Disruption Opportunity
DARPA-PA-25-07-05
Liquid Surge

I. Opportunity Description

The Defense Advanced Research Projects Agency (DARPA) Defense Sciences Office (DSO) is issuing a Disruption Opportunity (DO), inviting submissions of innovative basic or applied research concepts in the technical domain of developing novel metrology for understanding wave propagation in compressible fluids. This DO is issued under the Program Announcement for Disruptioneering, DARPA-PA-25-07. All awards will be made in the form of an Other Transaction (OT) for Prototype project. The total award value for the combined Phase 1 base and Phase 2 option is limited to $995,000, with the Phase 1 amount not to exceed $550,000 and the Phase 2 amount not to exceed $445,000. This total award value includes Government funding and performer cost share if required or proposed.

To view the DARPA Program Announcement (PA) for Disruptioneering, visit SAM.gov under solicitation number DARPA-PA-25-07:
https://sam.gov/opp/ab7b4ecf5cbd4225ae1ebe16e22a8330/view

Important Dates (All Times are Eastern Time Zone (ET)):

- DO Posting Date: October 14, 2026
- Pre-recorded Information Session from PM available on DARPA webpage: on or around October 14, 2026
- Abstract Due Date: November 3, 2026, at 4:00 p.m.
- Question Submittal Closed: December 1, 2026, at 4:00 p.m.
- Proposal Due Date: December 14, 2026, at 4:00 p.m.
- Planned Program Start Date: February 15, 2027

A. Introduction

The Liquid Surge program seeks to advance scientific understanding, predictive modeling, and metrology of transient wave phenomena in liquid environments under challenging conditions. The program addresses complex thermodynamic behaviors in dynamic fluid regimes that remain difficult to represent using current predictive approaches. Improving predictive capability will require advanced multiscale computational methods that capture relevant fluid behavior across appropriate spatial and temporal scales.
Complementary advances in experimental measurement approaches will support model validation across relevant conditions. The program will integrate modeling and experimental research to improve foundational understanding of coupled fluid mechanical and thermodynamic processes.

B. Objective/Technical Scope

The Liquid Surge program seeks foundational understanding by developing novel prototype metrology to study coupled thermodynamic, mechanical, and compositional responses to transient wave phenomena in complex liquid media. New methods should be able to examine relationships between molecular-scale processes and macroscopic fluid behavior across controlled operating conditions. These new prototype methods of measurement should be presented in a form that makes typically unwieldly experiments more accurate, representative, and controllable than traditional full-scale testing methods.

To achieve this, proposers should address the following two thrusts in the same proposal, due to their highly coupled nature:

(a) **Experimental Diagnostics and Validation**

This thrust seeks innovative prototype wave diagnostic hardware demonstrators to characterize transient phenomena in pressurized liquid media under controlled conditions. Efforts should generate reliable measurements that support validation of predictive models and improve understanding of coupled fluid mechanical and thermodynamic behavior.
Proposed approaches should demonstrate adequate control of test conditions, sufficient measurement fidelity for model validation, and a clear strategy for managing experimental artifacts, while addressing the following areas:

- Precision State and Perturbation Control: How can the experimental architecture maintain stable, repeatable fluid states and introduce well-characterized transient disturbances across relevant operating conditions (see metrics table below)?
- Measurement Fidelity: What non-intrusive sensing techniques can characterize relevant transient responses with sufficient temporal fidelity while minimizing interference with the phenomena under study?
- Experimental Configuration: How can experimental designs limit unwanted boundary and geometric effects, support comparison with predictive models, and enable scalable experimentation?

DARPA encourages proposers to consider methods that take advantage of scale invariant properties of these dynamics to increase the rate of data collection and reduce burdens of large facilities and equipment. Examples include, but are not limited to, miniature shock-tube solutions (Udagawa, 2011), cavitation-on-a-chip devices (Rokhsar Talabazar, 2021) or high-pressure and temperature microreactors (Marre, 2010).

Physics-Based Predictive Modeling & Transient Fluid Behavior
To interpret experimental findings and improve predictive capability, this thrust focuses on the development of a novel computational prediction tool able to capture the coupled fluid mechanical and thermodynamic behavior across relevant spatial and temporal scales.

