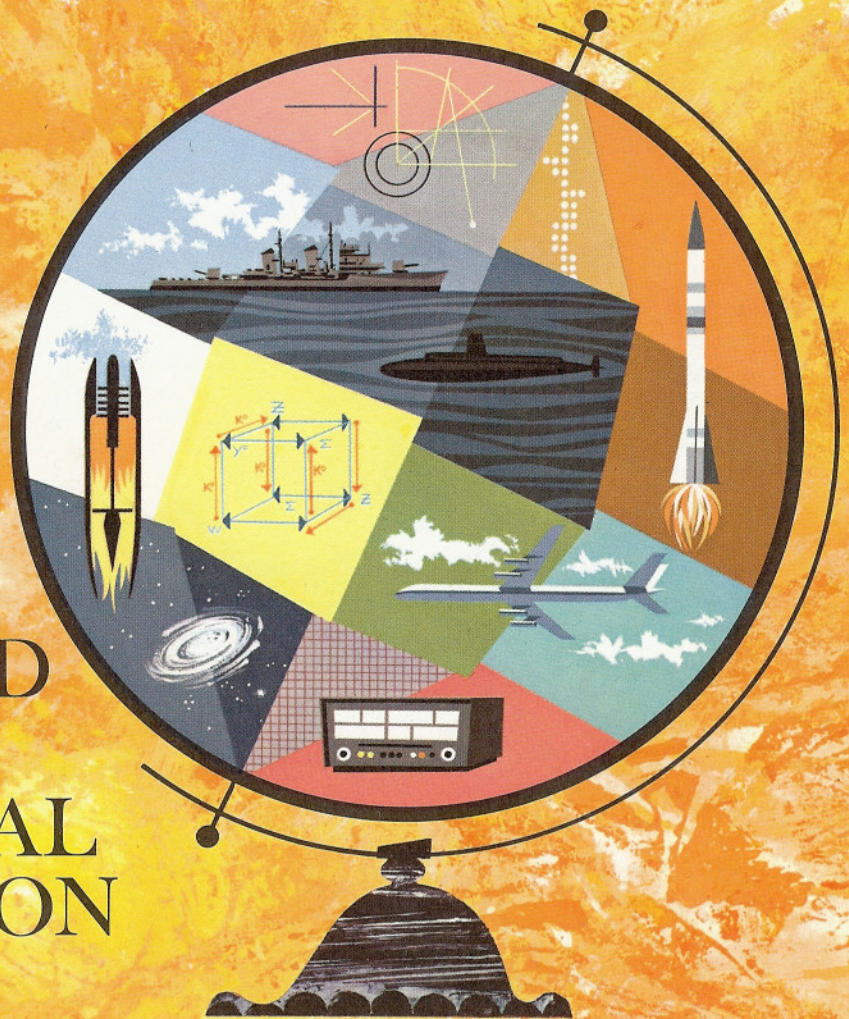


A PRESENTATION OF THE FACILITIES AND CAPABILITIES OF GENERAL PRECISION, INC.

THE  
WORLD  
OF  
GENERAL  
PRECISION  
INC.





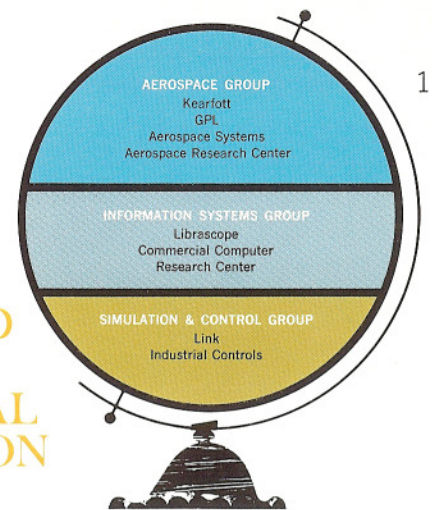
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# THE WORLD OF GENERAL PRECISION INC.



## MANAGEMENT'S MESSAGE

The rate at which our nation's efforts in space exploration and defense programs are growing in both scope and technological complexity presents an ever-increasing challenge to American industry. General Precision, Inc. meets this challenge by providing (1) a competent systems management that supplements the technical and management capabilities of various government agencies (2) a concentration of systems-oriented technical talent whose combined abilities encompass all the necessary basic sciences and anticipate new technologies as well, and (3) an economically sound program of long-range planning which anticipates the future requirements of the space age and initiates studies leading to significant contributions.

■ These contributions are effected through a management philosophy which permits flexibility in organization, allows focusing of effort where needed in specific areas, and assures the integrated teamwork necessary for handling large systems contracts. Whatever its new missions in creating military and space systems, the company stands ready. Its strong and varied capabilities are clearly reflected in years of proved performance. ■ To fulfill new customer and marketing requirements more efficiently, General Precision, Inc.'s divisions are grouped for specialization in three general markets: (1) aerospace guidance and control systems and components (2) aerospace, ground-based and shipboard computers and data-processing systems, and (3) simulation and industrial controls. The divisions forming these groups retain their individual capabilities to produce the special equipment for which they are well-known in their respective fields. ■ Briefly, then, General Precision, Inc. is characterized by across-the-board competence in almost every field of advanced technology, and by a flexible structure which permits experienced systems management to be effectively and economically applied to programs varying in size from a complete electronic system to the development and production of a single hardware component. These twin capabilities place the company in a unique position to satisfy the widest possible range of customer requirements. ■ Highlights of General Precision's activities and aims are presented on the following pages. We invite you to call on us for information and assistance.



J. W. Murray,  
Chairman of the Board



D. W. Smith,  
President

*J. W. Murray*  
Chairman of the Board

*D. W. Smith*  
President



# CORPORATE ORGANIZATION

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## GENERAL PRECISION, INC.



GENERAL  
PRECISION  
EQUIPMENT  
CORPORATION

---

**OTHER SUBSIDIARIES**

GRAFLEX, INC.

*Society for Visual Education, Inc.*

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GENERAL PRECISION SYSTEMS, LTD.

---

NATIONAL THEATRE SUPPLY COMPANY

---

THE STRONG ELECTRIC CORPORATION

PRINCIPAL OPERATING SUBSIDIARY



GENERAL  
PRECISION  
INC.

General Precision, Inc. is the principal operating subsidiary of General Precision Equipment Corporation. It is engaged primarily in the design, development and production of electronic systems, subsystems and components whose applications are largely in the military and space fields. ■ The company is organized into three Groups: the Aerospace Group, including the Kearfott, GPL and Aerospace Systems Divisions, and the Aerospace Research Center; the Information Systems Group, comprised of the Librascope and Commercial Computer Divisions, and a Research Center; and the Simulation & Control Group, made up of Link Division and the Industrial Controls Division under which operates GPE Controls, Inc. and Shand & Jurs Co. ■ AEROSPACE GROUP's major areas of interest are advanced guidance, navigation and control systems and components for application in space vehicles, missiles and aircraft. INFORMATION SYSTEMS GROUP concentrates on computing and data processing systems for aircraft, missile, and space applications; commercial, industrial, and scientific applications; and on command-and-control and naval fire control systems. Principal areas of interest of the SIMULATION & CONTROL GROUP are simulation systems for flight and tactical training in aircraft and space programs, specialized aerospace



**GP AEROSPACE GROUP**

|                   |                           |
|-------------------|---------------------------|
| KEARFOTT          | GPL                       |
| AEROSPACE SYSTEMS | AEROSPACE RESEARCH CENTER |

KEARFOTT DIVISION—Inertial guidance equipment ■ control systems ■ attitude reference systems ■ analog computers ■ infrared and optical systems ■ components—gyroscopes, accelerometers, servomechanisms, semiconductors ■ electronic test equipment.

GPL DIVISION—Doppler radar navigation systems ■ airborne navigation computers ■ data handling systems ■ air traffic control equipment ■ closed-circuit television ■ microwave communication systems ■ medical electronics equipment.

AEROSPACE SYSTEMS DIVISION—Electronic systems for aircraft, space and missile navigation, guidance and control.

**GP INFORMATION SYSTEMS GROUP**

|            |                     |                     |
|------------|---------------------|---------------------|
| LIBRASCOPE | COMMERCIAL COMPUTER | ISG RESEARCH CENTER |
|------------|---------------------|---------------------|

LIBRASCOPE DIVISION—Information-processing and control systems ■ digital computers—general purpose, special purpose, hybrid, and custom-designed ■ electromechanical analog computers ■ optical and infrared devices ■ photogrammetric instruments ■ electro-explosive systems ■ computer components.

COMMERCIAL COMPUTER DIVISION—Small- and medium-size, high-capacity computers for business, scientific and industrial applications.

**GP SIMULATION & CONTROL GROUP**

|      |                                                               |
|------|---------------------------------------------------------------|
| LINK | INDUSTRIAL CONTROLS<br>GPE CONTROLS, INC.<br>SHAND & JURS CO. |
|------|---------------------------------------------------------------|

LINK DIVISION—Flight simulators ■ missile and space simulators, radar land mass simulators ■ special digital/analog computers ■ digital function generators ■ traffic presence detection devices ■ character generation and display systems ■ photogrammetric equipment ■ optical character readers ■ precision measurement equipment.

INDUSTRIAL CONTROLS DIVISION—Industrial control systems employing electronic, hydraulic and/or mechanical components.

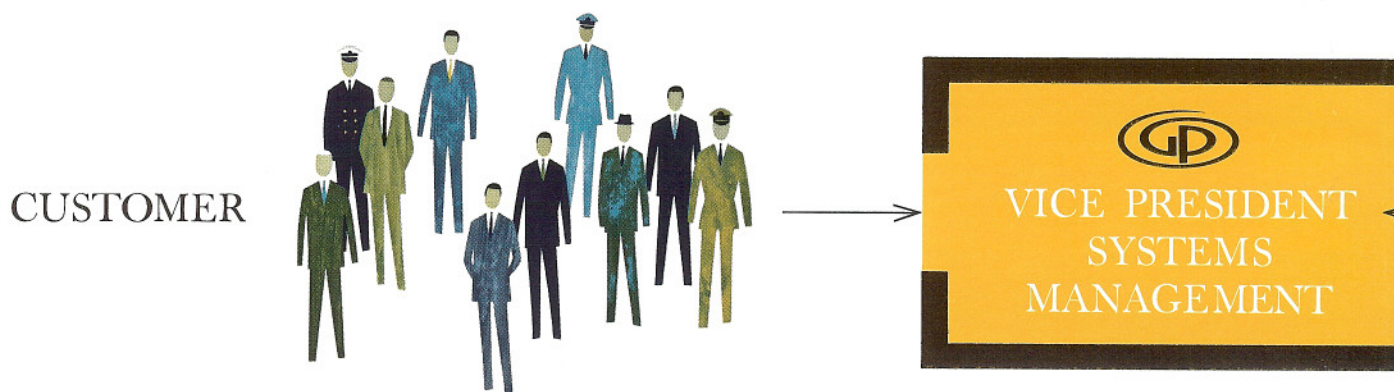
ground equipment including photogrammetry and precision measurement instruments, and control systems and components for industrial applications. ■ While the three Groups, and their divisions, can operate as specialized entities, General Precision provides the effective interconnection of *all* managerial and technical skills. The research, development, and production resources of the groups are, under the guidance of corporate headquarters, mutually available to one another, or to individual divisions. Well-controlled cooperation among the groups and divisions insures the meeting of all contract requirements on time and at specified prices. ■ From this firm base, General Precision, Inc. undertakes and accomplishes total prime or support system programs within the full range of its combined product field. ■ Other subsidiaries of General Precision Equipment Corporation are Graflex, Inc., The Strong Electric Corp., General Precision Systems, Ltd. (England), and National Theatre Supply Co. Graflex's photographic, audio-visual, and precision optical equipment, and Strong's specialized lighting equipment are used in military and commercial applications. National Theatre Supply Co. supplies theaters and motels. General Precision Systems, Ltd. produces and markets simulators, trainers, air traffic control equipment, and industrial control systems.



