

Space-Based Machine Automated Recognition Technique (SMART) Program						
SMART BAA 19-04						
IARPA will accept questions until March 7, 2020 - IARPA will accept questions until March 7, 2020 via email at iarpa-baa-19-04@iarpa.gov						
Industry Questions and Government Answers - ROUND 2 02-28-2020						
Question number	Section 1 - TECHNICAL PROGRAM OVERVIEW	Industry Questions	Paragraph & Page #	Government Responses	Change to BAA (Yes/No)	Paragraph & Page #
question 11	round 2	Regarding the IARPA Smart BAA, I would like a clarification. The BAA alludes to language that the system developed should be "real-time", "dynamic monitoring", and "minimum error and latency". I am wondering whether the system to be developed should be an off-line or on-line system. That is, does the call request a system that retrospectively analyzes a repository of data and the goal is to detect construction already recorded in the (historical) data repository? Or is it an online system that analyzes each piece of data as it is collected and alerts analysts as soon as it can determine there is construction activity? I read the BAA to mean the latter, but other team members interpreted the call differently.	Page 17 "TA-2: Algorithms to Detect and Characterize Natural or Anthropogenic Events or Activities" and Page 23 "T&E"	The SMART program calls for the system to operate online as well as off-line. Online assumes the data are coming in at a certain rate, with the goal of detecting change continuously (or in near-real-time), with minimum delay. Offline makes the assumption data exist (i.e., historical repository) with the goal of detecting when the event or activity occurred based on characteristics in the data.	No	
question 12	round 2	Question regarding a possible typo in the SMART BAA (IARPA-BAA-19-04). Referring to the file "BAA_19-04_SMART_Final_020620_C.pdf" on page 10 under "Technical Area-2 (TA-2)". The BAA states: "The goal of TA-2 is to develop algorithms capable of BAS [broad area search] over areas >8,000 square meters using ..." 8000 square meters is equivalent to about 1.5 football fields. Did the BAA intend to say 8000 square kilometers, which is about the size of Virginia?	Page 10 under "Technical Area-2 (TA-2)"	The > 8,000 square meters references the minimum size of the area, in which an event or activity Performers will be asked to identify occurs within a broad search area.	Yes	See BAA Page 10, paragraph 3 - under "Technical Area-1: The goal of TA-2 is to develop algorithms capable of BAS for an event or activity whose scope is an area >8,000 square meters in size using spaced-based time-series imagery to detect and locate evolving natural or anthropogenic events or activities, and detect and characterize the progression of the activities from the data as a function of time (i.e., identify phase change and whether or not the phase change can be correlated with an actual sequential step in a process.
question 13	round 2	Does the dataset to be analyzed have to be space-based or can it be a large geophysical dataset collected from ground from which the needed information can be potentially extracted using a novel technique? Once the technique is developed, a combination of new ground-based as well as satellite-based measurements can be used to validate this technique.	Paragraph 1.D page 22	The goal of the SMART program is to automate the quantitative analysis of space-based imagery to perform broad-area search (BAS) for natural and anthropogenic events and characterize their extent and progression in time and space.	No	See BAA summary of the program page 6.
question 14	round 2	The first four metrics in Table 1 are not defined anywhere in the document. What does "calibration" measure? What is the ground truth reference for calibration? Likewise for the other first four rows.	Table 1: Page 25	Absolute radiometric calibration is a process that converts the voltage recorded by a satellite sensor or digitized counts to an absolute radiance/reflectance unit.	No	
question 15	round 2	Aerosol Optical Depth is not mentioned elsewhere in the BAA outside of Table 1. Do we need to compute it even if it is not explicitly required to assess change or activity?	Table 1: Page 25	Calibration techniques for absolute calibration often rely on in-situ measurements (e.g., aerosol optical depth, water vapor, aerosol size distribution, etc.).	No	
question 16	round 2	Table 1 gives a metric threshold on False Positive Rate (FPR), but this rate is not defined in Section 1.F and not mentioned outside of the table. FPR can be defined in multiple ways. If not defined carefully it can be a very poor metric for broad area search problems because the true negatives greatly outnumber the true positives, typically by orders of magnitude. How is False Positive Rate defined here?	Table 1: Page 25; false positive is defined at the top of Page 24	The fraction of Non-Relevant events or activities (or sequential phases) that are incorrectly identified as Relevant by a BAS effort.	No	
