



# Ballistic Missile Defense Organization

SADBU

# UPDATE



A Quarterly Newsletter for Small Businesses

VOLUME I NUMBER VII

SMALL AND DISADVANTAGED BUSINESS UTILIZATION

March 1999

## **Management Consulting and Research, Inc. (MCR)** *Profile of a Small Business*



**Dr. Gerald R. McNichols**  
Founder and CEO

Management Consulting & Research, Inc. (MCR), is a cost analysis, financial management, information systems, and program management consulting and research firm that was established in 1977. The founder and chief executive officer, Dr. Gerald R. "Mac" McNichols, is a certified cost estimator/analyst with more than 30 years experience leading complex management consulting tasks. Before founding MCR, Dr. McNichols was Vice President of J. Watson Noah Associates, Inc., and Vice President of GENTECH, Inc. Beginning in 1967, he served four years as a U.S. Air Force officer with the Air Staff,

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## **Recent New Contracts Awarded by BMDO**

On December 1, 1998, BDM Federal was awarded a delivery order under a GSA schedule, valued at \$1,234,000, to provide independent, objective engineering, and technical year 2000 (Y2K) solutions expertise to the Ballistic Missile Defense Organization's (BMDOs) Y2K Program Manager. The contract has a six-month base period with no options and is scheduled to end June 30, 1999.

On December 15, 1998, the Utah State University Research Foundation and Space Dynamics Laboratory was awarded a contract, valued at \$23,036,912, to provide data exchange and analysis activities, cooperative experiment planning and execution, and concept studies to demonstrate the technology benefits of cooperative observation of atmospheric, ground structural, and missile targets of opportunity. The contract has a two-year base period with no options and is scheduled to end December 15, 2000.

On January 4, 1999, Bunyard Enterprises, Inc., a small business, was awarded a contract, valued at \$11,257,257 (including options), to perform independent program assessments in the areas of organizational, programmatic, management, and procedural issues as directed by Labor and Technical

Allocation Plans (LTAPS). The contract has a two-year base period and three one-year options and is scheduled to end January 2004. ♦

## **HBCU/MI Proposals Received**

The Ballistic Missile Defense Organization has received 77 proposals in response to Broad Agency Announcement (BAA) No. 99-01 issued in October 1998 for research set aside for historically black colleges and universities and minority institutions (HBCU/MIs). Fifty-three of the proposals were from HBCUs and 24 from MIs. Proposals were received from 27 different schools. The proposals covered a variety of research topics and are in the process of being evaluated by Government science and technology agents. It is anticipated that the awards will be made during the third quarter of this fiscal year. ♦

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## Director's Message

As you well know, in recent months, there have been numerous changes in doing business with the Federal government that impact the small business community, and I would like to take this opportunity to address a few of those issues with you. Some of these changes are a result of the *Adarand Contractors, Inc. v. Pena* Supreme Court decision (115 S. Ct. 2097) in 1995.

The *Adarand v. Pena* case, which challenged Government procurement on many levels, has resulted in the reform of affirmative action in Federal procurement in areas pertaining to small disadvantaged businesses (SDB). New regulations have been implemented, such as the Price Evaluation Adjustments (PEA) in competitive procurements and the development of the Small Disadvantaged Business (SDB) Participation Program. When acquiring supplies or services in certain Standard Industrial Classification (SIC) Major Groups determined by the Department of Commerce, a PEA of up to ten percent may be applicable to help SDBs. However, the Director of Defense Procurement has suspended use of the PEA for SDBs in Department of Defense (DoD) procurements for the period February 24, 1998, to February 23, 2000, since the DoD exceeded its five percent contract goal for awards to SDBs in Fiscal Year 1998. At the end of the suspension period, a reevaluation will be made based on Fiscal Year 1999 DoD awards to SDBs. Under the SDB Participation Program, two mechanisms are available to help benefit SDBs. One is the use of evaluation factors covering the extent of participation of small disadvantaged businesses in the performance of contracts. The other involves an incentive subcontracting program for using SDBs in certain procurements. Small disadvantaged businesses must be certified as such by the Small Business Administration (SBA) or one of their private certifiers in order

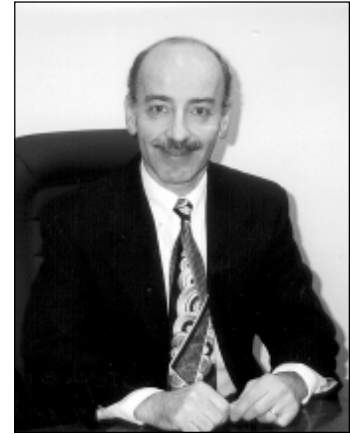
to be eligible for some of the new SDB preferences.

There have also been changes to the SBA's 8(a) Business Development (BD) program. One of the changes involved a program name change from Minority Small Business and Capital Ownership Development Program to the 8(a) Business Development Program. This change was made so the program name would more accurately reflect the purpose of the program. Changes were also made to the eligibility requirements for a company to be accepted into the 8(a) BD Program which would allow non-minorities an opportunity to enter into the 8(a) BD Program, if they met the requirements.

You also need to be aware of the implementation of regulations pertaining to the Historically Underutilized Business Zone (HUBZone) Empowerment Contracting Program. This program was designed to encourage small businesses to set up and operate in areas located within one or more distressed urban or rural areas.

