

Special Notice N0014-21-S-SN14
Special Program Announcement for Office of Naval Research
Research Opportunity:
“SCREAMING ARROW”
Amendment 0001

Amendment 0001 to this Special Notice is to provide the attached list of industry questions and answers.

Screaming Arrow Special Notice Q and A

Question - Response	
Q	Tech Proposal Page Limit: Is there a limit on page count for Proposal? Is there one for Technical Volume? If so, what is the limit (total, Tech Volume)? Where is this stated?
A	See ONR Long Range BAA submission requirements.
Q	Hypersonic Term: Please define the term "Hypersonic" as it applies to this RFP.
A	The RFP definition of "hypersonic" is cruise phase of Mach 5 or better.
Q	Hypersonic Term: OSD has indicated that anything over Mach 4 is covered in his portfolio (Hypersonic), so does Mach 4+ for this RFP meet Hypersonic criteria?
A	No.
Q	Classification: What level of classification will this program require?
A	Secret; however, the proposal will be Unclassified.
Q	Classification: Will the Government be providing a Security Classification Guide (SCG) for this effort?
A	Yes
Q	Propulsion Type: Will non-scramjet based designs be considered for this RFP?
A	Yes, but it must be an air-breathing propulsion concept.
Q	Technical Requirements: Table 1, "Cruiser" states that "... (two warhead types are being considered)." (a) What types are being considered, and ... (b) ... is the Government specifying these or letting the system prime select the optimal design for their specific
A	(a) The two warhead types being considered are traditional blast/fragmentation and reactive material concepts. (b) Offeror shall specify a notional concept that enhances the CTV concept.
Q	Technical Requirements: Table 1, "Interstage" states "Shall include cruiser/booster separation system for flight demo." Will a design proposed by a contractor that does not have a separable booster, but rather an integral one,
A	Yes. The "interstage" could include separable items such as, but not limited to, booster nozzle/associated retention hardware, strongback/carriage hardware, and etc....
Q	Technical Requirements: Table 1, "CTV Performance..." states "Offer provides max range capability while ensuring tactical survivability." What range is required for (a) the design, and (b) the demonstration?
A	(a) No requirement for a specific range; maximize the range of the concept proposed. (b) No requirement stated for the demonstration. The demonstrated range shall be based on what is required for the proposed concept to gather the necessary database in order to validate the models used to show analytically the
Q	Technical Requirements: Also, what level of survivability is required?
A	See below.
Q	Technical Requirements: Table 1, "CTV Performance..." Discusses Altitude, Angle of Approach, Terminal Maneuvers, and Terminal Velocity requirements in terms of "Offeror provides specifics to ensure tactical survivability." Please provide the level of survivability that the weapon design should meet for these requirements.
A	The Offeror shall provide a concept that ensures tactical survivability. However, it is understood that individual design concepts will vary on the attributes used (i.e., altitude, angle of approach, terminal maneuvers and terminal
Q	Technical Requirements: The "CVN Compliant" Element of Table 1, Sub Element "Container Fit", states "Fully or Near-Fully Assembled CTV must be in compliance with.....Limitations." (a) Please define what is meant by "Near Fully Assembled". (b) Are the dimensions provided for the maximum size of the container or the weapon? (c) Please provide a copy of the NAVSEASYS COM letter Ser 05Z/143 dated 08 May 2014, Revised Weapons Containers & Pallet Size Limitations. (d) The "CVN Compliant" Element states that weapon should be "CMBRE Compatible". Does this mean that the
A	(a) The intent of the words "near fully assembled" is that the concept shall have minimum assembly required to be an "all-up-round". (b) Container. (c) Shall provide. (d) No. The CTV design concept shall be compatible with the Common Munitions BIT/Reprogramming Equipment
Q	Technical Requirements: Will the Government be providing access to F/A-18 E/F aircraft as GFE for weapons

