

Participation Guide



National Aeronautics and
Space Administration

*S*mall
*B*usiness
*I*nnovation
*R*esearch

*S*mall Business
*T*echnology
*TR*ansfer

sbir.nasa.gov

Enabling Future Technologies

The NASA SBIR and STTR Programs Participation Guide

Updated July 2003

1. Introduction.....	2
Eligibility	2
Benefits of an Award	3
2. Program Structure.....	4
Establishment and Intent.....	4
Phased Structure	4
Proposal Evaluation, Selection, and Contracting.....	5
The COTR and Designated Advisors.....	6
3. Summary of SBIR/STTR Differences	7
4. SBIR Research Areas	8
Technical Topics and Subtopics	8
5. STTR Unique Features and Research Areas.....	10
A Partnership	10
Technical Topics.....	10
6. Getting Involved.....	11
Acquiring Information and Tools	11
Solicitations and General Information	11
Electronic Proposal Submissions and Contract Management.....	11
Firms Library (New).....	11
Making the Decision to Participate.....	11
Implementing the Decision.....	12
Partnering and Subcontracting.....	12
7. Preparing a Phase I Proposal.....	13
The Nature of the Competition	13
Phase I Emphasis	13
Meeting the Requirements	13
After the Competition	14
8. Sources of Assistance	15
Program Support Office.....	15
Program Management.....	15
Field Installation Program Managers.....	16
Supplemental Online Information.....	18
NASA Technology Utilization Services.....	18
State Organizations for SBIR/STTR Support	20
The Small Business Administration.....	20

1. Introduction

This Guide provides an overview of both the Small Business Innovation Research (SBIR) and the Small Business Technology Transfer (STTR) programs as implemented by the National Aeronautics and Space Administration (NASA). These programs, as mandated by Congress, provide an opportunity for small, high technology companies and research institutions to participate in Government sponsored research and development (R&D) efforts in key technology areas. This Guide describes the background and operation of these two programs and discusses what factors a business should consider in making the decision to participate. It also provides points of contact and sources of assistance for learning more about SBIR and STTR.

If you are a small business concern (SBC) with 500 or fewer employees or a nonprofit research institution (RI), such as a university or a research laboratory, then SBIR or STTR can be a significant source of seed funding for the development of your technology innovations. Many firms, both well established and start-ups, have benefited from their involvement in these programs.

NASA's SBIR and STTR programs view an innovation as something new or improved, having marketable potential, including (1) development of new technologies, (2) significant refinement of existing technologies, or (3) development of new applications for existing technologies.

Each summer NASA issues its annual SBIR and STTR Solicitations. The Solicitations, which are only available on-line at <http://sbir.nasa.gov>, provide all the information needed to submit proposals through this site. The Solicitation period usually lasts for two months and winners are announced about three months after its closing. For 2003, 2004 and 2005, the Solicitation is open 7/7 through 9/9. Complete schedule information is at the website.

Eligibility

To be eligible for either the SBIR or STTR programs, a small business must be independently owned and operated in the United States by U.S. citizens or permanent resident aliens. It must be organized for profit. Including any affiliates, the company can be the employer of no more than 500 people. While an SBIR or STTR award contract is between NASA and a small business, STTR has the additional requirement that a cooperative agreement between the firm and an RI be established.

The Principal Investigator (PI), who is listed in the proposal as the technical manager to lead the proposed research, is considered key to the success of the effort; therefore, a PI's involvement with the project must be substantial. For SBIR, the PI must be primarily employed by the SBC at the time of contract

award. The STTR program permits employment of the PI by either the firm or the RI.

Benefits of an Award

The primary benefit of an SBIR/STTR project is in the obtaining of seed money to explore your own technical idea without any loss of control or loss of equity, including intellectual property rights, in your business. Your sole obligations are to deliver required reports and any products as described in your contract. It is the goal of these programs that the projects lead to capabilities that expand the business base of your company. You are encouraged to use SBIR/STTR resources to benefit your company or RI while delivering project results of value to NASA.

While the Federal Government has royalty-free rights for the use of products and data, your firm still owns any resulting data and may establish claim to copyrights, elect to retain title in inventions, and obtain patent protection. Furthermore, regulations require the Government to protect the data from general public dissemination for at least 4 years after the end of the contract.

