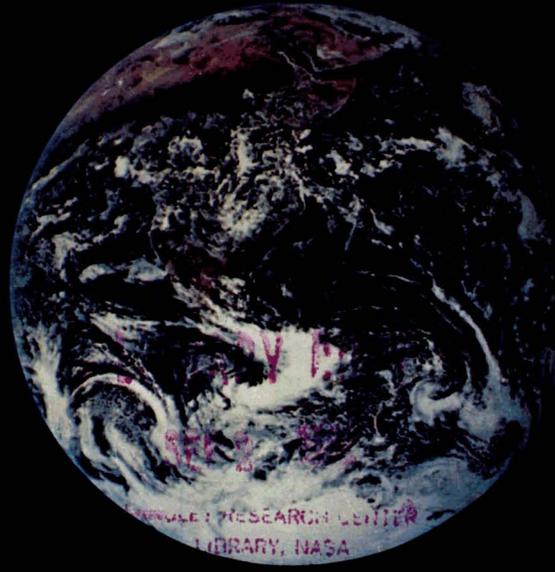
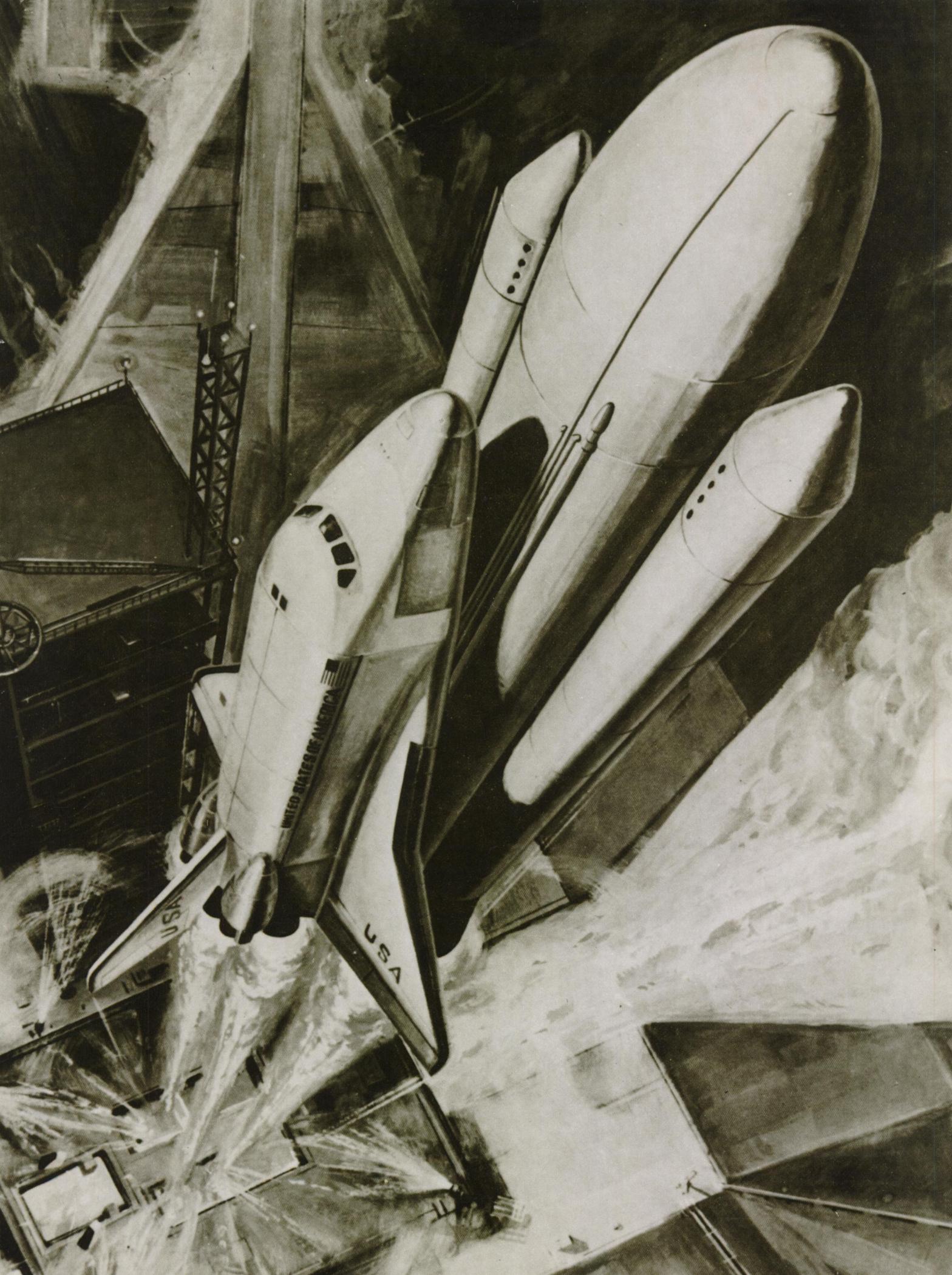


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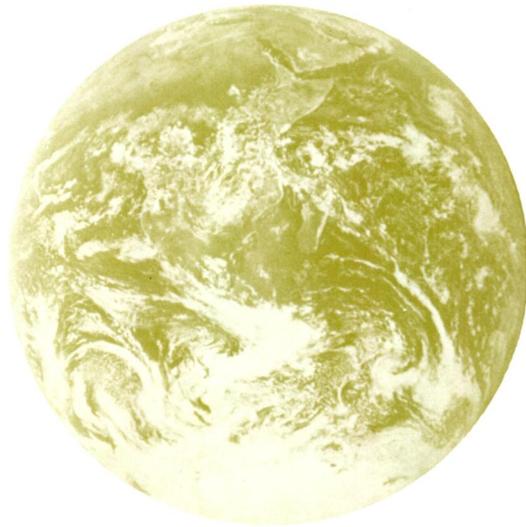


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NASA

National Aeronautics and
Space Administration

N82-19083 #

*NASA Headquarters
Washington D.C. 20546*

This handbook has been prepared with but a single purpose in mind—to assist you, the prospective contractor, in the process of doing business with NASA. We intend that it tell you in a straightforward way, who we are, where we are and what we buy. And perhaps most importantly, we wish to assist you in marketing your product with NASA, whether it be an abstract idea, a manufacturing capability, a fabricated component, construction, basic materials or a specialized service. NASA buys all of these, and more.

Your capability, your potential and your willingness to participate is essential to the accomplishment of NASA's mission. We wish to know who you are, and to learn what you can do. We sincerely hope that you will take the time to read this brochure and understand our basic theme of providing an opportunity for all to participate equitably in the nation's aeronautics and space programs.

We urge that you pursue this brief introduction. We would sincerely welcome your personal or written inquiry and trust that your marketing endeavors with NASA will be a mutually profitable and fruitful experience.

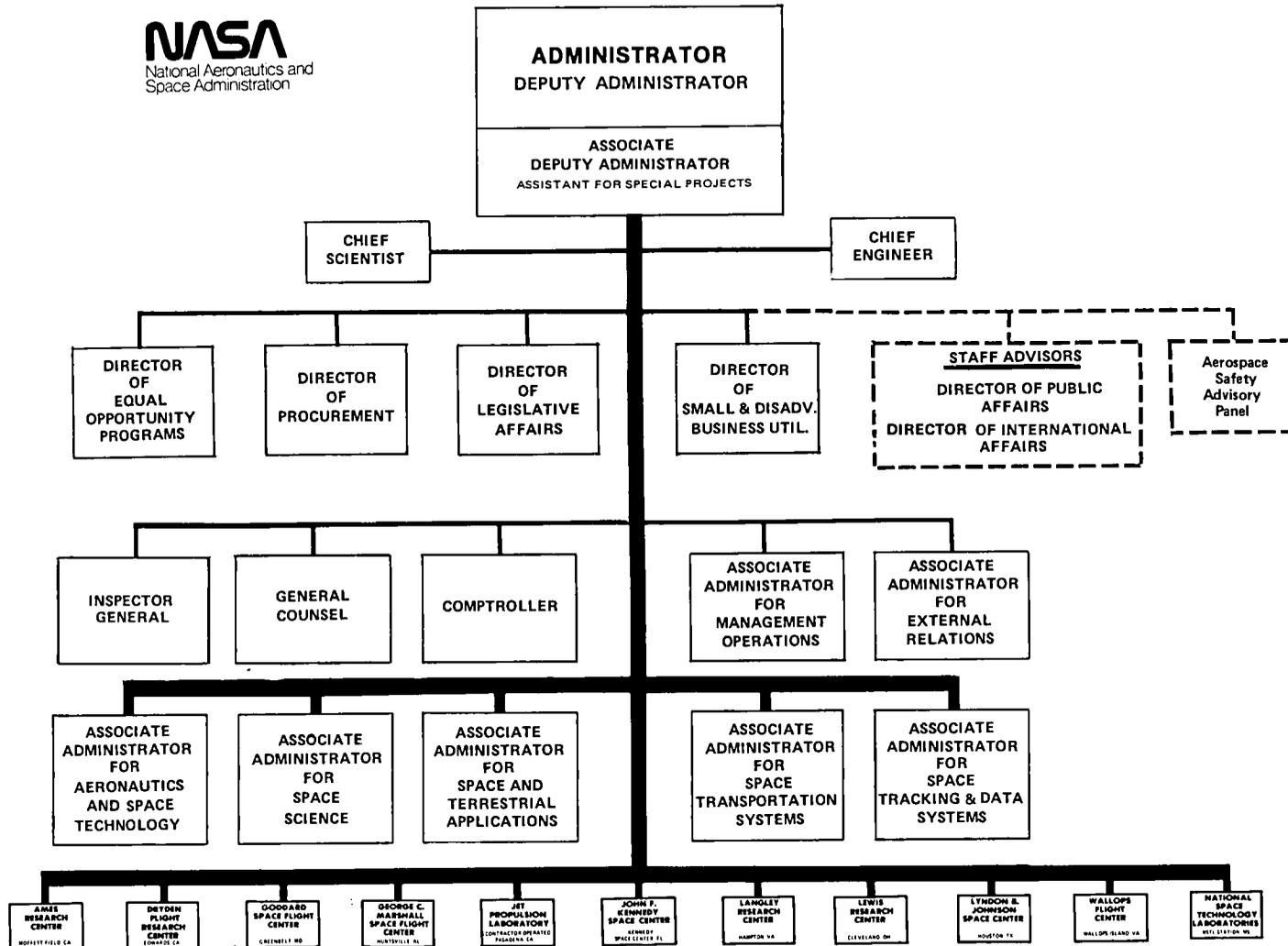

Director of Procurement

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APPROVED _____

(Supersedes Chart dated October 18, 1978)

chapter

1

This is NASA

The National Aeronautics and Space Administration (NASA) was established by the National Aeronautics and Space Act of 1958 to plan, direct and conduct aeronautical and space activities for peaceful purposes for the benefit of all mankind. In consonance with its basic mission, NASA programs, essentially of a research and development nature, are designed to contribute to a number of national goals including the preeminence of the nation in the science and technology of aeronautics and space.

NASA's mission is planned, directed and coordinated from its Headquarters in Washington, D. C., the focal point for policy and program formulation. The operational aspects of NASA's work in aeronautics and space are performed through its space-flight centers, research centers and other installations at various locations throughout the country (See Chapter VI). Each installation has a specifically prescribed mission, with related tasks, and is allocated the resources necessary for their accomplishment. Though these NASA installations

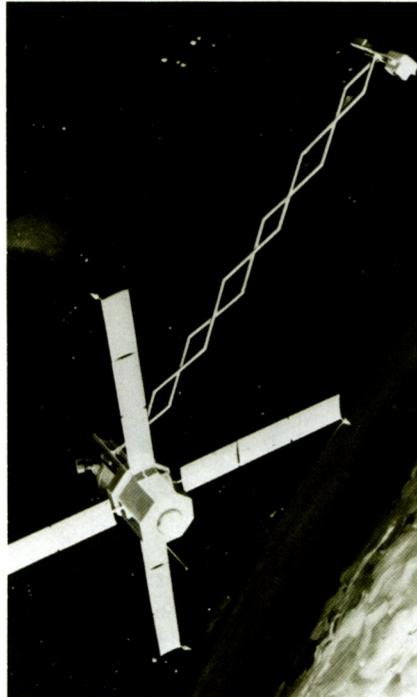
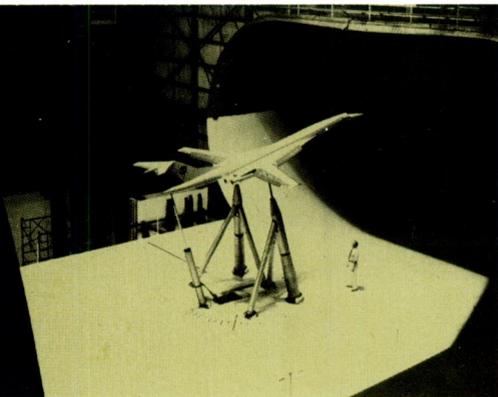
have unique "in-house" capabilities, their research and operations are pursued mainly through private industry, with the additional support of universities and other nonprofit research organizations.

Today, NASA's resources include the skills of about 22,500 employees. Its physical plant consists of a variety of technical laboratories, wind tunnels, flight simulators, test facilities, launch and tracking facilities, and research and institutional facilities.

Program Offices

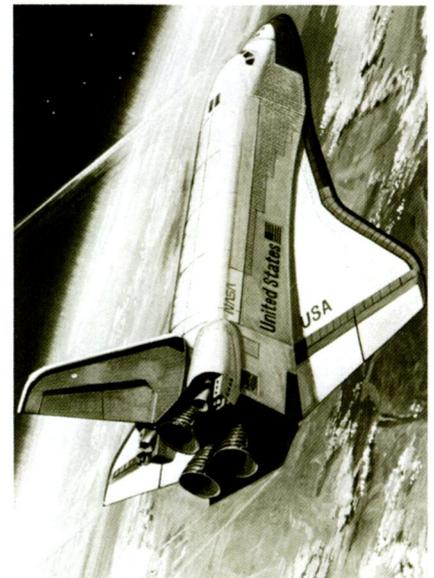
NASA Headquarters offices which provide overall management of its technical programs are as follows:

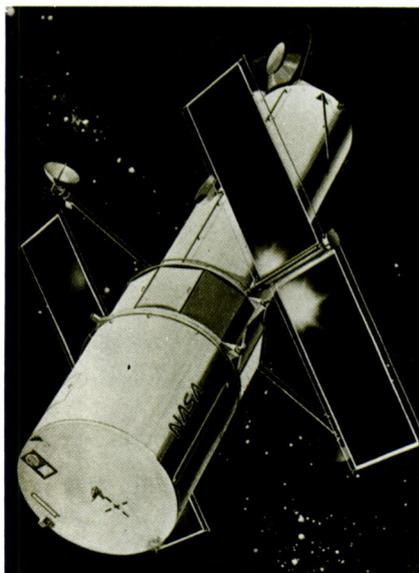
The Office of Aeronautics and Space Technology is responsible for the planning, direction, execution, evaluation, documentation, and dissemination of the results of all NASA research and technology programs that are conducted primarily to demonstrate the feasibility of a concept, structure, component, or system and which may have general application to the nation's aeronautical and space objectives. This office is also responsible for coordinating the agency's total program of supporting research and technology related to carrying out specific flight missions in order to avoid unnecessary duplication, and to insure an integrated and balanced agency research program. This includes technology developments supporting reliable low cost energy systems, as a national priority.



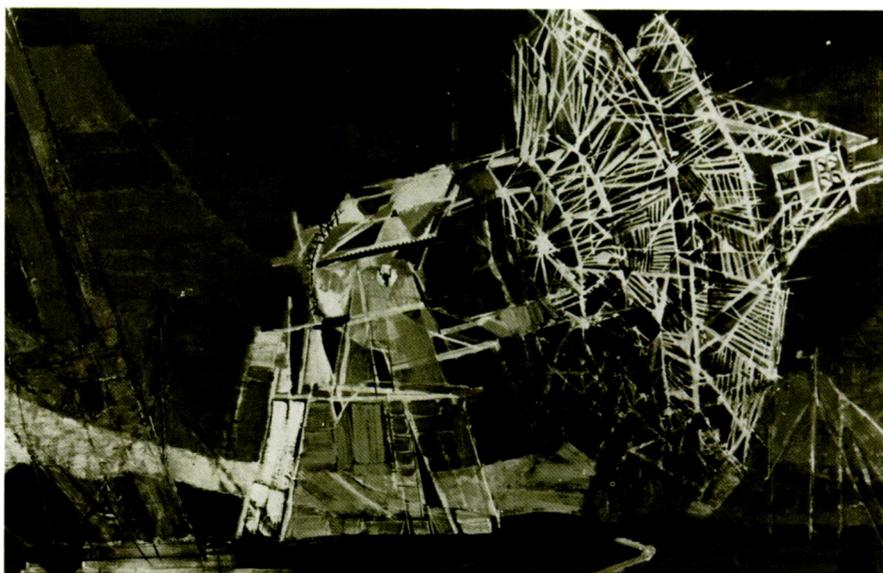
The Office of Space and Terrestrial Applications is responsible for all research and development activities that demonstrate the application of space related technology, systems and other capabilities which can be effectively applied and used in the civil sector for practical benefits to mankind. The R&D activities are grouped in the following areas: Weather and Climate, Pollution Monitoring, Earth Resources Survey, Earth and Ocean Physics Applications, Space Processing, Communications, Data Management and Applications Experiments and Studies.

The Office of Space Transportation Systems is responsible for NASA activities directly involving manned space flight missions. Its principal mission is to develop a new space transportation system significantly improving the access of man and instruments to space. The Space Shuttle is the key element of the system that will service a wide variety of users. The Shuttle will provide multipurpose, economical space operations for earth applications, scientific and technological payloads. Its unique capabilities will greatly enhance the flexibility and productivity of space missions.





