MELPAR-A-GRAPH

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

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SIMULATORS TO BE PRODUCED HERE

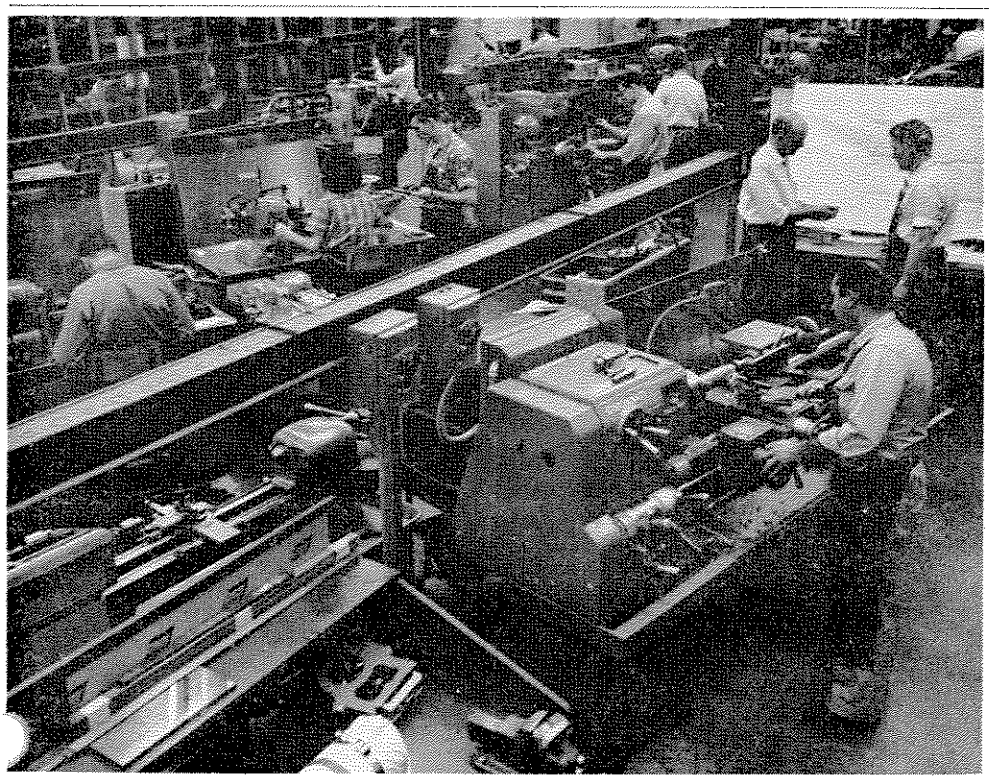
'Those Bills Just Have To Be Paid'

The open and avowed purpose of this story is to make propaganda, in favor of one hundred per cent participation on the part of Melpar people in our Group Insurance and Hospitalization Plan. The selling point stems from the experience of T. W. Allen, Electro-Mechanical Engineer at the Falls Church laboratory.

Mr. Allen's 16-year-old daughter, Judith, recently was stricken with appendicitis, which abruptly developed into acute peritonitis. The need for immediate surgery was followed by an equally real demand for the best possible post-operative care, including special nurses hours a day.

The emergency was surmounted; everything necessary for Miss Allen's well-being was done. Then, confronted with medical bills totalling $896.01, Mr. Allen paid out $119.20 for his Paid In Full receipt. His Group Hospitalization policy had paid $300 for surgical expense and normal hospital services; the MED-X provisions of the Plan had paid $476.81 for nursing care, medicine, laboratory tests, and the like.

In discussing his experience, Mr. Allen was emphatic. "Emergencies like this always happen at the worst possible time. You stop at nothing, of course. But when it's over, those bills just have to be paid. Without that Hospitalization and MED-X, I wouldn't have known where to turn. Anybody who can get into the Plan and doesn't, is plain foolish."



