MELPAR-A-GRAPH

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REGISTRATION FOR SPRING SEMESTER IN-PLANT COURSES SET FOR JAN. 16

Registration for the Spring Semester in-plant courses to be conducted by George Washington University, American University, and Capitol Radio Engineering Institute (CREI) is scheduled for January 16.

Five mathematics courses are being offered by George Washington University. They are: College Algebra, Trigonometry, Calculus III, Vector Analysis and Statistics 102 (Fundamentals of Basic Statistics).

Physics courses are being offered by American University and CREI. American University is offering a basic course (under-graduate level) in Solid State Physics which will be taught by Dr. Nicholas Fuschillo, Head of the Research Division's Solid State Physics Section. The other physics course, to be conducted by CREI, is entitled "Transistor Applications."

All registrants for in-plant courses who desire to participate in the Melpar Tuition Reimbursement Plan must submit form PER 211 for prior approval of the courses to Personnel. Under this plan, employees who successfully complete prior approved courses in a scientific or technical field are reimbursed half of the cost of their tuition by the Company.

Registration will be held on January 16 in the Main Conference Room of the Falls Church from 8:30 a.m. to 9:30 a.m., for employees located at Falls Church, SH-Eng, and SH-Rsch. Employees in the Bailey's Crossroads Area will be able to register in Leesburg Pike Plant Personnel Office (Building #2) from 10:30 a.m. to 11:30 a.m. All courses are offered contingent upon sufficient enrollment.

A memorandum giving further details pertaining to these in-plant courses will be distributed during the first week in January.

MELPAR GETS NEW ORDERS FOR ALD-4 PARTS AND SERVICES

The Air Force has recently ordered spare parts, technical data manuals and other services totaling $1,328,213. Most of this work is being performed at the Hardin Street Plant under Assembly Superintendant O. J. Kennel, with technical support from Mr. E. J. Diehl's Reconnaisance Department. The technical data manuals are being prepared under the direction of Chief of Publications M. N. Ingrisano.

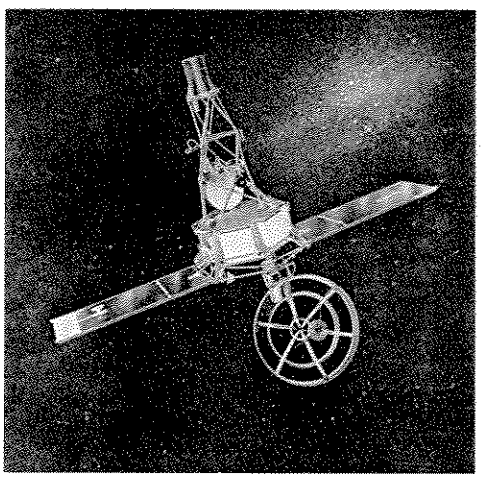
Under a separate contract recently awarded by Warner-Robins Air Material Area, Melpar has been designated as the Repair Depot for all ALD-4 component sub-assemblies.

$2.6 MILLION CONTRACT AWARDED TO MELPAR BY ARMY MUNITIONS COMMAND

The U. S. Army Chemical Center Procurement Agency of the U. S. Army Munitions Command has announced the signing of a contract modification with Melpar in the amount of $2,661,000. This contract modification continues the research and development at Melpar to provide for additional feasibility studies and prototype instrumentation of chemical agent detection and warning devices. Also called for is a continuing program of research leading toward simplified and most practical future alarm systems.

The signing of the contract took place at the Army Chemical Center, Maryland. The U. S. Army was represented by Lt. Colonel K. R. Czarny, Commander of the Army Chemical Center Procurement Agency; Mr. W. C. Gunther, Deputy for Procurement; Mr. Ellis Bankert, Contracting Officer; and Mr. L. Archer Walker, Contract Negotiator. Present from Melpar were Dr. Paul E. Ritt, Vice President for Research; Mr. N. J. Sargis, Director of Contract Administration; and Dr. D. M. MacArthur, Department Manager.

