U.S. Small Business Administration
Management Assistance
Support Services Section

Small Business Bibliography
Number 91

SBA

Ideas into Dollars

A Joint Publication of Management Assistance Division and Bureau for Advocacy



A Resource Guide for Inventors and Innovative Small Businesses

Table of Contents

Foreword - How to Use This Guide 3

Acknowledgements 3

Your Help Requested 4

Invention Stage 4
Idea Generation Phase 4
Idea Evaluation Phase 4
University Evaluation Centers 4
Government Evaluation Offices 5
Inventors' Associations 6
Corporations 6
Publications on Idea Evaluation 6

Commercialization Stage 7
Protection and Legal Assistance Phase 7
Private Patent and Copyright Organizations 7
Federal Patent and Trademark Office 7
Government Publications on Patents and Protection 7
Nongovernment Publications on Patents and Protection 8
Financial Assistance Phase 8
Venture Capital Organizations 8
Government Grant Programs 9
Important Financial Assistance Publications 10
State Government Sources of Information on Federal and State Grants 11
Management and Technical Assistance Phase 11
Invention Brokers and Consultants 11
SBA Management Assistance Programs 12
SBA Management Assistance Publications 12
NASA Technical Assistance Programs and Publications 12
Nongovernment Publications on Innovation Management 13
Production and Sales Phase 13
Government Procurement Programs 13
State Economic Development and Small Business Programs 14
Procurement, R&D and Technology Conferences 14

Publications of Interest 15
Professional Journals 15
Books 15

Appendices 17
1. Patent Depositories 17
2. Grant Application Procedures 17
3. DOE Regional Offices 17
4. Federal Assistance Programs Retrieval System 18
5. SBA Field Offices 19
6. SADBU Offices 20
7. SBA PASS Phone Numbers and Mailing Addresses 21
8. State Small Business Programs 22
9. Small Business Development Centers 23
10. NASA Industrial Applications and State Technology Applications Centers 24

Foreword

Both the individual inventor and the small, high-technology firm face major obstacles in the process of creating, developing, and commercializing an innovation—of turning ideas into dollars. *Ideas into Dollars* is aimed at making those obstacles less intimidating. By providing you as inventors and small business managers with information on the variety of government and private organizations, programs, and publications dealing with invention and innovation, the SBA hopes to increase your chances of commercial success.

The contents of this publication are organized to be quickly accessible: the process of innovation, along with the appropriate resources, is laid out in successive stages from invention through commercialization. The resources listed in this *Guide* should help you as an inventor or small business owner or manager to mix effectively the four essential ingredients necessary in turning ideas into dollars: 1) determining technical feasibility, 2) assessing market demand, 3) identifying capital sources, and 4) developing overall management competence.

We suggest you skim this *Guide*, determine the stage you are in, and then "dive into" the wealth of information available from the resources listed. As advocates for small business, we understand the complications faced by an inventor or innovative firm when dealing with Government Agencies. The purpose of writing *Ideas into Dollars* is to help you deal effectively with all the complexities, blind alleys, and frustrations that are frequently a part of working with Federal Agencies. By explaining whom to contact and what procedures to follow, this *Guide* should help the innovation process flow somewhat more smoothly.

Acknowledgements

Several individuals in both Management Assistance and Advocacy were principal contributors to this effort and should be acknowledged. Barry Unger, of Innovation Support in Arlington, Mass., a Presidential Exchange Executive at SBA during 1979-80, was the publication's Technical and Science Advisor and Jerry Feigen, Advocacy's Associate Advocate for Capital Formation and Venture Capital, was the liaison between Management Assistance and Advocacy. Dr. Bruce Whiting, Director of Program Delivery for Management Assistance, was the originator of the project and Gregory Diercks, Writer/Editor, Support Services Section, was the Project Director.

Your Help Requested

Readers who are aware of any additional resources, whether publications, programs, or organizations, which would be of use to inventors or small, high-technology firms, are requested to please send a full description of them to:

Ideas Into Dollars
U.S. Small Business Administration
1522 K Street, N.W., Suite 626
Washington, D. C. 20005
Tel: (202) 724-1962

The information contained in this publication was current at the time of writing. However, over time, programs change, publications come and go, organizations are restructured, and offices move. While every effort has been made by SBA to assure accuracy, not all details will in fact be so.

Invention Stage

Idea Generation Phase

Ideal generation has two interrelated components: the psychology of creativity, and the organizational encouragement and promotion of new product ideas.

The thrust of this *Guide* is not to describe the nature of creativity, although creativity is the basis of invention. For those interested in studying creativity, there are many publications on its psychology. Most university and large local libraries will reference them. The American Psychological Association, 1200 17th Street, N.W., Washington DC 20036, (202) 833-7600, publishes a broad range of journals and indexes. It welcomes inquiries. The Creative Education Foundation, Inc., 1300 Elmwood Avenue, Buffalo, NY 14222, located at the University State College, has an extremely extensive library of reference materials on creativity. For further information write or call (716) 878-6221.

This *Guide* also does not presume to tell the small, high-technology firm or the individual scientist, engineer, or technician how to arrive at new ideas, whether individually or organizationally. This *Guide*, however, **does** provide detailed advice on the resources available for use during the process of turning ideas into dollars—once the initial idea has been created.

Idea Evaluation Phase

Idea evaluation is the first major step after a concrete, detailed idea has been developed. This is a critical phase since every following phase requires the investment of more time and money. The purpose of an idea evaluation is to determine the overall technical and commercial feasiblility of an idea—what its full potential actually is.

These evaluation activities seek to determine whether the fledgling invention is a marked improvement over its competition; whether it is likely to be commercially viable; what the probable demand for it will be; who could produce it; and how it would be distributed. The ultimate purpose here is to arrive at the decision to go ahead to the commercialization stage, to redesign the invention, or to kill the project altogether.

There are both private, money-making organizations and public or quasi-public organizations like innovation centers that can assist the inventor at this stage. The money-making organizations include invention brokers and consultants, some of whom are in the business not only of bringing the inventor and buyer together—an aspect of commercialization—but also of helping evaluate the technical and commercial aspects of the invention or idea. Some work for a set fee. Others work on a contingent fee basis. This means that while the technical/commercial evaluation may be free, they will receive a percentage of the profits—but only if there are profits. These private organizations are discussed in more detail in the Commercialization Stage, see page 6.

On the non-profit side, several types of organizations can help inventors evaluate their ideas, both technically and commercially but, unlike invention brokers, they are either free or charge a nominal fee. You should not become discouraged if a negative evaluation is received. Since there is no standardized evaluation system, try someplace else. However, any limitations cited by the evaluation reviews should be considered by you when determining ways to improve upon your invention. Among these public and quasi-public evaluation organizations are: universities, Government Agencies, inventors' associations, and corporations (since they generally do not charge to develop a promising idea.)

University Evaluation Centers
Many universities have formal programs specifically designed to assist individuals with ideas for new or improved products or services. Nearly every state has a least one college or university that can provide research and development facilities to technically oriented companies or individuals. Listed below are the principal university evaluation programs whose purpose it is to promote innovation, invention, and product development.

MIT Enterprise Forum
Alumni Center
77 Massachusetts Avenue
Cambridge, MA 02319
(617) 253-8240

A non-profit organization affiliated with Massachusetts Institute of Technology. Provides entrepreneurs/officers of technically oriented businesses with one-time (with occasional follow-ups available) evening panel discussions or "clinics" organized around a review of their startup or ongoing business, its plans, and the critical problems or issues it faces. Panels consist of 5 to 6 successful entrepreneurs and experts from industry, academia, and government who are recruited specifically to address the technological and business issues of the case at hand. The effort is made to have a panel broad enough to give a full perspective on the characteristics and opportunities of the entrepreneur's business. The nature of problems that companies have sought advice on has ranged from organizational strategy, to marketing, to financing, to managerial style and succession, to staffing, to increasing profitability, to requests for a general review of company operations or a review of a new company's business plans. Most of the approximately 30 companies served so far have found the "clinic" experience helpful. Sessions currently are held in the New York and Boston areas. Special arrangements, however, can be made to accommodate those companies based in other locations. A fee of $100 to defray expenses is charged to companies who are accepted for presentation to the Enterprise Forum.

The M.I.T. Enterprise Forum also runs occasional other activities such as a day-long program with workshops on Financing Technology-Based Organizations. Businesses/entrepreneurs seeking assistance should contact Paul E. Johnson (Executive Director), Arthur C. Parthe Jr., Stanley R. Rich, or Barry Unger at the above address.

The University of Kansas Center for Research, Inc.
2291 Irving Hill Road
Campus West
Lawrence, KS 66045

The Center offers an interdisciplinary approach to solving technical problems companies often encounter when developing new products. Those interested should write the Center a brief explanation of their needs.

Carnegie-Mellon University
Center for Entrepreneurial Development
4516 Henry Street
Pittsburgh, PA 15213
(412) 621-3940

NSF (National Science Foundation) sponsored Center which aids inventors and business owners in overcoming problems related to new product development. Provides technical advice/idea evaluation.

Massachusetts Institute of Technology
Innovation Center
Room 33-111
Cambridge, MA 02139
(617) 253-6947

NSF sponsored Center which evaluates and screens innovations. Emphasizes idea evalution and start up problem assessment. Students are heavily involved in this Center's programs.

University of Utah
Utah Innovation Center
Office of Business
391G So. Chiteta Way
Salt Lake City, UT 84112
(801) 581-3433

NSF funded program. Assists inventors with development of their ideas. Screens and evaluates new product ideas and provides assistance in writing business plans.