The tool should implement models that incorporate a physics-based representation of transient liquid behavior and support reliable prediction under challenging conditions. Proposers should describe how their approaches would address the following questions:

- Transient State Evolution: How can computational approaches represent transient molecular-scale and thermophysical processes associated with transient wave phenomena?
- Bridging Scales: What theoretical frameworks can translate microscale and mesoscale behaviors into reliable continuum-scale model representations?
- Predictive Fidelity: How can predictive models maintain physical fidelity across demanding pressure, temperature, and fluid-state conditions across varied and demanding operating conditions?

The tool should be a standalone software solution that can be executed on commonly available high-performance computing platforms (CPU or GPU), take in as an input the unperturbed (or

pre-shocked) thermodynamic fluid state and output the complete shock profile for any wave Mach number in the range of interest (see table below).Competitive proposals should address all of the questions above, highlighting the coupled nature of thrusts (a) and (b).

C. Structure

Proposals submitted in response to this DO must be unclassified and must address two independent and sequential project phases: a Phase 1 Feasibility Study (base) and a Phase 2 Proof of Concept (option). The periods of performance for these phases are 9 months for the Phase 1 base effort and 9 months for the Phase 2 option effort. Combined Phase 1 base and Phase 2 option efforts for this DO should not exceed 18 months. The Phase 1 (base) award value is limited to $550,000. The Phase 2 (option) award value is limited to $445,000. Both Phase 1 and Phase 2 award value limits include performer cost share, if required or if proposed. The total award value for the combined Phase 1 and Phase 2 is limited to $995,000. This total award value includes Government funding and performer cost share, if required or proposed.

The program will have a key decision point at the 9-month mark based on the milestones defined below, focusing on the self-consistency between the experimental data collected and the predicted wave properties.

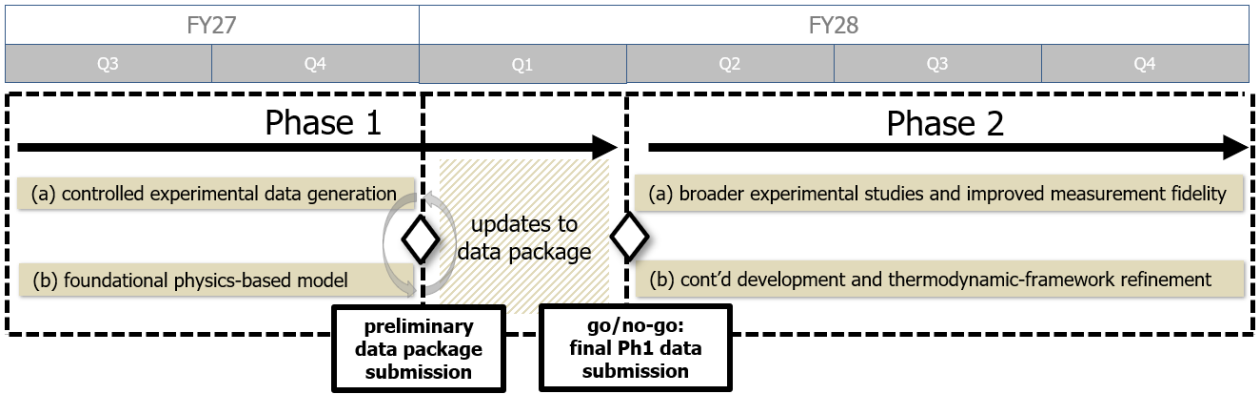

Figure 1: Timeline for thrust (a) and thrust (b) of the program. A preliminary data package demonstrating an early handshake between experimental and computational predictions will be requested at 6 months, which will be followed by a go/no-go decision at month 9.

D. Detailed Technical Description

Proposals that fail to provide evidence, quantitative projections, first order calculations, or theoretical estimations of how the proposed effort can meet or approach the metrics, may be removed from consideration. Proposals should prioritize reasoned arguments, evidence, and calculations to justify proposed claims within the allotted page limit, and minimize 1) marketing language and 2) repeating the language from this solicitation.

