

Amendment Number 0001  
Questions and Answers

Broad Agency Announcement (BAA) Number 11-021  
Advanced Tactical Data Link (ATDL)

The purpose of this amendment is to answer questions received by potential offerors.

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Question 1: Technology Readiness Level (TRL): What is the basis for evaluation? What standard/reference will be used? Have the Critical Technology Elements (CTE) been defined for evaluation?

Answer 1: ONR Enabling Capabilities (ECs) start with a TRL of 3 or above and should be TRL 6 at the end of the EC. No Critical Technology Elements have been identified.

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Question 2: Does the ATDL tie into Joint Aerial Layer Network (JALN)? Is it expected to?

Answer 2: It's too early to determine if there is a relationship between the ATDL EC and the current JALN Analysis of Alternatives (AoA).

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Question 3: Frequency Authorization: How is the DD1494 authorization planned? (If at all?) Is it important to have an existing DD1494 approved to a certain state when TRL 6 is achieved?

Answer 3: This topic is subject for study and analysis.

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Questions 4: Security Architecture: Are there other NSA frameworks that could impact design considerations?

Answer 4: The baseline approach is to use the security architecture used in the SRP.

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Question 5: Anticipated Number of Awards. Topics are called out as section 4.2. Should topics areas be section 4.2?

Answer 5: Yes.

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Question 6: It sounds like the government is not looking to design a new waveform but modify/upgrade existing "next gen" waveforms. Is this correct?

Answer 6: Yes.

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Question 7: Can throughput requirements be defined?

Answer 7: During the Industry Day Question/Answer Session, a slide was shown depicting the starting performance metrics. In general the starting point is Joint Airborne Network – Tactical

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Edge Functional Design Document (JAN-TE FDD) and the Joint Requirements Oversight Council (JROC) (2008) ATDL assessment. This will be further refined during the period of the ATDL EC.

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Question 8: Can the latency requirements be elaborated?

Answer 8: See the response to question 7 above.

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Question 9: Will the government supply Software Reconfigurable Payload (SRP) for porting/development of the waveform? Or do contractors need to budget for their purchase in option I or II?

Answer 9: SRP will be provided as Government Furnished Information (GFI) and Government Furnished Equipment (GFE), but the details will be negotiated as part of the oral discussions and final proposal submission.

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Question 10: Is it acceptable to use hardware other than the SRP?

Answer 10: Yes, but the proposed approach must meet the same environmental and security requirements as the SRP.

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Question 11: Is the intent to mitigate and enable capabilities for 2020 and beyond? What are those threats to mitigate? What are the capabilities?

Answer 11: It is the intent to mitigate and enable capabilities for 2020 and beyond. The specific threats and performance metrics will be further developed during the study period of the ATDL EC. The goal of the EC is to look 5-6 years ahead.

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Question 12: Anticipated a) Bandwidth (BW) threshold, objective?, b) Anti-Jam/Low Probability of Intercept (AJ/LPI) requirements approach? c) Desired backward compatibility with what meaning J series?, d) Range?, e) spectral issues?, f) diversity?, g) # platforms?, h) # dynamic entry?, i) auto management?

Answer 12: To be determined. Also see the response to question 7 above.

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Question 13: Will there be an SRP 101 tutorial (hard copy or presentation)?

Answer 13: An SRP briefing will be added to the ONR web site as an addendum to BAA.

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Question 14: Is there a limitation on spectrum and aperture?

Answer 14: Determining the appropriate spectrum and apertures is part of the system engineering process.

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Question 15: Will the SRP architecture documents be made available to proposers?

Answer 15: The timeframe for making SRP architecture documents available during the pre-award period is not known at this time.

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Question 16: Is ATDL a new TDL or a system that integrates multiple existing TDLs or both?

Answer 16: ATDL is a new data link and the EC includes the policy based message routing functions.

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Question 17: Option 1: Only one performer? Or one performer per topic? Same question for Option 2.

Answer 17: There may be multiple awards. The government may down select in the later phases or may elect to retain multiple performers if they are pursuing different technologies and/or approaches.

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Question 18: Do the Base, Option 1, and Option 2 correspond to attributes specified under schedule FY 12, FY13, and FY14 (section 5.3)?

Answer 18: The base, option I, and option II correspond to FYs 12, 13, and 14.

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Question 19: Do topic areas refer to tech and develop environments (section 4.1) or attributes/capabilities (section 4.2)?

Answer 19: The topic areas refer to Section 4.2.

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Question 20: Will the SRP slides be made available?

Answer 20: See the response to question 11 above.

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Question 21: Performers will actively participate in the experiment process. This may include fleet experiments. But Notional Program Approach suggests that experiments and field test will occur in year 4 and 5. Is this correct?

Answer 21: That is correct. Contractual instruments may be extended or new awards maybe issued to cover a potential extended test period. However, the period of performance of any contractual instrument will not exceed a five (5) year period.

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Question 22: Are Marine Corps assets (sensors and weapons) included in the set of platforms being considered?

Answer 22: There are currently no requirements for Marine Corps assets to be included.

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Question 23: How does/will ATDL relate to the JALN effort?

Answer 23: See the response to question 2 above.

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Question 24: How do non-Internet Protocol (IP) networks integrate with High Assurance Internet Protocol Encryptor/IP (HAIPE/IP) networks in ATDL?

Answer 24: Protocols such as Joint Range Extension (JRE) are used to bridge the non-IP with IP networks.