California State University at Fresno
Bureau of Business Research and Service
Fresno, CA 93740
(209) 487-2352

Conducts research on small business problems. Provides consulting services for small businesses.

Jackson State University
Bureau of Business and Economic Reasearch
1400 J. R. Lynch Street
Jackson, MS 39217
(601) 968-2534

Provides management consulting services for small businesses.

Center for Private Enterprise and
Entrepreneurship
Hankamer School of Business
Suite 308
Baylor University
Waco, TX 76703
(817) 755-3766

Offers an Innovation Evaluation service aimed at determining commercial feasibility. A nominal $50 fee is required.

Center for New Business Executives
Innovation Center
P. O. Box 12793
Research Triangle Park, NC 27709
(919) 549-8193

An independent, state-affiliated organization, closely associated with the University of North Carolina. Provides training and management assistance to new and potential entrepreneurs.

Wisconsin Innovation Service Center
402 McCutchan
University of Wisconsin
Whitewater, WI 53190
(414) 472-1365

For a $75 fee, performs an extensive preliminary commercial feasibility analysis.

Center for Innovation and Entrepreneurial Development
209 Classroom Building
University of California
Santa Cruz, CA 95064
(408) 429-2980

Provides credit and non-credit seminars and practice sessions on idea evaluation and invention management.

The Small Business Administration's Division of Management Assistance, 1441 L Street, NW, Washington, DC 20416, sponsors a nationwide, university-based Small Business Development Center program. These Centers provide a wide range of management assistance to inventors and small, high-technology firms, including idea evaluation. Appendix 9 lists these Centers and their phone numbers. Contact the Center in your area for more information.

Not all evaluation centers respond immediately; so as an inventor, do not become discouraged if your letters are not always answered. Perseverence is important.

Government Evaluation Offices

National Bureau of Standards, Institute of Applied Technology, Office of Energy-Related Inventions (OERI), Department of Commerce, Washington, DC 20234, (202) 921-1000.

The NBS Energy-Related Invention Evaluation Program aims at encouraging innovation in developing non-nuclear technology. The program evaluates all promising energy-related inventions. NBS does not offer grant assistance but rather acts as a screening and referral agency for the Department of Energy (DOE) which does provide funding. Interested energy-oriented inventors may write to OERI for a complete information packet containing the appropriate application forms and a full description of their evaluation process. The DOE grant program is discussed in the Government Grant Programs section of the booklet, see page 9. It should be mentioned that this NBS evaluation program is a lengthy process which recommmeds about 1½ percent of the submissions to DOE. DOE, however, funds nearly all those recommended.

NBS's Office of Energy-Related Inventions also has an Inventor Information Resources Center pilot project. Three public libraries, Boston Public Library, Sunnyvale (CA) Public Library, and Price Gilbert Public Library (Atlanta, GA) are to act as depositories for and access points to a wide range of computer accessible date, instructional and technical information. These libraries are also Patent Depositories. Contact NBS for more information.

The Small Business Administration is funding three Innovation Centers to help inventors and small, high-technology firms develop and market their innovations. These Centers are similar to the University Evaluation Centers but offer a much wider range of services. The SBA Centers not only can provide

engineering, design, and testing assistance, they also offer management assistance in such areas as market research and planning, production planning, personnel management, financial accounting systems development, and venture capital source analysis. These services span the entire invention-commercialization continuum. Each Center has a different orientation. For more details contact:

Innovation Center
Commercial Credit Management Corporation
300 St. Paul Place
Baltimore, MD 21202
This Center emphasizes high-technology products like electronics.

Center for Innovation
PO Box 3809
Butte, MT 59701
(406) 494-6100
The emphasis here is on new products and inventions related to energy, agriculture, and mining.

Golden State Energy Center
Bldg. 1055
Fort Cronkhite
Sausalito, CA 94965
(415) 561-7692
This Center works primarily with San Francisco-based firms in the area of renewable energy products and processes. The Center works closely with the Department of Energy, and other Federal and State Agencies.

Inventors' Associations
Inventors' assiociations provide advice on a new product development, idea evaluation, etc. They frequently publish newsletters so inventors can keep in touch with each other and with the new trends in engineering design. They also advertise inventions. Listed below are some of these associations. You can use these associations to talk with people "who have gone through it all before" and can give advice on other sources of help.

American Society of Inventors
134 Narberth Avenue
Room 101
Narberth, PA 19072

California Inventors' Council
Box 2096
Sunnyvale, CA 94087

Central Florida Inventors' Club
2511 Edgewater Drive
Orlando, FL 32804

Inventors' Assistance League
345 West Cypress
Glendale, CA 91204

Inventors' Resource Center
Box 5105
Berkeley, CA 94705

Inventors' Workshop International
Box 251, Tarzana, CA 91356; and
32-22 92nd Street
Queens, N.Y. 11369

Minnesota Inventors' Congress
Box 71
Redwood Falls, MN 56283

Mississippi Society of Scientists & Inventors
Box 2244
Jackson, MS 39205

Oklahoma Inventors' Congress
Box 53043
Oklahoma City, OK 73162

Technology Transfer Society
11720 W. Pico Boulevard
Los Angeles, CA 90064

Corporations
Many corporations, due to legal complications among other reasons, make it their policy not to review ideas coming from the outside—at least the likelihood is remote. However, if you have a well developed idea and are looking for a larger company to evaluate, manufacture, and/or sell it, then you should consult reference publications like *Thomas' Register of Manufacturers, Dun & Bradstreet* directories, *MacRae's Blue Book*, etc., for the names, addresses, phone numbers and product orientations of the various companies.

To submit ideas to companies not specifically oriented to handle inventions, you may find useful a publication by the American Bar Association's Section of Patent, Trademark & Copyright Law entitled, "Submitting an Idea." It describes the usual procedures involved in submitting an idea to a company. Copies are available for a nominal fee from:

Circulation Department
American Bar Association
1155 East 60th Street
Chicago, IL 60637

Publications on Idea Evaluation
See: Books section, page 13, for materials on Invention Management.

Guide to Invention and Innovation Evaluation, Gerald G. Udell, Michael F. O'Neill and Kenneth G. Baker. GPO. Superintendent of Documents, Government Printing Office, Washington, DC 20402. $3.50. Stock Number 038-000-00411-5.

The Lightbulb, Inventors' Workshop International, Box 251, Tarzana, CA 91356.

Commercialization Stage

The Commercialization Stage Phases include Protection and Legal Assistance, Financial Assistance, Management Assistance, and Production and Sales Assistance.

Protection and Legal Assistance Phase

Now that the invention has passed through the Invention Stage, its design and commercial potential should be clear. If you have not already begun to do so, the time is now to consider how best to protect your new product or process. You should also now investigate the legal aspects of getting your invention produced and distributed. What will be your legal relationship to the entity producing your new product? Will you have a licensing arrangement with an established company? Will you form a joint venture with an established company? Will you go into business for yourself, or simply sell your invention to someone who has production, marketing and distribution facilities?

Let's first discuss protecting your invention once the final design has been determined. Many private organizations help inventors with patent and invention protection matters and make referrals to attorneys specializing in these matters. The following Organizations can provide you with important information on patent procedures, ownership rights and trade secrets.

Private Patent and Copyright Organizations

American Patent Law Association (APLA)
2001 Jefferson Davis Highway
Suite 203
Arlington, VA 22202
(703) 521-1680

This is an association of patent lawyers. It publishes the *APLA Bulletin* and a quarterly *Journal*. The APLA acts as an advertising and referral agency for patent attorneys and those who need their services.

Institute for Invention and Innovation
85 Irving Street
P.O. Box 436
Arlington, MS 02174
(617) 646-0093

Publishes *Copyright Management* and *Invention Management*.

Licensing Executive Society (LES)
Department LES
20501 Ford Road
Dearborn, MI 48128
(313) 271-1500

Publishes *LES Nouvelles*, a quarterly journal.

Nation Patent Council, Inc.
Suite 301, Crystal Plaza 1
2001 Jefferson Davis Highway
Arlington, VA 22202

The Council members principally come from the patent sections of corporations. It publishes a journal entitled *Patent Trends*, which covers cases heard before the US Court of Customs and Patent Appeals. The judgments of this court are final unless reviewed by the Supreme Court on a Writ of Certiorari.

Patent Office Society
Box 2089
Eads Station
Arlington, VA 22202
(703) 557-3955

Publishes both a monthly *Newsletter* and a *Journal*.

United Inventors and Scientists of America
14431 Chase Street
Panorama City, CA 91402
(213) 988-9320

Publishes the *UISA Newsletter* and the *List of Inventions Available for Licensing*.

Federal Patent and Trademark Office

For the invention that is patentable, the Patent and Trademark Office is the official agency where this is legally executed. Written correspondence should be sent to Patent and Trademark Office, Washington, DC 20231 or phone (703) 557-3158.

The Patent Office provides several services for the inventor, in addition to patent protection. First, it has a Document Disclosure Program which permits the certified storage of papers for up to two years. This certified storage not only keeps safe important papers but also provides evidence of the date of the conception of inventions.

Second, before an inventor can obtain a valid patent, a search of pending patents must be made. The staff of the Patent Office will assist the inventor in this search, which can be done by going to the Search Room, Crystal Plaza, 2021 Jefferson Davis Highway, Arlington, Virginia. There are also 29 Depository Libraries in the U.S. They keep complete files of all U.S. patents. See Appendix 1 for a listing. A search can be done at any of these libraries if more convenient.

Third, an official roster of all registered practioneers who prepare and prosecute patent applications for inventors is available (see: Government Publications below).