Signing of a $2,661,000 contract between Melpar and the Army Chemical Center Procurement Agency. L to R standing: Dr. Paul Ritt, Vice President-Research and Mr. William C. Gunther, Deputy for Procurement, Army Chemical Center Procurement Agency. L to R seated: Mr. N.J. Sargis, Director of Contract Administration and Mr. Ellis W. Bankert, Army Chemical Center Procurement Agency Contracting Officer. U.S. Army Photograph



MELPAR EQUIPMENT RIDES TO VENUS . . . Two of Melpar's tuning fork frequency standards are playing an important part in the data acquisition for the MARINER VENUS PROBE. They are used in the microwave radiometer system designed by the Jet Propulsion Laboratories to measure temperatures of the surface of Venus and the surrounding atmosphere. The Model 300 tuning forks, designed and produced by Melpar's Special Products Division, serve as frequency standards in the phase sensitive amplifier-detector chains. They utilize a unique concept developed by SPD's W.P. Asten. Operating in the vicinity of 1,000 cps, Melpar's frequency standards provide the necessary reliability, accuracy, and resistance to high shocks and vibrations.

LOCKHEED ELECTRONICS USES MELPAR'S FREQUENCY STANDARDS

Melpar's Special Products Division has received a contract for 500 Tuning Fork Frequency Standards from Lockheed Electronics Company, Plainfield, New Jersey. These units will be used in the Lockheed MADREC (Malfunction, Detection and Recording) being installed on Boeing B-52's under an Air Force contract.

The tuning fork frequency standards will monitor the aircraft's 400 cps power supply to help determine whether a malfunction in the complex electronic gear was due to an operational malfunction, or resulted from an apparent malfunction caused by a frequency deviation in the power supply.

Lockheed has applied for a Federal stock number on the tuning fork frequency standards.

WHAT'S WATS

Melpar is Northern Virginia's industry pioneer in the installation of the Chesapeake and Potomac Telephone Company's new Wide Area Telephone Service (WATS). The new service was installed as a result of a cost-reduction action initiated by Mrs. Dorothea Johnson, Manager of Office Services and a member of the Value Improvement Committee.

Since the Company pays a flat rate for the use of WATS lines as opposed to conventional long distance telephone charges based on time and distance, employees who must transact Company business by long distance telephone are encouraged to use WATS lines whenever possible. Mrs. Johnson advises that there is at present little or no waiting for a WATS line. For those who wish to schedule their long distance calls in advance, the operators have been quite successful in making a WATS line available at the appointed time. According to Mrs. Johnson, WATS is a "oneway" service — if you do not reach your party, establish a time when you can call him back rather than having him return your call collect. She also suggests for your convenience that since the WATS lines are least busy 8:00 a.m. to 9:00 a.m., 11:00 a.m. to 1:00 p.m., and after 4:00 p.m., they can be obtained immediately on request in most cases during those hours. Our noon hour is a particularly good time to call Chicago and points West.

The first WATS direct-dialing line was installed in Melpar's satellite telephone system in September and substantially reduced the Company's long distance telephone charges during that month. It was expanded on October 29 to three lines providing direct-dialing service to almost every phone in the United States (Exceptions: Virginia, Washington, D.C., and a few places like Corn Creek, Nevada and Leeper, Missouri).

According to Mr. R. A. Bublitz, Chairman of the value Improvement Committee, WATS will contribute an annualized saving of $30,000 in Melpar's long distance telephone bill. This savings forecast is based on Melpar's pattern of long distance calling during the past year.

The WATS lines have been installed in order to channel Melpar's long distance business calling into a less expensive type of service and their discriminate use is encouraged. New WATS lines will be added as need for them is evidenced.

SJOSTEN LECTURES AT CONF. ON GOVT. R&D CONTRACTS

Melpar's Comptroller, Mr. Stanley M. Sjosten was a guest lecturer at the recent Conference on U. S. Government Research and Development Contracts sponsored by The National Law Center of George Wahington University in cooperation with Federal Publications, Inc. Mr. Sjosten's lecture, entitled "Cost Disallowances under Government Contracts," dealt with the "expansion which appears to be taking place in the Government concept of cost disallowances as a primary tool for cost reduction."

Mr. Sjosten was recently elected Vice Chairman of the Contract Finance Subcommittee of the Procurement Advisory Committee of the National Security Industrial Association.

