

Ballistic Missile Defense Organization SADRU

UPDATE



A Quarterly Newsletter for Small Businesses

VOLUME I NUMBER X

SMALL AND DISADVANTAGED BUSINESS UTILIZATION

December 1999

Nitres, Inc.



Profile of a SBIR Small Business

Nitres, Inc., formerly WiTech, was founded in 1997 with the mission of developing and commercializing gallium nitride (GaN) based semiconductor materials and device technology. The Company's corporate offices are located in Westlake Village, CA, about 40 minutes north of Los Angeles and halfway to Santa Barbara. Nitres' R&D Operations are in Goleta, CA, near the University of California at Santa Barbara (UCSB). Nitres plans to commercialize its GaN technology by launching a line of high brightness light emitters early next year. Nitres has established itself as a technical leader in GaN-based semiconductor device development quickly with its strong foundation in GaN-based materials and devices. Nitres technical achievements are described on the web pages for High Brightness

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HBCU/MIs

The Small and Disadvantaged Business Utilization office (BMDO) was recently represented by Dr. Pravat K. Choudhury at The College Fund/UNCF DoD Infrastructure Development Assistance Program (IDAP) Conference held from November 28-December 1, 1999 in New Orleans, LA. Detailed information relating to BMDO's set-aside research program for Historically Black Colleges and Universities and Minority Institutions (HBCU/MIs) was presented to a very well attended audience.

The College Fund/UNCF along with the Department of Defense have scheduled several other HBCU/MI Technical Assistance Conferences and Workshops during 2000. The conference/workshop schedule for the first half of 2000 is as follows:

National Regional Conferences

Southwest - February 6-9, 2000 in Los Angeles, California, at California State University

Midwest - TCU Week April 10-14, 2000, June 11-13, 2000 in Pablo, Montana at Salish Kooteni College

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Recent New Awards

On July 23, 1999, Quantitative Software Management, Inc., a small business, was awarded a delivery order under a GSA schedule, valued at \$11,760.00, to provide software support and software upgrades. The order had a one-month base period with no options and ended on August 23, 1999.

On August 1, 1999, Sherikon, Inc., was awarded a delivery order under a GSA schedule, valued at \$131,947.32, to provide independent and objective analytical follow-up support for ongoing reviews, and maintain the database that is used to track review recommendation follow-up in support of the Review and Audit Directorate (POA) mission. The order has a one-year base period with no options and is scheduled to end on July 31, 2000.

On August 2, 1999, GRC International, Inc., a small business, was awarded a delivery order under a GSA schedule, valued at \$78,740.65,

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Director's Message



Stephen M. Moss Director/SADBU

I would like to take this opportunity to thank those companies that sent us updated corporate qualifications which will assist this office in becoming more proactive in its efforts to promote small businesses. In the past, the database forms were used, in part, to determine if there were any small businesses that justified set-aside acquisitions. It is my intent to use this new information that you provide, to reach out to Prime contractors and BMDO Program Managers in an effort to promote more participation of small businesses in the BMDO mission and objectives. In order to do that, these new database forms are necessary to properly match capabilities and, grant limited access of that information to Primes and the Program Managers.

On behalf of my staff, I would like to announce that SADBU is planning its 1st Bi-annual Small Business Day to take place in March 2000. This proactive program is designed to utilize the corporate qualification information to match capabilities and provide a forum for interested parties to network with Prime contractors and other small businesses and meet with BMDO Program Managers. The first group of participants will be notified by letter based on their capabilities and the subject matter of the conference.

Additionally, over the next few months, my staff and I will be participating in various small business conferences and I encourage your participation in these events. These conferences provide opportunities for small businesses to network with representatives of various government agencies, as well as large and small businesses. Many of these events offer information on such subjects as contracting opportunities, congressional legislation, and regulation issues.

The government has been using new and innovative methods to reach out to small businesses and I look forward to the challenges ahead as well as your participation in the SADBU Small Business Day planned for March 2000.

