S²MARTS Project: Hypersonics Advanced Capabilities for Weapon System Improvements
Project TalX Question & Answer | Date: March 14, 2022

1. Question: Will these slides be provided to attendees?

Answer: Yes, slides are made available through NSTXL's community board.

2. Question: Are there published definitions for the TRL levels that NSWC is using?

Answer: NSWC Crane references the GAO Technology Readiness Assessment Guide.

3. Question: PNT question, what is the state vector interface between the host vehicles

Answer: Propose solutions deemed respondent to the RFS.

4. Question: Is the target TRL for the proposed technology at end of program or at the beginning?

Answer: NSWC Crane desires a minimum of TRL 3 at the beginning and technologies will reach TRL 6 following demonstration of the technology onboard the developmental flight test.

5. Question: How large (physical geometry) an RF Window is desired?

Answer: Propose solutions deemed respondent to the RFS.

6. Question: Are temperatures for RF window over 2500 deg C desired?

Answer: Propose solutions deemed respondent to the RFS.

7. Question: Are there targets for the funding split between the three topics?

Answer: The OTA budget will be split among multiple prototype awards.

8. Question: Are solutions that mitigate the deleterious effect of the plasma sheath to enable RF transmission of GPS and other signals of interest under the PNT category?

Answer: Propose solutions deemed respondent to the RFS. NSWC Crane seeks to demonstrate alternative PNT solutions and a high temperature aperture in a hypersonic environment.

9. Question: What is the process to vet a potential proposal topic for applicability?

Answer: Government subject matter experts (SMEs) for each topic area will review proposals and recommend projects for award.

10. Question: What is the duration of the mission of this vehicle?

Answer: Please reference publicly available data for planning purposes. Further information will be provided upon award.

11. Question: Is there a target size and weight for the battery?

Answer: Propose a solution respondent to the battery module criteria. NSWC Crane seeks industry proposals for achieving size and weight while meeting the identified criteria.

12. Question: Are solutions for high temperature RF apertures expected to be independent of the antenna or are solutions that consider integration of the antenna of interest?

Answer: The high temperature aperture topic is to demonstrate a high temperature capable (survivable and operational) antenna in a relevant environment.

13. Question: Are there specific environmental standards (shock, vibe, temperature) that vendors will be expected to test against prior to delivery of the prototypes?

Answer: NSWC Crane will provide the developmental test flight environmental parameters upon project award.

14. Question: Will govt test facilities be used to demonstrate technologies or prior to delivery at contractor site?

Answer: The government will perform system level tests after prototype integration to the developmental test flight vehicle. Any additional testing will be performed by the proposer.

15. Question: Temp conditions cause changes in seeker windows that interfere w/ seekers. Would a software solution that enables the use of existing RF seekers be responsive?

Answer: Propose as deemed appropriate for answering the request for solutions (RFS).

16. Question: What are the baseline battery performance capabilities that you are using for comparison in the proposed advances?

Answer: Propose a solution respondent to the battery module criteria. NSWC Crane seeks industry proposals for achieving size and weight while meeting the identified criteria.

17. Question: Is there a target SWAP for the APNT prototype system?

Answer: Propose SWaP and accuracy goals for the Alt-PNT prototype.

18. Question: Is the period of performance divided in phases? Phase 1, phase 2?

Answer: The OTA is broken into billing milestones identified in the RFS.

19. Question: When is the developmental flight test expected to occur? And what is the expected flight vehicle?

Answer: The developmental flight test will occur annually. Prototype hardware must be delivered in Q3 of the Fiscal Year 2023 or 2024, depending on the technical maturation of the prototype. Further information will be provided upon project award.

20. Question: Are there HWIL or SWIL capabilities for APNT validation?

Answer: Not during this OTA.

21. Question: IS IR transmission in addition to RF of interest?

Answer: Propose as deemed respondent to the RFS.

22. Question: Are vendor systems expected to be operational for all phases of flight, e.g., launch, glide, etc.?

Answer: This depends on the prototype topic. Propose as deemed appropriate for the respective prototype topic area.

23. Question: Do you anticipate multiple awards for each technology?

Answer: Multiple awards for a technology topic area is possible.

24. Question: What is the expected contract type (CPFF, FFP, T&M) awarded from this RFS?

Answer: Reference RFS Section B, 7. Anticipated Number of Awards. The Government intends to award multiple Other Transaction Agreement(s) on a fixed-price basis as a result of this RFS. The Government also reserves the right to execute fewer awards than anticipated, select aspects of a proposal for award, or not select any of the solutions proposed. The Government will collaborate with prospective awardees prior to finalizing the award.

25. Question: Has a weighting of technical, cost and schedule been assigned for the evaluation criteria?

Answer: The evaluation of solutions will be conducted in accordance with Section F of the RFS.

26. Question: What type of flight test is anticipated after delivery (hypersonic vehicle, sounding rocket, high speed aircraft, etc.)?

Answer: Further information will be provided upon award.

27. Question: Is there a total budget allocated for this opportunity?

Answer: The budget is identified in the RFS.

28. Question: Will facility clearance be required upon submission or can it be contingent upon award?

Answer: This OTA will be executed unclassified.

29. Question: Can arc-jet testing be considered Government Furnished?

Answer: NSWC Crane can help coordinate test facilities. However, propose how the prototype will be tested and costs associated.

30. Question: Are there any SWAP requirements for the Alt Nav system?

Answer: Propose SWaP and accuracy goals for the Alt-PNT prototype.

31. Question: Are there target SWaP requirements for the A-PNT system?

Answer: Propose SWaP and accuracy goals for the Alt-PNT prototype.

32. Question: Do you expect the apertures to be "transparent to RF/IR?"

Answer: See Section 3: Desired End-State & Success Criteria of the RFS.

33. Question: Do you expect the batteries to hold charge for 20 years, or can TGV "Energize them" before loading and let them hold charge just for the mission duration? Can the batteries be replaced after a service operation, or are they expecting them to last the life of the platform?

Answer: See Section 3: Desired End-State & Success Criteria of the RFS.