The Office of Space Tracking and Data Systems is responsible for development and operation of communications, tracking, data acquisition, and data processing facilities, systems, and services required for support of NASA flight programs. OSTDS is also assigned NASA-wide responsibility for administrative communications management and frequency management.



The Office of Space Tracking and Data Systems is responsible for development and operation of communications, tracking, data acquisition, and data processing facilities, systems, and services required for support of NASA flight programs. OSTDA is also assigned NASA-wide responsibility for administrative communications management and frequency management.

The Office of Space Transportation Operations (STO) was recently created as a Program Office within NASA to operate the Space Transportation System (STS) for the benefit of all users. STO is responsible for the management, direction and coordination of all U.S. civil launch capabilities and Spacelab development (U.S.A.) procurement and operations.

Research and Development Activities

Research and development (R&D) is the most important phase of NASA operations, accounting for more than two out of every three dollars in current budget allocations. Today and in the years ahead, NASA will be concentrating upon programs such as—

- *Expanding the practical applications of aerospace technology with special emphasis in such fields as energy, atmospheric pollutants and the marine environment.*
- *Providing technology for future general aviation aircraft that will be safer, more productive and generally superior to foreign competition.*
- *Reducing aircraft noise and air traffic congestion in the vicinity of airline terminals.*
- *Advancing the technologies required for more energy-efficient flight by jet transports and exploring the use of alternate fuels for petroleum.*

- *Operating high-flying aircraft, balloons and sounding rockets for studies of near-Earth space phenomena, stellar and solar observations and for flight testing of advanced instruments and systems.*
- *Conducting solar system exploration with automated spacecraft such as the Viking, Mariner, Pioneer, Voyager and Galileo.*
- *Operating Earth-orbiting and Lunar-orbiting automated spacecraft to map such phenomena as the solar wind, Earth's magnetosphere, and the effect of solar radiation on the ionosphere and atmosphere.*
- *Operating Earth-orbiting spacecraft to return imagery used in studies of such Earth resources areas as agriculture, forestry, geology, mining, land use and water supply analysis.*
- *Operating Earth-orbiting spacecraft to look far into space, from outside the Earth's obscuring atmosphere, for astronomical purposes and to study solar and galactic radiations.*
- *Exploiting the capabilities of the Space Shuttle, with its associated Spacelab, for the conduct of beneficial activities, manned and unmanned, in Earth orbit.*
- *Developing experiments, concepts and technologies for future space flight missions.*
- *Improving the reliability, simplicity, payload capability and reusability of propulsion systems and launch vehicles. Work for similar advances in communications and guidance systems and techniques.*
- *Development of advanced tracking and data acquisition systems and techniques.*
- *Utilizing solar energy, including heating and cooling systems, and wind energy systems; end-use conservation systems; conversion systems; and developing alternate modes and fuels for ground transportation.*
- *Development of a Solar Electric Propulsion Space Flight system.*

Additionally, each NASA installation purchases a wide variety of components, materials, services and construction in support of its research and development and operational activities. Support services include security, fire protection, buildings and grounds maintenance, logistics support, management and administrative services, computer services and software, graphics and photography, aircraft maintenance, library and technical documentation, communications, custodial services and other activities.

RTOP SUMMARY

NASA publishes an annual compilation of its funded research and technology programs in abstract form as the **Research and Technology Objectives and Plans Summary (RTOP)**. The **RTOP Summary** is designed to facilitate communications and coordination among concerned technical personnel in government, industry, and universities. The publication briefly describes NASA's R&D objectives, identifies the installation of primary interest and provides a point of contact for technical information. The Summary should be especially helpful to small research firms in ascertaining NASA technical requirements. It may be purchased from the National Technical Information Service, Springfield, Virginia 22151.

chapter

2

DOING BUSINESS WITH NASA

Each year approximately 85 percent of NASA's budget appropriation is expended in the form of procurement awards to business firms, educational and nonprofit institutions and with other Government Agencies. In Fiscal Year 1978, NASA's procurement awards totalled \$3.66 billion, of which \$3.3 billion went to business firms either directly from NASA, through other Government Agencies in NASA's behalf, or in subcontract awards from NASA's contractor-operated Jet Propulsion Laboratory. Similar procurement expenditures are projected for the next two years.

NASA intends to continue to utilize and support private industry and the educational and research institutions which can contribute to the accomplishment of its assigned mission. An understanding of the process of doing business with NASA is essential to these relationships.

Field Contracting

NASA's procurement system is decentralized. This is to say, that the preponderance of NASA procurements are planned and accomplished by each of the NASA field installations rather than by the central Headquarters in Washington, D.C. Each installation is a procuring activity, appropriately staffed to provide full procurement support for its assigned mission, projects and tasks, as discussed in Chapter VI.

Bidder's Mailing List

Accordingly, an important step in the process is the proper identification of the company and its capabilities to *each* of the NASA activities with which a firm may wish to do business. A *Bidder's Mailing List Application*, Standard Form 129, reproduced in this brochure, or a special Architectural and Engineering Questionnaire, Standard Form 254, is available for this purpose. In submitting the form, sufficient supplemental information should be provided to ensure that the firm's products and capabilities are fully understood. This then will place the firm in the bidder's source files at the Center(s), but does not necessarily qualify it for specific procurement requirements which may arise. Firms will be specifically invited

to bid or submit proposals on those procurement requirements for which they are deemed qualified.

Procurement Information

While most NASA procurement opportunities are advertised in the Commerce Business Daily, immediately prior to solicitation, prospective contractors are encouraged to develop a general awareness of NASA's program and potential procurement requirements. This is especially important in research and development where long-range planning and the allocation of a company's resources is essential. NASA's technical and procurement personnel welcome inquiries and discussions with appropriate company representatives. The Small Business/Industry Assistance Office at each Center will be pleased to arrange such visitations or respond to written inquiry. Inquiries of a general nature or with NASA-wide implications should be addressed to the Director, Small and Disadvantaged Business Utilization, Washington, D.C. 20546. In doing business with NASA, as with other Government agencies, there are certain additional requirements and other factors with which the prospective contractor should be aware. Several of the more important are briefly discussed.

Reliability and Quality Assurance

NASA tailors reliability and quality assurance requirements for each contract in order to effectively achieve reliability and quality commensurate with mission objectives. For space systems and their major elements, contractors are required to operate reliability and quality programs in accordance with NASA publications NHB 5300.4(1A) "Reliability Program Provisions for Aeronautical and Space System Contractors" and NHB 5300.4(1B) "Quality Program Provisions for Aeronautical and Space System Contractors," or selected provisions of these publications. Major subcontracts will invoke the same requirements. Direct NASA contracts and lesser subcontracts will invoke selected provisions or NHB 5300.4(1C) "Inspection System Provisions for Suppliers of Space Materials, Parts, Components and Services." Other NASA, military or Federal specifications will be invoked as appropriate to the hardware involved. If soldering is required, NHB 5300.4(3A-1) "Requirements for Soldered Electrical Connections" will be invoked. Copies of these publications may be obtained from the NASA installation inviting bids/proposals or purchased from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

Safety and Health Program

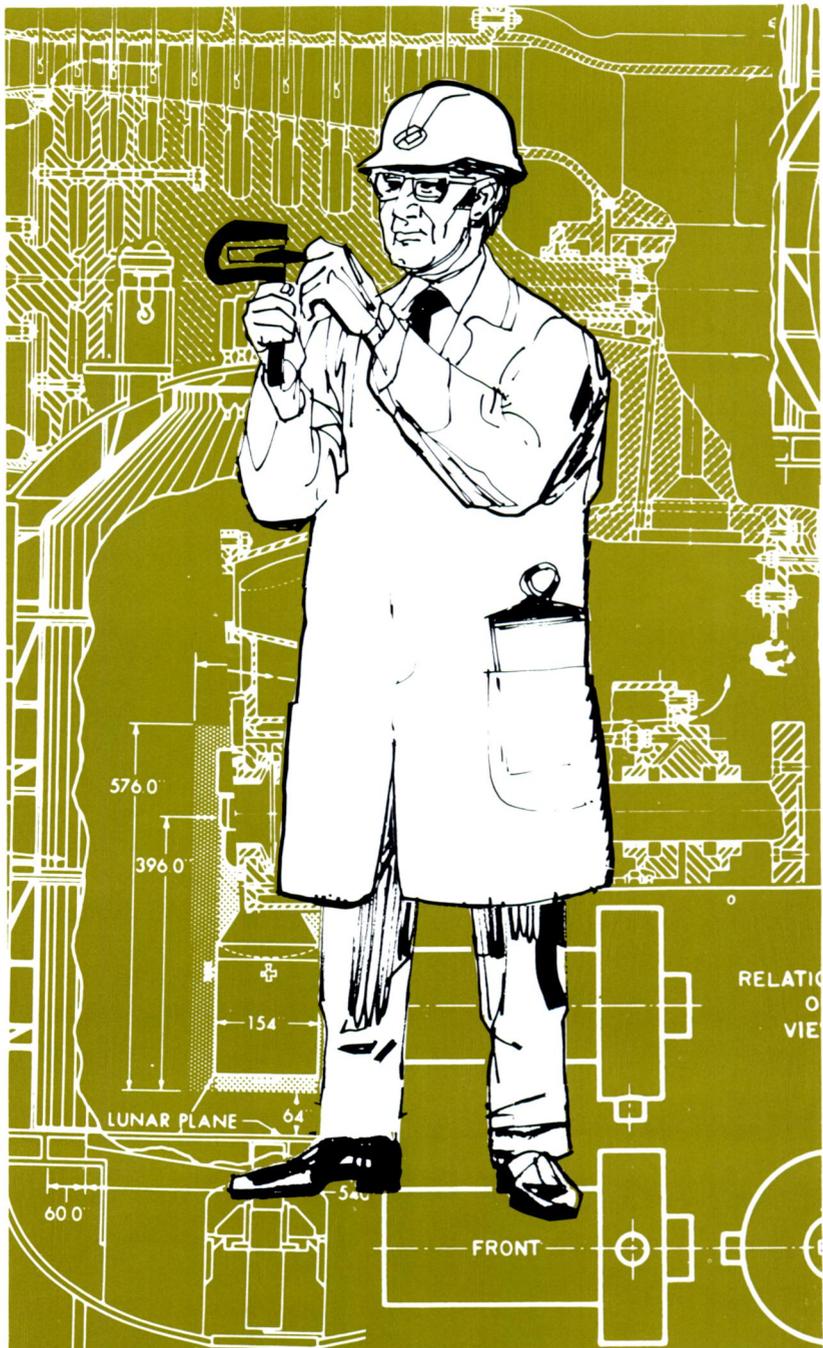
NASA's policy is to take all practical steps to avoid loss of life, personnel injury or illness and loss of property. Specific requirements to implement this policy are found in each contract and are intended to preclude loss.

In all contracts the applicable Occupational Safety and Health Act Standards are invoked. Other Federal as well as industry standards may also be included for specific areas of concern. Given the critical nature and high value of NASA operations, strict adherence to contract safety and health provisions is mandatory and will be subject to thorough evaluation during the life of the contract.

While specific safety and health requirements for each contract may vary, the NASA Procurement Regulation (NHB 5100.2) Part 1, Subpart 52, "Safety and Health" and Part 14, Subpart 6, "System Safety Requirements in NASA Procurements" set forth the policy and responsibilities for developing the applicable requirements for all contracts.

Equal Employment Opportunities

Pursuant to Executive Order 11246, dated September 24,



1965, Executive Order 11375, dated October 13, 1967, and the rules and regulations of the Department of Labor, a standard "Equal Opportunity" clause is prescribed for use in all non-exempt contracts in excess of \$10,000. Under this clause, the contractor or subcontractor is obligated not to discriminate against any employee or applicant for employment because of race, religion, color, sex, or national origin, and is required to take affirmative action to ensure equal employment opportunity. A bidder or offeror may be required to include a representation concerning the filing of compliance reports in accordance with the Equal Opportunity clause in his bid or proposal.

Additionally, The Rehabilitation Act of 1973 (P.L. 93-112 as amended by P.L. 93-516) and Executive Order 11758 dated January 15, 1974, cover non-discrimination standards with respect to the handicapped. The Vietnam era veterans Readjustment Act of 1974 also prescribes requirements for the employment and advancement of qualified disabled veterans and veterans of the Vietnam era.

An Equal Opportunity Programs Specialist is available at each NASA activity to assist prospective contractors in understanding and meeting these requirements.

Industrial Relations

Labor relations is one of the important factors involved in contract performance. NASA has a labor policy of neutrality, and the union or non-union status of a bidder is not a factor in the award of contracts. The bidder's assessment of labor costs may be affected by the local labor relations environment and applicable labor agreements; therefore, bidders should be particularly aware of potential obligations resulting from legal precedents applicable to successor contractors.

Security Clearance

Should a NASA contract, or a solicitation for a bid or proposal, require access to classified information an industrial security clearance will be required. The procurement solicitation will cite this requirement when necessary. As a participant in the Department of Defense (DoD) Industrial Security Program, NASA, when the security requirement exists, will request the DoD to process the Company's application. Specific inquiries may be addressed to the procuring NASA activity. Further procedures and requirements are set forth in the "Industrial Security Manual for Safeguarding Classified Information (DoD 5220.22-M). This document may be pur-

chased from the superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

Bonding

Under the provisions of the Miller Act, NASA construction contractors will be required to post performance and payment bonds, on contracts in excess of \$10,000, to protect the Government's interest in the proper and timely completion of the work, and to secure payment for labor and material furnished under the contract. Small construction firms which may experience difficulty in obtaining a bond should inquire into the surety bond program administered by the Small Business Administration.

Patents and Inventions

The rights to inventions made under NASA contract, and the licensing of NASA patents are governed by statute, i.e., 35 U.S.C. 200-211 (94 Stat 3019-3027) and Section 305 of the National Aeronautics and Space Act of 1958 (42 U.S.C. 2457).

In general, a nonprofit organization or small business firm may elect to retain title to inventions made in the performance of work under a U.S. Government contract. Inventions made by larger business firms in the manner

specified by the Space Act, on the other hand, become the exclusive property of the Government, unless the NASA Administrator determines that the interests of the United States will be served by waiving all or any part of the Government's rights. In all cases, full disclosure to NASA of inventions funded by the agency is required.

NASA procurement regulations set forth policies, instructions and contract clauses for implementation of the statutes identified above. In addition, regulations have been issued governing the waiver of invention rights to NASA contractors and the granting of licenses under NASA patents.

To obtain detailed information concerning these policies and procedures, as well as available forms for petitioning for waivers of rights to contract inventions, and for making application for licenses under NASA patents, write to:

*Office of General Counsel
National Aeronautics and Space
Administration
Washington, D.C. 20546*

Section 306 of the Space Act authorizes the Administrator to make awards for scientific or technical contributions having significant value in the conduct

of aeronautical or space activities. Such contributions would include innovations or inventions which have been used with proven value, many of which come into being during the performance of NASA contracts. Information concerning application for such awards may be addressed to:

*Director of the Staff
Inventions and Contributions Board
National Aeronautics and Space
Administration
Washington, D.C. 20546*

Technical Data, Proprietary Data and Copyrights

It is NASA's general policy to acquire for the Government unrestricted rights to all data first produced under NASA contracts. Under certain circumstances, NASA may grant the contractor the right to copyright such data, reserving a free license under the copyright to the Government. When NASA access to private proprietary data (trade secrets) is necessary in proposals, and in information and reports delivered under its contracts, it is NASA policy to receive such data in confidence under an authorized limited rights notice and to protect such data.

Unsolicited Proposals

An important method of doing business with NASA is through

the submission of relevant new ideas and concepts in the form of unsolicited proposals. In general, most appropriate for the unsolicited approach is research of a fundamental nature—that which bears potential for advancing the state of the art in a particular area, contributes to knowledge of a specific phenomenon, or provides fundamental advances in engineering or the sciences. In addition, proposals may define problems and present possible solutions to the problems, developmental or otherwise, which are within NASA's areas of concern.

There are two general approaches to unsolicited proposal submission. When an organization wishes to pursue a specific research project, it is advisable to determine through such sources as the open literature on NASA's program, through published NASA testimony before Congressional Committees, or through direct contacts with NASA technical personnel, if the contemplated study is within NASA's scope of interests. However, the existence of an apparent mutual interest does not, in itself, mean NASA will support an unsolicited proposal. NASA must consider such additional factors as the technical merits of the proposal, the availability of funds, and the relative priority

of the project as compared with other alternatives under consideration. Proposals of this type should be submitted directly to each NASA installation (Attention: Proposals Control Officer) where it appears there is interest. A minimum of 5 copies is suggested.

Another source of information on NASA programs is through the issuance of periodic notices in the form of a "Dear Colleague" letter which disseminates information to members of the scientific and engineering community. It outlines general research areas in which unsolicited proposals would be of interest, rather than presenting any statement of NASA requirements which might limit a potential proposer's ability to initiate a proposal with effort of particular interest to their organization. When issued, each notice contains appropriate guidance for preparation and submittal of related proposals. Requests to be placed on the mailing list for these announcements should be addressed to:

*National Aeronautics and Space
Administration
Office of Space and Terrestrial
Applications
OSTA Steering Committee
Code EP-3
Washington, DC 20546*

NASA policy and procedural guidance with respect to unsolicited proposals is set forth in NASA Procurement Regulation Part 4, Subpart 9, "Unsolicited Proposals."

More specific information for educational institutions is contained in "The NASA-University Program: A Guide to Policies and Procedures."