Another program designed to help small businesses is the Very Small Business Pilot Program. In certain circumstances, this program allows Federal procurements between \$2,500 and \$50,000 to be set aside for very small businesses. A Very Small Business is one having 15 or fewer employees and having less than \$1 million as the average annual receipts.

Contract bundling is also an important issue to the small business community. Proposed regulations define contract bundling as "the consolidation of two or more procurement requirements for goods or services previously provided or performed under separate smaller contracts into a solicitation of offers for a single contract that is likely to be unsuitable for award to a small business concern...." The SBA's proposed rule on this subject was published in the Federal Register on January 13, 1999. The rule would require Federal agencies to justify consolidating requirements that preclude small businesses from participating as prime contractors.



**Stephen M. Moss**  
Director/SADBU

Within the past year, the SBA and the Department of Defense (DoD) signed a Memorandum of Understanding (MOU) that streamlined the processing procedures for awards under the 8(a) BD Program and authorized DoD to award contracts directly to 8(a) firms.

These changes all impact the extent small businesses, small disadvantaged business, women-owned small business, and historically black colleges or universities and other minority institutions can participate in performance of Federal procurement contracts. I encourage all small business concerns to stay current on these matters and how they affect your industry.

Here are a few Web sites I have found to be useful:

- The Defense Acquisition Regulations Directorate provides links to open cases in the Federal Acquisition Regulation as well as the Defense Federal Acquisition Regulations Supplement - <http://www.acq.osd.mil/dp/dars/>
- The National Archives and Records Administration provides a link to the Federal Register, which is a daily account of all Federal rules and notices about laws and regulations - [http://www.access.gpo.gov/su\\_docs/aces/aces140.html](http://www.access.gpo.gov/su_docs/aces/aces140.html)
- The Federal Acquisition Jumpstation - <http://procure.msfc.nasa.gov/fedproc/home.html> ♦

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## *SBA News*

The following was a Small Business Administration news release published on January 12, 1999.

### **SBA Administrator Announces New On-Line Business Courses for Small Business Owners**

WASHINGTON - Aida Alvarez, Administrator of the U.S. Small Business Administration today announced a new on-line education resource for training current and aspiring entrepreneurs.

The new SBA *Small Business Classroom*, which is the first of its kind, uses the latest technology to bring easy-to-use, electronic business courses to anyone with a standard Internet connection, 24-hours-a-day. The SBA Small Business Classroom provides interactive, easily accessible business courses on the topics most in demand by small business clients.

Administrator Alvarez unveiled the new program today during Vice President Al Gore's "*National Summit on 21st Century Skills for 21st Century Jobs*," being held in Washington today. Vice President Gore and Administrator Alvarez met with more than 300 leaders from business, education, labor and government to discuss how American workers can get the skills they need to succeed, and employers can get the skilled personnel they need to stay competitive.

"America's competitiveness and the prosperity of our people in a changing economy depend increasingly on high-skill, high-wage jobs," Vice President Gore said. "Realizing our potential will require investing in education and learning for all our people throughout their lifetimes."

Echoing the vice president's sentiments on education, Administrator Alvarez said, "Our new Small Business Classroom is designed to meet the business education and information needs of the 21st century aspiring entrepreneur. This bold and innovative tool can be used to

empower men and women to thrive in an ever-changing economic landscape by opening the doors of economic independence through business ownership."

The SBA Small Business Classroom's on-line courses are short (7 to 30 minutes), self-paced, learning modules formatted into easy-to-follow learning templates. The content of each course is enhanced with graphics, audio, and numerous electronic links to other small business learning resources. Certain courses will be offered in both Spanish and English. Current class offerings include:

- *Are You Y2K OK?* -- provides information and instruction on dealing with the Y2K computer issue.
- *The Business Plan* -- comprehensive course on how to prepare an effective business plan; profiles each component in detail and includes additional resources.
- *How to Raise Capital for a Small Business* -- provides instruction on how to prepare a loan proposal, how banks review financial requests and information on SBA's financial assistance programs.

The SBA also plans to include more courses on financial assistance, marketing, and how to do business with the federal government in the near future. Additional components of the SBA Small Business Classroom include on-line counseling with SCORE volunteers, a library and a Course Evaluation & Comments Forum.

The SBA Small Business Classroom is accessible through the agency's Web site at <http://www.sba.gov> or directly at <http://classroom.sba.gov/xtrainx>. ♦

## ***BMDO SBIR/STTR Success Stories***

**Rad-Hard Accelerometers...**About a decade ago, the Ballistic Missile Defense Organization (BMDO) Small Business Innovation Research (SBIR) program funded a radiation-hardened accelerometer, which is now being used in safe-and-arm devices for PAC-3 and two other missiles. The technology, developed by Silicon Designs, Inc. (Issaquah, WA), was the first accelerometer with miniature surface structures using micro-electro-mechanical systems (MEMS) technology. It contains two major components: a MEMS

sense element die or chip and an application-specific integrated circuit (ASIC).

Silicon Designs' accelerometers are being sold for a wide range of industrial, commercial and military applications and cost about 40-percent less than when first introduced—translating to savings for BMDO and others as well. But

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## ***JNTF Gets Command Change***

On January 22, 1999, CAPT John Hammerer, USN, assumed command of the Joint National Test Facility, replacing CAPT Robert Abbott, USN.

