

9.2 Question and Answer Matrix

As of June 25, 2009

ID#	Type	Question	Answer
1	9.2-008	What would be an approximate voltage cap on the systems to be powered?	While we do not have a max limit, we recommend that you check with vendors who provide typical equipment such as radios, PASS devices, PDAs, etc to learn about voltage requirements.
2	9.2-008	What are the power requirements for the systems to be powered?	Please see answer 1 above. Typically, these devices will need power from single digits to upwards of 20-30 watts and more.
3	9.2-008	The words "wearable textile integration" are used to describe possible designs. What level of integration is desired? In other words, should the energy unit be permanently installed, semi-permanent, or removable?	Wearable Textile integration is mentioned as an option. We are interested in innovative concepts whatever they may be- permanent (full or semi), removable- as long as they are feasible.
4	9.2-008	Somewhat related to question 3, is the system going to be an add-on to current first responder gear, or will it be integrated with new gear?	See #3. Wearable Textile integration is mentioned as an option. We are interested in innovative concepts whatever they may be- permanent (full or semi), removable- as long as they are feasible.
5	9.2-008	Is there a particular class of "energy unit" that is desired, i.e. a battery, fuel-cell, or solar?	All that you list and any others that are feasible.
6	9.2-008	It's mentioned that current batteries have to be removed from the responder and recharged at regular intervals at designated stations. For which, if any, of these features is change desirable?	Our goal is to increase the mission length of equipment used during their activities so all any and all features will be considered.
7	9.2-008	Is there a particular area of the first responder's person that is available or desirable for energy unit placement (for comfort or ease of use) and are there unavailable areas (other systems that must remain in place)?	If the solution is feasible and provides the benefits we are pursuing, any of the changes will be considered. We recommend you review the type of equipment that a 1st responder carries.
8	9.2-006	The requirement: The solution should be compatible with existing communication system. Could you please provide some reference for the communication system mentioned above, by web link or product name...	The communication systems mentioned refer to communications systems commonly in use by First Responders. Examples of these can be found on the Responder Knowledge Base website (www.rkb.us) under "Communications" or on vendor websites.
9	9.2-006	Are we allowed to replace/change the handheld of the radio or part of the handheld? Or, the solution you are looking for is a stand-alone device. It can work together with the current radio while keeping the integrity of the current communication system? Could you please make this point clear?	What is being requested in this question is not clear. This question has been interpreted to ask if the vendor can replace the radio handset with a unit of their design. If this interpretation is correct, then the answer is no. Any proposed solution would have to work with existing radio handsets. It would also have to be compatible with handsets from the multiple vendors that supply communications equipment to the First Responder community. However, additional devices that attach to, or are otherwise compatible with, the existing handsets that will meet the goals stated in the RIR solicitation are acceptable. If this question was misinterpreted and this is not what was asked, please clarify the information that is being requested and resubmit the question.
10	9.2-006	It says that "... Using the combination of passive and active techniques, the commercially available solutions that cancel ambient noise ... have limited success in VOX mode..." Could you please explain a little what the passive and active technologies refer to.	It is suggested that the vendor use Wikipedia (www.wikipedia.org), an encyclopedia, or other reference sources for an explanation of active and passive noise reduction technology.
11	9.2-006	The noise attenuation solution is applied on sender side only, or both receiver-and-sender side?	The goal is to improve communications for both the sender and receiver of the information.
13	9.2-002	Is there a particular number of sensors you are looking for (i.e., do you want this limited to 2-3 sensors)?	Data was collected with 4 multi-sensor units.
14	9.2-002	What type of robustness is acceptable? For example, is 85% accuracy acceptable?	We do not have a go-no go robustness 'bar'.
15	9.2-002	Is it likely that humans may try to spoof the system, e.g. crawling to "simulate" an animal and, if so, should our proposed solution take that into account?	Including that capability is acceptable.
16	9.2-002	What is the format of the dataset you will supply and it is "ground-truthed"?	The data was ground-truthed with a high resolution long range camera. There will be detailed information supplied about the format of the data.