Cost Sharing

Proposers should be aware that cost sharing by non-Federal organizations is statutorily required in any contract for research which results from an unsolicited proposal unless the proposer certifies in writing that it has no commercial, production, educational or service activities on which to use the results of the research, and that it has no means of recovering any cost sharing on such projects. However, where the activities of educational institutions under NASA instruments do not produce benefits that can be measured as having significance apart from the benefit intrinsic in the conducting of research for NASA these agreements are not subject to this requirement. See NASA Procurement Regulation 1.362.

Foreign Procurement

The Buy American Act generally precludes the purchase of for-

foreign materials (supplies and articles) for use in this country when such items are readily available in the domestic market at reasonable prices. However, the provisions of the Act have been waived for products and services from Canada and other specified countries.

Similarly, research proposals from abroad are not encouraged for practical reasons. NASA's normal international programs are accomplished through jointly funded cooperative projects with foreign agencies. However, in certain instances, foreign proposals may be considered if the project is urgent, in the national interest, the work cannot be performed in this country, or though encouraged to do so, foreign sources will not fund the research.

Publications and Specifications

Copies of NASA publications and technical specifications when referenced in solicitations and contracts may be obtained through the NASA contracting office.

The Index of Federal Specifications and Standards, and the *Department of Defense Index of Specifications and Standards* may each be purchased from the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402.

chapter

3

The Procurement Process

NASA, by provisions of the National Aeronautics and Space Act, is subject to the same basic procurement statute which governs the Department of Defense (DoD). For this reason, and because both NASA and the DoD most often deal with the same segments of industry, NASA's procurement policies and procedures are intentionally similar to those in the Defense Acquisition Regulation (DAR). When they are issued, NASA and all Federal Agencies will be subject to the Federal Acquisition Regulation (FAR). The NASA Procurement Regulation (NHB 5100.2) may be purchased from the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402.

Bidders List

As discussed in Chapter II, the majority of NASA's contracting is accomplished by its various field installations. Typically, the procurement process is initiated when a particular program or project office determines a requirement and submits a procurement request to the procurement office. The assigned contracting officer will then develop a bidder's list from the installations source files and prepare an appropriate solicitation in the form of an Invitation for Bid, Request for Proposal, or Request for Quotation.

Commerce Business Daily

In most instances, an advance notice of the pending procurement will be placed in the *Com-*

merce Business Daily (CBD) at least ten days prior to issuance of the solicitation. A subscription to this publication may be obtained from the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402.

Normally, solicitations are issued with a minimum of 20 days before closing for standard commercial articles and services and no less than 30 days for other procurements.

Federal Supply Schedule

Prior to initiating procurements from commercial sources, NASA must determine whether or not the required supplies or services are available from a Federal Supply Schedule established by the

General Services Administration (GSA) or as a common stock item at a GSA supply depot. Firms interested in doing business as a Federal Supply Services contractor should contact a Business Service Center of the GSA.

Advertised Procurement

Each **Invitation for Bid** (IFB) includes technical specifications, delivery or completion dates, place and method of delivery, nature and number of reports or manuals which may be required, operational tests and instructions, and other items which should be considered in submitting a bid. Unless incorporated by reference, the contract clauses, terms, and conditions are set forth in detail as are the

date, hour, and place where bids will be publicly opened and recorded. A late bid will not be considered unless it is received before an award is made, and either it was sent by registered or certified mail, not later than the fifth calendar day prior to the date specified for receipt of bids, or it was sent by mail (or telegram, if authorized) and it is determined by the Government that the late receipt was due solely to mishandling by the Government, after receipt at the prescribed Government installation. Unless specifically authorized, a telegraphic or alternative bid will not be considered.

Negotiated Procurement

While formal advertising is the preferred method of awarding

contracts, most NASA procurement dollars are spent under negotiated procedures. Negotiated procurement has particular application in research and development where adequate specifications are not available. Flexibility is its key advantage over the more rigid formal advertising procedure. Negotiation permits the comparative evaluation of any number of desired factors in selecting a contractor, whereas formal advertising limits comparison almost entirely to price.

When NASA employs negotiated procurement, the procurement office may find it more appropriate to limit the *requests for proposals or quotations* to those organizations believed to be most

qualified and likely to respond. In this way, firms are not encouraged to incur substantial costs and distractions in preparing proposals for which they are not likely to qualify. Nevertheless, copies of solicitations are usually available on request and all timely responses must be considered. Effective competition is as important a goal in negotiated procurements as it is in formal advertising, therefore, the opportunity to compete will not be unnecessarily limited.

The appropriate NASA official(s) or Source Evaluation Board review the proposals received, and further negotiations or discussions may be conducted with firms submitting the most acceptable proposals. A contract is



generally awarded by administrative decision of a designated NASA official based on a thorough analysis of all the facts obtainable, and on the conduct of final negotiations with the firm or firms selected. The level of proposal review and the source selection official is determined by the size of the award. The large procurement award determinations are made by the Director of the field installation, by a Program Director, or by the Administrator of NASA.

The details of the formal source evaluation-selection process for negotiated procurements are set forth in the *NASA Source Evaluation Board Manual (NHB 5103.6A)*.

It's NASA policy that on written request, unsuccessful offerors will be debriefed after contractor selection has been announced, but normally prior to contract award.



Architect-Engineer Contracting

An Architect-Engineer Selection Board has been established at each NASA field installation in support of a full range of facilities and construction management activities. The Board reviews the qualifications of firms interested in performing architectural or engineering work in connection with NASA construction projects; and in the case of procurements estimated to cost more than \$10,000, the Board conducts oral or written discussions with a minimum of three firms. The Board submits a report to the installation Director recommending, in order of preference, those firms considered best qualified to perform the services required. Upon approval by the installation Director of the list of qualified architect-engineer firms, contract negotiations are conducted with the firm given first preference. If a mutually satisfactory contract cannot be agreed to, negotiations are then initiated with the firm given second preference on the list. Generally, this procedure continues until a contract has been negotiated.

Pursuant to 10 U.S.C. 2306(d), the amount of the fee that may be paid to an architect-engineer under a cost-plus-a-fixed-fee contract for the production and delivery of the designs, plans, drawings, and specifications may not exceed six (6) per cent of the estimated cost of the related construction project, exclusive of the amount of such fee. In addition, it is NASA's policy to apply this statutory limitation to

the fee paid to an architect-engineer for the performance of such services under a fixed-price contract.

Since each Architect-Engineer Selection Board maintains a list of qualified firms for various types of projects, architectural and engineering firms should file Standard Form 254 (Architect-Engineer and Related Services Questionnaire) with the various NASA field installations and with the Headquarters, Office of Facilities. Firms are encouraged to keep their A&E qualification information current, preferably on an annual basis. In addition firms may be required to file Standard Form 255 (Architect-Engineer and Related Services Questionnaire for Specified Project), when additional information is required on a particular project. Procurement of A&E services estimated to be \$10,000 or more are synopsisized in the Commerce Business Daily.

Bid Room

Central "bid rooms" are maintained in the Office of Procurement, NASA Headquarters, Washington, D.C., and at the Defense Contract Administration Services Region (DCASR), Los Angeles, CA. At these two locations copies of *all* open NASA solicitations are available for review by interested firms. Bid/proposal sets may be ordered from the issuing NASA installation. Additionally, each NASA installation provides "bid room" services for its own procurements.

Contract Administration

In order to avoid duplication of effort and to achieve the most effective and economical utilization of Government resources in the accomplishment of the purposes of the National Aeronautics and Space Act, agreements have been made between NASA and the Department of Defense. These agreements among other things, provide for delegation of certain contract administration functions and responsibilities by NASA to cognizant agencies of the Department of Defense. This includes the Defense Contract Administration Services (DCAS), industrial plant offices of the Military Departments, and the Defense Contract Audit Agency (DCAA).

The delegation of contract administration functions is made on an individual basis by the NASA contracting officer after having reviewed the contract requirements and determined the nature and extent of contract administration functions to be performed. Copies of the letter of delegation and amendments thereto, which will be explicit and unambiguous in detailing the contract administration functions to be performed. Copies of the letter of delegation and amendments thereto, which will be explicit and unambiguous in detailing the contract administration functions to be performed, will be furnished by the NASA contracting officer to the contractor. Detailed procedures covering delegation and redelegation of such functions are set forth in Part 20, Subpart 6, of the NASA Procurement Regulation.

chapter

4

Small Business -- Minority Business Enterprise

NASA's Small Business Program is designed to ensure that all small businesses, including small minority firms, have an equitable opportunity to participate in NASA's procurement programs, and that they do, in fact, receive a fair share of the resulting contract awards. The status of a business entity as "small" is determined by the criteria established for each industry by the Small Business Administration (SBA). Size standards are published in the Regulation of the Small Business Administration (Title 13, CFR Part 121).

Small Business

The policies and procedures of NASA's Small Business Program are published in Part 1, Subpart 7 of the NASA Procurement Regulation. NASA has a Small Business Advisor at its Headquarters to represent the interests of small business before the Agency and a Small Business Specialist at each installation with a *primary* responsibility for fostering small business procurement opportunities. All proposed procurements are reviewed for the participation of small business, including disadvantaged business firms. Specific procurements are set aside exclusively for small business competition. Small firms are also included in each competitive solicitation when their capabilities so indicate. All small firms interested in doing busi-

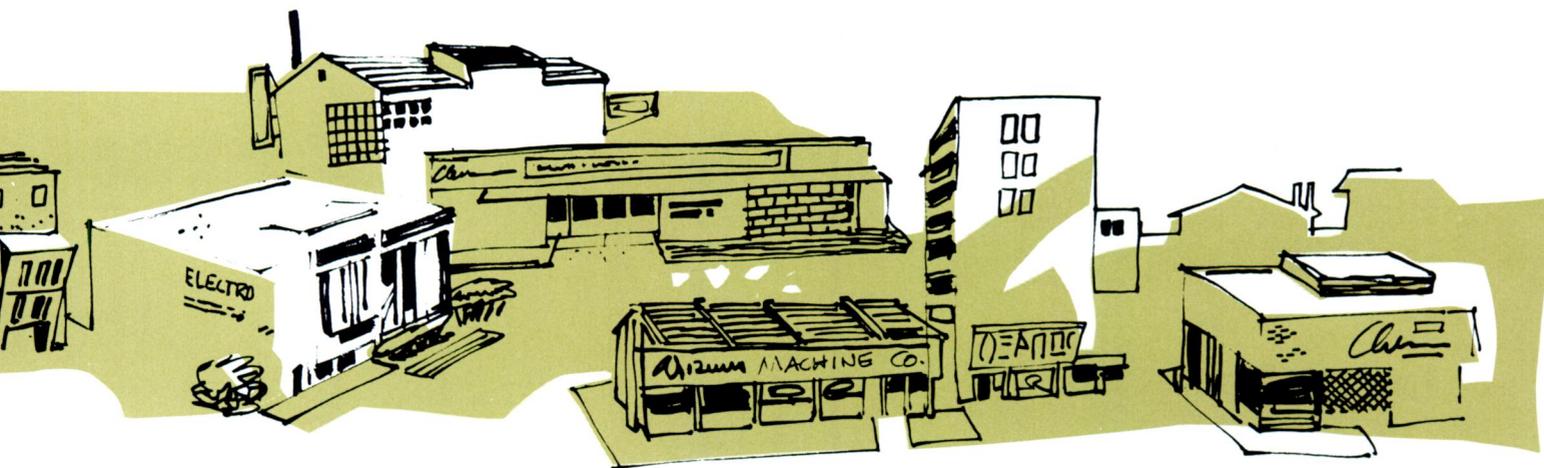
ness with NASA are encouraged to utilize the assistance and services offered by these Small Business/Minority Business Specialists identified in this handbook.

Minority Business Enterprise

In keeping with national policy, NASA works closely with the Small Business Administration (SBA) in assisting small firms owned and controlled by socially and economically disadvantaged individuals. Socially disadvantaged individuals, for government procurement purposes, include, but are not limited to Black Americans, Hispanic Americans, Native Americans, Asian—Pacific Americans and other minorities, or any other individual as designated by the SBA. Economic disadvantage concerns

the assets and net worth of individuals, as well as their relative access to capital and credit opportunities, as prescribed by the SBA.

Under the provisions of Section 8(a) of the Small Business Act, the SBA may enter into contracts with NASA and other Government Agencies for supplies and services, and then subcontract noncompetitively for these requirements with SBA approved small disadvantaged firms. NASA gives special emphasis to identifying procurement requirements for referral to the SBA for matching with the capabilities and potential of approved Section 8(a) firms. Qualifying firms interested in participating in this program should contact the nearest SBA office.



The essence of NASA's *Minority Business Enterprise Program* is set forth in [1.707] of the NASA Procurement Regulation and is directed toward ensuring the equitable participation of minority firms in NASA prime and subcontract opportunities. Minority firms are encouraged to contact the Small Business Specialist or Minority Business Specialist at each of the NASA installations of interest. Inquiries of NASA-wide or general interest should be directed to the Director, Small and Disadvantaged Business Utilization Office, NASA Headquarters, Washington, D.C. 20546.

Subcontracting Opportunities

Recognizing that small firms often do not have the capability to perform as a prime contractor

on the larger procurements, NASA actively promotes the involvement of small business at the subcontract levels. Special contract clauses are included in most NASA prime contracts which require the prime contractor to maximize small business and minority business subcontracting opportunities. Small business firms are, therefore, encouraged to identify their capabilities to NASA's major prime contractors. The Small Business Specialist will assist in this endeavor.

Small Business Administration

Small business firms, especially newly formed organizations, are encouraged to contact their nearest Small Business Administration office for assistance and to learn of the many excellent

programs and opportunities that are available to them. These include procurement and technical assistance as well as financial and management assistance. Inquiries may also be addressed to the Small Business Administration, Washington, D.C. 20416, or to the nearest field office of the SBA.

The *U.S. Government Purchasing and Sales Directory*, published by the SBA lists major Federal purchasing offices, including the military services, what they buy and provides useful information on selling to the Government. This publication may be purchased from the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402.

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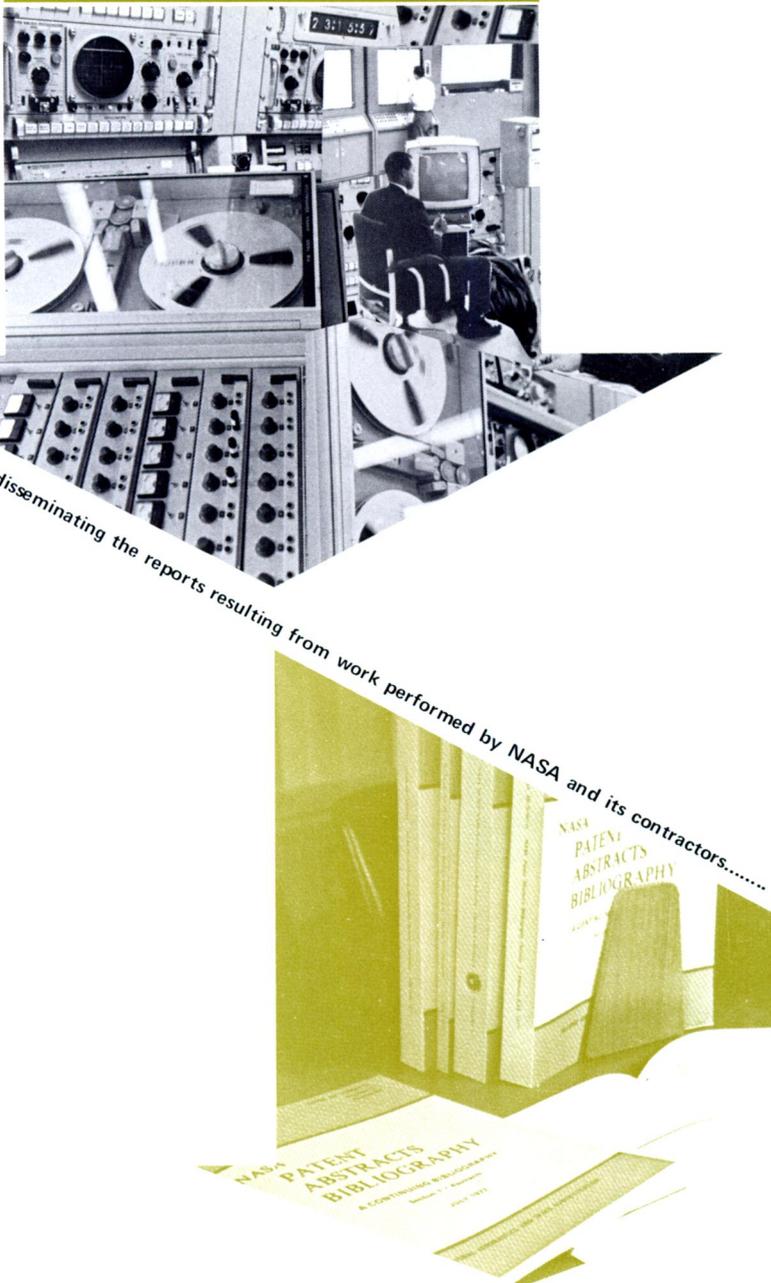
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Scientific and Technical Information

NASA shares its research with others interested in advancing the state of the art. Publication in NASA's technical series or in technical journals is encouraged. Before submitting an account of NASA-sponsored research to any journal, the investigator should furnish a copy to NASA. After publication, reprints should be provided to NASA for distribution to the interested scientific community. Of course, special arrangements must be made in the case of classified information.

The Scientific and Technical Information Branch, NASA Headquarters, in addition to its other activities in the information field, is responsible for collecting, abstracting, announcing, and disseminating the reports resulting from the work performed by NASA and its contractors, sub-contractors, and grantees. It is also responsible for locating, acquiring, and disseminating to the NASA community scientific and technical information originating outside the NASA complex.

collecting.....and disseminating the reports resulting from work performed by NASA and its contractors.....



