United States Small Business Administration
Office of Hearings and Appeals

NAICS APPEAL OF: Evanhoe & Associates, LLC, Appellant, Solicitation No. FA8604-13-R-7991 Department of the Air Force AFLCMC/PZIE Wright-Patterson AFB, Ohio	SBA No. NAICS-5505 Decided: September 27, 2013

APPEARANCES

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DECISION

I. Jurisdiction

This appeal is decided under the Small Business Act of 1958, 15 U.S.C. § 631 *et seq.*, and 13 C.F.R. parts 121 and 134.

II. Issue

Whether the correct NAICS code for this procurement is 541712, Research and

Development in the Physical, Engineering, and Life Sciences (except Biotechnology), Aircraft exception, or 541511, Custom Computer Programming Services.

III. Background

A. The Solicitation

On June 6, 2013, the Department of the Air Force, Air Force Life Cycle Management Center, at Wright-Patterson Air Force Base (Air Force), issued Request for Proposals No. FA8604-13-R-7991 (RFP) for the Advanced Technical Exploitation Program (ATEP) II. The Contracting Officer (CO) set the procurement totally aside for small business and designated North American Industry Classification System (NAICS) code 541712, Research and Development in the Physical, Engineering, and Life Sciences (except Biotechnology), Aircraft exception, as the applicable code for the procurement. NAICS code 541712, Aircraft exception, has a corresponding 1,500 employee size standard.

1. The Performance Work Statement

a. Introduction, Mission and Scope

The National Air and Space Intelligence Center (NASIC) is the Intelligence Community and Department of Defense (DoD) leader and preeminent source for Geospatial Intelligence (GEOINT) and non-nuclear Measurement and Signature Intelligence (MASINT) processing, exploitation, dissemination and innovation. The Advanced Technical Exploitation Program II (ATEP II) encompasses the GEOINT and non-nuclear MASINT missions performed in NASICs Geospatial and Signatures Intelligence Group (NASIC/GS). (PWS § 1.0.)

ATEP II includes planning, processing, analysis, dissemination, archiving, research and development (R&D), and associated activities for GEOINT and MASINT. All ATEP II products and tools are developed and tailored to meet the needs of the operational, arms control and treaty monitoring, acquisition policy and scientific and technical intelligence communities as well as national and defense policy makers. ATEP II encompasses individual mission areas as well as the development of integrated products varying from tactical products with timelines of minutes to hours to in-depth R&D-based technical intelligence production. (PWS § 1.1 (Mission).)

ATEP II provides highly technical intelligence services to perform **P** lanning and Direction, **C**ollection, **P**rocessing and Exploitation, **A**nalysis and Production, and **D**issemination (**PCPAD**) activities required to analyze data from multiple GEOINT and MASINT sensors. Highly technical services include: R&D, enhancement, sustainment, and maintenance of end-to-end PCPAD systems, software tools, and capabilities used to support the exploitation of 1st, 2nd, and 3rd phase intelligence analysis of data from multiple GEOINT and MASINT sensors. ATEP II uses data collected from multiple Air Force aircraft platforms (including but not limited to: Predator, Reaper, Global Hawk, U2, and other classified platforms) as well as space-based systems to meet NASIC mission requirements. (PWS § 1.1 (Mission).)

The RFP envisions the contractor as supporting the NASIC Mission by: (1) providing the

most agile and innovative capabilities for technical analysis in the Intelligence Community; (2) "turning innovation into intelligence products"; and (3) constantly improving productivity in technical analysis product generation. (PWS (Vision Statement).)

The ATEP II scope includes: (1) provide advanced GEOINT and MASINT research and development of capabilities and systems; (2) provide unique GEOINT and MASINT PCPAD system support, including sustainment of existing capabilities; and (3) provide timely GEOINT and MASINT operational intelligence production support in multiple mission areas to support NASIC. (PWS § 1.3 (Scope).)

Research and the subsequent development of ATEP II cutting edge capabilities are the cornerstones of the program. Research of event phenomenologies, sensor responses and process algorithms drive ATEP II capabilities. Field and laboratory experiments provide basic information to better understand ATEP II intelligence problems and the means to solve them. Operational tests using simulated or real events further define possible solutions. Follow-on ATEP II development, using the knowledge learned during research, refines prototype methods into operational capabilities. These results are then passed back to the aircraft and space-based program offices to be integrated into the platform, enhancing the intelligence derived from those systems. ATEP MASINT and GEOINT capabilities have grown and improved due to the research and development activities of ATEP and previous programs. (PWS § 1.3 (Scope).)

The eight ATEP II mission areas for GEOINT are: Electro-Optical (EO), Synthetic Aperture RADAR (SAR), Multi/Hyper Spectral (MSI/HSI), Thermal Infrared (TIR), Overhead Persistent Infrared (OPIR), Light Detection and Ranging (LIDAR), Ground Moving Target Indicator (GMTI), and Full Motion Video (FMV) data sources. The four mission areas for MASINT are: EO, Over-the-Horizon (OTH) RADAR, Line-of-Sight (LOS) RADAR, and Radio Frequency (RF) data sources. (PWS § 1.3 (Scope).)

b. Performance Areas and Activities

The five performance areas of ATEP II are set out in Section 3 of the PWS. The first is Program Management (Section 3.1). The other four, described below, are: Intelligence Research (Section 3.2), PCPAD Development (Section 3.3), PCPAD Sustainment (Section 3.4), and Intelligence Production (Section 3.5).

· Intelligence Research. This performance area requires the contractor to "conduct and apply research to determine solutions to GEOINT and MASINT requirements. The contractor shall research event phenomenologies, sensor responses, and process algorithms to enhance the intelligence derived from aircraft and space-based system data used by NASIC/GS to meet NASIC requirements. Results are then passed back to the aircraft and space-based program offices to be considered for integration into the platform, enhancing the intelligence derived from those systems." (PWS § 3.2.)

