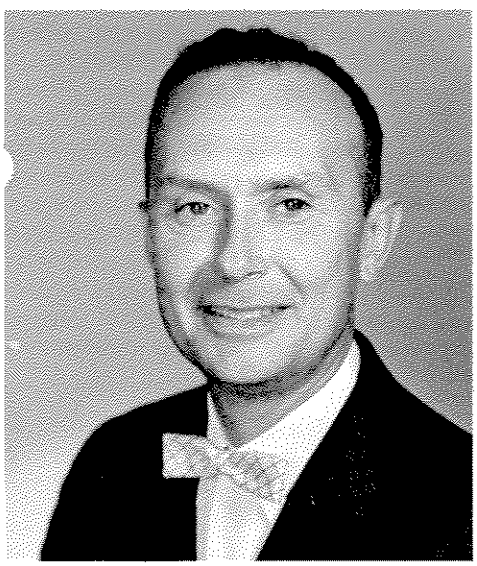
MELPAR-A-GRAPH

Volume 8, Number 4 MELPAR, INC. • A SUBSIDIARY OF WESTINGHOUSE AIR BRAKE CO. May, 1963

First Quarter Sales Up, Prospects Good For '63, President Tells Stockholders

R. W. MASTERS SERVES ON FCC ADVISORY COMMITTEE

R. Wayne Masters, Systems Associate on the staff of Vice President William C. Purple, is serving on the newly established FCC Committee for the Full Development of All-Channel Broadcasting (referred to as the CAB) in several capacities.



Dr. R. W. Masters

In February, FCC Commissioner Robert E. Lee appointed him to the Executive Committee, which plans the nature and scope of the activities of the full committee. Dr. Masters was subsequently named a member of the Technical Development Committee of the CAB and chairman of the Transmitter Antenna and Transmission Systems Subcommittee.

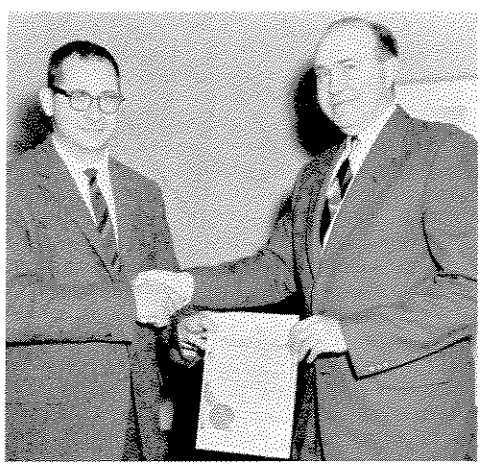
The CAB is an industry advisory committee established by the FCC in February of this year to promote all-channel broadcasting. In a letter to FCC Chairman Newton Minow, President Kennedy stated that government and industry should cooperate in the implementation of both the letter and the spirit of the all-channel television receiver law, and con-

(Continued on Page 2)

NASA AWARDS MELPAR CONTRACT FOR R & D ON ULTRASTABLE HIGH-MEGOHM RESISTORS

Melpar recently received a contract from NASA, Goddard Space Flight Center, for research and development work on ultrastable high-megohm resistors. Principal objective of the work is the development of thin-film rhenium resistors, in the range 10^9 — 10^{14} ohms, that will undergo negligible change in resistance with time. "Negligible change," as it applies here, is a change of no more than 1/2 percent a year. High-megohm resistors of such great stability are needed for the electronic equipment of deep-space flights, some of which are expected to last for years.

Dr. Charles Feldman, Head of the Physical Electronics Section of the Research Division, has direct supervision over the work performed under the NASA contract. Members of his section assigned to the project include Stanley M. Bryla and Raymond A. Rouleau.



PATENT AWARDED. The U. S. Patent Office recently assigned to Melpar a patent for a speech-bandwidth compression system that reduces by a factor of 20 the bandwidth required for speech transmission. Inventors of the system are Melpar scientist S. Joseph Campanella, shown (left) receiving the certificate of patent award from Executive Vice President A. C. Weid, and former Melpar employee Thomas E. Bayston. The system is expected to find applications in global and space speech-communication systems.