Four, for a small fee, the patented invention can be advertised, in the Patent Office's official *Gazette*, as being available for licensing or sale. The *Gazette* is widely circulated among manufacturers, research companies, and business owners. A *Gazette* entry includes the patent number, the name of the invention, and the inventor's name and address. And five, every February, in conjunction with National Inventors' Week, an inventors' exposition is sponsored. Write to the Patent Office for complete information.

In addition to these five Government patent services, an important new law has been made. PL96-517 now allows small businesses to retain title (ownership) to an invention created with the help of Federal funds. So today, if a small business develops a patentable product or process while being funded by a National Science Foundation grant, for example, that firm can patent and profit from its invention.

Government Publications on Patents and Protection

The U.S. Department of Commerce, Patent and Trademark Office, Washington, DC 20231, publishes the following booklets.

For information on obtaining them, write or call (703) 557-3158.

Patents and Inventions: An Informal Aid for Inventors.

The Disclosure Document Program.

Questions and Answers About Patents.

Attorneys and Agents Registered for Practice before the U.S. Patent Office.

Official Gazette of the U.S. Patent Office.

Technology Assessment and Forecast.

Patents and Government Developed Inventions.

General Information Concerning Patents.

Patent and Trademark Office Notices.

The National Technical Information Service of the Department of Commerce, is the central source for the public sale of government sponsored research, development, and engineering reports prepared by Federal Agencies or contractors. NTIS has on-line search, bibliography and hard copy production capabilities. An especially useful NTIS publication for high technology firms is *Government Inventions Available for Licensing.* For full information about NTIS write: NTIS, 5285 Port Royal Road, Springfield, VA 22161 or call (703) 487-4600.

The Small Business Administration offers two free publications on idea protection—MA 6.005 *Introduction to Patents* and SBB 90 *New Product Ideas.* Request copies from SBA, P.O. Box 15434, Ft. Worth, TX 76119.

Nongovernment Publications on Patents and Protection

Abernathy, David and Wayne Knipe. *Ideas, Inventions and Patents.* Pioneer Press, P.O. Box 76025, Atlanta, GA 30328.

Grosswirth, Marvin. *The Mechanics Illustrated Guide to How to Patent and Market Your Own Invention.* New York: David McKay Co., 1978.

Jones, Stacy V. *The Inventors Patent Handbook.* The Deal Press, 750 Third Avenue, New York, N.Y. 10017.

Pressman, David R. *Patent It Yourself! How to Protect and Market Your Inventions.* New York: McGraw-Hill, 1979.

Taylor, Clarence R. *How to be a Successful Inventor: Patenting, Protecting, Marketing, and Selling Your Invention.* Hicksville, NY: Exposition Press, 1972.

Patent Licensing Gazette/Technology World. Technical Research Associates, Inc., Willow Grove, PA 19090.

Financial Assistance Phase

Funding is critical to the continued development of an invention, new product idea, or new method of doing something. The resources identified in this section can help you as an inventor or small firm in several ways: by supplying the funds needed to bring an invention into commercial production (venture capital companies, investment bankers, lenders, etc.), by negotiating for the inventor with these financial sources (brokers),or by giving grants for the continued development of an already well thought out idea (Government grants.) Grants should not be confused with procurement. The next section of this publication, Production and Sales, deals with Government procurement; here we are discussing grant programs only.

Venture Capital Organizations

Venture capital is another name for the funding needed to start a new business (based on your invention) or expand on existing one (again, based on an invention or new product idea). Traditional lenders like banks and savings and loan companies frequently resist becoming financially involved in such risky undertakings. However, there are several types of venture capital organizations that thrive on the uncertainties of starting a business. These organizations usually want their equity investment (as opposed to a straight loan) to be easily convertible to cash at some future date, and they will take a much more active role in managing the new or expanded business than traditional lenders since they may now own some of your common stock or a share of your business in return for the loan. There are several principal sources of venture capital:

1) Venture Capital Companies--privately or publically held businesses;

2) Small Business Investment Companies (SBIC's)--SBA licensed investment firms whose purpose is equity and risk, long-term capital lending. For more information on SBICs, ask your SBA field office for *SBIC Financing for Small Business,* OPC-13;

3) Large Corporations;

4) Investment Bankers and Bank Trust Departments--in recent years more emphasis has been placed on venture capital funding by banks. Check with your local Chamber of Commerce, SBA or Department of Commerce field office, or your local banker for further information;

5) Insurance/Pension Plan Funding–probably not of too much use for direct assistance as they lend to the lenders but worth investigating if you need a large sum; and

6) Public Funding--the traditional sale of stock ownership through the public equity market.

To grant venture capital funding, these lenders will require from you a solid business plan. These organizations, it should be remembered, are interested in funding promising inventions or products, not in evaluating or developing ideas. So you will need a well thought out plan which describes the general nature of your new product, the structure of your business, the market for your product, its competitive superiority along with your production, sales and distribution plans, including revenue, costs, and profit projections. All these are required as a basis for your loan negotiation.

There are several listings of venture capital companies. One of these is published annually in the December issue of *Venture Magazine,* entitled "Venture Capital Directory." Copies can be

obtained by writing Venture Magazine, Special Projects Department, 35 West 45th Street, New York, NY 10036, phone (212) 840-5580. There is a nominal charge for the listing. Two recent books with extensive listings of venture capital companies, their addresses, phone numbers, product orientation, and so forth, might also be useful. One is a *Guide to Venture Capital Sources* (5th edition), Stanley E. Pratt, editor, 1981, Capital Publishing Corporation, Two Laurel Ave., P.O. Box 348, Wellesley Hills, MA 02181. The other is entitled *Planning and Financing Your New Business: A Guide to Venture Capital*, John McKiernan, 1978, Technology Management, Inc., P.O. Box 230, Chestnut Hill, MA 02167.

There are also two national trade associations of venture capital companies. The National Venture Capital Association (NVCA), Suite 750, 1225 19th Street, N.W., Washington, DC 20036, (202) 659-5756, is interested in stimulating the free flow of capital to new and growing small businesses. Inventors and innovative small firms may wish to ask NVCA for advice on venture capital matters. The NVCA membership list of venture capital companies also might be worth requesting. The National Association of Small Business Investment Companies (NASBIC), 618 Washington Building, N.W., Washington, DC 20005, (202) 638-3411, publishes a *Membership Directory* (of the SBA underwritten SBICs referred to earlier on page 8) giving company name, address, phone numbers and industry preference. The *Directory* costs $1.00.

Government Grant Programs

The Federal Government has a very complex system of grant programs. Nearly every Agency offers some kind of grant funding. In this section, coverage is limited to Project Grants, (research, technical assistance, training, unsolicited contractual agreements, etc.), Direct Payments, and Loan Assistance. Contracting for procurement of goods and services is covered in the Government Procurement Programs part of the Production and Sales Phase. Appendix 2 provides a summary of how to apply for Federal grants. Some of the principal grant oriented publications and programs include:

National Science Foundation (NSF) Grants

The NSF, Publications and Grants Applications Office, 1800 G Street, N.W., Washington, DC 20550, phone (202) 357-7861, makes available several key publications which detail their own and other Agencies' R&D grant programs. They include the *NSF Bulletin* (monthly), the *Guide to Programs*, the *Grant Policy Manual* and the *Small Business Guide to Federal R&D*.

A key office, the one that publishes *Small Business Guide to Federal R&D*, is the Office of Small Business Research and Development. It acts as the nexus between the scientific/technological elements of the small business community and NSF grant and procurement programs. This is a very useful contact for high-technology small firms and can describe many of the NSF programs such as the new Small Business Innovation Research Program. For complete information on the activities of this office contact the Director, Small Business R&D Office, NSF, Room 1121, Washington, DC 20550, phone (202) 357-7527.

The Engineering and Applied Science Directorate (EAS), publishes *Program Solicitation for Small Business Innovation Research*, NSF 79-59. This booklet describes the EAS grant program aimed at supporting advanced research in the general areas of applied science and engineering (excluding product development, technical assistance, pilot-plant development, clinical and weapons' research) that could have significant public benefit if successful. Initial grants are in the $25,000 range, with more money possible at later stages. The Small Business Research & Development Office should be contacted for complete information on this program.

In addition to EAS Directorate programs, another key NSF grant program is the Appropriate Technology Program, which is aimed at strengthening the science base for appropriate technology development. For more information contact the Director, Appropriate Technology Program, Room 1108, NSF, 1800 G. Street, N.W., Washington, DC 20550, phone (202) 357-7491.

Department of Energy Grants

Within Department of Energy, Washington, DC 20585, (202) 252-5000, there are several grant-type programs aimed at developing energy-related technology. NSF's *Small Business Guide to Federal R&D* lists the DOE programs that relate to research and development. The following are some of the principal DOE grant programs:

The Appropriate Technology Small Grants Program funds projects that are of small scale, decentralized, and energy-related. The major types of projects include: Concept Development--where awards of up to $10,000 are granted to develop new ways to simplify or streamline energy use; Development--where up to $50,000 is granted to test the new ideas; and Demonstration--where up to $50,000 is granted for actual use testing. It should be borne in mind that less that 5% of those inventors seeking grants actually are awarded them. For further information contact: DOE, Office of Inventions and Small Scale Technology, Appropriate Technology Small Grants Program, Room 6G040, 1000 Independence Avenue, S.W., Washington, DC 20585, phone (202) 252-9104. Since this program is administered through the regional offices, the fastest response probably can be gotten by contacting your local DOE Regional Office. See Appendix 3 for a listing.

