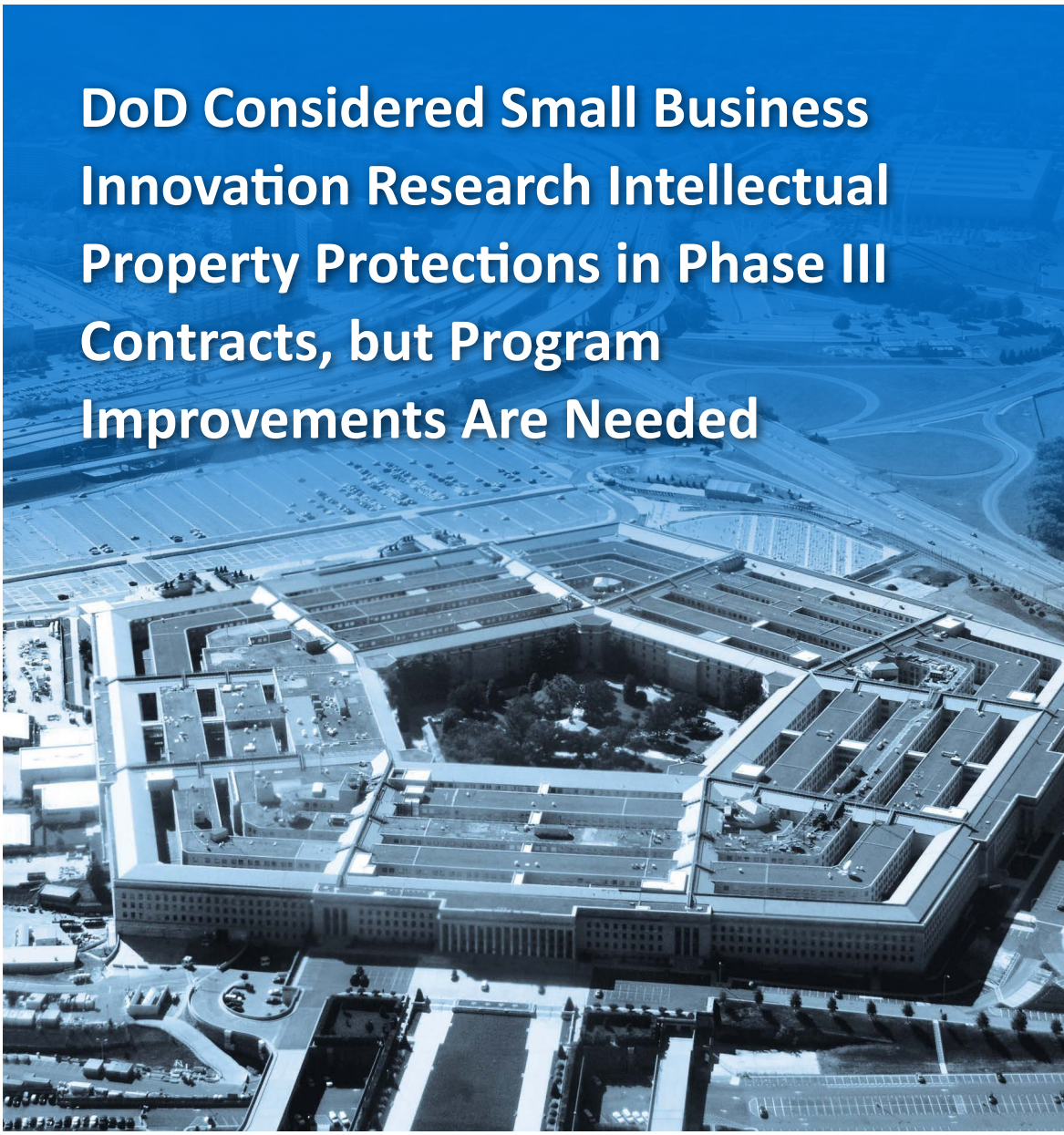
Report No. DODIG-2014-049

Inspector General

U.S. Department of Defense

MARCH 27, 2014

DoD Considered Small Business Innovation Research Intellectual Property Protections in Phase III Contracts, but Program Improvements Are Needed



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Results in Brief

DoD Considered Small Business Innovation Research Intellectual Property Protections in Phase III Contracts, but Program Improvements Are Needed

March 27, 2014

Objective

In response to a requirement in House Armed Services Committee Report 112-479, to accompany the National Defense Authorization Act for FY 2013, we reviewed 22 Small Business Innovation Research (SBIR) Phase III contracts, with a combined base award value of about $244.9 million, to determine whether the Services properly awarded SBIR Phase III contracts to other than small businesses. Specifically, we determined whether the Services considered small business intellectual property rights and properly notified the Small Business Administration (SBA) of the contract award.

Finding

U.S. Army Medical Research Acquisition Activity, Naval Air Systems Command, Naval Sea Systems Command, and Air Force Research Laboratory contracting personnel:

- properly awarded all 11 SBIR Phase III contracts that were awarded to other than small businesses because the awardee owned the SBIR data rights; and
- considered SBIR intellectual property rights when awarding 21 of 22 contracts by including the required contract clause.

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Finding Continued

However, DoD contracting and U.S. Army Medical Research and Materiel Command personnel inconsistently followed policies that governed SBIR intellectual property protections because of unclear and inconsistent DoD and SBA requirements.

In addition, DoD organizations did not:

- have any documented instances of contractor intellectual property complaints within the SBIR Program because DoD personnel were not required to track complaints and believed that none existed; and
- know the complete universe of SBIR Phase III contract awards because no mechanism existed to fully track SBIR Phase III contracts.

DoD organizations' inconsistent interpretation of unclear requirements hinders program oversight and weakens protections over small business intellectual property. Without a clear interpretation of existing policy, DoD organizations could face obstacles in exercising their rights to SBIR data. DoD does not have reliable data to report the success of the DoD SBIR Program. As a result, DoD's program oversight and the protections over small business intellectual property within the SBIR Program is weakened, and information provided to Congress is not complete.

Recommendations

DoD officials should:

- develop training and issue guidance that will allow for a uniform interpretation of intellectual property protections across DoD;

Recommendations Continued

- issue guidance to improve the accuracy of SBIR information being entered into existing databases; and
- address inconsistencies in DoD regulations regarding intellectual property protections.

Management Comments and Our Response

The Deputy Director, Policy and Procurement, DoD Office of Small Business Programs, responding for the Administrator, DoD Office of Small Business Programs, SBIR Office, partially addressed the recommendations to develop training and issue guidance. The deputy director agreed with the recommendations and stated the DoD Office of Small Business Programs would address the following topics during the SBIR/Small Business Technology Transfer annual training workshop planned for June 2014:

- standard intellectual property protections;
- use of the data assertions table;
- when the SBIR protection period begins and when it can be extended;
- timely SBA notification requirements; and
- accuracy and uniformity of SBIR database information.

However, the deputy director did not fully address the actions needed to allow for a uniform interpretation of intellectual property protections across DoD or those needed to increase the accuracy of SBIR information being entered into existing databases.

Comments from the Director, Defense Procurement Acquisition Policy addressed all specifics of the recommendation. He agreed to address inconsistencies in DoD regulations. The director stated DoD would work with SBA to address the inconsistencies regarding intellectual property and noted DoD has taken steps to clarify guidance on the initiation and extension of the protection period of SBIR generated data.

We request that the Administrator, DoD Office of Small Business Programs, SBIR Office, provide comments in response to this report. Please see the Recommendations Table on the following page.

Recommendations Table

Management	Recommendations Requiring Comment	No Additional Comments Required
Administrator, DoD Office of Small Business Programs, Small Business Innovation Research Office	1.a, 1.b, and 1.c.	
Director, Defense Procurement and Acquisition Policy		2.

Please provide comments by April 25, 2014.

INSPECTOR GENERAL
DEPARTMENT OF DEFENSE
4800 MARK CENTER DRIVE
ALEXANDRIA, VIRGINIA 22350-1500

March 27, 2014

MEMORANDUM FOR UNDER SECRETARY OF DEFENSE FOR ACQUISITION, TECHNOLOGY, AND LOGISTICS
ASSISTANT SECRETARY OF THE AIR FORCE (FINANCIAL MANAGEMENT AND COMPTROLLER)
NAVAL INSPECTOR GENERAL
AUDITOR GENERAL, DEPARTMENT OF THE ARMY

SUBJECT: DoD Considered Small Business Innovation Research Intellectual Property Protections in Phase III Contracts, but Program Improvements Are Needed (Report No. DODIG-2014-049)

We are providing this report for review and comment. We performed this audit in response to the House Armed Services Committee Report 112-479 that accompanied the FY 2013 National Defense Authorization Act. DoD organizations properly awarded Small Business Innovation Research (SBIR) Phase III contracts to other than small businesses and considered SBIR intellectual property rights during the award. However, inconsistent guidance and tracking efforts hinder the program. We considered comments from the Deputy Director, Policy and Procurement, DoD Office of Small Business Programs, responding for the Administrator, DoD Office of Small Business Programs, SBIR Office and the Director, Defense Procurement and Acquisition Policy, on a draft of this report when preparing the final report.