BLUMENTHAL ADDRESSES NAVY QUALITY ASSURANCE SEMINAR

A Navy Management of Quality Assurance Seminar, held recently at the U. S. Naval Station (Washington Navy Yard Annex) Washington, D. C., heard an address by Mr. L. J. Blumenthal, Manager of the Reliability Department entitled, "Multiple Quality Assurance Requirements — A Contractor's Point of View." Mr. Blumenthal was the only industry representative in an all-government list of invited speakers.

Mr. Blumenthal explored in some depth the basic challenges which multiple quality assurance requirements present to contractor's. He reviewed Melpar's technical, procedural and management approaches toward a solution to the problem and described them as representative of the more advanced approaches currently being pursued within the defense industry. In concluding, Mr. Blumenthal expressed his opinion that " . . . industry must accept the variety of quality assurance requirements and controls as a necessary way of life and gear itself to respond quickly and economically to the demands they impose. Government, on the other hand, has a serious responsibility to insure that this multiplicity is kept to a minimum".

FEDERAL COMMUNICATIONS COMMISSION

CERTIFICATE OF APPRECIATION

The Federal Communications Commission gratefully awards to

Melpar, Inc.

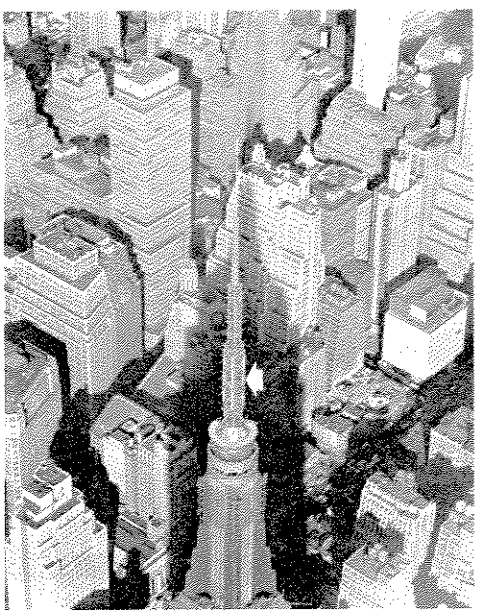
this certificate of appreciation for the cooperation afforded the Commission in the implementation of its program of experimentation in the operation of

TELEVISION BROADCAST STATION WUHF
in New York City during the years 1961–1962.

The contributions of time, talent, literary properties, professional skill and the many other essentials of successful experimentation, afforded by industry, organized labor, the citizens of the New York City metropolitan area and the municipal authorities of the City of New York, were not only significant to, but largely determinative of, the successful fulfillment of our mission to establish the efficacy of ultra high-frequency television broadcasting in highly urbanized areas. Your specific role and contribution are, by these presents, formally recorded and gratefully acknowledged.

Washington, D.C.
November 1, 1962

By direction of the Commission



ATOP THE EMPIRE STATE, MELPAR'S ANTENNAS RADIATE; CITED BY FCC, THEY NOW BRING LEARNING TO NYC . . . Melpar has received a commendation for its contribution to the Federal Communication Commission's UHF television evaluation program in New York City. The New York City UHF-TV Project was designed to provide information that the Commission can use in making a judgement as to the technical and economic feasibility of providing UHF coverage in a heavily built up urban area. Melpar's contribution to this Project included not only the design, development and fabrication of the transmitting antennas for the FCC's experimental UHF station, but supervision of their installation on the tower atop the Empire State Building as well.

Kudos are in order for all who participated in the successful completion of this contract under the direction of Dr. R. Wayne Masters. The work was carried out under the supervision of Project Engineers Carroll W. Morrow and Paul F. Scheidegger. Major engineering contributions were made by Senior Electrical Engineer McIvor L. Parker with Program Management by Mr. Henry C. Wilson.

With the evaluation of the performance of their experimental UHF station (WUHF-TV, Channel 31) successfully completed, the FCC turned the station over to the City of New York for use as an educational TV station. The call letters were changed to WNYC.