Another program sponsored by the Office of Inventions and Small Scale Technology of DOE provides the inventor with grants for continued research, development, modeling, hiring of consultants, etc. It is a part of the previously described NBS/DOE Energy-Related Inventions Program. This Office considers grant requests only after a favorable evaluation by the National Bureau of Standards' Office of Energy Related Inventions. Therefore, to apply for these particular grants, do not contact DOE directly, go to the NBS first. NBS will thoroughly evaluate your invention and then forward your request to DOE if it is favorably evaluated. You should remember that only 1½% of all evaluations by NBS are favorable. However, nearly all of the favorable evaluations are funded by DOE. This NBS/DOE evaluation/grant program offers one time, one year grants ($80,000 average) to support non-nuclear, energy-related inventions. (Turn back to page 5 for information on the NBS evaluation program. For more information the DOE grant program, contact either NBS or call DOE at (202) 887-8258.)

Department of Commerce Grants

The US Department of Commerce's Office of Minority Business Enterprise sponsors several Special Project programs. The Technology Commercialization Program, for example, promotes new, high-technology, minority small business opportunities. For further information contact: OMBE, Department of Commerce, 14th Street between Constitution Avenue and E Street, N.W., Washington, DC 20230, phone (202) 377-3024.

The National Oceanic Atmospheric Administration has a National Sea Grant Program that funds marine research. For further information contact: NOAA, National Sea Grant Program, 6010 Executive Blvd., Rockville, MD 20852, phone (301) 443-8290.

The National Bureau of Standards offers grants for technical research and development on methods and approaches in the area of engineering and applied science. NBS' funds are granted by way of unsolicited proposals, that is, an unsolicited written offer by a business or individual to perform engineering and applied science research. Such proposals must contain a detailed description of an effort that will enhance NBS' research and development mission. It can not be an effort related to advertising or standard commercial product development. For further information ask for *Guidelines for Preparation of Unsolicited Proposals* from: National Bureau of Standards, Office Management Division, Technical Proposals Coordinator, Building 301, Room B126, Department of Commerce, Washington, DC 20234, phone (301) 921-3521.

Department of Defense (DOD) Grants

DOD has a new program aimed at utilizing small, high-technology firms to solve complex scientific/technical problems facing the national defense community. Phase I funding for preliminary R&D is up to $50,000. Phase II funding for advanced development is up to $500,000. Phase III consists of DOD production awards or commercial applications. For further information contact: DOD, Director for Small Business and Economic Utilization Policy, Office of the Under Secretary of Defense for Research and Engineering, Rm 2A340, Pentagon, Washington, DC 20301.

Important Financial Assistance Publications

There are several important publications for those interested in learning more about the various sources of Federal financial assistance. The *Catalog of Federal Domestic Assistance*, Executive Office of the President, OMB, Washington, DC 20503, for sale by the Superintendent of Documents, GPO, Washington, DC 20402, is the basic reference tool needed to understand the entire Federal system of grants and financial assistance. (This book does not deal with procurement information.) The *Catalog* describes all the Federal programs of all Agencies, with programs cross-indexed by subject, purpose, name, functional classification, eligibility requirements, etc. Also detailed are the types of assistance available, how to apply for assistance, how to write proposals and other sources of information. The *Catalog* is available through GPO, at many State and local government offices, in Federal Agency field offices, and at major libraries.

The Small Business Administration, 1441 L Street, N.W., Washington, DC 20416, publishes many pamphlets useful to inventors and small businesses seeking financial assistance. Free copies can be ordered from SBA, P.O. Box 15434, Fort Worth, TX 76119. Refer to the specific title and number.

MA 1.001--*The ABC's of Borrowing*
MA 2.007--*Business Plan for Small Manufacturers*
MA 1.008--*Venture Capital Primer for Small Business*

Another useful SBA publication on financial assistance is entitled *Small Business Guide to Federal Financial Assistance.* Copies can be obtained by writing the Director, Office of Information, Bureau for Advocacy at the above Washington address or by calling (202) 653-6273.

The following SBA publications are sold by the Superintendent of Documents, Government Printing Office, Washington, DC 20402. (For current prices and mail order form, write: SBA, P.O. Box 15434, Fort Worth, TX 76119 and ask for SBA 115B, "For-Sale Booklets".)

SBMS 28--*Small Business and Government Research and Development*
SBMS 39--*Decision Points in Developing New Products*

Other key Federal financial assistance publications are:
OMB Circular Nos. A-21, A-95
Parts I and III, A-102, A-110
A-111 and FMC 74-4
Publications Office
Office of Administration
726 Jackson Place, N.W., Room G-236
Washington, DC 20503

Guide for the Submission of Research and Development Proposals by Individuals and Organizations Other than Educational Institutions
Department of Energy
Washington, DC 20585

Guidelines for the Preparation of Unsolicited Proposals
Research Applied to National Needs Program
National Science Foundation
Washington, DC 20550

Treasury Circular 1082
Department of Treasury
Budget and Program Analysis, Room 2449
Washington, DC 20220

United States Government Manual
Superintendent of Documents
U.S. Government Printing Office
Washington, DC 20402

Sources of Funds for Solar Activities
Center for Renewable Resources (Not governmental)
1001 Connecticut Avenue, N.W., 5th Floor
Washington, DC 20036
(202) 466-6880

NASA Grant Handbook (NGH)
NASA Procurement Regulation (NAPR)
Superintendent of Documents
Government Printing Office
Washington, D.C. 20402
(202) 783-3238

The Securities and Exchange Commission's Office of Small Business Policy offers several publications discussing the Federal securities laws small firms must comply with when raising capital through public security sales. Relevant publications include: *Small Business, Capital Formation, and the Federal Securities Laws; S18; Rule 240 and 242; Regulation A;* and *Q & A: Small Business and the SEC.* Single copies can be obtained by writing the Small Business Policy Office, 500 North Capitol Street, Washington, DC 20549. For multiple copies send requests to the Publications Office. The SEC phone number is (202) 272-2644.

State Government Sources of Information on Federal and State Grants
There exists at the state level, a central source of information about Federal grants and grants awarded by States and localities. The State Central Information Reception Agency (SCIRA) is an office or unit of State government designated by the Governor to receive notification of grant awards issued under the provisions of Treasury Circular 1082. Federal Agencies are required to notify the appropriate SCIRA in each State of Federal financial assistance awarded, any subsequent related transactions, changes in the value or duration of a grant, or Federal grants awarded to States or localities. The SCIRA in each State is set up primarily to serve the Governor and the legislature. The extent to which it is equipped to serve others such as local governments or the general public varies from State to State. See Appendix 4 for another computer-based source of Federal grant information available in most States.

Management and Technical Assistance Phase

Invention Brokers and Consultants
Whereas the major purpose of the venture capitalist is to lend money and obtain an equity holding in a company, invention brokers and consultants' principal role is to bring together a seller (inventor) and a buyer. However, they also may supply expertise on new product development and financial management, and some help fund the continued development and production of new products.

Most of brokers/consultants, work solely on a contingent fee basis; that is, they receive a percentage of the revenues generated by the invention. If the new product produces no sales, they earn nothing. Obviously, these organizations are very careful about what they will back and for how long.

Much as been written recently about the suspect business practices of some invention brokers. A word of caution should be mentioned: Some inventors have found themselves in difficulties when dealing with some brokers because the inventors signed contracts calling for them to supply up-front money. After the money is paid, very little financial or technical assistance is given, in some instances. Before signing any contract, it is strongly recommended that you consult with your attorney or banker.

If you have any questions as to the reputation of an invention broker, check with the Federal Trade Commission by writing: FTC, Bureau of Consumer Protection, 6th and Pennsylvania Avenue, N.W., Washington, DC 20580 or call (202) 523-3844. Checking with your local Better Business Bureau or consumer groups might also be prudent.

Below is a listing of some of the major invention broker/consultant organizations. For a much more extensive listing see: *Consulting and Consulting Organizations Directory,* 4th ed., Paul Wasserman and Janice McLean, editors, Gale Research Company, Book Tower, Detroit, MI 48226. Look under Field 82, New Ventures.

Batelle Development Corporation (BDC)
505 King Avenue
Columbus, OH 43210
(614) 424-6424/7446
BDC also runs a commercial feasibility analysis.

Business Growth Services
General Electric Company
120 Erie Blvd., Room 380
Schenectady, NY 12305
(518) 385-2577
General Electric's Business Growth Services department offers to innovative businesses new products and processes available for licensing or outright purchase. In *Selected Business Ventures* and *New Business Digest,* GE lists their own and the products and processes of all other leading companies, laboratories, and universities that are available. These listings provide detailed information on licensing/purchasing arrangements, market outlook, development status, and contacts. *New Business Digest Annual* provides the names, addresses, and phone numbers of many of the leading technology-oriented businesses.

Arthur D. Little Enterprises
Acorn Park
Cambridge, MA 02140
(617) 864-5770/2254
Arthur D. Little's Invention Management Group welcomes inventions from outside sources. It provides a full range of (free) services to the inventor from detailed technical evaluations, to commercial potential assessments, to making licensing arrangements. Arthur D. Little usually acquires the exclusive right to license an invention and negotiates all commercial agreements for the inventor. Request *Invention Management* and related publications if you want further information.

Control Data Technotec, Inc.
P.O. Box 0
Minneapolis, MN 55440
(612) 853-3575/800-328-1870 Toll free
Technotec is a worldwide, computer based, high-technology database, accessible via Telex, TWR, computer terminal, phone, or mail. A small firm can use the Technotec database to search for extant technologies, available licenses, or joint ventures and can make their technologies and inventions available to other companies. They can also obtain from

Technotec itself technology transfer management consulting services. There is a direct use fee for all computer time.