Activities are: (1) Investigation - hypothesize and investigate solutions to challenges; (2) Prototype - analyze assigned topics and generate prototypes as possible solutions; (3) Verify - evaluate solutions to verify proper implementation and compliance with study requirements and

design; (4) Validate - evaluate solutions to confirm accurate results; and (5) Research Documentation - report outcome, identify solutions for transition to development. (*Id.*)

· PCPAD Development. This performance area requires the contractor to "apply knowledge and understanding to develop solutions for identified requirements. The contractor shall plan, organize, coordinate, and execute system engineering actions designed to develop new and modified GEOINT and MASINT PCPAD systems supporting up intelligence requirements in all individual ATEP II mission areas. The contractor shall support all phases of PCPAD development including: requirements derivation, design, implementation, system test, acceptance test, documentation, and delivery of hardware and software. These results are then passed back to the aircraft and space-based program offices to be considered for integration into the platform, enhancing the intelligence derived from those systems." (PWS § 3.3.)

Activities are: (1) Systems Engineering - conduct systems engineering activities, and design, develop and acquire system components; (2) Requirements Analysis - review and refine requirements; incorporate solution specific requirements; analyze new PCPAD needs and document requirements to support data analysis; (3) Design - develop system-level designs, and detailed designs for all levels of selected design; (4) Development - implement selected design through system development activities, acquisition, or modification of existing research and development solutions; convert approved designs into functioning PCPAD system through software code development and acquisition; (5) Integration - assemble and incorporate lower-level elements into higher-level system elements and these into final system; (6) Testing - demonstrate the engineering design and development process is complete and the developed PCPAD system conforms to requirements; (7) Installation - install developed system into production environment, resolve problems; (8) PCPAD Development Documentation; and (9) Training - develop and conduct training for new/modified capabilities. (*Id.*)

· PCPAD Sustainment. This performance area requires the contractor to plan, organize, coordinate, and execute system engineering actions to sustain PCPAD systems and support all phases of PCPAD sustainment including: problem identification, analysis, design, implementation, system test, acceptance test, documentation, and delivery of updated hardware and software. (PWS § 3.4.) Activities are: (1) Corrective Maintenance of existing systems to solve bugs; (2) Adaptive Maintenance to remain operational in a changing IT environment; (3) Perfective Maintenance to improve performance; and (4) Emergency Maintenance. (*Id.*)

· Intelligence Production. This performance area requires the contractor to conduct GEOINT and MASINT operational PCPAD production activities. Intelligence produced utilizing data from various platforms is validated and passed back to the aircraft and satellite program offices to be considered for integration into the platform, further enhancing the intelligence derived from those systems. (PWS § 3.5.) Activities are: (1) Planning and Direction; (2) Collection; (3) Processing and Exploitation of raw data; (4) Analysis and Production - analyze data to create information; and (5) Dissemination of intelligence production. (*Id.*)

c. Deliverables

Most activities described in the PWS require one or more deliverables. There are 49

different types of deliverables. (PWS § 5.) The two types of deliverables that are required by the largest number of different activities are "A001-Presentation Material" (19 activities) and "A010-Technical Report Study/Service" (21 activities).

2. Labor Categories and Hours

This RFP requires a Program Manager, three levels of Project Managers, seven levels of Engineer/Scientists, four levels of Software Engineers, and four levels of Data Analysts. The RFP contains the historical hours per year for on-site and off-site labor in each category. The combined annual hours and labor categories are as follows:

Labor Category	**Annual Hours**	**Percent**
Managers	18,480	04.49%
Engineer/Scientists	175,560	42.70%
Software Engineers	99,330	24.16%
Data Analysts	117,810	28.65%
Total Annual Hours	411,180	100.00%

(RFP, Pricing Worksheet (Section L).)

3. Evaluation Criteria

This is a Lowest Price Technically Acceptable source selection with three factors: Technical, Past Performance, and Cost. (RFP, Section M-1.1.) Both the Technical and Past Performance proposal volumes must be rated "acceptable" before the third factor, Cost, is considered. (*Id.*)

The Technical factor has six subfactors, each of which must be rated ""acceptable" for the Technical factor to be rated "acceptable." (RFP, Section M-2.1, M-2.2.) The six subfactors are: Program Management, Technical Capability, System Research, System Development, System Sustainment, and Intelligence Production. (RFP, Section M-2.1.) The Technical Capability subfactor requires understanding of each of the 12 mission areas set out in PWS § 1.3 including the "critical factors affecting R&D, System Sustainment, and Intelligence Production." (RFP, Section M-2.2.2.1.) This subfactor sets out ATEP Effort by Area, based on dollars: Research and Development is 42%; Sustainment is 22%; and Production is 36%. (RFP, Table M-2.2.2.2-1 & Table L-8.7.2-1.)

B. Proceedings on Appeal

On June 14, 2013, Evanhoe & Associates, LLC (Appellant), timely filed the instant appeal. Appellant asserts that the CO's NAICS code selection is incorrect and that NAICS code 541511, Custom Computer Programming Services, is correct for this procurement. NAICS code 541511 has a corresponding $25.5 million annual receipts size standard. On June 25 and 28,

2013, Integrity Applications, Inc. (Integrity), and Radiance Technologies, Inc. (Radiance), moved to intervene in this appeal. Both Integrity and Radiance oppose the appeal and assert that NAICS code 541712, Aircraft exception, selected by the CO, is correct.

