NAVAL INTEGRATED PROPULSION AND POWER SYSTEMS TECHNOLOGY

INTRODUCTION:

This publication constitutes a Broad Agency Announcement (BAA) as contemplated in Federal Acquisition Regulation (FAR) 6.102(d) (2). A formal Request for Proposals (RFP) or other solicitation regarding this announcement will not be issued.

The Office of Naval Research (ONR) will not issue paper copies of this announcement. The ONR reserves the right to fund all, some or none of the proposals received under this BAA. ONR provides no funding for direct reimbursement of proposal development costs. Technical and cost proposals (or any other material) submitted in response to this BAA will not be returned. It is the policy of ONR to treat all proposals as sensitive competitive information and to disclose their contents only for the purposes of evaluation.

I. GENERAL INFORMATION

1. Agency Name -

Office of Naval Research
One Liberty Center
875 North Randolph Street
Arlington, VA 22203-1995

2. Research Opportunity Title -

Naval Integrated Propulsion and Power Systems for Platform Mobility and Versatile Affordable Advanced Turbine Engines

3. Program Name -

Turbine Engine Technologies Enabling Capability

4. Research Opportunity Number -

ONR BAA 09-010

5. Response Date -

Full Proposals are due no later than 1600 EST on **19 February 2009.**

6. Research Opportunity Description -
In support of Naval S&T Focus Areas identified in the Naval S&T Strategic Plan, ONR is interested in receiving proposals on the use of innovative material concepts, engine components and integrated propulsion system technologies for highly reliable, low-cost, advanced gas turbine engines and propulsion systems that are significantly lighter, more powerful, more fuel efficient and that offer an overall higher capability than state-of-the-art propulsion systems. Specifically, ONR is committing resources to develop and validate the technologies up to and including a Technology Readiness Level (TRL) of 6. The development, maturation, integration and transition of these advanced technologies into legacy, emerging, and potential future Naval aviation systems will significantly enhance Warfighter capability, flexibility and readiness with a substantial reduction in acquisition, support, and life cycle costs.

6.1 Background -
As military threats and tactics continue to rapidly evolve, operational requirements for aircraft and the engines that power them continue to increase as they are called upon to provide America's first response against many traditional and non-traditional threats. Modest improvements in propulsion capability can result in large improvements in system capability and significantly lower cost of ownership. For example, higher engine performance (e.g., thrust-to-weight ratio) can enable greater sustained aircraft speed and maneuverability in a high-threat environment, increased operational flexibility (such as for short take-off/vertical landing (STOVL) operations), greater payload capability, and more compact engine installations and vehicle designs. With respect to fuel burn, reducing the fuel consumption not only provides for greater reach and/or time-on-station, but also offers the potential for significant reductions in both annual fuel costs and logistics tail (i.e., less demand for deployed fuel and tanker aircraft support).

Because all of the Department of Defense (DoD) Services face challenges with propulsion systems for aviation, a national initiative to advance turbopropulsion capability is being conducted by the DoD, the Department of Energy (DOE) and the National Aeronautics and Space Administration (NASA) in concert with Industry. The objective of this initiative, the Versatile Affordable Advanced Turbine Engines (VAATE) initiative, is to significantly increase the capability-to-cost index (CCI) of propulsion systems for the DoD. For CCI, capability is defined as an increase in thrust-to-weight ratio and/or a decrease in specific fuel consumption (or an increase in performance with respect to fuel efficiency), while the cost is the summation of development, production, and maintenance costs. For example, the CCI goals for large turbojet/turbofan engines,

such as those used in Navy fighter aircraft, are 4X in 2009, 6X in 2013, and 10X in 2017 as compared with a baseline FY00 state-of-the-art engine specific to each Industry participant. Industry engine manufacturers and Weapon System Contractor (WSC) integrators participating in the VAATE Program are required to maintain an Advanced Turbo Propulsion Plan (ATPP) which is a DoD-coordinated plan of technology development efforts by respective Industry participants to achieve VAATE CCI goals.