Distribution

NASA makes available certain documents at no charge on initial distribution to organizations registered with NASA. Included among those are *STAR*, *SCAN*, and continuing bibliographies. Printed NASA Formal Series Documents and microfiche copies of NASA and NASA-Sponsored documents announced in *STAR*, are available on initial distribution from NASA upon payment of a service charge. Public libraries and Government agencies are exempt from this charge.

NASA, like other information producing agencies, also provides its unclassified scientific and technical publications to the National Technical Information Service, Springfield, VA 22151, for sale to the general public.

Selected NASA publications are also sold by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Further information on NASA distribution of documents and the forms necessary for establishing distribution may be obtained by writing to:

*NASA Scientific & Technical
Information Facility
Post Office Box 8758
Baltimore/Washington International
Airport
Maryland 21240*

Technology Utilization

The Technology Utilization Program makes available to industrial firms and other interested groups, the results of NASA-sponsored research and development in several ways:

NASA Tech Briefs is an indexed, quarterly journal containing articles on innovations and improved products or processes developed for NASA which are thought to have commercial potential. Articles are grouped into nine broad technical categories and special sections are included for books and reports, computer programs and new product ideas. Information on NASA's Patent licensing program and additional services of the Technology Utilization Program are also described. The *NASA Tech Briefs* is distributed free to qualified industrial users upon request, which may be directed to the address at the end of this section.

Technology Utilization Reports describe innovations of special significance or complexity. *Technology Utilization Surveys* consolidate the results of NASA-sponsored research and development which advanced whole areas of technology. These publications and compilations, groups of related incremental technical advances, are also available from the National Technical Information Service.

Seven Industrial Applications Centers (IAC) have been established by NASA to assist small business and the non-aerospace

industrial sector in making profitable use of new knowledge resulting from aerospace research and development. Each IAC based at a university or a not-for-profit research institute, is staffed with specialists skilled in the use of computer search and retrieval techniques, and serves its clients in a variety of ways. A nominal fee is charged for these services.

The Computer Software Management and Information Center (COSMIC) is located at the University of Georgia. COSMIC collects all of the computer programs NASA has developed (and also some of the best programs developed by other Government agencies), verifies that they operate properly, and makes them available to all at very reasonable prices.

Program documentation is also available for evaluation prior to purchase. A catalog of over 1600 available computer programs is published, or individual searches for relevant programs will be performed by COSMIC free of charge.

Complete information on the services and elements of NASA's Technology Utilization Program may be obtained by writing to:

*Director, Technology Transfer Division
NASA Headquarters
Washington, D.C. 20546*

Publications and Specifications

Copies of NASA publications and technical specifications when referenced in solicitations and contracts may be obtained through the NASA contracting office.

The *Index of Federal Specifications and Standards*, and the *Department of Defense Index of Specifications and Standards* may each be purchased from the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402.

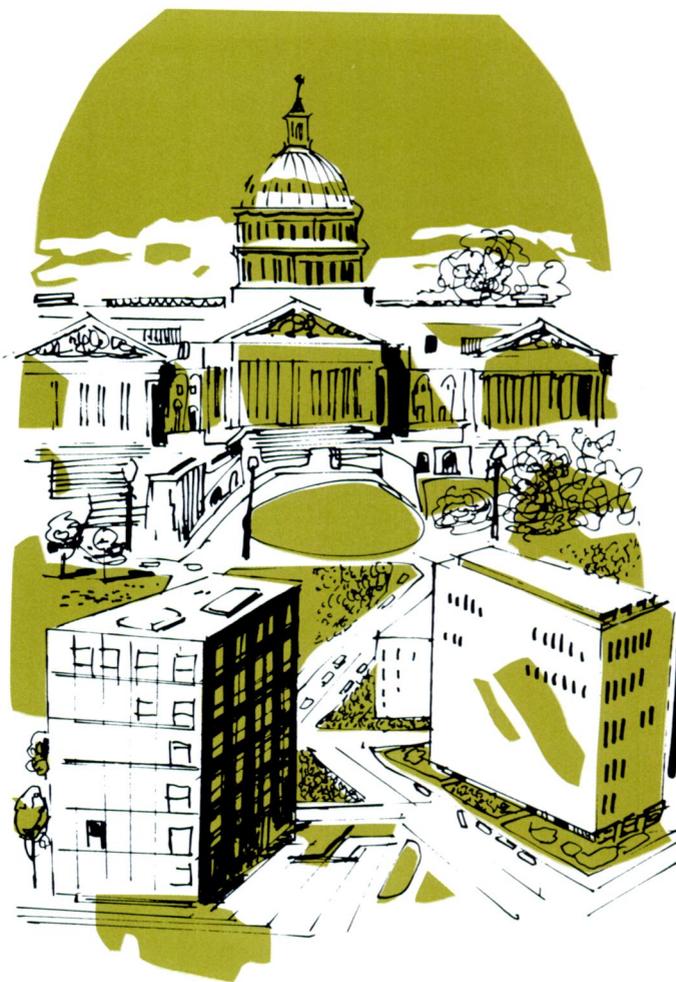


chapter

6

NASA Installations,*Directory of Procurement Offices***NASA HEADQUARTERS****Office of Procurement
Washington, D.C. 20546**Stuart J. Evans, *Director of
Procurement*

The NASA Office of Procurement has functional management responsibility for NASA's procurement programs. It develops and promulgates policies and procedures governing the operations of procurement activities for the entire agency. It is responsible for the direction, coordination and review of all procurement functions including planning, solicitation, evaluation, contracting and administration. It is responsible for the development and maintenance of the **NASA Procurement Regulation**. Other responsibilities include compilation and analysis of procurement information and the preparation of periodic and special reports on NASA procurement activities.



Office of Small and Disadvantaged Business Utilization

Washington, DC 20546

Eugene D. Rosen, *Acting Director*

This office, which reports to the Administrator, is responsible for the development and management of NASA programs to assist small business, including such concerns which are owned and controlled by socially and economically disadvantaged individuals. This office is available, either directly, or through the Small and/or Minority Business Specialists at NASA field installations, to assist all small business firms in doing business with NASA. Specifically this organization will ensure the placement of requesting firms on the "bidder's lists"; provide information on procurement opportunities, and arrange for communications with technical requirements personnel.

Headquarters Contracts and Grants Division

Washington, D.C. 20546

Herbert S. Snyder, *Procurement Officer*

As the procuring organization for Headquarters Program and Staff offices which encompass the entire spectrum of NASA's programs, this Division handles a wide variety of research, study and support contracts. In addition, it negotiates and awards

grants and cooperative agreements for basic scientific research to qualified institutions. An Architect-Engineer Selection Board functions at Headquarters for specialized studies and projects of the Office of Facilities.

The following are typical procurement requirements: services relating to radio, T.V., motion pictures, exhibits and publications; general services—such as operation of duplicating machines, graphics, training courses and seminars and occupational medicine; ADP hardware, software and services; patent services; economic studies, technical information services including editorial writing and foreign language translations, and special studies and services in support of the Headquarters Program and Staff Officers. Finally, the Division has agency-wide responsibility for foreign procurements.

NASA Resident Office—JPL

4800 Oak Grove Drive
Pasadena, California 91109

Allen T. Burke, *Director*

This NASA office, which reports administratively to the Office of Management Operations, NASA Headquarters, negotiates and administers NASA contracts with the California Institute of Technology for management and operations of the Jet Propulsion Laboratory.

This includes the negotiation and issuance of task orders and amendments to these contracts. This office also provides ancillary procurement support of other NASA activities in the area. An assigned Small Business Specialist is available to assist small and minority business concerns, and to represent the agency at various business conferences on the West Coast.

Headquarters Budget & Support Branch

Washington, DC 20546

Thomas P. Thiringer, *Chief*

The Logistics Section of the Headquarters Budget & Support Branch, Headquarters Administration Office, is responsible for negotiation and procurement of office supplies, furniture and equipment, and other logistical support items and/or related services.

Ames Research Center

Moffett Field, CA 94035

Lloyd J. Walsh, *Procurement Officer*



Building on a series of major accomplishments which extend from 1941, the Ames Research Center is continuing to pursue National goals in aeronautics and space. Among the NASA centers it is noted for its technical excellence in the life sciences, human factors and man-machine interactions, fluid dynamics and heat transfer, aerodynamics and flight dynamics, flight stability and control, and technical project management. Its facilities of superior merit include wind tunnels, manned flight simulators, high enthalpy arc jets, a life sciences laboratory complex, air-

borne scientific laboratories, and the ILLIAC-IV computer.

The Center conducts research in fundamental aerodynamics advancing the state-of-the-art through both analytical and experimental techniques, the newest of which is the computation of fluid flows. These advancements are used throughout the aerospace community. Their application at Ames is primarily in the Center's roles in developing the technology base for short-haul aircraft and for helicopters and for the support of Department of Defense and the Federal Aviation Administration.

As the NASA center with primary responsibility for research in the life sciences, Ames is conducting research in laboratories, in aircraft, and in spacecraft on the medical and biological effects of flight including the human-vehicle interactions. Work continues which already appears to have traced important steps in the chemical processes which are believed to have led to the beginning of life on Earth, and this work is applied to techniques of life detection on other planets.

Specialization in aerothermodynamics has found application at Ames in the development of spacecraft thermal protection systems and the project management of probes launched from spacecraft to enter and analyze the atmospheres of other planets.

High-Altitude aircraft are used to support a program in the space sciences which has led to the discovery of astronomical phenomena, particularly from observations in the infra-red portion of the spectrum. Observations from this same class of aircraft are used in a program which has developed techniques of applying spacecraft data to the practical use of man in fields such as agriculture, forestry, and community planning.

Aeronautics Ames researchers approach flight within the atmosphere from several points: they do theoretical analyses and research in fluid mechanics. This work is then verified in wind tunnels, including the massive 21,000 hp Mach .5 to 3.5 unitary plan tunnels. Flight concepts and characteristics of proposed aircraft are checked in actual flight with research aircraft, which can simulate the flight of a range of types of aircraft. Research pilots perform flight maneuvers on the ground in flight-motion simulators, which duplicate performance of planned new aircraft. Analytical and experimental work on guidance and control is done by other researchers.

Currently, the areas of greatest interest in aeronautics are in development of vertical or short take-off and landing (V/STOL) aircraft

for urban region transportation systems, and for military aircraft applications.

Astronautics Work in astronautics encompasses research in space sciences, earth applications, and spacecraft development.

Space sciences include astrophysics, astronomy, and studies of planetary atmospheres. Data for these studies is provided by aircraft, sounding rockets, balloons, and spacecraft.

Work in applications concentrates on transfer of remote sensing technology to state and local agencies as an aid in meeting their responsibilities for resources management and other appropriate functions.

Spacecraft development includes the conception, development, and operations of infra-red telescopes and planetary atmosphere probes.

Technology development work in support of astronautics programs is concentrated on infra-red sensors and cryogenics and on atmosphere entry thermal protection systems.

Life Sciences Ames' broad life sciences program covers many disciplines and research areas. Aeronautics life sciences studies and relationship of the human to the aviation system in order to develop advanced cockpit controls and displays and more realistic flight simulators, and to identify and resolve human factors problems affecting air safety.

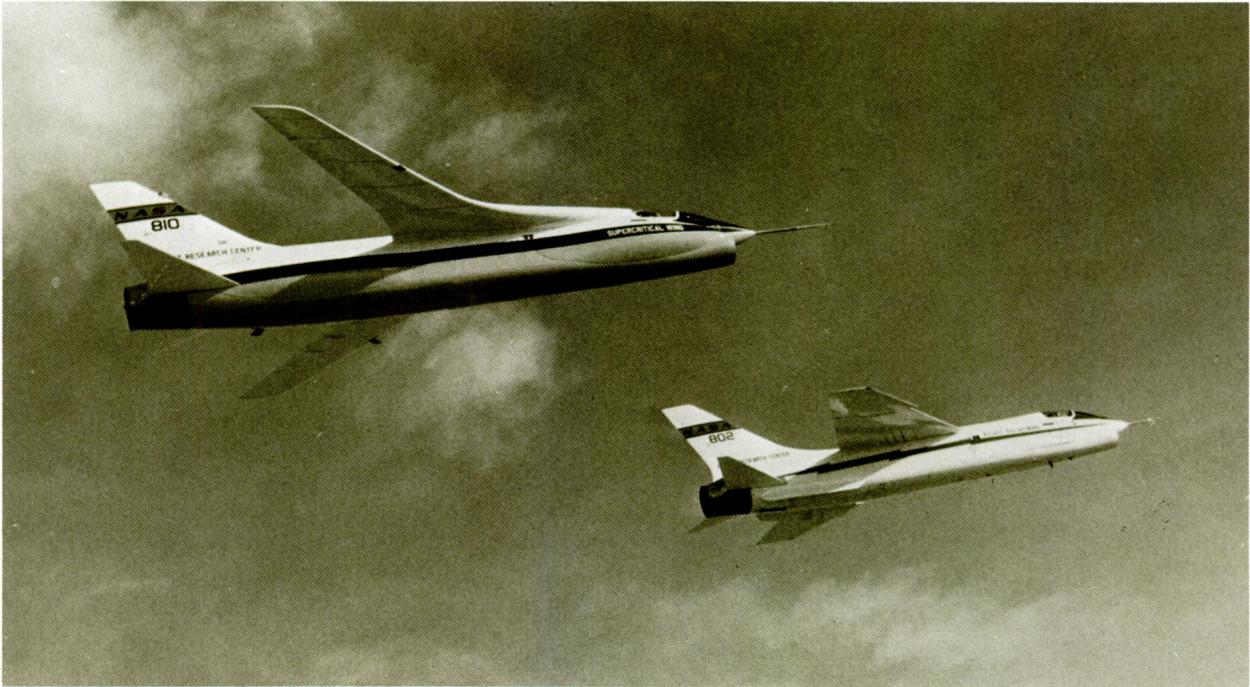
Biological research includes developing and operating hardware and experiments for determining the effects of space flight on non-human living organisms and for providing information to solve space medicine problems. Advanced life support system research is conducted to develop techniques for sustaining human life and maintaining human efficiency in space.

Extraterrestrial life detection studies are concerned with the origin of life and with the abundance and distribution of life and life-related compounds in space and on other planets.

Dryden Flight Research Center

P.O. Box 273
Edwards, CA 93523

Lawrence Rucker, *Procurement Officer*



Beginning with man's first attempt to fly faster than the speed of sound, NASA's Dryden Flight Research Center (DFRC) has played an important role in establishing this country's leadership in world aeronautics.

In addition to the famed X-series of research aircraft and the wingless lifting bodies, NASA Dryden has flight-tested a wide variety of experimental aircraft.

The Space Shuttle Orbiter received its initial flight testing there last year. The 150,000 pound-vehicle was air-launched from the top of a 747 and glided to a landing on the dry lakebed at a speed of approximately 200 mph.

Because of the excellent weather conditions and the dry lakebed, the initial landings of the Shuttle during its Orbital Flight Testing (OFT) will be made at Dryden.

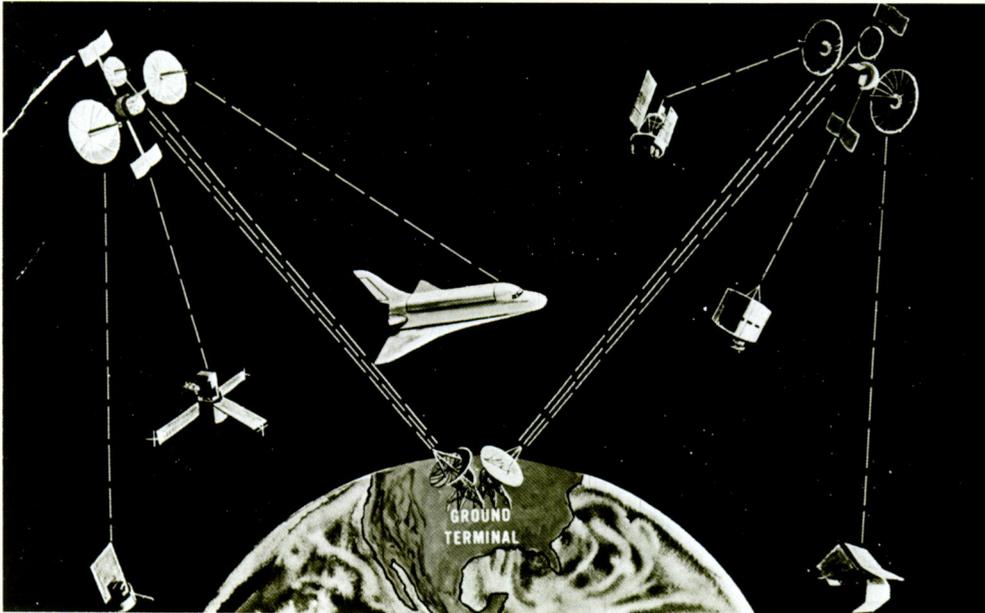
Continuing the high speed flight research begun with the hypersonic X-15 and triple-sonic XB-70, the Center is currently operating the 2000 mph YF-12 aircraft. Data from the program is being used to build the technology required for the development and operation of future supersonic aircraft.

An advanced flight control system utilizing computers and electronics is being evaluated onboard a modified jet fighter. A new concept with the potential of significant fuel sav-

Goddard Space Flight Center

Greenbelt, Maryland 20771

Charles L. Dunfee, *Procurement Officer*



The Goddard Space Flight Center (GSFC), located 10 miles northeast of the nation's capital, and named after the father of American Rocketry, Dr. Robert H. Goddard, was established as a major eastern field center of the National Aeronautics and Space Administration on January 1, 1959. A modern, campus-like complex of 25 buildings, the Goddard Space Flight Center is situated on about 1,100 acres in Greenbelt, Maryland. Staffed by more than 3,500 government employees and some 2,500 contractor personnel, the Goddard team is made up of some of the world's leading groups of scientists, engineers, technicians, and administrative managers devoted to research in space science and applications, and space tracking and communications.