Former SBIR and STTR awardees report other benefits as well: Winning an SBIR/STTR contract has given new companies credibility in their search for capital; investors have also provided money, or large firms have agreed to provide equipment or services in efforts of joint interest. Companies have also gained exposure and credibility within NASA that has led to other contracts or subcontracts.

While you may receive a favorable NASA technical review of your proposal, you still may not be selected for an award due to budgetary limitations. However, NASA sends an official letter recognizing the quality of the proposal. Your firm can then use this letter to enhance your credibility in seeking other sources of funding. In addition, the proposal reviewers' comments, which are also provided by NASA to debrief your firm, have been reported to be of great benefit as a learning tool in the product development process.

2. Program Structure

Establishment and Intent

Congress established the Small Business Innovation Research (SBIR) program in 1982 and the similar, but smaller, Small Business Technology Transfer (STTR) program in 1992 to increase opportunities for small firms to participate in government R&D, to improve overall U.S. competitiveness, and to increase national employment. STTR has the additional intent of encouraging formal linkages between firms and non-profit research institutions.

Federal agencies with R&D budgets exceeding \$100 million are required to administer an SBIR program. Agencies with R&D budgets exceeding \$1 billion dollars are also required to administer an STTR Program. Each agency administers its own individual program within guidelines established by the Small Business Administration (SBA). The SBA is responsible for establishing governing policies and for overall program monitoring, reporting, and analysis. The law has established SBIR funding at 2.5% of each participating agency's extramural R&D budget. In fiscal year 2004, STTR funding will shift from 0.15 to 0.3% of each participating agency's extramural R&D budget.

The programs' specific objectives are to stimulate U.S. technological innovation, use small businesses to meet Federal R&D needs, increase private-sector commercialization of innovations derived from Federal R&D, and foster and encourage participation by socially disadvantaged and women-owned businesses. Besides sales to the private sector, this commercial success includes sales and non-SBIR contracts with the government, including NASA.

Phased Structure

The structure of the SBIR and STTR programs reflects the Congressional understanding that the processes of innovation and bringing new products to the market takes time and has a high degree of technical and financial risk. The programs, therefore, have three phases:

Phase I is the opportunity to establish the feasibility and technical merit of a proposed innovation. Selected competitively, NASA SBIR Phase I contracts last up to 6 months with a maximum funding of \$70,000. STTR Phase I contracts are typically for one year and a maximum funding of \$100,000. Historically, about 12 – 15% of SBIR proposals submitted receive awards, while 25 - 50% of STTR proposals receive awards.

Phase II is the major R&D effort. It continues the most promising of the Phase I projects based on scientific and technical merit, expected value to NASA, and commercial potential. Selection for Phase II places a greater emphasis on evi-

dence of commercial potential than Phase I, particularly in support of NASA's missions and needs. SBIR and STTR Phase II contracts are usually for a period of 24 months with a maximum funding of \$600,000. Prior to 2003, maximum funding for STTR Phase II contracts had been \$500,000. NASA usually selects approximately 40% of the Phase I's to go on to a Phase II.

Phase III is the infusion of the Phase II results into regular NASA programs, or the marketing to other government agencies or the private sector. Phase III projects are funded with money from a source other than the SBIR/STTR program. It is generally understood that further development of the product may be needed at the conclusion of Phase II. NASA is able to accelerate its post-Phase II procurement process by recognizing that the federal competition-in-contracting requirements have been met by the Phase I and II competitions. In other words, the Phase III non-SBIR funding is awarded based on the merits of the Phase II results without further need for competitive bids. Private-sector investment, in various forms, is also a vehicle for the Phase III process.

Proposal Evaluation, Selection, and Contracting

To evaluate and rank Phase I proposals, NASA researchers and engineers working in the appropriate area of technology apply a uniform set of criteria and procedures based on the evaluation factors and other requirements found in the Solicitation. Outside evaluators are normally not used. Proposals are evaluated on the basis of scientific and technical merit, the qualifications of the PI and other key personnel, the soundness of the work plan, and the anticipated commercial potential. Each NASA field installation then prepares its priority ranking of proposals recommended for award. From these lists, the SBIR Source Selection Official at NASA Headquarters, considering program balance across the Agency and availability of funds, authorizes proposals for contract negotiation. The appropriate NASA field installation then assigns a contracting officer who is responsible for contract negotiation. This field installation also designates a technical officer to monitor the work.