Update on Small Business

On October 25, 1999, the Small Business Administration (SBA) issued an interim rule with a request for comments in the Federal Register, designed to amend its regulations and limit the "bundling" of federal procurement contracts. For those not familiar, contract bundling is simply the consolidation of two or more federal procurements that were previously provided or performed under separate smaller contracts into a single contract so large that small businesses cannot compete for it.

In the March 1999 issue of the SADBU Update, we reported that the SBA sought comments on the proposed rule to determine what constitutes measurably substantial benefits as a justification for bundling. This interim rule defines "measurably substantial benefit" by establishing a dual approach to determine what can be reasonably expected from a bundled contract. The dual approach must lead to: (1) benefits equal to ten percent if the contract value (including options) is \$75 Million or less; or (2) benefits equal to five percent if the contract value (including options) is over \$75

Million. As indicated in the March 1999 issue, only the most senior procurement officials within a federal agency can make the determination to allow a bundled contract to proceed.

Additionally, this interim rule establishes guidelines for small businesses that want to create joint venture, or teaming opportunities, to go after the bundled contracts. Under previous rules, small businesses were usually disqualified because the resulting collaboration made the combined revenues exceed SBA's definition of a small business.

The interim rule is scheduled to become effective after 60 days, on December 27, 1999. Any public comments received on or before this date, will be evaluated and incorporated into the final rule, if the comments are deemed appropriate. Upon this decision, the final rule will be drafted and require implementation in the Federal Acquisition Regulation. ◆

SBA NEWS

The following was a Small Business Administration news release published on November 4, 1999.

What is a "Small" Business? SBA to Shift to New Classification System

WASHINGTON – The U.S. Small Business Administration (SBA) plans to adopt within the next year a new, more precise industrial classification system that will serve as the basis for the agency's widely used small business size standards.

The new system, known as the North American Industry Classification System (NAICS), reflects recent business development trends by listing a greater number of advanced technology and service industries than the current Standard Industrial Classification (SIC), which has been in use since the 1930s.

The NAICS classification system now is used to compile business and trade statistics in the United States, Canada and Mexico.

"A business owner can't compete with a manual typewriter when the rest of the world is humming along with computers, and that's one way to think about this move from SIC to NAICS," said SBA Administrator Aida Alvarez. "Whole new industries have emerged since the SIC system was first developed. Shifting to the new NAICS-based size standard table will help the SBA open new doors of opportunity for small business owners in these emerging industries."

Federal procurement officials and others use size standards to determine whether a business is large or small. Knowing the correct size standard can pave the way for a firm to receive contracts and assistance reserved only for small businesses.

The SBA outlined its vision for the new NAICS system in a proposed rule in the Oct. 22 issue of the Federal Register, which can be obtained through the Internet at http://www.sba.gov/size/section04c.htm. The proposed rule seeks adoption of the NAICS-based size standards on Oct. 1, 2000 – the start of the federal government's fiscal year 2001.

As part of the switchover, SBA plans to use the guidelines outlined in the rule to convert size standards based on the SIC system to size standards for the NAICS system. Through this process, SBA intends to retain, to the extent practical, the small business status of firms currently eligible for federal small business programs. Interested parties may file comments until December 21, 1999.

Further information about NAICS is available on the U.S. Bureau of Census' web site at http://www.census.gov/naics.

HBCU/MIs (cont'd from page 1)

Contract/Grant Administration (NACURA)

Southeast - March 16-17, 2000 Dover, Delaware at Delaware State University

Southwest - April 6-7, 2000 Brownsville, TX at University of Texas-Brownsville

Midwest - January 20-21, 2000 Southern Indian Polytechnic Institute, Albuquerque, NM

Electronic Research Management (ERA)

Midwest - January 19, 2000 Southern Indian Polytechnic Institute, Albuquerque, NM

National Security Education Program (NSEP)

January 14, 2000 Nashville, Tennessee at Tennessee State University

For further information on the above conference/workshops please visit the website at http:// www.uncf.org/idap or contact Charlene Dorn at cdorn@uncf.org or (703) 205-3480. ◆

PROCUREMENT OPPORTUNITIES

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

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

BMDO NEWS ... BMDO NEWS ...