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A	TBD. The government is accessing the availability of an F/A-18 E/F for usage on the "SCREAMING ARROW" program. A final determination as to whether an F/A 18 E/F will be available or not is scheduled to be announced by the end of
Q	Technical Requirements: For "F/A-18" Compatible" requirement, we assume this F/A-18 E/F model?
A	Yes.
Q	Technical Requirements: For the requirement on vehicle/launcher weight Recovery scenarios of 4 and 2 CTV recovery, the threshold and objective metrics on CTV weight appear to be reversed. Please clarify this requirement.
A	The requirement of recovery of 4 vehicles versus 2 vehicles sets the maximum weight of each individual vehicle. If designing to recover 4 vehicles, the maximum weight of each vehicle would be less than if the design is to recover 2
Q	Test Range: Which test range will the CTV flight tests be conducted at?
A	Pacific Missile Test Center (PMTTC), Naval Air Warfare Center, Weapons Division, Point Mugu, CA
Q	Telemetry/Flight Termination System (TM/FTS): (a) Will the Government be providing TM/FTS units as GFE for integration into the Offerors' respective CTVs? (b) If not, shall the Offeror propose the development and/or provision of TM/FTS units for the INP effort?
A	(a) No. (b) Yes.
Q	Format: For tables and figures, may Font sizes smaller than 12-point be used?
A	No
Q	Awards: The Government indicates it will make three individual awards. (a) Is this just for the Base phase or will the Government carry 3 contractors through the entire phase? If not, at what phase will down select be made and what is the selection criteria for such? How many contractors shall be kept through each phase?
A	(a) The Government may award 0 to 3 contracts from baseline to the completion of all options depending on the concepts offered and the successful completion of the tasks. (b) Yes.
Q	Transition: INP proposals are supposed to transition to a program of record upon completion. What program of record is being looked at for transition for this INP?
A	The statement is incorrect based on today's definition of an INP. There is no requirement for an INP to support a
Q	Has the PCO determined the price will be based on adequate competition? If so, then we are not required to provide certified cost or pricing data. Please confirm
A	See Page 56 of the Long Range BAA. "Even though the BAA is a competitive procedure, all proposals submitted under this BAA that meet the TINA threshold are subject to certified cost and pricing data."
Q	The "cost-proposal-template.xlsx" as instructed to be used by the N00014-21-S-B001_Amendment 0002 BAA for our proposal is challenging. In particular the "Subcontractor" tab has instructions to provide for subcontractors over \$250,000 "The prime contractor should perform and provide a cost/price analysis of each subcontractor's cost proposal. Offerors are required to obtain competition to the maximum extent practicable when selecting subcontractors; if the offeror has obtained competitive quotes, copies should be provided. If the Offeror has selected other than the low bid for inclusion in their proposal or intends to award the subcontract on a sole-source basis, the offeror should provide rationale for their decision. For sole-sourced subcontracts, the prime contractor must provide a short sole-source justification.". This level of specificity is daunting given the short proposal submission deadline of 20 September 2021. Additionally.
A	See Page 33 of the Long Range BAA. "Subawards/Subcontracts – Provide a description of the work to be performed by the subrecipient/subcontractor. For each subaward, a detailed cost proposal is required to be submitted by the subrecipient(s). A proposal and any supporting documentation must be received and reviewed before the Government can complete its cost analysis of the proposal and enter negotiations. ONR's preferred method of receiving subcontract information is for this information to be included with the Prime's proposal. However, a subcontractor's cost proposal can be provided in a sealed envelope with the recipient's cost proposal or via e-mail
Q	General. Funding. Question: Can the government supply an overall budget and associated funding profile for the
A	The current overall INP budget is \$140.6M with funding distribution over six years starting in Fiscal Year 20 through 25 of \$5M, \$10M, \$30M, \$35M, \$30M & \$30.6M, respectively.
Q	General. Proposal Requirements. Question: Has a maximum page count for the technical volume been identified?
A	Yes. See ONR Long Range BAA submission requirements.

