

MELPAR-A-GRAPH

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

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SALES BOOM MARKS SUCCESSFUL YEAR

\$8 MILLION ORDER IS WON BY MELPAR

At least 150 Engineering Department personnel in all grades will be called upon in the course of fulfilling the requirements of a sub-contract, valued at more than \$8 million, just awarded Melpar by Stromberg-Carlson Division of General Dynamics Corporation. Our task calls for the design and development of a variety of receiving equipments and antennas.

Section Head B. R. Boymel, having over-all cognizance of the work, has assigned Project Engineers C. E. McGinnis and Seymour Cuker to lead the development of receiving equipment. Antenna design and development, a significant factor in the total task, is to be carried on by Project Engineers W. O. Puro and H. T. Ward under the direction of Project Manager K. S. Kelleher.

Stromberg-Carlson Company, under their prime contract with Rome Air Development Center, leads an industry team consisting of Convair-San Diego, Microwave Engineering Labs, and Hycon Eastern in addition to Melpar.

COUNTERMEASURES DEVELOPMENT TO CONTINUE UNDER BUAER JOB

A quantity of evaluation models of electronic countermeasures equipments will be built by Melpar under the terms of a contract recently awarded the Company by the Navy Department's Bureau of Aeronautics. A group of specially designed test devices also is to be supplied.

Valued at approximately \$567,000, the new task calls for deliveries extending into 1959. Construction of these evaluation units under a prime contract the follow-on of a study and developmental job originally awarded Melpar in 1956 by a major airplane company, when that company was assigned the task of designing and developing a new attack airplane for the U. S. Navy.

LETTER CONTRACT TO PRODUCE B-58 GEAR IS RECEIVED

The forerunner of what is expected to be the largest single contract ever won by Melpar, a Phase IV (Production) letter contract for airborne systems for the B-58 Hustler, has been awarded the Company by Convair-Fort Worth.

Though the agreement presently includes a funding limitation of \$400,000, the contract document as finally negotiated is expected to call for the production of at least 15 data reconnaissance and recording systems, plus supporting equipment; its ultimate value will run into the many millions of dollars.

In terms of manufacturing volume and numbers of people directly employed in the production effort at our Arlington Plant, the new Phase IV program is expected to significantly exceed the total output achieved in the group of MSQ-1A jobs now drawing to a close. Delivery schedules currently applied to the program extend well into 1960.

Along with its primary mission of producing hardware for the USAF's only supersonic bomber, the Phase IV plan involves extensive engineering studies and investigations aimed at progressive improvement in the accuracy and reliability of both airborne and ground-installed equipment. Carefully programmed Bench Reliability Tests, resulting in the determination of component failure rates under all conditions, are a key feature of the engineering aspect of the new program.

A. C. WEID IS ELECTED BANK DIRECTOR

Melpar Vice President Arthur C. Weid has been elected to the Board of Directors of the Fairfax County National Bank, Seven Corners, Virginia. His election took place on January 16, 1958, at the annual meeting of the bank's stockholders.

ADDED SPACE, PERSONNEL SHOW CONTINUED GROWTH

An increase in sales of more than 100% over our performance in 1956 gave proof that the year just passed was far and away the most successful in Melpar's history. Our sales during 1957 amounted to \$47,925,545 as opposed to the now modest-seeming \$23.5 million registered last year.

Despite the virtual moratorium on new procurement experienced by the country's military contractors in the second half of 1957, Melpar's employee roster increased from 2505 to 4061 by year's end—a net gain of 1556 people. Taking into account the continuing expansion of our B-58 Hustler program, and in view of the Defense Department's renewed emphasis on research and development needs in electronics, it is anticipated that the Company will experience continued growth throughout 1958.

As our population continued booming during the year, so our particular version of 'the housing problem' commanded steady attention. With our Bailey's Cross Roads and Columbia Pike leaseholds taking the lead, we increased our floor space by 131,206 square feet last year; we now have a 639,126 square foot roof over our heads.

Vastly increased also was our total payroll; falling just short of \$12 million in 1956, it climbed to \$18.6 million for 1957 and included more than \$1.3 million for vacations, sick leave, and lost time. To a large and varied assortment of tax collectors went the sum of \$1,997,030.