Melpar's sales for the first quarter of 1963 totaled $16,981,000, compared with $7,025,000 for the first three months of last year, reported President Edward M. Bostick at the Company's annual stockholders' meeting on May 3. Net earnings rose to $334,000, or 13¢ a share, from last year's $192,000, or 8¢ a share. Mr. Bostick also told the stockholders, who assembled at the Falls Church plant, that the Company's position improved in 1962. He forecast further improvement during the current year.

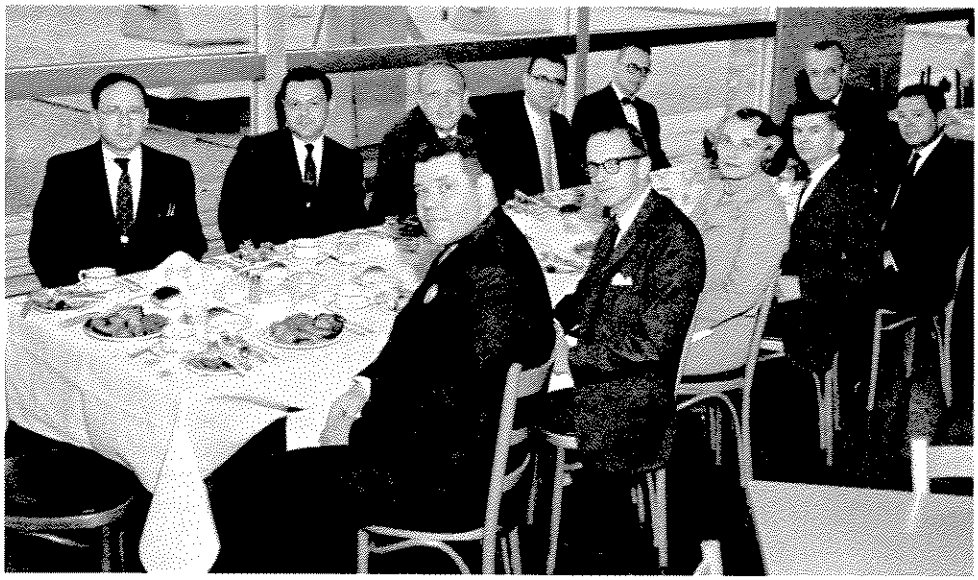
The incumbent board of directors was re-elected. The directors, whose number increased from five to seven during the past year, are Edward M. Bostick; Lyle S. Garlock, Vice President, Eastern Airlines; Edwin Hodge, Jr., President, Pittsburgh Forgings Company; A. King McCord, President, WABCO; Thomas Meloy, Chairman of the Board; Eric A. Walker, President, The Pennsylvania State University; and Richard H. Wood, Vice President and General Counsel, WABCO.

TAI TO MAKE COMMUNICATIONS STUDY, AIR SURVEY FOR BOLIVIA

Television Associates of Indiana, Inc., a Melpar subsidiary, has entered into an agreement with the government of Bolivia to make a communications feasibility study and aerial survey, preliminary steps in the development of a modern telecommunications system for the South American country. TAI President, W. C. Eddy, in making the announcement, said the system, when completed, will provide a vital link in the Pan-American Telecommunications Network, which eventually will span South America.

HOLIDAY

Thursday, May 30, is Memorial Day. Melpar observes this day as a paid holiday so that employees may join their fellow citizens in honoring the memory of our war dead.



TEN-YEAR TENURE. In what's becoming a familiar scene at Melpar, employees observing their tenth anniversary with the Company in April were awarded length-of-service pins at a lunch in the cafeteria on April 17. The guests of honor were accompanied by heads of operating units and by Company officials. Around the festive board, clockwise from the left, are Dr. David A. Kahn; Leonard Kings, 10 years' service; Vice President Paul E. Ritt; John R. Sayers, Jr., 10 years' service; F. Wallace DeDier, 10 years' service; Stanley M. Sjosten; Lincoln Brown; James G. Merritt, 10 years' service; Joan T. Lafrank; L. Heath Vining; and Thomas C. Watts, Jr., 10 years' service. Also observing their tenth anniversary, but not present at the lunch, were Robert H. Schmitt, William R. Leighty, and Thomas K. Parks.

