melpar-a-graph

MELPAR, INC. A SUBSIDIARY OF WESTINGHOUSE AIR BRAKE COMPANY

Volume 11, Number 1 **January, 1966**

ZD Comes to Melpar

Tuesday marked the initiation of Melpar's Zero Defects Program. Supervisors and interested staff personnel attended a Supervisor's Dinner with the new President of Melpar, Jay V. Wilcox, Vice President and General Manager William C. Purple, Zero Defects Administrator Leonard J. Blumenthal, and members of the Zero Defects Committee.

The dinner was given to inform the supervisors about the ZD Program and to explain to them their vital role in making ZD work in Melpar. Members of the Zero Defects Committee—the body responsible for structuring and scheduling Melpar's ZD Program—addressed themselves to the main functions of the program: Defect Cause Identification (DCI) drives, Personal Commitment by every Melpar employee, and ZD awards. Speakers at the dinner included Dr. Earl Usdin, Research and Engineering; Billy Serrin, Manufacturing; Dr. Thomas Wood, Administration; and John Critchfield, Contract Management.

The dinner was concluded with the personal commitment of Melpar's corporate officers to the means and ends of the Zero Defects Program. All signed the Zero Defects Scroll.

Mr. Blumenthal announced that the ZD Program will actually be kicked off on February 7th when all Melpar employees will be asked to personally commit themselves to the ZD Program by signing a similar scroll. Prior to that day, a five-day Defect Cause Identification (DCI) drive will be held and the ZD Program explained in detail by the supervisors to their various groups.

Backed up by the Zero Defects Committee, ZD Administrator Leonard J. Blumenthal presents the ZD Key to Mr. W. C. Purple, Vice President and General Manager. The Zero Defects Key is the symbol of Melpar's ZD Program and will be used on ZD awards and posters and for general publicity for the program throughout the Company. (From left to right) Thomas Wood, Donald Gibbs, Earl Usdin, Leonard Blumenthal, George Moreland, William Serrin, William Purple, John Critchfield, and Bernard McGinnis.

Melpar Reps. Brief SMC

Dr. Thomas L. Wood, Personnel Manager, and Tony DePasquale, Personnel Supervisor, participated in the December meeting of the Scientific Manpower Commission of the National Academy of Sciences. They were invited as guests of the Commission to present industry data on the problems concerning requirements and supply of scientific manpower.

The Commission devoted this meeting to analyzing the needs of industry for technical and scientific personnel in relationship to the problems created by lack

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Miller Attends TASS Dedication

On December 13th, Robert E. Miller, Vice President for Engineering Services, participated in the dedication ceremonies at Fort Monmouth, New Jersey of TASS (Tactical Avionics System Simulator), a new two million dollar facility which simulates the in-flight performance of electronic systems to be used in Army tactical aircraft. Assistant Secretary of the Army Willis M. Hawkins was the honored guest for the briefing and ceremony.

During these briefings, Melpar was cited on three occasions as having contributed to this program in two major areas: first, the equations of motion used to simulate the Advanced Aerial Fire Support System (the major initial project in which the simulator system is being used) were developed under a Melpar study contract with NTDC, and second, the cockpit motion subsystem was manufactured by Melpar within costs and ahead of schedule. Throughout the day, Fort Monmouth people gave significant credit to Melpar for its portion of the work, all of which was done in Thomas Walkinshaw's Simulation and Training Center.

TASS, whose equipment includes a large-scale computer system and two maneuverable cockpits, is the only Army simulator capable of doing its specialized job. It is being used to evaluate proposed avionics—that is, aviation electronics—during the design stages of new Army aircraft. It also will be used to develop new electronic systems for existing aircraft.

In the cockpit, a pilot uses actual control and instruments. As he "flies" the aircraft, his control input activates the specially programmed computer, which translates the "flight" into realistic terms. The pilot can, for example, simulate take off, climb to any altitude, use navigation aids, fly at variable speeds, move in formation with other aircraft, go through maneuvers, and take evasive