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Q	General. Proposal Requirements. Question: If a DD254 or SCG will not be provided for the proposal, please clarify how proposal materials should be classified.
A	The proposal materials shall be Unclassified.
Q	General. Government Furnished Property. Question: Does property, equipment, or facilities proposed as Government Furnished need to be priced and included within the total proposed program price?
A	No.
Q	General. Earned Value. Question: What assumptions should be made with regard to Earned Value requirements?
A	Earned Value Management is not required but may be used at the contractor's discretion.
Q	General. Question: Are we precluded from proposing a composite booster case solution?
A	No.
Q	II. C. Notional Program Outline. Platform Integration & Airworthiness. Question: During which option are airworthiness engagements (working groups, planning efforts) expected to begin?
A	No later than Contract Option One.
Q	II. C.3. Notional Program Outline Option 2. TRR data package deliverable. Question: Please detail what level/scope of IATCO planning efforts (through TRR) should be assumed to be covered in Option 2 vs. Option 3? In other words, is it the government's intent that all missile IATCO, AUR/platform integration, and flight test planning (through TRR)
A	Yes.
Q	II. C.4. Notional Program Outline Option 3. Flight Test Execution. Questions: (a) Is it the government's intent to direct which test range will be utilized for flight testing? (b) Should we assume the same test range will be utilized for CC and CTV flights?
A	(a) Yes. (b) No.
Q	II. "Topic Description". Question: Request clarification regarding the differentiation between the "Shall" and "Will"
A	In the "SCREAMING ARROW Design Element Specifications" table, all elements marked "will" are to be interpreted as "shall" with the exception of the CMBRE Compatibility element, which is explained in item 13 below.
Q	V. "Full Proposal Submission and Award Information". Period of Performance. Question: Approximate date range (2/1/2022 - 7/31/2026) comes out to 54 mo PoP, but options and bulk of special notice designate total of 42 months.
A	The intent is to complete the program in 42 months. The period of performance may be extended to 07/26 to
Q	Table (1) "Element Hypersonic CTV/CTV". "Shall include FTS...". Question: If CTV flight operations can shown to be conducted without the need for an FTS, can the FTS be removed from the system?
A	The requirement is that the CCV/CTV shall be approved for use by both the Aircraft and Range Safety Officers for the specific test event. Therefore, the need for an FTS or not shall be based on the Aircraft and Range Safety Officers'
Q	Table (1) Element "CVN Compliant". CMBRE Compatible. Question: Is CMBRE compatibility required for the CTV
A	Yes. The CTV design concept shall be compatible with the Common Munitions BIT/Reprogramming Equipment (CMBRE) but is not required for the CTV test flights.
Q	Table (1) Element "CVN Compliant". NAVSEASYSKOM Letter. Question: Please provide a copy of NAVSEASYSKOM Ltr Ser 05Z/143 dtd 08 May 14 (Revised Shipboard Weapons Containers & Pallet Size Limitations)
A	Attached.
Q	Table (1) Element "F/A-18 Compatible". "Vehicle launcher weight at recovery...". Question: Please clarify AUR threshold and objective weights for each of the launch and recovery quantity scenarios. The table states that 4 vehicle recovery requires Objective weight, but immediately above the Threshold weight is cited for the 4 vehicle
A	The requirement of recovery of 4 vehicles versus 2 vehicles sets the maximum weight of each individual vehicle. If designing to recovery 4 vehicles, the maximum weight of each vehicle would be less than if the design is to recover 2
Q	Table (1) Element "Hypersonic CTV/Cruiser". "...two warhead types being considered". Question: Please clarify what the warhead types are so that we can assess their impact to overall vehicle architecture and design.
A	The two warhead types being considered are a traditional blast/fragmentation and reactive material concepts.
Q	Does ONR have a preferred ordnance package or kill mechanism for the mission application? If not, will you consider deployed munitions as well as a unitary warhead? That could drive the INP's configuration.
A	No. The focus of this program is airframe propulsion. Special notice reference to warhead, is direction to offerors to "apportion nominal SwaP for future warheads/fuzing..." Screaming Arrow is not a warhead development program.