CAPT Hammerer was previously the Director of the Test and Exercises for Battle Management, Command, Control and Communications at BMDO. He also served in the Technical Division of the AEGIS Program Office as the Strike and Service Warfare Officer from 1990 to 1992.

CAPT Abbott will be assuming a position at the Space and Naval Warfare Systems Command (SPAWAR). ♦

## ***BMDO Announces Acting Chief of Staff***

On November 23, 1998, the Ballistic Missile Defense Organization (BMDO) announced the assignment of Mr. Charles L. Randow as the Acting Chief of Staff, replacing Col Bill Smith until a permanent replacement is selected.

Mr. Randow is BMDO's Assistant Director of Strategic Relations. He was also the Assistant Director for International and Government Affairs for the Strategic Defense Initiative Organization (SDIO), BMDO's predecessor organization.

Col Smith officially left his position at BMDO on November 20, 1998. ♦

## ***BMDO New Executive Director Position Announced***

The Ballistic Missile Defense Organization's Director, Lt Gen Lester L. Lyles established a new position of Executive Director on February 14, 1999, and assigned Mr. Rob Snyder into that position.

As Executive Director, Mr. Snyder will oversee the Program Operations Deputate, the Strategic Relations Deputate, the Contracts Directorate, the Management Operations Directorate, the Threat and Countermeasures Directorate, and the Security and Counterintelligence Directorate. ♦

## ***DEPSCoR***

The Ballistic Missile Defense Organization (BMDO) funded awards for eight proposals submitted for the Fiscal Year 1999 Department of Defense Experimental Program to Stimulate Competitive Research (DEPSCoR) solicitation. Funding for these awards total \$1,866,668. The academic institutions that received BMDO research awards were as follows:

- Fouad Aliev, the principal investigator for the University of Puerto Rico - Rio Piedras Campus, submitted a proposal entitled "Heterogeneous Micro-composite Optical Materials Based On Liquid Crystals."
- Peter Eklund, the principal investigator for the University of Kentucky, submitted a proposal entitled "The Effect of the Growth Catalyst on the Transport Properties of the Single-Wall Carbon Nanotube Based Materials."
- Jingyu Lin, the principal investigator for Kansas State University, submitted a proposal entitled "Picosecond Time-Resolved Spectroscopy System for Studying Deep UV Optical Transitions in AL, GA, N with High ALN Fractions."
- Glenn Lykken, the principal investigator for the University of North Dakota, submitted a proposal entitled "The Effect of Alpha Particle Flux Emission from Lead used in Semiconductor Memory Devices."

- Charles Pittman, Jr., the principal investigator for Mississippi State University, submitted a proposal entitled "Vapor-Grown Carbon Fiber/Polydicyclopentadiene Composites."
- Hugo Schmidt, the principal investigator for Montana State University, submitted a proposal entitled "Large-Amplitude Electro-mechanical Response and Fatigue of PMN-PT and PZN-PT Crystals."
- Richard Wirtz, the principal investigator for the University of Nevada-Reno, submitted a proposal entitled "High Performance Woven Mesh Heat Exchange."
- Judy Wu, the principal investigator for the University of Kansas, submitted a proposal entitled "Fabrication of High-TC Superconducting Bolometric infrared Detectors Using Ion-Beam Assisted Thermal Co-Evaporation."

The DEPSCoR is designed to expand research opportunities in states that have traditionally received the least funding in Federal support for university research. For more information on this program and the awards, visit the Office of Naval Research's Web page at [http://www.onr.navy.mil/sci\\_tech/special/#corporate](http://www.onr.navy.mil/sci_tech/special/#corporate). ♦

## ***DURIP***

For the Fiscal Year 1999 Defense University Research Instrumentation Program (DURIP), the Ballistic Missile Defense Organization (BMDO) funded awards for 21 proposals. The total funding for these awards is \$4,155,000. The academic institutions that received BMDO-funded awards included the following:

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## **BMDO News**

*(Cont'd from Page 4)*

- Stanford University received funding for "Pump Module for High-Average Power, Diode-Pumped, Solid-State Lasers." The principal investigator is Robert Byer.
- The University of Texas-Austin received funding for "Enhanced Optoelectronic Interconnects for Data Communications." The principal investigator is Ray Chen.
- The University of Central Florida received funding for three projects. The principal investigator for the "Thermal Management of Laser Diode Arrays" project is Lois Chow. Another project was the "Near-Field Scanning Optical Microscopic System." The principal investigator is Kathleen Richardson. Eric Van Stryland is the principal investigator on the third project, "Tunable Nanosecond Optical Source for Optical Limiter Test and Design."
- Montana State University received funding for "Optical Data Routing, SP, Memories and Frequency References." The principal investigator is Rufus Cone.
- The University of Washington's principal investigator, Larry Dalton, received funding for the "Evaluation of Electro-Optic and Sensor Protection Materials."
- North Carolina State University received funding for a "Metalorganic Vapor Phase Epitaxy System." The principal investigator is Robert Davis.
- Texas Tech University received funding for the "Instrumentation for Hall Effect Thruster Control." The principal investigator is James Dickens.
- Northeastern University received funding for "Integrated Instrumentation for Plastic Laser Materials Development." The principal investigator is Alex Jen.
- Kansas State University received funding for "Fabrication and Characterization of III-Nitride Microdisk Arrays." The principal investigator is Hongxing Jiang.
- Northwestern University received funding for three projects. The "Optical-Digital Communication Processing at the Quantum Limit" principal investigator is Prem Kumar. The principal investigator for "Equipment for In-Situ Characterization During Epitaxial Growth of AlGaIn," is Nate Newman. The "Electron Beam Lithography" project's principal investigator is Manijeh Razeghi.
- Pennsylvania State University received funding for "Characterization of Devices Formed by Wafer Bonding and Self Assembly." The principal investigator is Theresa Mayer.
- Purdue University received funding for "Enabling Low-Cost Hypersonic Quiet-Flow Experiments." The principal investigator is Steven Schneider.
- Ohio University received funding for "Transition Metal IIIB/IIIA Nitride Heterostructures." The principal investigator is Arthur Smith.
- Oklahoma State University received funding for "Widegap III-Nitride Materials and Device Development." The principal investigator is Jin-Joo Song.
- Syracuse University received funding for "Computer Chips for Analog Neural Three-Dimensional Experiment." The principal investigator is Stephen Taylor.
- The University of California-Los Angeles received funding for "Non-