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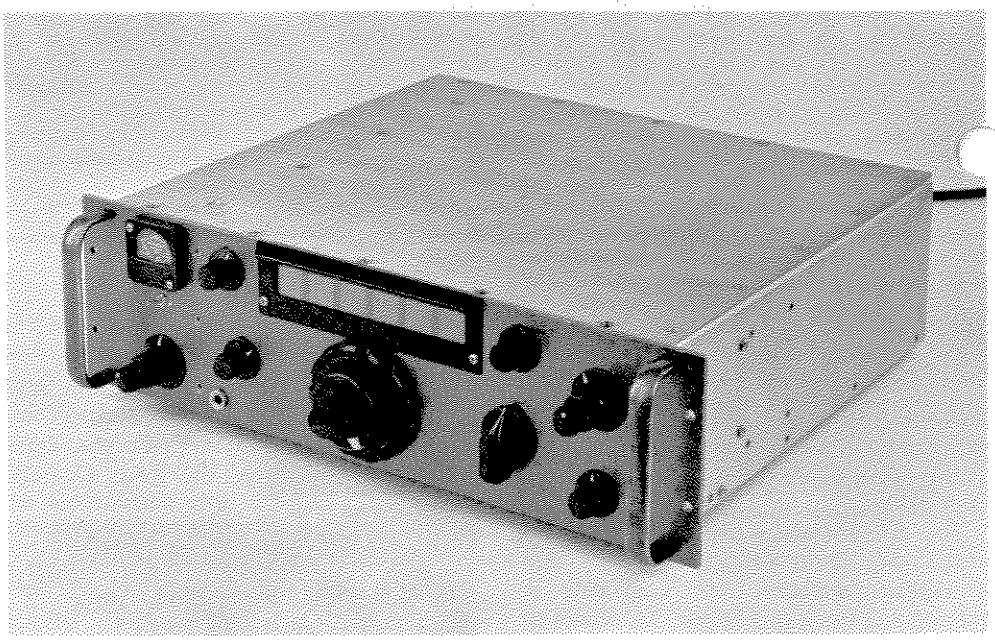
Melpar's First 1/2 Million Miler

Mr. Leonard Kings of Melpar's Aerospace Center has become a full-fledged member of United Airlines One-half Million Mile Club. Mr. Kings is the first Melpar employee to have logged over ½ million miles of air travel on United Airlines; and it was all on Company business.

All of Mr. King's travels have been in the last ten years. He has traveled to Trinidad, Haiti, Japan, Hong Kong, the Azores, France, and England, not to mention the many times he has flown across the United States and to Canada and Mexico attending conferences, inspecting Melpar equipments and equipment installations.



This is the Melpar Model HF 103 high frequency receiver currently being developed under Company sponsorship by the Communications Laboratory. The HF 103 is designed to satisfy requirements for a precisely-tuned high frequency receiver and uses all electronic tuning techniques that can be controlled manually, remotely, or by computers.

It was designed principally by Jack T. Murray and Neal Ishman, members of Laboratory Manager Morris G. Watson's technical staff. A protype of the Model HF 103 is currently being demonstrated to various government agencies.

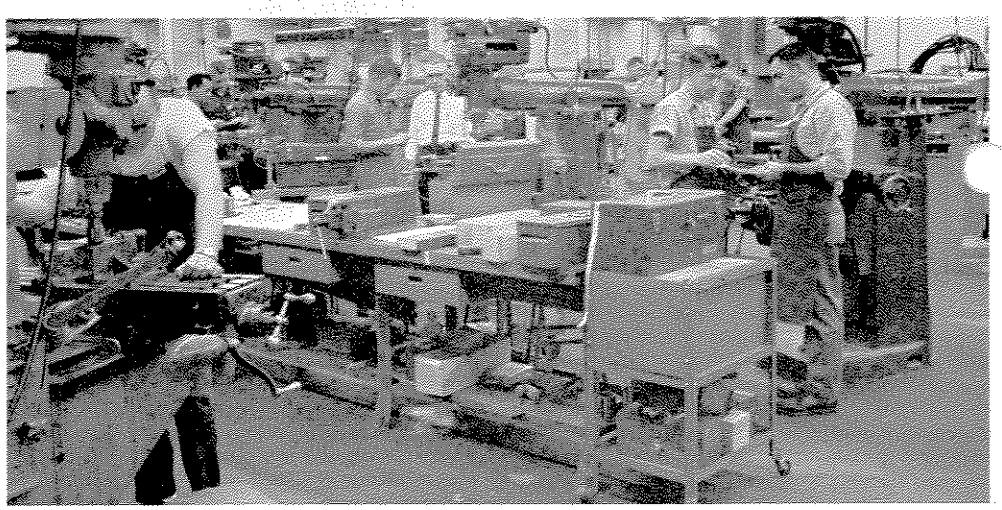
Melpar Shops

The noises of piercing, forming, milling, and drilling are familiar to the shop areas. But more than the sounds, the results of long hours are important, and results are dependent upon people: sheet metal men, machinists, painters, dip brazers, tool and die makers, and welders. Without these people, the shop areas would be noiseless and the results zero.

