BAA 07-023
Amendment 2

Mine Countermeasures (MCM) Systems for Littoral Combat Ship Advanced Flight Mission Package Questions

1. **Will a new technology be considered if it can be matured within 5 yrs?** Yes. Additionally, new mission system technology will always be considered, especially if it impacts manning.

2. **In your notional LCS mission cycle for RMS, how many hours is it actually in the water? Same question for USV and BPAUV?** These times are not relevant to this BAA.

3. **Are you looking for solutions only geared toward POR for LCS or is there opportunity to introduce new systems to augment current system capabilities and satisfy your desires to reduce manning?** No, we are not only looking for solutions geared toward program of record systems. Any technology that helps advance the operation of modules of the MIW Mission Package is appropriate, especially technology that impacts manning. The program of record systems provide the first opportunity to transition advanced mission module technology.

4. **What is the range/scope of sub-system?**   Sub-systems are smaller components that would be part of a larger modular system. **Can it be software separate from hardware?** Yes.

5. **For UUVs (SMCM), ASTM standards were mentioned as the means to establish requirements now for future technologies. Are they sufficiently mature?** Yes. **Are there comparable standards for other vehicles?** ASTM currently covers UUV/USV.   Air vehicles are covered by STANAG 4586. Ground vehicles are covered by JAUS.

6. **Are concepts that address improvements to current MIW mission systems acceptable under this BAA?** Yes, they are acceptable. We are looking for technologies to advance the MIW Mission Package. Providing technological improvements to the MIW mission systems is one way of doing that, especially if it impacts manning.

7. **Would there be any interest in a capability to better understand the environment to enhance overall MIW ops?** There is always interest in improving the overall MIW operations, and better

understanding the environment is one method. The primary focus of this BAA is manning, but the addition of technology to enhance the operation of the MIW Package will be considered.

8. **Vehicle Launch and Recovery is in court of SeaFrame developers. Does this preclude proposed concepts for L&R under this BAA?** No.

9. **Does the white paper and proposal need to address phase 2 in order to identify the potential product for FY11?** It is not necessary to address Phase 2 in the Phase 1 proposal. Knowing the possible impact is helpful but not required.

10. **What is the TRL level expected at the end of Phase 1?** That is dependent upon the TRL point at the commencement of Phase 1. However, in order to reach 6 by the end of phase 2, it will probably need to be a TRL of 4 or 5 at the completion of Phase 1.

11. **Will you provide a concise description of what is wanted?** Please see the BAA.

12. **Should contractors include costs for government facilities and operational subject matter experts (SME) or will they be separately funded?** Yes, those costs should be included in the proposal. However, the government entity will be directly funded by ONR.

13. **How do you envision sharing these technologies with other Navy applications- Beyond LCS and Beyond MCM?** Coordination of any of these technologies outside the LCS/MCM arena will take place within ONR.

14. **Mentioned significant ONR government furnished equipment associated w/UUVs. Are there similar modular mission packages to support VTUAV and the aviation-centric capabilities?** These systems are assets that can be used for demonstration and evaluation. These systems are considered ONR experimentation assets and will remain as such. They will be available for integration, testing, and evaluation as needed, but the government will maintain custody of these systems due to the prototype nature of the modules. No UAV-type assets like these are available. There are some possibly some UAVs but no modules.

15. **Are UUVs networked and coordinated?** This program is not specifically working networking/coordinating of UUVs. Another product

line, Undersea Cooperative Cueing and Intervention (UC2I), is addressing this aspect. We will consider ideas in this area if they impact manpower.

16. **What are the key performance metrics for phase 1 demonstration?** The key performance metrics will depend upon the focus of the proposal, although ultimately they will be related to time and manpower.

17. **How many and what type of MIW MP can be co-located on the LCS?** One Mission Package will go on a LCS.

18. **Will any deconfliction be done with the Capable Manpower FNC?** Yes. Coordination with this group at ONR has already been initiated and will continue throughout this program.

19. **Does Northrop Grumman have to be included on team?** No.

20. **What TRL is expected at the start of the program?** That is dependent upon what is proposed. However, realistically, it will probably need to be a TRL 3 to 4 to mature to TRL 6 by FY11.

21. **What should transition plan be for Phase 1?** That plan is dependent upon the technology proposed, the maturity level, its complexity to integrate into the current mission package, and its application to the current mission package. Technology that is directly applicable to the current mission package and is easily inserted will require a different plan than a technology that needs more complex insertion plan.

22. **How much coverage do you expect in the proposals?** It is not expected that one proposal will cover all topics.

23. **Regarding BAA 07-023, "Mine Countermeasures (MCM) Systems for Littoral Combat Ship Advanced Flight Mission Package," are foreign subcontractors allowed?** Yes.

24. **Will LCS interface specifications be available to proposers?** Interface Control Document (ICD) has a Distribution D (DoD and Contractors). Requests for document with rationale should be submitted to PMS 501 via ONR. PMS 501 will support.

25. **Is the documentation of LCS HSI analysis that was referenced be made available?** The JHU/APL study is the best supported HSI study, may still be in draft. It has a Distribution D (DoD and Contractors).

Requests for document with rationale should be submitted to PMS 501 via ONR. PMS 501 should support.

26. **Can you share current L&R of vehicle/sensor movement steps through mission bay?** Information is presently FOUO. Not available for white paper preparations.

27. **For module architecture, can we you publicize the ICDs?** See response to Question 1.

28. **Will there be any GFI be made available such as MPCE design and interfaces?** The MPCE design, specification, and requirements are available upon request to PMS 420 via ONR.

29. **Will the ICD for MCM be made available? If so, when?** See response to Question 1 for ICD.

30. **Where does UVCC (JUSC2 Product) play? Is it embodied in the MPCE?** The UVCC, now known as the Unmanned Vehicle Management System (UVMS) is part of the core MIW Mission Package software integration build. The software runs on the MPCE.

31. **Can the ICD for the MM be provided?** See response to Questions 24 and 25.

32. **What is the difference between sub-system and system?**   In respect to the BAA, Phase 1 deals with sub-system development. This sub-system is considered to be a component of the Mission System that is developed/tested separately and can be integrated into the Mission Module. Phase 2 will deal with the integration of these sub-systems into a system that that provides a new capability to the Mission System within the Mission Module.