On June 25, 2013, the Air Force stayed the procurement pending resolution of this appeal. On July 1, 2013, the Air Force moved to dismiss this appeal and asked for a stay of the close of record. On July 24, 2013, after reviewing the parties' briefs, I denied the Air Force's motion to dismiss. On August 19, 2013, the Air Force, Integrity, and Radiance all filed their substantive responses to the appeal.

On August 21, 2013, Appellant filed a motion to reply to the Air Force's response, and also the proposed reply. On August 22, 2013, the Air Force moved to strike Appellant's reply. I GRANT Appellant's motion to reply and DENY the Air Force's motion to strike.

1. Appellant's Arguments

Appellant asserts the Air Force erred in selecting NAICS code 541712 because that code applies only when the services procured are principally to conduct research and experimental development. The Air Force further erred in selecting the Aircraft exception (raising the NAICS code 541712 size standard from 500 employees to 1500), "because aircraft are not involved in the work to be performed." (Appeal at 1.)

Appellant asserts NAICS code 541712 is "intended for original research and development" while the instant solicitation has "a principal purpose of providing planning, collection, processing, analysis, dissemination and data archiving." (Appeal at 3.) "Rather than laboratory or other physical research, these activities embody engineering, operations, systems, computer programming and data processing services." (*Id.*) Appellant emphasizes that the *NAICS Manual*[1] and Footnote 11(a) of the size regulations require "direct, physical original research and experimental development activities" and specifically exclude engineering, operations, systems, nonphysical research, computer programming, and data processing. (Appeal at 4.) Appellant also cites *NAICS Appeals of Dynamac Corp.*, SBA No. NAICS-5025 (2009), *Millennium Engineering and Integration Co.*, SBA No. NAICS-5309 (2011), *Delphi Research, Inc.*, SBA No. NAICS-5377 (2012) (*Delphi*), and *Information Ventures, Inc.*, SBA No. NAICS-4953 (2008) for the proposition that NAICS code 541712 covers primary research and development activities. (Appeal at 4.)

In reviewing the PWS, Appellant asserts that while the words "research" and "development" are mentioned, it is clear "this procurement is not primarily about research and development," and that four of the five performance areas in PWS Section 3 "do not reference any research and development activities." (Appeal at 5.) Only Intelligence Research (PWS § 3.2) "characterizes activities that possess elements of research and development" and those activities, "such as digital analysis, algorithms, data hashing and computer programming changes related to digital imagery," are specifically excluded from NAICS code 541712 by 13 C.F.R. § 121.201,

[1] Executive Office of the President, Office of Management and Budget, North American Industry Classification System-United States (2012), *available at* http://www.census.gov.

Footnote 11(a), because they are "*non-physical* research, involving engineering, operations, systems, computer programming and data processing." (Appeal at 7, 8 (emphasis in original).)

Further, the "majority of the work" is "not related to research and development." (Appeal at 8.) The distribution of labor hours by labor category, set out on the Pricing Worksheet, demonstrates that "the predomina[nt] percentage of labor hours" will be to perform non-scientific tasks, including intelligence production, engineering, software and network engineering, and program management. (*Id.*) Appellant notes that the labor categories which include the word "scientist" are the "dual Engineer/Scientist positions," and that these amount to only 43% of total labor. (Appeal at 9.) Further, "a significant portion" of Engineer/Scientist work "will be *engineering* and *computer programming*, not scientific research. (*Id.* (emphasis in original).) Thus, the research activities here "relate to and support the development of computer programs," activities excluded from NAICS code 541712 by Footnote 11(a). (*Id.*)

As additional evidence that this RFP is not properly classified in NAICS code 541712, Appellant asserts that, of the 49 contract deliverables listed in the PWS, only one, "A010 Technical Report - Study/Service", "could be construed to support research," and this deliverable "is a general purpose report and is not a principal deliverable under the contract." (Appeal at 8.) The other deliverables document program management functions, or are related to software, development, or computer systems, and training on those systems and programs. (*Id.*) Citing *NAICS Appeal of RhinoCorps, Ltd.*, SBA No. NAICS-4736 (2006), Appellant asserts the RFP largely requires skills excluded from NAICS code 541712. (Appeal at 8.)

Thus, Appellant concludes, as shown by the PWS descriptions, the Pricing Worksheet, and the deliverables, most of the work to be performed under this RFP is not research and development as defined in NAICS code 541712, and the small amount that is research and development is of a type excluded under Footnote 11(a). (Appeal at 10.)

As for the "Aircraft exception," Appellant argues that, while Air Force procurements "obviously involve aircraft," under *Delphi*, the procuring agency's mission has little relevance to NAICS code selection. (Appeal at 5.) Here, the PWS has "no mention of aircraft involved in the required work", and only "a passing reference" to intelligence derived from aircraft. (*Id.*)

The correct NAICS code for this RFP, asserts Appellant, is 541511, Custom Computer Programming Services. In support, Appellant points to the five performance areas of PWS Section 3. Appellant excludes the first, Program Management (§ 3.1), because it is not a distinct function separately classified under a NAICS code. (Appeal at 10.) The next three performance areas are: Intelligence Research (§ 3.2), PCPAD Development (§ 3.3), and PCPAD Sustainment (§ 3.4). After comparing the language in the PWS to that in the *NAICS Manual*, Appellant asserts the correct NAICS code for these three areas is 541511 or 541512, Computer Systems Design Services.[2] The NAICS code for the fifth performance area, Intelligence Production (§ 3.5), is either 541519, Other Computer Related Services, or 518210, Data Processing. (Appeal at 10-12.) The "dedicated data analyst categories" that will perform the Intelligence Production tasks are only 29% of the labor effort, however, so the NAICS code that best captures the principal nature

[2] NAICS codes 541511 and 541512 have a $25.5 million annual receipts size standard.

of the procurement is 541511, which covers the largest percentage of the work to be performed. (Appeal at 13.)[3]

2. Respondents' Arguments

The Air Force, Radiance, and Integrity all oppose the appeal and argue that the CO's NAICS code, 541712, Aircraft exception, is correct for this procurement.

a. Air Force

i. Submissions

Along with its response, the Air Force submitted affidavits by (1) Jason L. Cadek, the CO; (2) Eric J. Halter, the ATEP II Program Manager; and (3) Ronald A. Lambert, an expert advisor for ATEP II. Each testified about the process by which NAICS code 541712 was selected. The Air Force also submitted Mr. Cadek's November 16, 2012, memorandum discussing the NAICS code selection. Messrs. Halter and Cadek also explained the ATEP II program in some detail.