Dr. Dvorkovitz & Associates
P. O. Box 1748
Ormond Beach, FL 32074

Minnesota Cooperation Office
965 Southgate Office Plaza
5001 W. 80th St.
Bloomington, MN 55437
(612) 830-1230
The Minnesota Cooperation Office (MCO) is a tax-exempt, non-profit corporation. It is a private sector effort to create innovative, high-growth companies. Directed primarily at the future economic strength of the State of Minnesota, MCO offers its knowledge, experience and contacts to help solve the problems of technology-oriented, new businesses. MCO assistance to entrepreneurs extends from an initial evaluation to the final draft of a business plan. MCO also makes available to clients, its knowledge of business financing and its contacts with major institutional sources of venture capital. Supporting organizations include: Arthur Anderson & Co., Control Data Corp., Cargill Foundation, Honeywell, Inc., Minnesota Dept. of Economic Development, Price Waterhouse & Co., R.C. Lilly Foundation and The Toro Company.

Product Resources International, Inc.
90 Park Avenue
New York, NY 10016
(212) 682-2966

REFAC Technology Development Corporation
122 E. 42nd Street
New York, NY 10017
(212) 687-4741

Scientific Advances, Inc.
1375 Perry Street
Columbus, OH 43201
(614) 424-6161
Also provides venture capital financing.

Unirad Corporation
4765 Oakland Street
Box 39002
Denver, CO 80239
(303) 371-7400

Emphasis is on scientific instrument development.

University Patents, Inc.
2777 Summer Street
Stanford, CT 08905
(203) 325-2285

SBA Management Assistance Programs
The Small Business Administration's Management Assistance Division has several programs useful at this stage of the invention process:

SCORE, the Service Corps of Retired Executives, is a free counseling service in which retired, volunteer executives help small firms solve their technical and management problems.

ACE, the Active Corps of Executives, augments SCORE by providing more specialized expertise.

SBI, the Small Business Institute program, calls on the skills of university faculty and graduate students to provide management counseling for small businesses.

SBDCs, Small Business Development Centers, are university based organizations whose purpose is to develop the economy of the region around the university by providing a wide range of management assistance to small businesses and individuals in the area. Some SBDCs offer the services of specialists in the area of innovation management. See also page 5.

For a full description of SBA's Management Assistance program, contact the SBA field office nearest you. A list of field offices is provided in Appendix 5.

SBA Management Assistance Publications
To order up to five copies of each title, write: SBA, P.O. Box 15434, Fort Worth, TX 76119. Ask for them by title and number. They are free.

MA 2.006 - *Finding a New Product for Your Company*
MA 1.008 - *Attacking Business Decision Problems with Breakeven Analysis*
MA 2.013 - *Can You Make Money With Your Idea or Invention?*
MA 2.016 - *Checklist for Going Into Business*
MA 4.019 - *Learning About Your Market*

SBB 9 - *Marketing Research Procedures*
SBB 13 - *National Directories for Use in Marketing*
SBB 18 - *Basic Library Reference Sources*
SBB 89 - *Marketing for Small Business*
SBB 90 - *New Product Development*

SBA also publishes a pamphlet describing its field structure, its various programs, plus it gives a guide to small business organizations, Congressional Delegations, selected committees, and so forth. It is called *Small Business Guide to Government*, published by the Office of Advocacy, and can be gotten through the field offices or from 1441 L Street, NW, Washington, DC 20416.

NASA Technical Assistance Programs and Publications
National Aeronautics and Space Administration programs produce a wealth of aerospace technology. The Office of Space and Terrestrial Applications coordinates a nationwide network of specialists who provide a link between aerospace technology and high-technology businesses. For a nominal fee these NASA specialists offer scientific, technical, research, and management services. These services are provided through regional Industrial Applications Centers and State Technology Applications Centers. See Appendix 10 for a listing of these Centers.

NASA also has several publications of interest to inventors, R&D managers, and high-technology firms. *Tech Briefs* is a quarterly survey of newly developed processes, advances in basic and applied research and laboratory techniques, and new sources of technical data and computer programs. Their *Technical Support Package* provides more detailed information

on the subjects surveyed in the *Briefs*. *Tech Briefs* are free. NASA also published various handbooks and data compilations, for example, the *Scientific and Technical Aerospace Reports*. For subscriptions to or information on NASA publications, write: Director, Technology Transfer Division, NASA Scientific and Technical Information Facility, P.O. Box 8757, Baltimore/Washington International Airport, MD 21240.

In addition to publications, NASA provides computer programs covering a wide range of aerospace applications. These programs are available at a fraction of their original cost through: Computer Software Management and Information Center (COSMIC), 112 Barrow Hill, University of Georgia, Athens, GA 30602, phone: (404) 542-3265. New programs are announced in *Computer Program Abstracts*, obtained through the Superintendent of Documents, GPO, Washington, DC 20402.

Nongovernment Publications on Innovation Management

Gee, Edwin A. and Chaplin Tyler. *Managing Innovation*. New York: John Wiley and Sons, 1976.

Karger, Delmar W. and Robert G.Murdick. *New Product Venture Management*. New York: Gordon and Beach Science Publishers, Inc., 1972.

Marvin, Philip. *Product Planning Simplified*. American Management Associations, New York, 1972.

Midgley, David F. *Innovation and New Product Marketing*. London: Croom Helm Publishers, 1977.

Scheuing, Eberhard E. *New Product Management*. Hinsdale, IL. The Dryden Press, 1974.

Production and Sales Phase

The final component of the Commercialization Stage is the actual production and sale of a new or improved product. The emphasis in this part of our *Guide* is on Federal procurement and procurement assistance programs. Private organizations like invention brokers and venture capital companies and nonprofit organizations like the MIT Enterprise Forum can offer advice on production and sales, as well as act as liaison between the inventor and a potential manufacturer, (and they have already been discussed) but here we are concerned with how to sell to the U.S. Government.

Government Procurement Programs

Before describing the various programs, here is a brief overview of the Federal procurement process. When the Government needs to purchase goods or services, it advertises for them. It can advertise through the *Commerce Business Daily* or trade papers, or it can invite bids from firms who are on a Bidders' List. A Bidders' List is a compilation, by an individual Agency, of the names, addresses, product orientations and related technical information of the companies who have the capability of supplying the goods or services the Agency needs.

How does a company get on a Bidders' List? First, find out what the procurement needs are of each Agency (every Agency has purchasing offices around the country and each Agency keeps its own Bidders' List) by asking for that information from the Agency's field office, a local SBA office, or the nearest GSA Business Service Center. Second, determine with which Agencies your company probably can do business. If you need more details than a field office can give about an Agency's exact procurement specifications and standards write to the Naval Publications and Forms Center, 5801 Tabor Avenue, Philadelphia, PA 19120. Ask by Agency name for its Procurement Specifications and Standards. Third, once you have determined to which Agencies (and what goods or services) you want to sell, call their field office and ask for the forms you need to get on their Bidders' List. Once you are on the list, you will automatically receive bid invitations.

In addition to getting on a Bidders' List, you should read the basic document advertising new purchasing requirements of Federal Government–the *Commerce Business Daily*. It lists procurement invitations, contracts awarded, subcontracting leads, and foreign business opportunities. The subcription rate is $80 annually. Order from the Superientendent of Documents, GPO, Washington, DC 20402.

Small and Disadvantaged Business Utilization (SADBU) Contacts

The various Federal Agencies are now establishing, at Agency headquarters, contact points for small businesses to call directly to obtain procurement and other financial assistance information. These are staffed with key personnel, knowledgeable about their own Agency's procurement needs. A listing of these SADBU contacts is given in Appendix 6.

Department of Energy Procurement Programs

The DOE's SADBU Office offers information on DOE's grant and procurement programs related to energy technology research and development. For further information about guidelines and programs, write: Director, Small and Disadvantaged Business Utilization Office, Mail Stop 1J009, Forrestal Building, 1000 Independence Avenue, S.W., Washington, DC 20585, phone (202) 252-8201.

National Science Foundation Procurement Programs

NSF, Office of Small Business Research and Development publishes *Small Business Guide to Federal R&D*, previously mentioned. The *Guide* is intended to help small, high-technology firms enter the market of Federally supported research and development. It is indispensible for firms not yet into the Federal R&D field. All Federal Agency R&D grant and procurement programs are covered in detail. Also detailed are the steps needed to prepare a formal proposal for funding of R&D activities. While both grant and procurement programs are covered, the emphasis is on procurement.

Small Business Administration Procurement Programs

There are billions of dollars in Federal procurement contracts that annually bypass small businesses because their owners lack an understanding of how the Government buys goods and services.

The SBA has several programs that can help. They include:

1) Contracting Assistance–SBA field offices (see Appendix 5) have Procurement Specialists who work closely with the purchasing personnel of the various Agencies and counsel small business owners on how to prepare bids, get their names on Bidders' Lists, etc.;

2) Small Business Set-Asides--These are contracts restricted for bidding by only small businesses;

3) Subcontracting Assistance--SBA's field offices work closely with prime contractors to assure small business a fair share of subcontracting opportunities;

4) Certificates of Competency–If there are questions about whether a small business can fulfill the contracting requirements of a bid it has won, SBA will investigate and make a binding determination through the COC program;

5) Technology Assistance–In this program SBA encourages small businesses to participate in Federal R&D contracting by counseling them and listing them in the SBA's R&D directory; and

6) PASS–This is the Procurement Automated Source System, a field office based, computerized system listing the capabilities of small companies so Federal procurement officers and prime contractors can select companies to receive bidding invitations. Turn to Appendix 7 for a listing of SBA field offices specifically designated to deal with PASS information requests. To order a PASS Application Form call toll free 1-800-433-7212.