SBIR Program

The Department of Defense's Small Business Innovation Research (SBIR) solicitation 2000.2 is scheduled to be posted on the DoD SBIR/STTR Web Site at http://www.acq.osd.mil/sadbu/sbir/solicit.html on May 1, 2000. Proposals will be accepted beginning on July 3, 2000, until the solicitation closes on August 16, 2000. BMDO will not participate in this solicitation. Also, be sure to check the BMDO SBIR Web Site at http://www.winbmdo.com/forupdated information.

As indicated in the September issue, SBIR solicitation 2000.1 was posted on this Web Site on October 4, 1999. The solicitation closes on January 12, 2000.

SBIR Spring 2000 Conference

The National Small Business Innovation Research (SBIR) Conference is scheduled for May 5-7, 2000, in Arlington, Virginia, at the Crystal Gateway Marriott 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 Conference is designed to help small high-technology firms learn how to compete for more than \$1 billion in research and development (R&D) funds. All major Federal R&D agency program managers 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, venture capitalists and representatives from major corporations will be present looking for 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. Additionally, BMDO plans to have personnel from its Office of Small and Disadvantaged Business Utilization present to discuss other procurement opportunities and answer any questions about doing business with BMDO.

Small technical companies, Historically Black Colleges and Universities and Minority Institutions are encouraged to attend this conference to seek out teaming opportunities and learn how to participate in the SBIR Program.

The registration fee is \$215.00, 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. You may also get information on the following web site: http://www.zyn.com/sbir/.

STTR Program

As indicated in the September 1999 issue, the Small Business Technology Transfer (STTR) program solicitation 2000 will be posted on the DoD SBIR/STTR Web Site at http://www.acq.osd.mil/sadbu/sbir/solicit.html on January 4, 2000. Proposals will be accepted beginning on March 1, 2000 and will close to proposals on April 12, 2000. Also, be sure to check the BMDO SBIR Web Site at http://www.winbmdo.com/ for updated information.

DURIP

As of the proposal closing date of August 19, 1999, there were 39 proposals submitted to the Ballistic Missile Defense Organization (BMDO) for the Fiscal Year 2000 Defense University Research Instrumentation Program (DURIP) solicitation. Selections for the awards are scheduled to be announced by the Secretary of Defense on January 20, 2000. The awards are set to be in place by March 31, 2000.

DEPSCoR

As of the proposal closing date of September 10, 1999, there were 5 proposals received by the Ballistic Missile Defense Organization (BMDO) for the Fiscal Year 2000 Department of Defense Experimental Program to Stimulate Competitive Research (DEPSCoR) solicitation. The award recommendations are scheduled to be announced on or about January 14, 2000, and will be followed up with a letter to the EPSCoR State Committees. The proposed start date for the program is scheduled for April 1, 2000.

MURI

By the closing date of November 9, 1999, two proposals for the Fiscal Year 2000 Multidisciplinary Research Program of the University Research Institute (MURI) solicitation were received. Selections for awards are scheduled to be made on or about February 1, 2000, and the awards are expected to be in place by April 30, 2000.

BMDO Organizational Changes

The BMDO is currently under a significant reorganization. Further information on these changes will be reported in later issues. •

Note This

Small Disadvantaged Business (SDB) Certification

Steve Moss, BMDO SADBU Director, recently sent out letters to small disadvantaged businesses (SDBs), urging them to participate in the SBA's Small Disadvantaged Business Certification Program. Since the prime contractors are required to use only SBA-certified SDBs in order to get credit towards their subcontracting goals, they will be looking for SDBs who meet the criteria. The failure to get SBA certified may potentially drive small business goals down and significantly reduce many subcontracting opportunities.