DoD Directive 7650.3 requires that all recommendations be resolved promptly. Comments from the Administrator, DoD Office of Small Business Programs, SBIR Office partially addressed the recommendations. The deputy director's comments did not fully address the actions needed to allow for a uniform interpretation of intellectual property protections across DoD or those needed to increase the accuracy of SBIR information being entered into existing databases. Therefore, we request that the Administrator, DoD Office of Small Business Programs, SBIR Office comment on Recommendations 1.a, 1.b, and 1.c by April 25, 2014. Comments from the Director, Defense Procurement and Acquisition Policy addressed all specifics of the recommendation and conformed to the requirements of DoD Directive 7650.3; therefore, we do not require additional comments.

Please send a PDF file containing your comments to audapi@dodig.mil. Copies of your comments must have the actual signature of the authorizing official for your organization. We cannot accept the /Signed/ symbol in place of the actual signature. If you arrange to send classified comments electronically, you must send them over the SECRET Internet Protocol Router Network (SIPRNET).

We appreciate the courtesies extended to the staff. Please direct questions to me at (703) 604-9077 (DSN-664 9077).

Jacqueline L. Wicecarver
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Assistant Inspector General
Acquisition, Parts, and Inventory

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INSPECTOR GENERAL

DEPARTMENT OF DEFENSE

Introduction

Objective

Our objective was to determine whether the Services properly awarded Phase III Small Business Innovation Research (SBIR) contracts to other than small businesses. Specifically, we determined whether the Services considered small business intellectual property rights and properly notified the Small Business Administration (SBA) of the contract award. See Appendix A for scope and methodology and Appendix B for prior coverage.

Background

The House Armed Services Committee was concerned with protecting small business intellectual property rights when doing business with DoD. As noted in the Panel on Business Challenges in the Defense Industry's March 2012 report, "Challenges to Doing Business with the Department of Defense," "smaller businesses can experience particular difficulties in protecting their rights because of their size and the comparatively limited resources available to them." The report also discussed contractors' concerns with the breadth of technical data rights the Government acquired and the Government's compliance with restrictions over those rights. As a result, the House Armed Services Committee Report 112-479, which accompanied the FY 2013 National Defense Authorization Act, directed the DoD Inspector General to review the treatment of small business intellectual property in DoD contract awards.

The Small Business Innovation Research Program

The SBIR Program is a three-phase program that encourages domestic small businesses to engage in Federal research and development with the potential for commercialization. Phase I (project feasibility) determines the scientific and technical merit and feasibility of the ideas submitted. Phase II (project development) further develops Phase I research and development efforts. Phase III (commercialization) is oriented towards commercialization of SBIR research in the private sector, or in the Government sector using non-SBIR funds. Participating agencies must use SBIR funds to award SBIR Phase I and II contracts to eligible small businesses. SBIR Phase III awards can be made to businesses of any size; however, SBIR policies and regulations intend that agencies generally award SBIR Phase III contracts to the SBIR developer. For example, Section 638, title 15, United States Code (15 U.S.C. § 638 [2012]),[1] subsection r(4) states,

[1] Section 638, title 15, United States Code (2007) was updated in 2012 during the scope of our review. We generically refer to both versions of 15 U.S.C. § 638 unless noted otherwise.

to the greatest extent practicable, Federal agencies and Federal prime contractors shall issue Phase III awards relating to technology, including sole-source awards, to the SBIR award recipient that developed the technology.

The SBIR Program was established under the Small Business Innovation Development Act of 1982 to stimulate technological innovation; to use small business to meet Federal research and development needs; to foster and encourage participation by minority and disadvantaged persons in technological innovations; and to increase private sector commercialization innovations derived from Federal research and development. The SBA serves as the coordinating agency. The SBIR Program is mandatory for certain agencies. DoD was one of 11 Federal agencies required to participate in the program.

SBIR Guidance

Multiple regulations and guidance govern the SBIR Program. The FY 2012 National Defense Authorization Act, sections 5101 to 5168, "SBIR and STTR [Small Business Technology Transfer] Reauthorization," requires agencies to track SBIR Phase III awards. Section 638, title 15, United States Code, provides the minimum requirements for the SBIR Program and directs SBA to issue policy directives for the general conduct of the SBIR Program within the Federal Government, including providing for the retention of rights in data generated in the performance of the contract by the small business concern. The SBA Office of Technology issued policy through the SBA SBIR Policy Directive as the overall program administrator. The SBA SBIR Policy Directive was updated in the Federal Register on August 6, 2012.[2] Furthermore, SBA SBIR Policy Directive section 4(c)(5) states, "there is no limit on the number, duration, type, or dollar value of Phase III awards made to a business concern" and SBA SBIR Policy Directive section 4(c)(6) states, "the small business size limits for Phase I and II awards do not apply to Phase III awards."

DoD agencies participating in the SBIR Program are required to include the Defense Federal Acquisition Regulation Supplement (DFARS) contract clause 252.227-7018, "Rights in Noncommercial Technical Data and Computer Software—SBIR Program," in all SBIR contracts. The clause provides for intellectual property protections such as the use of an assertions table[3] that specifically identifies contractor intellectual property provided to the Government. Proposed updates to DFARS 252.227-7018 are included in open DFARS case 2010-D001, "Patents, Data, and Copyrights." Open DFARS

[2] The 2002 SBA SBIR Policy Directive was updated in the Federal Register, Volume 77, No. 151, on August 6, 2012. We generically refer to both versions of the directive as the SBA SBIR Policy Directive, unless noted otherwise.

[3] The assertions table identifies the data the contractor or subcontractor will furnish to the Government with restrictions, the basis for assertion, the type of rights being asserted, and who is making the assertion. The assertions table is not unique to the SBIR Program and is used throughout DoD contracting to identify contractor rights.

case 2010-D001 was proposed on September 27, 2010, by the Defense Procurement Acquisition and Policy Directorate in the Office of the Under Secretary of Defense for Acquisition, Technology, and Logistics. As of January 12, 2014, this open DFARS case is on hold. Appendix C provides additional information on criteria.

DoD Participation in SBIR Program

During our review, DoD was the largest participant in the Federal SBIR Program. The DoD Office of Small Business Programs, SBIR Office (DoD OSBP SBIR) provides the highest level of oversight over the DoD SBIR Program and issues the DoD SBIR Desk Reference for Contracting and Payment, which mirrors much of the SBA SBIR Policy Directive. Each Service has a program office that oversees SBIR-related efforts. Each organization reviewed has designated personnel to administer the SBIR Program on an organizational level, with the exception of the Air Force Research Laboratory (AFRL). The Air Force SBIR Program Office oversees SBIR efforts throughout the Air Force. Services and organizations issue overall guidance or policy on the SBIR Program, but none provided a detailed discussion on intellectual property considerations over SBIR Phase III contracting.

Contracts Reviewed

In total, we reviewed 22 contracts coded in the Federal Procurement Data System-Next Generation (FPDS-NG) as SBIR Phase III contracts, with a combined base value of about $244.9 million.[4] See Appendix A for contract selection. DoD contracting personnel awarded 11 of the 22 contracts to other than small businesses. The following organizations awarded the 22 contracts reviewed:

- U.S. Army Medical Research Acquisition Activity (USAMRAA),[5] Fort Detrick, Maryland, 4 contracts, valued at about $6.2 million.
- Naval Air Systems Command (NAVAIR), Patuxent River, Maryland, 5 contracts, valued at about $161.6 million.
- Naval Sea Systems Command (NAVSEA), Washington Navy Yard, D.C., 5 contracts, valued at about $32.7 million.
- AFRL, Wright Patterson Air Force Base, Ohio, 8 contracts, valued at about $44.3 million.

See Appendix D for specific contracts reviewed.

[4] The combined base award-value excludes any amounts for option periods and includes the maximum allowable amount for delivery order-type contracts and basic ordering agreements.

[5] USAMRAA is the contracting element of U.S. Army Medical Research and Materiel Command and provides support to the Command headquarters and its worldwide network of laboratories and medical logistics organizations.

Review of Internal Controls

DoD Instruction 5010.40, "Managers' Internal Control Program Procedures," May 30, 2013, requires DoD organizations to implement a comprehensive system of internal controls that provides reasonable assurance that programs are operating as intended and to evaluate the effectiveness of the controls. We identified an internal control weakness. DoD OSBP SBIR used reporting systems that did not fully track SBIR Phase III awards to support the success of a congressionally authorized program. However, DoD OSBP SBIR officials were aware of each system's limitations and were taking steps to improve reporting of DoD SBIR Program accomplishments. We will provide a copy of the final report to the senior official responsible for internal controls in the DoD OSBP.

Finding

Inconsistent Guidance and Tracking Efforts May Hinder SBIR Program

USAMRAA, NAVSEA, NAVAIR, and AFRL contracting personnel properly awarded all 11 SBIR Phase III contracts reviewed to other than small businesses, valued at about $176 million. USAMRAA, NAVSEA, NAVAIR, and AFRL considered SBIR intellectual property rights in 21 of the 22 SBIR Phase III contracts, valued at about $244.6 million by including the required contract clause.

However, USAMRAA, U.S. Army Medical Research and Materiel Command (USAMRMC), NAVSEA, NAVAIR, and AFRL personnel inconsistently followed policies that governed intellectual property protections in the SBIR Program. Specifically, DoD personnel:

- had varying interpretations of DFARS 252.227-7018, which provides for SBIR intellectual property protections and requires the use of a data assertions list;
- did not report to SBA on the nine planned SBIR Phase III contracts awarded to a SBIR awardee that did not develop the technology and was an other than small business; and
- disagreed on when the SBIR data rights protection period started and when those rights expired.

This occurred because of unclear or inconsistent requirements in the DFARS and the SBA SBIR Policy Directive.