NO BETTER TIME . . . *what with a multi-million dollar simulator job soon to test its resources, a look at some spanking new Arlington Division production machines seems timely. Reo LeBlanc is operating the new Cincinnati lathe in foreground. At center left, Della Hess runs a Hardinge precision lathe. Still more precision production is being generated by Henry Brooks and his Bridgeport milling machine.*

F-101B TRAINER CONTRACT VALUED AT $9,000,000

Melpar's expanding reputation as a designer and developer of flight simulators for modern military aircraft recently was endorsed by the award of a full scale production contract for the manufacture of F-101B Simulators.

The Company's first production contract in this field was placed by the Air Materiel Command, U. S. Air Force, and calls for a quantity of 12 simulators plus associated spare parts. The total value of the contract is in excess of $9,000,000.

Further suggesting that Melpar seems destined to become a major supplier of simulators, this production award was made while the development model of the F-101B Simulator still is in progress at Falls Church.

With delivery of F-101B Simulators scheduled to begin in 1958 and extend into 1959, pre-production work already has started. Arlington Division Planners and Production Engineers have teamed up with Project Manager J. L. Clark's design staff to lay out the intricate pattern of procurement, manufacturing, and assembly sequencing essential to a production task of such magnitude.

Preliminary estimates of the workload involved in the contract call for some 270,000 hours of assembly work. Arlington Division's machine shop will be called upon for 50,000 hours of work while its sheet metal shop faces a 180,000 hour load. Insuring the all-important ingredient—first-class workmanship—will require Quality Control to inject 150,000 hours of inspection and test into the program. Searching out that elusive 'one best way' to build the unit will consume approximately 50,000 hours of Manufacturing Engineering effort.

Our supplier companies will contribute about $1,000,000 worth of sub-contract work during the life of the contract, along with some $4,000,000 worth of open market purchases ranging from raw material to specialized components.

OPINION

There is a savor of restraint in the headlines glimpsed over the rim of the coffee cup, in the commentator's phrases imperfectly heard above the crackling din of our breakfast cereal.

An ultimatum is delivered—but not quite. A settlement is flatly rejected, but subject to negotiation at some time somewhere. A precautionary measure is not quite the same as a police action; besides, a conference has been proposed.

The headlines seek to say, "don't be alarmed" but in them is a rhythm, as of cloaked drums. Trouble brews, and the mixture is not fit for imagining. Men are playing with passions as though they postured on a stage, aware of the happy ending written into the third act.