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17	9.2-006	I need your assistance in getting reference materials for SBIR Topic number 9.2-006, Noise Cancellation for Voice Operated Switch (VOX) Communications. Please send us the links. References: Quiet Pro Feasibility Study Report – First Responder Technologies Program, DHS (December 2008) Intelligibility of Selected Radio Systems in the Presence of Fireground Noise (NTIA Technical Report TR-08-453) – Department of Commerce (June 2008) Digital Working Group Interim Report – International Association of Fire Chiefs (May 2008) Background Noise and Radio Performance – Motorola (2008)	Quiet Pro Feasibility Study Report – First Responder Technologies Program, DHS (December 2008) http://www.firstresponder.gov/Pages/TechFieldAssessments.aspx "Intelligibility of Selected radio Systems in the Presence of Fireground Noise" (NTIA Technical Report TR-08-453) – Department of Commerce (June 2008) www.its.blrdoc.gov/pub/ntia-rpt/08-453/08-453.pdf Digital Working Group Interim Report" – International Association of Fire Chiefs (May 2008) http://www.iafc.org/associations/4685/files/digProj_DPWGinterimReport.pdf "Background Noise and radio Performance" – Motorola (2008) http://www.motorola.com/staticfiles/Business/Products/Two-way%20Radios/Portable%20Radios/Government%20and%20Public%20Safety%20Portable%20Radios/_Documents/Static%20Files/FRI_Paper_09-2169_1.pdf
18	General	We require additional clarification on item 2.2 Small Business Concern—page 8 of the solicitation. The requirements presented under section 2.2 paragraph c (page 8) of the solicitation outline a criterion that is different than those to which we are familiar. The question is: when you state "individual" do you mean individual as a single person or group of people, or is "individual" to be interpreted as a "single corporation" since you mention "corporation" in paragraph b.	The small business concern definition that is provided in Paragraph 2.2 of the solicitation is the definition provided by the U.S. Small Business Administration (SBA) for purposes of the Small Business Innovation Research (SBIR) Program. The reference to "individuals" in subparagraph c (1) means one or more persons. Please note subparagraph c of Paragraph 2.2. If the combined total number of employees of all companies that you list exceeds 500 by the SBIR definition of a small business, you are not considered to be a small business for the purpose of the SBIR Program. If you have specific questions about size determination, please contact SBA's Office of Size Standards at 202-205-6618 or sizestandards@sba.gov prior to submitting your proposal.
19	General	With reference to Sections 1.4(a) and 3.5(b)(9) of the Phase I Program Solicitation FY 09.2 document, we understand that the proposing firm must perform a minimum of two-thirds of the research and/or analytical work related to the SBIR. We plan to involve a large government contractor as our subcontractor for the remaining 1/3 of the work and to strengthen our case should we be selected to move into Phases I and II and eventual commercialization. However, we also plan to involve a HBCU (Historically Black College or University) in the Phase I (and perhaps Phase II as well) research/analysis effort. Would it be permissible to include the HBCU's work as part of our two-thirds of the overall work? The referenced Sections make it clear that this may be possible if approved in writing by the Contracting Officer.	Note the HBCU's work cannot count as part of your company's two-thirds effort. While DHS SBIR encourages the use of HBCU's in the SBIR R&D effort, the HBCU must be treated as a subcontract, as does the effort that will be undertaken by the large government contractor. Per the U.S. Small Business Administration's SBIR Policy Directive, a minimum of two-thirds of the research or analytical effort conducted under an SBIR Phase I must be performed by the awardee (i.e., small business concern). Per the awarding Contracting Officer, deviations from this rule will not be granted for Phase I.
20	9.2-008	Does this topic seek a central wearable power supply capable to meet total electrical equipment demand, or will concepts also be considered for distributed low power sources that are modular, scalable, interconnectable and may be embedded in multiple body-worn locations?	Both options as well as other innovative concepts are sought.
21	9.2-008	Can a list of typical or common First Responder equipment (communication radios, PASS, etc) power requirements be provided?	Please consult with typical radio, PASS, and PDA vendors. We anticipate the power needs to range from single digit to upwards of 20+ watts.
22	9.2-008	One way to miniaturize power supply space, weight and power is to use smart energy management techniques to minimize power demand. Is development of smart energy management methods, performed in concert with specific wearable energy sources, considered within the topic scope?	Smart energy management as it relates to specific sensors is not part of this topic but it is as it relates to any proposed solution.