Our suppliers and subcontractors felt the effect of our expanded activity; the impact amounted to nearly \$16.5 million, compared with \$11.8 million last year.

So much of the Company's work, of course, is veiled in security regulations that any detailed rundown of the equipment we have shipped to most of the armed services is not permitted.

OPINION

Some say the data locked into the beep-beeping heard by the world has been decoded and now is ours. Others say not so. It doesn't really matter; we read the message loud and clear.

There have been some changes made. The competition has introduced a new product to a global market and the reception has been terrific. Not even yesterday's unveiling of the car with jet age windshield wipers, which topped our recent discovery of the toothpaste with a built-in grin, can compare with it.

In many a meeting, promptly called to order after the event, the reasons why this thing happened to us were explored in depth. Testimony mounted and oratory thundered, proving it to be the fault of a great many other people. And, always in time to make the afternoon editions, Plan A—which would have made it not happen—was trotted out. All of which can be wrapped up and filed under the one word principle of common law: tough!

Making the point bluntly, we've been handed a job of work; one we never wanted. We must fashion the means of

dominance over a chunk of real estate whose boundary markers, once firmly anchored by the map-makers, abruptly have been sent way out.

We've got to change our way of living, change the way we strut our stuff. We must now acknowledge two motives for one day's toil—and only one of them has the right, the traditional, ring: what's for me in it? The other is most unpalatable; in fact, it's almost vulgar. Whole speeches are made, and the words left not quite said.

We're working now under orders to save our skins. Admittedly, the circumstance is in conflict with the four day week, the three-toned hardtop, and uninhibited pursuit of the happy hour. But it can't be deodorized. Somebody's got to do something.

Under the guidance of a properly organized committee, and taking care that the expenditures are equitably divided between press, radio, and TV—let us now enlist the massed legions of the advertising profession in an all-out campaign to make survival fashionable.

Hunt For Helicopter Test Area Has High Objective

General Services Director R. Brandon Marsh, members of his staff, and a few volunteer helpers are currently engaged in a bit of house hunting which is out of the ordinary even for Melpar—an organization which, in its time, has met and conquered some prime housing problems.

Needed is a building with two very special interior dimensions: it must provide a 30 foot clear span to the roof, and free inside space having a 21 foot radius. Wall to wall, the building's interior should be at least 52 feet long by 46 feet wide. In it, Project Manager J. L. Clark's Flight Simulator people will assemble and test their helicopter trainer, now being built for the Training Device Center, Office of Naval Research.

Anyone having an idle tobacco warehouse, grain elevator, trolley car barn, or similar structure in his backyard is invited to make it known to Mr. Marsh at the Falls Church Laboratory. He will be glad to take its measurements and, if it fits, discuss terms.

PACKING STATIONS PROTECT QUALITY AT FALLS CHURCH

Travel insurance, taking the form of fully equipped packing stations strategically located in the Falls Church Laboratory shops, now rides with almost all the work in process dispatched daily through that plant. Measures taken to protect the merchandise range from a simple once-over wrap of Kraft paper to custom tailored unit packing of fragile parts which ride first class, in specially compartmented tote boxes.

Fitted out with a variety of protective materials, including corrugated paper and cartons, Tufflex dunnage, and vinyl bags, and manned by Project Services dispatching personnel assigned to the various shops, the Packing Stations represent an initial investment of more than \$2000. Though a return on that investment may never be written in dollars, its real significance is plain: a portion of Melpar's reputation for quality, hard-earned and beyond price, rides with every item.

The Falls Church Packing Station is the result of a materials handling study and operational plan carried out by Roger Jones, Staff Assistant to Project Services Manager C. K. Craggs.



AS GOOD AS NEW when it gets there, is the aimed-for result of Expediter M. L. Aleshire's considerate handling of something that's valuable—no matter what it is. The Packing Station is located in J. L. Sherwood's Wiring Shop at Falls Church.



BRAVELY BEARING UP under the onslaught of a semi-tropical sun, these Alexandria Plant men demonstrate the lengths to which they must go to test out their equipment. Torn from Washington's bracing weather in mid-December were, in the usual (l-r) order: Don Reiser, George Downs, Harry Moser, Howard Burns, and Bradley Bailey.