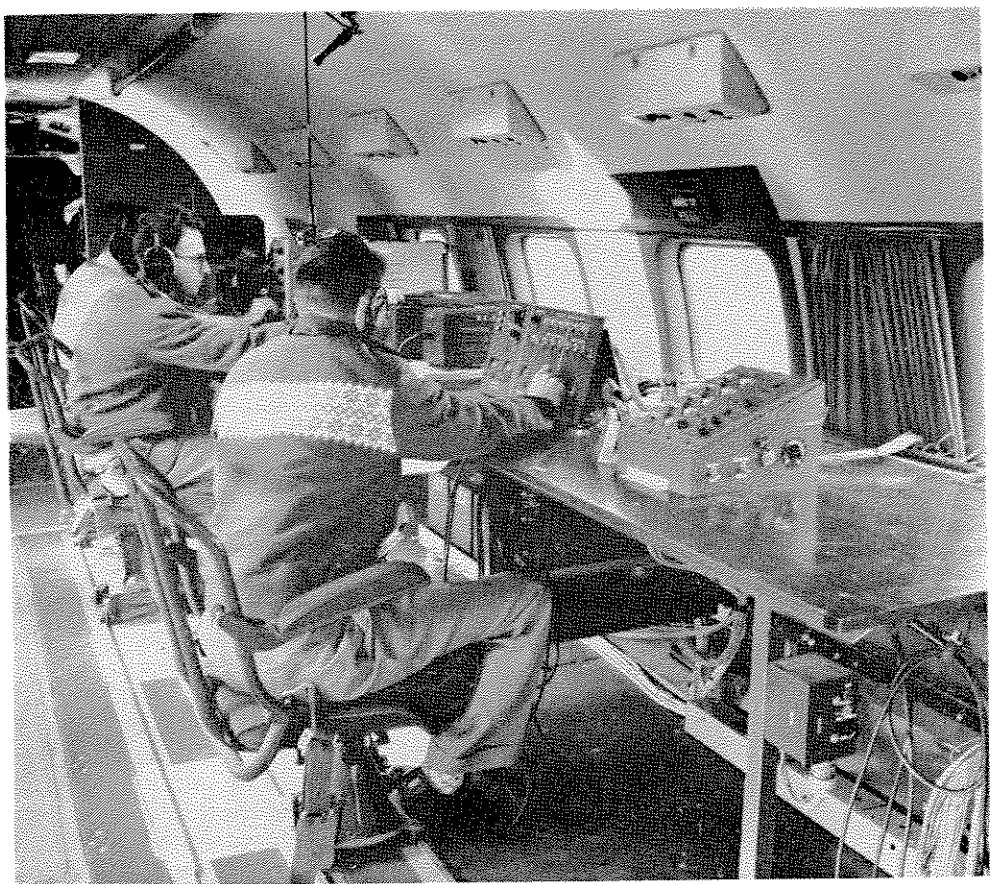
We must make ready. We confront a particular enemy and we know him by countless outward signs. He intends to have our lives and he has said so, with the unmistakable candor of a lunatic. We had better turn at once to the task at hand; he who shirks will some day answer for it—to himself.

We are important people, here at Melpar. We number nearly 2500 and we are fashioning tools which will count in the big reckoning. We are skilled in our professions and trades; we know how to set about our business. And with it all, we have a little something extra going for us.

It's the will to do . . . not because we must, but because we can and we know we can. Not all our faith is placed in automated assembly lines and transistorized abacuses. We possess even more horsepower than it says in the ads.

It's time to make things smoke. We're not hacking out musical yo-yos for the Christmas trade. We're building things needed today, and giving form and effect to ideas which will be used tomorrow, in the course of waging a tactical battle aimed at gaining the high ground.

And if an age of sweet reason is given us, the exercise will have done us good. We'll be in excellent condition to enjoy the chrome trimmed delights of the four-hour day and the three-day week. But, for now—let's give it the muscle.



UP IN THE AIR . . . *It's a sensible way in which to test airborne equipment. In a C-131-B cargo airplane, converted to an electronics laboratory in miniature, equipment designed and developed by Melpar for Convair's B-58 Hustler is put through its paces. Nearest the camera is R. L. Howard; beyond him are Sidney Phillips and Peter Rock, engineers assigned to the pre-flight test program.*

MELPAR DESIGNING A3J ELECTRONICS

Major electronic equipments for ground control intercept communication and for radar operations, destined for the U. S. Navy's newest attack airplane, the A3J, are to be designed and developed by Melpar.

The Company has been placed under contract for the work by North American Aviation, who will design and build the airplane in its Columbus, Ohio division. Melpar's task has been assigned to Section Head R. E. Williams at the Falls Church laboratory.

The A3J is described as a "high supersonic, carrier-based attack aircraft weapon system". It will be designed as a twin-jet, two-place aircraft and is expected to reach a speed of at least 1000 miles per hour. Its prime contract requires North American Aviation to build a number of proto-type models for static and flight testing.