In addition, personnel at DoD OSBP SBIR, Army, Navy, and Air Force SBIR Program Offices, USAMRMC, USAMRAA, NAVSEA, NAVAIR, and AFRL did not:

- have any documentation or recall any contractor intellectual property complaints within the SBIR Program. DoD personnel were not required to track general or SBIR-related intellectual property concerns or complaints and believed intellectual property concerns did not exist, and
- know the complete universe of SBIR Phase III contract awards because they did not have a mechanism in place to track all SBIR Phase III contracts, used incomplete and sometimes unreliable databases for SBIR Phase III information, and used different methods to verify the information contained within them.

As a result, DoD's inconsistent interpretation of unclear SBIR Program requirements hinders program oversight and weakens the protections over small business intellectual property within the SBIR Program. DoD organizations will encounter challenges in exercising their rights to SBIR data without a clear, standardized interpretation of existing SBIR policy. In addition, DoD does not have complete data to report the success of the DoD SBIR Program. As a result, DoD's program oversight and the protections over small business intellectual property within the SBIR Program are weakened, and information provided to Congress is not complete.

Phase III Contracts Were Properly Awarded to Other Than Small Businesses

USAMRAA, NAVSEA, NAVAIR, and AFRL contracting personnel properly awarded all 11 SBIR Phase III contracts reviewed to other than small businesses, with a combined base value of about $176 million. SBA SBIR Policy Directive section 4(c)(7) states agencies should issue SBIR Phase III awards, including sole-source contracts, to the SBIR awardee that developed the technology. Section 638, title 15, United States Code subsection r(4), was updated in 2012 to include this requirement. However, small businesses innovators were not restricted by any policy or regulation from selling their businesses or their SBIR Phase III intellectual property rights to another company.

USAMRAA, NAVSEA, NAVAIR, and AFRL contracting personnel properly awarded all 11 SBIR Phase III contracts reviewed to other than small businesses.

Contracting officers primarily awarded SBIR Phase III contracts to other than small businesses because larger companies acquired the developing SBIR companies. Of the 11 contracts awarded to other than small business, 9 SBIR developers were acquired by a large business. The remaining contractors grew into large businesses. SBA SBIR Policy Directive section 4(c)(5)(6) states SBIR Phase I and II size limitations do not apply to SBIR Phase III awards with no limit on the number, duration, or type of SBIR Phase III awards made to a business. For example, NAVAIR awarded a SBIR Phase I and II contract for the research and design of a flat-panel multi-function color display to support the forced retrofit of the existing monochrome display in the T-45 aircraft. However, the contractor grew into a large business before the SBIR Phase III contract award. See Table 1 for the 11 SBIR Phase III contracts awarded to other than small businesses.

Table 1. Contract Awards to Other Than Small Businesses

Agency		Contract	Small Business Grew	Acquired By Large Business
1	AFRL	FA8650-10-C-3038		X
2	AFRL	FA8650-10-C-7013	X	
3	AFRL	FA8650-10-C-7037		X
4	NAVAIR	N00019-10-C-0065		X
5	NAVAIR	N00019-11-G-0014		X
6	NAVAIR	N00019-12-C-2005		X
7	NAVAIR	N00019-12-C-0062	X	
8	NAVSEA	N00024-11-C-5205		X
9	NAVSEA	N00024-12-C-6311		X
10	USAMRAA	W81XWH-10-C-0255		X
11	USAMRAA	W81XWH-10-C-0237		X

Contracting Personnel Considered Intellectual Property Protections

DoD contracting personnel considered intellectual property rights in 21 of the 22 SBIR Phase III awards, valued at about $244.6 million, by including DFARS 252.227-7018 in the contracts. The DoD SBIR Desk Reference for Contracting and Payment requires all SBIR contracts to include DFARS 252.227-7018. With limited exceptions, DFARS 252.227-7018 provides SBIR protections to all technical data and computer software generated under a SBIR contract. In addition, DFARS 252.227-7018 states during the 5-year protection period,

> the Government may not release or disclose SBIR data to any person, other than its support services contractors, except as expressly permitted by the contractor; for evaluation purposes; or a release, disclosure, or use that is necessary for emergency repair or overhaul of items operated by the Government.

However, USAMRAA contracting personnel did not include DFARS 252.227-7018 in contract W81XWH-11-P-0660, a $330,000 procurement. According to the USAMRAA contracting officer, he did not include the SBIR clause in the contract because it was a small, one-time commercial purchase. We are not making a recommendation because the USAMRAA contracting personnel included the required clause in the remaining contracts reviewed and the contracting officer who oversees all SBIR contracts is aware of the requirement.

Personnel Interpreted Intellectual Property Protections Differently

USAMRAA, USAMRMC,[6] NAVSEA, NAVAIR, and AFRL personnel stated DFARS 252.227-7018 was the primary method used to provide intellectual property protections to small businesses and was included in the contract as a built-in protection over SBIR data rights; however, personnel interpreted the clause's protections differently. DFARS 252.227-7018 is required in all SBIR contracts and requires the contractor to identify assertions in an attachment to the contract on any technical data or software to be furnished to the Government with restrictions on use, release, or disclosure. The assertions table identifies the data the contractor or subcontractor will furnish to the Government with restrictions, the basis for assertion, the type of rights being asserted, and who is making the assertion. The assertions table is not unique to the SBIR Program and is used throughout DoD contracting to identify contractor rights. The contractor provides the Government the listing of assertions (assertions table) in an attachment before contract award; however, other assertions may be identified after award and shall be submitted to the contracting officer before the scheduled date of delivery.

For example:

- NAVSEA contracting personnel stated the assertions table attached to the contract would identify and protect contractor SBIR data rights. However, this is not a requirement under DFARS 252.227-7018; contractors were not required to report any SBIR data generated under the subject contract.
- USAMRAA contracting personnel were uncertain how the assertions table was associated with the SBIR Program and believed DFARS 252.227-7018 was the only mechanism that provided SBIR protections;
- AFRL contracting personnel believed the assertions table and DFARS could be used interchangeably to provide SBIR protections; and
- A NAVAIR Program Attorney stated a contractor must assert their rights to SBIR data on the assertions table or face losing their rights to it. A NAVAIR Intellectual Property Attorney believed the table should be completed, but would not affect the contractor's rights to data if it was not completed.

USAMRMC, USAMRAA, NAVSEA, NAVAIR, and AFRL personnel agreed it was ultimately up to the contractor to protect their intellectual property and stated DFARS 252.227-7018

[6] USAMRMC is the Army's medical materiel developer responsible for medical research, development, and acquisition and medical logistics management.

was included in the contract as a built-in protection. However, in 20 of the 21 contracts that included DFARS 252.227-7018, the specific protections were unclear because the contracts only referenced the clause. Available policy and guidance did not provide additional explanation on the protections provided by the assertions table. As a result, the only information about the protections provided by DFARS 252.227-7018 was from the clause itself.

DoD organizations visited offered general training and guidance for personnel to refer to for additional information on the SBIR program; however, training was voluntary, and guidance was basic. For example, the DoD organizations visited did not require personnel to attend any type of SBIR training that discussed intellectual property protections. Different legal and SBIR communities across DoD provided voluntary trainings on intellectual property and SBIR in general, but they did not provide detailed intellectual property training specific to the SBIR Program. Furthermore, DoD OSBP SBIR Office officials issued basic guidance on intellectual property protections in the SBIR Program, but acknowledged the guidance could be difficult to locate. In addition, some DoD personnel believed contractors were not always aware of their rights and agreed training on the SBIR Program would be beneficial. DoD OSBP should develop single, overarching guidance and training that provides for the uniform application of intellectual property protections, including the use and application of the assertion table, across DoD.

Personnel Did Not Report To SBA On Proposed Phase III Contracts Awarded To Other Than the SBIR Awardee

USAMRAA, NAVSEA, NAVAIR, and AFRL contracting personnel did not include a SBA notification in the contract file for any of the nine SBIR Phase III contracts awarded to companies other than the SBIR awardee that developed the technology. SBA SBIR Policy Directive section 4(c)(8) requires agencies to notify SBA before award of any such contracts; however, the pre-award notification requirement outlined in SBA SBIR Policy Directive was unclear and did not define when it applied. In addition, DoD personnel interpreted the requirement differently. For example, the Air Force SBIR contracting officer, NAVAIR SBIR Program attorney, and NAVAIR SBIR Deputy Project Manager believed a notification was not required in cases where a contract was awarded to the company that owned the

The pre-award notification requirement outlined in SBA SBIR Policy Directive was unclear and did not define when it applied.

SBIR data. NAVSEA contracting personnel and the USAMRAA contracting officer were unaware of the requirement. After reading the requirement, NAVSEA and USAMRMC SBIR Program attorneys believed the requirement applied to planned contracts awarded to companies other than the original developers. The Director of the Navy SBIR Program stated multiple interpretations existed on the requirement and clarification was required. The Air Force SBIR contracting officer also stated that clarification would be beneficial.

In addition, SBA SBIR Policy Directive sections 4(c)(8) and 9(a)(12) use the terms "small business concern" and "SBIR awardee" interchangeably when referring to the two requirements to report SBIR Phase III contracts awarded to other than the SBIR developer, both annually and before award. Section 638, title 15, United States Code subsections j(2)(C) and j(3)(C) only used the term "small business concern" when directing SBA to modify the policy directives. The SBA SBIR Policy Directive does not define who a "SBIR awardee" is within the reporting requirements. It is unclear if use of the terms "small business concern" and "SBIR awardee" only apply to the small businesses that originally developed a SBIR invention, or if the terms apply to companies purchasing the SBIR data rights. DoD OSBP should develop clear, standardized procedures for DoD personnel to follop on when and how to report SBIR Phase III awards to other than the SBIR developer to SBA.