linear Microwave Power and Noise Measurement and Analysis." The principal investigator is Kang Wang.

- The University of California-San Diego received funding for "Scanning Capacitance Microscope for Nanoscale Characterization." The principal investigator is Edward Yu.

The DURIP supports the purchase of state-of-the-art equipment that augments current university capabilities or develops new university capabilities to perform cutting-edge defense research. For more information on this program and the awards, visit the Office of Naval Research's Web page at [http://www.onr.navy.mil/sci\\_tech/special/#corporate](http://www.onr.navy.mil/sci_tech/special/#corporate). ♦

## **MURI**

Under the Multidisciplinary Research Program of the University Research Institute (MURI) solicitation for Fiscal Year 1999, the Department of Defense (DoD) received 65 full proposals, from which 19 were found suitable for funding. The Ballistic Missile Defense Organization (BMDO) funded awards to two institutions. Both, Stanford University and the University of Rochester, submitted proposals entitled "Non-classical Information, Representation and Manipulation." The principal investigators are Charles Marcus and Ian Walmsley, respectively. The Fiscal Year 1999 funding for the BMDO awards total \$989,000.

The MURI supports university teams whose research efforts intersect more than one traditional science and engineering discipline. By supporting team efforts, MURI complements other DoD programs that support university research principally through single-

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## **BMDO News**

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investigator awards. For more information on this program and the awards, visit the Office of Naval Research's Web page at [http://www.onr.navy.mil/sci\\_tech/special/#corporate](http://www.onr.navy.mil/sci_tech/special/#corporate). ♦

## ***National SBIR Conference***

The 1999 Spring National Small Business Innovation Research (SBIR) Conference is scheduled for April 9-11 in Washington, DC, at the Renaissance Hotel. The conference is sponsored by the Department of Defense, the National Science Foundation, and the Small Business Administration, in cooperation with all SBIR Federal Agencies and Departments. The Southern Technology Council, a consortium of 15 southern States, is co-sponsoring the event.

The Conference is designed to help small high-technology firms learn how to compete for more than \$1 billion in Federal research and development (R&D) funds. Program managers from all the major Federal R&D agencies will be available to hold private one-on-one counseling sessions and will also hold seminars on various issues related to the SBIR Program. Also, expect to meet more than 35 major corporations as well as venture capitalists that are interested in new innovative technologies.

The Ballistic Missile Defense Organization's (BMDO) SBIR Program Manager, Jeff Bond, will be available at the national conference to discuss the topics that would be of interest to BMDO. BMDO also plans to have personnel from their Office of Small and Disadvantaged Business Utilization present to discuss other procurement opportunities and answer any questions about doing business with BMDO.

Historically Black Colleges and Universities and Minority Institutions (HBCU/MIs) are encouraged to attend this conference to seek out opportunities to team with small technical companies and learn how to participate in the SBIR program.

The registration fee is \$195.00, which covers all conference sessions, documents, and meals. For more information, please contact the Conference hotline at (561) 791-0720 or e-mail [teddy@seeport.com](mailto:teddy@seeport.com). ♦

## ***STTR Program***

The Department of Defense's Small Business Technology Transfer (STTR) solicitation for Fiscal Year 1999 was publically released on January 4, 1999. The announcement specified that proposals could be submitted beginning March 1, 1999, and that the deadline for receipt of proposals is April 14, 1999, at 2:00 p.m. EST.

The Ballistic Missile Defense Organization (BMDO) is looking for advances in the state of the art technology without regard to any specific present military requirement. The topics of interest are: (1) Sensors and (2) Electronics and Photonics. Jeff Bond is the BMDO STTR Program Manager and he can be reached at (703) 604-3538 or (800) 937-3150. The BMDO STTR web site is <http://www.winbmdo.com>.