Meeting the program metrics does not guarantee a follow-on award. Likewise, if a performer fails to meet the program metrics but has a highly innovative, and potentially disruptive approach, DARPA may decide to continue supporting those efforts, subject to the availability of funds.

E. Schedule/Milestones

Proposals must explicitly address each metric listed in the table below and provide a detailed technical justification. These metrics evaluate the quantitative agreement between experimental and numerical data, as well as the fidelity of experimental diagnostics, achievable base-state

conditions, and wave speeds. Submissions should contain sufficient empirical data, rigorous analysis, cited literature, or supporting evidence to support all innovative claims.

	9 months	**18 months**
Operating Conditions base pressure and temperature: p_0, T_0; wave Mach number: M_w; salinity: S_0	$p_{atm} < p_0 \leq p_{cr}$ $T_0 \cong 25\ ^0C$ $1 < M_w \leq 2$ S_0= n/a	$p_{atm} < p_0 \leq 2\ p_{cr}$ $0\ ^0C < T_0 \leq 1.5\ T_{cr}$ $1 < M_w \leq 4$ $0 < S_0 \leq 5\%$
Acoustic Limit $p_{ref} = 10^{-6} Pa$ $\rho_{ref} = p_{ref}\ a_0^{-2}$ $T_{ref} = T_{ref}(\rho_{ref}, p_{ref})$	measurement accuracy: σ_r<50 dB prediction error: ϵ_r < 30 dB	measurement accuracy: σ_r <20 dB prediction error: ϵ_r <10 dB
Shock Limit: $p_{ref} = \rho_0 a_0^2$ ($\approx 2.3\ GPa\ @STP$) $T_{ref} = T_0$ $\rho_{ref} = \rho_0$	measurement accuracy: $\sigma_r < 20\ \%$ prediction error: $\epsilon_r < 15\%$	measurement accuracy: $\sigma_r < 7\ \%$ prediction error: $\epsilon_r < 5\%$

Table 1: Metrics describing: the base conditions and wave speeds to be obtained in the experimental setup (top row); the experimental uncertainty and simulation accuracy in the acoustic limit, i.e., $M_w \to 1$, (middle row) and strong shock limit, i.e., $M_w \to (M_w)_{max}$, (bottom row). Blending between the acoustic and the shock limit should be carried out using the shock strength scaling law $\sim(M_w{}^2 - 1)$.

Assuming quiescent pre-shock conditions with a given thermodynamic state defined by the base values of density, pressure, temperature, speed of sound and salinity, i.e., (ρ_0, P_0,T_0,a_0, S_0), a freely propagating planar inviscid compression wave of given speed s_w, (or, equivalently, wave Mach number, $M_w = s_w/a_0$), will entail a unique set of thermo-fluid-dynamic jumps ($\Delta\rho$, ΔP,ΔT, Δu). Shock jumps and wave speeds will be measured experimentally in thrust (a) with given uncertainties of standard deviation, σ, different for each quantity. Thrust (b) will carry out simulations by imposing a range of wave Mach numbers, matching the nominal experimental wave speed measurements, and then report the corresponding observed thermo-fluid-dynamic jumps. There will be a difference, ϵ, between the measured and predicted shock jumps for a given nominal wave speed. Both the experimental standard deviation and the error can be made relative, i.e., σ_r and ϵ_r, to the appropriate reference quantities, which depend on the flow regime ranging from the acoustic to the shock limit. Salinity, S_0, can be accounted for after month 9.

Proposers must address the following fixed payable milestones in their proposals. Proposers must complete the "Schedule of Milestones and Payments" tab of the Streamlined Cost Buildup Workbook provided with this DO to fulfill the requirements under Volume 2, Price Volume. If selected for award negotiation, the fixed payable milestones provided will be directly incorporated into Attachment 3 of the OT Agreement ("Schedule of Milestones and Payments"). Proposers must use the Task Description Document template provided with the Program Announcement DARPA-PA-25-07, which will be Attachment 1 of the OT agreement.