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Q	Does ONR have a preferred seeker solution for the mission application? If not, will you consider conformal apertures as well as a traditional seeker(s) under a radome? That could also drive the INP's configuration.
A	No. The focus of this program is airframe propulsion. Special notice reference to seeker, is direction to offerors to "apportion nominal [SwaP] for future seeker/sensor..." Screaming Arrow is not a seeker/sensor development
Q	FA-18E/F compatibility was specified in the Special Notice. After the INP program, do you anticipate that the system will also need to be made compatible with other Navy air platforms (e.g., F-35C, P-8A) or surface and sub-surface
A	The intent of the INP program is to mature a hypersonic air-breathing prototype vehicle that is aircraft carrier (CVN) suitable and F/A-18E/F compatible. Future platforms and launch regimes will be determined by Navy requirements.
Q	In the interest of an affordable program and compressed timeline, would ONR be willing to entertain flight articles that are actually bigger or smaller than necessary for the future application? Existing designs might be suitable for validating the critical technologies, with the engineering required to right-size a future weapon postponed until after
A	ONR shall entertain technology maturation approaches, via full-scale, sub-scale or over-scale that mature/demonstrate an air-breathing, hypersonic airframe/propulsion vehicle concept that is CVN and F/A-18 E/F
Q	Will ground and flight test operations and support be provided as GFE? Or, will the contractor teams need to budget
A	A final determination of availability of an F/A-18 E/F is scheduled to be announced by the end of the base contract. If the vehicle integration and test is with the F/A-18 E/F, the government shall provide it as GFE. If it is determined that an alternate platform is required, that cost for platform integration and flight test will also be borne by the
Q	Will ONR provide high performance computing resources as GFE?
A	No.
Q	Would there be value in the contractor teams providing analytical models that can be experimented with at events like Northern Edge, wargames, or tabletop exercises?
A	Contractor shall assess and implement the experiment if the contractor determines that it meets the "Screaming Arrow" overall goals at NO Screaming Arrow program government cost.
Q	Do you anticipate the opportunity for a multi-national effort? I'm thinking in terms of flight test ranges and our close allies that operate the same types of platforms and systems.
A	Yes. ONR recognizes the existence of opportunities for multi-national cooperation/ coordination in terms of flight
Q	Is the INP program responding to a UON or JUON?
A	No.
Q	Is there an IOC target? What are ONR's desired threshold maturity indicators (e.g., TRL, MRL, IRL) for the
A	No. The desired maturity indicator for both Technology Readiness Level (TRL) and Manufacturing Readiness Level (MRL) is six or better. This program will not consider IRL.
Q	Is it safe to assume that full environmental qualification may be desirable, but not essential for completion of an
A	Yes. The test hardware/vehicle environmental qualifications shall meet the captive/launch platform and range
Q	Since the Special Notice does not mention security -- what level of security classification and information protection does ONR anticipate? What is the relevant Security Classification Guide?
A	Secret. The Security Classification Guide (SCG) shall be announced by the end of the base contract.
Q	Regarding Special Notice_2021 - N00014-21-S-SN14, published 6 August 2021 – please make the following documents available to potential bidders: (a) NAVSEASYSOCOM Itr Ser 05Z/143 dtd 08 May 14, Revised Shipboard Weapons Containers & Pallet Size Limitations
A	(a) Shall provide. (b) Secret. The Security Classification Guide (SCG) shall be announced by the end of the base contract.
Q	Contract Option Three (Page 7) calls out a "Captive Carry/Drop Test 1". (a) Please provide additional guidance on the requirements for this flight article. If it is for airworthiness, is ONR open to alternative airworthiness solutions that are based on similar weight-class weapons? (b) However, if the captive carriage drop test is required for airworthiness, can it be moved to Contract Option Two?
A	(a) The requirement is to gain both Aircraft and Range Safety approval for the specific test events. The approach used to obtain Aircraft and Range Safety Officers' approval shall be defined by the contractor. (b) Yes.