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Question 25: How small an Unmanned Aerial System (UAS) does ATDL support (hand launched, etc.)?

Answer 25: There are currently no requirements for ATDL support for small UAS.

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Question 26: What link ranges and data rates does ATDL need?

Answer 26: See the response to question 7 above.

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Question 27: How does the SRP hardware relate to this ATDL study?

Answer 27: SRP is not the centerpiece of the ATDL EC but is being used as an open standard platform for software development and implementation.

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Question 28: Could companies who intend to prime this BAA identify themselves?

Answer 28: The Government will not be compiling a list of potential offerors.

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Question 29: Budget: Does this budget include government owned overhead/support?

Answer 29: The budget does not include government owned overhead/support. See Section II. entitled 'Award Information'.

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Question 30: Have we established a method by which we identify existing teams or new teams?

Answer 30: After proposals have been received and oral evaluation, it may be possible to identify strengths and weaknesses of proposers to suggest where value to the government could result from teaming.

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Question 31: What does "support multiple physical layers" mean? a) use data from existing network, b) reconfigure radio to support a different waveform?

Answer 31: In the baseline approach the ADTL waveform and policy based message routing functions should reside in the SRP. The other physical media would be external.

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Question 32: Is it envisioned that SRP will drive external PAs for higher power applications?

Answer 32: Yes.

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Question 33: Does Extendable Mobile Ad-hoc Network Emulator (EMANE) support Time Division and Frequency Division Duplexing?

Answer 33: Yes. The specific implementation approach and details may depend on the desired timing granularity.

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Question 34: Does the SRP support directional antenna control?

Answer 34: SRP does not currently include support for directional antenna control.

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Question 35: Are the individual “topics” going to be delineated? a) waveforms, b) heterogeneous networking, c) directional antenna study?

Answer 35: See Section 4.2 of the BAA. You can propose on individual or combined attributes.

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Question 36: Does total budget (\$22M) cover also NRL, test teams, other government parties?

Answer 36: No.

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Question 37: Is the SRP capable of TX switching speeds for Link-16?

Answer 37: There doesn't appear to be anything in the design that would prevent this. SRP has simultaneous transmit and receive capability. However, it's not the intention of the ATDL EC to implement Link-16.

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Question 38: Is increasing the instantaneous bandwidth to broader bands – say 300 MHz to 1 GHz within the possible scope of the BAA?

Answer 38: Yes.

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Question 39: Are there target ranges and throughputs? Is there a latency goal?

Answer 39: See the response to question 7 above.

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Question 40: Can you comment on the lower priority in Low Probability of Detection (LPD) and any requirement or impacts that are anticipated in platform survivability?

Answer 40: The primary Navy requirement is for a Jam Resistant capability with LPD secondary.

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Question 41: There seem to be opposing requirements of low host impact, interoperability, band agility, etc. Is there a priority or weighting of these requirements?

Answer 41: The goal of the ATDL EC is to help answer these questions and provide best value to the government.

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Question 42: Two missions were presented that will drive different priorities on capabilities and requirements. Is one mission more important than the other? Are there additional missions to consider?

Answer 42: Naval Integrated Fire Control-Counter Air (NIFCA) is the highest priority and there are additional missions that will be used as part of the modeling and simulation effort to evaluate the candidate technologies.

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Question 43: What TRL is expected entering the base?

Answer 43: TRL 3 or above and TRL 6 at the end of the effort.

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Question 44: Is this a single award or multiple award contracts?

Answer 44: There may be multiple awards and down selection in the later phases.

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Question 45: Will ONR make Industry Day presentations available?

Answer 45: Only selected presentations will be posted on-line.

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Question 46: Will ONR make available a list of attendees with contact info from Industry Day meeting?

Answer 46: A list of attendees will not be made available.

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Question 47: How can potential offerors obtain technical specs to Link-16?

Answer 47: The documentation is available to industry subject to approval from a government representative.

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Question 48: Does Link-16 require a license or will the waveform be supplied from the JTRS library?

Answer 48: It is not the intention of the ATDL EC to implement Link-16.

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Question 49: Will NRL provide SRP support to contractor engineers? Same question for EMANE?

Answer 49: Yes.

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Question 50: Will the library of SRP apps be available for use by the awardee?

Answer 50: The library of SRP applications will be provided to the industry teams as required.

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Question 51: Will the SRP be furnished by the government? How many? Otherwise what is the cost?

Answer 51: SRP will be provided as GFI and GFE but the quantities and details will be negotiated after oral presentations as part of the award.

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Question 52: How should proposed solutions that exceed the capabilities of the SRP be addressed?

Answer 52: Industry is encouraged to propose solutions regardless of the limitations of the current SRP hardware. SRP is an evolving capability that is an open architecture platform that can accept additional cards.

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Question 53: Please reconcile the differences between the nominal schedule and the funding: notional schedule 5 – years; funding 3 – years.

Answer 53: The government is currently looking at proposals for the first three (3) years. After that, contractual instruments could be extended or new awards maybe made. However, no contractual instrument will exceed a five (5) year period.

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Question 54: Is the work under the BAA expected to be unclassified?

Answer 54: As stated in the BAA, “Full Proposals submitted under the BAA are expected to be unclassified; however, confidential/classified responses are permitted. If a classified response is submitted, the resultant contract will be unclassified.”

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Question 55: How will work on emulating TDLs be done since many aspects are classified such as vulnerabilities?

Answer 55: See the response to question 54 above. Work during the award period would be handled as per classification.

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