The following milestones are designed not only to track the progress of thrust (a) and thrust (b) individually but also to encourage the handshake between the two efforts and the government team that will provide programmatic oversight:

Fixed milestones for this program must include, at a minimum, the following:

- Month 1 [BASE]:
  - Project kick-off meeting
  - Revise and complete experimental and computational research execution plan
- Month 3 [BASE]:
  - Obtain validation against experimental data with shock jumps for water using existing closures and/or preliminary results from kinetic theory calculations
- Month 6 [BASE]:
  - Demonstrate operability of experimental rig up to critical pressures for the fluid
  - Demonstrate validation against experimental data with first-principles-based kinetic theory simulations according to metrics table.
  - Report highlighting operability of experimental rig and validation against experimental data with first-principles-based kinetic theory simulations
- Month 9 [BASE]:
  - Demonstrate operability of experimental rig up to twice the critical pressure for the fluid
  - Demonstrate handshake with first-principles-based kinetic theory simulations according to metrics table
  - Final phase 1 report incorporating salinity effects in the measurements and simulations.
  - Draft of: (a) technical drawings of prototype wave diagnostic hardware and (b) prototype wave prediction computational tool, including associated standard operating procedure (SOP) document for both.
- Month 12 [OPTION]:
  - Extension of experimental approach to double the maximum shock intensity
  - Demonstrate handshake with first-principles-based kinetic theory simulations according to metrics table.
  - Preliminary phase 2 report highlighting the updated experimental approach and simulations
- Month 15 [OPTION]:
  - Demonstrate validation against experimental data with first-principles-based kinetic theory simulations according to metrics table
  - Updated preliminary report of kinetic theory simulations
- Month 18 [OPTION]:
  - Demonstration of ultimate experimental precision and prediction accuracy, covering the wave Mach number and base pressure, density and salinity range of interest.
  - Final report of demonstration
  - Final version of: (a) technical drawings of prototype wave diagnostic hardware and (b) prototype wave prediction computational tool, including associated standard operating procedure (SOP) document for both.

For planning and budgetary purposes, proposers should assume a program start date of February 15, 2027. Schedules will be synchronized across performers, as required, and monitored/revised as necessary throughout the program's period of performance.

All proposals must include the following meetings and travel in the proposed schedule and costs:

- Program Kick-Off meeting (in-person)
- Monthly teleconference meetings will be scheduled with the Government team for progress reporting and problem identification and mitigation.
- Proposers should plan for at least one in-person progress report at DARPA per phase.
- Proposers should anticipate at least one site visit per phase by the DARPA Program Manager, during which they will have the opportunity to demonstrate progress towards agreed-upon milestones.
- No conferences or overseas travel will be paid for by DARPA under this Program.

F. Deliverables

Performers will be expected to provide, at a minimum, the following deliverables:

- Negotiated deliverables specific to the objectives of the individual efforts. These may include registered reports, experimental protocols, publications, intermediate and final versions of prototype software libraries, code, and APIs, including documentation and user manuals, and/or a comprehensive assemblage of prototype design documents, models, modeling data and results, and model validation data.
- Performers will be expected to provide, at a minimum, the following deliverables:
    - Tabulated thermophysical responses of shock jumps in sea water, similar in style to the NIST chemical webbook or Virginia Tech's compressible aerodynamics calculator, versus wave Mach number and TSP conditions
    - Mid-program (9M) and final (18M) report formally documenting the quality of the experimental/computational handshake
    - Predictive kinetic-theory-based code reconstructing thermofluid properties in the frame of reference of the traveling waveform for various wave Mach numbers TSP conditions.
- Performers will also be expected to include the following meetings in their program plan:
    - Individual virtual kick-off meeting with DARPA
    - Monthly teleconferences with DARPA team providing informal progress status updates
    - Virtual PI meeting, every 3 months, and in-person PI meeting from DARPA Program Manager at performer site (every 9 months) with formal presentations of progress made against the program milestones

II. Award Information

Selected proposals that are successfully negotiated will result in the award of an OT for Prototype award. See Section 4 of DARPA-PA-25-07 for information on awards that may result from proposals submitted in response to this announcement.

Proposers must review the "Disruptioneering – Other Transaction for Prototype Agreement SAMPLE" (DO OT Sample) agreement provided as an attachment to DARPA-PA-25-07 prior to submitting a proposal. DARPA has provided the DO OT Sample to expedite the negotiation and award process and ensure DARPA achieves the goal of Disruptioneering, which is to enable

DARPA to initiate a new investment in less than 120 calendar days from idea inception. The DO OT Sample is representative of the terms and conditions that DARPA intends to include in all DO awards. The task description document, schedule of milestones and payments, and data rights assertions requested under Volumes 1, 2, and 3 will be included as attachments to the OT agreement upon negotiation and award.