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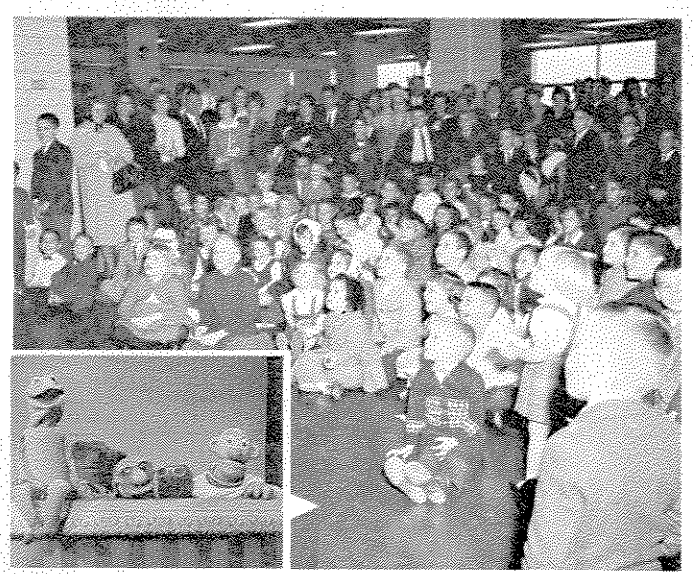
OVER 3,000 ATTEND MELPAR CHRISTMAS PARTY

Personnel Director (Mrs.) J. T. Lafrank puts in a good word with Santa (Mr. Joseph J. Shanahan of Purchasing) for young Jon Gregory Cassandra (son of Mr. and Mrs. Dominick A. Cassandra).

HAPPY NEW YEAR!

The children of Melpar employees who attended the Christmas Party were remarkably well-behaved. Two of them, shown above, receive their presents from Santa (Mr. Henry J. Bailey of Quality Control).



". . . bring me a dish set, susy smart, a stove, a refrigerator, and a dish cabinet. Dave wants a fire engine, big bruiser, and a gas station. Jimmy would like a bazooka, baracutta and magnatel . . . " And Santa (Mr. John P. Bartell of Minuteman QC) listens to every request very attentively.

"I SAID JINGLE BELLS, NOT AULD LANG SYNE . . . " Emcee Art Lamb (standing next to the accordianist) maintained a lively, fun-packed pace of entertainment for the merry throng of Melpar employees and their families.

GEE, THIS IS BETTER THAN TV!! . . . . the children were entertained by the Muppets (Sam and Friends) shown above in the photo inset.

Photo Inset By ANKERS, Wash., D.C.

Photos by Sakamoto

VIP SETS NEW SAVINGS RECORD DURING NOVEMBER

The Value Improvement Program reported a new high in annualized savings of $109,000 during November. These savings were realized through cost-reduction actions taken by the following groups: Manufacturing Division, Quality Control, Drafting, Radar Department, Simulation Laboratory, Plant Engineering, Purchasing, Office Services, and Production Control.

SPOTWELD INSTEAD OF SOLDER JOINT?? . . . Mrs. J.A. Gauthier is shown above spotwelding component leads instead of joining them by the conventional solder technique. With advocates of spotwelding claiming higher reliability and component density for spot-welding of component leads over the conventional solder joint, Melpar's customers are showing an increasing interest in this method of electronic packaging.

A number of companies including Melpar have been engaged in the development of spotwelding techniques for connecting electrical components. An industry group of which Melpar is a participating member, the Welded Electronic Packaging Association, has been formed to disseminate information and to establish standards on these techniques. Senior Engineer W. M. Poe of the Engineering Division's Technical Staff is a member of the subcommittee on Quality Control which is concerned with the reliability of welded joints.

For the past year Mr. Poe has been assigned as the Principal Investigator in a continuing program to develop ultra-high reliability spotwelded techniques as the method of assembling electronic components in fuzes instead of conventional wiring or printed circuit assemblies. He is also exploring nondestructive test or inspection methods for determining the reliability of individual welds and high reliability potting methods for the completed assemblies. Results of this investigation will be reflected in a forthcoming Engineering Standard which Mr. Poe is preparing.

The spotwelding machine shown above is being used in our current fuze production programs. According to Mr. Poe, it is also available for use by other groups in the Company having a need for it.

Photo by Norton

PATENT AWARD . . . The United States Patent Office issued a patent for a "Gaseous Plasma Lens" to Dr. R.C. Jones, Head of the Research Division's Physics Section, and Mr. G.R. Lowrey, Fairfax, Virginia, as co-inventors and assigned it to Melpar on 4 December 1962.