Satellite and sounding rocket projects at Goddard are providing important information about the Earth's environment, Sun/Earth relationship, stars, galaxies, and the physical makeup of the universe. Applications spacecraft projects are advancing technology in a host of areas to improve the life of people here on space-ship Earth. Some of these areas are communications, meteorology, navigation, pollution monitoring, and the detection and monitoring of Earth's limited natural resources.

From the applications satellite program arose the Landsat (formerly the Earth Resources Technology Satellite), which is an updated version of its forerunners the Nimbus experimental weather satellite and the Tiros Oper-

ational (weather)/System (TOS) satellite. Landsat scans the earth's surface every 18 days gathering a wide range of earth resource survey information. Another applications satellite is the Geostationary Operational Environmental Satellite (GOES) previously known as the Synchronous Meteorological Satellite (SMS). Timely global weather information, including advance warning of developing storms, is a primary function of this satellite, which transmits black and white, television-like images of one third of the earth every 30 minutes, day and night.

In the area of communications satellites, Goddard helped develop ECHO, the passive communications balloon, and the Relay and Syncom satellites, which amplify and rebroadcast radio signals back to earth. The Syncom concept has been employed in the Early Bird communications satellite. Early Bird transmitted the first U.S.-to-Europe television picture on May 2, 1965. Since the beginning, a succession of spacecraft based on Goddard developed technology, has been placed into geosynchronous orbit making global satellite communications an everyday reality. Four Intelsat IV's, which are geostationary over the Atlantic, Pacific and Indian Oceans, serve more than 50 nations around the world. Canada's ANIK I and II plus Western Union's WESTAR A and B are examples of technology utilization having its development roots at Goddard.

GSFC's more recently launched Applications Technology Satellite-6 (ATS-6) is the culmination of state-of-the-art communications satellite techniques reaching back to SCORE, the first true communications satellite, which rebroadcast to earth an on-board tape recording of President Eisenhower's Christmas message in 1958. ATS-6 is currently transmitting educational, medical, and experimental programs throughout remote regions of the United States, and future plans call for similar transmissions to assist developing nations.

Currently at GSFC, a new generation in satellite tracking systems is being developed called Tracking and Data Relay Satellite Systems (TDRSS). TDRSS is a concept which places the tracking station in space in geosynchronous orbit; and thus, in effect, looks

down at orbiting satellites versus the current ground stations looking up at satellites in space. TDRSS will permit greatly expanded satellite coverage, up to 100 percent, and will have capability for handling the high data rates of future missions such as Landsat D and Spacelab. The TDRSS satellites will communicate data back to a ground station in White Sands, New Mexico, thus eliminating a need for most of the ground stations at the present worldwide ground based network.

Goddard is responsible for the management and operation of the worldwide NASA Spaceflight Tracking and Data Acquisition Network (STDN), supporting both manned and unmanned missions, primarily in near earth orbit and at lunar distances. The Mission Control Centers for the network and for the individual projects are located at Goddard. The NASA Communications Network (NASCOM), also managed by Goddard, is the voice communications system between the network stations, the mission control centers, and both the manned and unmanned spacecraft.

Another major mission at Goddard is project management of the reliable Delta launch vehicle (better than a 90 percent success record) which has placed into orbit more than 130 unmanned satellites for NASA, other Federal agencies, domestic communications corporations, and more than 12 foreign countries.

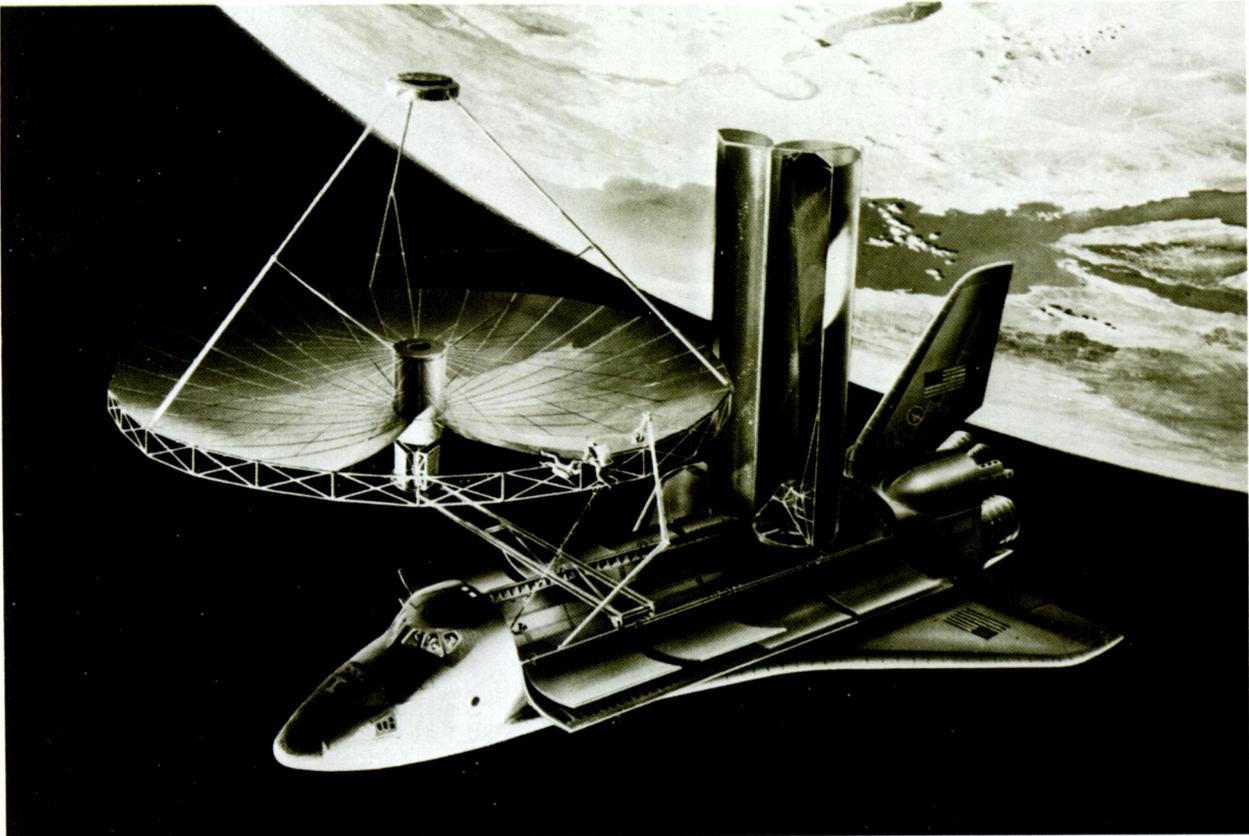
Much of Goddard's theoretical research is conducted at the Goddard Institute for Space Studies in New York City. Operated in close association with universities in that area, the Institute provides supporting research in geophysics, astrophysics, astronomy and meteorology to NASA and Goddard. Special emphasis in the meteorological area is now being placed on participation in the Global Atmospheric Research Project (GARP), leading to more accurate long range weather forecasting on a global basis.

Goddard is also the home of the National Space Science Data Center. This facility is the central repository for the data collected from space science flight experiments. The data provides the basis for studies to increase our understanding of basic phenomena and also provides new investigative approaches to achieve further progress in space study.

Johnson Space Center

Houston, TX 77058

James L. Neal, *Procurement Officer*



The Lyndon B. Johnson Space Center is a focal point of the nation's manned spaceflight activities, including spacecraft development, program management, crew training, space flight operations, and related medical research and life sciences. The Center is also responsible for conducting investigations of lunar science, space science, and earth resources technology and application. The major programs which have been assigned to the JSC include Mercury, Gemini, Apollo, Skylab, Apollo/Soyuz, Space Shuttle, Earth Resources, and Space and Life Sciences.

In addition to its facilities at Houston, the JSC also operates the White Sands Test Facility near Las Cruces, New Mexico, for testing propulsion and power systems, and special testing of materials, components, and subsystems using hazardous propellants and other fluids.

All of JSC's programs involve tremendous amounts of materials and services which must be obtained from outside the Government. Equal opportunities exist for small or large business enterprises and nonprofit institutions to participate in the furnishing of these re-

quirements. Material needs range from raw materials and commercial items to sophisticated spacecraft; while services range from housekeeping to engineering, medical, and scientific capabilities.

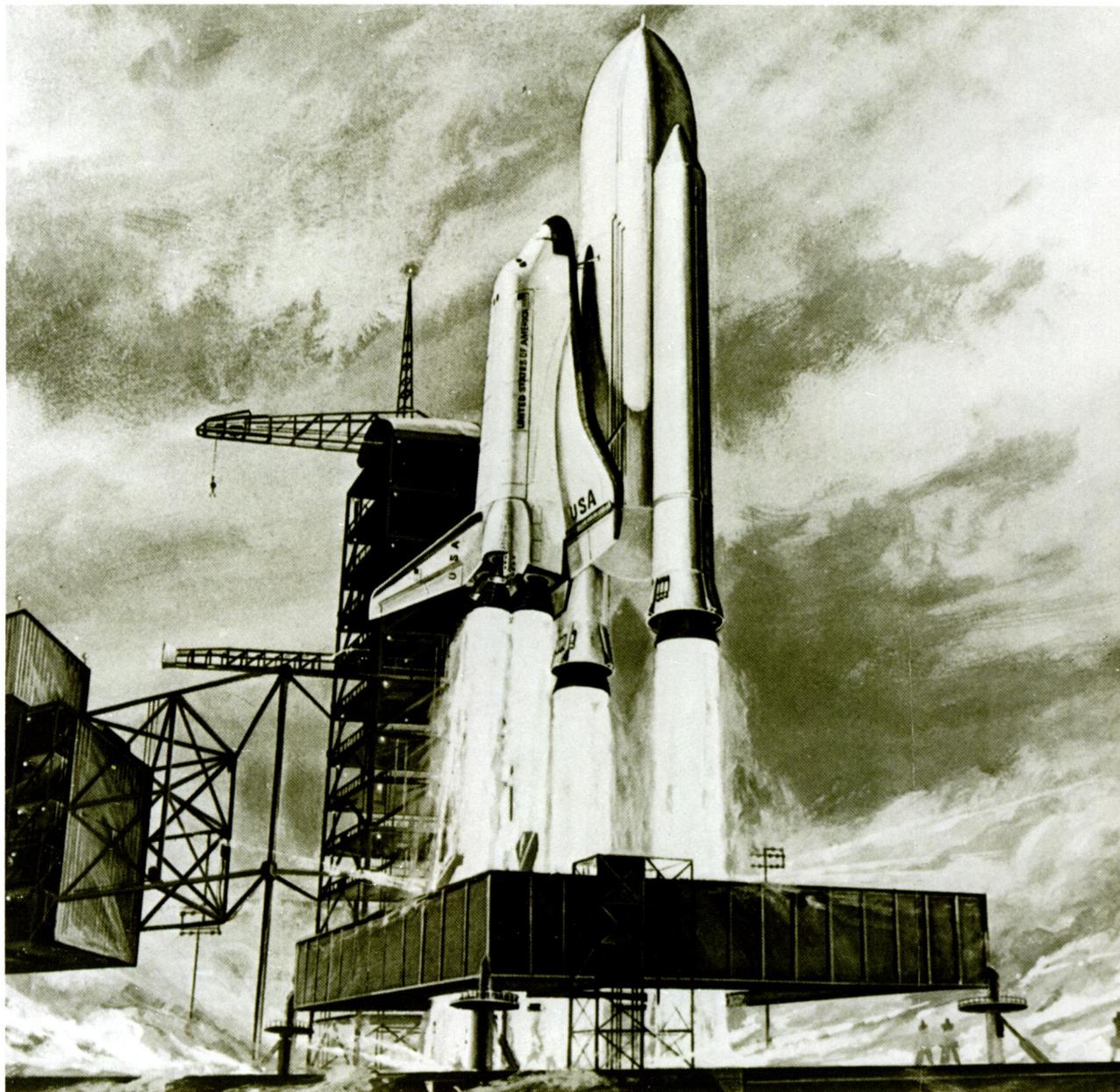
Continuing requirements exist in support of the following programs:

- The Space Shuttle Orbiter is a reusable space airplane that will carry satellites and scientific payloads into orbit. It can also serve as a service platform for repairing satellites in orbit or can be used to bring them back to earth for repair. JSC is lead center for the Space Shuttle, which will be operational in the 1980's. The Space Shuttle is an element of the Space Transportation System, which is a standardized, yet flexible system capable of accommodating a wide variety of payloads and types of missions. Other elements include payload supporting systems such as Spacelab, and upper stages. The Spacelab is a joint venture between NASA and the European Space Agency to produce and operate in space a reusable laboratory that will be available to an international community of users in applied sciences, life sciences, and advanced technology. A schedule of user charges has been developed for the Space Transportation System which will allow equitable payment for use and services by other agencies and nations as well as commercial enterprises.
- NASA's Earth Resources Program is part of the experimental Federal Earth Resource Survey Program. Applications include techniques for improved identification and use of mineral and land resources, marine and water resources, mapping and charting, urban land use, and agricultural and forestry resources. JSC is responsible for developing NASA's integrated plan for earth resources activities. In addition, the Center manages data reduction from earth resources satellites, conducts earth resource surveys with a fleet of aircraft based at the Center, and evaluates the practicality of implementing various earth resource survey systems which appear to be technically feasible.
- The Space and Life Sciences Program includes life sciences, medical research, science experiment development, science payload management, lunar and planetary science, and space sciences. JSC is NASA's lead center for developing and managing life sciences experiments to be carried aboard Shuttle and other future space flight programs. The Center also manages the development and integration of experimental instrumentation and support equipment for use in space and life science programs; conducts biomedical research on the physiological stress of space flight on man; develops technology and instrumentation to maximize crew efficiency, reliability, comfort, and safety in space flight; and manages NASA's programs to assess the environmental impact of space systems and operations.

Kennedy Space Center

Kennedy Space Center, FL 32899

Fred Boles, *Procurement Officer*





The John F. Kennedy Space Center is the major NASA launch organization for manned and expendable, or unmanned, space missions.

As NASA's lead launch center, KSC launched Apollo and Skylab space vehicles, is the initial launch site of Space Shuttle vehicles and will be the primary landing site for Space Shuttle Orbiters upon completion of their missions.

The Center also launches a wide variety of expendable spacecraft on a wide variety of missions—earth orbital applications and scientific missions and scientific probes to the far reaches of the solar system for exploration of other planets.

Supporting this primary mission are a host of technical and administrative activities, including design engineering, testing, assembly and checkout of launch vehicles and payloads; and purchasing and contracting. The Center also manages NASA launches conducted at the Western Test Range in California.

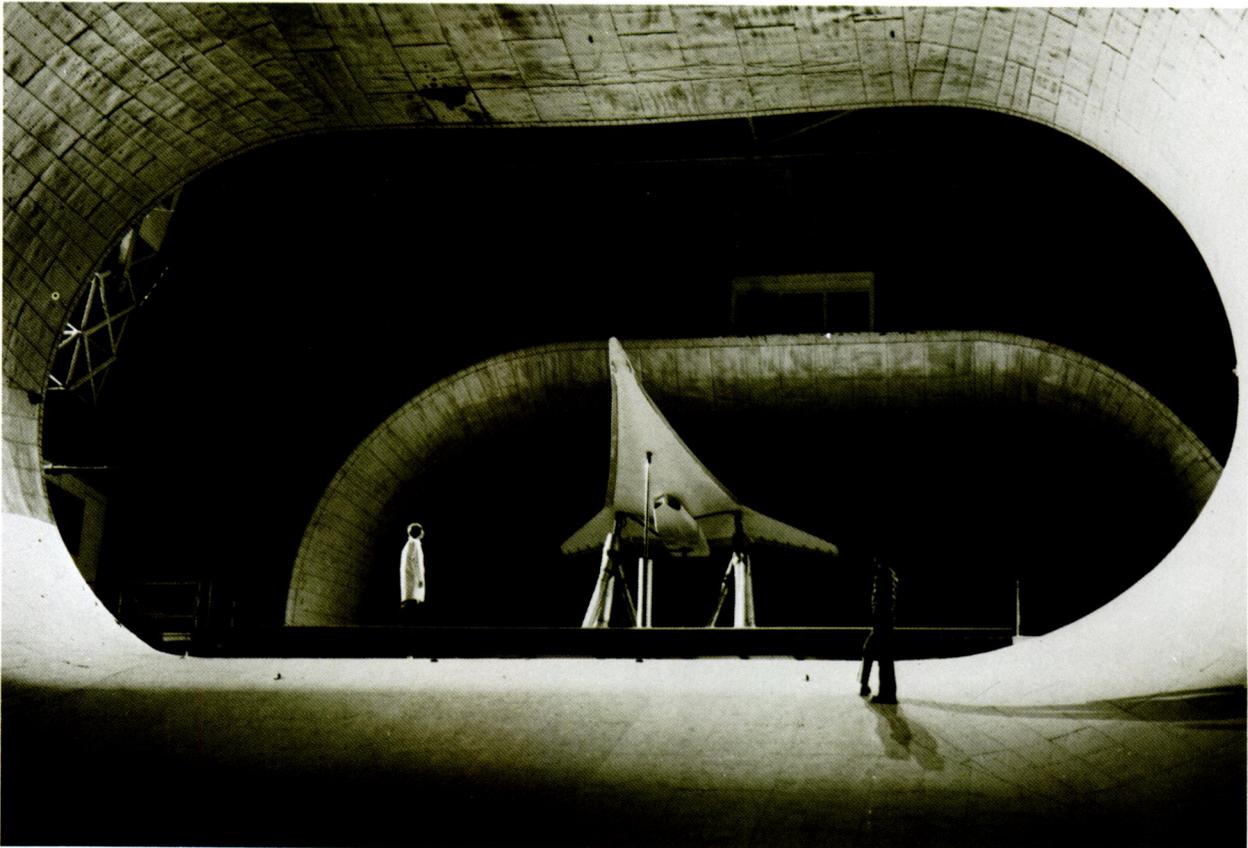
The Center, in addition, provides technical and administrative support in the following areas:

- (1) Programming, integrating and fulfilling user requirements for general-purpose facilities such as offices, warehouses, maintenance buildings, utilities and roads.
- (2) Designing and constructing all NASA facilities at the Center to meet users' functional requirements.
- (3) Integrating NASA ground support equipment at launch sites for various space systems.
- (4) Representing NASA in coordinating with the U.S. Air Force in matters pertaining to tracking and data acquisition involving space vehicles launched from the Center as well as from NASA facilities at the Eastern and Western Test Ranges.

