

ONR BAA 09-018
Amendment Number 0004
Questions and Answers

Q1: What is ONR's intent for the contractor's responsibilities with regard to the gimbals for this BAA?

A1: Gimbals are to be purchased by contractor. COTS gimbals already developed for maritime and/or airborne platforms are desired for simplified integration and usability in relevant environments.

Q2: Do the weight and volume targets include the gimbals or not? The fourth bullet on page 5 of the BAA implies the stated weight and volume targets include the weight and volume of the gimbals, making these goals potentially very aggressive.

A2: The weight and volume metrics include the gimbal.

Q3: Does ONR have a target maximum aperture for the telescope mounted on the gimbals?

A3: There is no target maximum aperture. However, SWAP inherently limits the maximum aperture size and laser safety and/or diffraction inherently limits the minimum aperture size. These are the driving factors on aperture size.

Q4: Please provide guidance on the platforms for the airborne nodes and any mobile ground based nodes. Will those be GFE? Are there specific platforms required?

A4: Specific platforms for airborne and mobile ground nodes (i.e., boats/ships; land based nodes are not mobile) are TBD. All platforms are GFE. Intention of EC is to develop generic small SWAP terminals that are relatively easy to integrate on wide variety of platforms. Vendors are mainly intended to produce these generic terminals and the government will integrate them to platforms and networks (network only in phased 2 & 3) for testing and demonstrations in phase 2 & 3. For general design considerations, maritime surface nodes with lasercomm terminals will range in size from 70' littoral craft to aircraft carriers. Maritime surface nodes with MRR terminals may include much smaller craft (e.g. RHIB). Airborne nodes will likely be helicopters and aerostats. Land based surface nodes are non-mobile (OTH) and will be either non-vehicle mounted or vehicle mounted.

Q5: Is there any need or requirement for mod-sim? If so, would you like it performed by the contractor, or would you like a government-side modeling effort to track contractor actual/expected performance?

A5: Government-side modeling and simulation may be performed but that decision will not be made until award decisions are made. Plans for contractor-side modeling and simulation may be included with proposals as deemed appropriate by vendors.

Q6: If there is a need for contractor-based mod-sim, are you allowed to point me to likely bidders on this contract for me to contact and see if they have any desire to talk about using MZA for this task?

A6: Likely bidders attended Industry Day and are shown on the attendee list posted on the BAA website.

Q7: Do you think there will be a need for atmospheric profiling to validate link performance? This might be of particular concern in terms of understanding system bounds and dropouts/fades.

A7: Government-side characterization of atmospheric conditions during testing of vendor systems will be performed. Decisions on the exact characterizations needed will be determined after award decisions are made.

Q8: In the "Government Approach" section on Page 10, it states "ONR will employ a government integrator (not part of this solicitation) to combine vendor products and government-owned technologies into USN/USMC communication systems." Does ONR intend to release a separate solicitation to address the Government's requirement for systems integration or does ONR plan to use a separate government organization like NRL to assist with systems integration?

A8: NRL will perform integration and testing of systems developed under the BAA. The contractor will be expected to support the government as needed.

Q9: Are proposer allowed to bid on just a subset of the entire BAA? For instance, if we have a technology that would enhance tracking MRRs would we be able to submit a proposal relating to this technology or would we need to team with other companies to provide a total solution addressing all parts of the BAA?

A9: A total solution is necessary to satisfy the goals of the EC. Teaming with other companies on a single proposal to achieve a total solution is encouraged.

Q10: What is the quality of service requirements? Is there a maximum allowable latency? What is the expected packet error rate (PER) or bit error rate (BER)?

A10: This BAA does not have specific requirements for these parameters. The only requirement is that the link out of the terminals' modems appear as "just another communication link" that can be plugged into standard network routers. This requires PER and latencies out of the modems which do not greatly reduce network performance.

Q11: Items 1 & 2 on page 6 are expected to be overcome. Is there a probability associated with this?

A11: There is no probability associated with this. However, designs which can handle high probabilities and durations of fades with minimal impact on the link out of the modems to the outside network while keeping primary desires for delivered terminals (low cost, low SWAP, etc.), are desirable to maximize availability of communication link in adverse conditions.

Q12: If there is a medium duration (~1 second) loss of signal, do certain Ethernet frames have a priority over others?

A12: No.

Q13: Is there a standard scintillation model that we should use?

A13: No. Any standard model can be used although it is encouraged that strong turbulence conditions are assumed to ensure ability to operate in adverse conditions - keeping in mind primary desires for deliverable terminals (low cost, low SWAP, etc.).

Q14: Page 7 indicates that the terminals will have bearing error budgets provided later, but we should assume a GPS accuracy of 15 yards for now: Do we assume we will be given pointing information that is as accurate as 15 yard CEP to the target? Or, do we assume that both the source and target have

a 15 yard CEP error in the knowledge of their location and both are used in the error budget?

A14: See answer to question 1 in "Part IV: Direct Terminal" section of "Amendment Number 0002 - Industry Day, Questions".

Q15: I was wondering if a proposal that focuses on the study of novel techniques for performance enhancement as well as mitigation of channel impairments for FSO communications (including novel PAT and packet communications strategies) would be entertained by your program under this BAA.

A15: A total solution is required. See Question 9 above.

Q16: Are foreign vendors allowed to be used in this proposal?

A16: No.

Q17: Is there expected to be any classified material?

A17: We anticipate issuing Department of the Defense Contract Security Classification Specification (DDD 254), at the SECRET level, on awarded contracts.

Q18: Will the Attendance list be published?

A18: Yes, it will be posted as an Amendment to the BAA.

Q19: In the "Government Approach" section on Page 10, it states "ONR will employ a government integrator (not part of this solicitation) to combine vendor products and government-owned technologies into USN/USMC communication systems." Does ONR intend to release a separate solicitation to address the Government's requirement for systems integration or does ONR plan to use a separate government organization like NRL to assist with systems integration?

A19: ONR plans to use NRL to assist with systems integration.

Q20: Are proposer allowed to bid on just a subset of the entire BAA? For instance, if we have a technology that would enhance tracking MRRs would we be able to submit a proposal relating to this technology or would we need to team with other companies to provide a total solution addressing all parts of the BAA?

A20: A total solution is necessary to satisfy the goals of the EC. Teaming with other companies on a single proposal to achieve a total solution is encouraged.

Q21: Is hand delivery of proposals allowed?

A21: Proposals must be submitted in accordance with the instructions specified in the BAA. Hand delivered proposals will not be accepted.

Q22: Is it possible to have teaming arrangements that would allow for separate awards under BAA 09-018?

A22: It is possible, although not encouraged.