# SYSTEMS MANAGEMENT

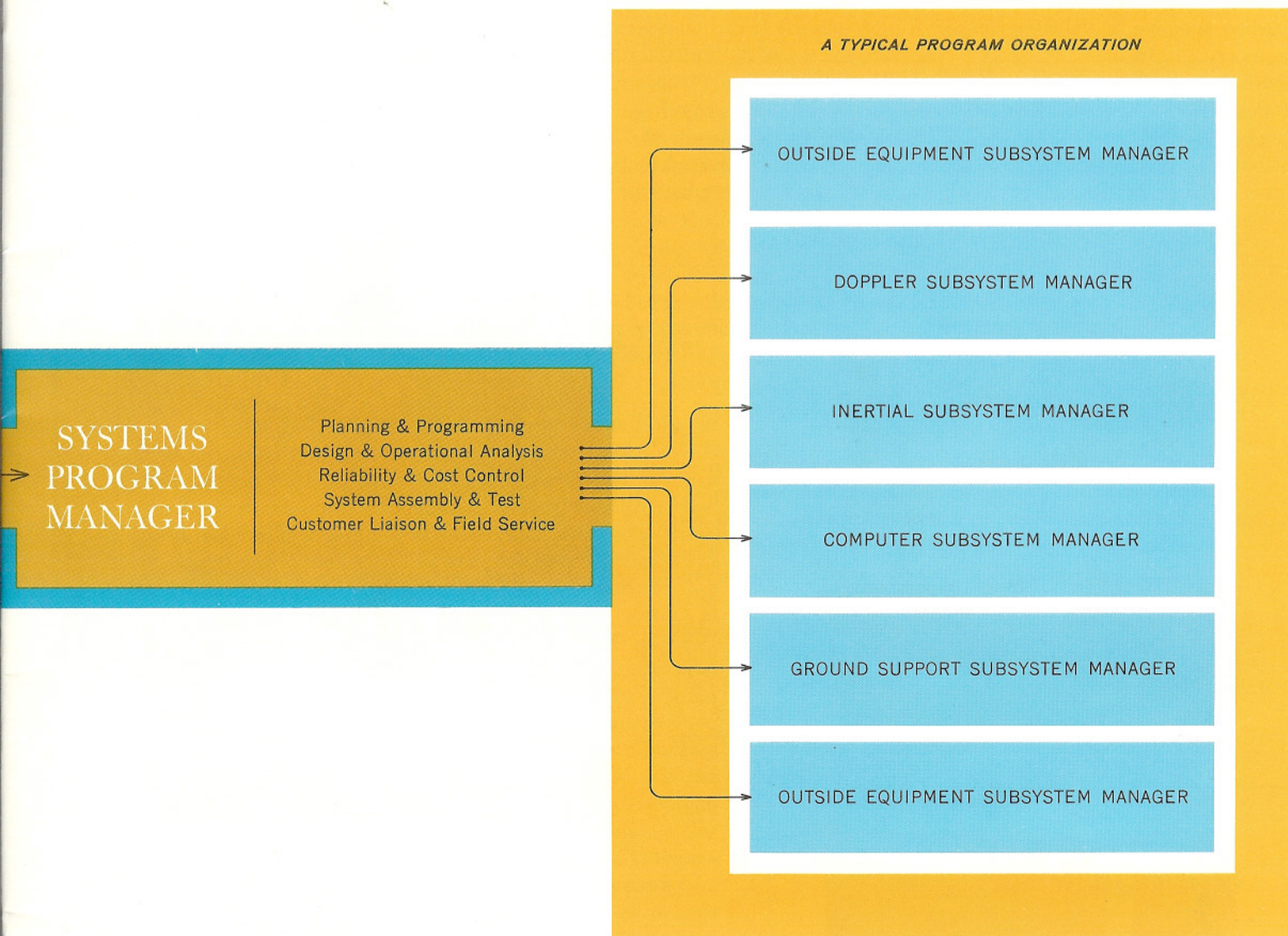
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## GENERAL PRECISION, INC.



**SYSTEMS MANAGEMENT** General Precision, Inc. applies industry's most advanced techniques to the planning and control of all programs, assuring maximum efficiency from initial design through final production. Surveillance and control are tailored to fit individual projects so that the control mechanism is always adequate but never excessive. ■ **PROGRAM TEAM** When the size or complexity of a specific military or space contract calls for the facilities and talents of more than one group or division, a program manager is appointed by the Vice President of Systems Management to analyze and coordinate all requirements. Under the constant direction of the corporate systems management staff, the program manager supervises execution of the contract and insures final delivery of hardware and services as specified. ■ Serving as the communication link with the customer, the program manager is responsible for making effective use of the varied resources available from within General Precision or from outside vendors. He draws skilled personnel, facilities, and materials from the best available sources and unites them into a cohesive implementing body. The program manager has





available the services of a competent administrative support staff which aids him in making decisions during the course of the contract operation. ■ **SOURCE SELECTION** To assure economy and quality, General Precision maintains a Source Selection Board whose job is to determine—without bias—the *best* sources for components or subsystems and to recommend the most feasible procurement, whether from within the company or from outside. ■ **CONTROL TECHNIQUES** Under the direction of a corporate manager of Management Controls, General Precision utilizes the most effective elements of modern control and surveillance techniques. Starting at the proposal stage of a new systems project, the program manager performs the task analysis, sets up requirements, and determines the necessary manpower and facilities. Top management employs PERT, PERT Cost, or Line-of-Balance methods, as required, to monitor performance and deviations from approved master schedules. ■ These techniques give General Precision executives a control ability of wide scope and high efficiency, and result not only in better equipment but also in on-time delivery and sizeable savings of time and dollars.



## FACILITIES

## GENERAL PRECISION, INC.

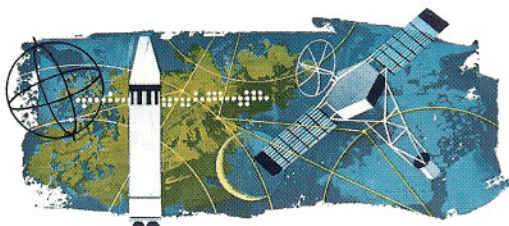
In 15 cities across the United States, General Precision, Inc. occupies more than 21½ million square feet of plant area and employs in excess of 13,000 personnel. A high percent of this number represents technical talent: approximately 4,000 scientists, engineers and technicians. Modern facilities for research, manufacturing, and testing include environmental laboratories for simulating conditions likely to be encountered by General Precision systems and components; ultra-clean areas for assembly of delicate guidance and control units; and top-quality metrology laboratories, with standards approved and periodically checked by the National Bureau of Standards and the Bureau of Naval Weapons. ■ General Precision headquarters are at Tarrytown, New York, and branch corporate offices are situated in Washington, D.C., Dayton, Ohio, Boston, Mass., Houston, Texas and Los Angeles, Calif. In all, General Precision has plants or offices in each of 38 cities across the country as well as in London, Paris, Tokyo and Ottawa.



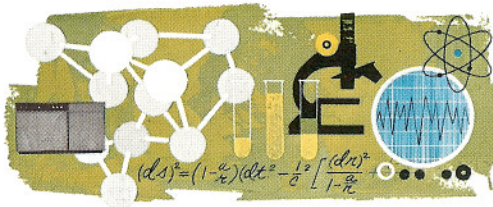
KEARFOTT



GPL



AEROSPACE SYSTEMS



RESEARCH CENTER

## AEROSPACE GROUP

In addition to general engineering and manufacturing, the Group's Kearfott and Aerospace Systems Divisions facilities include: specialized laboratories for product development in hydrodynamics, precision components, and navigation systems. These, along with ultra-clean production facilities for gyro and gyro platform assembly, are at Little Falls, New Jersey. Precision rotating electrical components and equipment engineered in Clifton, New Jersey are produced in four plants, one in Paterson, New Jersey, two in Cleveland, Ohio and another in Asheville, North Carolina. Additional facilities in New Jersey house engineering and production of electronic systems, components and test equipment, analog navigation computers, and hydraulic control systems. ■ Across the Hudson River, in Pleasantville, New York, is the GPL Division manufacturing and engineering complex. Manufacturing facilities include a precision machine shop, a sheet metal shop, electrical and mechanical assembly sections, a government-qualified transformer section, and three separate sections devoted to quality control. In addition to an exceptionally well-equipped environmental laboratory, and four other fully-equipped engineering buildings, GPL Division is well-known for its Flight Test Department, a highly experienced organization that maintains several special aircraft and ground service facilities at the Westchester County Airport in White Plains, New York. The Group's Aerospace Research Center in Little Falls, New Jersey, contains personnel and equipment to support the current and future capabilities of the Group's product divisions in four broad areas: Systems, Environment, Materials, and Components. Equipped with the finest analytical equipment available, the center represents one of the most advanced facilities of its type in the aerospace industry.

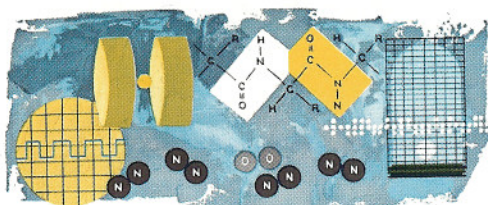




LIBRASCOPE



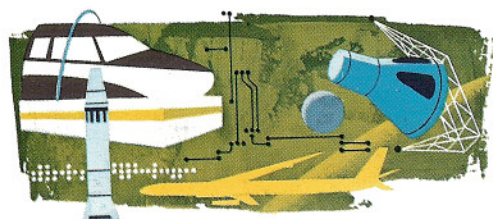
COMMERCIAL COMPUTER



RESEARCH CENTER

## INFORMATION SYSTEMS GROUP

An impressive array of precision production facilities enables Information Systems Group to meet stringent contract requirements for electronic computing equipment. These facilities are located at Librascope Division's three major branches (In Glendale, San Marcos, and Sunnyvale, Calif.) and at Commercial Computer Division's two Burbank, Calif. branches. ■ To meet rigid governmental and industrial standards, both divisions of Information Systems Group have installed high-quality production and testing devices and machines. ■ Several hundred thousand square feet of floor space are devoted to the assembly of precision parts and components into finished production units. Assembly activities utilize many electronic, electromechanical, mechanical, optical, and magnetic techniques and tools. Semiautomatic eyeletters, punches, and drills, for example, prepare etched circuit boards for miniature electronic components which are then inserted, dip-soldered, and tested by automatic equipment. When completely processed and assembled, the boards are integrated into computing equipment built for many varied applications. ■ Nearly every phase of shop production is duplicated in the Prototype Shop. Facilities include a complete sheet metal shop, machine shop, assembly area, and wiring and soldering equipment. ■ In Van Nuys, the group maintains a metrology laboratory for the certification and repair of electronic test/measurement instrumentation.



