

**THE DEPARTMENT OF HOMELAND SECURITY**

**SMALL BUSINESS INNOVATION RESEARCH (SBIR) PROGRAM**

**PROGRAM SOLICITATION FY07.1**

**Full Solicitation Issued on: 04/20/2007**

**Revised: 06/05/2007**

1. The purpose of this Amendment is to provide the below Questions and Answers.

**ALL OTHER TERMS AND CONDITIONS OF PROGRAM SOLICITATION FY07.1 REMAIN UNCHANGED.**

**IMPORTANT CORRECTION TO A PREVIOUS Q&A:** SBIR Topic Number H-SB07.1-005 - The intent of this topic description (7.1-005) is the development of multiple **non-invasive** sensors that would allow an incident commander to have accurate, possibly trended data, to determine the physiological status of a firefighter inside different size and types of buildings.

**Question:** General – There is the additional DHS Cost Match Guidance information referenced in DHS SBIR Solicitation 07.1 (final PDF version), page 22, Section 4.6.b.2.b? The document refers readers to <http://www.sbir.dhs.gov/UsefulLinks.asp>. However, there aren't any links on that web page for cost match guidance information.

**Answer:** Cost match guidance is being reposted to the DHS web site. Please revisit the web site at: <http://www.sbir.dhs.gov/UsefulLinks.asp>

**Question:** General – I am submitting a proposal today and there is no box specified for anticipated benefits. And the instructions state: **Proposal Cover Sheets**. Prepare the proposal cover sheets as provided on the electronic submission web site <http://www.sbir.dhs.gov> including **a brief technical abstract of the proposed R&D project and a discussion of anticipated benefits and potential commercial applications. (There is no separate section for this)** Once you save the cover sheets, the system will assign a proposal number. You may edit the cover sheets as often as necessary until the solicitation closes. Your cover sheets will count as the first two pages of your proposal no matter how they print out. My question, am I to put the AB in the same box as the Abstract?

**Answer:** Submitters are to discuss the technical benefits of the proposed technology and its potential commercial application within the technical abstract. No other box is required to identify this information.

**Question:** General – In response to your inquiry: The Cover Sheet asks for the type of Research Institution under the topic of Research Institution Information. Is this

**PROGRAM SOLICITATION FY07.1**

**Published: 04/20/2007**

**Revised: 06/05/2007**

**Page 1 of 4**

applicable to STTR only? We are submitting an SBIR. Shall we select No Research Institution?

**Answer:** A SBC (Small Business Concern) may partner with a Research Institution (RI) within the SBIR program as a subcontractor. If the SBC does not partner with a RI in the SBIR program, then “No Research Institution,” would be selected for this effort.

Question: SBIR Topic Number H-SB07.1-009 – I am looking into writing a proposal for the SBIR topic concerning Improved Solid-State Neutron Detectors (H-Sb07.1-009), and I have two questions.

1) What is the energy of the Neutrons that you are interested in detecting? Cold or Hot neutrons?

2) What is the minimum flux that the device needs to be able to detect?

**Answer:** The motivation for this topic was to develop an alternative technology to the currently used helium 3 tube. You should consider all technical specifications in the context of improvements along those lines.

Question: SBIR Topic Number H-SB07.1-009 – Is the solicitation for a solid state thermal neutron detector to replace He3 tubes or for a detector that can detect both fast and thermal neutrons? Is directionality of source required or is it advantageous?

**Answer:** The solicitation is for a solid state replacement for a He 3 tube.

The following questions are regarding SBIR Topic Number H-SB07.1-010:

1. We have found the document: “Advanced Spectroscopic Portal (ASP) Performance Specification, dated 3/1/05, 2005.” Is this the most current depiction of device and its requirements, or is there a more current version? If there is a more current version, please provide information as to how we might quickly obtain it.

**Answer:** The 2005 Performance Specification should be adequate for this effort.

2. Topic Number H-SB07.1-0010 Description Paragraph (on page 48) states: “A determination of the relative position between sensor and cargo conveyance (occupancy) is critical to the proper functioning of the detectors and the localization of alarming cargo.” Please describe some specific examples clarifying this need. For instance, do you need to know the lateral positioning of representative forms of cargo transport, i.e., the precise distance (with what accuracy) between the radiation sensor and the vehicle as it passes by the sensor?

**PROGRAM SOLICITATION FY07.1**

**Published: 04/20/2007**

**Revised: 06/05/2007**

**Page 2 of 4**

**Answer:** The occupancy sensor detects the entry in to and out of the portal (or the passage of a portal past a container/conveyance) therefore the precise distance between sensor and conveyance is not necessary. In simplest terms, the occupancy sensor is an on/off trigger for detection processing. When the ASP system is not occupied and scanning for radioactive materials, it is collecting background.

3. What are the names of companies who are making the ASP? Can you provide contact names and contact information?

**Answer:** This system is ancillary to the basic ASP system connected using a standard protocol such as TCP/IP. It is premature to conduct liaison with the ASP developers.

4. Who makes these break beam sensors? And what are the problems with the break beam sensor technique?

**Answer:** Break beam sensors have been obtained from a variety of vendors and while reasonably reliable in the portal systems; have experienced some issues with environment and lighting. The main issue foreseen with break beam sensors is scanning of continuous stacks by mobile variants where the containers may not have gaps between them allowing a beam to be "broken" with the result that containers are not discretely segregated.

5. In SBIR TOPIC NUMBER: H-SB07.1-0010 "Development of High Reliability Occupancy Sensors" what means occupancy?

**Answer:** An occupancy is the period of time between entry of a conveyance into the detection zone of an ASP sensor (+/- ~90 deg) of the center of the panel to the exit of the conveyance from the detection zone. In the case of mobile units, it would be the beginning of passage past the container/conveyance until the end of the passage.

Question: General – Per solicitation ¶3.5.b(9)a,b, if the proposer desires the cooperation of a US military or federal entity in the project, is DHS willing to entertain funding that entity directly to a minor extent for such participation, assuming that military or federal entity has an expressed interest and a valid reason to participate?

**Answer:** Each Department of Homeland Security (DHS) awardee of a SBIR Phase I or Phase II award must qualify as a Small Business Concern (SBC) to be eligible to receive SBIR funds. The definition of an SBC can be found in section 2.2 of the SBIR 7.1 Solicitation. Subcontractor involvement of a university or academic institution may be appropriate. The DHS will consider subcontract use of a Federal Government Agency or FFRDC, contingent upon a written justification (see section 3.5 (9) a), prior to the DHS award and concurrence by the Small Business Administration.

Question: Regarding solicitation H-SB07.1-010, can you provide some guidance on the government's cost sensitivity of the final component?

**PROGRAM SOLICITATION FY07.1**

**Published: 04/20/2007**

**Revised: 06/05/2007**

**Page 3 of 4**

**Answer:** Low cost is always attractive, but note that component cost was not specified as a constraint.

Closed