REISER AND AIDES TAKE TROPIC TRIP

As even the average student of travel folders and vacation-land advertisements knows, the British West Indies islands are a veritable tourist's delight. Balmy breezes, smiling sun, and sandy beaches are almost incidental among their highly touted attractions. Through a no doubt accidental oversight, however, the BWI's Grand Bahama Island gets little or no play from the copywriters.

Project Engineer Donald Reiser has an explanation for this; in a condensed version, his report reads: 'all it has to offer is windburn, sunburn, and sand in your lunch. It's not much of nothing.'

Along with Senior Engineer Howard Burns and Engineers Harry Moser, Bradley Bailey, and George Downs, PE Reiser spent the week of December 16 on Grand Bahama testing long-range instrumentation radars being developed under the direction of Section Head Leonard Kings at the Alexandria Plant. In a supplementary report, Mr. Reiser confided that of three missiles fired from Patrick AFB that week, not one impacted on Grand Bahama Island.

Discounting the very idea that such a turn of events could have resulted from an error in guidance, he ventured the opinion that it was because practically no one knows it is there.

MELPAR-BOSTON RESEARCH MAN DISCUSSES OBSERVER THEORY

The American Association for the Advancement of Science, at a recent meeting in Indianapolis, Indiana, heard Melpar-Boston's Dr. John R. Swets lecture on "Recent Developments in Observer Theory." Subject matter of the Association's symposium covered Decision Theory, Signal Detection, and Psychophysics.

Dr. Swets described the translation of decision theory into a general theory of signal detectability as it involves human observers faced with the task of detecting and identifying various visual or auditory signals. He held that the theory presents a highly realistic and accurate description of human performance in coping with detection problems.

R. I. COLE IS NATIONAL IRE DIRECTOR

Ralph I. Cole, Manager of Military Project Planning, again has been honored by the Institute of Radio Engineers. Only recently named a Fellow of the Institute, Mr. Cole now has been elected to the IRE's national Board of Directors. Mr. Cole will serve as Director of the 3rd Region, which embraces most of the South Central and South Atlantic states and is one of eight such regions covering the United States and Canada.

STATISTICIANS MAY SEE DEEP MEANING IN THESE NUMBERS

Of recent years a thriving profession has grown up, devoted to the remorseless pursuit and the tireless 'interpretation' of industrial statistics. By the numbers ye shall know them is the cry of the demon statistician as he goads his giant computer into an analysis of the effect of silk imports on soybean prices in 1954.

Study of certain key statistics recently revealed by Melpar's Open Market Purchasing Agent P. F. Whitaker should give the paper clip industry something to worry about. In 1957 we bought only 30,000 of their Number Two size, as against 305,000 of their Number One model.

An investigation of critical imbalance factors seems warranted by the fact that we bought 65,400 pencils but only 25,200 pads of lined paper; however, the analyst should know that we also bought 1800 bottles of ink, mostly black.

A hint that there may be truth in the theory advanced by some production men—that a job is complete when the weight of the drawings equals the weight of the merchandise—is seen in our consumption of blueprint paper. We bought 298 miles of roll stock and 81.75 acres of cut sheets. Let the statisticians compute how many transistorized space vehicles can be built with that material; we will contribute one or two of our 1,650,000 sheets of bond paper for the writing of their report.

OPERATIONS ANALYSIS STUDIES CABLE BURYING TECHNIQUES

Study and investigation of the capabilities and limitations of cable burying techniques, and possible avenues of research and development effort in this field, are being pursued at Melpar's Alexandria Plant under contract from the U. S. Army Signal Engineering Laboratory.

The Project is being conducted by Senior Operations Analysts William J. Bradley and Martin J. Costello under the direction of Senior Project Engineer James G. Anding of the Operations Analysis Department. Technical, economic, geographic, physical, and military factors are being analyzed and evaluated to determine the desirability of burying cable in future military theaters of operations.

Appropriate recommendations will be made to guide research and development programs for equipment and techniques.

MURGATROYD MISFIT

by dick prescott



Murgatroyd, do you know what time it is?

GOING UP!