Mr. Cadek testified that "multiple areas of the ATEP II scope fit into the 541712 description." He listed them as:

- Engineering research and development laboratories or services;
- Photonics research and development services;
- Computer related hardware research and development laboratories or services; and
- Physical science research and development laboratories or services.

(Cadek Affidavit ¶ 14.) Mr. Cadek further testified, as to photonics:

> The science of photonics includes the generation, emission, transmission, modulation, signal processing, switching, amplification and detection/ sensing of light. Photonics by its very nature is at the heart of the sensors/ aircraft that the NASIC team exploits and studies on a daily basis. It is this field that continues to expand at an alarming rate and the R&D done in NASIC under ATEP II allows them to continue to get more and more from the platforms that are deployed throughout the world.

(Cadek Affidavit ¶ 15.) Mr. Cadek also testified to historical utilization based on task orders on the current ATEP I contract. Of dollars obligated, 42.2% were on Research and

[3] Appellant notes that both the predecessor contract and the April 16, 2012, Request for Information for this RFP specified NAICS code 541330, Engineering Services. (Appeal at 1.) Appellant, however, does not argue that NAICS code 541330 is appropriate for this RFP.

TCPED[4] Development, 21.9% on TCPED Sustainment, and 35.9% on Intelligence Production. (Cadek Affidavit ¶ 17.) Further, Mr. Cadek testified that ATEP data "are passed along to System Program Offices for integration on current and future aircraft." (Cadek Affidavit ¶ 26.) Mr. Cadek's testimony is consistent with the submitted November 16, 2012, memorandum.

Mr. Halter, who has worked in the GEOINT and MASINT fields for over 15 years, testified about ATEP II research and development (PWS §§ 3.2 and 3.3). He stated: "Detailed research, experiments, prototype generation, and testing are completed before development of these new and improved intelligence products and processes, all under ATEP II." (Halter Affidavit ¶ 3.) He analogized to a digital camera that originally was designed to produce black-and-white photos. ATEP II would study the science behind the camera's sensor chip and the raw data it collects to see if it could come up with a new processing technique by which the same camera and same raw data produces a new product (*i.e.*, color photo). (Halter Affidavit ¶¶ 3a & 5.) Next a prototype process (algorithm) is designed and tested and improved and retested. (*Id.*) In addition to the new products or processes, ATEP II might create a new sensor. (*Id.*) He referred to NASIC's R&D as "a structured and iterative process" that is completed in laboratories at contractor facilities or at NASIC. (*Id.* ¶ 4.)

Mr. Halter also testified that NASIC R&D helps other program offices understand and improve the intelligence-gathering capabilities of their equipment. Further, "R&D products from NASIC also influence the way future aircraft, spacecraft, and sensors are designed and developed." (*Id.* ¶ 3d.) The analogy went from hypothesis to prototype algorithms to "field and ground truth testing," a step that includes physical experiments such exposing the sensors to fires, explosions, and lights in order to collect various data for further study. (*Id.*¶ 11.)

ii. Arguments

The Air Force asserts NAICS code 541712 is for procurements that "look to creating new processes or products." (Air Force Response at 6 (quoting *Brown* at 5-6).) Contrary to Appellant's view, ATEP II is research and development as defined by NAICS code 541712 and not excluded by 13 C.F.R. § 121.201, Footnote 11(a). (Air Force Response at 6.) Further, "[r]esearch and the subsequent development of ATEP II cutting edge capabilities are the cornerstones of the program." (Air Force Response at 6 (quoting PWS § 1.3).)

The Air Force asserts that the foundation of the ATEP II contract is research of sensor capabilities and process algorithms, and that the development of new and improved products and processes are fundamental to it. (Air Force Response at 7-8.) ATEP II is concerned with the research and development of technical means of gathering intelligence. Specifically, data from existing sensors is analyzed by scientists who assess the data in order to determine how the sensors and collected signals may be modified or advanced in order to produce improved intelligence products. These scientists develop algorithms that act as a roadmap for computer engineers, who then create instantiation (software code) that will be executed within sensors, aircraft, other intelligence gathering platforms, and signal processing systems. This series of steps resulting in improved intelligence gathering capabilities represents a new process resulting

[4] TCPED refers to Tasking, Collection, Processing, Exploitation and Dissemination.

from research and development required under the contract. (Air Force Response at 18 (discussing PWS § 3.2).) The contractor also tests the new capability through various experiments to see whether the algorithms and code work as planned, and to fix any flaws in the algorithms or code. (Air Force Response at 9-10.) These experiments are conducted both in the laboratory and in operational environments. (*Id.*)

If the tests are successful, the new process is documented and then transitioned for development under PWS § 3.3. An example of a new process is a new or enhanced manipulation of a sensor or signal to allow it to "see" new information (such as a heat signature), that the same hardware could not previously see. (Air Force Response at 10.)