The official Request For Proposal (RFP) for Phase II is included within the Phase I contract. If the company wishes to compete for Phase II, the proposal is due at the end of the Phase I contract performance period. A Phase II proposal can be accepted only from the company conducting the related Phase I project. As described in the Solicitation, Phase II proposals are more comprehensive than those for Phase I. The field installations evaluate and recommend Phase II proposals for selection based on uniform criteria and procedures similar to those in Phase I. Final selections are also made by the Source Selection Official at NASA HQ based on installation recommendations.

The COTR and Designated Advisors

The NASA contracting officer, who negotiates and monitors your contract, has support from the Contract Officer's Technical Representative (COTR, pronounced *Co-Tar*). The COTR on your contract is your primary contact within NASA on the contract's technology focus and objectives. Given that one of the primary goals of the SBIR and STTR programs at NASA is the post Phase II development and infusion of your firm's technology into NASA's programs and missions, your interaction with technologists within NASA is important and the COTR is your link and facilitator.

The COTR may designate, after consultation with your firm, technologists or technology users, primarily from within NASA, that will have ready access to your reports. These individuals will act as advisors, in addition to the COTR, and will help provide insight to your firm on NASA's needs and missions as you develop your technology.

3. Summary of SBIR/STTR Differences

	SBIR	STTR
Maximum Contract Values	Phase I - \$70,000 Phase II - \$600,000	Phase I - \$100,000 Phase II - \$600,000
Phase I Duration	<= 6 months	<= 12 months
Primary Employment	Primary employment of the PI must be with the SBC at the time of award and during the conduct of the project. Primary employment means PI will average a minimum of 20 hours per week with the SBC, and that more than half of the PI's total employed time is spent with the SBC.	PI must be primarily employed with either the RI or SBC, with the equivalent definitions as in SBIR for time and amount.
Cooperative Agreement	Not Applicable	The offeror must submit a written Cooperative R/R&D Agreement between the SBC and the RI. The agreement is included in the 25-page limit.
Work Plan	Work plan must indicate what, where and how work will be done.	Not less than 40% of the work is to be performed by the SBC and not less than 30 % is to be performed by the RI.
Subcontractors/Consultants	Must not exceed one-third of the research and/or analytical work for Phase I and one-half for Phase II.	Minimum of 40% of the work is to be performed by the SBC and not less than 30% is to be performed by the RI. Up to 30% of the work may go to a subcontractor.
Allocation of Rights Agreement	Not Applicable	May be requested by the Contracting Officer after firm is selected for contract award.
Historical Proposal-to-Selection Ratio	Phase I: 7:1 Phase II: About 40% of the successfully completed Phase I projects.	Phase I: 4:1 Phase II: About 40% of the successfully completed Phase I projects.

4. SBIR Research Areas

Technical Topics and Subtopics

The SBIR Solicitation describes NASA's highest priority research needs. These needs are organized under a number of topic areas that are further broken out into over 100 subtopics. Proposals must be in response to a subtopic. NASA's technical Enterprises conceive and manage the topics each year. See <http://www.nasa.gov> and Chapter 9 of the Solicitation for more information on the Enterprises. Subtopic conception, composition, and development is done by program managers and researchers at the various NASA installations (see Chapter 8, *Field Installation Program Managers*, of this Guide). The range of technologies is broad, and the list of topics and subtopics may vary in content from year to year. The 2003 NASA SBIR Solicitation contained the following technical topics (each has one or more subtopics which are not listed here):

AEROSPACE TECHNOLOGY ENTERPRISE

- Aviation Safety and Security
- Vehicle Systems
- Airspace Systems
- Next Generation Launch Technologies
- Space Transfer and Launch Technologies
- Computing, Information and Communications Technology
- Engineering for Complex Systems
- Enabling Concepts and Technologies