LINK



INDUSTRIAL CONTROLS

## SIMULATION & CONTROL GROUP

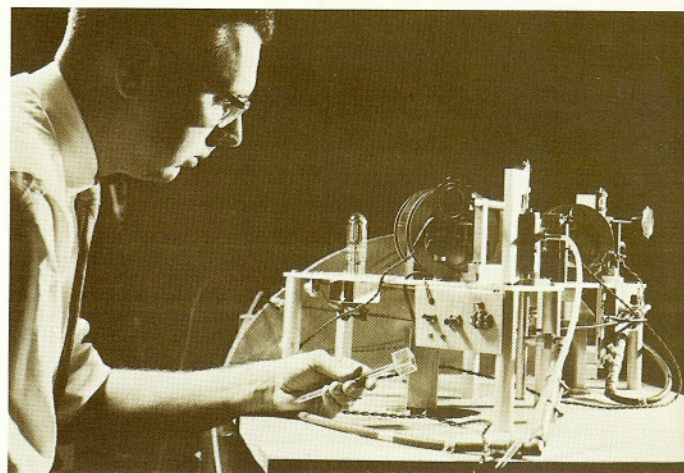
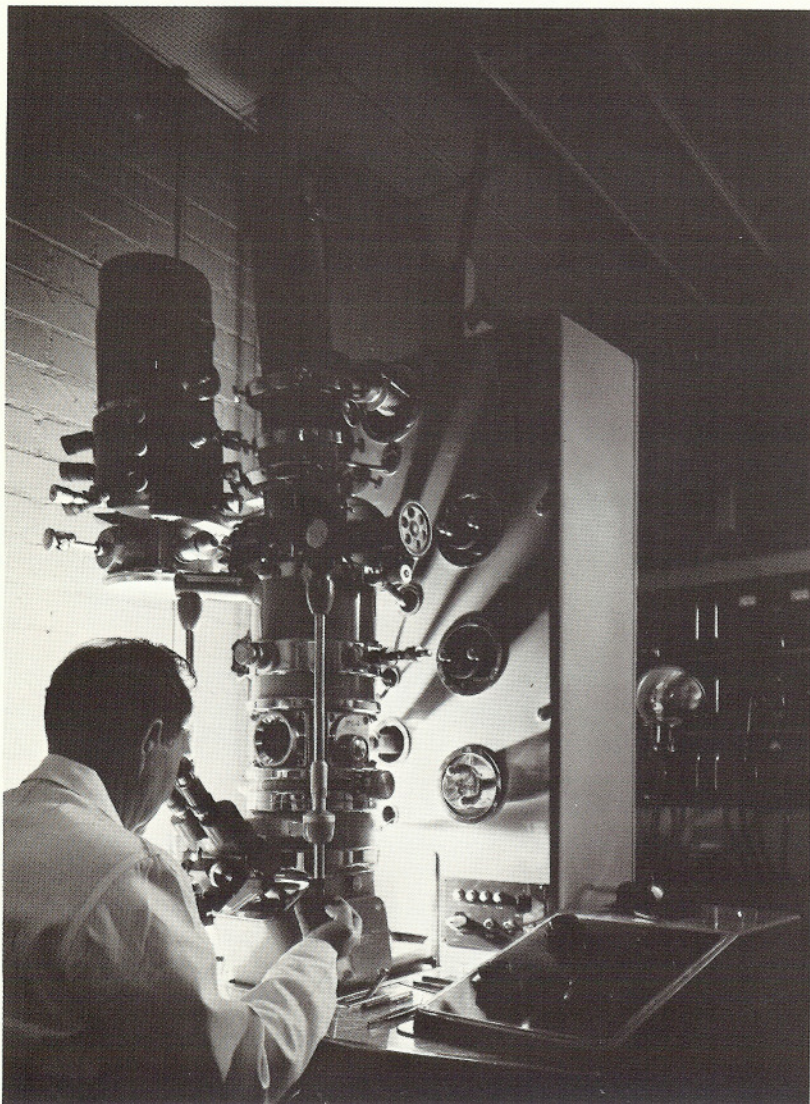
Link Division's engineering facilities include research and development laboratories for integrated electronic equipment in flight and tactical training, and associated ground equipment. A metrology laboratory for ultra-precise measurement work is one of the best-controlled in the country. Production facilities include a sheet metal welding and machine shop, and a complete plating shop. Headquarters, manufacturing, customer technical training center, and research laboratories are at Binghamton, New York. Additional R&D operations are at Palo Alto, California. Development and manufacturing facilities of the Industrial Controls Division are at Morton Grove, Illinois, and Berkeley, California.



# RESEARCH ACTIVITIES

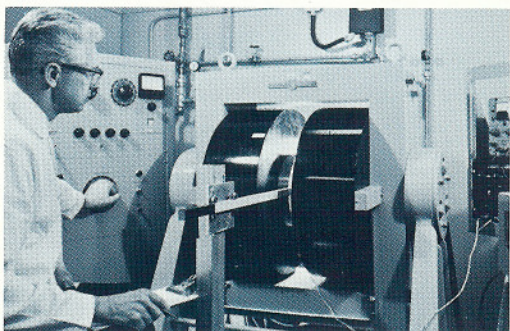
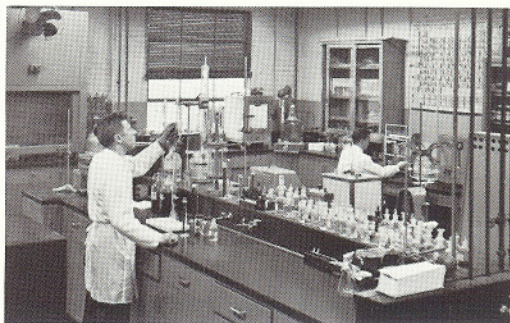
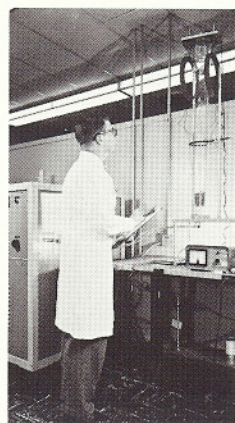
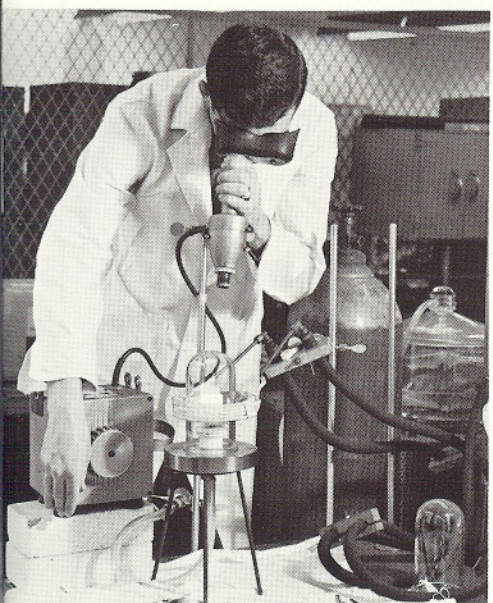
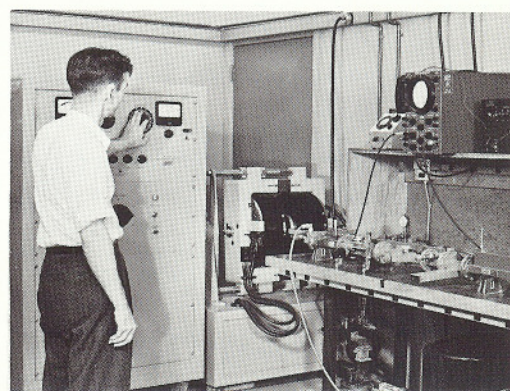
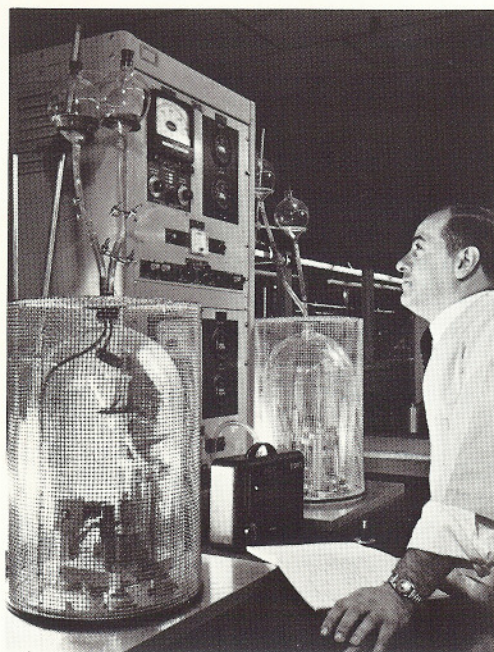
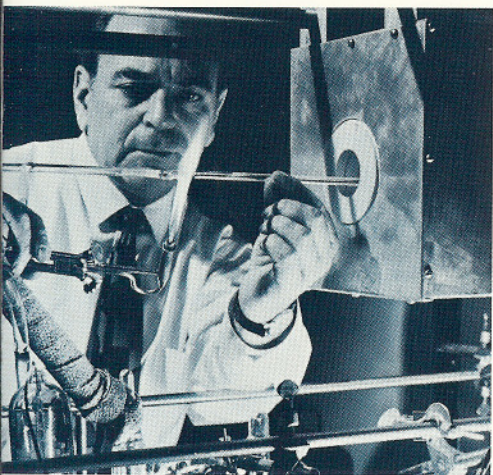
## GENERAL PRECISION, INC.

Behind General Precision's participation in major defense and space projects lies the force of effective, coordinated research. Large-scale research and study programs, either company-sponsored or customer-sponsored, are constantly in progress. These may be directed toward the development of specific new products, or may be conceptual in nature in anticipation of future technological needs. ■ **RESEARCH CENTERS**—located on the east and west coasts—devote full energies to advanced investigations into the Aerospace and Information Systems technologies. In addition, the individual divisions maintain a wide range of laboratories where studies more related to the division's specific fields are conducted. A corporate Vice President-Chief Scientist and a Scientific Advisory Group, consisting of outstanding scientists and engineers from universities, research institutes and the company's own staff, guide the efforts of General Precision in basic and applied research, and encourage the development of new programs and products. Among current major programs are: ■ **MISSILE GUIDANCE AND SPACE NAVIGATION** Nuclear gyros employing the spin of atomic nuclei as gyroscopic reference as well as other exotic gyro techniques—"strap-down" systems which eliminate the need for gimbals in gyro platforms—solid-state celestial tracking systems—pre-