These are men who need only their machines and blue-prints to build a complex simulator cockpit out of stainless steel. The skilled shop craftsman can mould a piece of metal into almost any shape. At his command are machines which stand ten feet tall and which are capable of delivering over 140 tons of concentrated pressure at the push of a button. His guide is a mass of blue lines, curves, angles, and figures on a sheet of dull white paper. His job is to transform that seemingly incoherent maze into a precision-made object. It's not easy. To learn to do it well takes years of training and hard work.

During October and November sixteen trainees took a 20 hour course to aid them in reading blue-prints, working shop math, and safely using the tools of their trade. The course was taught by Mr. Thomas Stewart of the Fairfax County School System with the sanction of the State Board of Education. The trainees received credit for the course by the award of a Melpar certificate of completion.

Not one of those trainees will tell you that the course was easy. But they have just begun to learn, and the future looks bright; just ask the pros.



THE MACHINE SHOP . . . Where things are humming around the clock.

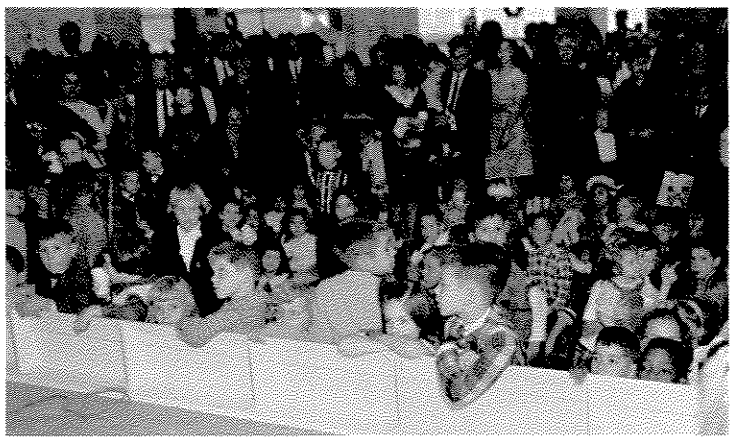
Going Up!

Congratualtions to the following who received promotions in the month of December:

John J. Adams to Planning Supervisor
Mervin J. Jackson to Custodial Foreman
Paul J. Lare to Sr. Metallurgist
John B. Gregg to Process Engineer
Robert G. Smith to Sr. Planner
John R. Bashista to Sr. Electrical Engineer
Annah Rohr to Assembly Foreman
George M. Greskovic to Planning Supervisor
James B. Kerr to Shop Foreman
Carlos Dolinger to Shop Foreman