Langley Research Center

Hampton, VA 23665

Robert R. Moore, *Procurement Officer*



The Langley Research Center conducts extensive research in the fields of aeronautics, space technology, electronics, and structures. It also manages for NASA several aeronautics programs, small space projects, and some environmental monitoring investigations.

Aeronautics has been a Langley specialty for more than 60 years. Aeronautical research in all speed ranges, now receiving increased em-

phasis in NASA, accounts for about 60 percent of Langley's work. Specific programs concern improvements in the energy efficiency of transport aircraft, research of transonic transports, transonic and supersonic military aircraft, and advanced technology transports. The Center is active in studies of hypersonic power plants and aircraft designs for future hypersonic aircraft. Work continues in vertical and short take-off and landing (V/STOL) transport aircraft. A cryogenic wind

tunnel, called the National Transonic Facility, is now under construction at Langley. When completed in 1980, the facility will be used primarily by NASA and the Defense Department; but will also be available to other government agencies, industry, and educational institutions.

Langley's expertise in electronics may be NASA's strongest internal resource of electronics technology. Instrument research supports automated data reduction for wind tunnels and other facilities. Increased emphasis on aviation electronics is exemplified by the Terminal Configured Vehicle Program which uses a modified 737 aircraft as a flying experimental research laboratory to study new air traffic control techniques. Research has increased in the development of application sensors, and Langley maintains a strong computer capacity to support advanced simulation work, analytical studies, and data handling. A STAR computer complex, designed to greatly increase Center abilities, is the newest addition to Langley's computer complex.

Langley's structures work is directed toward research in materials, structures, and loads. Composite materials that can reduce

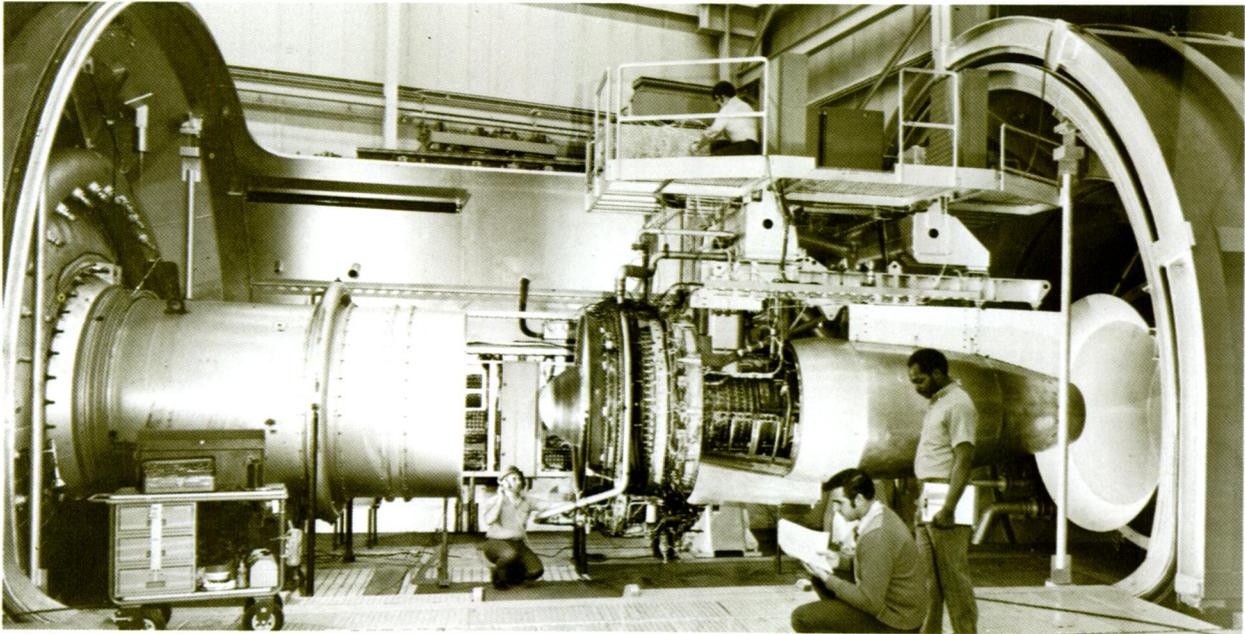
weight in aircraft and Space Shuttle structures are of particular interest, as are thermal protection materials. Considerable research is done on high-temperature structures for Shuttle and other hypersonic vehicles and on developing improved automated design methods for large structural systems. Flight and landing loads, aeroelasticity, and noise reduction are of considerable interest to Langley researchers. An Aircraft Noise Reduction Laboratory conducts investigations into many kinds of aircraft noise and studies ways to reduce it.

Space technology is the fourth field of major research at Langley. Strong emphasis is placed on support of NASA work in development of the Space Shuttle and its payloads. Langley is responsible for one of the Shuttle's first major payloads, the Long-Duration Exposure Facility, which will place many kinds of simple experiments in Earth orbit for about six months. Extensive Shuttle configuration work has been complemented by research in life support systems. New Langley work includes increased research in environmental, energy, and space science fields. Langley also manages for NASA the solid-fueled Scout launch vehicle, able to place small payloads in Earth orbit or into deep space.

Lewis Research Center

21000 Brookpark Road
Cleveland, OH 44135

Joseph A. Saggio, *Procurement Officer*



Activities at NASA's Lewis Research Center comprise research and development of advanced technology for aeronautics and space propulsion systems, space power systems, and communications satellites; management of the Atlas-Centaur launch vehicle; and for the Department of Energy, management or support of several programs in electric power generation, solar and wind energy and automotive engines.

Aeronautics propulsion has been since 1942 and continues to be a primary objective at this research Center. Major motivation is for more fuel-efficient, more environmentally acceptable aircraft engines. Engineering research on inlets, fans, compressors, combustors, turbines, bearings, exhaust nozzles, con-

trol systems, and alternate fuels provides a technical base for advanced propulsion studies with modified engines or with experimental engines. Some engine projects are quiet, clean engines for over-the-wing or under-the-wing installation for high-lift, short-haul aircraft; a quiet, clean turbine engine for general aviation; and energy efficient engines, including an advanced turboprop. Technical contributions are also made to military propulsion systems, notably, for helicopters and for supersonic aircraft.

For spacecraft propulsion, Lewis is working at both chemical and electric rocket systems. Technology being created for chemical rockets is directed toward a versatile high-pressure, high performance hydrogen-oxygen propulsion system that should be useful for

upper stages to be carried by the Space Shuttle. Ion thrusters developed and space-flight tested at Lewis are the basis for development of electric-propulsion modules capable of long-duration scientific missions in space, such as comet rendezvous.

Several years of experience with a Communications Technology Satellite developed jointly with Canada has demonstrated the enormous economic and social potential of direct point-to-point color television communication. The interference-free very high frequencies and the unusually high power on the satellite repeater station permit transmitting and receiving stations on the ground to be of modest size and cost; dozens of experiments have demonstrated usefulness in clinical, library, educational, business, governmental, social and similar communications services. Lewis continues to explore the technology of such advanced communications satellites.

The Atlas-Centaur continues to be a work-horse launch vehicle for the United States and other nations. Dozens of scientific, lunar, planetary, and applications payloads have been successfully launched, many of them on a reimbursable basis for other government agencies, commercial organizations, or other nations. Earlier, Titan-Centaur launched the two Viking spacecrafts that orbited and landed on Mars and the two Voyager spacecrafts that will explore Jupiter, Saturn, a number of their moons, and possibly Uranus in the 1980's.

Lewis' experience and expertise in propulsion and power systems are being used on a number of programs for the Department of Energy (DOE). Lewis' work is supporting DOE projects to conserve fuel and protect the environment in coal-burning electric generating stations; such stations can be more efficient and more economical in generating electricity if a gas turbine, or an MHD, or a high-temperature fuel cell were combined with the steam cycle. Lewis is managing several projects for possible alternative automobile engines, gas turbines, Stirling and electric.

Also for DOE, Lewis manages and conducts part of a photovoltaic test and development project. The objective is to lower the cost of solar cell arrays for terrestrial use; methods are to improve the technology for their manu-

facture and to help develop a market for their production. Lewis is managing DOE's large wind turbine program. A series of wind turbine machines, including machines as large as 2,500 kw, will provide engineering, operating, and economic data on this potential method of adding to the nation's electric power. The first of these wind turbines, was put into service in Clayton, NM, in late 1977.

Basic research areas in which Lewis is particularly strong include materials and materials science; lubrication, friction, and wear; fluid flow and heat transfer; fuels and combustion; cryogenics; plasma physics and magnetics.

Lewis also engages in a number of smaller projects aimed at facilitating the transfer of its technology to non-aerospace uses. For example, technology from a battery for space use is being used to develop better batteries for wheel-chairs, miners, and electric automobiles. Also, technology for small devices and fluid mechanics are being used to develop improved instruments for eye surgery. Also, ion beam bombardment is being tried to improve the holding characteristics of surfaces on biological implants.

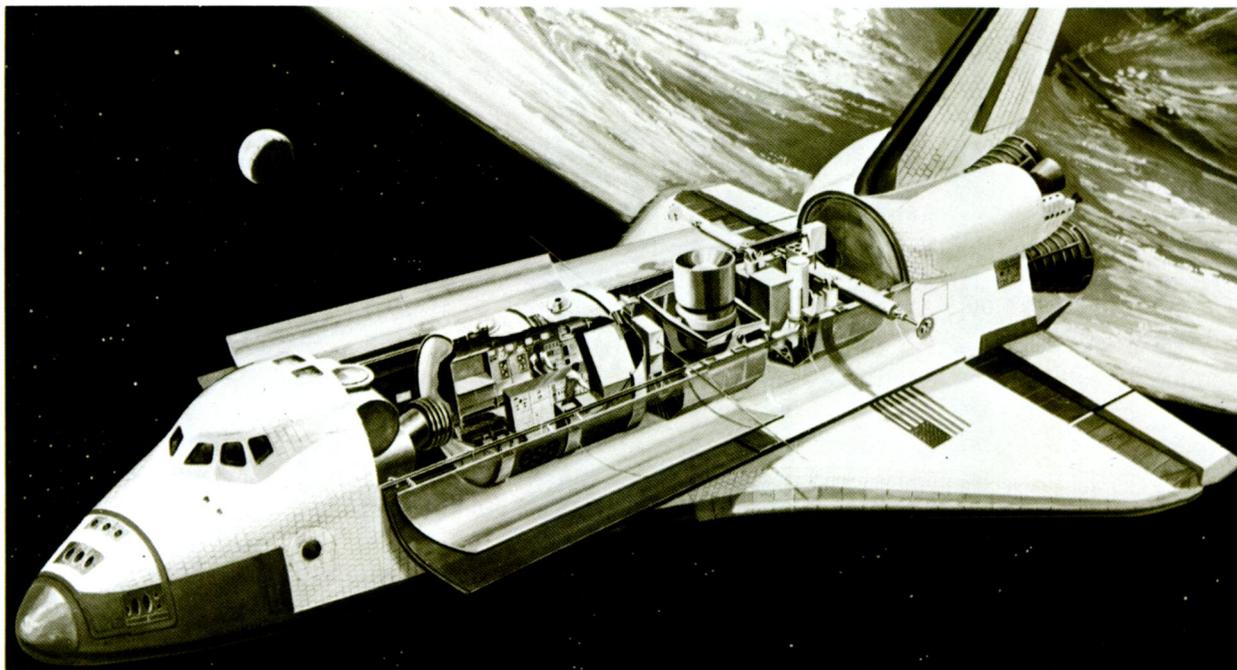
The Lewis Research Center provides many laboratories for physical, chemical, metallurgical, and electronics research. Test cells for engineering and component studies are provided air and exhaust from central supplies. Additionally, the Center features a number of large, specialized facilities for simulating the environments in which engines or spacecraft may be expected to operate: altitude chambers for full scale jet engines, a facility for high pressure and high temperature tests of turbines, large supersonic wind tunnels, thrust stands for chemical rockets, a 420-foot vertical tank for zero-gravity (free-fall) tests, and large high-vacuum chambers with cryogenically cooled walls for simulating the space environment.

At its Plum Brook facility, rocket test stands, an altitude chamber for rocket tests, a nuclear reactor facility, and a vacuum chamber greater than 3.5 million cubic feet and with radiation-resistant walls are presently inactive. They may be used by other agencies or industry.

Marshall Space Flight Center

Marshall Space Flight Center, Huntsville, AL 35812

Belton Jones, *Procurement Officer*



Following its formation on July 1, 1960, the major task of the Marshall Space Flight Center (MSFC) was the development of Saturn boosters. Successful performance of the Saturn V and Saturn IB continued for the duration of the Apollo Program, which included the first lunar landing by man on July 20, 1969. Management responsibility for the Skylab Program and most of the experiments was also assigned to the Marshall Center.

Marshall Space Flight Center is presently active in the following programs:

- **SPACE SHUTTLE.** The primary design and operations goal for the Space Shuttle Program is to provide low-cost trans-

portation to and from Earth orbit. The Center is responsible for the design, development, test, and evaluation of: (1) Space Shuttle Main Engine (SSME); (2) Solid Rocket Booster (SRB); (3) Solid Rocket Motor (SRM); and (4) External Tank (ET). Major Space Shuttle vehicle and component testing is being conducted at MSFC.

- **SPACELAB.** A component of the Space Transportation System (STS) is the Spacelab which will be carried in the Shuttle cargo bay and remain attached during missions. Spacelab will provide an enclosed, reusable manned laboratory plus an open platform where unmanned

instruments for conducting space research and Earth applications studies can be exposed to the environment of space. Spacelab is being developed by the European Space Agency. MSFC has the lead Center role within NASA for this international program.

- **SPACELAB PAYLOADS MISSION MANAGEMENT.** MSFC has mission management responsibility for selected Spacelab payloads missions. The mission management concept emphasizes utilization of the STS capability by the payload user community.
- **HIGH ENERGY ASTRONOMY OBSERVATORY.** The High Energy Astronomy Observatory (HEAO) program, managed by Marshall, includes three unmanned scientific satellites. The first observatory completed a survey of the celestial sphere to locate X-ray sources. The second observatory will provide precise pointing of an X-ray telescope for detailed study of X-ray sources. The third observatory will be a survey mission for study of gamma and cosmic rays.
- **SPACE TELESCOPE.** NASA's Space Telescope (ST) is a multipurpose optical telescope which, when placed in earth orbit, will enable scientists to observe objects in space that are 50 to 100 times fainter and approximately seven times further away than those now seen through the best telescopes on Earth. The ST will be launched by the Space Shuttle which will also bring the ST back to Earth for extensive maintenance or overhaul. Project management is assigned to MSFC.
- **ORBITAL TRANSFER VEHICLES.** The Space Shuttle will deliver its payloads to a low Earth orbit. Some payloads, to perform their mission, must be placed in higher orbits. To augment the basic Shuttle capabilities, the DOD is developing an Inertial Upper Stage (IUS). Marshall has been designated as lead Center for the IUS for NASA use. Beyond the IUS, Marshall is studying an entire class of Orbital Transfer Vehicles as the next generation of upper stages.
- **SPACE PROCESSING.** The Spacelab will provide a facility for continuing research

into techniques for materials processing in space. The space environment offers to materials engineers a freedom from the influence of gravity that cannot be achieved on Earth for more than a few seconds. Growth of superior single crystals for solid state electronics, high-strength permanent magnet material, and separation of living cells for pharmaceutical products, all show great promise.