Personnel Relied on Inconsistent Policies

USAMRMC, USAMRAA, NAVSEA, NAVAIR, and AFRL personnel relied on inconsistent policies for the application of intellectual property protections within the SBIR Program. DoD personnel relied on inconsistent policies in the SBA SBIR Policy Directive and DFARS 252.227-7018 to determine the start and the length of the protection period afforded to SBIR data. According to SBA SBIR Policy Directive section 8(b)(2), the protection period starts when the last deliverable under the contract is delivered. The protection period will be extended if the SBIR data is protected and referenced under a subsequent SBIR contract, even if the protection period previously expired. According to DFARS 252.227-7018 b(4)(i), project completion determines the protection period and DFARS is silent on whether the protection period can be extended or revived.

DoD personnel relied on inconsistent policies to determine the start and the length of the protection period afforded to SBIR data.

Personnel at sites visited agreed inconsistences existed in the SBA SBIR Policy Directive and DFARS 252.227-7018. DoD personnel noted the inconsistencies should be addressed and generally stated they follow DFARS. For example, the NAVSEA SBIR Program attorney and the Intellectual Property attorney stated they followed DFARS but did not know what they would do if they encountered a case of expired data rights because clear guidance was unavailable. Furthermore, DoD personnel interpreted the DFARS language differently. For example:

- The Air Force SBIR contracting officer believed the protection period could be extended—but not renewed—after it expired. A NAVSEA Intellectual Property attorney and the USAMRAA SBIR contracting officer agreed the protection period could be extended.
- The NAVAIR SBIR Deputy Project Manager believed the SBIR protection period could be extended by subsequent contracts and be renewed if expired.
- A NAVAIR patent attorney interpreted the DFARS language to disallow for any type of extension.

DoD personnel need consistent policy to administer the SBIR Program. DoD's inconsistent interpretation of unclear SBIR Program requirements may hinder program oversight and weaken the protections over small business intellectual property within the SBIR Program. In addition, DoD organizations may face complications in exercising their rights to SBIR data without a clear, standardized interpretation of existing SBIR policy. The Director, Defense Procurement and Acquisition Policy, should address inconsistencies between DFARS 252.227-7018 and the SBA SBIR Policy Directive regarding intellectual property protections. In addition, DoD OSBP should develop guidance that provides for the uniform application of intellectual property protections across DoD.

No Documentation of Contractor Intellectual Property Complaints

DoD OSBP SBIR, Army, Navy, and Air Force SBIR Program Offices, and USAMRMC, USAMRAA, NAVSEA, NAVAIR, and AFRL personnel did not have any documented contractor intellectual property complaints within the SBIR Program. Personnel at sites visited were unable to identify a specific case of when SBIR Phase III intellectual property was mishandled or infringed upon, but they acknowledged a lack of a tracking mechanism to which they could refer. Discussions of any instances of intellectual property complaints were anecdotal. Federal and DoD regulations in effect during our

audit did not require personnel to track general or SBIR-related intellectual property concerns or complaints.

USAMRMC, USAMRAA, NAVSEA, NAVAIR, and AFRL personnel believed contractor intellectual property complaints did not exist or were based on a contractor's lack of knowledge about their rights or the SBIR Program. DoD personnel explained contracting officers and small business representatives work closely with SBIR contractors so their questions are addressed before they elevate to the level of a complaint or concern. DoD personnel also believed small business intellectual property complaints were mostly anecdotal, were based on fear or a lack of knowledge, or were between the small business and the prime contractor. For example, the Air Force Commercialization Readiness Program Manager believed small business claims were fear-based and had no basis regarding intellectual property infringement. Because of the absence of specific examples of the improper treatment of intellectual property within the SBIR Program, we are not making a recommendation.

Accurate Tracking Mechanisms Are Needed

SBA and DoD could not identify a complete universe of SBIR Phase III contract awards; neither had mechanisms in place to fully track all SBIR Phase III contracts. Section 638, title 15, United States Code, subsection (k) required SBA to develop and maintain databases in 2001 capable of tracking SBIR efforts. In response, SBA developed the SBA Technology Resources Access Network Database. SBA personnel updated the SBA SBIR Policy Directive in 2012 to address database-tracking efforts related to SBIR commercialization; however, DoD personnel stated the database is not useful to them. The Director of the Navy Office of Small Business Programs and the Army SBIR Office Program Manager explained SBA had not implemented an effective SBIR tracking mechanism and cited a lack of SBA resources and a lack of technical knowledge as possible obstacles specific to SBA. DoD OSBP SBIR Office officials acknowledged DoD had not established an inclusive tracking system, and DoD personnel explained the difficulty in doing so. Cited obstacles included:

- Phase III SBIRs are funded with non-SBIR funds and cannot be easily tracked by the program of record;
- Phase III SBIRs can be awarded by the Government and prime contractors; however, policies and regulations did not mandate any overarching contractor reporting of commercialization data; and

- The company that developed the SBIR technology may have sold its rights or entered into an agreement with a prime contractor and therefore may not know, or could not speak to, the status of the SBIR technology.

Recent legislation now requires SBIR Phase III tracking.

Recent legislation now requires SBIR Phase III tracking. The FY 2012 National Defense Authorization Act, section 5165, "Commercialization Success," subsection (qq)(2), requires the head of each Federal agency to establish a system to measure the success of SBIR Phase III awards. The 22 contracts we reviewed did not fall within this SBIR Phase III reporting requirement, which requires a tracking mechanism by December 31, 2013. Furthermore, FY 2012 National Defense Authorization Act section 5138, "Technology Insertion Reporting Requirements," requires the inclusion of SBIR Phase III award information in the annual SBIR report submitted to Congress. However, as of the time of our audit, DoD OSBP SBIR did not have a tracking and reporting system in place to fully reflect the successes of the SBIR Program.

Personnel Used Unreliable Reporting Systems

Government personnel did not have an available database to fully track SBIR award information. As a result, DoD SBIR personnel used incomplete and, at times, unreliable reporting systems, FPDS-NG[7] and the Company Commercialization Report Database,[8] to track SBIR Phase III contracts to support the success of a congressionally authorized program. The Army SBIR Program Manager and DoD OSBP SBIR, USAMRMC, USAMRAA, and NAVSEA personnel discussed the unreliability of information found in both systems. For example:

- FPDS-NG was limited to Government-awarded SBIR Phase III contracts. In addition, the quality of information in FPDS-NG depended upon the quality of data contracting staff input. For example, a USAMRAA contracting officer explained FPDS-NG would not always accept information entered into the system by contracting staff, so they would select different options until

[7] FPDS-NG is an automated system that collects and reports on Federal procurement data. It is the single authoritative repository for Federal procurement data and generates reports to multiple parties, including the President, Congress, and the public. Government contracting offices enter data into FPDS-NG and are ultimately responsible for the accuracy of the information. The General Services Administration contractor manages FPDS-NG.

[8] The Company Commercialization Report Database captures the quantitative commercialization results of a firm's past SBIR Phase II and III projects. SBIR firms are responsible for entering information into the database. Information is used to calculate a commercialization achievement index. The index acts like a gauge on the commercialization history of that firm's participation in the SBIR Program, and awarding agencies uses it to help evaluate proposals. DoD OSBP manages the Company Commercialization Report Database.

FPDS-NG accepted something. Both the Government Accountability Office and the DoD Inspector General reported on the inaccuracy of SBIR data in FPDS-NG.

- Contractors were not legally required to maintain data in the Company Commercialization Report Database. In addition, the USAMRMC SBIR Project Manager explained some contractors may be hesitant to report Phase III commercialization or may overstate SBIR Phase III successes to obtain a more desirable commercialization achievement index ranking. The Army SBIR Program Manager stated information in the database was hard to verify and should be treated as misleading until followed up on.

DoD OSBP SBIR Office officials were aware of the reporting limitations and data inaccuracies and identified steps to mitigate some of them when reporting on SBIR successes. According to officials, in order to reliably measure performance of the SBIR Program, DoD personnel assess the accuracy of information in the Company Commercialization Report Database to the data in FPDS-NG. One official explained the DoD OSBP SBIR Office performs an annual check in the Company Commercialization Report Database to improve the extent and accuracy of contractor reported information. According to the DoD OSBP official, the common identified issues include companies not reporting all its SBIR Phase II awards, duplicate entries, and inappropriate reporting of commercialization awards or revenues. In addition, officials stated they cannot force businesses to report Phase III awards because they are no longer under a Government funded SBIR contract.

Service SBIR program offices used different methods to verify information used to report SBIR successes to SBA and Congress.

- The Army SBIR Program Manager explained that his office used the Army Management Portal to capture SBIR Phase I and II information and contacted all past SBIR Phase II awardees to determine if the awardee received any SBIR Phase III contracts.
- The NAVAIR SBIR Deputy Project Manager explained that the Navy used the Program Manager Database to track all SBIR contracts, including Phase III.
- AFRL personnel explained that the Air Force used the Air Force SBIR Database to track SBIR Phase I and II contracts, but it did not use the database to track SBIR Phase III.