Bailey's Cross Roads Engineering Department has announced the promotion of H. C. Turnage to Project Engineer. T. W. Allen and R. J. Lee advanced to Senior Engineer; R. C. Wright and S. Crane moved up to Senior Mechanical Engineer. A. W. Lederle is now a Senior Technician, and G. M. Berry has moved up to Procurement Planner.

At Falls Church T. J. Tracy rose to Senior Buyer and W. D. Roy to Buyer; R. R. Ambrogi is now a Sub-Contract Estimator. J. D. McLain was promoted to Senior Procedures Analyst.

A. H. Cosby of Arlington Plant was advanced to Senior Engineer, while R. C. Scull rose to Engineer. In Quality Control at Arlington, H. C. Wilson was named Quality Assurance Supervisor, and T. H. Varela became Quality Assurance Inspector. E. W. Burns is an Electro-Mechanical Inspector Task Leader. New Line Inspection Foremen are A. B. Drake and R. L. Gross. William Mahon became a Maintenance Group Leader.

At Falls Church, C. Evan rose to Electro-Mechanical Inspector 1st Class. In Engineering, W. O. Purcell and F. Chilton were promoted to Senior Engineer. J. E. Holt is a Senior Accounts Payable Clerk. C. O. Rader moved up to Senior Illustrator.

A. L. Newcombe, of Melpar-Boston, advanced to Senior Technician. In the Alexandria Plant, L. J. Boyle rose to Engineer. A new Maintenance Group Leader at that plant is C. Strawbridge.

ENTRANCE EXAM RESULTS CAUSE SPEED UP IN CREI STUDY PLAN

The Advanced semester of Capitol Radio Engineering Institute's Electronic Technician Course being given as part of Melpar's in-plant educational program was initiated last week, instead of in its 26th week as originally planned.

The revision was authorized by CREI's directors as a result of the entrance examination given all applicants; a large number of them scored well beyond the range of the basic portion of the course.

A total of five classes now are being taught by CREI instructors in our Northern Virginia plants. At the Arlington plant, two basic classes are under way and at Falls Church two basic and one advanced group meet twice weekly.

TUITION REFUND PLAN ENROLLS MANY MORE IN GRADUATE STUDY

During 1957, the Company's Educational Reimbursement Program drew 397 people to graduate and undergraduate study at the college level, both in-plant and on campus. In addition, 76 others sought to further their skills via correspondence and technical courses. Through the year, Melpar employees accrued a total of \$10,660.48 in tuition and lab costs to be returned to them by the Company upon successful completion of their studies.

Especially significant, in comparison with the program's early stages, was the great increase in the number of graduate students enrolled—144 as against a previous mark of 77.

MELPAR MADE MSQ GUIDES MATADOR FOR RECOVERY

Pulling the string on USAF's ground-to-ground tactical missile, Matador, is but one of the varied uses to which the MSQ radar systems being produced for RADC by Melpar's Arlington Plant are being put. 'Recoverable flight' test and training firings of the 650 mph vehicle are now netting obvious, and very substantial, savings to USAF.

Once launched, Matador is brought under radar surveillance by the MSQ system and tracked to a command point. On signal, the missile's engine throttles back to 60 per cent power; a drag chute is released and its controls are adjusted to bring Matador to 2500-foot altitude.

Its drag chute then is jettisoned and its controls further adjusted to maintain flying speed while the vehicle is guided to a recovery area. In a final command sequence, three 100-foot cargo parachutes are engaged and the missile's engine is cut out. Matador then floats safely to earth, ready to fly again some other day.

MOVIES, LECTURES SHOW WELDING ART

The pursuit of quality, and of lower production costs, a quest which never ends at Melpar, takes still another direction on February 6 when an intensive 4-week course in the theory and practice of the welding art is inaugurated. Welding operators, inspectors, production supervisors, and design engineers will be brought together to see and hear the latest advances in the technique of joining both the standard and the newer metals.

Each weekly session will feature full color motion pictures and lectures devoted to a particular phase of the art: from designing for the welding process to the interpretation of test and inspection results found in the finished product. Starting at 2:30 p.m. and lasting approximately two hours each, the sessions will be held alternately at Arlington and at Falls Church.

The lecturers, each concentrating his special field of interest, include Engineering Assistant John Huminik, Project Engineer R. H. Hronik, Chief Inspector J. R. Butterfield, and Engineer R. Baker.