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23	9.2-006	Regarding the solicitation number SBIR2009.2-006 titled " Noise Cancellation for Voice Operated Switch (VOX) Communications," the objective reads " A noise attenuation solution that significantly improves handheld radio communications capabilities for operating in high noise level environments". In the description of the same solicitation, one reads: " A single noise attenuation solution will enable effective voice communications in high-noise operating environments regardless of the communications mode (through radios in a push-to-talk mode, through radios in a VOX mode and without radios)". Question: would you please explain what is exactly meant by "without radios"?	The proposed solution must allow for clear communication with individuals in need of assistance that are not using radios or other communications equipment. Due to the importance of these communications, proposed solutions should not interfere with, nor prevent, First Responders from communicating with these individuals.
24	9.2-006	Regarding the solicitation number SBIR2009.2-006 titled " Noise Cancellation for Voice Operated Switch (VOX) Communications," the objective reads " A noise attenuation solution that significantly improves handheld radio communications capabilities for operating in high noise level environments". In the description of the same solicitation, one reads: " A single noise attenuation solution will enable effective voice communications in high-noise operating environments regardless of the communications mode (through radios in a push-to-talk mode, through radios in a VOX mode and without radios)". Is this an addition to the main objective?	The requirement for communications with individuals without radio equipment is included as part of the main objective of this program and is not an additional objective. Any proposed solution needs to provide for First Responders to communicate with individuals who are not using radios or other communications equipment.
25	9.2-006	Are you looking for a VOX that provides the noise cancellation capability, a pre-processor to the VOX, or something else?	The technical approach that is used to meet the objectives is left to the discretion of the vendor. We are open to any proposed solution, as long as it meets the objectives and constraints mentioned in the SBIR solicitation.
26	9.2-006	Are you looking for a software-only, hardware-only or a combination of both to solve the problem?	As mentioned above, the technical approach that is used to address this problem and meet the objectives is left to the discretion of the vendor.
27	9.2-002/General	With respect to the following topic, H-SB09.2-002, can we include a consultant who is a Canadian citizen?	This response pertains to this topic, as well as all SBIR topics/projects. Yes, however, per the SBIR FY09.2 solicitation (DHS SBIR-2009-2), Section 1.3 states that "for both Phase I and Phase II, all research or research and development work shall be performed by the small business concern and its subcontractors in the United States." Further, Section 3.5.b(7), states that any non-U.S. citizen that a small business concern expects to be involved on the SBIR project must be identified in the proposal. In addition, the country of origin and level of involvement of any non-U.S. citizen must also be identified in the proposal. Please note that per Section 2.7 of the Solicitation, subcontracts includes consultants.
28	9.2-001	<p>1. We assume that there will be no people in the aircraft. However, the SBIR mentions "crew". Could you please explain?</p> <p>2. The SBIR states "This system should be able to conduct surveys of the interior of an aircraft without offloading cargo". As you know, detecting contraband in air cargo is already difficult when sitting by itself. Having the cargo in a plane poses another level of complexity. Wouldn't this cargo be inspected by customs separately?</p> <p>3. The SBIR states "The system must be capable of operating in an expeditious manner so as not to delay aircraft or flight operations". Could you please specify a maximum inspection time?</p>	<p>A1. The assumption is that there will not be crew or maintenance personnel aboard the aircraft but the system should not harm any personnel who might have inadvertently remained on board or who might have "strayed" into the examination area.</p> <p>A2. The developed system is not, per se, for cargo screening; it is for General Aviation (GA) aircraft screening. However, the aircraft may have some cargo and/or baggage aboard. The goal would then be to examine both the aircraft and baggage in sufficient detail to eliminate the need to off load and separately examine onward routed baggage or cargo. We are aware of the difficulty of this task.</p> <p>A3. Regrettably, no. The time required to scan an aircraft will vary significantly depending upon the aircraft type, configuration, and size, and depending upon the amount and nature of any baggage left onboard. The time to scan would be measured in minutes but not in hours.</p>