We initially selected 32 contracts coded in FPDS-NG as SBIR Phase III contracts. We determined DoD personnel improperly coded 10 of the 32 contracts with a total base contract value[9] of about $508.7 million. U.S. Army Corps of Engineers Louisville, NAVSEA, and AFRL contracting personnel corrected all 10 of the identified contracts in FPDS-NG to reflect the contracts' non-SBIR status accurately. DoD OSBP should develop a means to increase the accuracy of reporting for SBIR Phase III contracts.

Congressional Inquiry into Tracking and Reporting Efforts

The Under Secretary of Defense for Acquisition, Technology, and Logistics noted DoD's reliance on FPDS-NG and the Company Commercialization Report Database when responding to the March 5, 2013, Committee on Small Business and Entrepreneurship's inquiries into the SBIR Program. The committee questioned the status of DoD's efforts to address the provisions of the FY 2012 National Defense Authorization Act, including SBIR Phase III reporting efforts. Overall, the Under Secretary of Defense for Acquisition, Technology, and Logistics responded:

- DoD tracked all SBIR Phase III direct contracts through FPDS-NG. Data was reviewed for accuracy to avoid coding errors.
- SBIR contractors were required to report all commercialization data, including SBIR Phase III contracts, as part of the Company Commercialization Report.[10]
- DoD was able to track all direct SBIR Phase I, II, and III contracts; however, available data systems could not capture transitions to programs of record or fielded systems.
- General Services Administration must modify FPDS-NG and other systems to collect information on transitions to programs of record or fielded systems.

[9] The combined base award value excludes any amounts for option periods and includes the maximum allowable amount for delivery-order type contracts and basic ordering agreements. For multiple award-type contracts, the base award value includes the total maximum amount for the solicitation. This represents the total base award value of all contracts awarded under a particular solicitation.

[10] During our review, policies and regulations encouraged contractors to report commercialization data, but none mandated any type of contractor reporting. For example, DoD incentivizes contractors to report commercialization data in the Company Commercialization Report Database since it is used in the evaluation of future proposals. In addition, the FY 2012 National Defense Authorization Act, section 5165 requires agencies, no later than December 31, 2013, to establish a system to measure the success of small business concerns. Participants that do not meet minimum commercialization rates cannot participate in the SBIR Program for 1 year.

Conclusion

The House Armed Services Committee was concerned with protecting the intellectual property rights of small businesses when doing business with DoD; however, we did not identify any inappropriate use of intellectual property during the audit. USAMRAA, NAVSEA, NAVAIR, and AFRL contracting personnel properly awarded SBIR Phase III contracts to other than small businesses and considered intellectual property rights in the SBIR Phase III contracts reviewed. DoD personnel believed intellectual property complaints did not exist or were based on a contractor's lack of knowledge about their rights or the SBIR Program. However, USAMRMC, USAMRAA NAVSEA, NAVAIR, and AFRL personnel inconsistently followed intellectual property protections in the SBIR Program because of unclear or inconsistent policy requirements. In addition, DoD OSBP SBIR, Army, Navy, and Air Force SBIR Program Offices, USAMRMC, USAMRAA, NAVSEA, NAVAIR, and AFRL personnel could not identify the complete universe of DoD SBIR Phase III contracts because effective tracking mechanisms or other metrics were not in place. DoD OSBP SBIR officials were; however, aware of the challenges in tracking and reporting SBIR award information and took steps to mitigate some of the inaccuracies when reporting on and assessing DoD SBIR Program accomplishments. As a result, DoD's program oversight and the protections over small business intellectual property within the SBIR Program are weakened, and information provided to Congress is not complete.

Recommendations, Management Comments, and Our Response

Recommendation 1

We recommend the Administrator, DoD Office of Small Business Programs, Small Business Innovation Research Office:

a. Issue single, overarching guidance and related training for all DoD organizations to follow that will provide for the uniform application of intellectual property protections across DoD. Guidance and training should include:

- **standard intellectual property protections within the Small Business Innovation Research Program, including the use and application of the data assertions table; and**
- **when the protection period begins and when it can be extended.**

Administrator, DoD Office of Small Business Programs, Small Business Innovation Research Office Comments

The Deputy Director, Policy and Procurement, DoD Office of Small Business Programs, responding for the Administrator, DoD Office of Small Business Programs, Small Business Innovation Research Office, agreed stating that a December 2008 Under Secretary of Defense Acquisition Technology and Logistics Memorandum, "Small Business Innovation Research (SBIR) Program Phase III Guidance," provided overarching policy guidance. The deputy director specifically noted the guidance provides that Phase III award must be accorded Small Business Innovation Research data rights. She further commented that the DoD Office of Small Business Programs would address the specific topics of standard intellectual property protections, use of the data assertions table, when the protection period begins, and when the protection period can be extended, during the Small Business Innovation Research/Small Business Technology Transfer annual training workshop planned for June 2014.

Our Response

The deputy director's comments partially addressed the recommendation. We agree that the December 2008 memorandum provides policy guidance. The two-page memorandum provided a basic overview of some of the aspects related to Small Business Innovation Research Phase III contracts. However, it did not provide sufficient information to address Small Business Innovation Research intellectual property as a whole. For example, the memorandum noted that Small Business Innovation Research technical data rights extended to Phase III, but it did not provide any additional information on intellectual property protections, including the use of the assertions table.

The deputy director's comments to address specific intellectual property topics during a training workshop planned for June 2014 partially addressed our recommendation for training. Addressing specific intellectual property protection topics during the planned workshop may be useful to those persons able to attend; however, all DoD personnel who work with Small Business Innovation Research contracts should have access to this clarifying information, not just those attending the workshop. Small Business Innovation Research personnel from the various organizations we visited during the audit were not consistent when interpreting the existing guidance and would benefit from the information presented during the training workshop.

Accordingly, we request the Administrator, DoD Office of Small Business Programs, Small Business Innovation Research Office, provide comments in response to the final report that address the actions planned to issue guidance specific to intellectual

property and the use of the assertions table and to provide training and guidance accessible to all DoD personnel responsible that work with Small Business Innovation Research contracts.

b. Issue clarifying guidance to address the requirement for organizations to provide the Small Business Administration a complete and timely notification detailing why a proposed Small Business Innovation Research Phase III contract could not be awarded to the developer. The clarifying guidance should provide a single DoD interpretation of the requirement and address reporting requirements outlined in the Small Business Administration Small Business Innovation Research Policy Directive.

Administrator, DoD Office of Small Business Programs, Small Business Innovation Research Office Comments

The Deputy Director, Policy and Procurement, DoD Office of Small Business Programs, responding for the Administrator, DoD Office of Small Business Programs, Small Business Innovation Research Office, agreed stating that the DoD Office of Small Business Programs will address timely Small Business Administration notification requirements and will reference the relevant section of this report during their annual training workshop scheduled for June 2014.

Our Response

Comments from the deputy director partially addressed the recommendation. Discussing Small Business notifications at the workshop will be beneficial to those that attend; however, all DoD personnel who work with Small Business Innovation Research Phase III contracts should have access to this clarifying information, not just those attending the workshop. Small Business Innovation Research personnel from the various organizations we visited during the audit were not consistent when interpreting the existing guidance and would benefit from clarifying guidance.

Accordingly, we request the Administrator, DoD Office of Small Business Programs, Small Business Innovation Research Office, provide comments in response to the final report that address the actions planned to issue clarifying guidance addressing the requirement for organizations to provide the Small Business Administration a complete and timely notification detailing why a proposed Small Business Innovation Research Phase III contract could not be awarded to the developer.

c. Issue guidance for database users to refer to when recording Small Business Innovation Research information in existing databases to increase the accuracy and uniformity of information used to track and report on the DoD Small Business Innovation Research Program.

Administrator, DoD Office of Small Business Programs, Small Business Innovation Research Office Comments

The Deputy Director, Policy and Procurement, DoD Office of Small Business Programs, responding for the Administrator, DoD Office of Small Business Programs, Small Business Innovation Research Office, agreed stating that DoD Office of Small Business Programs will review DoD Small Business Innovation Research databases and verify written guidance exists for every system. The annual training workshop, planned for June 10, 2014, will address databases to increase the accuracy and uniformity of database information.

Our Response

Comments from the deputy director partially addressed the recommendation. Discussing the accuracy and uniformity of database information at the workshop will be beneficial to those that attend. However, this information should be accessible to all database users. Further, the sole act of identifying DoD Small Business Innovation Research database guidance does not ensure that the existing guidance provides adequate instruction to assist users in reporting accurate and uniform information. The deputy director's comments will meet the intent of our recommendation if the DoD Office of Small Business Programs reviews the database guidance that is identified for adequate instruction on data accuracy and uniformity and, following the review, issue additional guidance to address any gaps in guidance.

Accordingly, we request the Administrator, DoD Office of Small Business Programs, Small Business Innovation Research Office provide comments in response to the final report to clarify whether the DoD Office of Small Business Programs will review existing DoD Small Business Innovation Research database guidance for adequacy, issue necessary guidance to address gaps identified during the review, and if applicable, the estimated dates of completion.

Recommendation 2

We recommend the Director, Defense Procurement and Acquisition Policy to address inconsistences between the Defense Federal Acquisition Regulation Supplement 252.227-7018 and the Small Business Administration Small Business Innovation Research Policy Directive regarding intellectual property protections, specifically on when the Small Business Innovation Research data protection period begins, when it can be extended, and whether the protection period can be revived after expiration.

