

Amendment 0001

Special Notice 12-SN-0020, Special Program Announcement for Sea-Based Automated Launch & Recovery System (SALRS) Sensor Performance in Degraded Conditions

The purpose of this amendment 0001 under Special Notice 12-SN-0020 is the following:

1. to provide answers to questions submitted in response to the Office of Naval Research special announcement 12-SN-0020 ; and
2. to provide the presentation slides from the 04 October 2012 Proposer Workshop.

A. The following are answers to questions submitted in response to Special Notice 12-SN-0020:

1. Is there a Navy requirement yet for a denied GPS landing system?

1A. From an acquisition perspective, there is no official requirement for a denied GPS landing system at this time, but there is an interest.

2. What was the desired TRL?

2A. Entry level around TRL 3, and exit level around TRL 4. These TRL's area are approximate.

3. Is there a preference for ship-based sensor rather than a/c based, with commands sent to incoming a/c?

3A. Currently there is no consensus on this topic, especially when you compare fixed wing landing requirements to rotor wing. There are pros and cons for each. Therefore, at this time we do not have a preference.

4. What simulation environment do the sensor models need to "plug" into?

4A. We do not have a simulation environment established at this time. We are currently taking suggestions.

5. How much funding is available and what is its time frame?

5A. Approximately 18 months and 2 million, but neither is set in stone. We will consider offers that deviate from these guidelines.

6. Does participation in SALRS model development have any OCI impact on the performers' ability to bid on subsequent PS-RN sensor or algorithm development contracts?

6A. No

7. Is this program trying to use the DARPA ASPN plug and play efforts?

7A. We are in touch with the ASPN program and following it closely. We have not committed to any particular technology sharing or leveraging.

8. Will all sensors to be tested be GFE?

8A. No. We do not intend to provide any sensors.

9. Who defines which sensors will be included in the test series?

9A. The proposer does.

10. Is ONR going to provide ship motion models to performers?

10A. At present, we cannot promise that ship motion models will be made available, but we are working on it.

11. Will the flight test aircraft be GFE or funded under the \$2MM?

11A. Currently, there is no GFE, and flight test is optional. All expenses need to be included in the proposed budget.

12. For clarification, this program is to "down select" a set of sensors that could be used (not the one and only solution), and then test and build models for them. Correct?

12A. No. We want to test a variety of relevant sensors at this point. Down selection will occur in a later program phase.

13. Could you please confirm that it's ok to address only rotary-wing or only fixed-wing aircraft? Or is there a preference for a scope of work that addresses both?

13A. There is a preference to address both, but it is Ok to address only one or the other.

14. Please confirm that BAA 13-001 has been posted in FedBizOps.

14A. Yes, it is confirmed.

15. For clarification is one of the objectives of this project to develop a set of reference models to provide effective means to compare relative performance/effectiveness of sensors?

15A. Yes

16. What on-board UA processing capability can be assumed?

16A. The UAV's envisioned would be group 4/5 size and up, so ample processing should be available in a mission, navigation, or vehicle management system computer.

17. When you say ship-independent solution, does that rule out systems that would require a ship-side element that is easily employed and moved from ship to ship?

17A. We are not requiring ship independence at this time.

18. If you see intriguing technology in a white paper that may be useful but is not the "complete" solution, will you consider it for development? Would you suggest teams to make a complete system?

18A. We will select one or more proposals that provide the best overall solution. If this includes more than one performer, we may suggest ways to collaborate or coordinate.

19. Is there a desire or preference for fully autonomous systems onboard AC versus cooperative systems on ship? See 17A.

20. If no ship motion models are available, are ship motion characterizations (measurements) available?

20. Yes.

21. How far out do you need the 10 cm SEP?

21A. At the touchdown point. Accuracy farther out is not specified, but must be consistent with a safe approach and landing.

22. When is the white paper request coming out for the integrated fusion system?

22A. That is currently TBD.

23. How quickly will the White papers reviewed? If they are selected, are proposals due 6 weeks later?

23A. The current schedule has white papers due the 5th of November, and we plan to announce the results two weeks later (Nov 19). Proposals will be due a month later (Dec 19).

24. Will you be sending out these questions and answers as email to all attendees to the webinar?

24A. No. They will be posted as an addendum to the special notice. Please keep checking the ONR and FBO websites.

25. What is the desired size of the "capture zone" in which the air vehicle must be located to be acquired by a ship-side sensor? At 3 nmi, and at 1.5 nmi?

25A. For the helicopter, we do not have a capture zone. We want it to be able to approach from any direction. For the fixed wing, it will be centered on a point 3 miles aft of the ship on landing centerline, at 1200 ft altitude. Exact dimensions have not been determined.

26. Can you provide any guidance on the SWaP requirements for the onboard system?

26A. The smaller the better. The aircraft should not have to devote much resources to a landing system.

27. Is there interest in developing a real-time HWIL simulation framework for measuring proposed sensors?

27A. Yes. We would like to hear ideas for simulation framework.

28. For the capture zone question, the intent was to have a rendezvous point which for a rotorcraft could be any direction. So, we need to know the navigation error to get to the rendezvous point.

28A. We do not have a defined rendezvous point for rotor craft.

29. Are you available for conversations at a later time?

29A. ONR has an open door policy. Any party interested in briefing us on what they are working is welcome. However, in the interest of fairness, we will not answer any questions directly relating to a Special Notice in such a meeting. All questions are to be provided via email, and they will be answered as an attachment to the Special Notice.

30. If you had to prioritize deliverables, what would you consider your top 1 or 2?

30A. The top deliverables would be the sensor models and test data.

31. Is a recording of the narrated brief available?

31A. No.

32. If the available funding limits the number of sensors to be tested, what sensors are must haves within the program? Flash Lidar, EO/IR, RF, Laser, etc.

32A. That is up to the proposer to decide. Eliminate first sensors that are less likely to be affected by weather, or for which detailed characterizations are already available.

33. In the charts presented, the award date is listed as May-July 2013, however in the Special Program Announcement it is listed as 14 Nov 2013. Which date is correct?

33A. The Nov date in the Special Notice is a typo. The May-July date is our target.

34. Is it safe to assume that at award (dates listed above) the full value of the contract (~\$2M) will be available to the selected contractor?

34A. No. At least one-half the funding should be available in FY13 with the balance available after Oct 1, 2013.

35. What type of contract award is anticipated? I.e. FFP or CPFF, etc.

35A. Please see BAA 13-001 for contract information.

36. Is it possible to speak to you by phone as the technical POC, prior to submitting a proposal, or to someone you designate?

36A. No. Unfortunately we are unable to adequately offer equal access to all to discuss specific proposals for 12-SN-0020. We can only respond to written questions through the public Q&A process.

37. In a related area, is anyone at ONR interested in proposals for Laser-Based Helicopter Landing Aids under ONRBAA13-001?

37A. I am not aware of anyone at ONR who is currently seeking proposals for Laser-Based Helicopter Landing Aids. The Program Manager for Autonomous Aerial Cargo/Utility System is Dr. Mary Cummings; she may have an interest in this area. She can be reached at mary.cummings@navy.mil.

B. Attached are the presentation slides from the 04 October 2012 Proposer Workshop.