For more information about the SDB program and self-certification, go to the SBA's Web site at http://www.sba.gov/sdb.

Historically Underutilized Business Zone (HUBZone) Certification

The SBA recently launched its educational effort to explain to small businesses how they can qualify for HUBZone designation and what the benefits are. To qualify, a small business' main office must be located in a HUBZone and at least 35 percent of its employees must reside in a HUBZone. Small Businesses are strongly urged to determine whether they are located within a HUBZone and get certified with the SBA.

For more information about the HUBZone Empowerment Contracting Program and the certification process, go to the SBA interactive Web site at www.sba.gov/hubzone. •

Internet News Some Useful Internet Addresses

The Angel Capital Electronic Network, ACE-Net, is an Internet-based network sponsored by the SBA's Office of Advocacy that gives new options to both small companies looking for investors and investors looking for promising opportunities: https://ace-net.sr.unh.edu/pub/

Other Useful Web Sites

- The Internal Revenue Service has a web site dedicated solely toward providing tax information for businesses. This site may be accessed at: http://www.irs.ustreas.gov/bus_info/
- The Environmental Protection Agency has a web site dedicated to energy efficiency issues for small businesses. This site provides information on how your firm could save money on energy costs. The site may be accessed at: http://yosemite.epa.gov/appd/ essbhp.nsf
- The Association of Small Business Development Centers delivers nationwide educational assistance to strengthen small/medium business management. Locate your local Small Business Development Center. This site may be accessed at: http://www.asbdc-us.org/cover.html
- The Securities and Exchange Commission's Small Business Information web site has information on pending initiatives and other important issues that concern small businesses. The site may be accessed at: http://www.sec.gov/smbus1.htm
- 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

Legislation/Regulation Update

Veterans Entrepreneurship and Small Business Development Act of 1999 (Public Law 106-50)

Rep. James Talent (R-MO) introduced this legislation to the House of Representatives on April 27, 1999. It amends the Small Business Act and assists veterans by (1) creating the National Veterans Business Development Center to establish a nationwide network of small business assistance to veterans through public and private sector initiatives and partnerships; (2) strengthening the Office of Veterans Business Development; (3) expanding existing programs to include veterans, including the microloan program and the Delta Loan program; and (4) offering economic injury disaster assistance loans to reservists, National Guardsmen, and military retirees, who own small businesses. Additionally, Section 501, entitled Subcontracting, sets a requirement that small business concerns owned and controlled by veterans must be included in subcontracting plans. It also establishes a three-percent government-wide goal, including prime and subcontract awards, for small businesses owned and controlled by service-disabled veterans. The legislation, (H.R.1568), was signed into law by the President on August 17, 1999.

Government-Wide Small Business Procurement Goals for Procurement Contracts (OFPP Policy Letter 99-1)

On October 8, 1999, the Office of Federal Procurement Policy (OFPP) published a notice of final policy directive in the *Federal Register* containing guidance on implementing government-wide goals for procurement contracts awarded to small businesses, HUBZone small businesses, small disadvantaged businesses, and women owned businesses. It also provides guidance on reporting qualifying factors designed to assist the Small Business Administration (SBA) in determining whether agencies are reaching their goals. As a result of the comments received before the June 1, 1999 deadline, minor changes were made to this policy letter. This policy letter, effective November 8, 1999, supercedes and cancels the proposed OFPP Policy Letter 91-1, published on April 2, 1999 and referenced in the June 1999 SADBU Update.

Utilization of Indian Organizations and Indian-Owned Economic Enterprises

On October 27, 1999, the Civilian Agency Acquisition Council (CAAC) and the Defense Acquisition Regulations (DAR) Council published a proposed rule, in the *Federal Register*, to amend the Federal Acquisition Regulation (FAR) to delete Department of Defense language pertaining to incentive payments made to prime contractors for the utilization of Indian organizations and Indian-owned economic enterprises. This proposed rule requested comments be submitted on or before December 27, 1999 to be considered in the formulation of the final rule.