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29	9.2-002	Human-Animal Discrimination Capability for Unattended Ground Sensors The Phase I description indicates that test data will be made available to test algorithms. Is it possible to obtain a small subset of data in order to demonstrate some of our techniques in the Phase I proposal?	No data will be made available until after the Phase I selections are made.
30	9.2-005	1. What is the most important objective about this topic? You want a imaging technique to detect IED for security applications or to develop a novel imaging to diagnostic bomb? 2. You want point detection or stand-off detection?	A1. We are looking for a diagnostics tool for vehicle bombs. A2. We would prefer stand-off but will consider a tool that can be deployed via robot.
31	9.2-004/General	Two partner organizations would like to jointly submit proposal for SBIR related to H-SB09.2-004 Software Testing and Vulnerability Analysis. The organization that would be priming the work complies with all your requirements stated in the section 2.2 Small Business Concern, however subcontracting organization is US company owned by Canadians and the person who would be member of assembled team would need to perform work in Canada. Would this arrangement be eligible for this particular SBIR?	The following response pertains to topic area 9.2-004, as well as all topics in this solicitation. Per the SBIR Policy Directive, for both Phase I and Phase II, the research/research and development (R/R&D) work must be performed in the United States. The DHS SBIR-2009-2 solicitation reiterates this in Section 1.3. The Policy Directive states, however, that in extreme circumstances, for example, a supply or material or other item or project requirement that is not available in the United States, agencies may allow that particular portion of the R/R&D to be performed or obtained in a country outside of the U.S. Should you choose to propose that work be performed outside of the U.S., please ensure to clearly describe in your proposal why work cannot be done in the U.S., and show that no such skill set, supply, material or costs in the U.S. Note that for a Phase I project, a minimum of two-thirds of the research or analytical effort must be performed by the awardee (i.e., the small business concern).
32	General	I would like to submit a proposal for an SBIR grant for the DHS. Do I need to pre-qualify before submitting a proposal? We are a small business working with fluids, and have a novel idea for one of the topics.	The DHS SBIR Program accepts proposals when there is an open solicitation. Currently, the DHS-SBIR-2009-2 solicitation is open and accepting proposals through 2 July 2009 at 4:30 p.m. EDT. The solicitation includes eight topics for which proposals can be submitted. There is no pre-qualification needed to submit a proposal. Proposals must be submitted via the electronic submission web site at https://www.sbir.dhs.gov . Please note that the DHS SBIR submission procedure is a four step process before final submission is complete.
33	9.2-004/General	My company will be sending in a proposal for topic H-SB09.2-004 - Software Testing and Vulnerability Analysis . I would like to set up an appointment for pre-question and feasibility of some of my companies already existing software tools. Please let me know some available times for a phone meeting.	Unfortunately, we are unable to discuss feasibility of your company's existing software tools at this time. Per the solicitation, proposers had an opportunity to contact Technical Points of Contact by telephone or by email during the period of May 1, 2009 through May 15, 2009 (the pre-solicitation period). For reasons of competitive fairness, no direct contact between proposers and Technical Points of Contact shall occur from May 18, 2009 through July 2, 2009. However, proposers may submit written questions to STSBIR.PROPOSALS@dhs.gov. Questions must be limited to technical information related to improving the understanding of a particular topic's requirements; any other questions such as those asking advice or guidance on solution approach, will not receive a response. If information given in response to a question is deemed necessary for the preparation of proposals, that information will be made available to the public for general viewing on the FedBizOpps website at http://fedbizopps.gov and on the DHS website at https://www.sbir.dhs.gov .
34	General	In the recent DHS SBIR solicitation I am unable to find any information regarding letters of support for inclusion in the proposal. Is it standard practice to include letters of support in the technical proposal?	Letters of support are not required. If you choose to provide them, they are included in the page count of the technical proposal.

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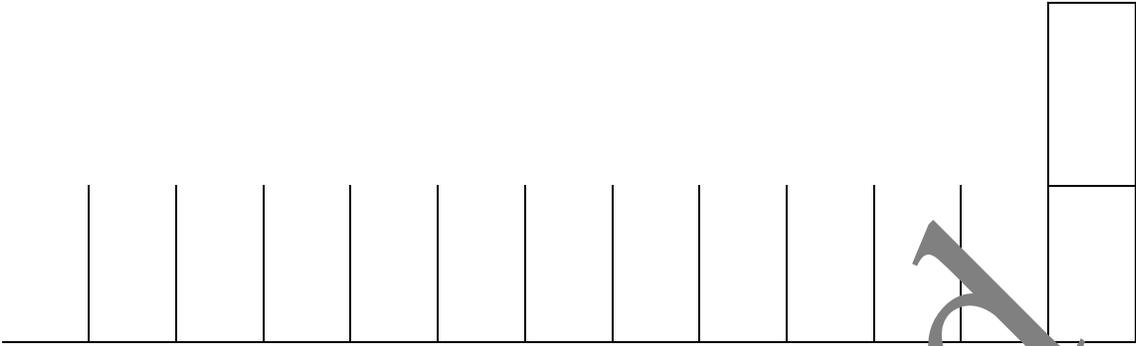
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