BIOLOGICAL AND PHYSICAL RESEARCH ENTERPRISE

- Cross-Disciplinary Physical Sciences
- Fundamental Space Biology
- Biomedical and Human Support Research
- Partnerships and Market Driven Research
- Biomolecular Systems, Devices and Technologies
- Mission Integration and Flight Support
- Outreach

EARTH SCIENCE ENTERPRISE

- Instruments for Earth Science Measurements
- Platform Technologies for Earth Science
- Advanced Information Systems Technology
- Applying Earth Science Measurements

SPACE FLIGHT

- Systems Integration, Analysis, and Modeling
- Self-Sufficient Space Systems
- Space Utilities and Power

Habitation, BioAstronautics and Extravehicular Activity
Space Assembly, Inspection, and Maintenance
Human Exploration and Expeditions
Space Transportation

SPACE SCIENCE ENTERPRISE

Sun Earth Connection
Structure and Evolution of the Universe
Astronomical Search for Origins
Exploration of the Solar System
Mars Exploration

There is no quota for awards in any subtopic. Each subtopic is normally the responsibility of one NASA installation, noted as "Lead Center" in the Solicitation. Any "Participating Center" listed for a subtopic has helped in developing the subtopic and may evaluate and recommend the selection of proposals that relate to the participating center's needs.

5. STTR Unique Features and Research Areas

A Partnership

The STTR Program awards contracts to small business concerns (SBC's) for cooperative research and development with a nonprofit research institution (RI), such as a university. The goal of Congress in establishing the STTR program is to facilitate the transfer of technology developed by an RI through the entrepreneurship of an SBC, or for the fulfillment of a technology being developed through an SBC by an RI. STTR differs from SBIR in three important aspects:

- 1) The SBC and its partnering institution are required to sign a cooperative agreement detailing the allocation of intellectual property rights and rights to carry on follow-up R&D or commercialization between the SBC and RI.
- 2) While the proposal is still submitted by the SBC, at least 30% of the funding must be allocated to the RI for its activities. Likewise, at least 40% must be for the SBC.
- 3) For STTR, the PI does not have to be employed by the SBC as in SBIR.

Technical Topics

Beginning with the 2003 Solicitation, NASA's STTR Program has doubled its available funds for award. At the same time, it has increased the maximum Phase II award amount from \$500,000 to \$600,000. In addition, the number of research topics available, and subsequent variety of proposal opportunities, has more than doubled for 2003.

STTR research topics are aligned with each NASA Field Center and based on a Center's fundamental research needs and areas of expertise. At each Center, representatives of NASA's Education Enterprise provide consultation in the topic development. The STTR was established to encourage the transfer of technology from research institutions. Technical areas in the Topics are similar to those in SBIR, but have a more fundamental research and discovery focus.

6. Getting Involved

Acquiring Information and Tools

Solicitations and General Information

The NASA SBIR/STTR homepage (<http://sbir.nasa.gov>) is where you will find recent and any current Solicitations and schedules, along with a wealth of related information. A variety of documents and information about SBIR and STTR are available for viewing and download. These include prior year award lists, technical abstracts, program statistics, and links to state and private assistance organizations. This Participation Guide is available electronically at the web site.

Electronic Proposal Submissions and Contract Management

You will also find the Electronic Handbook section at the homepage. In this area, you can find tools for submission of proposals and for contract management. Proposal submission tools are only available during the open Solicitation period.

Firms Library (New)

An SBIR/STTR Firms Library site at <http://sbir.nasa.gov/samples> has been established to provide specific help in meeting proposal and contract requirements. The Firms Library includes a sample proposal, sample forms for proposals and contract negotiations, as well as templates and samples for deliverables, such as interim and final reports, and for invoices. It also includes a sample Cooperative Agreement for STTR. It also includes additional samples and templates for items such as business plans, briefing/marketing charts, and success story documentation.

Making the Decision to Participate

Whether or not you invest the resources needed to prepare an SBIR/STTR proposal is an important strategic decision deserving careful consideration. Over 40% of the requested research areas in the Solicitation are new or substantially revised each year, opening new opportunities. Over 40% of award winners are new to the NASA programs each year.