B-58 SUB-SYSTEMS ON FLIGHT TEST

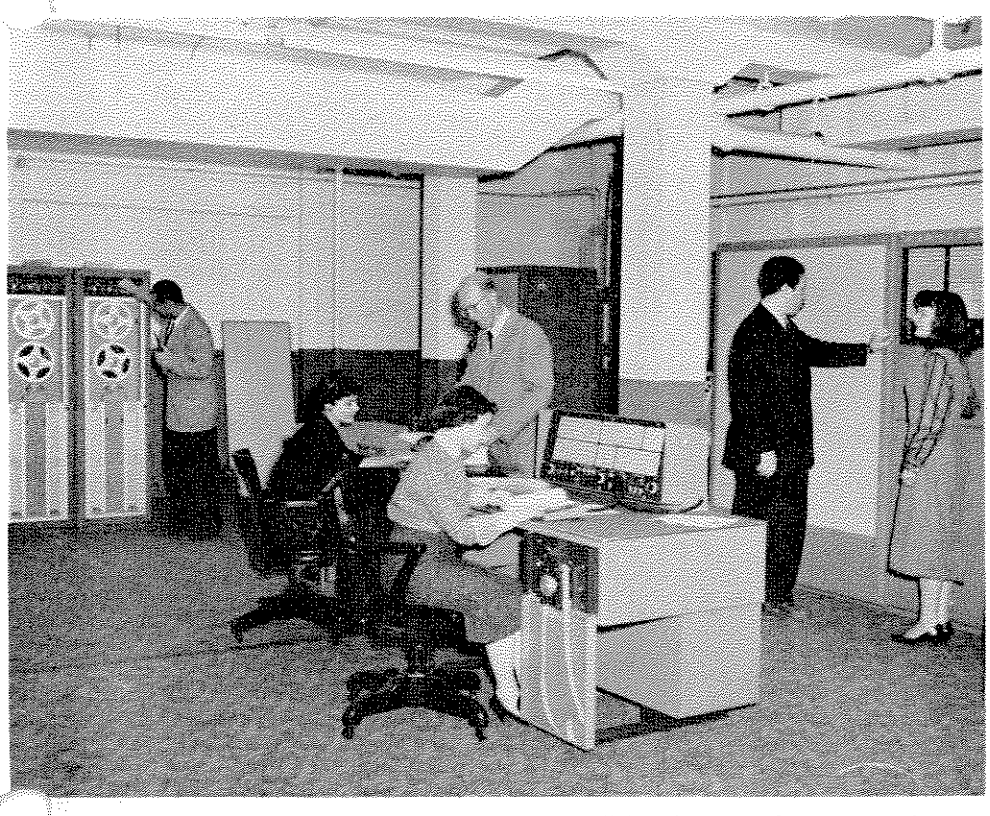
A substantial part of the airborne electronics equipment being developed by Melpar for the RB-58 supersonic bomber has been installed in a C-131-B airplane now flying out of Friendship International Airport in Baltimore; in progress since September, the flight test program is expected to continue for the balance of 1956.

The aircraft, flown by a Convair-Fort Worth flight crew, is manned by a group of Melpar engineers to monitor the operation of the airborne equipment. The operational data accumulated during the test flights is being processed in part by ground based data processing equipment also designed by Melpar.