ARTICLE BY SPIVACK APPEARS IN PROCUREMENT MONTHLY

The April 1963 issue of *Electronic Procurement* carried an article by Jack Spivack, Melpar Purchasing Value Analyst. The article, "Value Analysis—What's in It for Procurement?", points out how skillful use of value analysis techniques in purchasing leads to greater profits and brings greater management recognition of the importance of procurement to business success. The article is enlivened by descriptions of specific instances in which application of the techniques to the evaluation of materials and procedures led to reduced costs.

DR. MASTERS (Continued from Page 1)

cluded "The Committee you have established is an excellent forum for industry-government cooperative efforts."

As a member of the Technical Development Committee of CAB and chairman of the UHF Transmitter Antenna and Transmission Systems Subcommittee, Dr. Masters will participate in investigating and proposing measures for optimum development of UHF television transmitting and receiving techniques.

Dr. Masters has over 20 years' experience in antenna research and holds 15 patents in the field. He was named a Fellow of the IRE (now IEEE) in 1962.

VIP SAVINGS TOP $110,000

Annualized savings of $110,112 in overhead and direct costs were reported by the Value Improvement Program for February 1963. These savings resulted from the efforts of the following operating units: Publications, Quality Control, Radar Department, Drafting, Manufacturing Division, Minuteman Division, Purchasing, Plant Engineering, Personnel, Office Services, Research Division, Accounting, and Security.

DIAMONDS? EMERALDS? IN THE BASEMENT?

On the lower level of the Falls Church plant, modern-day alchemists are transforming unglamorous substances, such as graphite and aluminum oxide, into diamonds and emeralds.

Although it is doubtful that Melpar will ever be a threat to the Kimberley mines, much is to be gained from this unusual manufacturing process. The synthesis of diamonds, emeralds, and other crystals is revealing some of nature's best kept secrets to the scientists of the Company's Very High Pressure Research Laboratory. By re-creating in the laboratory the high pressures and high temperatures under which minerals were formed deep in the earth's crust, the researchers are adding to their knowledge of the synthesis mechanisms, crystal structure, and chemical behavior of materials.

The extension of such knowledge promises to yield eminently practical results, according to John Riley of the VHPR Lab. Controlled synthesis of crystals at high pressures and high temperatures is a route toward the discovery of new semiconductors and ceramics, new laser and maser materials, new materials for use in extreme environments.

The transformation of raw oxides of beryllium, aluminum, and silicon into beryl (the pure form of emerald) requires pressure of about 200,000 pounds per

(Continued on Page 4)

MODEL STUDENTS. Richard McAneney (left), Paul Potts (center), and Frank Lander found this model of the LP-5 and LP-6 buildings helpful in planning methods of streamlining work flow. The three men recently completed an industrial engineering training course conducted as part of the Minuteman Program of Work Simplification, Cost Reduction, Methods Improvement, and Manufacturing Analysis. They were members of a group who took part in a six-week intensive course of instruction and training. The others were R. Duffy, L. Fox, J. Haske, C. Funkhouser, J. Kerr, W. Oaks, D. Paine, T. Peterman, C. Shenton, R. Sorrell, and M. Stumm. Photo by Glittenberg.

The Melpar Picture . . . and Its Frame

Suppose a man who has never heard of Melpar is handed one of our technical publications—a proposal, say, or a report or tech manual. If he's normally curious he asks himself, consciously or not, What sort of company put this out? The answer he will arrive at depends on the image of Melpar that the publication projects.

Whether the image is favorable or not depends mostly, of course, on what the writer has to say. His words paint the broad strokes of the picture of the Company's capabilities and level of professional performance. But the impact of the picture depends also on the quality of the frame in which it is mounted. Clear, correct language; imaginative, well-realized drawings and photos; paper and binding and cover that are attractive, but not flashy—these all play a part in displaying the writer's ideas to best advantage.