Some important general decisions to consider in order to be a successful offeror under these programs include:

- Does your firm wish to become a government contractor?
- Which program suits your needs and situation, SBIR or STTR?
- Does your technology area align with the topics/subtopics of research needs identified by NASA?

- While the Solicitation period typically ends in late summer, the Phase I contract period of performance will not begin until winter. Can you wait this long?
- Will you be ready for up to 6 months (SBIR) or a year (STTR) of intense work to accomplish your proposed goals?
- Will your firm have adequate cash flow to cover any lags between invoicing and receipt of payment and between the end of a Phase I contract period and the beginning of one for Phase II, typically up to almost 5 months?
- If your company were to become a Phase II candidate, would it have, or could it establish, an accounting system that tracks costs in a standard business way, and that meets the requirements of the Defense Contract Audit Agency?
- If need be, can you find an appropriate subcontractor or consultant?
- Would partnering with a research institution (required in STTR) or a large business enhance your research capabilities?
- What are the long-term implications of the technology area you wish to develop as part of your growing business?
- Will you be able to show a path to commercialization?
- Are you serious about continued, post-SBIR/STTR business with NASA related to your proposal if successful?

Implementing the Decision

To participate in the SBIR and STTR programs, a firm must submit a proposal in response to the annual Solicitations, which are open concurrently. The Solicitations are the definitive information source for applying for funding under these programs and proposals must be submitted through the secure web site.

Partnering and Subcontracting

Working with other businesses, both large and small, is often a vital part of an SBIR or STTR proposal. Joint ventures and limited partnerships are permitted provided the new entity created qualifies as a small business by being independently owned and operated for profit, having 51% ownership or voting stock held by US citizens or legal resident aliens, and by having less than 500 employees.

Subcontracting relationships of SBC's with any other entity, including large businesses, is limited in extent:

- Subcontractor Participation in SBIR Program:
 - Maximum of 33% of work in Phase I
 - Maximum of 50% of work in Phase II
- Subcontractor Participation in STTR Program:
 - Maximum of 30% of work in Phase I
 - Maximum of 30% of work in Phase II

7. Preparing a Phase I Proposal

The Nature of the Competition

NASA's SBIR and STTR programs are highly competitive. For example, from 1983 through 2002, NASA received 40,834 SBIR Phase I proposals from which 5,453 contracts were awarded on their merits. About 40% of the completed Phase I projects receive funding for Phase II development.

There is no limit on the number of proposals a firm may submit. Submitting different proposals to several subtopics in SBIR is permitted if appropriately based on the subtopic description. However, the acceptance of awards for substantially similar work in multiple proposals is not allowed and is considered fraudulent and subject to criminal prosecution. This also applies to awards for essentially equivalent work being performed at any other agency of the Federal Government.

Phase I Emphasis

Phase I must concentrate on establishing the scientific or technical merit and feasibility of the proposed innovation and on providing a basis for continued development in Phase II. The Phase I proposal must not exceed 25 pages and must follow the format described in the Solicitation. Each Phase I proposal must suggest a possible solution to a challenge or opportunity stated in a topic (STTR) or subtopic (SBIR) contained in the Solicitation. Proposals must, of course, describe an innovation. Innovations can come in many forms: Some are for applications of emerging technologies; others are novel applications of existing technologies; while others exploit scientific breakthroughs or enable new capabilities or major improvements to existing technologies.

In your proposal, you must demonstrate your understanding of the current state-of-the-art for the proposed innovation. Clearly and succinctly describe how you hope to go beyond this point. The Phase I proposal must also briefly describe your plans and/or visions for pursuing applications of the products or underlying technology assuming a successful completion all the way through Phase II.

Meeting the Requirements

Basic requirements differ in certain important details among the agencies that have SBIR/STTR programs, and NASA has no obligation to evaluate proposals that do not meet all stated NASA administrative requirements as listed in the Solicitation. By reading the entire instruction and policy section (the "front end") of the NASA Solicitation document and then carefully following the in-

structions, you will minimize the chances of having your proposal rejected for strictly administrative reasons.

A sample proposal is available in the new Firms Library (see Chapter 5 of this Guide) for guidance in formatting and composition. To emphasize its desire for innovation and to provide focus for proposals, NASA requires that each SBIR/STTR proposal begin with a brief description of the proposed innovation. The NASA SBIR/STTR program does not support literature or technical searches, straightforward engineering design, modification of existing products without substantial innovative changes, or marketing surveys. It does not fund commercial development of an existing concept or the obtaining of a patent.