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Q	Section C (Page 6-7) Notional Program Outline lays out the durations of each phase: Base Contract (7 months), Option One (7 months), Option Two (15 months), and Option Three (13 months), which totals 42 months. However, in Section V (Page 8), "Full Proposal Submission and Award Information" says the Period of Performance may be from February 2022 through July 2026, which is greater than 42 months. Please provide clarification on ONR's
A	The intent is to complete the program in 42 months. The period of performance may be extended to 07/26 to
Q	Table 1 (Page 5) lists the threshold weight of 2,500 pounds (4 vehicle recovery) and the objective weight of 2,875 pounds (2 vehicle recovery). This appears to reverse the threshold and the objective. Please provide clarification on
A	The requirement of recovery of 4 vehicles versus 2 vehicles sets the maximum weight of each individual vehicle. If designing to recovery 4 vehicles, the maximum weight of each vehicle would be less than if the design is to recover 2
Q	4. The technical volume of the LM Aero proposal is expected to be classified. (a) Is there a possibility to hand carry and deliver the proposal to ONR on 20 September 2021? (b) If so, please provide the logistics/instructions for proposal delivery to ONR.
A	(a) No
Q	Section II.C, page 7; "During the Contract Option 3 performance period, the Offeror shall be required to provide the following deliverables: – Final Review / Final Report". Question: Will the presentation charts from the Final Review
A	The Final Report shall be in contractor format. The Final Report shall be of sufficient detail to be interpreted as a
Q	Section II.B.2, Table 1, page 5; "F/A-18 Compatible / CVN Launch & Recovery / Vehicle Launcher weight at Launch T: 2,500 lbs (4 vehicle recovery) O: 2,875 lbs (2 vehicle recovery)". Questions: (a) Are the threshold and objective values inadvertently reversed? (b) Should it instead read: T: 2,875 lbs (2 vehicle recovery) O: 2,500 lbs (4 vehicle recovery)?
A	(a) No. (b) The requirement of recovery of 4 vehicles versus 2 vehicles sets the maximum weight of each individual vehicle. If designing to recovery 4 vehicles, the maximum weight of each vehicle would be less than if the design is to recover
Q	Section II.B.2, Table 1, page 5; CVN Compliant / Container Fit / Fully or near-fully assembled CTV must be in compliance with NAVSEASYS COM Itr Ser 05Z/143 dtd 08 May 14, Revised Shipboard Weapons Containers & Pallet Size Limitations. Questions: (a) Is it ONR's intent that the contractor design and build an AUR shipping container, then test it to the requirements
A	(a) No. (b) Yes.
Q	Section II.C, page 7; Base Contract phase shall focus on deriving system requirements and developing a preliminary design of the all-up-round and shall adopt a model-based systems engineering (MBSE) methodology. Question: Does ONR require use of specific MBSE tools, or can any SysML compatible model be used?
A	The contractor shall use the model-based system engineering tool of their choice.
Q	General Question: Can ONR share the target contract value for Screaming Arrow?
A	The current overall budget is \$140.6M. The Special Notice contract value has not been defined.
Q	General Questions: (a) How does ONR plan to send / receive classified information under the SA program? (b) Are SIPRNET accounts required? (c) or a dedicated program network?
A	(a) Classified information shall be sent/received under the appropriate levels of communication either by physical transfer (via hand carry or mail) or electronic transfer (via SIPRNet, DSWAN, JWICS and CNET). (b) No, but depending on the material SIPRNET could be used. (c) No. Classified materials shall be sent/received under the appropriate security level network. A dedicated
Q	General Question: Can a classified Technical Volume be delivered by hand to ONR, or does it need to be secure
A	Yes. A hand delivered document shall be accepted only on Monday, Wednesday or Friday, between the hours of 0730 and 1600 EDT. Two days before delivery, the contractor shall provide the name of and time that the courier intends to arrive at ONR (One Liberty Center - 875 N. Randolph St, Arlington, VA 22203), so that the appropriate
Q	General Question: Is there a page count limit on the Technical Volume?
A	See ONR Long Range BAA submission requirements.
Q	Question: What is the page count for the Technical and Cost volumes?

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A	See ONR Long Range BAA submission requirements.
Q	Questions: (a) What Security Classification Guide is applied to this opportunity? (b) May we receive a copy?
A	(a) The Security Classification Guide (SCG) shall be announced by the end of the base contract. (b) Yes, when available.
Q	Question: Is the total Period of Performance from February 2022 to July 2025?
A	The intent is to complete the program in 42 months. The period of performance may be extended to 07/26 to
Q	Question: Will the Government furnish the test aircraft and aircraft integration services? If so, please describe.
A	Yes. If the vehicle integration and test is with the F/A-18 E/F, the government shall provide it as GFE. If it is determined that an alternate platform is required, that cost for platform integration and flight test will also be borne
Q	Question: Will the Government furnish simulated aircraft test-sets for ground based missile integration and test?
A	Yes. If the vehicle integration and test is with the F/A-18 E/F, the government shall provide simulated aircraft test sets, as GFE. If it is determined that an alternate platform is required, that cost for platform integration and flight