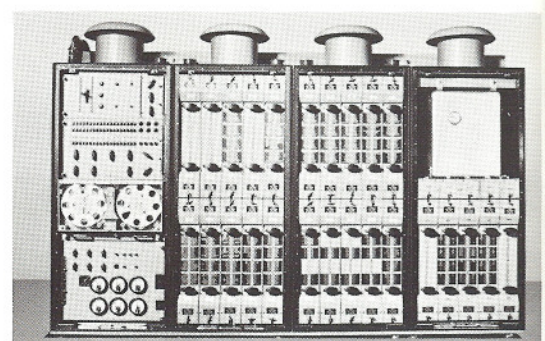
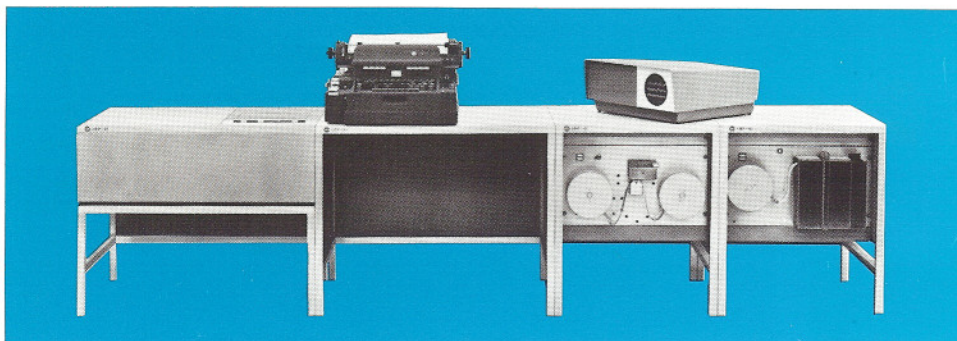
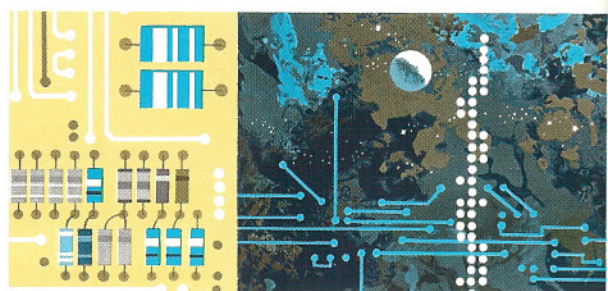
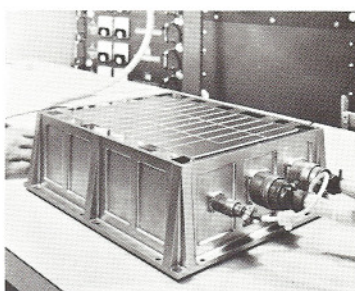
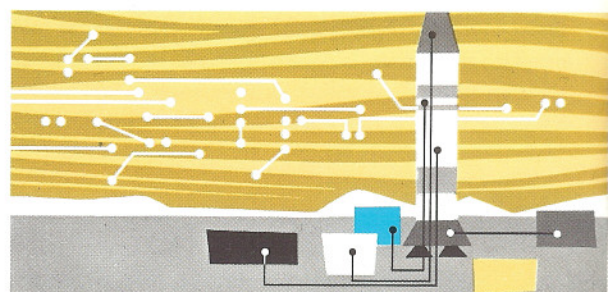
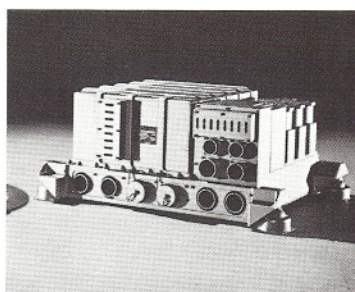
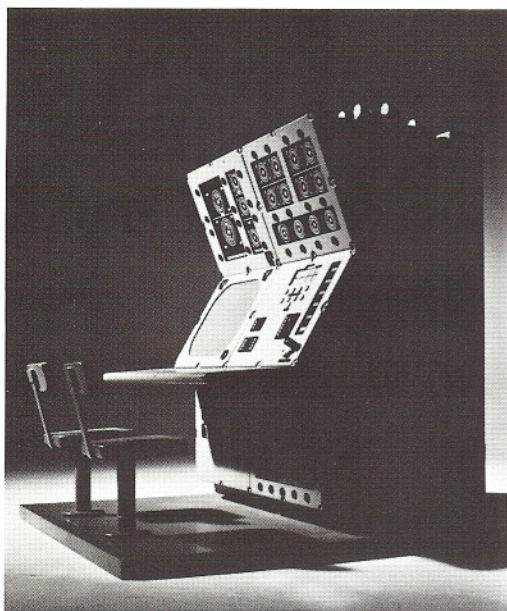
dictive re-entry guidance systems—investigation of the use of asteroids for space communication stations—space vehicle stabilization using passive techniques—self-adaptive and minimum-path control systems which achieve optimum performance through their own “learning” techniques—analysis of cislunar trajectories—use of lasers as light transmitters and sensors to develop more efficient communication between earth and space—lasers are also being investigated for use as radars for rendezvous and docking of space vehicles. ■ **AUTOMATA RESEARCH** Fundamental studies of neural systems and pulse interval coded information processing systems generally—association theory—empirical linguistics—organization theory. ■ **APPLIED RESEARCH** Magnetic thin films, narrow-band interference filters, infrared detectors, and other thin-film technologies electroluminescence—thermoelectricity—molecular electronics and other micro-miniaturization techniques—cosmic magneto-electrodynamic studies—materials research. ■ In all areas, the company’s research activities are monitored by a management whose goal is to balance basic research with programs aimed at the development of specific products and systems.





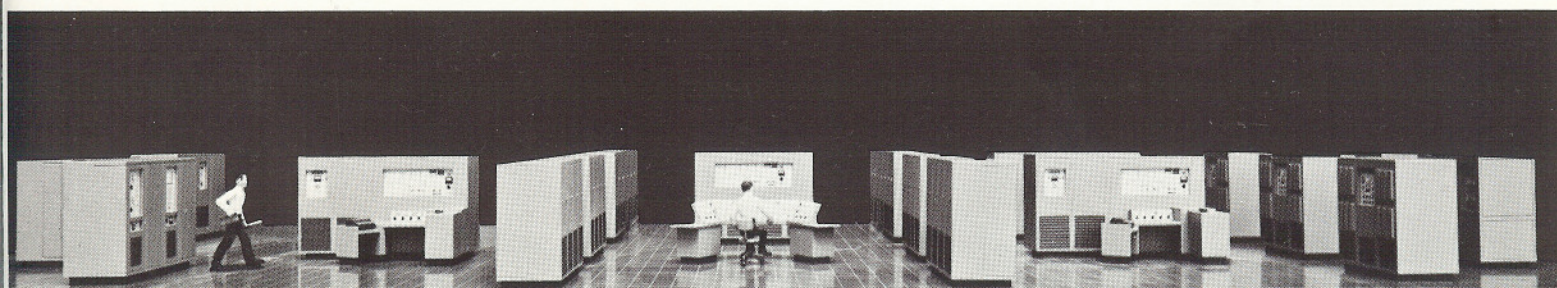
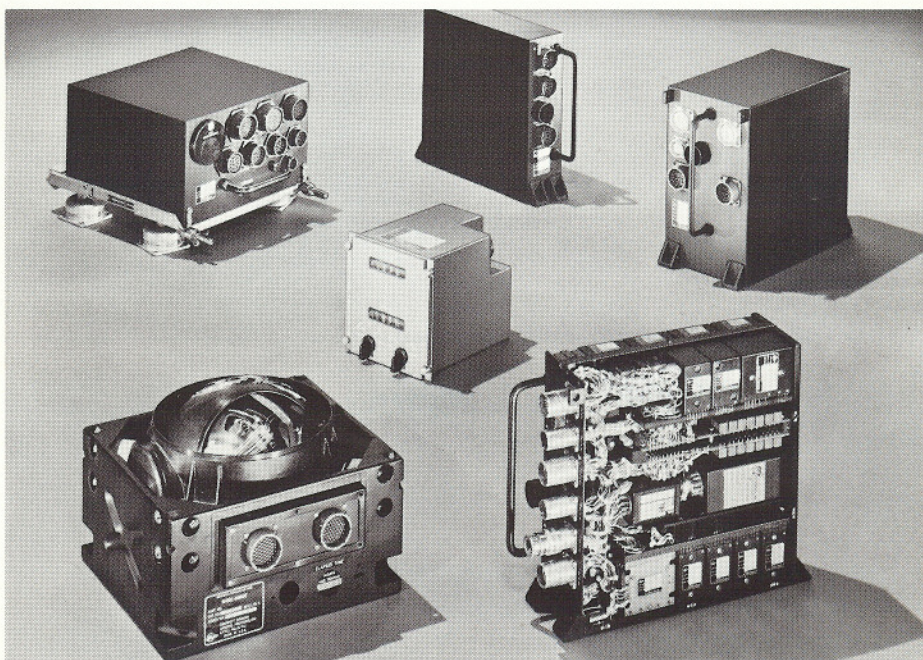
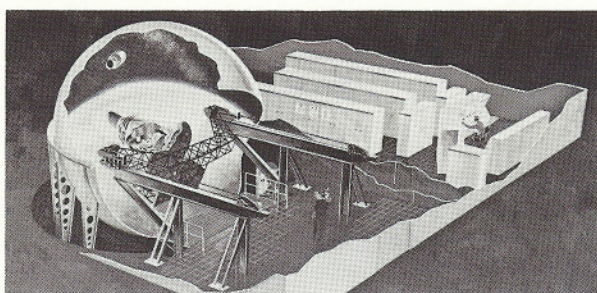
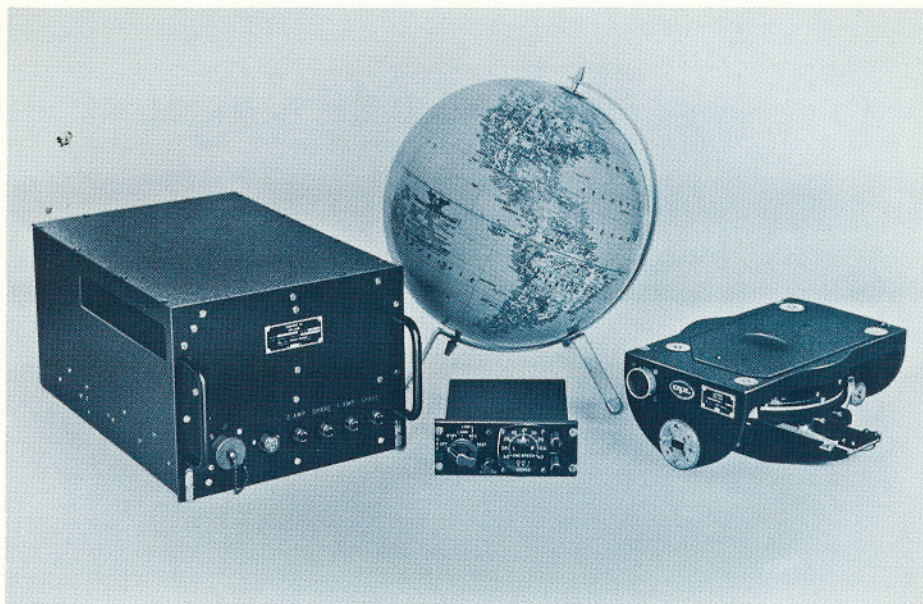
# DEVELOPMENT CAPABILITIES

## GENERAL PRECISION, INC.



General Precision scientists and engineers are constantly searching for new advances in production techniques and man-machine relationships in order to develop the precision systems and components for which the company has become so well-known. The concept of value engineering is used extensively to determine the producibility of products in early stages of development. ■ **AMONG GENERAL PRECISION'S MOST SIGNIFICANT DEVELOPMENTS ARE:** missile guidance systems that use stars as reference points—lightweight Doppler navigation systems with a volume displacement of just one cubic foot—underwater fire control systems for the Navy—flight and space simulation systems employing digital techniques—spaceborne and airborne, miniature digital computers—gyroscopes for space vehicle control.