Proposers may suggest edits to the DO OT Sample for consideration by DARPA and provide a copy of the DO OT Sample with track changes as part of their proposal package. DARPA may or may not accept suggested edits. The Government reserves the right to remove a proposal from award consideration should the parties fail to reach an agreement on OT award terms and conditions. If edits to the DO OT Sample are not provided as part of the proposal package, DARPA assumes that the proposer has reviewed and accepted the award terms and conditions to which they may have to adhere and the DO OT Sample agreement provided as an attachment, indicating agreement (in principle) with the listed terms and conditions applicable to the specific award instrument.

DARPA's goal for this DO is to achieve an award within 120 calendar days from the posting date (October 14, 2026) of this announcement. To ensure that DARPA reserves the right to cease negotiations when an award is not executed by both parties (DARPA and the selected organization) on or before February 10, 2027).

A. Cybersecurity Maturity Model Certification Requirements

As codified in 32 CFR Part 170, the Cybersecurity Maturity Model Certification (CMMC) Program is designed to ensure Department of War (DoW) performers are properly safeguarding Federal Contract Information (FCI) and Controlled Unclassified Information (CUI) that is processed, stored, or transmitted on performer information systems. FCI and CUI must be protected to meet evolving threats and safeguard nonpublic, unclassified information that supports and enables the warfighter. The CMMC Program provides a consistent methodology to assess a defense contractor's implementation of required cybersecurity requirements. Proposers are encouraged to visit the DoW Chief Information Officer CMMC Resources & Documentation site for more information on CMMC: https://dodcio.defense.gov/cmmc/Resources-Documentation/.

This provision outlines the CMMC requirements pertaining to this solicitation, to include the required CMMC level and the corresponding proposal requirements. All DARPA-awarded Procurement Contracts and Other Transactions, including those involving Fundamental Research, at a minimum require prime performers and subcontractors to demonstrate compliance with CMMC Level 1, which focuses on the protection of FCI and consists of the security requirements that correspond to the 15 basic safeguarding requirements specified in 48 CFR 52.204-21.

Required CMMC Level

The required CMMC level for this solicitation is: CMMC Level 1 (Self-Assessment). Level 1 focuses on the protection of FCI and consists of the security requirements that correspond to the 15 basic safeguarding requirements specified in 48 CFR 52.204-21. Additional information can be found in Section 8.2.2 of DARPA-PA-25-07.

B. Intellectual Property and Technology Transition

DARPA anticipates a minimum of Government Purpose Rights on all deliverables developed

with DARPA or mixed funding. Limited rights should only be asserted by proposers for deliverables developed exclusively at private expense. Proposers must articulate their Intellectual Property Assertions in the PROPOSAL TEMPLATE - VOLUME 3 ADMINISTRATIVE & NATIONAL POLICY REQUIREMENTS provided in DARPA-PA-25-07.

The Liquid Surge program intends to transition beyond R&D into meaningful Government utilization and operational application. As such, the Government seeks to ensure the continued availability of capabilities and technical data developed under this program that requires Intellectual Property (IP) rights sufficient to operate, maintain, modify, reproduce, compete, manufacture, and transition the prototype and associated deliverables, as applicable. Accordingly, IP license rights and transition planning are material requirements of this solicitation.

The Government's objectives are to:

- Articulate the Government's baseline licensing requirements to ensure successful technology transition, which include the ability to use, integrate, modify, sustain, transition, and further develop program results.
- Understand proposer's IP concerns through the proposal process and negotiate mutually beneficial solutions.

Baseline licensing requirements. The following table describes the Government's minimum licensing requirements for acceptance of proposed technology solutions:

IP Category	Definition	Baseline Requirement
Foreground IP (FIP)	First conceived, created, developed, or reduced to practice under this effort.	Government Purpose Rights (GPR) to items developed, generated, or delivered under the agreement
Background IP (BIP)	Pre-existing privately funded IP, including pre-existing software, technical data, designs, tools, interfaces, documentation, or know-how that is incorporated into, required to operate or maintain, or otherwise necessary to manufacture, reproduce, modify, or transition the prototype.	GPR where available or a special negotiated license enabling the Government to transition the technology.

