

Office of Naval Research

BAA 07-028, "Undersea Cooperative Cueing and Intervention (UC2I)"

Amendment 3

The following questions and answers are provided for all potential respondents in the interest of procurement integrity:

1. Can the deadline for submission of full proposals be extended?

A: No.

2. Are 24-hour operations required on the test range?

A. 24-hour operations is not a requirement. If 24-hour operations are necessary for an individual respondent's demonstration, please request this in the proposal.

3. What is the ONR plan for UUV Asset sharing relative to the demonstration schedule? To support integration prior to field testing?

A. Integration will be joint effort between ONR and the awarded teams.

4. During the test period, will the two teams operate in series or parallel?

A. In series.

5. What is the speed/power/tow drag and fuel consumption information and the supplied equipment configuration of the ONR provided 7m RHIB? Typical USV Hotel equipment includes electrical generator, equipment air conditioner, obstacle avoidance radar, fathometer, ING/GPS system, navigation system, etc.

A. Information unavailable at present.

6. Are modifications to the GFE allowed? Must the equipment be returned to original configuration?

A. Yes. Equipment should be returned to original configuration unless approved by ONR on a case by case basis.

7. What is the mine size and type that is to be detected, classified and identified by the UC2I system and what is the density of the mine field?

A. Information unavailable at present.

8. What are the Pd and Pc requirements for the mines?

A. This information will be provided very near to the demonstration window. A key requirement of the autonomy software is that it can be easily reconfigurable to changing search quality metrics of which Pd and Pc.

9. What are the Sea State operational and survivability parameters required of the UC2I system?

A. Information unavailable at present. The program focus is on autonomy and not vehicle control, so likely the sea state requirements will not be made challenging.

10. Will the mine detection CAD/CAC system be supplied as GFE?

A. CAD/CAC may be requested in proposals; the government has not committed to providing CAD/CAC at this time..

11. Due to the water depth characteristics in the Panama City area, it is assumed that the testing will be significantly offshore to support the defined water depths. What support facilities will be available to support testing at the test site?

A: The government will determine the test site and the associated support required.

12. Is there a work-up period planned on-site prior to the final in-water demonstration?

A. Yes

13. Can specific, individual de-briefings of White Papers/responses from ONR be provided?

A. No.

14. Is there still to be an integrating contractor? If so, we think our proposal would be much improved if we could have discussions with them. Specifically, we need to understand how the concept might be demonstrated, and what the means of integration into the test vessels will be. What is your vision for demonstrating the (xxx) concept? It is probably feasible to have its functionality available for the September 09 demo. But in fact, the (xxx) capability will be best demonstrated in a series of tests with a UUV and USV in varying sea states, speeds, and so on. Adding that test might interfere with the other things you have going on in the 09 demo.

A. Answers to these questions would amount to individual proposal guidance and will not be provided.

15. Do you have any idea what we might expect in terms of USV-UUV communications and relative position determination? (We could discuss this with the integrating contractor as well).

A. The USVs and UUVs will be using the standard WHOI micro modems for acoustic communications that provide communication and range, and standard GPS for location.

16. Request clarification to the duration of effort (Base and Options) for the Component Technology proposals being submitted under the subject BAA. The BAA stated a two-year effort not to exceed \$2M. Amendment 2 provided a revised not to exceed amount for the Base and Option Years. What is the anticipated duration of effort for the Base and Option Years?

A. The base period will be six (6) months with two 1-year options. The stated target funding amounts in Amendment 2 remain as depicted.

17. Our white paper was for a full system proposal. Your response doesn't explicitly tell us that you discourage a full proposal but it does seem to suggest that you encourage a component technology proposal in the area of autonomy. If you could just clarify that for us it would help us to utilize our resources most effectively in responding to the BAA.

A. The team evaluated your white paper at both the system level and the autonomy component technology level. The team ranked your paper highly in the autonomy component technology level and is encouraged to submit a full proposal. The team also evaluated your white paper at the systems level and assessed that a full proposal would have a low probability of success.

Please review the ONR website for the latest information on submitting full proposals.

18. In Amendment 2, the Government describes additional guidance for UC2I Autonomy Technology Component Proposals including a Base proposal, and 2 Option Phases. Does the Government still intend the length of these three (3) periods to span a total of 24 months, as stated in the original BAA, or are there other specific time periods for these tasks? Can the two options be concurrent or overlapping?

A. The base period will be six (6) months with two 1-year options. The stated target funding amounts in Amendment 2 remain as depicted.

19. In developing a technical and cost proposal for the option to demonstrate autonomy on the USV/UUV cluster provided by the government, should contractors develop a stand-alone Autonomy Demonstration or assume that we will integrate our demonstration activities with other Component-level demonstrations or a System-level demonstration?

A. Stand-alone autonomy demonstrations are expected at least in simulation. Stand-alone autonomy experiments are also encouraged as milestones and/or preparation for larger demos where multiple vehicles and assets are involved.

20. Is ONR providing a simulator that we must interface to or are we expected to use our own simulator?

A. If requested, ONR can provide access to a simulator.

21. Who defines the search/mapping scenarios? Can we design scenarios that show off our capabilities or do you give us the scenarios and we show how well we do against the provided scenarios?

A. ONR will define a range of scenarios in terms of area, search time, penalty for false detections, missed detections, and accuracy. But the exact parameters will change and altered on short notice to encourage autonomy algorithms that are not fine-tuned for any one particular scenario.

22. What sensor suite, if any, will be provided on the 11m USV, 3 BPAUVs and 3 REMUS 100's?

A. For the purposed of testing autonomy in the demonstrations, a standard side-look sonar, already installed on the UUVs, will be provided. For the USV, a Klein 5000 will be made available.

23. Is it permissible to use additional vehicles and/or sensors than those provided by the government?

A. No.

24. What level of demonstration is desired in the base effort? Just to demonstrate interfacing with MOOS? or demonstrate specific functionality?

A. At least interfacing with MOOS, and to demonstrate basic functionality.

25. Are you mainly interested in our generic functional architecture and how it works with MOOS, or mainly with specific autonomy functions that are need for the various cooperative mine search/mapping scenarios?

A. Both.

26. Please confirm that your request is indeed one for Component Technology Proposal vice a System Level Proposal.

A. Yes, it is a request for a Component Technology Proposal.

27. Can 11x17 foldouts be used in the proposal? If so, will it count as a single page?

A. Foldouts are permitted and count as one page, but should only be used for tables or large graphics, vice text.

28. With the increased component technology funding as outlined in Amendment 002 of the subject BAA, is there a corresponding decrease in the system level award funding?

A. Overall funding decisions remain to be determined by program management.

29. Can the graphics use 8 point font as in standard government procurement RFP responses?

A. Yes.

30. With the issuance of Amendment 002 and the additional guidance this Amendment provided for the component technology procurements, will there be additional system level guidance provided in a future Amendment?

A. No.

31. Will additional Government Furnished Equipment (GFE) assets be provided for the Phase 2 option?

A. Not at this time.

32. Will ONR brief the winning System Level Industry Team(s) on the winning component technology proposals to facilitate the incorporation of improved technology into the Phase 1/Phase 2 system level efforts?

A. Technologies under development in the UC2I program will be briefed at the annual "ONR Joint Review of Unmanned Systems Technology Development."

This is the final Amendment to this BAA; no further questions will be accepted.