The DoD STTR Solicitation can be downloaded from the following Internet address: [http://www.acq.osd.mil/sadbu/sbir/99/dod\\_str99.htm](http://www.acq.osd.mil/sadbu/sbir/99/dod_str99.htm). ♦

## ***BMDO's SBIR Program Receives more than 680 Proposals***

The Ballistic Missile Defense Organization's (BMDO) Small Business Innovation Research (SBIR) Program office received 682 Phase I proposals in 15 topic areas in response to the Department of Defense's SBIR Solicitation Number 99.1. The solicitation closed on January 13, 1999, and the evaluation and selection process is underway. Following is a preliminary breakout of the number of Phase I proposals received in each topic area:

<b>Topic No.</b>	<b>Description of Topic</b>	<b>Proposals Received</b>
1	Directed Energy Concepts & Components	44
2	Kinetic Energy Kill Vehicles & Components	20
3	Sensors	107
4	Topic Cancelled	N/A
5	Non-Nuclear Power Sources & Power Conditioning	49
6	Propulsion & Logistics Systems	25
7	Thermal Management	30
8	Survivability Technology	18
9	Lethality & Vulnerability	3
10	Computer Architecture, Algorithms & Models/Simulations	50
11	Optical Computing & Optical Signal Processing	64
12	Structural Concepts & Components	23
13	Structural Materials & Composites	65
14	Electronic Materials	94
15	Superconductivity Concepts & Materials	8
16	Surprises & Opportunities	82

Check the BMDO SBIR Web site for additional information. The site address is: <http://www.winbmdo.com/> ♦

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**Management Consulting and Research, Inc.** (Cont'd from Page 1)

followed by Federal Government civil service. He has a Doctorate of Science degree in Engineering from the George Washington University, a Master of Science in Operations Research from the University of Pennsylvania, and a Bachelor of Science with honors in Management Science/Mathematics from Case Western Reserve University.

MCR is headquartered in McLean, Virginia, at 2000 Corporate Ridge Road, and has three other major facilities in the Washington area -- in Crystal City, Falls Church, and Chantilly, Virginia. There are also offices adjacent to Patuxent River Naval Air Station, Maryland, plus 12 other locations across the country from El Segundo, California, to Boston, Massachusetts, to Orlando, Florida. MCR employs more than 250 professional and administrative staff, and has estimated 1999 sales of almost \$30 million. MCR has been honored as a "Washington Fast 50," "Inc. 500," "Virginia Fantastic 50," and a "National 500" company for its growth throughout its history.

The company employs a broad range of expertise to respond to the diverse tasks it undertakes, and the professional staff includes the most qualified and experienced experts available in their technical specialties. MCR enjoys a reputation for the very highest quality work on demanding management and analysis tasks. It aids management decision-making by focusing on analyzing alternatives, managing day-to-day costs, and supporting systems acquisitions. MCR helps eliminate surprises and control costs, and the company keeps projects on track.

MCR is organized as a family of companies, each of which is able to

meet unique customer requirements with unique technical capabilities and is described below.

*MCR Federal, Inc.*, provides expertise primarily to Federal Government agencies. Established in 1989, MCR Federal has undertaken work for the Departments of Defense, Justice, and Health and Human Services, Environmental Protection Agency, Federal Aviation Administration (FAA), and General Services Administration. Recent projects include development of financial management systems software for budget management, creating a hypertext version of the Defense Finance & Accounting Services manual, creating the Air Force Material Command financial management handbook, completing a life cycle cost estimate for new FAA systems, and providing economic analysis support for the Department of Justice. It is MCR Federal which provides cost analysis support to the Ballistic Missile Defense Organization's Cost Estimating and Analysis Directorate under a two-year plus options contract, which was awarded in October 1997.

*MCR Federal Systems, Inc.*, also addresses primarily Government customer needs, specializing in information systems and software solutions. It provides information technology/management information systems services, such as database development, decision support tools, document navigation systems, modeling and simulation tools, multimedia, and special application software. Recent clients include the Departments of Defense, Transportation, and Justice.

*MCR Healthcare, Inc.*, provides consulting services to the healthcare industry. Services available include solutions for integration of clinical and business information in management information systems, strategic business

planning for mergers, acquisitions, corporate restructuring and re-engineering, clinical resource management systems, and development of integrated managed care networks. The company is also adept at facilities planning, with experience in adapting older facilities to reuse and creating new interior designs for healthcare operations.

*MCR Technologies, Inc.*, is focused on bringing to private industry many of the same management and analysis products and solutions that MCR Federal brings to the Government sector. The key principle is an integrated approach to business management and decision-making. Bringing together data on such factors as performance, reliability, risk, customer support, and cost, MCR Technologies assists companies with a disciplined approach to sorting through issues, highlighting trade-offs, comparing alternatives, and determining likely outcomes. Clients have included seven of the Fortune 50 major corporations of the U.S., including Boeing, Grumman, IBM, Westinghouse, United Technologies, and GTE.

*MCR International, Inc.*, supports overseas companies and Government activities with the same management and analytical tools and processes found in U.S. Government and industry. Recent customers for cost analysis support by MCR International are located in France, Germany, the United Kingdom and other countries.

Technical competence, customer confidence and satisfaction, and corporate growth are hallmarks of MCR, Inc. As Dr. McNichols says, "MCR has the best staff of trained professional, the best models, and the best expertise of any company its size. Our growth goals are ambitious, but our outstanding staff can accomplish any objective they set."♦

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## *Note This*

On December 29, 1998, the Department of Defense (DoD), the General Services Administration (GSA), and the National Aeronautics and Space Administration (NASA) published a notice in the *Federal Register*, as an interim rule pertaining to the Small Disadvantaged Business (SDB) certification program. The notice announced that the Federal Acquisition Circular (FAC) 97-07 would be corrected to amend the Federal Acquisition Regulation (FAR) by extending the time for small disadvantaged businesses (SDBs) to become certified under the rule issued by the Small Business Administration (SBA). The effective date was extended from January 1, 1999, to July 1, 1999. After July 1, 1999, SDBs must be certified by the SBA or one of SBA's private certifiers in order to be eligible for certain preferences in federal procurements.