No Blocking Rights

The Government will not accept restrictions associated with Background IP, proprietary limitations, or other IP interests in a manner that unreasonably prevents, delays, or materially impairs the Government's ability to:

- Utilize program results generated, developed, or delivered under this program for integration into 3rd party technologies developed by multiple performers.
- Transition capabilities to operational users and maintain/sustain resulting capabilities without significant additional licensing costs.

A performer shall not incorporate Background IP into a deliverable in a manner that prevents achievement of program objectives unless specifically identified and accepted by the Government prior to award.

If the proposer asserts IP restrictions tied to any aspect of their deliverables that could potentially impede transition as the described, proposers will explain how they will ensure third party testing.

III. Eligibility

Due to their specialized roles and longstanding regulatory relationships with the Government, Federally Funded Research and Development Centers (FFRDCs), University Affiliated Research Centers (UARCs), and Government Entities to include National Laboratories present potential conflicts and advantages that would compromise fair and open competition. These entities typically may only receive funding through existing awards they hold with their sponsoring agencies. If these entities are proposed as subawardees, their costs must be clearly segregable in their price proposal. If scientifically merited, DARPA may fund work proposed by these entities with the following caveats:

- FFRDCs: (1) FFRDCs must clearly demonstrate that the proposed work is not otherwise available from the private sector. (2) FFRDCs must provide a letter, on official letterhead from their sponsoring organization, that (a) cites the specific authority establishing their eligibility to propose to Government solicitations and compete with industry, and (b) certifies the FFRDC's compliance with the associated FFRDC sponsor agreement's terms and conditions. DARPA, under this solicitation, will not award separate contracts to FFRDCs as prime or subawardees but will instead leverage their existing sponsors' agreements.
- UARCs: While UARCs typically have statutory authority to compete with industry, internal DARPA policy views them as trusted advisors who are only eligible to act as performers in fields where they do not serve in an advisory role. Even in those situations, DARPA still considers UARCs as having organizational conflicts of interest (OCI) when applying for a performer role. Proposals with UARCs as prime or subawardees must include an OCI mitigation plan.

For this solicitation, DARPA will not establish new contractual agreements for their participation. Accordingly, any proposal submitted directly by these entities in a prime contractor capacity may be deemed non-conforming and not evaluated. Proposals that include a UARC, FFRDC, Government entities, or National Laboratory as a subcontractor may also be deemed non-conforming unless: (1) their role is clearly defined in the technical proposal with a point of contact, and (2) a rough order of magnitude cost is provided in the technical proposal only—price proposals must exclude their funding, as DARPA will not fund them through the prime. It is important to note that if funded, these organizations will be required to share their work and findings with other performers also supporting the same program. Additionally, DARPA may contact these entities directly to discuss proposed activities.

See Section 7 of DARPA-PA-25-07 for additional information on who may be eligible to respond to this announcement.

IV. Disruption Opportunity Responses

A. Abstract Phase

This DO contains a **required** abstract phase. Potential proposers are required to submit a conforming abstract in order to be eligible to submit a proposal. DARPA will respond to conforming abstracts with brief feedback regarding applicability and technical relevance to the

DO and will either encourage or discourage submission of a proposal. Regardless of whether DARPA encourages or discourages a full proposal, proposers may submit a full proposal. DARPA will review all conforming full proposals for which a conforming abstract was submitted using the published evaluation criteria and without regard to any comments resulting from the review of an abstract. Proposals submitted without a corresponding conforming abstract will be deemed non-conforming and removed from consideration. Proposers should note that a favorable response to an abstract is not a guarantee that a proposal based on that abstract will ultimately be selected for award negotiation, and vice versa. Abstracts must be submitted using the attached template ("Abstract Template"), and in accordance with the submission instruction below in SECTION IV.D. no later than the date and time in the Opportunity Description section above. Email submissions will not be accepted.