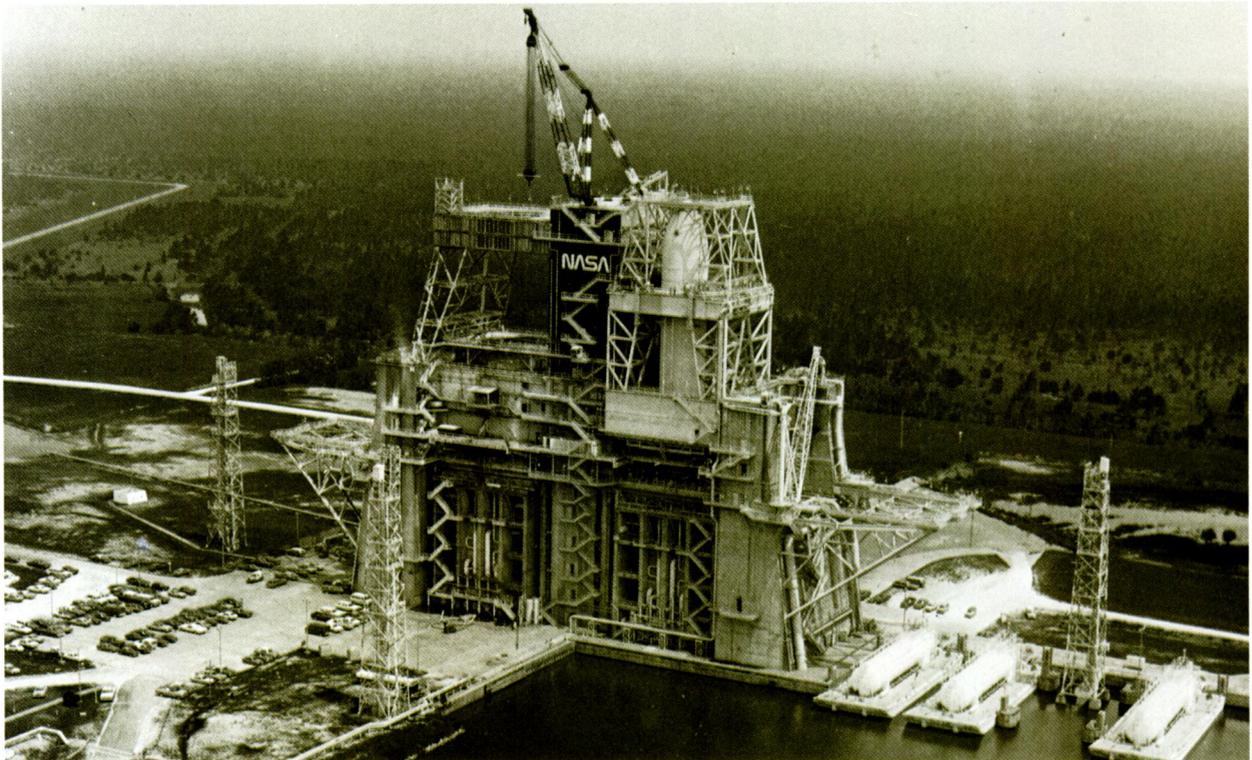
- **ATOMSPHERIC CLOUD PHYSICS LAB.** An Atmospheric Cloud Physics Laboratory is currently being developed for near-zero gravity environment experimentation aboard the Space Shuttle/Spacelab to study weather-triggering mechanisms in clouds and provide improved scientific knowledge of cloud micro-physical processes to aid scientists in their efforts toward improved weather prediction and, ultimately, modification of the Earth's weather.
- **SOLAR HEATING AND COOLING.** The Marshall Center, in support of the Department of Energy, is managing the development of residential and commercial solar heating and cooling systems to demonstrate to the public that such systems can be reliable, practical and economical, thus leading to mass production and marketing by industry. MSFC and DOE solicit widespread participation in the development program.
- **STUDIES OF FUTURE SPACE SYSTEMS.** Future potential space systems being studied by MSFC include: large space structures for such applications as a public service communication platform in geostationary orbit, a satellite power station to convert solar energy to electrical energy for use by systems in space, a satellite power system for conversion of solar energy to electrical energy for use on Earth, an Advanced X-ray Astrophysics Facility, Solar Electrical Propulsion system and a tethered satellite system by which experiments can be suspended from the Shuttle into the upper reaches of the atmosphere.

The Marshall Center also manages the Michoud Assembly Facility, located at New Orleans, LA and the Slidell Computer Complex, at Slidell, LA.

National Space Technology Laboratories

NSTL Station, MS 39529

William L. Goodrich, *Procurement Officer*



The National Space Technology Laboratories (NSTL) is the prime NASA installation for static test firing of large rocket engines and propulsion systems. NSTL, NASA's newest field installation, evolved from the former Mississippi Test Facility (MTF) which had been constructed, activated, and operated during the sixties for acceptance testing of the booster stages of the Saturn V rocket system. The redesignation by NASA of MTF as the new National Space Technology Laboratories in June 1974, recognized the expanded role the installation was playing in the nation's space and environmental tech-

nology efforts in addition to remaining the prime static test facility for large liquid propellant rocket engine systems. The redesignation further recognized the increasing numbers of NASA and non-NASA programs being accomplished by resident elements at the facility.

At present, NSTL is heavily involved in support of the Shuttle Test Program; is conducting research in terrestrial applications; and is in charge of managing the base and providing technical and institutional support to federal and state resident agencies on a reimbursable basis.

For Shuttle, NSTL operates and maintains dedicated Shuttle Facilities used for developmental testing of the Space Shuttle Main Engine and the Orbiter Main Propulsion Test Program. These facilities include: high pressure industrial water facility, emergency power capabilities, high pressure gas facilities (up to 6000 psi); propellant and cryogenic facilities; meteorological and acoustic facilities; and support laboratories and shops. In addition NSTL provides laboratory, shop and technical services essential for conducting the test program. These include: standards laboratory services, instrument calibration and repair, gas and chemical analysis services, material analysis and x-ray, photographic reproduction services, electronic equipment repair, component cleaning services and shop services for modification of facility, equipment and test hardware.

In terrestrial applications, the focus of the installation's capability is in its Earth Resources Laboratory (ERL) which is currently engaged primarily in research applications techniques and system development relating to the remote sensing technology and a regional assignment of transferring this technology to the local and state users in 17 states. The Laboratory also conducts a modest program in communications and environmental systems application with a focus on user development and the transfer of the NASA technology to state, federal and private

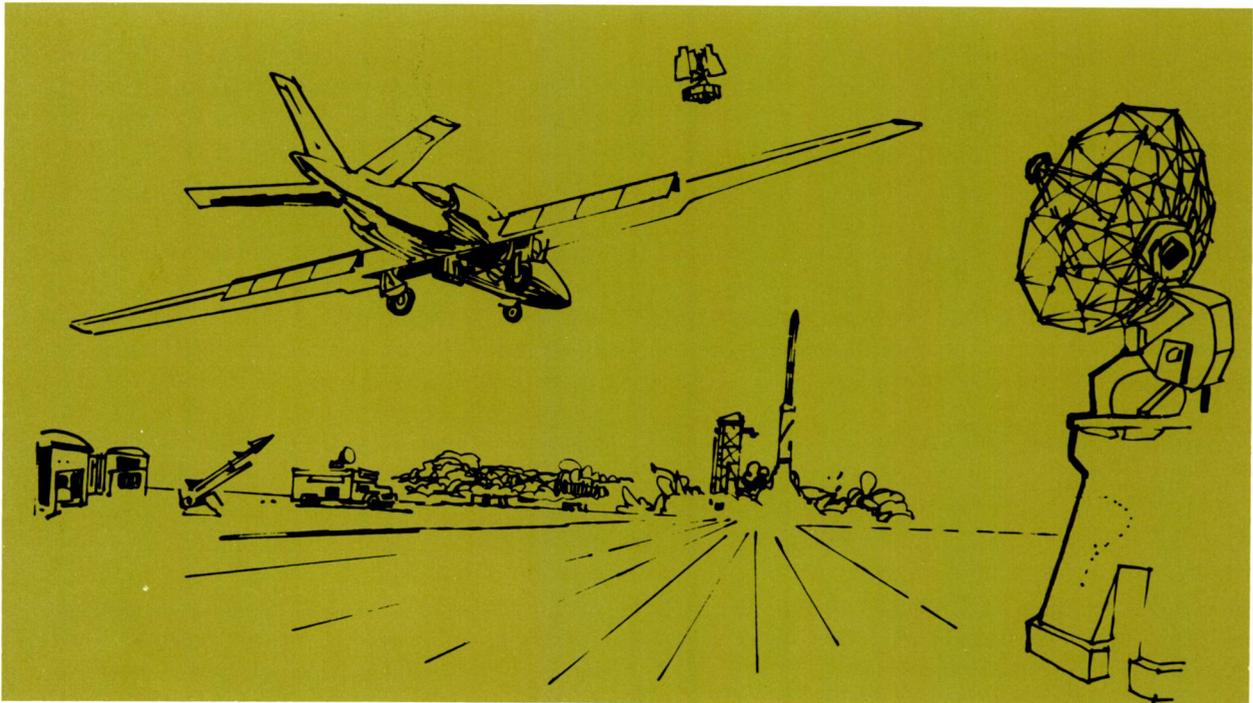
using communities. The expertise to conduct applications projects has been developed through experience with a variety of users ranging from county governments to foreign countries, and includes the private sector as well.

In its third role, NSTL provides and manages an institutional base for support of NASA and other federal and state agencies resident on site. The base encompasses 140,000 acres of fee owned or leased land; more than 70 permanent buildings and structures, 35 miles of roads, 7½ miles of canals and state-of-the-art laboratories, shops, technical systems, facilities, and equipment. The resident agencies include elements of the Department of Defense—U.S. Navy and U.S. Army—National Oceanic and Atmospheric Administration, Department of Interior, Environmental Protection Agency, U.S. Coast Guard; Mississippi State University, State of Louisiana and Louisiana State University. These agencies are involved in oceanographic, meteorological, environmental research, and other activities. Together with NASA, the combined agencies form a scientific and technical community; each pursuing its own programmatic objectives; but collectively producing a scientific base for technology interchange. NSTL provides institutional and technical services to all these agencies on a reimbursable basis and in accordance with approved agreements.

Wallops Flight Center

Wallops Island, VA 23337

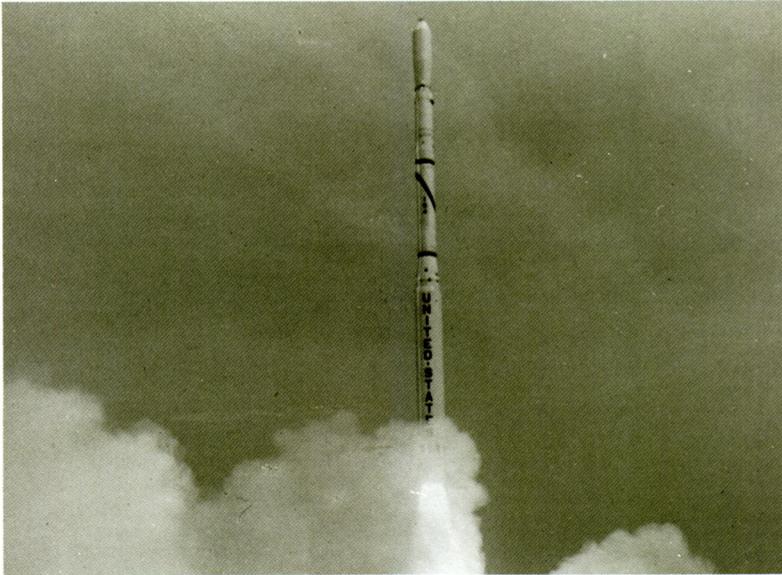
David V. Davis, *Procurement Officer*



Wallops Flight Center provides research facilities, tracking and data acquisition instrumentation, and program and project management to conduct aeronautical, atmospheric, and space experiments and investigations in support of NASA's research and applications programs and national needs.

Renewed emphasis on aeronautical research in this country and by NASA has led to the development of the airport at Wallops into a supporting research facility which is the only airport totally owned by NASA with the unique features that all air traffic in and out is under Wallops control as well as the controlled air-

space at the airport and the restricted airspace over the launch range. The Center is responsible for developing, maintaining and operating a research airport in support of NASA's aeronautical research programs which include projects associated with airport-aircraft interface, air traffic control, avionics systems technology, final approach and landing systems, airport configuration, high speed turn-off techniques, airport environmental studies, noise reduction technology and general aviation research focused on aircraft spin characteristics, cross-wind landings, pilot performance, procedures and aides at uncontrolled airports and airspace.



The Wallops launch range, located on the Atlantic Coast, is the only civil facility of this kind in the nation and is NASA owned. It enables the world-wide scientific and academic community to conduct space experiments as well as provides a focal point for most of the international community for peaceful use of outer space. Having this unique facility, Wallops provides vehicle assembly and launch facilities, and operations, communications and instrumentation for tracking, data acquisition and data processing of sounding rockets, re-entry vehicles, balloons and satellites launched from Wallops Island and other off-site locations. To date, more than 12,000 rocket propelled space flight experiments have been conducted.

Wallops provides program management, technology and facilities for the national sounding rocket program experimenters principally for the university community to conduct research by the use of sounding rockets, balloons and aircraft in the fields and regions of geo-solar physics, astronomy, fields and particles, magnetosphere, ionosphere, atmosphere and meteorology.

Wallops, being contiguous to the ocean and large estuarine bays, provides an opportunity for the application of aerospace technology to oceanography and marine science. Radar altimetry, an outgrowth of the launch range

capability has led to the development of ocean dedicated satellites like GEOS-III (Wallops managed) and SEASAT-A. Wallops Flight Center is responsible for developing remote sensing techniques and instrumentation to measure ocean and atmospheric parameters which provide a better understanding of ocean physics, weather and climate and ultimately leads to improved predictions and trends.

Wallops also manages and or participates in programs of international cooperation in aerospace research and provides foreign countries with training for their personnel assistance in activation of launch sites and with technical assistance and advice in launching experiments and in operation of their ranges.

The Wallops facilities are utilized by the scientists and engineers from laboratories and research centers of NASA, other governmental agencies, colleges and universities, and the world-wide scientific community. A small but knowledgeable and well-trained and experienced staff assist these scientific research teams with their projects and develop, as necessary, special types of instrumentation and equipment to complete the mission and manage NASA research programs.

Jet Propulsion Laboratory

California Institute of Technology
4800 Oak Grove Drive
Pasadena, California 91109

Daryal T. Gant, *Manager, Procurement Officer*



The Jet Propulsion Laboratory (JPL) is a Government-owned research, development and flight center, operated for NASA by the California Institute of Technology. JPL works under close direction of NASA Headquarters, with day-to-day administration and coordination being provided by the NASA Resident Procurement Office.

JPL's primary role is the scientific investigation of the planets and deep space, using automated spacecraft. The Laboratory is also responsible to NASA for supporting research and advanced development related to flight projects, as well as management and opera-

tion of the Deep Space Network (DSN) in support of those projects. In addition, JPL conducts selected projects to develop and apply new technologies to the solution of problems on earth with emphasis on energy conservation. These projects are sponsored by other Government departments and agencies with the concurrence of NASA.

JPL's current tasks include the extended mission of Vikings 1 and 2; exploration of Jupiter and Saturn by Voyager; the Galileo Program for orbiting Jupiter and sending a probe into the Jupiter atmosphere; the Infra-Red As-

tronomy Satellite Program; tracking and communications for the Jupiter spacecraft Pioneers 10 and 11; and the U.S./West German Helios project, now studying interplanetary space near the sun.

JPL is responsible for management and operation of the NASA Deep Space Network (DSN). The DSN provides earth-based support to all unmanned missions at lunar and planetary distances. DSN stations are located at Goldstone in the Southern California desert, Canberra, Australia, and Madrid, Spain. The stations and the JPL Mission Computing and Control Center are linked together by the NASA Communications Network (NASCOM). JPL also conducts research and development on tracking and data acquisition systems and techniques.

Most missions are conducted from the Mission Computing and Control Center, where the tracking and performance information is processed, analyzed, and studied, the motion and condition of the spacecraft are determined, decisions are made, and commands are generated for transmission to the spacecraft.

Supporting research and advanced development are conducted in electric propulsion, nuclear power, chemical propulsion, aerothermodynamics, fluid physics and electrophysics, applied mathematics, space power generation, optical and radio astronomy, planetary atmospheres, fields and particles, long-range communications, guidance and control, and systems simulation and analysis techniques. These programs make substantial contributions to NASA programs in propulsion, tracking and data acquisition, and lunar and planetary exploration.

Analytical instrumentation used in planetary exploration, and cameras operated on the moon and at Mars, Venus, and Mercury were the result of supporting research and advanced development conducted at JPL. A substantial portion of the technical advancements required for successful conduct of lunar, planetary and space exploration are also applicable to problems of critical national interest.

Under direction of NASA, JPL is expending considerable effort to the application of space-derived skills and capabilities to needs of the civil sector with emphasis on energy-related problems. As of early 1978, more than one hundred tasks were being studied and developed in the areas of energy, medical science, pollution, sewage disposal, and transportation.

As stated above, JPL is essentially a research and development center. As a result, JPL seldom buys in large quantities with the exception of some electronic components. A significant portion of the total JPL procurement budget is spent by the Procurement Division for the following products and services: fabrication, electronic components, electronic instrumentation and test equipment, miscellaneous facility supplies and services, automatic data processing equipment, and construction.

The *NASA Resident Office—JPL*, located at the JPL facility, provides NASA procurement and contract administration services for the management and operations of the facility.

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

SMALL BUSINESS — MINORITY BUSINESS PERSONNEL

NASA HEADQUARTERS — Washington, DC 20546

**SMALL AND DISADVANTAGED BUSINESS
UTILIZATION OFFICE**

Director,	E. D. Rosen, Acting	(202)	755-2288
Small Business Advisor	E. D. Rosen	(202)	755-2288
Minority Business Advisor	C. M. Eichenlaub	(202)	755-2288

HEADQUARTERS CONTRACTS AND GRANTS DIVISION	M. Kilkeny, Acting	(202)	755-3396
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AMES RESEARCH CENTER Moffett Field, CA 94035	R. H. Wilson	(415)	965-5800
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DRYDEN FLIGHT RESEARCH CENTER Edwards, CA 93523	J. Tolliver	(805)	258-3311 Ext. 794
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GODDARD SPACE FLIGHT CENTER Greenbelt, MD 20771	F. Hoffman	(301)	344-4720 (301) 344-5416
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KENNEDY SPACE CENTER Kennedy Space Center, FL 32899	B. Driskill, Acting	(305)	867-7353
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LANGLEY RESEARCH CENTER Hampton, VA 23365	D. White	(804)	827-3959
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LEWIS RESEARCH CENTER Cleveland, OH 44135	J. Liwosz	(216)	433-4000 Ext. 5543
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JOHNSON SPACE CENTER Houston, TX 77058	R. L. Duppstadt	(713)	483-5473
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MARSHALL SPACE FLIGHT CENTER Huntsville, AL 35812	J. Machen C. Walker *	(205) (205)	453-2675 453-4200
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NATIONAL SPACE TECHNOLOGY LABORATORIES Bay St. Louis, MS 39520	J. W. Viger	(601)	688-3680
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WALLOPS FLIGHT CENTER Wallops Island, VA 23337	E. R. Scott	(804)	824-3411 Ext. 542
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NASA RESIDENT OFFICE—JPL Pasadena, CA 91109	D. Biggs	(213)	354-6050
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JET PROPULSION LABORATORY Pasadena, CA 91109	M. Kuhn T. May *	(213) (213)	354-5722 354-2121
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*Minority Business Specialist; Unless specifically indicated, the Minority Business function is performed by the Small Business Specialist at each location.