The SDB certification process is designed to certify a small business as "disadvantaged" only if an SBA review finds the firm is owned and controlled by someone who is socially and economically disadvantaged. Once an SDB is certified and listed on the public registry, it will be eligible for preferences under new federal procurement regulations. The preferences will only apply to those industries in which

disadvantaged companies are underutilized according to Department of Commerce studies. For a list of these industries and more information on the SDB program, visit the SBA Web page at <http://www.sba.gov/sdb/>.

Under new federal procurement regulations, a price evaluation adjustment of up to ten percent for SDBs competing as prime contractors in competitive procurements shall be applied in certain circumstances (See FAR Subpart 19.11). Also, there are two mechanisms available under the SDB Participation Program (See FAR Subpart 19.12). One of the mechanisms is the use of an evaluation factor for the extent of participation of SDBs in the performance of the contract. The other mechanism involves prime contractors being able to receive monetary incentives for using SDBs as subcontractors.

The interim rule became effective for all solicitations issued on or after January 1, 1999. A due date of March 1, 1999 was established for receipt of comments to be considered in the formulation of the final rule. ♦



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## *Special News*

### *Women's Business Centers*

Recent statistics show women own approximately 40 percent of all firms in the U.S. and are starting new companies at twice the rate of all other business. In response to this statistic, the U.S. Small Business Administration (SBA) developed the Women's Business Center Program to increase the success of women entrepreneurs. The SBA's goal is to provide training and assistance to larger numbers of women throughout the country.

On February 9, 1998, the SBA issued a news release seeking nonprofit institutions to participate in the agency's Women's Business Center Program. The success of this program has created demand for these services throughout the country. Ten months later, on December 10, 1998, the SBA issued a news release announcing the agency's desire to expand the program by opening 20 new centers in 1999. At the time of that release, there were 70 centers in 38 States, Puerto Rico, and the District of Columbia. The application period for this expansion effort was December 7, 1998, to February 3, 1999.

The Women's Business Center Program is a community-based project that is designed to meet the needs of women entrepreneurs who are socially or economically disadvantaged. The services provided at these centers are tailored to fit the needs of the local community.

The Women's Business Center Program is operated by the SBA's Office of Women's Business Ownership (OWBO). One of the missions of this office is to foster growth of women's business ownership. The OWBO has developed numerous programs throughout the country designed to provide business training and technical assistance; counseling on access to credit and capital; access to marketing opportunities; and research and information to develop a profile of women business owners in the United States.

To obtain additional information on the Women's Business Center Program or other programs and services sponsored by the SBA's Office of Women's Business Ownership, visit its Web page at <http://www.sba.gov/womeninbusiness> or call 202-205-6673. ♦



## *Legislation/Regulation Update*

### **National Small Business Regulatory Assistance Act of 1999 (HR 296)**

Rep. John Sweeney (R-NY) introduced this bill to the House of Representatives on January 6, 1999. The purpose of this Act is to establish a system of confidential voluntary compliance with Federal regulations that provide regulatory relief for small business concerns. The bill was referred to the Committee on Small Business and to the Committee on Government Reform on January 6, 1999.

### **Small Business Common Sense and Fairness Act of 1999 (HR 234)**

Rep. Bob Riley (R-AL) introduced this bill to the House of Representatives on January 6, 1999. It directs the Administrator of the Small Business Administration to review and adjust the size standards used to determine whether or not enterprises in certain industry categories are small business concerns for the purposes of competing for Federal contracting opportunities. The bill was referred to the Committee on Small Business on January 6, 1999.

**The following information was extracted from the *Federal Register*.**

#### **Contract Bundling**

On January 13, 1999, the Small Business Administration (SBA) published a proposed rule, in the Federal Register, to add regulatory language addressing contract bundling, due to changes set forth in sections 411-417 of the Small Business Reauthorization Act of 1997 (Public Law 105-135). In addition, this rule restates SBA's current authority to appeal to the head of a procuring agency, decisions made by the agency that SBA believes to adversely affect small businesses. The statutory amendments recognize that the consolidation of contract requirements may be necessary and justified, in some cases, but require that each Federal agency, to the maximum extent practicable, take steps to avoid unnecessary and unjustified bundling of contract

requirements that precludes small business participation as prime contractors as well as to eliminate obstacles to small business participation as prime contractors. This rule also made a request for comments to be submitted on or before March 15, 1999.

#### **HUBZone Program**

On December 18, 1998, the Civilian Agency Acquisition Council and the Defense Acquisition Regulations Council published an interim rule, in the Federal Register, amending the Federal Acquisition Regulation (FAR) to implement revisions made to the Small Business Administration (SBA) regulations covering the Historically Underutilized Business Zone (HUBZone) Empowerment Contracting Program. This program is designed to benefit small business concerns by increasing the number of Government contracts awarded to them. The interim rule became effective on January 4, 1999. This notice requested comments be submitted by February 16, 1999.