Applicability: Abstract Applicability is defined as follows:

- The proposed concept applies to the technical area described herein.
- The proposed concept supports and aligns with DSO's current investment portfolio.
- The proposed concept investigates an innovative approach that enables revolutionary advances, i.e., will not primarily result in evolutionary improvements to the existing state of practice.

Abstracts found to lack applicability to the solicitation as defined above may be deemed non-conforming and removed from consideration. All abstracts must provide sufficient information to assess the validity/feasibility of their claims as well as comply with the requirements outlined herein for submission formatting, content, and transmission to DARPA. Proposers will be notified of non-conforming determinations via letter.

B. Proposal Content and Format

All proposals submitted in response to this announcement must comply with the content and format instructions in Section 5 of DARPA-PA-25-07. All proposals must use the templates provided as Attachments to DARPA-PA-25-07 and the "Streamlined Cost Buildup Workbook" Excel Attachment provided with this DO and follow the instructions therein.

As of the date of publication of this solicitation, the Government expects that program goals as described herein may be met by proposed efforts for fundamental research and non-fundamental research. Some proposed research may present a high likelihood of disclosing performance characteristics of military systems or manufacturing technologies that are unique and critical to defense. Based on the anticipated type of proposer (e.g., university or industry) and the nature of the solicited work, the Government expects that some awards will include restrictions on the resultant research that will require the awardee to seek DARPA permission before publishing any information or results relative to the program.

Proposers should indicate in their proposal whether they believe the scope of the research included in their proposal is fundamental or not. While proposers should clearly explain the intended results of their research, the Government shall have sole discretion to determine whether the proposed research shall be considered fundamental and to select the award instrument type. Appropriate language will be included in resultant awards for non-fundamental research to prescribe publication requirements and other restrictions, as appropriate. This language can be found at Proposer Instructions: General Terms and Conditions.

For certain research projects, it may be possible that although the research to be performed by a

potential awardee is non-fundamental research, its proposed sub-awardee's effort may be fundamental research. It is also possible that the research performed by a potential awardee is fundamental research while its proposed sub-awardee's effort may be non-fundamental research. In all cases, it is the potential awardee's responsibility to explain in its proposal which proposed efforts are fundamental research and why the proposed efforts should be considered fundamental research.

Please see Section 4.2 of DARPA-PA-25-07 for details about the Fundamental Research Risk-Based Security Review Process (FRRBS).

Information not explicitly requested in DARPA-PA-25-07, its Attachments, or this announcement may not be evaluated.

C. Proposal Due Date and Time

Proposals in response to this announcement are due no later than the date and time in Section I Opportunity Description section above. As described in Section 5 of DARPA-PA-25-07, full proposal packages must be submitted per the instructions outlined in this DO *and received by DARPA* no later than the above time and date. Proposals received after this time and date may not be reviewed.

Proposers are warned that the proposal deadline outlined herein is in Eastern Time and will be strictly enforced. When planning a response to this announcement, proposers should consider that some parts of the submission process may take from one (1) business day to one (1) month to complete.

D. Submission Instructions

Responses to DARPA-PA-25-07-05 shall be submitted electronically to DARPA's Broad Agency Announcement (BAA) Portal (https://baa.darpa.mil).

DARPA will acknowledge receipt of complete submissions via email and assign identifying numbers that should be used in all further correspondence regarding those submissions. If no confirmation is received within two (2) business days, please contact LiquidSurge@darpa.mil to verify receipt.

When planning a response to this DO, proposers should take into account the submission time zone and that some parts of the submission process may take from one (1) business day to one (1) month to complete (e.g., registering for a SAM Unique Entity ID (UEI) number or Tax Identification Number (TIN)).

Electronic Upload

First-time users of the DARPA BAA Portal must complete a two-step account creation process. The first step consists of registering for an extranet account by going to the URL above and selecting the "Account Request" link. Upon completion of the online form, proposers will receive two separate emails; one will contain a username, and the second will provide a temporary password. Once both emails have been received, the second step requires proposers to go back to the submission website and log in using that username and password. After accessing the extranet, proposers may then create a user account for the DARPA Submission website by selecting the "Register your Organization" link at the top of the page. Once the user account is created, proposers will be able to see a list of solicitations open for submissions, view submission instructions, and upload/finalize their submission.

