

**Questions and Answers**

**Amendment No. 0001 to BAA 08-018**

**“Persistent Networked Intelligence, Surveillance and Reconnaissance”**

The purpose of Amendment 0001 is to (1) extend the date and time for which White Papers are due from “07 August 2008” to “14 August 2008” and (2) provide answers to questions that have been received in response to BAA 08-018.

The date and time for which White Papers are due is changed from “07 August 2008” to “14 August 2008”.

**Question #1:** Would there be a problem with delivery of “White Paper/Full Proposals that are delivered by commercial carriers?

**Answer #1:** Commercial Carriers should not have a problem making a delivery to the building. The Security Guards located in the lobby of the building do not have the authority to accept any deliveries made to the building. The Security Guard will contact the person responsible for accepting White Papers and Full Proposal packages.

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**Question #2:** Is covertness (i.e., low observability) important?

**Answer #2:** Covertness (i.e., low observability) is desired but not required.

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**Question #3:** Is the creation of three distinct, but fully interoperable packages- one for Open Ocean, one for littoral; and a third for land use-what you are considering?

**Answer #3:** We desire one common set of hardware that can be configured to serve multiple missions.

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**Question #4:** Is satellite communications a consideration?

**Answer #4** Yes.

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**Question #5:** What deliverable is anticipated in the first year for the available \$400k funding?

**Answer #5:** The deliverable is at the discretion of the offeror.

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**Question #6:** Are you looking for an integrated solution that addresses the three parts?

**Answer #6:** No.

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**Question #7:** Can we submit three 10-page papers, one per Part?

**Answer #7:** Yes, you can submit one paper per Part, but the page count is limited to 4 pages (see the White Paper requirements in the BAA for full details.)

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**Question #8:** What is the anticipated mission time: days, weeks, months?

**Answer #8:** Hours, days, weeks, and months.

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**Question #9:** Are you looking for research opportunities in UAVs?

**Answer #9:** Vehicle research, No.

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**Question #10:** Is a persistent Autonomous Surface Vessel applicable to your application?

**Answer #10:** Yes.

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**Question #11:** Are you interested in a government solution?

**Answer #11:** Yes, refer to BAA Section III for eligibility.

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**Question #12:** As a result of this BAA, are you expecting 6.1 basic research efforts, or 6.2/6.3 efforts?

**Answer #12:** Any or all.

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**Question #13:** The solicitation mentions that the electronics solution would be combined with “adaptable optics for wide area surveillance and targeting being developed under the ongoing 6.2 program.” Please provide information regarding the adaptable optics technology.

**Question #13:** For representative research, see [www.iop.org/EJ/abstract/1464-4258/10/6/064006](http://www.iop.org/EJ/abstract/1464-4258/10/6/064006) (Restaino et al).

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**Question #14:** You refer to an ongoing 6.2 adaptable optics effort. Is there a description that we can access to?

**Answer #13/14:** For representative research, see [www.iop.org/EJ/abstract/1464-4258/10/6/064006](http://www.iop.org/EJ/abstract/1464-4258/10/6/064006) (Restaino et al).

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**Question #15:** Is this effort (Part A) focused on electro-optical sensors, or should approach accommodate many sensing modalities?

**Answer #15:** The sensors should accommodate many sensing modalities.  
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**Question #16:** (Part A) From solicitation it appears that tracks of interest may vary from (surface) vessels, to vehicles, and perhaps even dismounts. Could you provide any guidance in narrowing scope to selected track types, area size to be put under surveillance, and duration of surveillance task?

**Answer #16:** It is desired to cover all tactically significant contacts across the three cited domains worldwide with a scalable capability. Actual coverage proposed is at the discretion of the offeror.  
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**Question #17:** (Part A) Does "autonomous control" in the solicitation refer to control of the sensing platform(s) (sensor & platform management), or the surveillance application (software), or both?

**Answer #17:** Both.  
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**Question #18:** (Part A) What are the platform options? Would they include high altitude airships, UAVs and manned aircrafts?

**Answer #18:** They could include high altitude airships, UAVs, and manned aircraft.  
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**Question #19:** (Part A) Do we need to address vulnerability of the system, e.g. electronic threats?

**Answer #19:** Yes, but not in detail.  
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**Question #20:** (Part A) Are intelligence networks carrying ELINT, COMINT, MASINT, etc., using national assets as well as commercial information sources such as the Lloyds of London database, Vessel Tracking Services (VTS), etc., assumed to be a part of this effort?

**Answer #20:** They may be a consideration.  
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**Question #21:** (Part A) Are predictive methods of tracking and identification of interest such as those developed for the DARPA Predictive Analysis for Naval Deployment Activities (PANDA) BAA?

**Answer #21:** It is at the discretion of the offeror.  
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**Question #22:** (Part B) What is the meaning of coherent as used in the solicitation? Does it mean physically separated transmitter and receivers synchronized and localized with a fraction of the wavelength or bandwidth so that multi-static radar is enabled? Does it mean a group of radars, each of which is coherent? Does it mean "a group of radars working in concert"?