A key to success is investing the time necessary to think through and clarify your ideas and innovation, understanding of the state-of-the-art, plans for demonstrating feasibility, and your post-Phase II plans. You should then ensure that the proposal is well organized, addresses all the required parts, and is written in a direct, readable style in a convincing professional manner.

You should also seriously consider preparing a briefing chart as described in the Solicitation, as this can aid the topic/subtopic manager and others in supporting and promoting your proposal in the overall NASA selection process.

After the Competition

About 3 months after a Solicitation closes, NASA announces those companies selected for negotiation of a Phase I contract. This list is made available at the homepage, <http://sbir.nasa.gov>. Awardees also receive a formal notice in the mail that provides further instructions. Documents necessary to complete the negotiation process (representations and certifications) may be downloaded to shorten the contract processing time.

Formal notice of those not selected is also sent to the submitting small businesses. NASA provides an automatic debriefing within 60 days, in which the comments of the proposal's reviewers are forwarded to the submitting firm along with some statistics related to the selections. Rankings, proposal scores, and reviewer names will not be provided. It is common practice for companies to use this feedback in their development process for their underlying technology. In addition, companies that received excellent reviews but did not receive an award, due to budgetary limitations, will also receive a formal notification indicating such. Companies seeking funding from other sources may use this letter, adding the weight of a positive NASA review to their requests.

8. Sources of Assistance

Program Support Office

For assistance with general questions or the website, please contact:

NASA SBIR/STTR Program Support Office

REI Systems, Inc.

4041 Powder Mill Road, Suite 311

Calverton, MD 20705

Phone: 301-937-0888

Fax: 301-937-0204

Email: sbir@reisys.com

Program Management

Agency program management for the NASA SBIR and STTR programs is hosted at the Goddard Space Flight Center, with procurement oversight located at the Glenn Research Center. Program policy, effectiveness, and assessment activities are the responsibility of NASA Headquarters.

Program Executive and Selection Official

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Code RC/NASA Headquarters

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MS: 500-313/NASA Glenn Research Center
Cleveland, OH 44135
Telephone: 216-433-2770
Email: Karin.E.Huth@nasa.gov

Field Installation Program Managers

The primary point of contact for information on the programs at a particular NASA installation is the NASA Field Installation SBIR and STTR Program Manager. Potential offerors may talk to NASA technical program managers and researchers about their programs and interests except when a Solicitation is active (between its date of issue and the deadline for receipt of proposals).

ARC: Mr. Charles Castellano (*acting*)
MS: 202A-3/NASA Ames Research Center
Moffett Field, CA 94035-1000
Telephone: 650-604-0903
Email: Charles.R.Castellano@nasa.gov

DFRC: Mr. Rodney K. Bogue
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GSFC: Dr. E. James Chern
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Email: Engmin.J.Chern@nasa.gov

JPL (SBIR only):
Byron Jackson (*acting*)
MS: 249-103/NASA Jet Propulsion Laboratory
Pasadena, CA 91109-8099
Telephone: 818-354-1246
Email: bljackso@mailhost4.jpl.nasa.gov

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Code HA/NASA Johnson Space Center
Houston, TX 77058
Telephone: 281-483-0921
Email: Kenneth.W.Lassmann@nasa.gov

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YA-C1/NASA Kennedy Space Center
Kennedy Space Center, FL 32899
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Telephone: 256-544-6719
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SSC: Mr. James Bryant
Code TA00/NASA Stennis Space Center
Stennis Space Center, MS 39529-6000
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Supplemental Online Information

Besides the NASA SBIR/STTR specific website, <http://sbir.nasa.gov>, described in Chapter 6 of this Guide, NASA's general web site has a plethora of links to internal programs and activities at <http://www.nasa.gov>. From this site, you can, for example, obtain further understanding of the structure of the Agency as represented through its Enterprises, find out more about NASA's missions, goals, and technology needs, and seek other research and development opportunities within the Agency in addition to SBIR/STTR.