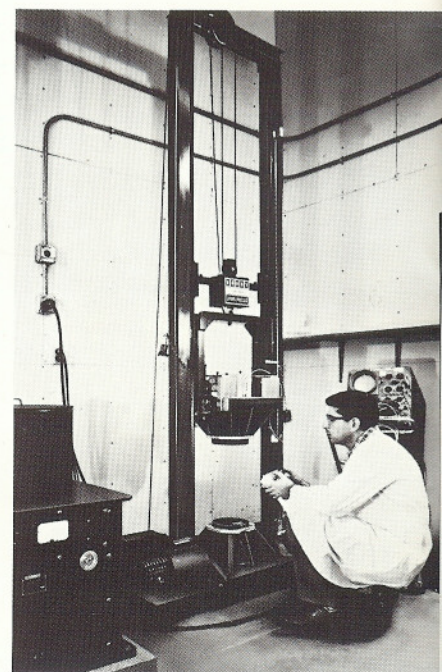
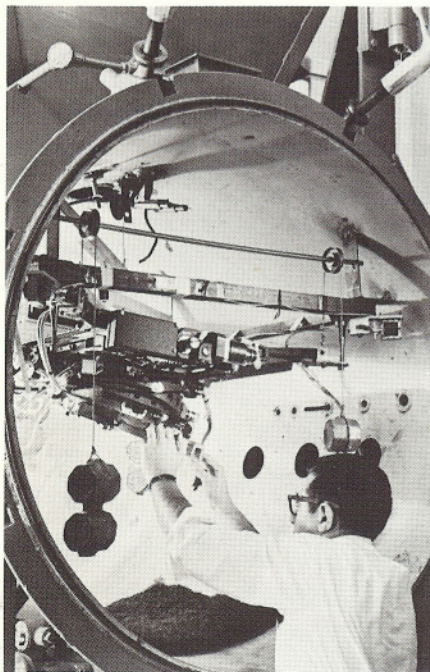






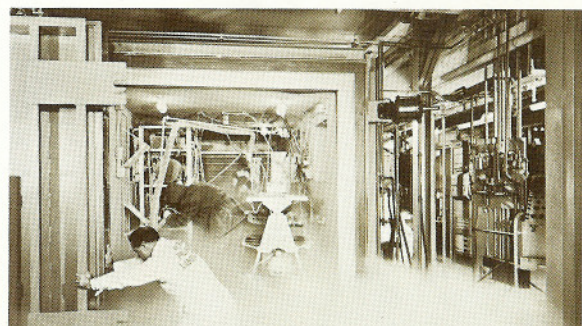
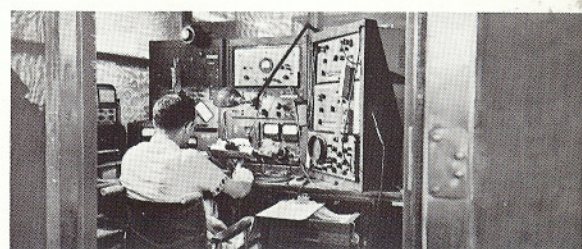
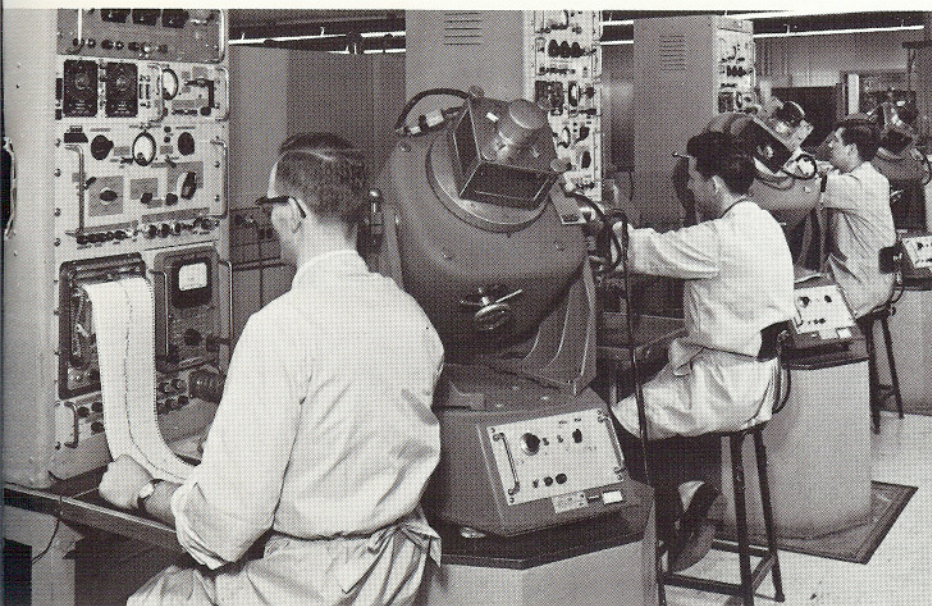
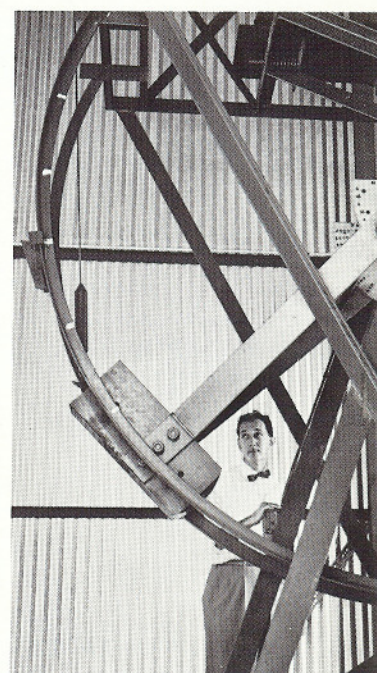
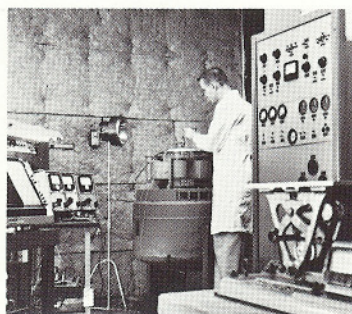
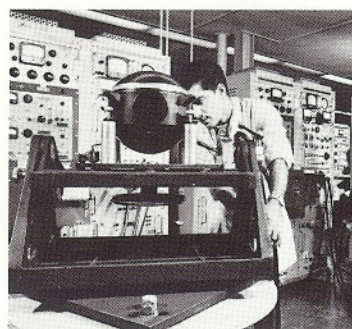
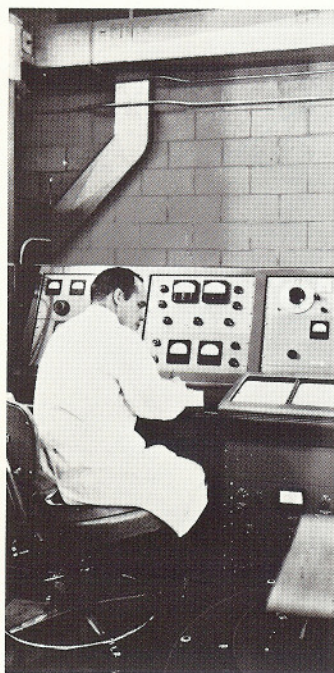
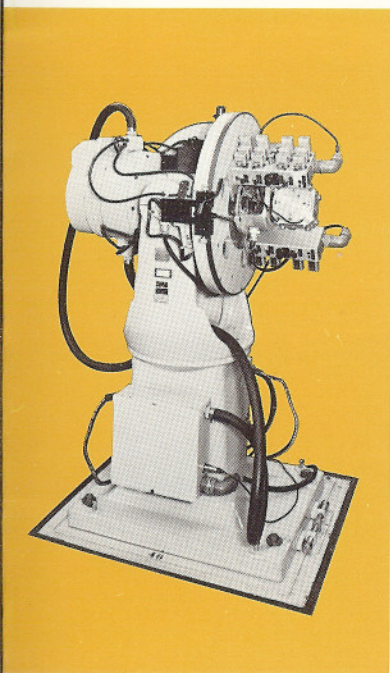
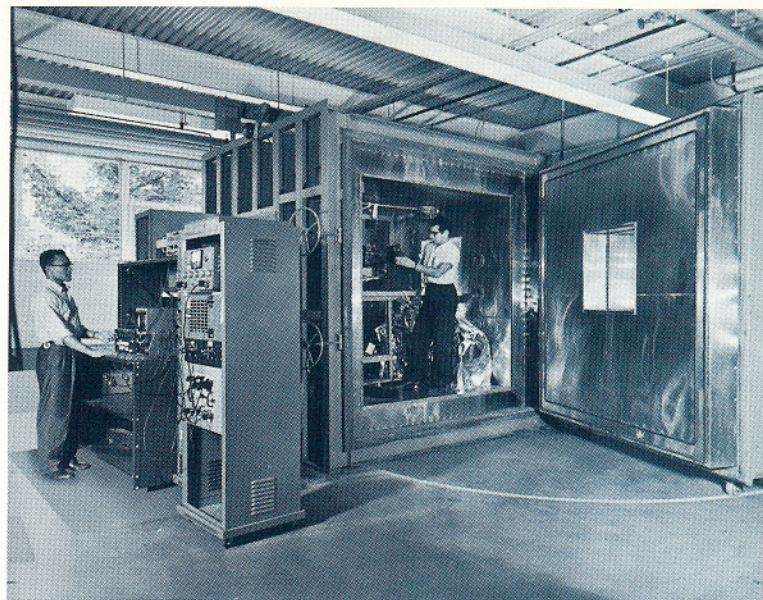
# TEST FACILITIES

## GENERAL PRECISION, INC.



Today's expanding technology places new demands on precision equipment. Operating in the environment of outer space, for instance, raises a whole new range of failure risks which must be reduced to an economic minimum through up-to-date testing procedures. General Precision's test facilities are of a scope consistent with the complexity of its products and the far-ranging environments in which they must operate. An efficient system of regular-interval maintenance and calibration to military and NASA specifications assures constant reliability. ■ **ENVIRONMENTAL LABORATORIES** staffed with specialist engineers are capable of performing any environmental test specified by contracts for airborne, spaceborne, or shipboard equipment. ■ **PRODUCTION TESTS** on floated gyros and inertial guidance systems are conducted on isolated concrete test stands aligned to true North to permit accurate measurement of gyro drift. ■ **RELIABILITY TEST LABORATORIES** are responsible for conducting developmental, evaluation, qualification, and life tests to meet the requirements of the government agencies and General Precision's own standards group. A most complete standards laboratory is operated to calibrate working level standards used at all the Groups.