BIDDER'S MAILING LIST APPLICATION	INITIAL APPLICATION	FORM APPROVED OMB NO.
	REVISION	29-R0069

Fill in all spaces. Insert "NA" in blocks not applicable. Type or print all entries. See reverse for instructions.

TO (Enter name and address of Federal agency to which form is submitted. Include ZIP Code)	DATE
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1. APPLICANT'S NAME AND ADDRESS (Include county and ZIP Code)	2. ADDRESS (Include county and ZIP Code) TO WHICH SOLICITATIONS ARE TO BE MAILED (If different from item 1)
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3. TYPE OF ORGANIZATION (Check one)	4. HOW LONG IN PRESENT BUSINESS						
<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:33%;"><input type="checkbox"/> INDIVIDUAL</td> <td style="width:33%;"><input type="checkbox"/> PARTNERSHIP</td> <td style="width:33%;"><input type="checkbox"/> NON-PROFIT ORGANIZATION</td> </tr> <tr> <td colspan="3"><input type="checkbox"/> CORPORATION, INCORPORATED UNDER THE LAWS OF THE STATE OF</td> </tr> </table>	<input type="checkbox"/> INDIVIDUAL	<input type="checkbox"/> PARTNERSHIP	<input type="checkbox"/> NON-PROFIT ORGANIZATION	<input type="checkbox"/> CORPORATION, INCORPORATED UNDER THE LAWS OF THE STATE OF			
<input type="checkbox"/> INDIVIDUAL	<input type="checkbox"/> PARTNERSHIP	<input type="checkbox"/> NON-PROFIT ORGANIZATION					
<input type="checkbox"/> CORPORATION, INCORPORATED UNDER THE LAWS OF THE STATE OF							

5. NAMES OF OFFICERS, OWNERS, OR PARTNERS		
PRESIDENT	VICE PRESIDENT	SECRETARY
TREASURER	OWNERS OR PARTNERS	

6. AFFILIATES OF APPLICANT (Names, locations and nature of affiliation. See definition on reverse)

7. PERSONS AUTHORIZED TO SIGN BIDS, OFFERS, AND CONTRACTS IN YOUR NAME (Indicate if agent)		
NAME	OFFICIAL CAPACITY	TEL. NO. (Incl. area code)

8. IDENTIFY EQUIPMENT, SUPPLIES, MATERIALS, AND/OR SERVICES ON WHICH YOU DESIRE TO BID (See attached Federal agency's supplemental listing and instructions, if any)

9. TYPE OF OWNERSHIP (See definitions on reverse)	
<input type="checkbox"/> MINORITY BUSINESS ENTERPRISE	<input type="checkbox"/> OTHER THAN MINORITY BUSINESS ENTERPRISE

10. TYPE OF BUSINESS (See definitions on reverse)			
<input type="checkbox"/> MANUFACTURER OR PRODUCER	<input type="checkbox"/> REGULAR DEALER (Type 1)	<input type="checkbox"/> REGULAR DEALER (Type 2)	
<input type="checkbox"/> SERVICE ESTABLISHMENT	<input type="checkbox"/> CONSTRUCTION CONCERN	<input type="checkbox"/> RESEARCH AND DEVELOPMENT FIRM	
<input type="checkbox"/> SURPLUS DEALER (Check this box if you are also a dealer in surplus goods)			

11. SIZE OF BUSINESS (See definitions on reverse)			
<input type="checkbox"/> SMALL BUSINESS CONCERN*	<input type="checkbox"/> OTHER THAN SMALL BUSINESS CONCERN		
*If you are a small business concern, fill in (a) and (b):	(a) AVERAGE NUMBER OF EMPLOYEES (Including affiliates) FOR FOUR PRECEDING CALENDAR QUARTERS	(b) AVERAGE ANNUAL SALES OR RECEIPTS FOR PRECEDING THREE FISCAL YEARS	

12. FLOOR SPACE (Square feet)		13. NET WORTH	
MANUFACTURING	WAREHOUSE	DATE	AMOUNT

14. SECURITY CLEARANCE (If applicable, check highest clearance authorized)				
FOR	TOP SECRET	SECRET	CONFIDENTIAL	NAMES OF AGENCIES WHICH GRANTED SECURITY CLEARANCES (Include dates)
KEY PERSONNEL				
PLANT ONLY				

THIS SPACE FOR USE BY THE GOVERNMENT	CERTIFICATION
	I certify that information supplied herein (Including all pages attached) is correct and that neither the applicant nor any person (Or concern) in any connection with the applicant as a principal or officer, so far as is known, is now debarred or otherwise declared ineligible by any agency of the Federal Government from bidding for furnishing materials, supplies, or services to the Government or any agency thereof.
	SIGNATURE
	NAME AND TITLE OF PERSON AUTHORIZED TO SIGN (Type or print)

INFORMATION AND INSTRUCTIONS

Persons or concerns wishing to be added to a particular agency's bidder's mailing list for supplies or services shall file this properly completed and certified Bidder's Mailing List Application, together with such other lists as may be attached to this application form, with each procurement office of the Federal agency with which they desire to do business. If a Federal agency has attached a Supplemental Commodity List with instructions, complete the application as instructed. Otherwise, identify in item 8 the equipment, supplies and/or services on which you desire to bid. The application shall be submitted and signed by the principal as distinguished from an agent, however constituted.

After placement on the bidder's mailing list of an agency, a supplier's failure to respond (*submission of bid, or notice in writing, that you are unable to bid on that particular transaction but wish to remain on the active bidder's mailing list for that particular item*) to Invitations for Bids will be understood by the agency to indicate lack of interest and concurrence in the removal of the supplier's name from the purchasing activity's bidder's mailing list for the items concerned.

DEFINITION RELATING TO TYPE OF OWNERSHIP

(See item 9)

Minority business enterprise. A minority business enterprise is defined as a "business, at least 50 percent of which is owned by minority group members or, in case of publicly owned businesses, at least 51 percent of the stock of which is owned by minority group members." For the purpose of this definition, minority group members are Negroes, Spanish-speaking American persons, American-Orientals, American-Indians, American-Eskimos, and American-Aleuts.

TYPE OF BUSINESS DEFINITIONS

(See item 10)

a. Manufacturer or producer—means a person (or concern) owning, operating, or maintaining a store, warehouse, or other establishment that produces, on the premises, the materials, supplies, articles, or equipment of the general character of those listed in item 8, or in the Federal Agency's Supplemental Commodity List, if attached.

b. Regular dealer (Type 1)—means a person (or concern) who owns, operates, or maintains a store, warehouse, or other establishment in which the materials, supplies, articles, or equipment of the general character listed in item 8 or in the Federal Agency's Supplemental Commodity List, if attached, are bought, kept in stock, and sold to the public in the usual course of business.

c. Regular dealer (Type 2)—in the case of supplies of particular kinds (*at present, petroleum, lumber and timber products, machine tools, raw cotton, green coffee, hay, grain, feed, or straw, agricultural liming materials, tea, raw or unmanufactured cotton linters*). **Regular dealer**—means a person (or concern) satisfying the requirements of the regulations (Code of Federal Regulations, Title 41, 50–201.101(b)) as amended from time to time, prescribed by the Secretary of Labor under the Walsh-Healey Public Contracts Act (Title 41 U.S. Code 35–45). For coal dealers see Code of Federal Regulations, Title 41, 50–201.604(a).

d. Service establishment—means a concern (or person) which owns, operates, or maintains any type of business which is principally engaged in the furnishing of nonpersonal services, such as (*but not limited to*) repairing, cleaning, redecorating, or rental of personal property, including the furnishing of necessary repair parts or other supplies as part of the services performed.

e. Construction concern—means a concern (or person) engaged in construction, alteration or repair (including dredging, excavating, and painting) of buildings, structures, and other real property.

DEFINITIONS RELATING TO SIZE OF BUSINESS

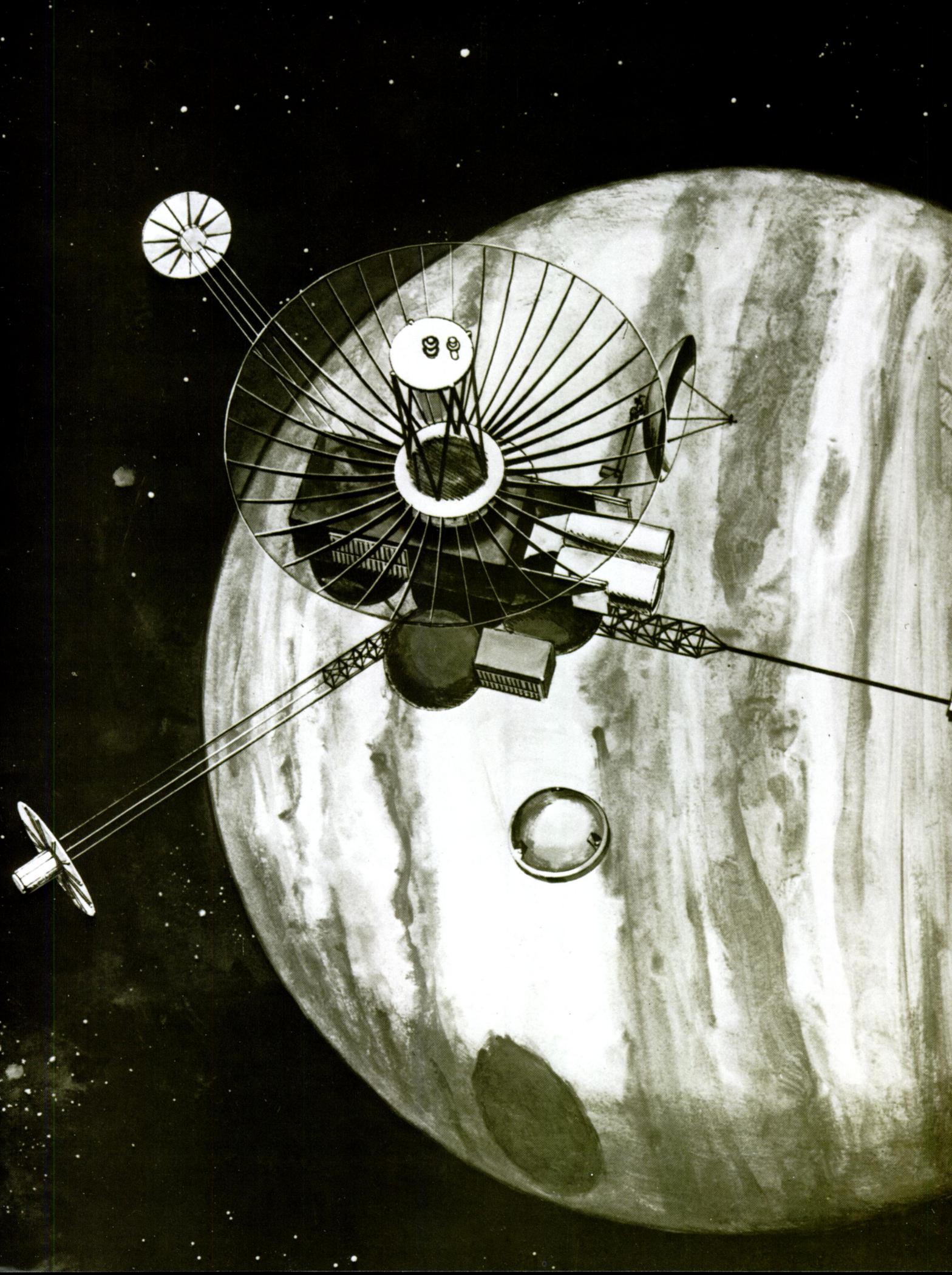
(See item 11)

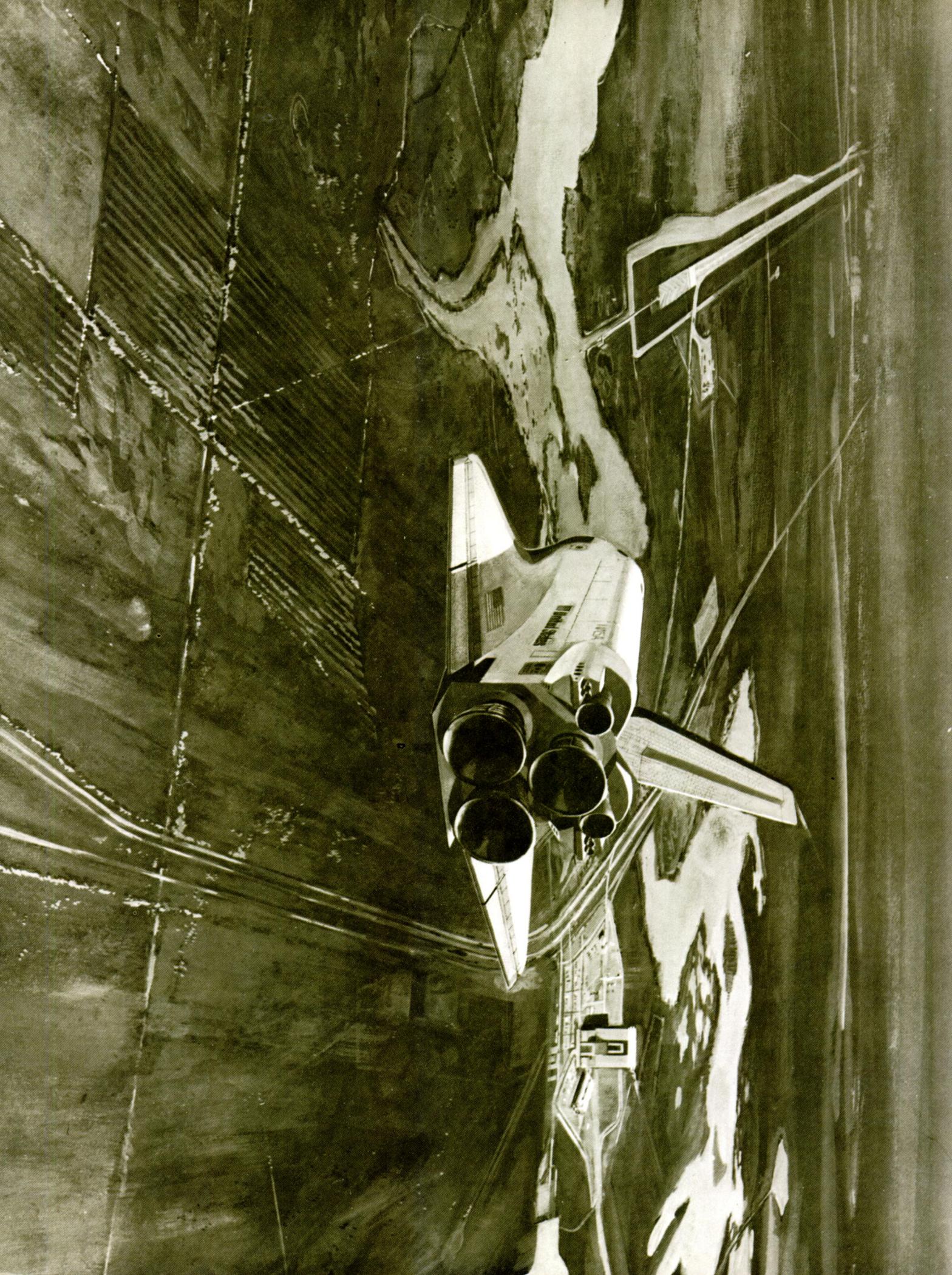
a. Small business concern—A small business concern for the purpose of Government procurement is a concern, including its affiliates, which is independently owned and operated, is not dominant in the field of operation in which it is bidding on Government contracts and can further qualify under the criteria concerning number of employees, average annual receipts, or other criteria, as prescribed by the Small Business Administration. (See Code of Federal Regulations, Title 13, Part 121, as amended, which contains detailed industry definitions and related procedures.)

b. Affiliates—Business concerns are affiliates of each other when either directly or indirectly (i) one concern controls or has the power to control the other, or (ii) a third party controls or has the power to control both. In determining whether concerns are independently owned and operated and whether or not affiliation exists, consideration is given to all appropriate factors including common ownership, common management, and contractual relationship. (See items 6 and 11.)

c. Number of employees—In connection with the determination of small business status, "number of employees" means the average employment of any concern, including the employees of its domestic and foreign affiliates, based on the number of persons employed on a full-time, part-time, temporary, or other basis during each of the pay periods of the preceding 12 months. If a concern has not been in existence for 12 months, "number of employees" means the average employment of such concern and its affiliates during the period that such concern has been in existence based on the number of persons employed during each of the pay periods of the period that such concern has been in business. (See item 11.)

- **COMMERCE BUSINESS DAILY**—The Commerce Business Daily, published by the Department of Commerce, contains information concerning proposed procurements, sales, and contract awards. For further information concerning this publication, contact your local Commerce Field Office.





LANGLEY RESEARCH CENTER
3 1176 00504 2305

NASA

National
Aeronautics and
Space
Administration