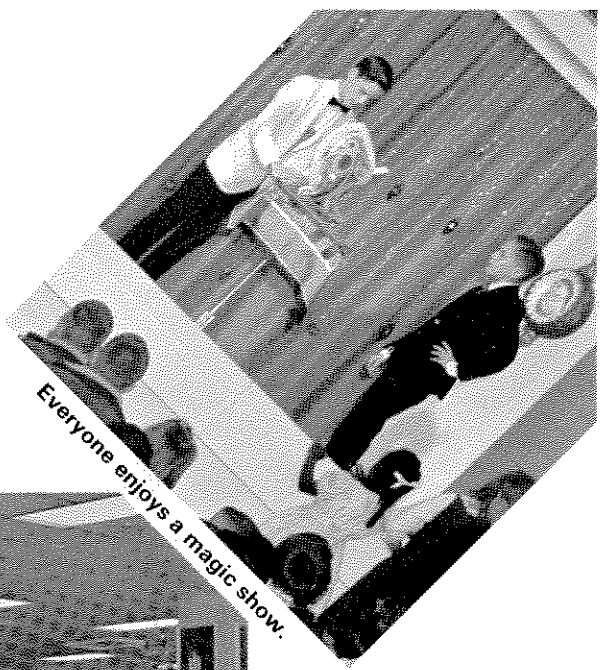
Fun for All and All for Fun

MELPAR'S CHRISTMAS PARTY

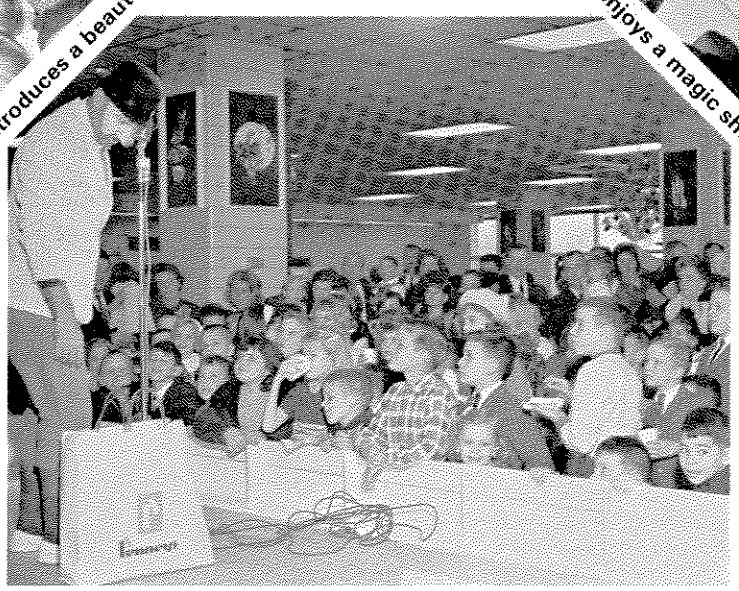


Audience awaits the arrival of Master of Ceremonies Art Lamb and the beginning of the entertainment.

Art Lamb introduces a beautiful young lady.



Everyone enjoys a magic show.



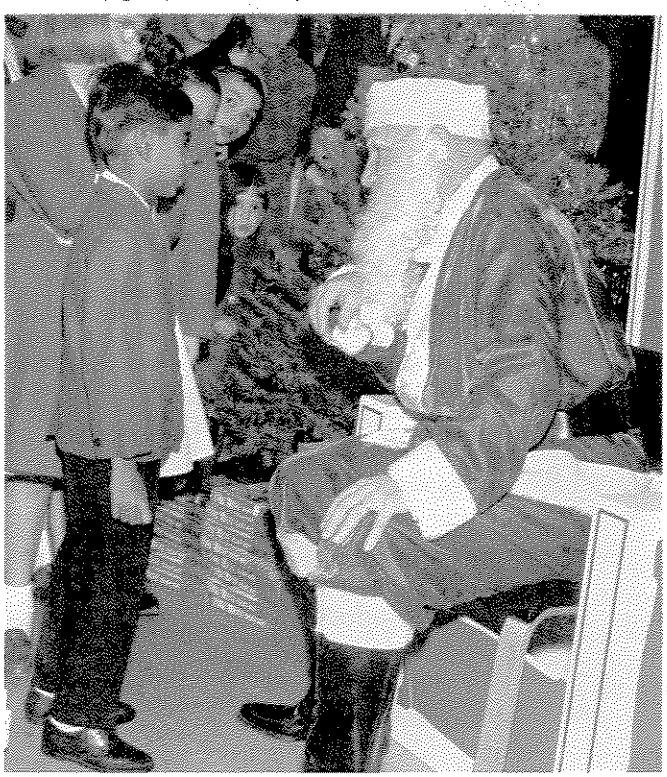
Freddie the clown and his bag full of tricks delights the youngsters.

Eva, the talking machine, greeted everyone on their way to see Santa.

"Here's a present for *you*, Santa."

"Are those really your reindeer, Santa?"

"By golly, it does say, 'made at the North Pole'."



"No, Santa. I want a real helicopter, not a flight simulator."

Zero Defects is a new and challenging program presently used by over 1,000 companies with over 2 million employees in the United States. ZD is not just another gimmick designed to get more work out of everybody. It is a great deal more than that.

The concept of Zero Defects has worked in other companies because it is based on the premise that a person who takes pride in his work performs his work right the first time. Melpar's effort for ZD is directed toward establishing more satisfaction and pride in each and every employee, creating personal confidence, and recognizing worthy efforts on the part of individuals and groups throughout the Company.