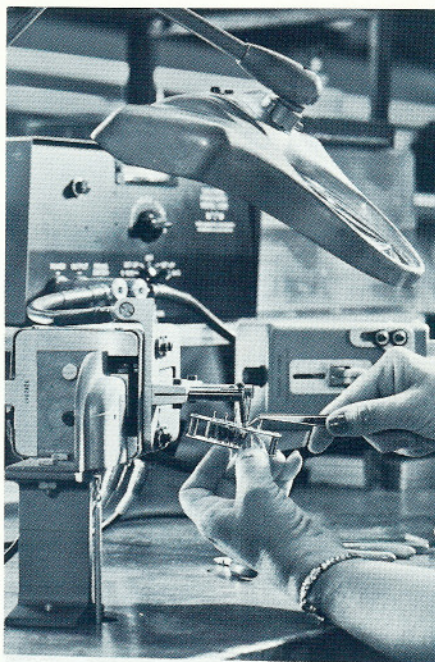






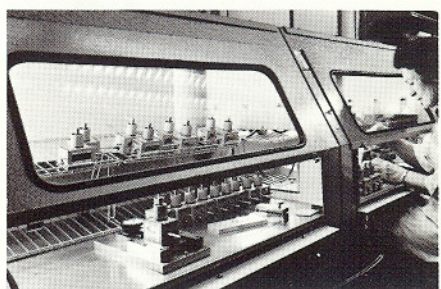
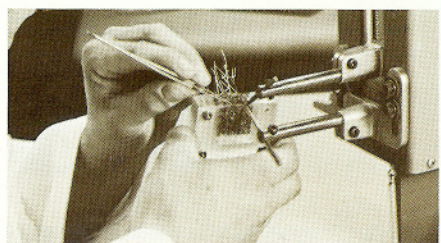
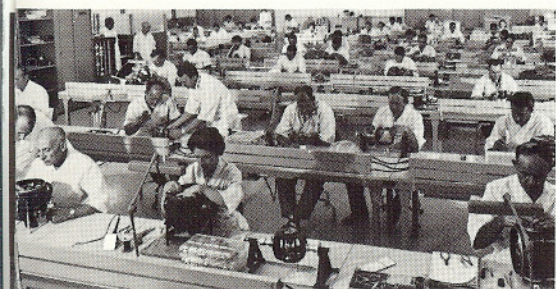
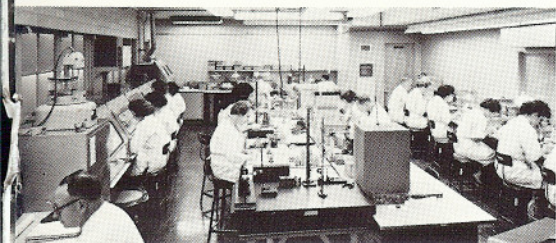
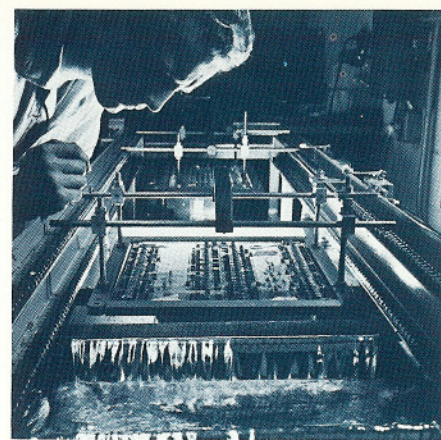
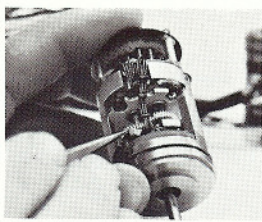
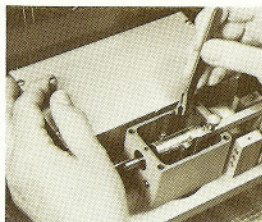
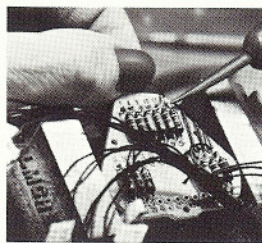
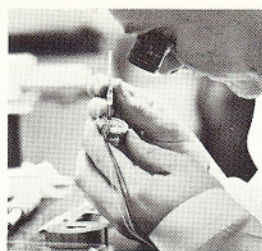
# PRODUCTION CAPABILITIES

## GENERAL PRECISION, INC.



General Precision's production facilities, covering an area of over 1,300,000 square feet, are well equipped to manufacture complete electronic systems as well as precision components for military and space programs. Top quality precision machinery, designed to meet the rigid standards and specifications required in production contracts, are used throughout. ■ **PRODUCTION ENGINEERS** coordinate design, development and production activities. During the development phase of the contract, these engineers monitor a product's design to assure optimum producibility and economy of manufacture. ■ **PRECISION PERFORMANCE** of General Precision systems and components depends on the skills of experienced personnel with the ability to operate machines and all types of electronic instruments under exacting tolerance requirements.



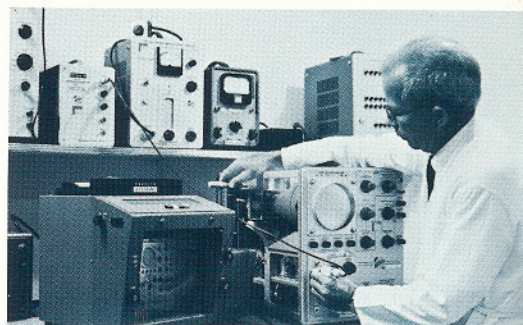
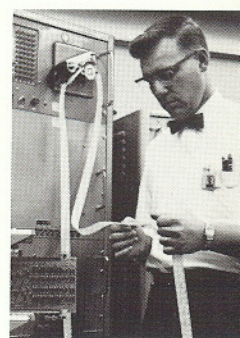
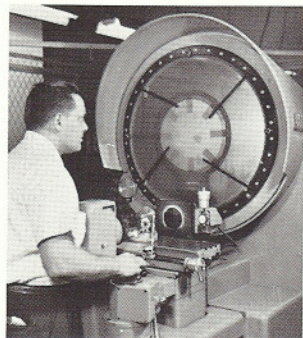




# RELIABILITY AND QUALITY ASSURANCE

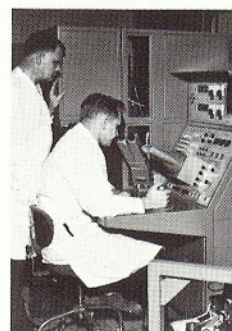
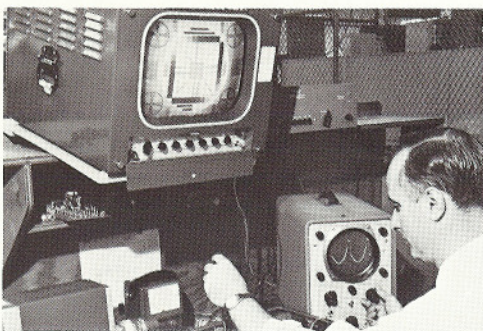
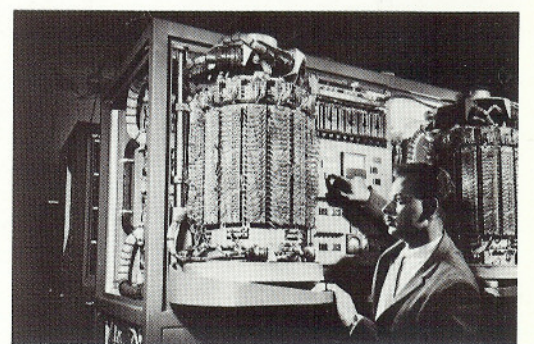
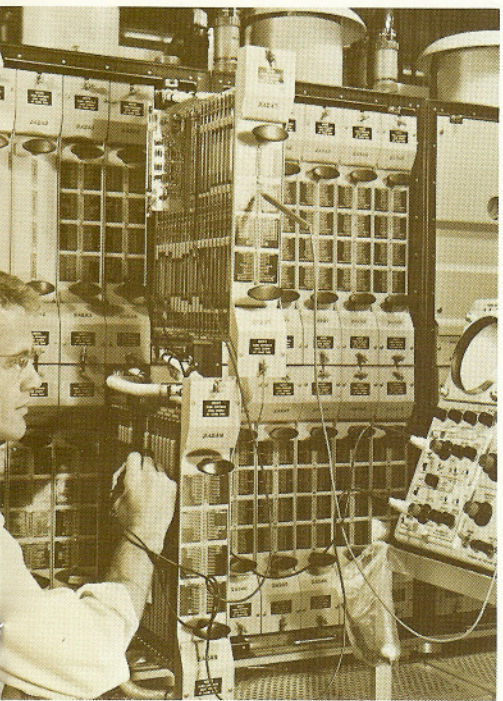
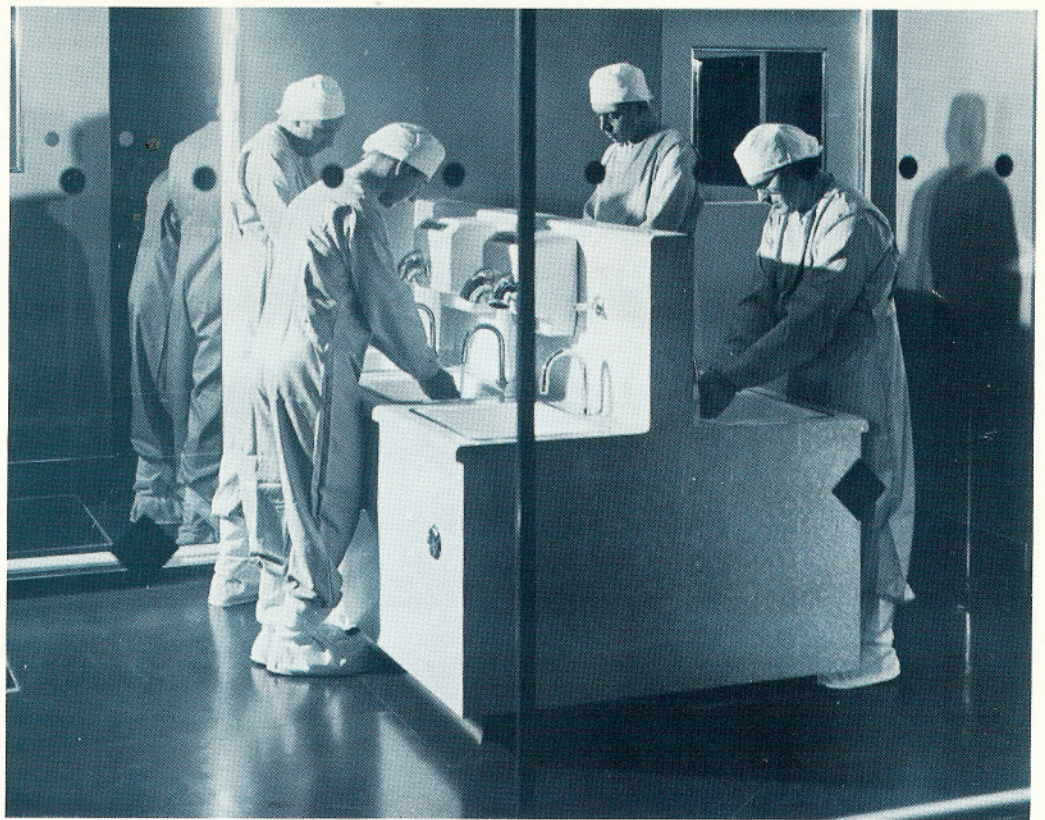
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## GENERAL PRECISION, INC.



