all directions—every man for himself and devil take the hindmost.

A word of explanation accompanies the instruction. The man behind you moves his work a bit faster now and then, because he happens to know you need time to make your move. When you step into a new assignment, some information is volunteered—and turns out to be right.

You'll find it happening quite often, if you're alert. And it's contagious. The first thing you know—you're cooperating.



ALL CLEAR . . . *as evacuees return to their posts at Falls Church following the plant's first full-scale evacuation drill. Triggered without prior warning, the clangorous bells of the automatic alarm system emptied the 265,000-foot building in short order. The vast amount of highly classified material and data always present in the laboratory introduces complications into what may seem a simple matter of 'git up and go'. Personnel assigned to the task must first secure all such matter in their respective areas.*

MELOY TO ADDRESS PENN STATE GROUP

Melpar President Thomas Meloy is scheduled to participate in the Tenth Annual Conference on Administration of Research at Pennsylvania State University on September 5. Mr. Meloy will join a symposium devoted to "Research on Research", and will discuss the problem of "Stretching Our Short Supply of Scientific and Engineering Manpower".

The other members of the "Research on Research" panel are Dr. Ellis Johnson, Director of the Operations Research Office at The Johns Hopkins University, and Dr. George Gamow, of George Washington University. Approximately 150 representatives of industry, universities, and government are expected to attend the conference.

In his discussion, Mr. Meloy will advocate greater use of electronics as an aid in overcoming the problems provoked by the rapid growth of physical science, with its consequent huge demand for technical manpower. He will propose that an agency such as ASTIA undertake a program of data processing and magnetic storage designed to feed contractors' 'information requests' into computers which would extract all the currently known and relevant information affecting the request.

MELPAR BUILDS NATION'S FIRST HELICOPTER FLIGHT TRAINER

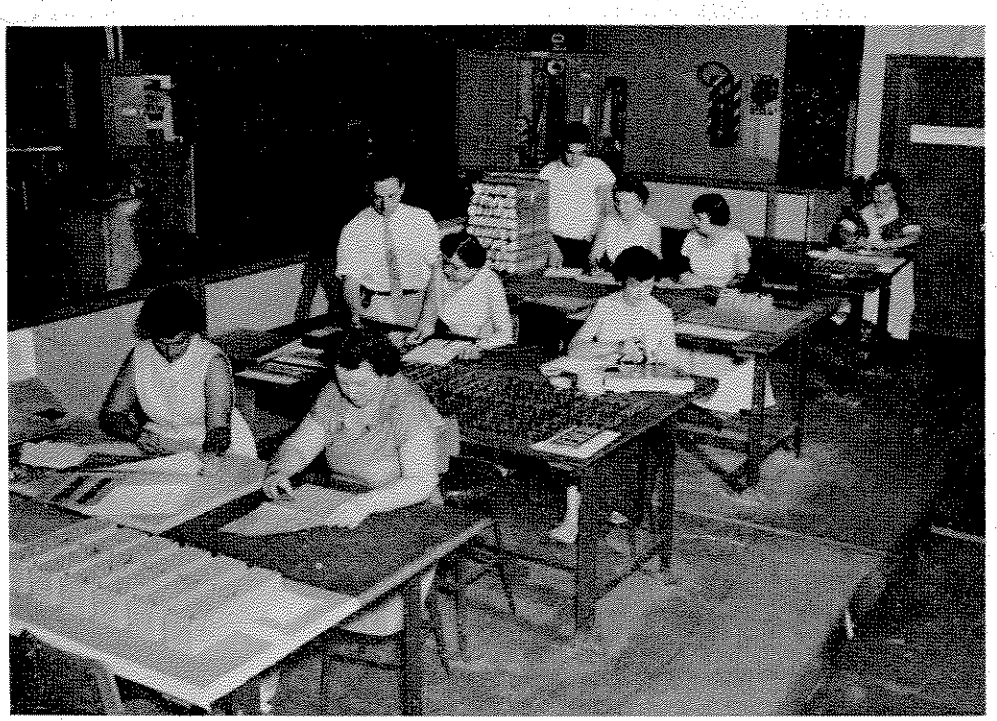
The challenging task of designing, developing, and constructing the first full-fledged helicopter operational flight trainer in the country's history has been assigned to Melpar.