The Department of the Navy's (DoN's) primary participation in the VAATE initiative is accounted for in the Turbine Engine Reduced Cost of Operations 2 Enabling Capability (EC) project, hereafter referred to as the Turbine Engine Technologies (TET) EC, within the Future Naval Capabilities (FNC) program. The TET effort was initiated in FY08 and extends through FY12. This EC is conducted cooperatively through ONR program management and NAVAIR Propulsion and Power Engineering technical support. As indicated by the descriptive title, the TET effort's primary metric is reduced cost of operations. However, overall increased capability in terms of performance, reliability and efficiency are of significant interest. The activities contribute directly to VAATE products and are focused primarily on identifying and maturing technologies for fighter engines because these engines are the most costly to procure and support and thus provide the greatest opportunity for addressing costs. In addition, there is a major emphasis in the TET effort on S&T development for, and transition to, the engine(s) for the Joint Strike Fighter (JSF) -- the baseline F135 and alternate engine F136 -- because the Marine Corps' requirements for the STOVL variant (the F-35B) and the Navy's requirements for the carrier variant (CV) (the F-35C) are facing significant challenges beyond that of the Air Force's conventional takeoff/landing (CTOL) variant (the F-35A). These challenges result from the unique aspects of short take-off/vertical landing (STOVL) operation and the naval operational environment, in general. Additionally, because the F-35 is currently in System Development and Demonstration (SDD), the F-35's engines are incorporating significant S&T, have planned windows of opportunity for further technology insertion, and, most importantly, provide the greatest opportunity to affect the costs of a weapon system over its entire lifetime.

ONR is interested in identifying and maturing advanced integrated propulsion system technologies in support of legacy, emerging and potential future Marine Corps and Navy aviation applications. These applications include:

- F-35 (existing VAATE products being supported by the Navy)
- F/A-18
- N-UCAS
- F/A-XX
- high-speed strike weapons

If the advanced integrated propulsion system technologies have not already been vetted for appropriate S&T value and transition path by prior ATPP activities in coordination with the VAATE Program, ONR is interested in supporting benefits studies as the initial technology development step. The study portion of the tasking is intended to ensure that appropriate S&T value can be realized as a result of ensuing technology development efforts and that transition paths are appropriately defined. The need for appropriate S&T

value and transition path applies not only for F-35 applications but also for the other legacy, emerging and potential future applications identified above. Solid research, development, testing and engineering (RDT&E) taskings would continue in these application areas following receipt, review and approval of the initial benefits studies.

Work funded under a BAA may include basic research, applied research and some advanced technology development (ATD). With regard to any restrictions on the conduct or outcome of work funded under this BAA, ONR will follow the guidance on and definition of "contracted fundamental research" as provided in the Under Secretary of Defense (Acquisition, Technology and Logistics) Memorandum of 26 June 2008. As defined therein; the definition of "contracted fundamental research", in a DoD contractual context, includes [research performed under] grants and contracts that are (a) funded by Research, Development, Test, and Evaluation Budget Activity 1 (Basic Research), whether performed by universities or industry or (b) funded by Budget Activity 2 (Applied Research) and performed on-campus at a university or by industry. ATD is funded through Budget Activity 3. In conformance with the USD(AT&L) guidance and National Security Decision Directive 189, ONR will place no restriction on the conduct or reporting of unclassified fundamental research, except as otherwise required by statue, regulation or Executive Order. Normally, fundamental research is awarded under grants with universities and under contracts with industry. ATD is normally awarded under contracts and may require restrictions during the conduct of the research and DoD pre-publication review of research results due to subject matter sensitivity.

Funding under this BAA will consist mostly of 6.3 (Advanced Technology Development), although some 6.1 (Basic Research) and 6.2 (Applied Research) is anticipated.

6.2 Statement of Objectives (SOO) -

The Office of Naval Research is soliciting proposals in the area of technology development for advanced propulsion and power systems consistent with the Naval S&T Focus Areas and, more specifically, the Turbine Engine Technologies Enabling Capability. The overall objectives are to lower costs and increase operational capabilities of integrated propulsion systems for legacy, emerging and future Naval aviation systems.