**Answer #22:** Coherent, as used in the solicitation, means physically separated transmitter and receivers synchronized and localized with a fraction of the wavelength or bandwidth so that novel RF processing techniques could be enabled.

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**Question #23:** (Part B) What platforms do you have in mind? Would they include high altitude airships, UAVs and manned aircrafts? Would you include shipboard and ground based platforms as well?

**Answer #23:** Yes, we are interested in all manner of platforms (airborne, ground and surface). Yes, we desire the technology apply across shipboard, airborne and ground based platforms.

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**Question #24:** (Part B) Are you considering only distributed data acquisition or also distributed control (i.e. sensor management, where should each radar go and what mode should it operate in?)

**Answer #24:** Both.

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**Question #25:** (Part B) Are you interested in proposals that address what elements of information collected by each radar should be shared to optimize collaboration of radars vs. bandwidth constraints?

**Answer #25:** It is at the discretion of the offeror.

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**Question #26:** (Part B) Should we consider the option of using central processing with wideband datalink? Should we assume that current wireless data paths are constraints on any network configuration (e.g. SATCOM, CEC, Link-16, etc.)?

**Answer #26:** It is at the discretion of the offeror.

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**Question #27:** (Part B) Would you be interested in post-detection or tracking fusion? Should we be focused on low-level signal processing?

**Answer #27:** It is at the discretion of the offeror.

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**Question #28:** (Part B) Is the primary interest to better manage current RF assets or you are open to a completely new/different set of assets that may be able to exploit multi-platform surveillance, e.g. MIMO, transmitters of opportunity?

**Answer #28:** Utilization of current assets is beneficial; however, not a requirement.

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**Question #29:** (Part B) The term "architecture" can mean many things – are you interested in new Service Oriented Architecture realizations as part of a response or are there other areas of interest for architectures?

**Answer #29:** Architecture should be optimized to provide improved sensing capabilities from a network of sensors.

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**Question #30:** Is this BAA a networking/software specific application used to coordinate only platforms that already exist (i.e. agnostic to platform type)?

**Answer #30:** No, not necessarily.

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**Question #31:** Is there any interest in novel approaches to the type of vehicles employed for this mission or how they are employed?

**Answer #31:** No interest in development of vehicle, however there is interest in the employment of vehicles.

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**Question #32:** Does an appropriate solution NEED to include the coordination of platforms for all three areas (ground, littoral and deep sea) at the same time?

**Answer #32:** No.

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**Question #33:** Would systems (such as new vehicles or sensors) that enable such coordination (of multiple assets) be of interest?

**Answer #33:** Yes, but not emphasis on new vehicles.

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**Question #34:** Should an appropriate solution include cooperation with or integration into PLUSNet?

**Answer #34:** No.

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**Question #35:** Would ONR entertain the idea of a low-cost proposal to perform a demonstration of how an alternate asset could enhance persistent surveillance in the littorals?

**Answer #35:** Yes.

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**Question #36:** Is there a specific Navy/Marine Corp capability deficiencies of which are of specific interest to this BAA.

**Answer #36:** Yes.  
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**Question #37:** Are you looking for a flight demonstration or simulation?

**Answer #37:** It is at the discretion of the offeror.  
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**Question #38:** Can I get a list of attendees of Industry Day?

**Answer #38:** No  
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**Question #39:** (Part C) What are the approximate altitude and speed of the UAS?

**Answer#39:** Use typical UAS values.  
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**Question #40:** (Part C) Is the target detection on terrain or on water surface, semi-submerged or other?

**Answer #40:** Multiple domain target coverage is desired.  
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**Question #41:** (Part C) What is the approximate size of target?

**Answer #41:** Assume typical symmetric and asymmetric targets.  
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**Question #42:** (Part C) Is the intended target a vehicle or human or other type?

**Answer #42:** Assume typical symmetric and asymmetric targets.  
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**Question #43:** Are you planning to distribute a list of those people that attended the industry day?

**Answer #43:** No.  
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**Question # 44:** Is the presentation material from the Industry Day available and if so where?

**Answer#44:** Yes, on the ONR BAA website under BAA 08-018.  
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**Question #45:** Is there a living exercise during the program? If so, are there particular platforms and sensors anticipated to be available?

**Answer #45:** There is a desire to conduct technology demonstrations, but no specific plan at this time, as this is dependent on the technology readiness level of the proposed efforts.

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**Question #46:** Is there a particular architecture or larger system the work is expected to integrate with during the program?

**Answer #46:** No.

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**Question #47:** Is there a particular test facility or simulation environment we should plan to integrate with as part of the program to evaluate the technology being developed?