The Training Device Center, Office of Naval Research, will administer a contract which allocates Army Research and Development funds totalling $1,983,981 to the project.

The new simulator will match the H-37A twin engine, 48-passenger, single rotor aircraft being built by the Sikorsky Division of United Aircraft Corp. A unique simulation feature will be introduced by the use of transparencies depicting a wide variety of ground scenes, thus providing a highly realistic optical illusion of flight to the pilots in training.

Project Manager J. L. Clark's Section is responsible for the project, while a great deal of data computation and verification work is expected to be done by the Research Department, Melpar-Boston, on its high speed computer.

CHEMICAL MACHINING PROCESS REDUCES STENCIL COST IN ARLINGTON DIVISION



'MACHINE SHOP', MODERN STYLE . . . *These Arlington Division people are manufacturing stencils by means of chemical machining. From left to right and front to rear: Anita Albright, Audrey Early, Walter May, Mary Gilliam, Margaret Cio, Jack Lynn, Esther Disque, Elva Potter, and Alice Warwick.*

A manufacturing process aptly named "chemical machining", now in use at Arlington Division, produces stencils at such low cost that the used stencil has joined beer bottles as a 'throw-away' item.

Metal-working in this fashion first was developed by the aircraft industry to combat the cost problem in short-run production, where elaborate tooling cannot be justified.

In conventional practice, stencils have been fashioned slowly and painstakingly on an engraving machine; one or two hours' manufacturing time has not been uncommon. Revising the finished product, by soldering and re-engraving, has been equally time-consuming. Now—minutes are the measure.

A full scale positive master transparency is laid out by placing adhesive backed preprinted circuit symbols on an acetate film. A sheet of .005" thick copper, treated with light sensitive Kodak Photo Resist, then is exposed with the master and photographically developed. A short period in a ferric chloride bath etches out the lettering and leaves a stencil of high definition, which can be discarded after use.

Making stencil changes by means of Arlington Division's chemical machining process now is as simple as changing a Band-Aid. The circuit symbol to be changed is peeled off the master transparency, the correct one is applied . . . and a new stencil comes forth in short order.

Many Melpar people have worked with this facility or have contributed to its success during the several years of its development. Among them are Light Assemblers Louise Brady, Margaret Cio, Beulah Combs, Esther Disque, Audrey Early, Mary Gilliam, Pearl Hoagland, Jack Lynn, Elva Potter, and Alice Warwick.

Broader applications of the process now are being investigated by Project Engineer Don Sawtelle and Engineer Bob Nelson. By introducing modest changes, principally in the chemical formula, they believe they can turn out production quantities of printed circuitry.

Melpar engineers and designers interested in applying the technique to particular products or problems can obtain technical details from Arlington Division's Engineering Section. Walter May, Stencilling Group Foreman, will gladly demonstrate the facility to all comers.

IRE WESCON MEETING HEARS TWO MELPAR PRESENTATIONS

Technical papers were presented by two Melpar representatives at the recent Wescon meeting of the IRE, held in Los Angeles. R. I. Cole, of the Engineering Services Department, offered a "Visual Communication System" — co-authored by B. R. Boymel and V. I. Weihe.

The paper outlined the authors' conception of a new technique for meeting the demands of air/ground communications. Basic to the system is a method of ground-to-air transmission of visual messages which are received in the aircraft and held in a bright storage display tube. Messages stored thus, until released, permit error checking and information correlation by the human eye and brain.

Second of the Melpar presentations was a paper entitled "Packaging of Transistorized Assemblies", given by Project Engineer A. A. Lawson and co-authored by R. J. Simms.