SBA has several publications with a procurement orientation. Ask your local SBA field office for copies (if free) and order the for-sale ones from the Superintendent of Documents, GPO, Washington, DC 20402.

OPC-2	*Your Business and the SBA*
PA-1	*Selling to the U.S. Government (GPO)*
PA-2	*Contractor Paths to Grief: Some Solutions*
PA-3	*SBA's Procurement and Technical Assistance Programs*
PA-5	*What is a Certificate of Competency?*
PA-6	*U.S. Government Purchasing and Sales Directory (GPO)*
	SBA Subcontracting Directory (GPO)

State Economic Development and Small Business Programs
Nearly all States have offices of economic or industrial development. Some States have extensive procurement, grant, and/or management assistance programs and will supply a packet of information about the services they provide to promote innovation, research and development, and small business opportunities. A few States are even developing science and technology offices specifically aimed at helping small, high-technology firms. For an overview of state services, see: *Book of the States,* Council of State governments, P.O. Box 11910, Iron Works Pike, Lexington, KY 40578.

SBA's Office of the Chief Counsel for Advocacy publishes a *Directory of State Small Business Programs.* Listed are the State small business assistance programs with names, addresses, phone numbers, and descriptions of the programs. See Appendix 8 for a Survey Chart of these programs. Your local SBA field office uses this book for a reference and can put you in contact with the State program personnel in your area.

Procurement, R&D and Technology Conferences
Several conferences are held annually throughout the country to help inventors and small, high-technology firms learn about the Government procurement-contracting-grant system, trends in technology, and how to evaluate and manage an invention. Contact to the following organizations for further information on their conference schedules. Some of these conferences are excellent sources of information and can provide personal contacts with other inventors and small business managers.

National Innovation Workshops
4035 Lincoln Blvd.
Marina Del Ray
Los Angeles, CA 90291
(213) 822-0350

Lakeshore Group Ltd.
207 East Buffalo Street
Milwaukee, WI 53202
(414) 272-5420

American Association of Small Research Companies
8794 West Chester Pike
Upper Darby, PA 19082
(215) 449-2333 or 528-6093

Inventors' Exposition
Inventors Workshop International
Box 251
Tarzana, CA 94705

National Inventors' Week Exposition
Patent and Trademark Office
Washington, D. C. 20231
(703) 557-3158

California Inventors' Council
Box 2096
Sunnyvale, CA 94087
(408) 732-4314

New Products Technology Development Conference
P. O. Box 12793
Research Triangle Park, NC 27709
(919) 549-8193

Publications of Interest

In addition to the publications already listed in the various sections of this pamphlet, there are some other journals and books of use to the inventor and innovative small business. They include:

Professional Journals

American Bulletin of International Technology Transfer
International Advancement, Inc.
Box 75537
Los Angeles, CA 90075

American Inventor
10310 Menhart Lane
Cupertino, CA 95014

In Business
The JG Press
Box 323
18 South Seventh Street
Emmaus, PA 18049
(215) 967-4135

Inc.
38 Commercial Wharf
Boston, MA 02110
(617) 227-4700

Industrial Research & Development Magazine
Technical Publishing
1301 South Groove Street
Barrington, IL 60010
(312) 381-1840

International New Products Newsletter
Transcommunications International, Inc.
Box 191
Back Bay Annex
Boston, MA 02117

New Products and Processes
Newsweek International
P.O. Box 424
Livingston, NJ 07039

New Products Bulletin
Tiffany Products, Inc.
239 Main Street
West Orange, NJ 07052
(201)731-9111

New Products News
8576 Mesa Drive
Sandy, UT 84070
(801) 561-3259

Product Design and Development
Chilton Company
Chilton way
Radnor, PA 19089

Product Engineering
Morgan-Grampian Publications
2 Park Avenue
New York, NY 10016
(212) 573-8133

Technical Information Periodicals Service, Selected Business Ventures, New Business Digest Annual
General Electric Company
Business Growth Services
120 Erie Blvd., Room 380
Schenectady, NY 12305
(518) 385-2577

The Review of Scientific Instruments
American Institute of Physics
335 45th Street
New York, NY 10017
(212) 661-9404

Technology Mart
Thomas Publishing Company
One Penn Plaza
250 West 34th Street
New York, NY 10001

Test Engineering & Management
The Mattingley Publishing Company
61 Monmouth Road
Oakhurst, NJ 07755

Venture Capital
Capital Publishing Company
Box 348
Wellesley Hill, MA 02181
(617) 235-5405

Venture Magazine
35 West 45th Street
New York, NY 10036
(212) 840-5580

Books of Interest

For a complete listing of books on invention and invention management see *Books in Print*, found in the reference section of libraries.

Baumback, Clifford M. *Entreprenuership and Venture Management*. Englewood, NJ: Prentice-Hall, 1977.

Baty, Gordon B. *Entrepreneurship: Playing to Win*. Reston, VA: Reston Publishing Company, 1974.

Bylinsky, Gene. *The Innovation Millionares: How They Succeed*. New York: Charles Scribner's Sons.

Cunningham, Donald E, John R. Craig, and Theodore W. Schlie. *Technological Innovation: The Experimental R&D Incentives Program*. Boulder, CO: Westview Press, 1977

Greene, Orville and Frank Durr. *The Practical Inventor's Handbook*. New York: McGraw-Hill, 1979.

Hallock, Robert. *Inventing for Fun and Profit*. New York: Dover Publishers, Inc., 1978.

Hartman, Susan N. and Norman C. Parrish. *Inventors' Source Book: How to Turn Ideas Into Inventions*. Inventors Resource Center, Box 5105, Berkeley, CA 94705.

Kivenson, Gilbert. *The Art and Science of Inventing*. New York: Van Nostrand Reinhold, Inc., 1977.

Kracke, Donald. *How to Turn Your Idea Into a Million Dollars*. Garden City, NY: Doubleday.

Li, Yao Tzu. *Technical Innovation in Education and Industry*. Cambridge, MA: MIT Press, 1978.

Reffman, William E. *How to Sell Your Own Invention*. Halls of Ivy Press, 1977.

Shcwenck, James and Eric P. McNair. *How to Become a Successful Inventor: Design a Gadget in Your Spare Time and Strike it Rich!* New York: Hastings House Publishers, 1974.

Appendices

Appendix 1. Patent Depositories

Public Libraries

Albany, New York
Birmingham, Alabama
Boston, Massachusetts
Buffalo, New York
Chicago, Illinois
Cincinnati, Ohio
Cleveland, Ohio
Dallas, Texas
Denver, Colorado

Detroit, Michigan
Los Angeles, California
Milwaukee, Wisconsin
Newark, New Jersey
New York, New York
Providence, Rhode Island
St. Louis, Missouri
Toledo, Ohio

Other Libraries

Price Gilbert Library
Georgia Institute of
Technology
Atlanta, Georgia

Ohio State University
Library
Columbus, Ohio

The Fondren Library
Rice University
Houston, Texas

Linda Hall Library
Kansas City, Missouri

Love Library
University of
Nebraska-Lincoln
Lincoln, Nebraska

Wendt Engineering Library
University of Wisconsin
Madison, Wisconsin

Franklin Institute Library
Philadelphia, Pennsylvania

Carnegie Library
Pittsburgh, Pennsylvania

D. H. Hill Library
Raleigh, North Carolina

Engineering Library
University of Washington
Seattle, Washington

Oklahoma, State University
Stillwater, Oklahoma

Sunnyvale Patent Library
Sunnyvale, California

Appendix 2. Grant Application Procedures

This Appendix is designed to brief those seeking Federal grants. The first step in the grant application process is to determine what grants and other funding are available from the various Agencies. The sources of information avaialble to help make the determination already have been reviewed. To reiterate, those basic sources include Federal Agency contact personnel, Agency publications on grant guidelines, Agency field offices, the *Catalog of Federal Domestic Assistance*, the State Central Information Reception Agency (an information office in each State government), and the Federal Assistance Programs Retrieval System (another State based information office).

Once the Agency and type of grant have been determined, ask for the Application Kit for the specific grant program. This Kit will provide the details and forms needed to make a grant application.

A Proposal Paper is a basic requirement in any grant application, so it's important to do it well. The Proposal Paper should include: a brief biographical sketch of the individual or key staff members of the organization seeking the grants, a brief history of individual or organizational accomplishments, and the statement of the problem. When stating the problem, the author should explain what is going to be accomplished with the grant, who will benefit, what the exact nature of the problem is, how you will approach and solve the problem, and what will happen to the project when funding is over.

Remember, before developing a Proposal Paper, have the Grant Application Kit in hand and have a contact point in the Agency offering the grant. Your Agency contact is important and will answer your day to day questions, as well as review your Proposal Paper. Remember too that your Proposal Paper must provide the details of what the objectives are, and what, how and when resources are to be allocated to acheive the objectives.

For further information on grant writing, check the *Federal Register*, the official Executive Branch document detailing grant project requirements, found in many libraries and government offices throughout the country.