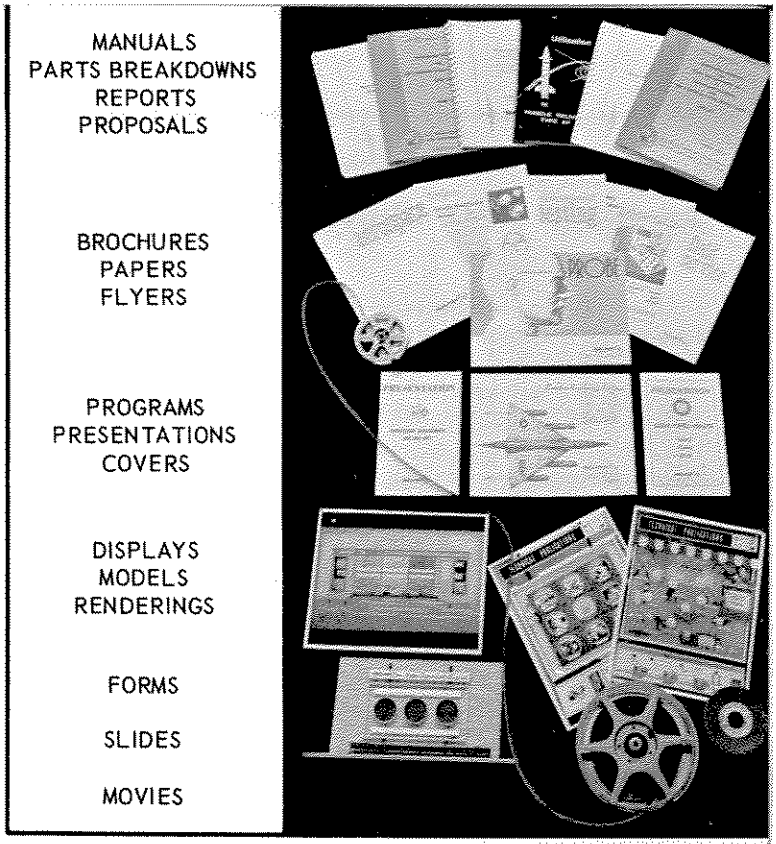
At Melpar, much of the responsibility for seeing that ideas get a frame worthy of their import rests with the Publications Department. Here, writers skilled in organizing and expressing technical and scientific facts team up with editors, photographers, illustrators and other specialists to prepare publications that reflect with fidelity the value the Company places on competence, creativity, economy. The photos on this page tell the story of some of their activities.

But there's more to be said. "An important aspect of our work is research," explains M. N. Ingrisano, Head of Publications. "We are always exploring new ways to communicate technical information. For instance, after experimenting with microfilmed technical manuals, we recently showed a preliminary microfilm system to Air Force personnel. You might say that, in general, we have our eye on the maintenance support needs of space systems of the future."

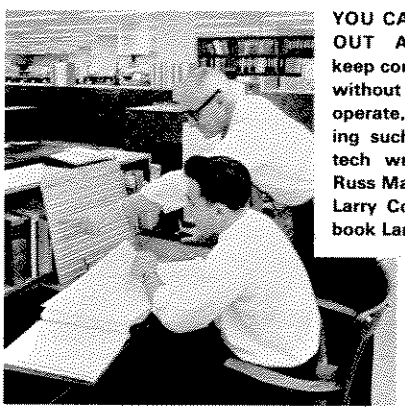
With that, another dimension—progressiveness—can be added to the image of Melpar that the Publications Department helps build.

THEY PRODUCE. Manuscript and rough sketches turn into finished book or pamphlet in the hands of the Publications Production section. Some manufacturing processes—typing and page layout, for example—take place right here; others are controlled from this point.

WATCH YOUR LANGUAGE! The blue-pencil brigade of tech editors is on the alert for misspellings, grammatical errors, rambling sentences, and foggy paragraphs.



VARIETY SHOW. In Publications, ideas find expression in many ways, as attested by this display of the end products of the department.