WORK ON STORM INDICATOR IS PRAISED AT WATERTOWN

Commendation for "a job well done" has been extended to Melpar-Watertown following its delivery of a Severe Storm Indicator and Sferics Counter to the Air Force Cambridge Research Center.

In a letter addressed to Anthony Abate, Watertown Plant Manager, Contract Monitor Wilbur H. Paulsen stated 'not only is the equipment well designed and well constructed, but it was delivered ahead of time, even though the schedule had been set up very tightly'.

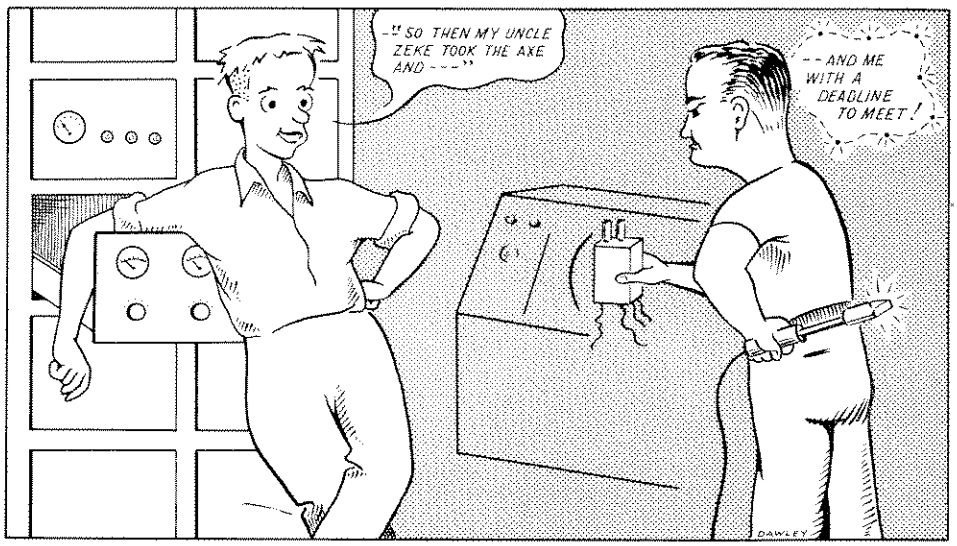
The Watertown equipment now is in operation at Tinker Air Force Base, Oklahoma. It displays information transmitted by a spheric and radar network seeking tornado activity in time to give warning to threatened population centers.

DEPUTY DEFENSE SECRETARY COMMENDS McCANLESS FOR WEAPON SYSTEM WORK

Deputy Secretary of Defense Reuben B. Robertson, Jr. has expressed his personal thanks for the cooperation extended by Melpar to the Department's Ad Hoc Committee on Manned Aircraft Weapon Systems over the past few months.

In his letter, addressed to Melpar President Thomas Meloy, Deputy Secretary Robertson reserved particular praise for Falls Church Engineer Charles P. McCanless; the letter declares that Mr. McCanless 'made a real contribution to the completion of our study'.

Mr. Murgatroyd Misfit



"Murgatroyd --- you're holding it up!"

GOING UP!

E. H. Pierce has been named Staff Assistant to the Vice-President for Research and Engineering; Captain Pierce previously served with the Engineering Services Department.

At Falls Church, two new Project Engineers have been appointed: C. E. McGinnis and D. R. Gibbs, both former Senior Engineers. C. W. Morrow, T. R. Bristow, and K. L. Hanlin were promoted from Engineer to Senior Engineer.

Promotions were announced in Arlington Division's Production Planning and Control Department. E. Waro rose from Procurement Planning Supervisor to Section Planning Supervisor. W. R. Davis now is a Project Planning Supervisor, having been promoted from Senior Procurement Planner. R. D. Kelly, former Senior Production Planner, also was named a Project Planning Supervisor.