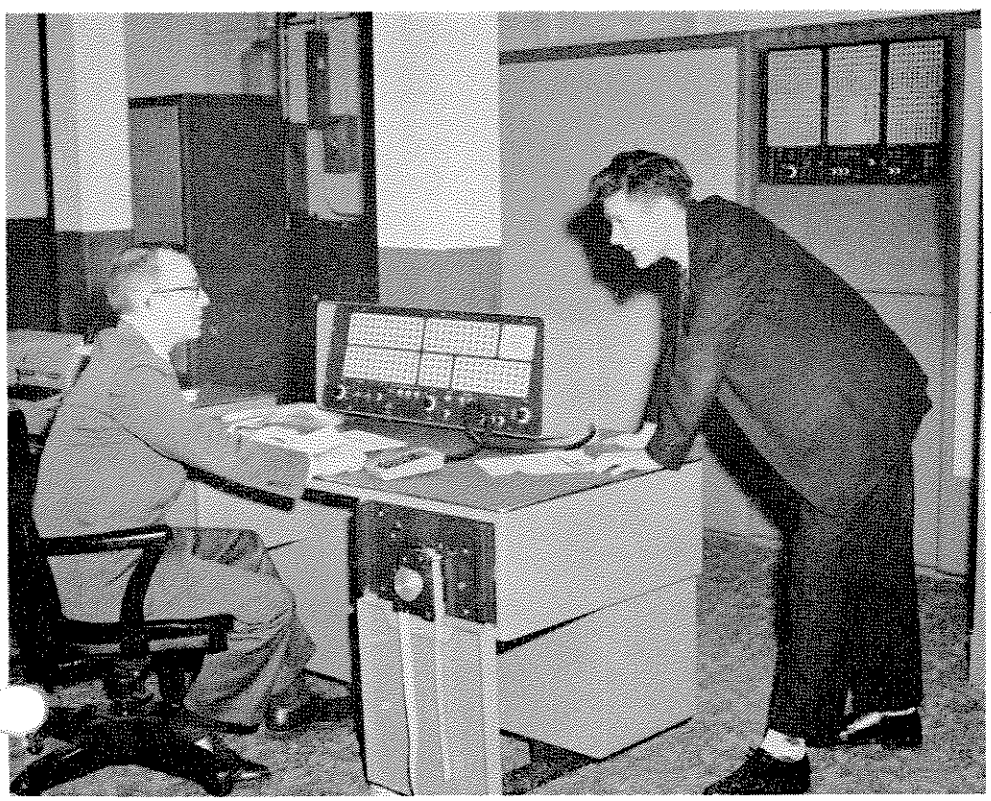
Flight testing of Melpar's sub-systems equipment is regarded as one of the culminating events of the years-long development effort carried out by Project Manager R. E. Miller's sections.

Two of his Section Heads are participating in the tests. E. H. Bradley has assigned Project Engineer D. R. Gibbs to the task; his staff consists of Crew Chief I. B. Tiedeman, and Peter Rock, Sidney Phillips, T. M. Fisher, and R. L. Howard. Project Engineer R. H. Courtney, of C. E. Bergman's Section, is supervising the reduction of flight test data.

Dealing In Digits At Melpar-Boston



THE NUMBERS, they get answers . . . *Robert Klein observes the computer's tape storage consoles; John Carpenter, Cecilie Smolen, and Anita Bamel are grouped at the control console; Walter Helly and Cora Cobb guard the central computer.*



READY TO GO . . . *are Dr. A. H. Payne (seated) and John Hansen, heads of the Analysis and Computing Sections of the Computation Laboratory.*

Data handling and computation problems hitherto impossible to resolve in any practical manner now are regarded as just part of the day's work by Melpar-Boston's Digital Computation Laboratory, officially opened in late November.

The Laboratory's activity is centered around its DATATRON digital computer, manufactured by ElectroData Corporation of Pasadena, California. In the hands of Melpar-Boston's Operations Research and Applied Mathematics Group, the DATATRON will be used to solve a wide variety of computation, data reduction, and information-processing problems.

The numbers it operates on, and the numerically coded instructions it obeys, are stored in its internal memory. It can compare numbers or instructions and change its sequence of operations accordingly; if necessary, it will even modify the instructions themselves.