The Director, Defense Procurement and Acquisition Policy Comments

The Director, Defense Procurement and Acquisition Policy, agreed stating DoD would work with the Small Business Administration to address identified inconsistencies between the Defense Federal Acquisition Regulation Supplement and the Small Business Administration Policy Directive regarding intellectual property. DoD already proposed revisions to the Defense Federal Acquisition Regulation Supplement clauses to clarify and better implement the initiation and extension of the protection period as provided in the Small Business Administration Small Business Innovation Research Policy Directive.

Our Response

Comments from the Director, Defense Procurement and Acquisition Policy addressed all specifics of the recommendation, and no further comments are required.

Appendix A

Scope and Methodology

We conducted this performance audit from December 2012 through January 2014 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Universe and Sample Information

Our Federal Procurement Data System-Next Generation (FPDS-NG) queries identified that DoD contracting personnel awarded 40 Small Business Innovation Research (SBIR) Phase III C- and D-type contracts[1] to other than small businesses with a total combined base contract value of about $625.8 million[2] during FY 2010 to FY 2012 (August 31, 2012) that met the scope of our review. We nonstatistically selected the locations reviewed and identified below partially to reduce travel costs associated with this audit. We then selected a nonstatistical sample of 32 SBIR Phase III contracts, with a total combined base contract value of about $753.6 million to review. Site selection was limited to the contracts we could identify in FPDS-NG. Our universe included SBIR Phase III C- and D-type contracts continental United States contracting offices awarded to large or medium sized businesses during FY 2010 to FY 2012 (August 31, 2012). Contract selection was not limited to C- and D-type contracts. We selected all 18 contracts identified in FPDS-NG as SBIR Phase III contracts awarded to other than small businesses and, when possible, selected 3 small business SBIR Phase III contracts to review at a given location. Contract selection was based upon a range of obligated dollar values, the frequency with which the contracting officer awarded SBIR Phase III contracts, and the frequency with which a contractor received SBIR Phase III contracts.

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[1] Defense Federal Acquisition Regulation Supplement 204.7003, "Basic PII [Procurement Instrument Identification] Number," defines C-type contracts as "Contracts of all types except indefinite delivery contracts, and sales contracts," and D-type contracts as "Indefinite-delivery contracts."

[2] The combined base award value excludes any amounts for option periods and includes the maximum allowable amount for delivery-order type contracts and basic ordering agreements. For multiple award-type contracts, the base award value includes the total maximum amount for the solicitation. This represents the total base award value of all contracts awarded under a particular solicitation.

We also selected contracts representing the different fiscal years as much as possible:

- U.S. Army Medical Research Acquisition Activity (USAMRAA),[3] Fort Detrick, Maryland, 4 contracts, valued at about $6.2 million.
- U.S. Army Corps of Engineers, Louisville, Kentucky, 8 contracts, valued at about $450 million.
- Naval Air Systems Command (NAVAIR), Patuxent River, Maryland, 5 contracts, valued at about $161.6 million.
- Naval Sea Systems Command (NAVSEA), Washington Navy Yard, DC, 6 contracts, valued at about $90.2 million.
- Air Force Research Laboratory (AFRL), Wright Patterson Air Force Base, Ohio, 9 contracts, valued at about $45.5 million.

Of the 32 contracts initially selected, we excluded all 8 U.S. Army Corps of Engineers contracts, 1 NAVSEA contract, and 1 AFRL contract with a total base contract value of about $508.7 million, because contracting personnel miscoded the contracts in FPDS-NG as SBIR Phase III contracts; they were not SBIR contracts. In total, we reviewed 22 contracts with a total base contract value of about $244.9 million. Of the 22 contracts, 11 were awarded to other than small businesses, with a combined base contract value of about $176 million. One of the four contracts USAMRAA contracting personnel awarded was for a SBIR Phase II enhancement. We kept this contract in our sample because the contract was later modified to include SBIR Phase III.

Review of Documentation and Interviews

Our review was limited to the SBIR Phase III contract and supporting information within the contract file. Supporting information from the contract file included:

- Acquisition plans;
- Assertions lists;
- Central Contractor Registry documentation;
- Contract action reports;

[3] U.S. Army Medical Research and Materiel Command is the Army's medical materiel developer, with responsibility for medical research, development, and acquisition and medical logistics management. USAMRAA is the contracting element of the U.S. Army Medical Research and Materiel Command and provides support to the Command headquarters and its worldwide network of laboratories and medical logistics organizations.

- Contractor proposals;
- Dunn and Bradstreet reports;
- Justifications and approvals for other than full and open competition;
- Legal reviews;
- Novation agreements;
- Online Representation and Certification documentation;
- Pre- and post-business clearance memorandums;
- Small business coordination records;
- System for Award Management documentation; and
- Technical advisory reports.

NAVSEA contracting personnel could not locate one contract file, but they provided the draft justification and approval for other than full and open competition. We reviewed information in the draft justification and approval as well as up-to-date contractor representations in the System for Award Management and the contract action report in FPDS-NG.

The audit team interviewed individuals at Small Business Administration (SBA), Office of Technology; DoD Office of Small Business Programs; Department of the Navy Office of Small Business Programs; Army, Navy, and Air Force SBIR Program Offices; and small business representatives, contracting officers, legal counsel, and SBIR Program managers at U.S. Army Medical Research and Materiel Command, USAMRAA, NAVAIR, NAVSEA, and AFRL. We interviewed DoD personnel to determine their roles and responsibilities in the SBIR Program, how small business intellectual property was protected, and whether there had been any intellectual property complaints in the SBIR Program.

We reviewed applicable Federal and DoD criteria related to the SBIR Program. The specific criteria reviewed include:

- Report 112-479, "National Defense Authorization Act For Fiscal Year 2013, Report of the Committee on Armed Services House of Representatives on H.R. 4310," May 11, 2012;

- FY 2012 National Defense Authorization Act Title LI, "SBIR and STTR [Small Business Technology Transfer] Reauthorization;"
- Section 638, title 15, United States Code, "Research and Development" (2007);
- Section 638, title 15, United States Code, "Research and Development" (2012);
- Federal Acquisition Regulation Part 27, "Patents, Data, and Copyrights;"
- Defense Federal Acquisition Regulation Supplement 252.227-7018, "Rights in Noncommercial Technical Data and Computer Software—Small Business Innovation Research Program;"
- 2012 SBA SBIR Policy Directive;
- 2002 SBA SBIR Policy Directive; and
- DoD SBIR Desk Reference for Contracting and Payment, 8th Edition.

In addition, we reviewed Defense Federal Acquisition Regulation Supplement open case 2010-D001, "Defense Federal Acquisition Regulation Supplement; Patents, Data, and Copyrights."

Use of Computer-Processed Data

We relied on computer-processed data from FPDS-NG to determine the contracting organizations to visit and to perform nonstatistical sample selections for the audit. FPDS-NG collected procurement data. In addition, we used the Electronic Document Access Database to obtain contract documentation, such as the contract and modifications to the contract, before our site visits to the activities reviewed. To assess the accuracy of computer-processed data, we tested the information obtained from the two databases by verifying the data against official records at the visited contracting activities. Our testing identified miscoded contract data within FPDS-NG which contracting personnel corrected during the audit. We determined that the data within FPDS-NG and the Electronic Document Access Database were sufficiently reliable for the purposes of our review.

USAMRAA contracting personnel used the USAMRAA Paperless Acquisition System to create, store, and maintain electronic contracts. We compared the information obtained to that in FPDS-NG and the Electronic Document Access Database. We found the information sufficiently reliable for the purposes of this report.

Appendix B

Prior Coverage

During the last 5 years, the Government Accountability Office (GAO), Small Business Administration (SBA) Inspector General, Department of Defense Inspector General (DoD IG), and Air Force Audit Agency (AFAA) issued 11 reports discussing the SBIR Program. Unrestricted GAO reports can be accessed at http://www.gao.gov. Unrestricted DoD IG reports can be accessed at http://www.dodig.mil/pubs/index.cfm. Air Force Audit Agency reports can be accessed from .mil domains at https://afkm.wpafb.af.mil/ASPs/CoP/OpenCoP.asp?Filter=OO-AD-01-41 by those with Common Access Cards. Unrestricted SBA reports can be accessed at http://www.sba.gov/office-of-inspector-general/863.

GAO

GAO Report 14-116R, "Small Business Innovation Research: Data Rights Protections," November 4, 2013

GAO Report 13-286, "Defense Technology Development–Technology Transition Programs Support Military Users, but Opportunities Exist to Improve Measurement of Outcomes," March 7, 2013

GAO Report 11-21, "Space Acquisitions–Challenges in Commercializing Technologies Developed Under the Small Business Innovation Research Program," November 10, 2010

GAO Report 09-956T, "Small Business Innovation Research–Observations on Agencies' Data Collection and Eligibility Determination Efforts," August 6, 2009

DoD IG

DoDIG Report No. D-2009-048, "DoD Small Business Innovation Research Program," January 30, 2009

AFAA

AFAA Report F2010-0004-FC3000, "Small Business Innovation Research," July 7, 2010

AFAA Report F2010-0014-FCR000, "Small Business Innovation Research Program Warner Robins Air Logistics Center Robins AFB GA," March 10, 2010

AFAA Report F2010-0028-FCI000, "Small Business Innovation Research Ogden Air Logistics Center Hill AFB UT," February 1, 2010

AFAA Report F2010-0004-FCQ000, "Small Business Innovation Research Air Force Research Laboratory Materials and Manufacturing Directorate Wright-Patterson AFB OH," November 10, 2009

AFAA Report F2010-0014-FCI000, "Small Business Innovation Research Detachment 7, Air Force Research Laboratory Edwards AFB CA," November 3, 2009

SBA

SBA IG Report 11-02, "Usefulness of the Small Business Innovation Research Tech-Net Database," November 12, 2010

Appendix C

Criteria

The following expands upon criteria used during our review:

NDAA FY 2012–Sections 5101 to 5168, "SBIR and STTR Reauthorization"

FY 2012 National Defense Authorization Act (NDAA), section 5138, "Technology Insertion Reporting Requirements," amends section 638, title 15, United States Code (15 U.S.C. § 638) by adding subsection (kk)[1] which states:

> the annual SBIR [Small Business Innovation Research] or STTR [Small Business Technology Transfer] report to Congress by the Administration under subsection (b)(7) shall include, for each Phase III award—
>
> (1) the name of the agency or component of the agency or the non-Federal source of capital making the Phase III award;
>
> (2) the name of the small business concern or individual receiving the Phase III award; and
>
> (3) the dollar amount of the Phase III award.