Once a new process is integrated into the production environment of an existing PCPAD system (a step that also requires further testing), new intelligence products can be created based on the new information now available. An example of a new product is a physical image, based on the new information, which can be used for intelligence purposes. Another example of a new product is improved hardware, such as a new or improved sensor that will be incorporated into military aircraft designs. (Air Force Response at 10.) Documentation and training materials are also produced for the new processes and products. (*Id.*) The new processes and products themselves also become the subject of new research and development, creating a continuous research and development loop. (Air Force Response at 11.)

The Air Force also argues that 42% of the effort (based on dollars) is for research and development (PWS §§ 3.2 and 3.3), 22% is sustainment (PWS § 3.4), and 36% is production (PWS § 3.5). (Air Force Response at 14-17 (citing RFP Section M 2.2.2.2-1 and Table L-8.7.2-1).) Further, 42% of the funding for ATEP II is from "Research and Development, Test and Evaluation (RDT&E) Funding accounts, and these accounts are strictly limited to research and development funding. (Air Force Response at 13-14 (citing Department of Defense (DoD) Financial Management Regulations).) These figures are consistent with the anticipated costs by labor category, as research and development accounts for 42.7% of all labor funding. (Air Force Response at 16.) Thus, although it is less than half of the total ATEP II effort, research and development is the ""preponderant" portion of the labor costs. (Air Force Response at 15.)

Another indication that ATEP II is primarily a research and development procurement is that three of the subfactors within the Technical factor (Technical Capability, System Research, and Systems Development) evaluate the offeror's research and development capabilities in the ATEP II mission areas. (Air Force Response at 13.)

Because the preponderance of the work calls for applied physical research and advanced technology development of sensors and other intelligence-gathering mechanisms, resulting in the development of new and improved intelligence-gathering techniques and products, the Air Force asserts that this RFP is properly classified under NAICS code 541712. (Air Force Response at 22.) Thus, Appellant has failed to prove the CO clearly erred by selecting NAICS code 541712 for this procurement.

Further, the Air Force asserts that NAICS code 541712's Aircraft exception is appropriate for this procurement because the research and development work on existing sensor capabilities

affects manufacturing modifications on military aircraft. (Air Force Response at 21-22.) Specifically, ATEP II directly contributes to improved Intelligence, Surveillance, and Reconnaissance (ISR) capabilities of intelligence gathering platforms such as the U-2, RQ-4 Global Hawk, MQ-9 Reaper, and MQ-1 Predator. (*Id.* (citing PWS § 1.0 and Halter Affidavit ¶ 11).) ATEP II research and development also affects other aircraft programs, including the F-22, as NASIC shares threat assessment and other information with these programs for current operations as well as future aircraft design and development, "[a]s aircraft and ISR capabilities become a single integrated system." (Air Force Response at 22 (quoting Halter Affidavit ¶ 11).)

Although the Air Force acknowledges that computer programming is one component of the contract, it asserts computer programming is neither the objective nor the preponderance of the work. (Air Force Response at 18.) Thus, NAICS code 541511, Custom Computer Programming Services is not appropriate for the ATEP II procurement. The Air Force also argues that NAICS code 541512, Computer Systems Design Services, as well as the legacy NAICS code 541330, Engineering, are not appropriate for the ATEP II procurement. (Air Force Response at 17-20.)

b. Radiance

Reliance asserts NAICS code 541712 is correct because the RFP requires the research and development of new or improved processes and techniques for sensors that derive intelligence information based on the observation of descriptive physical properties and characteristics. (Reliance Response at 1-2.) This effort requires a thorough knowledge of the phenomenology used by the various sensors and research into how a sensor responds to various displayed physical properties. (*Id.* at 2.) This is all "physical research." (*Id.*) Reliance notes that even though the research products "may manifest themselves in software implementation," it is because "current state-of-the-art sensors generally utilize digital, rather than analog, processing techniques"; however, "the thrust of the solicitation is directed to the derivation of new and improved processes utilizing specific phenomenologies, not merely computer programming." (Reliance Response at 4-5.)

c. Integrity

Integrity asserts that NAICS code 541712 is correct because four of its corresponding index entries are prevalent in this solicitation. These four are: (1) Photonics research and development services (relating to specific sensor types and their exploitation processes requiring domain knowledge of phenomenology such as Spectral, Thermal, SAR, Optical, Hyperspectral, RF, OTH, etc.); (2) Physical science research and development laboratories or services (relating to NASIC GEOINT and MASINT mission areas including EO/IR, Thermal, and RADAR); (3) Mathematics research and development laboratories or services (important in such NASIC areas as Electro-Optical, Synthetic Aperture Radar, Multispectral/Hyperspectral, Thermal Infrared, and Line-of-Sight RADAR); and (4) Engineering research and development laboratories or services (relating to producing prototypes). (Integrity Response at 5-9.)

Integrity disagrees with Appellant's view that engineering is prohibited under Footnote 11(a), pointing out that engineering is part of the title of NAICS code 541712, that engineering

research and development is specifically included among the corresponding index entries, and that engineering is required to produce prototypes necessary in the research and development process. (Integrity Response at 9-11.)

Integrity also asserts the CO's selection of the Aircraft exception was proper. First, contrary to Appellant's assertion that aircraft have only passing reference in the PWS, aircraft are mentioned in Sections 1.1 (Mission), 1.3 (Scope), 3.2 (Research), 3.3 (Development), and 3.5 (Production). (Integrity Response at 19-20.) Second, contrary to Appellant's assertion, based on *Delphi*, that NASIC's mission, set out in PWS § 1.3, is irrelevant to the NAICS code selection, here NASIC's mission is important because it is referenced in the evaluation criteria and offerors must demonstrate their ability to support that mission. (Integrity Response at 19.) Third, contrary to Appellant's assertion, aircraft is integral to the services being sought here, because aircraft collection platforms/sensors are "key contributors to the development of actionable GEOINT and MASINT." (Integrity Response at 19.)