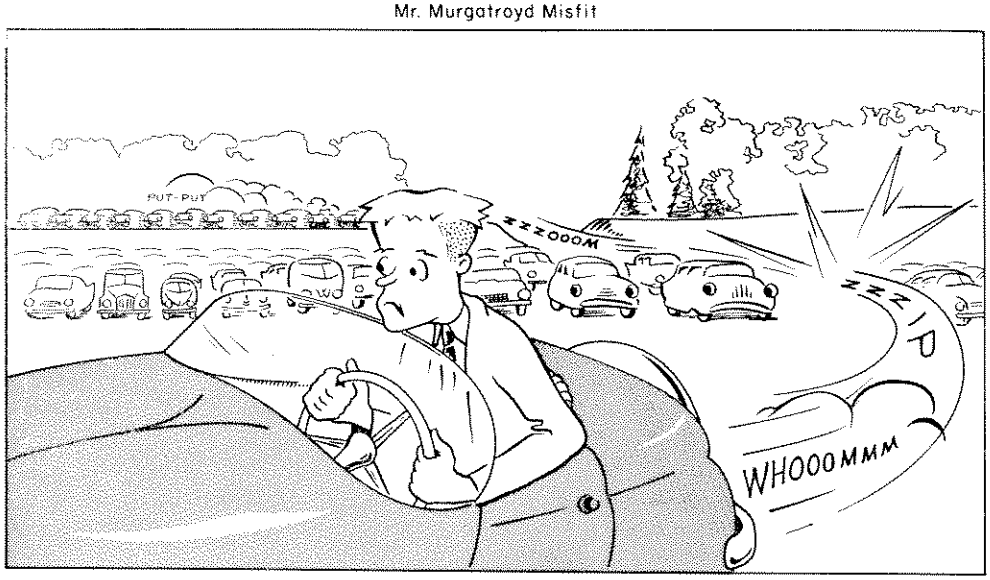
Programs and sub-routines for the computer are stored on perforated tape prepared by a decimal keyboard or by a Flexowriter typewriter. Its photo-electric tape reader injects the information into its central computer sections at a speed of 541 decimal digits per second, while output is fed directly into the Flexowriter at the rate of ten characters per second.

Outwardly impressive though the computer may be, with its neat array of cabinets and consoles, its rippling lights and speeding tapes, it is helpless and useless without the people who are its masters.

Physicists, mathematicians, and economists all play their part in the complex task of telling DATATRON what to do and how to do it. Chief Programmer John Hansen and Chief Analyst Dr. A. H. Payne, under the guidance of Dr. Lawrence Rosenfeld, actively direct the work of the Computation Laboratory.

Illustrative of the enormous dimensions of the tasks which will constitute DATATRON's daily diet is a systems simulation problem, part of a design and development contract now in work at Falls Church, chosen as a handy "exercise" affording DATATRON a chance to flex its muscles. If it were to be attacked by conventional methods of hand calculation, the job would demand approximately 90,000 hours of key punching. Programmed and read into DATATRON, the job was reduced to the requisite answers in just 9 hours of machine time.

Mr. Murgatroyd Misfit



Will you be coming back again tomorrow Murgatroyd ?

GOING UP!

The promotion of Louis Nelson from Senior Engineer to Project Engineer has been announced at Falls Church. In the B-58 project, Kay Mastros was appointed an Assistant Supervisor. He had been a Planning Assistant. H. E. McGuire has advanced to Senior Engineer, and the same promotion was earned by V. G. Gedmin of Quality Control. Both men previously ranked as Engineers. K. D. Truesdell and R. J. Fairchild have been named Field Engineers. They have been assigned to Bergstrom Air Force Base, Austin, Texas.

Promoted from Light Assembler to 1st Class Light Assembler at Arlington Division were W. E. Felty, J. K. Duff, L. E. Sager, P. J. Barry, H. V. Crockett, G. G. Bobinski, and C. G. Burns. E. M. Hixson moved up from Heavy Assembler to 1st Class Heavy Assembler. Edward Bundy, of Maintenance, advanced to Lead Porter.

In Quality Control at Falls Church, R. M. Donahue was appointed Incoming Inspection Supervisor. Former Technician P. C. Piraneo is now a Junior Engineer. Promoted to Senior Draftsman were G. A. Morse and D. A. Stauter.

S. W. Grubb, of Quality Control, advanced to 1st Class Mechanical Inspector. He is stationed at Arlington Division. In Arlington, R. L. McKenney and J. J. Tychinski moved up to Shipper and Packer Assistant. Named a Junior Production Planner was G. E. Campbell. R. J. LeBlanc was promoted to Machine Operator A. J. C. Atkinson and M. Reinis, of Falls Church, have advanced to Wire Technician 1st Class. V. L. Crawford is now a Sub-Contract Buyer. M. E. Swain was promoted to Accounts Payable Clerk, and J. F. Foshee became a Secretary. L. Sims has been promoted to Chemical Technician.