Federal Acquisition Circular (FAC) 97-14 was issued on September 24, 1999 and amends the Federal Acquisition Regulations (FAR) as follows:

Very Small Business Concerns-Item I

This final rule amends the interim rule published as Item II of FAC 97-11, issued on March 4, 1999. The final rule amends Parts 5, 8, 12, 19, and 52 of the FAR to (1) implement the Small Business Administration's (SBA's) Very Small Business Pilot Program (13 CFR Parts 121 and 125) established under Section 304 of the SBA Reauthorization and Amendments Act of 1994 (Public Law 103-403); and (2) improve access to Government contract opportunities for small business concerns that are substantially below SBA's size standards by reserving certain acquisitions for competition among such concerns. The program became effective on January 4, 1999, and the final rule became effective on November 23, 1999.

Historically Underutilized Business Zone (HUBZone) Empowerment Contracting Program-Item II

The measure converts the interim rule published as Item I of FAC 97-10, issued on December 18, 1998, into a final rule. The final rule, effective November 23, 1999, amends Parts 6, 19, and 52 of the FAR to implement the SBA's HUBZone Program. This rule emphasizes changes to setasides, sole source awards, and price evaluation preferences for HUBZone small business concerns and establishes goals for awards to such concerns. ◆

Nitres, Inc. (cont'd from page 1)

<u>Light Emitters</u>, <u>Microwave HEMTs & HBTs</u>, and <u>UV</u> Photodetectors at: *www.nitres.com*.

The Company is privately financed and has R&D contracts funded by the U.S. Dept. of Commerce (NIST), Air Force, AFOSR, BMDO, Office of Naval Research, and Hughes Electronics. The Company has partnerships with GE Lighting for development of semiconductor light emitter based lighting technology and Hughes Electronics in developing GaN microwave power transistors for satellite applications.

Fred A. Blum, *President & CEO*, has over 25 years of semiconductor business experience. He was formerly President of SEQUEL, a management consulting firm, which served as a business advisor to company CEOs and division Presidents regarding acquisitions, partnerships, business development and strategy. Prior to this, he was CEO of GigaBit Logic where he pioneered the digital gallium arsenide IC business. GigaBit was the sole source supplier of high speed logic for the Cray-3, a 14 Gigaflop computer. Strategic customer relationships led to equity investments by both Cray Research and Digital Equipment Corp. GigaBit later merged with TriQuint which completed an IPO in 1993 and now has sales of over \$100 million/yr. Prior to this, Blum, as a Vice President of Rockwell International, was responsible for their Microelectronics operation performing military CMOS IC manufacturing and electronic device development.

Bernd P. Keller, *Vice President, Engineering*, was formerly with Siemens, the University of California at Santa Barbara, and the University of Leipzig. Keller is an expert in MOCVD materials and devices. Steven P. DenBaars, Vice President, Technology, Nitres, and Prof., UCSB, was formerly with HP Optoelectronics. DenBaars is part-time Vice President of Nitres and Professor of Material Science at the University of California at Santa Barbara and internationally recognized as a leader in GaN materials and optoelectronic device research.

Umesh K. Mishra, *Vice President, Technology, Nitres, and Prof.*, *UCSB*, formerly with Hughes and GE Research Laboratories. Mishra is part-time Vice President of Nitres and Professor of Electrical Engineering and Computer Science at the University of California at Santa Barbara and internationally recognized leader in compound semiconductor electronic device research.

Nitres has an R&D joint venture with GE Lighting funded by the U.S. Dept. of Commerce's NIST organization to develop high efficiency white solid state lamps (light bulbs). These lamps will revolutionize the specialty lighting market because of their high efficiency and long operational life of up to 10 years. With projected efficiencies that challenge traditional gas tube fluorescent lamps, solid state fluorescents will produce a new generation of high performance light bulbs.