**Answer #47:** No.

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**Question # 48:** During the Industry Day Q&A it was stated that one physical system or family was wanted to accommodate the at sea, littoral, and inland scenarios of interest. Later it was mentioned that a small set of UAVs were envisioned to be able to carry out the missions. Is there an expectation for offerers to provide a hardware solution, either sensors or platforms for Part A or Part B? If not, can you provide any guidelines as to what sensors should be assumed to be available?

**Answer #48:** Emphasis should not be placed on new platform development. Your submissions will be evaluated on sensing architectures, algorithms, software, and hardware.

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**Question #49:** Is there any limit to how many White Papers a single organization can submit?

**Answer #49:** You can provide as many 4 page White Papers to each of the 3 topics as you want. Do not submit one 4 page White Paper that addresses all three topics. Make sure to specify which topic your White Paper addresses.

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**Question #50:** Letter B under evaluation information states "Electronic Warfare Operations" is that correct?

**Answer #50:** No, that is an error and the BAA will be amended to say "RF operations."

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**Question #51:** If a company submits a White Paper for each topic area can technology from one White Paper submission reference technology in one of the other White Paper submissions?

**Answer #51:** No.

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**Question #52:** Can one set of resumes be submitted for multiple White Papers?

**Answer #52:** Resumes are not required for the White Paper submission.  
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**Question #53:** Is Part C focused only on passive sensors? Will active EO/IR sensors be of interest?

**Answer #53:** Passive sensors were not singled out in the BAA; all EO/IR sensors are of interest.  
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**Question #54:** Part B specifically mentions "persistent RF coherent airborne sensors" are any other types of sensors of interest?

**Answer #54:** Yes, other modalities of coherent sensors are of interest. If you have one let me know about it.  
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**Question #55:** Under Part B "RF" is mentioned, did you mean radar?

**Answer #55:** No, RF was used in an effort to not be specific to Radar. It could be ESM, Multi-Static or Radar related. We are trying to open it up to any Electromagnetic Technique.  
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**Question #56:** Can you elaborate on adaptive optics?

**Answer #56:** This answer is only representative. There is significant interest in adaptable optics such as optical systems that have a very wide field of view and within that wide field of view there is a point able field of view which has a higher. ONR is interested in cutting edge component technology which enables electronically formable lens elements, MEMS steering devices, and liquid crystal devices. There is also interest in gimballed ball turret alternatives such as fixed optical benches with line of sight point mechanism for steering.  
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**Question #57:** Is it necessary that the proposed solutions interface with naval systems that are already fielded or systems ONR is currently developing?

**Answer #57:** No, but possibly beneficial to making a case for naval relevance.  
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**Question #58:** Does ONR only plan to award Cost Plus Fixed-Fee type of awards.

**Answer #58:** Yes, unless at the proposal stage the company can solidly justify why another contract type should be used. ONR contracts will provide final determine on the appropriate contract type.  
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**Question #59:** A) In last years BAA 07-17 the technical description stated that the algorithms should be capable of RF returns from multiple aspects in a time coordinated network. Is that an interest for this BAA? B) If so, is that the only interest for this BAA or is there a broader interest.

**Answer #59:** A) Yes that is still of interest. B) Broader than just this description.  
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**Question #60:** What type of data rights considerations will be made by the government for this BAA?

**Answer #60:** Any information that is company proprietary, and/or developed at the company's expense will be noted as such in the proposal and contract, and anything development under government funds will be marked with government purpose rights. All company intellectual property must be listed in the proposal so it can be marked accordingly.  
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**Question #61:** In terms of the evaluation, how important is it for large companies to involve small businesses.

**Answer #61:** In terms of the evaluation, it is not important, but large businesses are required to include a Small Business Subcontracting Plan in their full proposals.  
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**Question #62:** How many awards do you foresee for each topic?

**Answer #62:** One to four (1-4) awards will be made in each category.  
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**Question #63:** Are the funding values indicated in the BAA "hard numbers"?

**Answer #63:** No, just an estimate depending on the proposed work and the FY 09 ONR Budget.  
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**Question #64:** Does the "Estimated Total Amount of Funding Available" identify the total amount for each part or total amount per award.

**Answer #64:** Total amount per award.  
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**Question #65:** If the proposed work relates to an existing ONR Future Naval Capabilities (FNC) effort should that relationship be identified?

**Answer #65:** Yes, any example that shows current naval relevance is beneficial.  
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**Question #66:** In Part A UAV's are called out, in Part B no specific vehicle is cited. Is there an emphasis on UAV's?

**Answer #66:** There is no emphasis of UAVs. However, any unmanned vehicle or unattended device (air, ground, or ocean) is of interest.

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**Question #67:** Is there more of an emphasis on manned vs. unmanned?

**Answer #67:** The emphasis is on unmanned. However, it is dependent on the proposed work. If the proposed work has valid naval relevance to a manned platform then it is applicable to this BAA.

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**Question #68:** Are there any bandwidth guidelines in part C?

**Answer #68:** No.

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