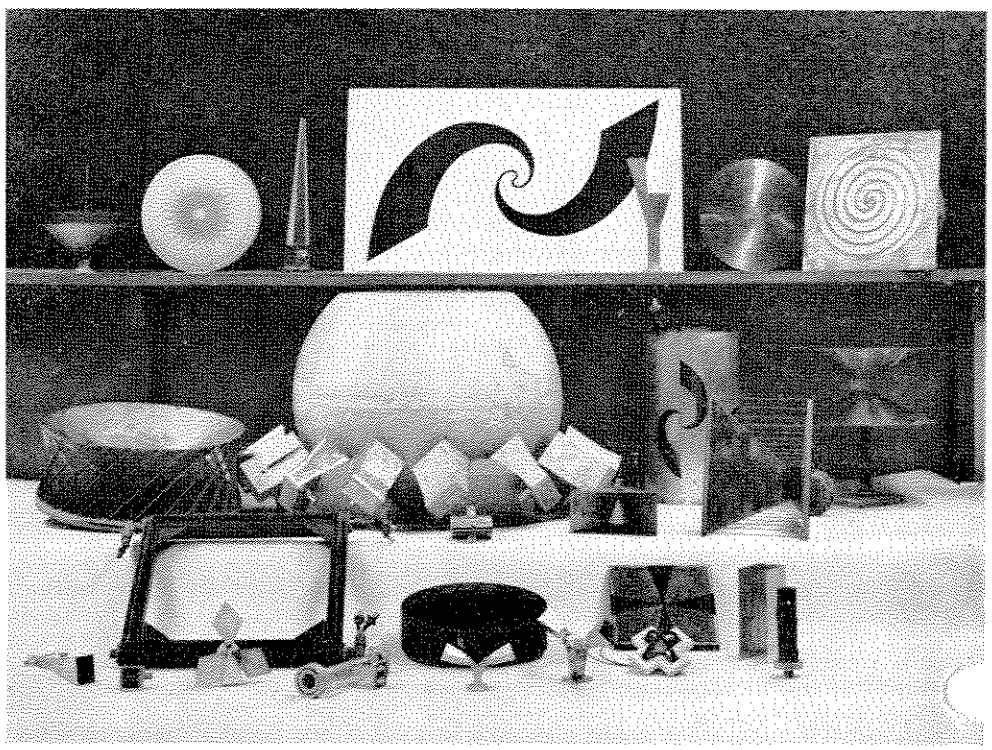
EUROPEAN TOUR BY MELOY AIMS AT CLOSER LIASION WITH RESEARCH CENTERS

Melpar President Thomas Meloy is carrying out a tightly scheduled series of visits to industrial and governmental laboratories in the principal cities of France, Germany, and Italy.

Equally important in his 30-day itinerary are conferences with NATO-sponsored research and development groups based in Italy, France, and The Hague; and with representatives of the U. S. Army, Navy, and Air Force Commands stationed in Belgium and Germany.

Mr. Meloy left the United States November 21, flying to Brussels, Belgium for an initial briefing at the USAF Command there. His close-up review of current research and development programs being pursued by U. S. forces and allied countries is expected to result in a more purposeful liaison between those organizations and similar enterprises—such as Melpar—in the United States.

Mr. Meloy is confident that such direct communication will aid our common use of the technological advances being achieved in both areas. The free wo[illegible] need of an ever better military postu[illegible], as well as expanded industrial research, would thus be served.



NO . . . *these articles are NOT a display of Christmas gifts designed in Sweden. They are antennas produced with serious purpose by Section Head K.S. Kelleher's group at Falls Church. Failure to include an enlightening description of the technical acrobatics represented by these shapes and figures is due, of course, to lack of space.*