First and foremost in the minds of all who participate in ZD must be the understanding that the individual is the most important part of the program. But this individual is not just any individual; he is *you.*

The basic idea of Zero Defects is that causes of all defects can be discovered and eliminated, and that the individual is in the best position to discover and eliminate these causes. Elimination of defects results in better products for the customer, plus more and better opportunities for people. And it is a widely accepted fact that the fewer the defects, the more satisfaction the employee gets out of his work.

Melpar's ZD Program will progress through four major steps: (1) Supervisor's orientation, (2) DCI Drive, (3) Personal Commitment by all employees, and (4) Sustaining recognition and awards for outstanding performance.

With these thoughts in mind, the following questions concerning the ZD Program should be answered:

WHAT DOES ZERO DEFECTS (ZD) MEAN?

ZD means work that is *done right the first time.*

WHAT IS THE ULTIMATE GOAL OF MELPAR'S ZD PROGRAM?

There is only one goal for the ZD Program: *for each individual Melpar employee to accomplish his work free of defects.*

WHY IS THERE A ZD PROGRAM AT ALL?

ZD reverses an old cliche that says, "To err is human." This is just not true. In the past we geared our system to catch defects after they were made, which means that we expected people to make mistakes. Now we recognize a new concept: that with proper training, the right attitude, and a sincere effort, people can do work right the first time. ZD intends to eliminate defects *before* they are made.

WHAT IS THE SCOPE OF THE ZD PROGRAM?

ZD will be truly a Company-wide program covering *all* plants and *all* employees of Melpar, Inc.

HOW DOES ZD WORK?

Zero Defects works to *remove the cause of defects.* Causes may be bad tools, bad working conditions, lack of training, disinterest, vague or insufficient instructions, carelessness, inadequate standards, or lack of knowledge. It is toward finding and eliminating all causes of defects, whether the cause is in the mind of a worker or the tool he is using, that the ZD Program is directed. ZD is not designed to correct defects already made, but to *prevent them before they can occur.*

WHO MAKES ZD WORK?

YOU! The individual on the job should know more about his work than anyone else. You can usually discover and explain causes for errors or inefficiencies in the work more readily than anyone else.

WHO IS RESPONSIBLE FOR THE SUCCESS OF ZD?

YOU! ZD can only achieve its goal of *work accomplished with zero defects* if each employee of Melpar brings with him to work every day his pride, self-confidence, self-motivation, and the desire to do the best job possible. This takes the same sense of responsibility that he assumes at home. It means that the individual has that extra something that makes a *pro*!

WHAT CONSTITUTES A DEFECT CAUSE IDENTIFICATION (DCI)?

The DCI has no standard, universal definition because defects vary from department to department, group to group, job to job, and individual to individual. The DCI may take any form: it may concern poor training or instruction, or it may point out a flaw in a specific tool. It can be almost anything, but its prime purpose is for the individual employee to point out those factors which handicap his ability to do a job right the first time.

WHAT IS THE DCI DRIVE?

The search for causes of defects is the first step in the ZD Program. This must be done by the individual employee, and each employee must be dedicated to the search.

During the year a series of DCI drives will be held under the ZD Program to stimulate an avalanche of DCI forms into the office of the ZD Administrator. Each drive will last one week.

The Zero Defects Administrator will be the coordinator of each DCI drive. He will work with the Zero Defects Committee to make sure that the program achieves maximum effectiveness throughout the Company.

WHY IS THERE A DCI FORM?

When an individual discovers a defect cause, he is encouraged to fill out a Defect Cause Identification (DCI) form. This form asks the employee simply to explain the nature and effect of the cause of a defect. Should the employee wish to suggest a possible remedy, there is space on the form to do so. These DCI forms are submitted to the ZD Administrator.

The DCI form is designed to bring causes of defects out into the open where they can be properly understood and eliminated. The DCI represents direct communication between the employee and the ZD Committee.

HOW ARE COMMITMENTS MADE?