Proposers who already have an account on the DARPA BAA Portal may log in at https://baa.darpa.mil, select this solicitation from the list of open DARPA solicitations and proceed with their submission. Note: proposers who have created a DARPA Submission website account to submit to another DARPA Technical Office's solicitations do not need to create a new account to submit to this solicitation.

All submissions provided electronically through the DARPA Submission website must meet the following requirements: (1) uploaded as a zip file (.zip or .zipx extension); (2) only contain the document(s) requested herein; (3) only contain unclassified information; and (4) must not exceed 100 MB in size. Only one zip file will be accepted per full submission. The DARPA Submission website will reject submissions not uploaded as zip files. Technical support for the DARPA Submission website is available during regular business hours, Monday – Friday, 9:00 a.m. – 5:00 p.m. Requests for technical support must be emailed to BAAT_Support@darpa.mil with a copy to LiquidSurge@darpa.mil. Questions regarding submission contents, format, deadlines, etc., should be emailed to LiquidSurge@darpa.mil. Questions/requests for support sent to any other email address may result in delayed/no response.

Since proposers may encounter heavy traffic on the web server, DARPA discourages waiting until the day submissions are due to request an account and/or upload the submission. Note: Proposers submitting via the DARPA Submission site MUST (1) click the "Finalize" button for the submission to upload AND (2) do so with sufficient time for the upload to complete prior to the deadline. Failure to do so will result in a late submission.

V. Proposal Evaluation and Selection

Proposals will be evaluated and selected in accordance with Section 6 of DARPA-PA-25-07. Proposers will be notified of the results of this process as described in Section 8.1 of DARPA-PA-25-07.

VI. Administrative and National Policy Requirements

Section 8.2 of DARPA-PA-25-07 provides information on Administrative and National Policy Requirements that may be applicable for proposal submission and performance under an award.

All foreign nationals working on DARPA projects are subject to screening, to include the PI (note – this is in addition to the FRRBS requirements). If selected for negotiation of an award, the notification letter will provide instructions and a link for foreign nationals to register through DARPA. In addition to the PI and Senior Personnel, this requirement extends to employees, research assistants, postdoctoral researchers, graduate students, and undergraduate students who will directly support the Liquid Surge effort.

- PIs are responsible for maintaining records of all foreign nationals supporting their efforts under Liquid Surge. PIs must notify DARPA when:
    - A new foreign national joins the program
    - A foreign national departs the program
    - An individual's residency or citizenship status changes

VII. Point of Contact Information

Carlo Scalo, Program Manager, DARPA/DSO, LiquidSurge@darpa.mil

VIII. Frequently Asked Questions (FAQs)

All technical, contractual, and administrative questions regarding this announcement must be emailed to LiquidSurge@darpa.mil. Emails sent directly to the Program Manager or any other address may result in delayed or no response.

All questions must be in English and must include the name, email address, and telephone number of a point of contact. DARPA will attempt to answer questions publicly in a timely manner; however, questions submitted within seven (7) calendar days of the proposal due date listed herein may not be answered.

DARPA will post an FAQ list under the DO on the DARPA webpage (https://www.darpa.mil/research/programs/liquid-surge). The list will be updated on an ongoing basis until one (1) week before the proposal due date.

For those new to DARPA or national security, DARPA makes available a free, comprehensive resource via DARPAConnect on how to do business with the agency. In addition to DARPA 101 materials, relevant preparatory modules include "Understanding DARPA Broad Agency Announcements." Registration and access are free at www.darpaconnect.us.

DSO has been using various solicitation formats to speed award timelines. These include Pitch Days, Advanced Research Concepts (ARC), and the accelerated award option for the Office-wide BAA. These are focused, milestone-based contracts designed to reduce negotiations and emphasize the quality of the idea and its potential for disruption over the proposer's ability to write a proposal. The milestone structure, where payment is tied to research execution rather than meeting aggressive metrics, is intended to incentivize ideas with high potential for disruption even if they are riskier. We are seeking feedback regarding these mechanisms from our proposer community. Please consider completing the survey at this link: https://events.sa-meetings.com/esurvey/126974.