#### **Reform of Affirmative Action in Federal Procurement, Part II**

On November 20, 1998, the Department of Defense issued an interim rule, in the Federal Register, amending the Defense Federal Acquisition Regulation Supplement (DFARS) guidance concerning programs for small disadvantaged business (SDB) concerns. These amendments are consistent with the changes made to the Federal Acquisition Regulation (FAR) in Federal Acquisition Circular (FAC) 97-07. These changes pertain to the price evaluation adjustments for SDBs and to the SDB Participation Program, which covers the use of evaluation factors and monetary subcontracting incentives. The interim rule became effective for all solicitations issued on or after January 1, 1999, and all Mentor-Protégé agreements entered into on or after January 1, 1999. This notice requested comments be submitted by January 19, 1999. ♦

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## **BMDO SBIR/STTR Success Stories**

*(Cont'd from Page 3)*

what drove the price down was not demand from the defense industry. Instead, it was the demands of industrial applications, such as oil well drilling and process instrumentation, which account for about \$1 million in sales each year. In addition, the company's bottom line is levitated by licensing agreements with Ford and TRW, which produce modified versions of the BMDO-funded design for automotive air bag sensors in about half the cars sold in the United States today. "Without commercialization, we would have starved to death because the development cycles for the military are so long," commented John Cole, president of Silicon Designs, "But without the initial defense investment in high-risk technology, we would not have been able to develop any commercial interest."

The BMDO program initially funded a radiation-hard unit for navigation and flight control of miniature kinetic energy vehicles. The technology was unique in two ways. First, it offered a digital output, rather than analog, avoiding noise problems and providing a direct connection to a microprocessor, minimizing the size of the control electronics. Second, it was designed to survive 500 kilorads of radiation without upset or damage. The same design features that made it radiation insensitive also allow it to work in the severe environments found at the bottom of a 10,000-foot oil well.

**Advanced Materials...**Some of BMDO's advanced materials technology funded through the SBIR and Technology programs has landed in Theater High Altitude Area Defense System (THAAD) nose cones, nozzles, and other structures at a lower cost, due to commercialization. Over the years, the SBIR and Technology programs have funded several research

and development projects for quartz and carbon fiber-based composite materials to go into lightweight ballistic missile defense support structures. One participant, Fiber Materials, Inc. (FMI; Biddeford, ME), has teamed with several large defense contractors to insert advanced composite materials into THAAD. For example, the company has developed a quartz phenolic heat shield and nose tip and carbon/carbon nozzle for the program. The carbon/carbon material has outstanding thermal performance, able to withstand 7,000° F, and has been proven to withstand a launch environment. In addition, the carbon/carbon nozzles are 30- to 50-percent less expensive than those used in DOD strategic systems. This lower cost is due, in part, to FMI's scale-up and commercialization of its carbon composite material for the inert furnace industry, selling 30 to 50 tons of Fiber Form® insulation materials to customers such as turbine blade manufacturers and semiconductor producers. The commercialization helped advance its development efforts, lowered costs for the DOD product, and ensured the company's survivability in a highly competitive arena.

FMI has developed innovative fabrication processes that offer many advantages such as lower processing costs and increased reliability of structural thermal protection composites. Other advantages include excellent temperature uniformity and thermal shock resistance. In addition, the materials resist metal vapor impregnation. Fabricators at FMI can shape Fiber Form into boards, cylinders, and complex shapes.

**Beryllium-Aluminum Casting...**Through the SBIR and Technology programs, BMDO has funded projects in beryllium-based materials for lightweight, rugged optical systems, now contributing to Raytheon Missiles Systems Corporation's Light Exo-atmospheric Projectile-Kinetic Warhead

(LEAP-KW) program. As part of its early efforts, the Strategic Defense Initiative funded a small business called Nuclear Metals, Inc. (NMI; Concord, MA), to develop a novel silicon beryllium casting alloy called Mirralloy. NMI, recently renamed Starmet Corporation, used the basic technology developed on this program to aid the invention and development of a new family of beryllium-aluminum investment casting alloys called Beralcast®. The company also received a Phase I BMDO SBIR contract that combined other outside funding to continue the development of this new line of beryllium-aluminum materials. As a result of these efforts, Starmet is producing several pieces of hardware for LEAP's telescope. The company has also received contracts for commercial efforts, including over \$1 million for high-end computer disk drives and over \$1 million for commercial space components.

The rapid acceptance of this material has positioned the company for explosive growth into the next century and has reduced the cost of the material for BMDO. "The BMDO program required solutions to complex casting designs. The solutions were obtained and the technology was applied to other DOD and commercial programs. Commercial applications have allowed BeralCast to lower product cost since the volumes are quite high," said Frank Vumbaco of Starmet.

Starmet's material has many advantages for defense and commercial systems. For example, it has roughly 22-percent lower density with essentially equivalent strength to A356 aluminum. In addition, it has roughly three times greater ductility than hot-pressed beryllium with greater damage tolerance and six to ten times better damping characteristics.

*This information for the BMDO SBIR/STTR success stories was extracted from the National Technology Transfer Centers web site at <http://www.acq.osd.mil/bmdo/bmdolink/html/transfer.html>. ♦*

## **Small Business Database**



The Office of Small and Disadvantaged Business Utilization (SADBU) Office at the Ballistic Missile Defense Organization (BMDO) maintains a database of those small businesses that want to do business with BMDO. The database is updated routinely and is used as a source for matching the capabilities of small businesses with BMDO technical requirements. It is also used as a source for the mailing list for our quarterly newsletter, *The SADBU Update*.