3. Appellant's Reply

In its reply, Appellant asserts the Air Force "has mischaracterized the magnitude and nature of the research and development activities in PWS § 3.3 while ignoring the true nature of the work to be performed. (Reply at 2.) Appellant bases this argument on the Air Force's calculation that 42.2% of the work, corresponding to PWS §§ 3.2 and 3.3, is research and development. (*Id.*) Appellant asserts that PWS § 3.3 is not R&D but, rather, activities defined in NAICS codes 541511 and 541512. (*Id.*) Thus, the true research and development component is somewhat less than 42.2%.

Appellant further asserts the predominant services being procured "embody engineering, operations, systems, computer programming and data processing services - services other than laboratory or other physical research" as required by NAICS code 541712. (Reply at 1-2.) Appellant also lists the 38 deliverables required by PWS § 3.3 activities and asserts that 84% of all deliverables relate to computer software and computer systems delivered under PWS § 3.3. (Reply at 3-4.)

IV. Discussion

A. *NAICS Manual* Descriptions

The NAICS code designated by the CO, 541712, Research and Development in the Physical, Engineering, and Life Sciences (except Biotechnology), covers:

> [e]stablishments primarily engaged in conducting research and experimental development (except biotechnology research and experimental development) in the physical, engineering, and life sciences, such as agriculture, electronics, environmental, biology, botany, computers, chemistry, food, fisheries, forests, geology, health, mathematics, medicine, oceanography, pharmacy, physics, veterinary and other allied subjects.

NAICS Manual at 763. Further, NAICS industry group 5417, Scientific Research and Development Services, covers:

> [e]stablishments engaged in conducting original investigation undertaken on a systematic basis to gain new knowledge (research) and/or the application of research findings or other scientific knowledge for the creation of new or significantly improved products or processes (experimental development).

NAICS Manual at 761.

> For NAICS code 541712, a footnote to the Size Standards table provides:
>
> "Research and Development" means laboratory or other physical research and development. It does not include economic, educational, engineering, operations, systems, or other nonphysical research; or computer programming, data processing, commercial and/or medical laboratory testing.

13 C.F.R. § 121.201, n.11(a).

> Among the 30 Corresponding Index Entries for NAICS code 541712 are:
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> Engineering research and development laboratories or services Mathematics research and development laboratories or services Photonics research and development services Physical science research and development laboratories or services (except biotechnology research and development).

NAICS Manual, Part IV and online version.

> Appellant's NAICS code, 541511, Custom Computer Programming Services, covers:
>
> [e]stablishments primarily engaged in writing, modifying, testing, and supporting software to meet the needs of a particular customer.
> Corresponding Index Entries:
> Applications software programming services, custom computer
> Computer program or software development, custom
> Computer programming services, custom
> Computer software analysis and design services, custom
> Computer software programming services, custom
> Computer software support services, custom
> Programming services, custom computer
> Software analysis and design services, custom computer
> Software programming services, custom computer
> Web (i.e., Internet) page design services, custom

NAICS Manual at 753.

B. Standard of Review

Appellant has the burden of proving, by a preponderance of the evidence, all elements of its appeal. Specifically, it must prove the CO's NAICS code designation is based on a clear error of fact or law. *NAICS Appeal of Durodyne, Inc.*, SBA No. NAICS-4536, at 4 (2003); 13 C.F.R. § 134.314. SBA regulations do not require the CO to designate the perfect NAICS code. Rather, the CO must designate the NAICS code that best describes the principal purpose of the product or service being acquired in light of the industry description in the *NAICS Manual*, the description in the solicitation, and the relative weight of each element in the solicitation. *Durodyne*, SBA No. NAICS-4536, at 4; 13 C.F.R. § 121.402(b). OHA will not reverse a NAICS code designation "merely because OHA would have selected a different code." *NAICS Appeal of Eagle Home Medical Corp.*, SBA No. NAICS-5099, at 3 (2009).

C. Analysis

After examining the solicitation, the descriptions in the *NAICS Manual*, OHA's prior decisions, and the testimony and arguments of the parties, I conclude that Appellant has not met its burden of showing clear error in the CO's selection of NAICS code 541712, Aircraft exception, for this procurement.

The "proper NAICS code" is the one "which best describes the principal purpose of the product or service being acquired." 13 C.F.R. § 121.402(b). "Primary consideration is given to the industry descriptions in the *NAICS United States Manual*, the product or service description in the solicitation and any attachments to it, the relative value and importance of the components of the procurement making up the end item being procured, and the function of the goods or services being purchased. A procurement is usually classified according to the component which accounts for the greatest percentage of contract value." *Id.*

The *NAICS Manual* definition for NAICS code 541712 requires the conduct of "research and experimental development . . . in the physical, engineering, and life sciences." *NAICS Manual at* 763. For all of NAICS industry group 5417, Scientific Research and Development Services, including NAICS code 541712, the *NAICS Manual* defines "research" as the conduct of "original investigation undertaken on a systematic basis to gain new knowledge." *NAICS Manual* at 761. The *NAICS Manual* defines "experimental development" as "the application of research findings or other scientific knowledge for the creation of new or significantly improved products or processes." *Id.*

OHA has held that "procurements classified under NAICS code 541712 must be for research and development, and thus must look to creating new processes or products." *NAICS Appeal of Dayton T. Brown, Inc.*, SBA No. NAICS-5164, at 5-6 (2010) (emphasis in original). The development of a new or improved product is the predicate of a research and development contract." *NAICS Appeal of Dynamac Corp.*, SBA No. NAICS-5025, at 8 (2009). Further, OHA recently has overturned a contracting officer's selection of NAICS code 541712 where there was no creation of new products or processes. *See NAICS Appeal of Delphi Research, Inc.*, SBA No. NAICS-5377, at 9 (2012).