The Zero Defects Program is based on employee cooperation through dedication to the means and ends of the program itself. Personal commitment to the ZD Program is voluntary and

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Zero Defects (Continued from Page 3)

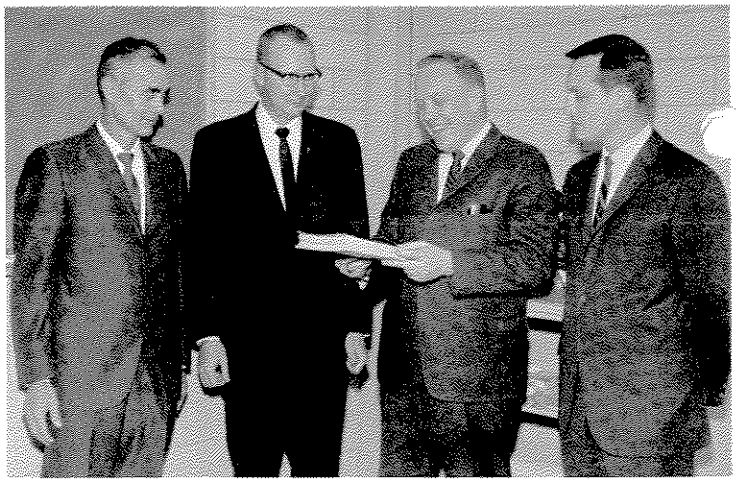
should be made by each employee when he understands the program and desires to participate.

Each group will receive a scroll which all employees will be asked to sign. The scroll signifies that all who sign it understand the ZD Program and will make a sincere effort to discover and eliminate causes of defects in their work and in the work of their group.

WHAT ABOUT RECOGNITION?

An important part of the ZD Program involves recognition of employee participation. Awards will be made on a regular schedule. Each month individuals will receive ZD awards for the best performance in eliminating defects and quarterly ZD awards will be given to groups which have contributed the most to the ZD effort.

Awards will be made by the Zero Defects Committee and published in the *Melpar-a-graph* along with pictures of the award winners.



15 YEARS . . . Dr. Paul Ritt (second from right) reminisces with three 15-year employees honored at the December Pin Award Luncheon. (from left to right) Robert V. Overton, Morris G. Watson, and Edward L. Ditz.

SMC (Continued from Page 1)

of educational facilities, Selective Service requirements, salaries, and increasing proportions of professional personnel to non-professional.

Dr. Wood presented to the Commission data concerning the availability, turn-over, and ratios of professional to non-professional technical personnel as viewed through Melpar's experience in the last five years.

Other industry guests at the meeting included Dr. Frank Werber, Vice President of the Polymer Research Division of W. R. Grace and Company, and Mr. Sidney B. Ingram, Technical Employment Director of the Bell Telephone Laboratories.

Items for Sale? Use New Bulletin Boards

Bulletin boards for employee use have been placed in the Falls Church plant cafeteria and in break areas in the Leesburg Pike plants and Shirley Research, D Building.

These bulletin boards may be used by any employee for posting items for sale or rent such as autos, furniture, apartments, musical instruments, or other personal property.

3 x 5 cards and thumb tacks will be provided at each bulletin board for your convenience. Photos and illustrations are permissable.

All of the boards will be completely cleaned on the first of each month. Those employees wishing to continue their notice should remove it prior to that time and post again after the board has been cleaned.

On December 15 a Service Pin Award Luncheon was held at the Falls Church plant cafeteria. The above picture is of those Melpar employees who received 10-year Service Pins. They are (from left to right) Roy B. Daves, Wade W. Gunn, Andrew C. Madsen, Michael Lloyd, Evelyn L. Muth, James L. Buckler, Evelyn L. Campbell, C. Wilson Norris, Pat Godfrey, Alfred Krieg, Menzie Turano, Paul F. Combs, and James F. Rickard. Two employees who received awards were absent from the luncheon: William M. Stone and Kenneth R. Geyer.

TASS (Continued from Page 1)

action to avoid enemy fire. The cockpit is thrown into the actual motions of yaw, pitch, heave, and roll—with a seatbelt protecting the occupant.

Among other factors, measuring the effects that the firing of different kinds of weapons have on the aerodynamic stability of an aircraft are of critical importance. For example, the recoil of a weapon can cause a sharp change in an aircraft's attitude. The use of TASS to evaluate the design of flight control systems is fully expected to aid greatly in minimizing this problem.

When the ground picture system is added to the TASS installation, the gunner, like the pilot, will be able to view the moving televised display of the terrain on the windscreen of his cockpit. In touch with the pilot by intercom, he can, for instance, ask for a search for signs of "hostile" activity in all sectors of the display. Peering into a simulated optical periscope which serves as his gunsight, he can call for precise flight patterns and maneuvers to acquire, track, and fire on targets—with hits and misses being registered.

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