Reliability and quality control—crucial twin factors in product assurance—are among the primary considerations in every General Precision project. To guarantee uniform methods and procedures, sections in charge of the reliability and quality control function at all divisions are interlocked in a company-wide program led by General Precision's Quality Assurance Committee. Progressive and well-defined, this program aims at eliminating defects at their origins by demanding strict adherence to highest standards. The basic precept of the program is: *build high reliability and assured quality into each product or system early—starting with initial planning.* ■ In carrying out a scientific approach to quality assurance, General Precision assigns special groups of highly-qualified engineering and management personnel to the exclusive tasks that will guarantee the company's products—whatever their intended applications. Regular analyses are conducted from the inception of each project; field maintenance reports are compiled and reviewed, and steps are taken immediately to correct any weaknesses in workmanship, materials, or design. To insure an accurate surveillance over all activities in a program, modern computer controlled techniques are employed to digest and evaluate the various feedback data. ■ All reliability and quality control



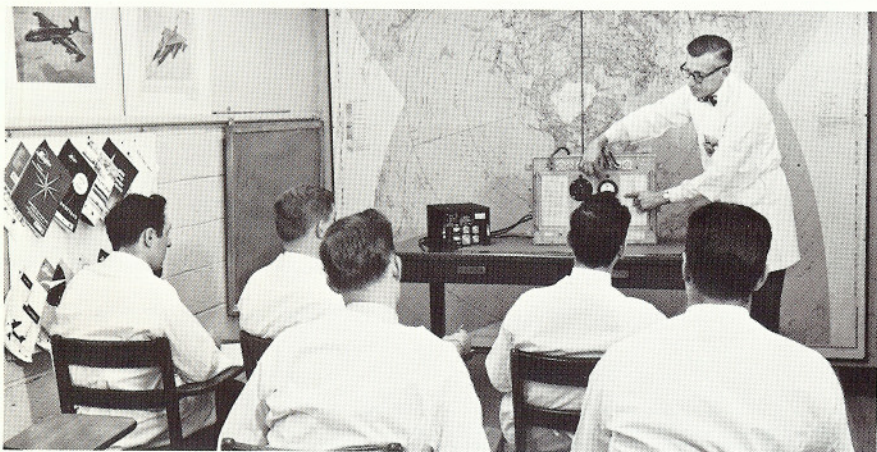
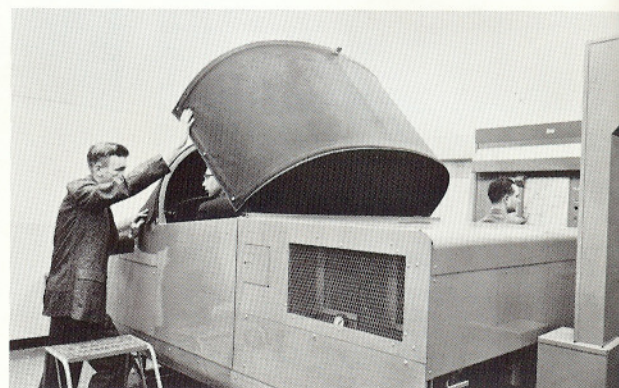
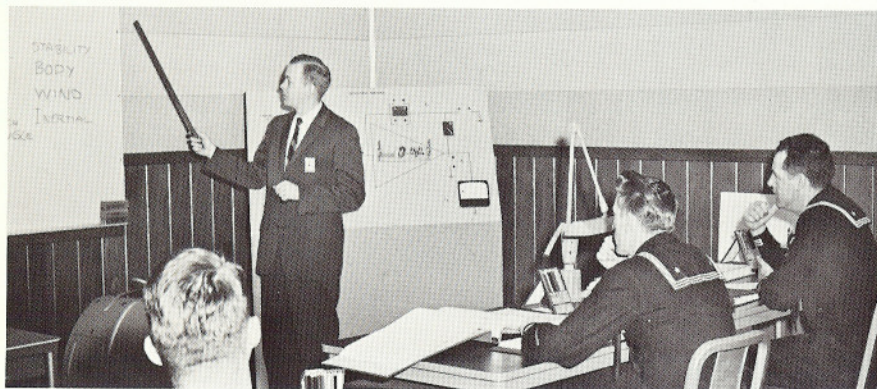


operations conform to applicable government specification. (General Precision was among the first companies in the nation to conduct programs under the "AGREE" test procedures in accordance with MIL-R-26667, the specification for environmental testing to insure the reliability and longevity of electronic equipment.) And, in collaboration with other major electronics firms, General Precision participates in the first industry-sponsored reliability study and data exchange plan. This unique program is sponsored by the Battelle Memorial Institute and regularly furnishes its participants with state-of-the-art reports on research, parts and techniques. ■ Finally, in addition to the constant watch over methods and materials, General Precision maintains top-ranked metrology and standards laboratories for the calibration and repair of all test and measurement equipment. Officially recognized for excellence and capability, these laboratories work closely with the National Bureau of Standards and the Bureau of Naval Weapons. All calibration controls and standards, periodically checked by those agencies, comply with requirements of the Standards Laboratory Information Manual (SLIM).



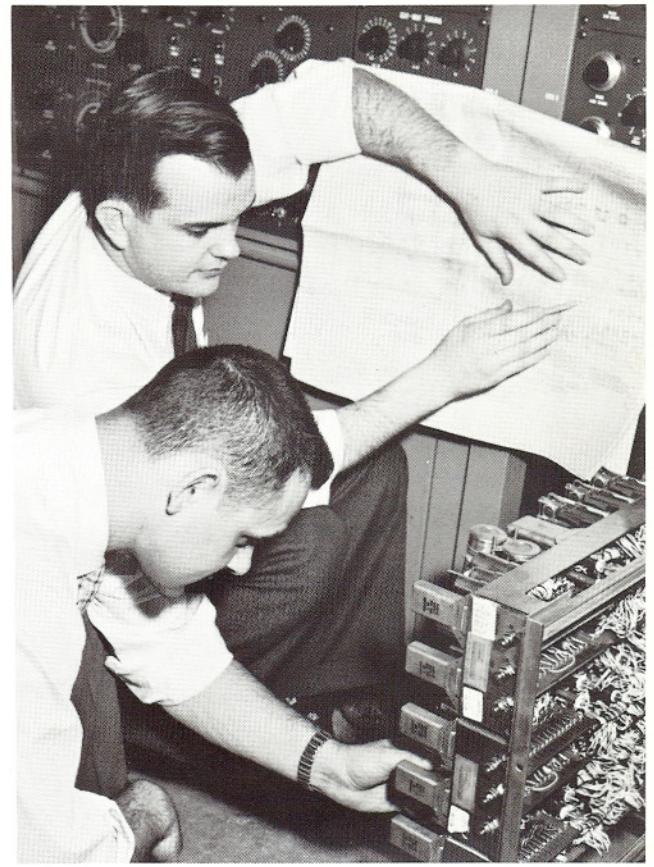
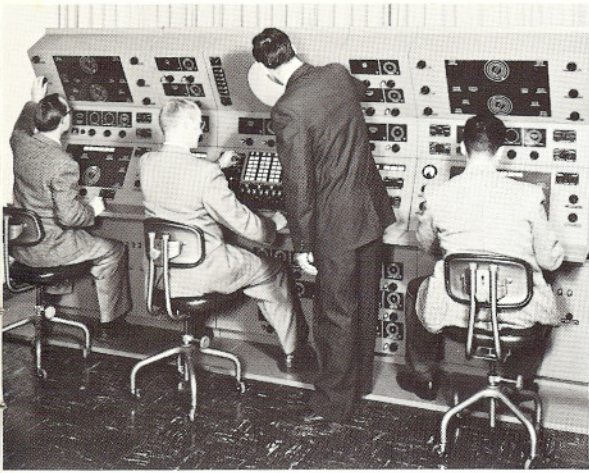
# SYSTEMS LOGISTICS MANAGEMENT

## GENERAL PRECISION, INC.



Systems Logistics Management refers to the planning, programming, funding, and management required to operate, support, and maintain a product, be it an entire system or a single component, in its functional environment. The explosive breakthrough of technical advances and the promise of even greater achievement in the near future has accelerated the need for concurrent product support and fostered new and more sophisticated requirements. ■ The nature of customers' requirements in systems logistics management makes it necessary for General Precision to be "on the spot" almost anywhere in the world. Currently, 500 logistics representatives are on duty at strategic installations in over 40 countries. ■ The systems logistics element in any General Precision program is an integral part of the total effort. Planning for it begins at the very outset, even before the first proposal is submitted to the customer. Supervised by a corporate director, the development of the logistics program proceeds parallel to the rest of the system, changing and evolving as new requirements are encountered. ■ A typical program will encompass: ■ *systems activation*—on-site system installation, integration, evaluation, and analysis, including local procurement services, test monitoring, data reporting and phase-in training; ■ *maintainability*—data feed-back from the field regarding such aspects as accessibility, standardization, safety and human-factors engineering to permit correction





of unforeseen problems; ■ *reliability*—data on reliability reported by service engineers in the field to the design and production engineers at the factory; ■ *training*—formal systems training given to customers' personnel; ■ *systems support equipment*—equipment developed and produced for maintenance, repair and overhaul at all levels; ■ *contractor maintenance*—full contractor-managed repair including overhaul in full support of R&D programs, continuing into operational and tactical phases as required; ■ *field engineering*—installation, operation and maintenance, engineering liaison, trouble shooting, malfunction reporting, fix recommendations. ■ All *maintenance data* obtained through design engineering for Reliability and Maintainability plus field and operational inputs are assimilated into a master plan for complete integrated support. The requirements of the Department of Defense and all Military agencies in accordance with established documentation and specification are interpreted and negotiated. *Planning and Provisioning Conferences* are then implemented to provide complete material support in the form of *spare parts, aerospace ground equipment, documentation, and service publications and data*—instruction manuals for installation, operation and maintenance. Commercial customers are supplied with elements of the over-all support package in accordance with individual need.

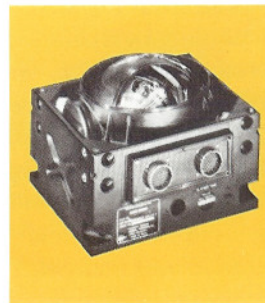
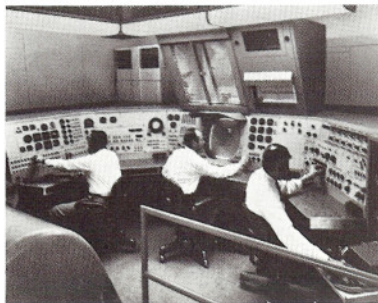
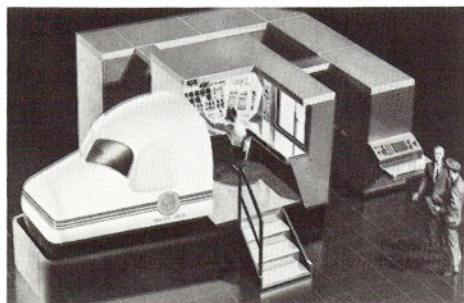
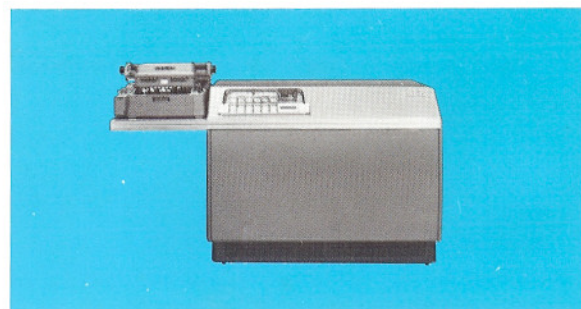
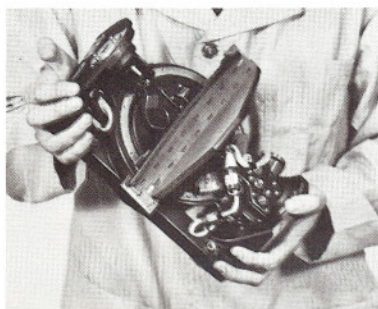
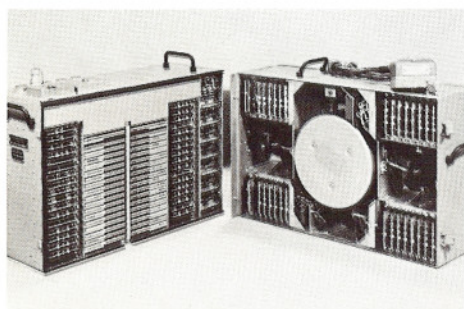


# ACCOMPLISHMENTS

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## GENERAL PRECISION, INC.