Here, the PWS states, "Research and the subsequent development of ATEP II cutting edge capabilities are the cornerstones of the program." (PWS § 1.3.) Further, the PWS envisions the contractor "turning innovation into intelligence products." PWS (Vision Statement).) Thus, of the three elements of the ATEP II scope (research and development, PCPAD system support and sustainment, and intelligence production), research and development are "the cornerstones." (PWS § 1.3.)

The research and development elements of ATEP II are described in PWS §§ 3.2 (Intelligence Research) and 3.3 (PCPAD Development). Subsections 3.2 and 3.3, together, describe a complete and continuous research and development process. Intelligence Research requires the contractor to "conduct and apply research to determine solutions" and to "research event phenomenologies, sensor responses, and process algorithms to enhance the intelligence derived from aircraft and space-based system data used by NASIC/GS to meet NASIC requirements." (PWS § 3.2.)

Next, the RFP requires the creation of prototypes. (PWS § 3.2.2.) OHA has held that the design and development of original prototypes is a "quintessential research and development (R&D) function." *NAICS Appeal of DCX-Chol Enterprises, Inc.*, SBA No. NAICS-5140, at 6 (2010). After verifying and validating the proposed solutions, the research outcomes are documented and solutions identified for "transition to development." (PWS § 3.2.) Thus, the PWS requires Intelligence Research to include investigation of possible solutions, generation of prototypes as solutions, evaluation of solutions, and documenting the outcomes. PWS § 3.2.

Under PCPAD Development, the PWS requires systems engineering, requirements analysis, design, and development of the selected design, integration into higher-level system elements, and then testing, installation of the developed system into the production environment, documentation, and training related to the new or improved capabilities of the system. (PWS § 3.3.) The contractor must support all phases of PCPAD Development. (*Id.*)

The testing in PWS § 3.3.6 is to demonstrate the engineering design and development process is complete and the developed PCPAD system conforms to requirements. It is unlike the testing in *NAICS Appeal of Dayton T. Brown, Inc.*, SBA No. NAICS-5164 (2010), where the Army sought testing services for aircraft parts that had already been designed and manufactured. OHA denied an appeal seeking NAICS code 541712, because that procurement did not involve the research or development of the aircraft parts in question, but only the testing of finished items. Here, in contrast, the testing is not for items already made; it is part of research and development towards new products and processes.

Clearly, research and development are both present in the PWS, as required by the *NAICS Manual* and OHA's prior decisions. OHA has held that procurements under NAICS code 542712 must be for research and development, and look to creating new processes or products. *Dayton T. Brown*, at 5. Here, the research and development are clearly called for in the PWS, and look toward development of new hardware for aircraft.

I find that the principal purpose of the instant procurement is research and development

work as defined in the *NAICS Manual*. Further, the ATEP II mission areas that the required research and development will support are all within the "corresponding index entries" of NAICS code 541712. The particular corresponding index entries are: Photonics research and development services, Physical science research and development laboratories or services, Mathematics research and development laboratories or services, and Engineering research and development laboratories or services.

I agree with the Air Force and the intervenors that the principal purpose of this procurement, as described in the PWS, is the research and development of new and improved intelligence products and processes. That this procurement is properly classified in NAICS code 541712 is further supported by the fact that, historically, 42% of the effort (based on labor categories and hours) is for research and development and that 42% of the funding for ATEP II is from RDT&E Funding accounts which, under DoD Financial Management Regulations, may be spent only on research and development activities. *See* DoD 7000.14-R, Vol. 2B, Chapter 5 ¶ 050201 (September 2012). OHA caselaw also supports the use of labor categories and estimated hours, as well as funding sources, as important indicators of the relative weight of each element of a solicitation. *E.g., Dynamac*, NAICS-5025, at 8.

The size regulations require consideration of "the relative *value and importance* of the components of the procurement." 13 C.F.R. § 121.402(b) (emphasis added). Further, a procurement is usually classified "according to the component which accounts for the greatest percentage of contract value." 13 C.F.R. § 121.402(b). Here, the effort is approximately 42% Research and Development, 22% Sustainment, and 36% Production. (RFP, Section M 2.2.2.2-1 and Table L-8.7.2-1.) Considering the relative value and importance of the three components of this solicitation, Research and Development has the highest value at 42%. NAICS code 541712, covering research and development, is correct for this RFP.

The PWS does requires software code development activities in Section 3.3 (PCPAD Development), as a component of the entire ATEP II research and development process. These activities, however, while necessary to turn the outcomes of research into a form that the sensors can execute, are neither the objective nor the preponderance of the work. Instead, the software code development activities are clearly driven by the needs and outcomes of the research conducted in Section 3.2 activities (Intelligence Research). Without the research outcomes generated by the research process, no software or programming work would be needed.

Further, the mere fact that some software work is required here does not support Appellant's argument that a computer-related NAICS code is appropriate. As OHA has held many times, the mere inclusion of computer-related work in a procurement does not mandate a computer-related NAICS code. *E.g., NAICS Appeal of ALON, Inc.*, SBA No. NAICS-5148, at 10 (2010); *NAICS Appeal of Eagle Design & Mgmt., Inc.* SBA No. NAICS-4510, at 4 (2002).