Appendix 3. DOE Regional Offices

Region I
Department of Energy
Analex Building
150 Causeway Street
Boston, Massachusetts 02114

Region II
Department of Energy
26 Federal Plaza
New York, New York 10007

Region III
Department of Energy
1421 Cherry Street
Philadelphia, Pennsylvania 19102

Region IV
Department of Energy
1655 Peachtree Street
Atlanta, Georgia 30309

Region V
Department of Energy
175 West Jackson Boulevard
Chicago, Illinois 60604

Region VI
Department of Energy
P.O. Box 35228
2626 West Mockingbird Lane
Dallas, Texas 75235

Region VII
Department of Energy
324 East 11th Street
Kansas City, Missouri 64152

Region VIII
Department of Energy
P.O. Box 26247 Belmar Branch
1075 South Yukon Street
Lakewood, Colorado 80226

Region IX
Department of Energy
333 Market Street
San Francisco, California 94111

Region X
Department of Energy
1992 Federal Building
915 Second Avenue
Seattle, Washington 98174

Appendix 4. The Federal Assistance Programs Retrieval System (Enhanced Version)

The Federal Assistance Programs Retrieval System (FAPRS) is a computerized question-answer system which is designed to provide rapid access to Federal grant program information. Program information provided by FAPRS is determined from input supplied by the requestor. Input required includes the name of the State, county, city, town, or federally designated Indian Tribe for which program information is requested; the population of the city or town; the type of applicant (e.g., State or local organization, small business, individual), the type of assistance under which programs are administered (e.g., grants, loans); and the specific functional categories and subcategories of interest. Based upon the input supplied by the requestor, the output provided by FAPRS consists of: 1) a list of program numbers and titles, 2) the full text of selected programs, or 3) specific sections of the program text.

The following are principal features of the enhanced version FAPRS system:

1. Expansion of functional categories and subcategories.

2. Expansion of the applicant eligibility specification to include 12 government related and 10 nongovernment related applicant types.

3. Specification of the type(s) of assistance desired as one of the search criteria. At present, the *Catalog* lists up to 15 types of assistance provided by Federal programs.

4. Display of definitions for functional subcategories, applicant types, and types of assistance.

5. Selection of specific sections of *Catalog* text to be displayed.

6. Formatted display of Federal circular requirements for a selected list of programs.

States have designated access points where FAPRS searches may be requested. In addition, bulletins on FAPRS are available. For further information on FAPRS, the location of the nearest State access point, or a list of the timesharing companies from which interested persons may arrange for direct access to the system, write to the Office of Management and Budget, Budget Review Division, Federal Program Information Branch, Washington, DC 20503.

Appendix 5. SBA Field Offices: Addresses and Commercial Telephone Numbers

City	State	Zip Code	Address	Phone Number
Boston	Mass.	02114	150 Causeway St., 10th Floor	(617) 223-3224
Augusta	Maine	04330	40 Western Avenue, Room 512	(207) 622-6171
Concord	N. H.	03301	55 Pleasant Street, Room 211	(603) 224-4041
Hartford	Conn.	06103	One Financial Plaza	(203) 244-3600
Montpelier	Vt.	05602	87 State Street, Room 204, P.O. Box 605	(802) 229-0538
Providence	R. I.	02903	40 Fountain Street	(401) 528-4580
New York	N. Y.	10278	26 Federal Plaza, Room 3100	(212) 264-4355
Melville	N. Y.	11747	35 Pinelawn Road	(516) 454-0750
Hato Rey	Puerto Rico & V.I.	00919	Carlos Chardon Ave, Fed. Bldg. Rm. 691	(809) 753-4572
Newark	N. J.	07102	970 Broad St., Room 1635	(201) 645-2434
Syracuse	N. Y.	13260	100 South Clinton Street, Room 1073	(315) 423-5383
Buffalo	N. Y.	14202	111 West Huron St., Room 1311	(716) 846-4301
Elmira	N. Y.	14901	180 Clemens Center Parkway	(607) 733-4686
Bala Cynwyd	Pa.	19004	231 St. Asaphs Rd., Suite 400 East Lobby	(215) 596-5889
Harrisburg	Pa.	17101	100 Chestnut Street, Suite 309	(717) 782-3840
Wilkes-Barre	Pa.	18702	20 North Pennsylvania Avenue	(717) 826-6497
Wilmington	Del.	19801	844 King Street, Room 5207	(302) 573-6294
Towson	Md.	21204	8600 LaSalle Road, Room 630	(301) 962-4392
Clarksburg	W. Va.	26301	109 North 3rd St., Room 302	(304) 623-5631
Charleston	W. Va.	25301	Charleston National Plaza, Suite 628	(304) 343-6181
Pittsburgh	Pa.	15222	1000 Liberty Ave., Room 1401	(412) 644-2780
Richmond	Va.	23240	400 North 8th St., Room 3015, P.O. Box 10126	(804) 771-2617
Washington	D. C.	20417	1030 15th St. N.W., Suite 250	(202) 653-6963
Atlanta	Ga.	30309	1720 Peachtree Road, N.W., 6th Floor	(404) 881-4325
Birmingham	Ala.	35205	908 South 20th St., Room 202	(205) 254-1344
Charlotte	N. C.	28202	230 S. Tryon Street, Suite 700	(704) 371-6563
Columbia	S. C.	29202	1835 Assembly, 3rd Floor P.O. Box 2786	(803) 765-5376
Jackson	Miss.	30201	100 West Capitol Street, Suite 322	(601) 960-4378
Biloxi	Miss.	39530	111 Fred Haise Blvd., 2nd Floor	(601) 435-3676
Jacksonville	Fla.	32202	400 West Bay St., Room 261, Box 35067	(904) 791-3792
Louisville	Ky.	40201	600 Federal Pl., Room 188, P.O. Box 3517	(502) 582-5971
Coral Gables	Fla.	33134	2222 Ponce De Leon Boulevard, 5th Floor	(305) 350-5521
Nashville	Tenn.	37219	404 James Robertson Parkway, Suite 1012	(615) 251-5881
Knoxville	Tenn.	37902	502 South Gay St., Room 307	(615) 637-9300
Memphis	Tenn.	38103	167 North Main St., Room 211	(901) 521-3588
Chicago	Ill.	60604	219 South Dearborn St., Room 437	(312) 353-4528
Cleveland	Ohio	44199	1240 East 9th St., Room 317	(216) 552-4194
Columbus	Ohio	43215	85 Marconi Boulevard	(614) 469-6860
Cincinnati	Ohio	45202	550 Main St., Room 5028	(513) 684-2814
Detroit	Mich.	48226	477 Michigan Ave.	(313) 226-7241
Marquette	Mich.	49855	540 W. Kaye Avenue, Don H. Bottom Univ. Ctr.	(906) 225-1108
Indianapolis	Ind.	46204	575 North Pennsylvania St., Room 552	(317) 331-7000
South Bend	Ind.	46601	501 E Monroe St., Suite 120	(219) 232-8163
Madison	Wisc.	53703	212 East Washington Ave., Room 213	(608) 264-5205
Milwaukee	Wisc.	53202	517 East Wisconsin Ave., Room 246	(414) 291-3941
Minneapolis	Minn.	55403	100 North 6th St.	(612) 725-2358
Springfield	Ill.	62701	Four North, Old State Capital Plaza	(217) 955-4200
Dallas	Tex.	75242	1100 Commerce St., Room 3C36	(214) 767-0605
Ft. Worth	Tex.	76102	501 West 10th Street, Room 527	(817) 334-3971
Albuquerque	N. M.	87100	5000 Marble Avenue, N.E., Room 320	(505) 766-3430
Houston	Tex.	77002	500 Dallas Street	(713) 226-4341
Little Rock	Ark.	72201	320 West Capitol Ave., P.O. Box 1401	(501) 378-5871
Lubbock	Tex.	79401	1205 Texas Avenue, Room 712	(806) 762-7466
El Paso	Tex.	79902	4100 Rio Bravo, Suite 300	(915) 543-7586
Harlingen	Tex.	78550	222 East Van Buren Street, P.O. Box 2567	(512) 423-8934

City	State	Zip Code	Address	Phone Number
Corpus Christi	Tex.	78408	3105 Leopard Street, P.O. Box 9253	(512) 888-3331
New Orleans	La.	70113	1001 Howard Avenue, 17th Floor	(504) 589-6685
Oklahoma City	Okla.	73102	200 N.W. 5th Street, Suite 670	(405) 231-4301
San Antonio	Tex.	78206	727 East Durango Street, Room A-513	(512) 229-6250
Kansas City	Mo.	64106	1150 Grande Ave., 5th Floor	(816) 374-3416
Springfield	Mo.	65803	220 E Commercial Street	(417) 864-7670
Sikeston	Mo.	63801	400 N Main Street	(314) 471-0223
Cedar Rapids	Iowa	52402	373 Collins Road NE	(319) 366-2411
Des Moines	Iowa	50309	210 Walnut St., Room 749	(515) 284-4422
Omaha	Neb.	68102	19th & Farnum St., 2nd Floor	(402) 221-4691
St. Louis	Mo.	63101	One Mercantile Tower- Suite 2500	(314) 425-4191
Wichita	Kans.	67202	110 East Waterman Street	(316) 267-6571
Denver	Colo.	80202	721 19th Street	(303) 837-2607
Casper	Wyo.	82601	100 East B Street, Room 4001, P.O. Box 2839	(307) 265-5266
Fargo	N. D.	58108	657 2nd Ave., North, Room 218, P.O. Box	(701) 237-5771
Helena	Mont.	59601	301 S. Park Avenue, Room 528, Drawer 10054	(406) 449-5381
Salt Lake City	Utah	84138	125 South State St., Room 2237	(314) 425-5800
Sioux Falls	S. D.	57102	101 South Main Ave., Suite 101	(605) 336-2980
Rapid City	S. D.	57701	515 9th St., Room 246	(605) 343-5074
San Francisco	Calif.	94105	211 Main Street, 4th Floor	(415) 556-7490
Fresno	Calif.	93712	1229 "N" St., P.O. Box 828	(209) 487-5189
Las Vegas	Nev.	89101	301 E Stewart, PO Box 7525, Downtown Station	(702) 385-6611
Honolulu	Hawaii	96850	300 Ala Mona, Room 2213, P.O. Box 50207	(808) 546-8950
Agana	Guam	96910	Pacific Daily News Bldg., Room 508	(671) 477-8420
Los Angeles	Calif.	90071	350 S. Figueroa St., 6th Floor	(213) 688-2956
Santa Ana	Calif.	92701	2700 North Main Street	(714) 547-5089
Phoenix	Ariz.	85012	3030 North Central Avenue, Suite 1201	(602) 241-2200
San Diego	Calif.	92188	880 Front Street, Room 4-S-29	(714) 293-5440
Seattle	Wash.	98174	915 Second Ave., Room 1744	(206) 442-5534
Anchorage	Alaska	99501	1016 West 6th Ave., Suite 200	(907) 271-4022
Fairbanks	Alaska	99701	101 12th Ave., Box 14	(907) 452-1951
Boise	Idaho	83701	1005 Main St., 2nd Floor	(208) 334-2200
Portland	Oreg.	97204	1220 S.W. Third Avenue, Room 676	(503) 221-2682
Spokane	Wash.	99210	West 920 Riverside Avenue, Room 651 P.O. Box 2167	(509) 456-5310