Executive Vice President A.C. Weid is shown above (right) presenting the certificate of patent award to Dr. Jones. Photo By Glittenburg

GOING UP!

Promotions include H. S. Andrews to Secretary, G. K. Clouden to Junior Mechanical Engineer, and R. J. Ferrara to Junior Electrical Engineer.

A. S. Gaizick moved up to Shop Foreman, J. J. Goddess to Field Service Engineer B., and M. T. Hlousek to Shop Foreman.

A. S. Kozak advanced to Senior Test Engineer, K. Mastros to Fabrication Assistant, and W. F. Sloan to Electrical Engineer.

T. F. Smid stepped up to Planning Coordinator, T. J. Smith to Engineering Assistant, A. F. Spring to Secretary, and J. Walters to Shop Foreman.

MM GROUP PERFORMANCE AWARD FOR OCT.-NOV. ANNOUNCED

Minuteman Division Manager K. E. Schreiber has announced the selection of Mr. Karl Dreyer's Receiving Inspection Group as the winner of the Group Performance Award for the October-November competition.

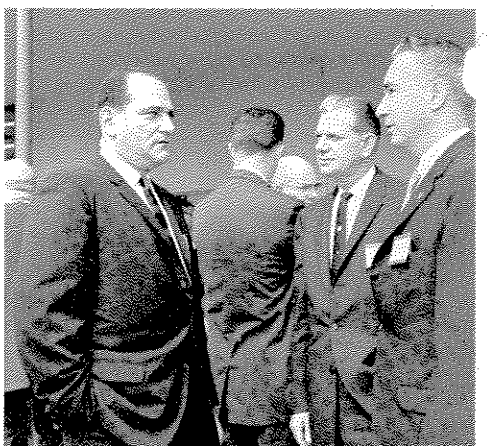
Due to the close competition, five other groups were commended for their unusually high showing for this period. These groups and their supervisors are: P. C. Fabrication Shop Plating (2nd Shift) under Mr. Montford Burgess, P. C. Fabrication Shop Inspection under Mr. Gerald Donohue, Programming and Planning under Mr. Robert Earnshaw, Material Handling under Mr. Richard Markham, and P. C. Fabrication Shop Screen Printing and Photo Group under Mr. Gene O'Brien.

BRITISH JOURNAL PUBLISHES WORK OF MELPAR SCIENTIST

A technical paper presented by Dr. Charles W. Moulton at the Seattle Meeting of the American Physical Society in August was published in the August 25th edition of the British journal, *Nature*.

Entitled "Sputtered III-V Intermetallic Films", the paper described research in which thin films of several III-V intermetallic compounds were produced by by sputtering in an argon-glow discharge. Dr. Moulton observed that sputtering conditions were most favorable for the antimonides, least for the phosphides. According to the author, the fact that films of the intermetallic compounds were formed directly by sputtering lends support to a momentum transfer-type mechanism, in which molecules or poly-atomic aggregates are transported.

The author gratefully acknowledged the contributions of W. A. Gutierrez, R. S. Smith, Dr. H. deSchmertzing and Dr. C. Feldman. The work was sponsored by the Bureau of Weapons, U. S. Navy.



DISCUSSION . . . A.J. Grant, Autonetics Vice President—Computers and Data Systems, left, discusses the recent Minuteman Cost Efficiency Symposium at Autonetics with C.K. Craggs, Purchasing Director, and W.C. Purple, Vice President, Engineering and Manufacturing. During the program S.F. Eyestone, Autonetics Executive Vice President for Operations, noted that the Minuteman program was Autonetics' largest and promises to continue for a significant time period provided "we do a good job." In another talk, Col. John Chandler, deputy deputy Minuteman Program Director for Ballistic Systems Division, told the sub-contractors a number of space uses are potential applications for the solid-fueled missile. He noted not only large space vehicles are needed, but smaller vehicles carrying highly instrumented packages could be economically placed in space by a Minuteman.

Melpar supplies high reliability circuit board assemblies and modules to Autonetics for use in the inertial guidance, flight control and aerospace ground equipment which Autonetics produces for the Air Force's Minuteman Missile.