New Senior Planners at Arlington Division are B. E. Serrin and C. Meacham, former Procurement Planners.

Three promotions were made at Melpar-Watertown. R. L. Phelan rose from Stock Clerk to Junior Procurement Planner. D. J. Doxtader moved up from Technical Writer to Senior Technical Writer. J. Hodge was promoted from Maintenance Man to Machinist "B".

At Falls Church, R. J. Simms is now a Senior Engineer, having been promoted from Engineer. Also promoted from Engineer to Senior Engineer were W. E. Perry and C. R. Killian.

Promotions took place among Quality Control personnel assigned to Arlington Division. R. J. Bottenfield rose from Engineer to Senior Engineer. S. E. Armstrong and D. E. Lewis were named Assistant Test Supervisors.

Appointment of two Staff Assistants to the Chief Engineer was announced at Falls Church. Now in those posts are former Project Engineer W. M. Furlow and former Senior Engineer Coleman Goatley.

In Arlington Division's Production Department, the promotion of Methods Engineer O. J. Kennel to Sub-Assembly Foreman was announced. N. B. Bonner became a Light Assembly Task Leader; C. Dolinger rose to 1st Class Assembler, as did G. E. Sessions. Another newly named Sub-Assembly Foreman is C. G. W. Cole, former Methods Aid.

Promoted from Technician to Junior Engineer at Falls Church were J. W. Walker and G. S. Savitsky. H. O. Ambrose rose from Technician to Senior Technician. New Lead Technicians are R. W. Smith and G. Stewart, both upgraded from Technician.

A. D. Robbins, of Arlington Division's Engineering Department, was promoted from Engineer to Senior Engineer. R. S. Peck rose from Junior Production Planner to Production Planner.

Other Falls Church promotions saw C. E. Francis move from Procurement Planner to Senior Planner. C. R. Shenton now is an Assistant Supervisor, having been promoted from Group Leader. F. O. McClellan, former Junior Engineer, now ranks as an Engineer. C. Curtis moved up from Technician to Junior Engineer, as did G. Hall Jr. M. R. Huntington has been promoted from Technician to Senior Technician, and R. W. Smith rose from Technician to Lead Technician. Former PBX operator R. C. Willis was promoted to Secretary.

Melpar-Boston announced the promotion of G. S. Sebestyn from Research Engineer to Senior Research Engineer. At the same plant, K. H. Berry rose from Technician to Senior Technician.

'What's Our Policy'

"What does the Tuition Refund Plan do for me?"

The Company installed its Tuition Refund Plan as the most direct and practical way open to it, of encouraging Melpar people to improve their formal technical education. We want the Plan to do three things. We want it to make an employee inherently more valuable in himself. We want it to make an employee more valuable to the Company. And we want it to help, however modestly, in countering a dangerous situation in our country: the growing shortage of scientific and engineering manpower.

The Tuition Refund Plan reimburses you for one-half of your net cost for tuition and laboratory fees when you successfully complete an approved course. The Personnel Department will counsel you on the type of course you can take under the Plan.

You don't have to undertake a full-fledged curriculum, leading to a bachelor's degree, in order to take advantage of the Plan (although the **MELPAR-A-GRAPH** hopes some day to publish a picture, in color, of the first Melpar man or woman to achieve that). Maybe a course in shop math or the fundamentals of radio interests you. If so—sign up. We'll go Dutch with you on the tab.

Need a refresher course in physics? Or operational analysis of linear systems? Are those 1950 textbooks a little old hat? If so, get with it. We're with you.

Form PER-211 does it. Fill out one for each course you propose to take and give it to your superior at least 10 days before you register. On it, show the cost of tuition, and of lab fees. If you are a veteran and plan to take advantage of Public Law 550 (Korean Bill), your tuition costs will **not** come under Melpar's Plan, since they are paid in full by the government. On the other hand, lab fees are not covered by the VA; they would qualify under Melpar's Plan.