FY 2012 NDAA section 5165, "Commercialization Success," amends 15 U.S.C. § 638 by adding subsection (qq)(2)(a), which states no later than December 31, 2013:

> the head of each Federal agency participating in the SBIR or STTR Program shall—
>
> (i) establish a system to measure, where appropriate, the success of small business concerns with respect to the receipt of Phase III SBIR or STTR awards for projects that have received Phase I SBIR or STTR awards;
>
> (ii) establish a minimum performance standard for small business concerns with respect to the receipt of Phase III SBIR or STTR awards for projects that have received Phase I SBIR or STTR awards; and
>
> (iii) begin evaluating, each fiscal year, whether each small business concern that received a Phase I SBIR or STTR award from the agency meets the minimum performance standard established under clause (ii).

[1] Subsection kk states the annual SBIR report to Congress shall include for each Phase III award the name of the small business concern or individual receiving the award but does not include the requirement to report the name of other than small businesses that received Phase III awards.

Section 638, Title 15, United States Code "Research and Development"

Section 638, Title 15, United States Code, subsection j(2)(C), states the Small Business Administration (SBA) SBIR Policy Directive will include:

> procedures to ensure, to the extent practicable, that an agency which intends to pursue research, development, or production of a technology developed by a small business concern under an SBIR Program enters into follow-on, non-SBIR funding agreements with the small business concern for such research, development, or production.

Section 638, Title 15, United States Code subsection r(4) was added in 2012 and states, "to the greatest extent practicable, Federal agencies and Federal prime contractors shall issue Phase III awards relating to technology, including sole-source awards, to the SBIR award recipient that developed the technology."

Section 638, Title 15, United States Code subsection j(3)(C)[2] states the SBA SBIR Policy Directive will require:

> agencies to report to the Administration, not less frequently than annually, all instances in which an agency pursued research, development, or production of a technology developed by a small business concern using an award made under the SBIR Program of that agency, and determined that it was not practicable to enter into a follow on non-SBIR program funding agreement with the small business concern, which report shall include, at a minimum—(i) the reasons why the follow-on funding agreement with the small business concern was not practicable; (ii) the identity of the entity with which the agency contracted to perform the research, development, or production; and (iii) a description of the type of funding agreement under which the research, development, or production was obtained.

SBA SBIR Policy Directive

The SBA SBIR Policy Directive does not restrict small business innovators from selling their businesses or their Phase III rights to another company. Furthermore, SBA SBIR Policy Directive section 4(c)(5) states, "there is no limit on the number, duration, type, or dollar value of Phase III awards made to a business concern," and SBA SBIR Policy Directive section 4(c)(6) states, "the small business size limits for Phase I and II awards do not apply to Phase III awards."

[2] The SBA SBIR Policy Directive section 9(a)(12) includes this annual reporting requirement. In 2012, it was amended to state that agencies are required to report this information to SBA within 15 business days of the agency's award.

SBA SBIR Policy Directive section 4(c)(7)[3] states:

> For Phase III, Congress intends that agencies or their Government-owned, contractor-operated facilities, Federally-funded research and development centers, or Government prime contractors that pursue research/research & development or production developed under the SBIR Program, give preference, including sole-source awards, to the awardee that developed the technology. In fact, the Act requires reporting to SBA of all instances in which an agency pursues research, development, or production of a technology developed by an SBIR awardee, with a concern other than the one that developed the SBIR technology.

SBA SBIR Policy Directive section 4(c)(8) states:

> For Phase III, agencies, their Government-owned, contractor-operated facilities, or Federally-funded research and development centers, that intend to pursue Research or Research and Development, production, services, or any combination thereof of a technology developed by an SBIR awardee of that agency, with an entity other than that SBIR awardee, must notify SBA in writing prior to such an award.
>
> This notification must include, at a minimum: (a) the reasons why the follow-on funding agreement with the SBIR awardee is not practicable; (b) the identity of the entity with which the agency intends to make an award to perform research, development, or production; and (c) a description of the type of funding award under which the research, development, or production will be obtained."

SBA may appeal an agency's decision to pursue Phase III work with a business concern other than the SBIR awardee that developed the technology to the head of the contracting activity.

SBA SBIR Policy Directive section 8(b)(2)[4] states:

> SBIR agencies must protect from disclosure and non-governmental use all SBIR technical data developed from work performed under an SBIR funding agreement for a period of not less than four years from delivery

[3] In 2012, this section was amended to state, to the greatest extent practicable, SBIR Phase III awards shall be made to the SBIR awardee that developed the technology. Agencies are now required to document how they provided this preference to the SBIR awardee that developed the technology. In addition, the 2012 update now states, "the Act requires SBA report all instances in which an agency pursues research, development, or production of a technology developed by an SBIR awardee, with a business concern or entity other than the one that developed the SBIR technology."

[4] SBA SBIR Policy Directive section 8(b)(4) states that section 8(b)(2) will be inserted into all SBIR phase contracts as part of the SBIR data rights clause and are non-negotiable and must not be the subject of negotiations pertaining to an SBIR Phase III award, or diminished or removed during award administration.

> of the last deliverable under that agreement (either Phase I, Phase II, or Federally-funded SBIR Phase III) [...].
>
> Agencies are released from obligation to protect SBIR data upon expiration of the protection period except that any such data that is also protected and referenced under a subsequent SBIR award must remain protected through the protection period of that subsequent SBIR award. For example, if a Phase III award is issued within or after the Phase II data rights protection period and the Phase III award refers to and protects data developed and protected under the Phase II award, then that data must continue to be protected through the Phase III protection period. Agencies have discretion to adopt a protection period longer than four years.

DFARS 252.227-7018 – "Rights in Noncommercial Technical Data and Computer Software–SBIR Program"

Defense Federal Acquisition Regulation Supplement (DFARS) 252.227-7018 b(1)(vi) states the Government shall have unlimited rights in technical data, including computer software documentation, or computer software generated under this contract that are—SBIR data upon expiration of the SBIR data rights period.

DFARS 252.227-7018 b(4)(i) states:

> Except for technical data, including computer software documentation, or computer software in which the Government has unlimited rights under paragraph (b)(1) of this clause, the Government shall have SBIR data rights in all technical data or computer software generated under this contract during the period commencing with contract award and ending upon the date five years after completion of the project from which such data were generated.

Furthermore, DFARS 252.227-7018b(4)(ii) states:

> The Government may not release or disclose SBIR data to any person, other than its support services contractors, except—(A) As expressly permitted by the Contractor; (B) For evaluation purposes; or (C) A release, disclosure, or use that is necessary for emergency repair or overhaul of items operated by the Government.

Appendix D

Contracts Reviewed

Agency		Contract	Description of Supplies or Services Procured	Award Date	Business Size in FPDS-NG	Base Award Amount[1] (Millions)
1	AFRL	FA8650-10-C-3038	Development of a Rod-In-Crossflow specific to the F-35 and evaluate its acoustics suppression performance	2/26/2010	OTSB	$.20
2	AFRL	FA8650-10-C-7013	Implement enhancements to the Anubis unmanned air vehicle systems	3/1/2010	OTSB	1.18
3	AFRL	FA8650-10-C-7037	Performing improvements in sensor system, aerodynamics, propulsion, communication system, and ground station for the Silver Fox C3 Small Unmanned Ariel Systems	7/20/2010	OTSB	3.93
4	AFRL	FA8650-11-C-7063	Research and Development of an unmanned air vehicle for gunships	11/18/2010	OTSB[2]	.34
5	AFRL	FA8650-10-D-1908	Research and Development to further develop, demonstrate, and productize advanced investment decision support technologies	9/27/2010	SB	5.00
6	AFRL	FA8650-11-C-1194	Continued Research and Development of technology countermeasures that mitigate the risk to hardware-based tampering and malware targeting hardware components	9/15/2011	SB	3.89
7	AFRL	FA8650-11-C-7187	Conduct Research and Develop/Deliver any residual hardware for Modular C3ISR Mission Payloads for Unmanned Aerial Systems Support Jammer Cueing	9/30/2011[3]	SB	26.80
8	AFRL	FA8650-12-D-1372	Design, development, enhancement, and commercialization of nanostructure analysis technologies	3/30/2012	SB	3.00

Acronyms and footnotes used throughout Appendix D are defined on the final page of Appendix D.