Appendix 6. Small and Disadvantaged Business Utilization Offices

Department	Phone Contacts Area codes are 202	Department	Phone Contacts Area Codes are 202
Agriculture	472-1994	GSA	566-1043
AID	235-1822	Health and Human Services	245-8771
U.S. Air Force	697-5737	HUD	755-6810
U.S. Army	697-2544	Justice	633-5136
Commerce	377-1472	Labor	523-6041
Defense	695-7145	NASA	755-2288
Energy	252-8201	State	235-9524
EPA	755-1303	Tennessee Valley Authority	(615) 755-2624

Department	Phone Contacts Area Codes are 202
Transportation	426-1930
Treasury	376-0851
Veterans Administration	389-3924
U.S. Navy	692-2202

Appendix 7. U.S. Small Business Administration PASS Telephone Numbers and Mailing Addresses

Area	Telephone No.	Address
Maine, New Hampshire, Massachusetts, Rhode Island, Connecticut, Vermont	(617) 223-3162	60 Batterymarch 10th Floor Boston, MA 02110
New York, New Jersey, Puerto Rico, Virgin Islands	(212) 596-5270	26 Federal Plaza New York, NY 10007
Pennsylvania, Maryland, Delaware, Washington DC, Virginia, West Virginia	(215) 596-5988	Suite 646 W Lobby One Bala Cynwyd Plaza Bala Cynwyd, PA 19004
North Carolina, South Carolina, Georgia, Florida, Alabama, Mississippi, Kentucky, Tennessee	(404) 881-4588	1375 Peachtree St NE 5th Floor Atlanta, GA 30309
Ohio, Illinois, Indiana, Michigan, Wisconsin, Minnesota	(312) 353-0438	219 S Dearborn St Rm 838 Chicago, IL 60604
Texas, Louisiana, Arkansas, Oklahoma, New Mexico	(214) 767-7639	1720 Regal Row Dallas, TX 75235
Kansas, Missouri, Nebraska, Iowa	(816) 374-3516	911 Walnut - 23rd Floor Kansas City, MO 64106
Colorado, Wyoming, Utah, Montana, North Dakota, South Dakota	(303) 837-3686	Executive Tower Bldg 1405 Curtis St 22nd Fl Denver, CO 80202
Southern California (Zip Codes 90000-93599), Arizona	(213) 688-2946	350 S Figueroa St 6th Fl Los Angeles, CA 90071
Northern California (Zip Codes 93600-95999), Hawaii Nevada, Guam	(415) 556-1650	450 Golden Gate Avenue San Francisco, CA 94102
Oregon, Idaho, Washington, Alaska	(206) 442-0390	710 Second Avenue Seattle, WA 98104

Appendix 8. State Small Business Programs: Survey Chart of the Fifty States

States	Small Business Assistance Office	Loan Program	Procurement Program	Other Significant Programs
Alabama			X	
Alaska	X	X		
Arizona	X[1]		X	
Arkansas	X			X
California	X	X	X	X
Colorado	X			
Connecticut	X	X	X	X
Delaware				
Florida	X			
Georgia			X	
Hawaii		X		
Idaho				
Illinois	X	X	X	
Indiana			X	X
Iowa				X
Kansas			X	
Kentucky	X	X	X	
Louisiana	X[2]		X	
Maine		X		X
Maryland	X[3]	X	X	
Massachusetts	X	X	X	X
Michigan	X	X[2]	X	X
Minnesota	X	X[2]	X	X
Mississippi	X	X	X	X
Missouri	X	X		X
Montana	X	X	X	
Nebraska	X[3]			
Nevada				
New Hampshire		X		
New Jersey	X	X		X
New Mexico	X[3]			X
New York	X		X	X
North Carolina			X	
North Dakota		X		
Ohio	X	X		X
Oklahoma		X		X
Oregon	X			X
Pennsylvania	X		X[2]	X
Rhode Island		X		X
South Carolina				
South Dakota				
Tennessee	X[2]	X		
Texas	X	X	X	
Utah	X			X
Vermont	X[2] [3]	X		
Virginia	X[3]			
Washington	X		X	X
West Virginia	X			X
Wisconsin			X	X
Wyoming				

[1] on informal basis

[2] pending program

[3] existing business liaison

Appendix 9. SBA Small Business Development Centers (SBDC)

	University and Address	Telephone
Region I	University of Southern Maine Small Business Development Center 246 Deering Avenue Portland, Maine 04102	(207) 780-4423
	University of Massachusetts Small Business Development Center School of Business Administration Amherst, Massachusetts 01003	(413) 549-4930 Ext. 304
Region II	Rutgers University Small Business Development Center 65 Central Avenue Newark, New Jersey 07102	(201) 648-5627
Region III	Howard University Small Business Development Center P.O. Box 748 Washington, D.C. 20059	(202) 636-7187
	University of Pensylvania Small Business Development Center The Wharton School W-178 Dietrich Hall Philadelphia, Pennsylvania 19104	(215) 243-4861
Region IV	University of Alabama in Birmingham Small Business Development Center University Station Birmingham, Alabama 35294	(205) 934-7260
	University of West Florida Small Business Development Center School of Business Administration Pensacola, Florida 32504	(904) 476-9500 Ext. 425
	University of Georgia Small Business Development Center Athens, Georgia 30602	(404) 542-5760
	University of South Carolina Small Business Development Center Basic Service Center College of Business Administration Columbia, South Carolina 29208	(803) 777-5118
Region V	University of Wisconsin Small Business Development Center One South Park Street Madison, Wisconsin 53706	(608) 263-7794
	St. Cloud State University Small Business Development Center College of Business St. Cloud, Minnesota 56301	(612) 255-3215
Region VI	University of Arkansas / I.R.E.C. Small Business Development Center 1015 West Second Street - P.O. Box 3017 Little Rock, Arkansas 72204	(501) 370-5381

	University and Address	Telephone
	University of Nebraska at Omaha Small Business Development Center Omaha, Nebraska 68182	(402) 554-2521
Region VII	None established.	
RegionVIII	University of Utah Small Business Development Center Graduate School of Business Salt Lake City, Utah 84112	(801) 581-7905
Region IX	None established.	
Region X	Washington State University Small Business Development Center 245 Todd Hall Pullman, Washington 99164	(509) 335-1576

Appendix 10. NASA Industrial Applications and State Technology Applications Centers

Industrial Applications Centers

Aerospace Research Applications Center
1201 east 38th Street
Indianapolis, Indiana 46205
Phone: (317) 264-4644

Kerr Industrial Applications Center
Southeastern Oklahoma State University
Durant, Oklahoma 74701
Phone: (405) 924-0121, Ext. 413

NASA Industrial Applications Center
701 LIS Building
University of Pittsburgh
Pittsburgh, Pennsylvania 15260
Phone: (412) 624-5211

NASA Industrial Applications Center
University of Southern California
Denny Research Building
University Park
Los Angeles, California 90007
Phone: (213) 741-6132

New England Research Applications Center
Mansfield Professional Park
Storrs, Connecticut 06268
Phone: (203) 486-4533

North Carolina Science and Technology Research Center
Post Office Box 12235
Research Triangle Park, North Carolina 27709
Phone (919) 549-0671

Technology Applications Center (TAC)
University of New Mexico
2500 Central Avenue, S.E.
Albuquerque, New Mexico 87131
Phone: (505) 277-3622

State Technology Applications Centers

NASA / Florida State Technology Applications Center
State University System of Florida
500 Weil Hall
Gainesville, Florida 32611
Phone: (904) 392-6626

NASA / UK Technology Applications Program
University of Kentucky
109 Kinkead Hall
Lexington, Kentucky 40506
Phone: (606) 258-4632

Single copies of **Small Business Bibliographies** are available free from SBA, P.O. Box 15434, Ft. Worth, TX 76119. Information presented is necessarily selective and no slight is intended toward material not mentioned. **Bibliographies** may be reprinted but not used to indicate approval or disapproval by this Agency of any private organization, product, or service. Credit to the U.S. Small Business Administration will be appreciated if this **Bibliography** is reproduced. Use of funds for printing this publication has been approved by the Director, Office of Management and Budget, through June 30, 1985.

W.O. 11484 SST