question 17	round 2	How is the time accuracy metric (last row of Table 1) assessed? Is it expected that the entire temporal extent of the data volume will be processed in batch? Or will the evaluation supply the images sequentially and expect decisions after each new image? Does the definition of a true positive change to mean that the predicted label, Y_i, is a true positive if it is equal to any of the ground truth labels at that location within N days (e.g. 14 days in Phase 1)?	Table 1: Page 25	The metric relates to identification of an individual event or activity phase within the temporal bound of the annotated ground-truth date of a sequential phase.	No	
question 18	round 2	What is the size of the data to be addressed across the program phases? The proposers day briefing indicates regional (150km x 150km) in Phase 1, 10 x regional in Phase 2, and global in Phase 3. However, the final BAA has no mention of data size expectations. Are these still the expected data sizes across phases?	Page 10 under "Technical Area-2 (TA-2)"	The > 8,000 square meters references the minimum size of the area, in which an event or activity Performers will be asked to identify occurs within a broad search area.	No	
Section 2 - AWARD INFORMATION						
Section 3 - ELIGIBILITY INFORMATION						
question 1		We currently work at the ODNI. Are we prohibited to participate in this effort? It has nothing to do with IARPA. Hopefully, it isn't a problem. Please let me know as soon as possible. I have been in discussions with other companies that would like to team.		3. A.1 Organizational Conflicts of Interest (OCI) - In accordance with FAR 9.5, Offerors are required to identify and disclose all facts relevant to potential OCIs involving the Offeror's organization and any proposed team member (subawardee, consultant). Under this Section, the Offeror is responsible for providing this disclosure with each proposal submitted pursuant to the BAA.	no	See BAA pages 32 - 33; paragraphs 5-12
question 2		We would like to know if non-US citizens, permanent residents and H1B visa holder may participate in the proposal/project or not?		Foreign entities and/or individuals may participate to the extent that such participants comply with any necessary Non-Disclosure Agreements, Security Regulations, Export Control Laws and other governing statutes applicable under the circumstances. Offerors are expected to ensure that the efforts of foreign participants do not either directly or indirectly compromise the laws of the United States, nor its security interests. As such, both foreign and domestic Offerors should carefully consider the roles and responsibilities of foreign participants as they pursue teaming arrangements.	no	See BAA paragraph 4 page 17

	Section 4 - PROPOSAL INFORMATON						
question 3		Paragraph 4.B.1.a Section 1: Cover sheet & Transmittal Letter states the following: "type contract vehicle being requested (either a procurement contract or other transaction)". Can you explain what is meant by "type of contract vehicle" and provide an example? Is the funding going to be provided via a direct contract to the offeror or is a particular vehicle required?	Paragraph 4.B.1.a		There are two types of instruments that may be awarded under this BAA: procurement or other transaction. These are described in the BAA, General Information Section, footnote 1, on page 6. IARPA most often awards cost-type procurement contracts but is open to considering firm fixed price procurement contracts and other transactions under certain circumstances. Please see BAA section 4.B.2 (page 44) for more information on this issue.	no	See BAA page 6, footnote #1
question 4		Paragraph 4.B.1.d Section 4: Attachments. Attachment 10: Security Plan is "Not Applicable". Can all work in the base and option years be done at the UNCLAS level or is some level of classification going to be required?	Paragraph 4.B.1.d Section 4		The Government anticipates proposals submitted under this BAA will be UNCLASSIFIED	no	See BAA page 35, paragraph 3
question 5		SMART Proposer's Day 29 May 2019. Request a list of attendees.			IARPA's website contains the Proposer's Day slides for SMART. It also includes vendors' presentations for those entities that opted to provide a briefing at that event. Attached is the list of vendors at the Proposer Day. Vendors interested in teaming are strongly encouraged to register their contact information on the "Interested Vendors List" which can be found in beta.SAM.gov for this BAA. Per beta.sam.gov website: The intent of the Interested Vendor List (IVL) feature is to collect a list of vendors interested in competing for the opportunity or vendors interested in subcontracting opportunities.	no	
question 6		SMART Proposer's Day 29 May 2019. Request a list of attendees.			See response to Question 5	no	
question 7		May I please get SMART Teaming info?			See response to Question 5	no	
question 8		May I please have possible teaming information such as contact information of interested parties for this BAA? Thank you			See response to Question 5	no	
question 9		Hello SMART Team, I cannot find a list of the Industry Day attendees for this BAA. Can it be posted for the purposes of partnering discussions with industry and academia?			See response to Question 5	no	
question 10	round 2	Can a university submit as a prime, along with a team consisting of two universities and an industry partner?			Collaborative efforts and teaming arrangements among potential Offerors are strongly encouraged. Specific content, communications, networking and team formations are the sole responsibility of the participants.	no	See BAA Page 34, paragraph 2, Section 3.C.1