Contracts Reviewed (cont'd)

Agency		Contract	Description of Supplies or Services Procured	Award Date	Business Size in FPDS-NG	Base Award Amount[1] (Millions)
9	NAVAIR	N00019-10-C-0065	Conversion of AGM-88B HARM missiles into AGM-88E Advanced Anti-Radiation Guided Missile All-Up Round Missiles	7/30/2010	OTSB	50.07
10	NAVAIR	N00019-11-G-0014	Engineering and logistics support for the AGM-88E Advanced Anti-Radiation Guided Missile	6/23/2011	OTSB	50.00
11	NAVAIR	N00019-11-P-4017	Maintenance of Environment Stabilization System	9/29/2011	SB	.03
12	NAVAIR	N00019-12-C-0062	Procurement of multifunctional color displays, spares and non-recurring engineering to support retrofit of existing displays in the T-45 aircraft	8/14/2012	SB[4]	7.14
13	NAVAIR	N00019-12-C-2005	Fabricate, integrate, assemble, test and deliver AGM-88E Advanced Anti-Radiation Guided Missile	10/31/2011	OTSB	54.40
14	NAVSEA	N00024-10-C-4103[5]	Delivery of Shipyard Workload Integrated Forecasting Tool	7/1/2010	SB[4]	1.64
15	NAVSEA	N00024-11-C-5204	Engineering services for developing, implementing and supporting Undersea Warfare Sensor/Processor Technology Insertion for AN/SQQ-89(V)	11/19/2010	SB	15.89
16	NAVSEA	N00024-11-C-5205	Engineering Services in support of the AN/UYQ-100 USWDSS	11/17/2010	OTSB	.13
17	NAVSEA	N00024-12-C-6249	Development and Production for the Low Profile Photonics Mast	7/11/2012	SB	10.63
18	NAVSEA	N00024-12-C-6311	Hardware and software product development and integration of the Mission Package Services software and the Mission Package Portable Control Station	8/6/2012	OTSB	4.42
19	USAMRAA	W81XWH-10-C-0237	Support for the Pharmacovigilance Center	7/9/2010	SB[4]	.92
20	USAMRAA	W81XWH-10-C-0255	Enhanced analysis database for the Pharmacovigilance Center	9/24/2010	OTSB	3.74

Acronyms and footnotes used throughout Appendix D are defined on the final page of Appendix D.

Contracts Reviewed (cont'd)

Agency		Contract	Description of Supplies or Services Procured	Award Date	Business Size in FPDS-NG	Base Award Amount[1] (Millions)
21	USAMRAA	W81XWH-11-P-0660	Procurement of 100 A-SCOPE kits	9/15/2011	SB	.33
22	USAMRAA	W81XWH-12-C-0084[6]	Validate and demonstrate Rugged Mobile Logistics System	1/9/2012	SB	1.26

[1] The combined base award value excludes amounts for option periods and includes the maximum allowable amount for delivery order-type contracts and basic ordering agreements.

[2] Miscoded in FPDS-NG. We determined that the contractor was a small business at the time of award.

[3] An advanced cost agreement was in effect on July 15, 2011, before contract award.

[4] Miscoded in FPDS-NG. We determined that the contractor was a large business at the time of award.

[5] NAVSEA contracting personnel could not locate the contract file.

[6] USAMRAA contracting personnel initially awarded the contract as a SBIR Phase II enhancement, but they modified it on September 17, 2012, to place SBIR Phase III on the contract. It was valued at approximately $150,000 for the Proof of Principle Smart Weapons Case and delivery of a triage system and associated tags. The contract remained in our review because it was modified to include SBIR Phase III.

Acronyms Used in Appendix D

AFRL	Air Force Research Laboratory
AGM- 88B HARM	High-Speed Anti-Radiation Missile
C3ISR	Command, Control, Communication, Intelligence, Surveillance and Reconnaissance
FPDS-NG	Federal Procurement Data System-Next Generation
NAVAIR	Naval Air Systems Command
NAVSEA	Naval Sea Systems Command
OTSB	Other Than Small Business
SB	Small Business
SBIR	Small Business Innovation Research
USAMRAA	United States Army Medical Research Acquisition Activity

Management Comments

DoD Office of Small Business Programs

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ACQUISITION, TECHNOLOGY AND LOGISTICS

21 February 2014

MEMORANDUM FOR PROGRAM DIRECTOR, CONTRACT MANAGEMENT AND PAYMENTS, DOD INSPECTOR GENERAL

THROUGH: DIRECTOR, ACQUISITION RESOURCES AND ANALYSIS NS 2/24/14

SUBJECT: Response to DoD Inspector General Draft Report on DoD Considered Small Business Innovation Research Intellectual Property Protections in Phase III Contracts, but Program Improvements Are Needed (Project No. D2013-D000CG-0066.000)

As requested, I am providing responses to the general content and recommendations contained in the subject report.

Recommendation 1: We recommend the Administrator, DoD Office of Small Business Programs Small Business Innovation Research Office Program:

a. Issue single, overarching guidance and related training for all DoD organizations to follow that will provide for the uniform application of intellectual property protections across DoD. Guidance and training should include:

- standard intellectual property protections within the Small Business Innovation Research Program, including the use and application of the data assertions table; and
- when the protection period begins and when it can be extended.

b. Issue clarifying guidance to address the requirement for organizations to provide the Small Business Administration a complete and timely notification detailing why a proposed Small Business Innovation Research Phase III contract could not be awarded to the developer. The clarifying guidance should provide a single DoD interpretation of the requirement and address reporting requirements outlined in the Small Business Administration Small Business Innovation Research Policy Directive.

c. Issue guidance for database users to refer to when recording Small Business Innovation Research information in existing databases to increase the accuracy and uniformity of information used to track and report on the DoD Small Business Innovation Research Program.

DoD Office of Small Business Programs (cont'd)

Response:

DoD Office of Small Business Programs (OSBP) **Concurs** with Recommendation 1:

a. Overarching policy guidance exists in the USD (AT&L) memorandum, 8 Dec 2008, entitled "Small Business Innovation Research (SBIR) Program Phase III Guidance" (at paragraph 1, "SBIR technical data rights extend to Phase III.") The text states that "a Phase III award is, by its nature, an SBIR award, has SBIR status, and must be accorded SBIR data rights."

   Concerning guidance on the standard IP protections and use of the data assertions table, as well as when the protection period begins and can be extended: OSBP will specifically address these topics in our annual SBIR/STTR Training Workshop, 10-12 June 2014.

b. OSBP will address timely SBA notification concerning Phase III contracts awarded to other than the developer at our annual SBIR/STTR Training Workshop, 10-12 June 2014. In that workshop OSBP will reference the relevant section in this IG report and the corresponding section in the SBA SBIR Program Policy Directive that provides the guidance.

c. The OSBP believes written guidance for database users exists for every DoD SBIR data system; however, OSBP will review all existing DoD SBIR databases to verify the existence of necessary guidance. Additionally, in order to increase the accuracy and uniformity of information in the databases, OSBP will address databases at the training workshop in June.

Please contact [redacted] Associate Director, SBIR/STTR Programs, [redacted] if additional information is required.

Linda B. Oliver

Linda Oliver
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DoD Office of Small Business Programs

Defense Procurement and Acquisition Policy

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ACQUISITION, TECHNOLOGY AND LOGISTICS

FEB 25 2014

MEMORANDUM FOR PROGRAM DIRECTOR, CONTRACT MANAGEMENT AND PAYMENTS, DOD INSPECTOR GENERAL

THROUGH: DIRECTOR, ACQUISITION RESOURCES AND ANALYSIS 2/25/14

SUBJECT: Response to DoD Inspector General Draft Report on DoD Considered Small Business Innovation Research Intellectual Property Protections in Phase III Contracts, but Program Improvements Are Needed (Project No. D2013-D000CG-0066.000)

As requested, I am providing responses to the general content and recommendations contained in the subject report.

Recommendation 2: We recommend the Director, Defense Procurement and Acquisition Policy address inconsistences between the Defense Federal Acquisition Regulation Supplement 252.227-7018 and the Small Business Administration Small Business Innovation Research Policy Directive regarding intellectual property protections, specifically on when the Small Business Innovation Research data protection period begins, when it can be extended, and whether the protection period can be revived after expiration.

DPAP Response: Concur. DOD will work with SBA to address any inconsistencies between the DFARS and the SBA Policy Directive (2012) regarding the cited intellectual property issues. In particular, DoD has already proposed revisions to the relevant DFARS clauses to clarify and better implement key elements of the SBIR Policy Directive (e.g., the initiation and extension of the SBIR protection period). However, DoD believes that there are significant policy and legal considerations that remain open regarding the potential "revival" of the SBIR protection period once it has expired. DoD welcomes the opportunity to work with SBA to address these important issues.

Please contact [redacted] if additional information is required.

Richard Ginman
Director, Defense Procurement
and Acquisition Policy

Acronyms and Abbreviations

AFRL	Air Force Research Laboratory
DFARS	Defense Federal Acquisition Regulation Supplement
DoD OSBP	DoD Office of Small Business Programs
FAR	Federal Acquisition Regulation
FPDS-NG	Federal Procurement Data System-Next Generation
NAVAIR	Naval Air Systems Command
NAVSEA	Naval Sea Systems Command
SBA	Small Business Administration
SBIR	Small Business Innovation Research
USAMRAA	U.S. Army Medical Research Acquisition Activity
USAMRMC	U.S. Army Medical Research and Materiel Command
U.S.C.	United States Code

INSPECTOR GENERAL

DEPARTMENT OF DEFENSE

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U.S. Department of Defense

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