Perhaps the most significant statistics in General Precision's record of accomplishment are the ones that reflect the broad range of projects to which the company has made contributions. These include practically every missile and space vehicle program, every Air Force fighter, interceptor, bomber and utility aircraft, many of the newest Navy aircraft, all the major anti-submarine warfare programs, and some of the most advanced command-and-control systems currently operational or planned. In one project alone, the launching of the Discoverer Series, 22 individual General Precision products were used. ■ The roster of names includes Apollo, ASROC, Atlas, Centaur, Explorer, Gemini, Mariner, Mercury, Pershing, Polaris, SUBROC, Surveyor, B-52, B-58, RS-70, A2F, P3A, and could literally fill up the page. Perhaps equally significant, however, are the individual contributions General Precision, with the guidance and cooperation of each of the Armed Services and NASA, has made to the advancement of space age technology. These "firsts," of which a representative listing appears at right, are the reflection of the company's role as pioneer in the aerospace sciences.

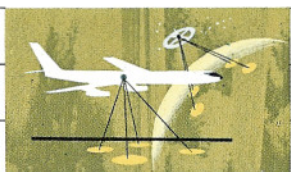






AEROSPACE GUIDANCE ■ first Doppler-inertial guidance system ■ first lightweight, Schuler-tuned, three-gyro platform systems in production ■ first inertial guidance system weighing less than 100 pounds ■ first guidance system for short-range underwater missiles ■ first miniature, airborne,

digital computer for navigation and guidance  
drift angle sensor ■ first operational Doppler  
Doppler radar navigator displacing less than



NAVIGATION ■ first direct-reading ground speed and  
radar navigation equipment ■ first high-performance  
one cubic foot of volume ■ first successful airborne



radio direction-finder loops ■ first self-contained inertial navigator weighing less than 200 pounds

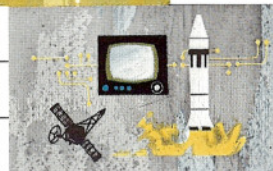
SIMULATION ■ first computer-actuated flight simulator ■ first celestial-navigation trainer ■ first  
jet-aircraft simulator ■ first missile simulator ■ first crew-training, flight simulator to employ digital

computation ■ first simulator for scheduling pipeline operations  
first desk-size, general-purpose digital computer for scientific and  
digital weapon-control system for shipboard use ■ first digital  
marine use ■ first airborne, digital, navigation and bombing control computer



COMPUTER TECHNOLOGY ■  
engineering applications ■ first  
weapon-control system for sub-

NENTS & OTHERS ■ first standard U.S. Navy BuOrd servomotors (sizes 8,  
8 and 11 synchros ■ first synchros accurate to 10 seconds of arc ■ first



PRECISION COMPO-  
11, 15, 18) and sizes  
"exploding bridgewire"

devices for safe missile handling ■ first automatic micro-inch gauging system using light as the standard of measurement ■  
first 1000-line resolution television system ■ first automatic character generation and display system using the dot technique  
■ first inductive identification system for control of moving objects ■ first transistorized line of communications equipment.



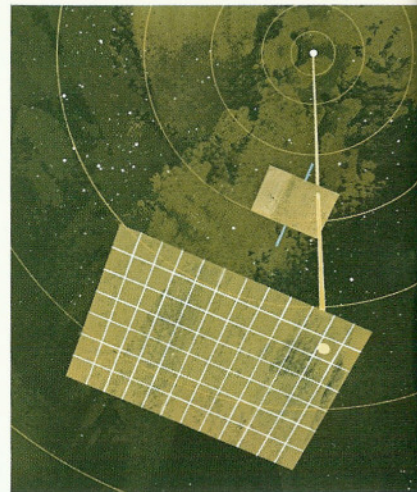
# LOOKING AHEAD

## GENERAL PRECISION, INC.

SPACEBORNE DOPPLER RADAR



General Precision's position as a leading supplier of electronic systems for the nation's space and defense effort places upon the company the responsibility of anticipating future requirements of the many programs that comprise this effort, both now and in the years to come. To fulfill this responsibility is the function of General Precision's Advanced Planning Group which continuously surveys systems requirements by using available government planning documents, and by maintaining contact with government engineers. Programs currently in progress will someday yield many of the following:

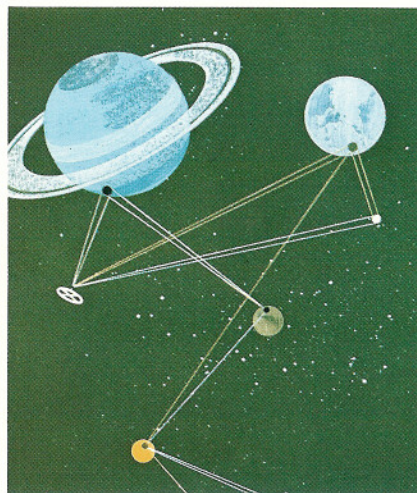


SOLID STATE SENSORS

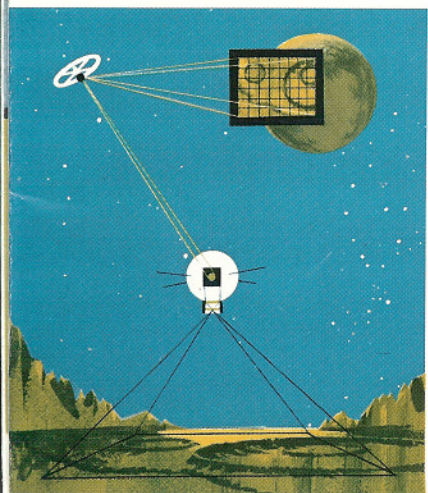
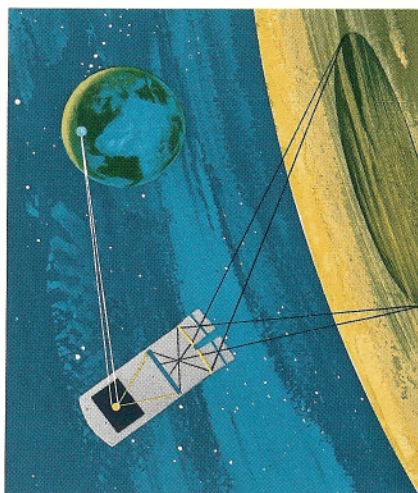
STRAP-DOWN INERTIAL SYSTEMS which will advance aerospace guidance capabilities by eliminating the conventional gimbal platform ■ SPACEBORNE RADAR for landing, navigation, tracking, rendezvous, surveillance and detection systems for space vehicles ■ SPACE INFORMATION SYSTEMS for automatic processing, correlation and display of information received from data-gathering space vehicles on lunar and planetary surveillance missions ■ CHARACTER RECOGNITION equipment capable of automatic and rapid reading and interpreting of data in both printed and pictorial form ■ LIQUID LASERS which will allow communication and navigation over interplanetary distances ■ SOLID-STATE SENSORS that will open the way to fully optical guidance systems for space navigation ■ OPTICAL CORRELATORS that will aid in the development of navigation techniques for making landings on the moon and planets ■ MICROWAVE RADIOMETRY techniques that will allow radiometric mapping of planets



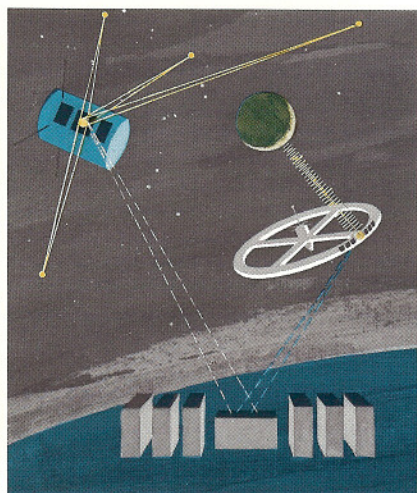
AUTOMATIC FORM RECOGNITION

LIQUID LASERS FOR INTERPLANETARY  
COMMUNICATION AND NAVIGATION

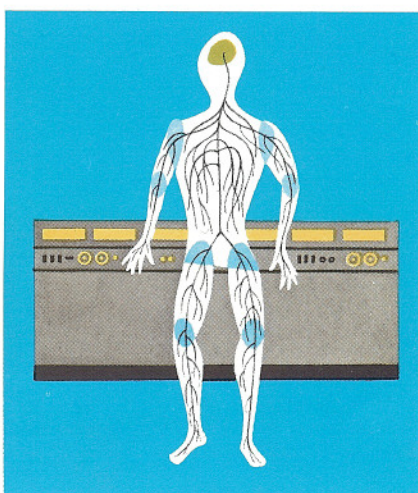
SPACEBORNE TELEVISION



PRECISION PHOTOGRAMMETRY



SPACE INFORMATION SYSTEMS



SIMULATION OF NEUROMUSCULAR ORGANISMS

such as Venus whose atmosphere precludes optical examination ■ PRECISION PHOTOGRAMMETRIC SYSTEMS for aerospace and lunar astrophysical applications that will have accuracies in the sub-micron range of 0.1 microns or better ■ SIMULATED NEUROMUSCULAR ORGANISMS that will extend the power of man's mind through the creation of "intelligent" machines built around high-speed computers ■ SPACEBORNE TELEVISION SUBSYSTEMS to provide stereo mapping of the moon's surface ■ AUXILIARY SPACE NAVIGATION SYSTEMS that take full advantage of the astronaut's contribution to the space vehicle's man-machine relationship ■ GRAVITY GRADIENT DETECTION made possible by extremely sensitive accelerometers. This technique will enhance the reliability of satellite attitude indication ■ OPTICAL GYROS AND ACCELEROMETERS, employing laser techniques, that will use the relativistic invariance of the speed of light in establishing acceleration and angular references for advanced inertial systems.



# GENERAL PRECISION, INC.

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## ...SERVING ON ALL FRONTS

General Precision is proud of its role in support of national defense, space efforts, science, and industry. The company's three groups, while searching out new advances in the world of precision technology, have already contributed significantly to the nation's security and its successful ventures across the threshold of space. ■ Displaying particular strength in space and defense programs, General Precision has produced a stellar inertial guidance system that uses stars as reference points for guiding a missile to its target—the smallest, lightest, high-performance Doppler radar navigation system—simulation equipment for man-in-space programs as well as many of the key aircraft in the nation's defense arsenal—lightweight, multi-function computing systems for spacecraft, aircraft and naval weapon fire control—large computing and data-processing systems for command-and-control centers—precision components and sub-systems which have contributed to the success of almost every major space and defense program. ■ General Precision, Inc., came into existence serving in the cause of technological advancement. Armed with the finest of facilities and personnel, General Precision continues to serve in space, national defense, science, and industry—and will always work toward one goal: *the summit of achievement.*





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