

**Amendment No. 0002
Questions and Answers**

Broad Agency Announcement (BAA) Number 09-030

“Multi-Function Airborne Surveillance Technology”

The purpose of Amendment 0002 is to provide answers to questions.

Question 1: Please confirm that responders can submit a White Paper for each of the six technology areas of interest noted in the BAA separately? If so, I assume the White Papers are limited to four (4) pages for each response?

Answer 1: The areas listed are representative technologies of interest, and therefore it is expected that the contractor will submit one white paper, not one to each technology area.

Question 2: Under the RFE topic should RF interference be addressed?

Answer 2: Interference is a topic that will need to be addressed.

Question 3: Do you expect a specific platform to be identified in order to establish RF and SWAP requirements?

Answer 3: There is no platform assumptions at this time other than airborne.

Question 4: You do not discuss the need to address intra-chassis interconnect data communication fabrics or backplane technology. Should we?

Answer 4: This can be addressed if it is a critical technology to system viability.

Question 5: Can other wideband technology areas not listed be identified and proposed?

Answer 5: Other wideband technology areas not listed in the BAA can be identified and proposed.

Question 6: Under the RAM topic - Is it about allocation of function to front end/back end processing (hw/firmware/Sw etc.) or how simultaneous operation is obtained?

Answer 6: It is about both allocation of function to front end/back end processing (hw/firmware/Sw etc.) and how simultaneous operation is obtained.

Question 7: Also, is the resource management at one or more levels: (a) micro level (signal processing) and/or (b) macro level, control of sensor subsystem and/or (c) at the net-centric GIG level.

Answer 7: The resource management is at one or more levels: (a) micro level (signal processing) and/or (b) macro level, control of sensor subsystem and/or (c) at the net-centric GIG level.

Question 8: What are the maximum physical total aperture sizes for the antenna arrays in the envisioned manned and small UAVs?

Answer 8: This would vary by platform, one should assume platform sizes consistent with current manned and unmanned Navy inventory.

Question 9: In the electronics-oriented technologies of interest (technologies of interest "b", "c", "d"), is the navy interested in COTS solutions or in ASICs?

Answer 9: The Navy is interested in best value solutions.

Question 10: Is the 400-2000MHz (or 200-4000MHz) bandwidth instantaneous bandwidth requirement? On a related question, up to how many distinct frequency bands at any given time should be covered?

Answer 10: This is to be determined based on proposed solutions to this BAA. It is expected different vendors will take different approaches. All band coverage is certainly desirable, but may not be practical.

Question 11: Are the transmit power numbers in the BAA (technology of interest "b") peak powers or average powers? Can you please mention both peak and average power levels?

Answer 11: The peak power can not be estimated because there are multiple possibilities for the number of active radiators. Assume the average power would be consistent with the power available on the range of existing navy platforms.

Question 12: What is the maximum envisioned dynamic range of the received signal (per element)?

Answer 12: Minimum of 85dB, though in singularity this is not a system performance limiter.

Question 13: What is the maximum available power in the envisioned manned and small UAVs for the MAST? Is there a physical restriction on the location of power sources on the UAVs (e.g., can they be physically close to the radiating apertures or are they at a distance)?

Answer 13: Assume a range of a few watts to 10's of kilowatts average . No positional restrictions are assumed.