If your firm is not currently in our database, or if you want to provide updated information about your firm, you may download a database form from the BMDO SADBU Internet home page at <http://www.acq.osd.mil/bmdo/bmdolink/html/sadbu.html>. Also, if your firm is interested in doing business with BMDO, a small business packet may be obtained by contacting Janet Farrow at [janet.farrow@bmdo.osd.mil](mailto:janet.farrow@bmdo.osd.mil) or (703) 693-6634. ♦

### **PROCUREMENT OPPORTUNITIES**

Visit the BMDO Acquisition Reporting Bulletin Board (BARBB) on the Internet

<http://www.acq.osd.mil/bmdo/barbb/barbb.htm>

## **Internet News** *Some Useful Internet Addresses*

### **Web Site Highlight**

The Small Business Development Centers (SBDC) program is managed by the U.S. Small Business Administration. The SBDCs provide management assistance to current and prospective small business owners. SBDCs offer one-stop assistance to small businesses by providing a wide variety of information and guidance in central and easily accessible branch locations. This Web site provides additional information about the program and lists the locations of the SBDCs. - <http://www.sba.gov/sbdc/>

### **Other Useful Web Sites**

- The Department of Defense Regional Council for Small Business Education and Advocacy - <http://patriot.net/~sbCouncil/>
- The Department of Defense Electronic Commerce Navigator - this is a resource for those that buy for the Government, sell to the Government, or just have a general interest in Electronic Commerce at the Department of Defense - <http://www.acq.osd.mil/ec/navigator/>
- The Joint Electronic Commerce Program Office - <http://www.acq.osd.mil/ec>
- The Department of Defense Business Opportunities Web site provides links to procurement solicitations from the service organizations and other agencies - <http://dodbusopps.com/>
- The Technology Administration (TA) is the only Federal agency working to maximize technology's contribution to America's economic growth. Here you will find information about programs, services, press releases, publications, and speeches - <http://www.ta.doc.gov/>
- DefenseLINK Locator (DoD-GILS) is a searchable component to help the public locate and access DoD information resources - <http://www.defenselink.mil/locator/>
- The Defense Acquisition Deskbook: <http://www.deskbook.osd.mil/>
- The House of Representatives Small Business Committee: <http://www.house.gov/smbiz/>
- The Senate Small Business Committee: <http://www.senate.gov/~sbc/>
- The BMDO home page: <http://www.acq.osd.mil/bmdo/>
- The BMDO Small and Disadvantaged Business Utilization home page: <http://www.acq.osd.mil/bmdo/bmdolink/html/sadbu.html>
- The BMDO Acquisition Reporting Bulletin Board: <http://www.acq.osd.mil/bmdo/barbb/barbb.htm>
- The BMDO Chief Information Officer's home page: <http://www.acq.osd.mil/bmdo/ciomod/>
- The BMDO Technical Information Center: <http://www.acq.osd.mil/bmdo/bmdolink/html/tic.html>
- The BMDO Office of Technology Applications: <http://www.acq.osd.mil/bmdo/bmdolink/html/transfer.html>

# CALENDAR OF EVENTS



March 25, 1999	<b>Government Proposal, Pricing, and Accounting - Seminar</b> Procurement Technical Assistance Program (PTAP), Fairfax, VA For more information contact: Dana Slaughter at (703) 277-7700		
March 31, 1999	<b>How to Successfully Complete and Submit an Information Technology GSA Schedule Solicitation - Seminar</b> Procurement Technical Assistance Program (PTAP), Fairfax, VA For more information contact: Dana Slaughter at (703) 277-7700		
April 6, 1999	<b>Representative Jim Moran's Trade Fair</b> Defense Logistics Agency - Headquarters Fort Belvoir, VA For more information contact: Rep. Jim Moran's Office at (202) 225-4376		
April 9-11, 1999	<b>The 1999 Spring National SBIR Conference</b> Washington, DC For more information contact: teddy@seeport.com		
May 1999 (date to be determined)	<b>DoD Regional Council for Small Business Education and Advocacy (DC Chapter)</b> Washington, DC For more information contact: Daniel Sturdivant, II at (202) 622-0375		
May 12, 1999	<b>Eighth Annual Small Business Opportunities Fair</b> Naval Surface Warfare Center (NSWC) - Dahlgren Division Dahlgren, VA For more information contact: The National Small Business Council at (301) 596-0770		
		May 18, 1999	<b>Ninth Annual Procurement Opportunities Conference &amp; Expo</b> Showplace Arena Upper Marlboro, MD For more information contact: Nomiki Handakaras at (800) 878-2940 ext. 238
		May 27, 1999	<b>Goddard Annual Small Business Conference</b> NASA Goddard Space Center Greenbelt, MD For more information contact: Olivia Gunther at (301) 286-5490
		June 1, 1999	<b>Defense Supply Service-Washington (DSSW) Procurement Conf.</b> Defense Supply Service-Washington Crystal Marriott Gateway Crystal City, VA For more information contact: Sheila Pannell at (703) 697-6024
		June 8-11, 1999	<b>32nd Annual Joint Industry/SBA Procurement Conference</b> Grand Hyatt/DC Convention Center Washington, DC For more information contact: Barry Meltz at (202) 205-6474
		June 24, 1999	<b>Fifth Annual Norfolk/Hampton Regional Small Business Procurement Fair</b> Hampton, VA For more information contact: The National Conference Services, Inc. at (888) 603-8899

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McNeil Technologies, Inc.  
6564 Loisdale Ct., Suite 800  
Springfield, VA 22150