YOU CAN'T TELL THE PLAYERS WITHOUT A SCORECARD. And you can't keep complex electronic gear in top shape without detailed instructions on how to operate, maintain, and repair it. Preparing such instructions is the job of our tech writers. Here Senior Tech Writer Russ MacMahon checks with Tech Writer Larry Contillo on the status of a handbook Larry is writing.

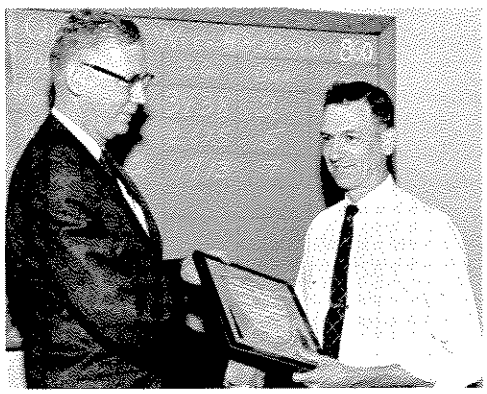
Photos by Sakamoto.

O'BRIEN'S GROUP REPEATS AS G-PEP AWARD WINNER

Gene O'Brien's Screening and Photo Lab group, winners of the Minuteman G-PEP award for August-September of 1962, racked up another victory in the February-March competition. One more win, and the group retires the current award plaque for permanent display in its work area.

In announcing the award, Minuteman Division Manager Kenneth E. Schreiber commended four other groups for their excellent showing. These are Plating Line (second shift), under James B. Kerr; Shipping – Material Handling, under Richard A. Markham; Component Test (second shift), under Sam Poorbaugh; and Mechanical Assembly, Routing, and Drilling, under Jack Walters.

The G-PEP award is made on the basis of achievement, good housekeeping practices, and morale.



THE WINNAHS! The February-March G-PEP Award went to the Screening and Photo Lab group, above. In small photo, Shop Superintendent Robert Moneyhon (left) presents the award plaque to Gene O'Brien, foreman of the group. Photos by Salmon.

PEANUTS Charles Schulz

Charlie Brown is often wrong, as *Peanuts* fans know. But he has the right info this time. U.S. Savings Bonds *are* very nice. When you buy bonds, in one stroke you protect the security of both your family and your country.

May has been named Minute Man Month by the U. S. Treasury Department. It is the anniversary month of the Savings Bond program and the beginning of the nationwide 1963 Freedom Bond drive. Now is a good time to invest in your future by buying Savings Bonds through payroll deductions. Enrollment cards are available in all Personnel offices.

DIAMONDS? EMERALDS?

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square inch and temperature in the neighborhood of 1100 degrees centigrade. Turning graphite into diamond requires pressure of about 750,000 pounds per square inch and temperature of approximately 1400 degrees centigrade. These pressures and temperatures are well within the capabilities of the experimental equipment of the VHRP Lab.

Big gun of the very-high-pressure equipment is a supported-piston apparatus that can apply pressures up to approximately 1-1/2 million pounds per square inch at temperatures of 2800 degrees centigrade or more. This apparatus, which was made in the Melpar shops, can simulate the conditions of pressure and temperature found 200 miles beneath the surface of the earth. Besides high-pressure devices, the Laboratory has modern crystallographic, optical-analysis, and X-ray facilities for identifying the products and byproducts of experimental runs.

GOING UP!

The following personnel changes took place within the Melpar organization in April:

L. E. Clifford to Senior Chemical Technician, E. M. Culbertson to Staff Secretary A, and J. M. Dubuc to Senior Planner.

M. B. Eakins to Staff Secretary A, C. Evanto to Quality Control Engineer, and D. C. Frost to Junior Test Engineer.

J. T. Gordon to Inspection Foreman, B. F. Ingram to Inspection Foreman, and F. G. Mahoney to Progress Coordinator.

C. L. Mullins to Shop Foreman, N. G. Nicholas to Junior Quality Control Engineer, and J. R. Shutt to Electrical Engineer.

C. G. Snyder to Engineering Technician, W. H. Soper to Senior Planner, and R. L. Watson to Accountant.

R. W. Winship to Chemical Engineer and A. P. Woods to Junior Engineering Assistant.