Nitres' multicolor light emitters cover the spectrum 380 – 530 nm. White lamps are made by color mixing with fluorescent down-converted light. High brightness products are scheduled to be introduced in 2000. Applications for these products range from green traffic signal lamp replacement with 85% to 90% electricity cost savings to automotive and aircraft interior lighting with long lived white lamps.

Wavelength	Color	Example Application
470 nm	Blue	Color outdoor displays
505 nm	Blue-Green	Traffic signals
525 nm	Green	Color outdoor displays
N/A	White	Automotive & aircraft lighting

Nitres is also developing high power, high efficiency GaN microwave HEMTs, HBTs and amplifiers with the goal to significantly exceed the performance achievable by other solid state technology. Nitres has developed high power HEMTs, producing 11.7 W output power at 28% Power Added Efficiency (PAE). The Company also obtained 9.2 W/mm of width at 8 GHz in smaller transistors. This is over 10X that of gallium arsenide technology now in production. The wide bandgap, high breakdown field, and high saturation velocity of GaN based semiconductors enable very high power and high efficiency microwave transistors that are capable of operation at high temperatures in hostile environments.

Finally, Nitres is developing a novel photodiode technology, which has resulted in the successful fabrication of true solarblind (wavelength <300nm) photodiodes. The spectral responsivity of the solar blind photodiode structure displays a peak responsivity at < 300 nm, 37 % quantum efficiency and a ~10,000X cut-off by 350 nm. Potential applications of the UV detectors include chemical and environmental optical sensors, long-range differential absorption UV-LIDAR systems, UV sensing for early warning and flash detection in military armor protection systems, and UV-focal plane arrays. ◆

Database Update

Small Businesses that have submitted database forms to the BMDO Small and Disadvantaged Business Utilization (SADBU) Office are reminded to respond to our recent request for updated information regarding organizational changes and corporate qualifications. An updated form has been mailed to all firms currently listed in our database. The SADBU database is updated on a continuous basis and is used as a source for matching appropriate small businesses with BMDO technical requirements. The database is also used as a mailing list for our quarterly newsletter, The SADBU Update. In addition, there are plans to make this information available via Internet and expand the uses of the database. If you have not received the updated form, please request a database form to complete and return. You may also download the form from the BMDO SADBU home page on the Internet at http://www.acq.osd.mil/bmdo/bmdolink/html/sadbu.html

If your firm is not currently in our database, please contact the SADBU Office to request a company profile form. For those firms interested in doing business with BMDO, a small business information packet, which contains information about contracting opportunities, is also available. To obtain this information, you may contact Stephen M. Moss by e-mail at stephen.moss@bmdo.osd.mil or call (703) 693-1517.

Recent New Awards (cont'd from page 1)

to assist the Financial Management Directorate in revising and updating the automated Budget software system. Additionally, the contractor is to provide software training. The order has a one-year base period with no options and is scheduled to end on July 31, 2000.

On October 1, 1999, Congressional Quarterly, Inc., a small business, was awarded a purchase order, valued at \$19,080.00, for providing a one-year subscription for unlimited usage by a single sign-on number to CQ.com on Congress, with the following service components: CQ Daily Monitor News, CQ Weekly, CQ Bill Watch, Bill Text, and CQ Committee Coverage. The order has a one-year base period with no options and is scheduled to end on September 30, 2000.

CALENDAR OF EVENTS

March 1, 2000

Ninth Annual Small Business Opportunities Fair

NSWC – Dahlgren Division

Dahlgren, VA

For more information contact: The National Small Business

Council (NSBC) (301) 596-0770

March TBA

BMDO Small Business Day

By Invitation Only

For more information contact:

Sterling Tilley (703) 921-1659

April 9-12, 2000

World Congress 2000

Hyatt Regency Hotel

Crystal City, VA

For more information contact: The National Contract

Management Association

www.ncmahq.org/congress 2000

May 5-7, 2000

The SBIR Spring 2000

Conference

Crystal Gateway Marriott Hotel

Arlington, VA

For more information contact:

teddy@seeport.com

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