I further disagree with Appellant's assertion that Footnote 11(a) to the Size Standards Table excludes from NAICS code 541712 all engineering work, and all software development or computer programming. That Footnote means only that NAICS code 541712 does not apply to a solicitation that is primarily engineering, operations, systems, computer programming, or data processing. As Radiance asserts, state-of-the-art sensors such as those within the scope of ATEP

II's mission areas tend to be digital (rather than analog) and, therefore, require some software development as a necessary component. To read Footnote 11(a) as excluding research and experimental development on these sensors merely because some of the work requires software development (programming) is to over-read that footnote. Rather, I would analogize to *Size Appeal of Eagle Design & Management, Inc.*, SBA No. NAICS-4510, at 4 (2002), where OHA held that a procurement is not classified in a computer-related NAICS code merely because it involves some computer services). Thus, I hold the inclusion of some engineering work in this RFP does not mandate an engineering NAICS code. Rather, it is the principal purpose of the procurement that is decisive in classifying the solicitation. Here, that purpose is research and development of PCPAD systems included in aircraft.

Appellant further argues that the "Aircraft exception," of NAICS code 541712 does not apply to this RFP, asserting that the required work does not involve aircraft, and that the procuring agency's mission has little relevance to NAICS code selection, citing *NAICS Appeal of Delphi Research, Inc.*, SBA No. NAICS-5377 (2012). I disagree.

First, contrary to Appellant's assertions, aircraft are integral to the services being sought here, because aircraft collection platforms/sensors are key contributors to the development of actionable GEOINT and MASINT. ATEP II data is collected from multiple Air Force aircraft platforms. These include Predator, Reaper, Global Hawk, and U2, all of which are primarily intelligence-gathering aircraft platforms. (PWS § 1.0 (Mission).) ATEP II directly contributes to improved Intelligence, Surveillance, and Reconnaissance (ISR) capabilities of these aircraft; thus ATEP II is primarily concerned with improving the capability these aircraft to perform their core function, to gather intelligence data.

Second, *Delphi Research's* holding does not advance Appellant's case. In *Delphi Research*, the procuring agency was NASA's Dryden Flight Research Center, whose mission undisputedly is aeronautical research. The contracting officer, as here, had designated NAICS code 541712, Aircraft exception; however, the procurement was for research facilities and engineering support services, which OHA concluded was not research and development. OHA overturned that NAICS code designation based on the principal purpose of the procurement. *Delphi Research*, at 10. Here, as in *Delphi Research*, OHA must review the CO's NAICS code designation based on the principal purpose of the procurement. Contrary to*Delphi Research*, here the principal purpose of the procurement is research and development, and NASIC's mission, set out in PWS § 1.3, is important because it is referenced in the evaluation criteria as part of the mandatory "Technical Capability" subfactor, and offerors must demonstrate their ability to support that mission including the "critical factors affecting R&D, System Sustainment, and Intelligence Production." (RFP, Section M 2.2.2.)

Aircraft are mentioned in several other places in the PWS, including §§ 1.3 (Scope), 3.2 and 3.3 (Research and Development), and 3.5 (Intelligence Production). Here, the results of ATEP II work "are then passed back to the aircraft and space-based program offices to be considered for integration into the platform, enhancing the intelligence derived from those systems." (PWS §§ 3.2, 3.3, 3.5.) By platform, it is clear the PWS means aircraft and the further development of those aircraft. Mr. Halter explained in his affidavit that this information would

be shared with aircraft acquisition programs and affect future aircraft design and development. Halter Declaration at 10.[5]

Accordingly, the work in this procurement will be an initial step in the development of future aircraft. Because it will be laying the essential groundwork for further research and development of aircraft, the Aircraft exception to NAICS code 541712 is appropriate. *NAICS Appeal of Information Ventures, Inc*. SBA No. NAICS-4945 (2008).

Finally, I must reject Appellant's arguments, made both in the appeal and in the reply, based on the numbers of deliverables required by the "research" portions of the PWS, as opposed to the "software development" portions. In the appeal, Appellant asserts that only one of the 49 deliverables, the Technical Report - Study/Service, "could be construed to support research" and that it is not a "principal" deliverable. (Appeal at 8.) In its reply, Appellant argues that 84% of the deliverables relate to computer software and systems. (Reply at 3-4.) These arguments are fundamentally flawed. First, Appellant's "49" and ""84%" figures refer not to any actual deliverables, but only to the number of different *types* of deliverables, as listed in PWS § 5. Second, and more importantly, Appellant makes no reference to the amount and nature of work involved in producing any deliverable. Third, Appellant's assertion that the Technical Report is not a "principal" deliverable is unsupported, especially given that it is the most frequently-required deliverable, required by 21 activities.

Accordingly, I find Appellant has failed to meet its burden of establishing clear error in the CO's designation of the NAICS code.[6]

V. Conclusion

For the above reasons, the instant appeal is DENIED, and the CO's NAICS code designation is AFFIRMED. The correct NAICS code designation for the ATEP II procurement is 541712, Research and Development in the Physical, Engineering, and Life Sciences (except Biotechnology), Aircraft exception, which has a 1,500 employee size standard.

This is the final decision of the Small Business Administration. 13 C.F.R. § 134.316(d).

CHRISTOPHER HOLLEMAN
Administrative Judge

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[5] Affidavits of key personnel are evidence of a solicitation's principal purpose. *NAICS Appeal of Head, Inc.*, SBA No. NAICS-5214 (2011) (citing *SIC Appeals of Earth Property Services, Inc., et al.*, SBA No. SIC-3296 (1990)).

[6] Because Appellant has not established clear error in the CO's designed NAICS code, it is unnecessary to consider alternative NAICS codes. *See NAICS Appeal of Katmai Simulations & Training*, SBA No. NAICS-5445, at 6 (2013).