NASA Technology Utilization Services

NASA's network of **Regional Technology Transfer Centers** (RTTCs) listed below provides access to millions of technical reports in computer databases. Various kinds of searches and assistance, including advice on proposal preparation, can be arranged. Fees are charged for these services. Below is the list of RTTCs:

Northeast: Center for Technology Commercialization
1400 Computer Drive
Westborough, MA 01581
Telephone: 508-870-0042
<http://www.ctc.org>

Mid-Atlantic: Technology Commercialization Center, Inc.
12050 Jefferson Avenue, Suite 340

Newport News, VA 23606
Telephone: 800-472-6785
<http://www.teccenter.org>

Southeast: Southeast Regional Technology Transfer Center
Georgia Institute of Technology
216 O'Keefe Building
Atlanta, GA 30332
Telephone: 800-472-6785
<http://www.edi.gatech.edu/nasa/>

Mid-West: Great Lakes Industrial Technology Center
20445 Emerald Parkway Drive SW, Suite 200
Cleveland, OH 44135
Telephone: 800-472-6785
<http://www.battelle.org/glitec>

Mid-Continent: Mid-Continent Technology Transfer Center
Texas Engineering Extension Service
301 Tarrow Street
College Station, TX 77843-8000
Telephone: 800-472-6785
<http://www.tedd.org/mcttc/>

Far-West: Far-West Regional Technology Transfer Center
3716 South Hope Street, Suite 200
Los Angeles, CA 90007-4344
Telephone: 800-642-2872
<http://www.usc.edu/dept/engineering/TTC/NASA>

The **National Technology Transfer Center (NTTC)**, sponsored by NASA in cooperation with other Federal agencies, is a national resource for technology transfer and commercialization. NTTC has a primary role to put Government research into the hands of U.S. businesses. NTTC's gateway services make it easy to access databases and to contact experts in your area of research and development. For further information, call 800-678-6882, or visit their homepage at <http://nttc.edu>.

The **National Technical Information Service (NTIS)**, an agency of the Department of Commerce, is the Federal Government's central clearing house for publicly funded scientific and technical information. For information about various NTIS services and fees, write or call:

National Technical Information Service

5285 Port Royal Road
Springfield, VA 22161
Telephone: 800-553-6847
<http://ntis.gov>

State Organizations for SBIR/STTR Support

Most states have small business development agencies. Some of these provide funding for proposal preparation, matching funds, and/or bridge loans for the period between Phases I and II. A listing of state organizations can be found at <http://sbir.nasa.gov/SBIR/states.htm> and through the SBA (below).

The Small Business Administration

The Small Business Administration (SBA) coordinates the SBIR and STTR Phase I schedules for all participating agencies and publishes quarterly ***Pre-Solicitation Announcements*** (PSA). The PSA provides basic information about the SBIR or STTR program and lists program contacts in each participating agency. The PSA indicates the SBA services and publications that are available to those interested in these programs. The PSA includes instructions for obtaining each agency's Solicitation and other program information such as abstracts of winning proposals. This information is available at <http://www.sba.gov>.

The SBA also publishes annual listings of SBIR and STTR awards by all agencies and other documents about SBIR and STTR. These documents may also be obtained from the SBA web site noted above.

REDUCTION-IN-MASS-PROPULSION-REUSABLE LAUNCH VEHICLES-SENSORS-GRAVITATIONAL EFFECTS-BIOINSTRUMENTATION-MOLECULAR BIOLOGY-AND SCALE SELF ASSEMBLING-BIOINSPIRED MASSIVE AND ACTIVE MICROWAVE SENSORS-NAVIGATION AND CONTROL-ON BOARD DATA GEOSPATIAL DATA ANALYSIS-DATA MANAGEMENT ECOSYSTEM HEALTH-HUMAN EXPLORATION ENGINEERING-IN SITU RESOURCE UTILIZATION WIRELESS POWER-SPACE NUCLEAR POWER PRODUCTIVITY-ROBOTICS-CREW TRAINING-UN EARTH CONNECTION-MICRO AND NANOROBOTS AND AEROBOTS-PHOTON DETECTORS-SPACE LARGE TELESCOPES-SPACE HABITAT CONSTRUCTION