The objective expected to be accomplished is to:

> Provide verified and validated technology products to lower costs and increase operational capabilities of integrated propulsion systems for legacy, emerging and future Naval aviation systems. The focus of this objective is on technologies such as high temperature durable materials and coatings, component design improvements, advanced modeling and simulation, advanced diagnostics, life usage and prognostics methodologies, and advanced testing approaches addressing complex failure modes. In situations where payoff and task definition have not already been vetted, benefits studies are necessary prior to the remainder of RDT&E tasking for proper value assessment and identification of transition path. Task order efforts are sought to:
>
> - For F-35 applications, design, develop, integrate and demonstrate advanced turbine engine technologies and components leveraging

advanced demonstrator test assets to verify and validate the technologies up to and including Technology Readiness Level (TRL) 6.

- For F-35 applications and for other legacy, emerging or potential future applications where payoff, task definition and transition path have not already been vetted, include benefits studies as an initial step quantifying system cost impacts, overall capability impacts and return-on-investment (ROI) that can be achieved through integrated propulsion and power technologies. The technologies should include, but not be limited to, those associated with fuel efficiency and environmental compliance (i.e., noise, emissions), prognostics, systems integration (including carrier suitability and integration) and advanced integrated propulsion system concept development for expendable, attritable and reusable airbreathing propulsion systems. The studies should also refine technology development plans and are to include costs, any additional resources required such as testing assets and the intended application and transition path.

7. Point(s) of Contact -

Questions of a technical nature should be submitted to:
Dr. Joseph Doychak
Project Officer
Office of Naval Research
875 North Randolph Street
Arlington, VA 22203-1995
Email Address: joseph.doychak@navy.mil

Questions of a business nature should be submitted to:
Mr. Sean Palmer
Office of Naval Research
875 North Randolph Street
Code: BD253
Arlington, VA 22203-1995
Email Address: sean.m.palmer@navy.mil

8. Instrument Type(s) -

The awards resulting from this announcement will be contracts (See Section II, Paragraph 3).

9. Catalog of Federal Domestic Assistance (CFDA) Numbers

Not Applicable

10. Catalog of Federal Domestic Assistance (CFDA) Titles -

Not Applicable

11. Other Information -

This announcement is restricted to basic and applied research and that portion of advanced technology development not related to the development of a specific system or hardware procurement. Contracts awarded under this BAA are for scientific study and experimentation directed towards advancing the state of the art and increasing knowledge or understanding.

Performers Information Package –All questions and answers will be posted under this BAA Title on ONR's website at the following link: http://www.onr.navy.mil/02/baa/ .

II. AWARD INFORMATION

1. **Contracts -** The Office of Naval Research intends to award multiple Indefinite Delivery/Indefinite Quantity (ID/IQ) contracts with the issuance of task orders addressing the objectives. An ID/IQ proposal and a first Task Order proposal shall be submitted in response to this BAA. The type of first Task Order proposal to be submitted is dependent upon whether the technologies have been vetted as discussed in BAA Section 6.1, Background and Section 6.2, Statement of Objectives. For technologies that have not been vetted, a Benefits Study is required and that shall be the basis of the first Task Order proposal.
2. **Estimated Funding** - The estimated total amount of funding available for the program is approximately $45.5M anticipated to be made available over a five (5) year period. ONR may award less than $45.5M under this BAA and apply subsequent funding as it is made available in the out-years. A minimum of approximately 80% of this funding is anticipated for F-35 applications.
3. **Anticipated Award Types** - Awards will be in the form of an ID/IQ Task Order Contract. The ID/IQ ceilings will be based upon a combination of historical data and Advanced Turbo Propulsion Plan (ATPP) planned efforts, and will be determined upon award. While issuance of orders on a Cost Plus Fixed Fee basis is anticipated, Cost Sharing orders will also be considered. Offerors are encouraged to propose a type of task order that they consider to be most appropriate for the technology proposed.
4. **Anticipated Range of Individual Task Order Amounts** – Funding for initial task orders will be based on a combination of historical data, ATPP planned efforts and the specific technologies areas, and will be determined upon award
5. **Anticipated Period of Performance** – The ID/IQ contract period of performance will be five (5) years. The ordering period will be five (5) years.

6. **Task Order Types** – Task Orders will be for Benefits Studies and/or for solid RDT&E taskings as defined in BAA Section 6.1, Background and 6.2, Statement of Objectives.

The contractual effort(s) is estimated to begin in July 2009. The task orders will follow the criteria established in FAR 16.505 for multiple award ID/IQ task orders.

Potential funding for the entire BAA 09-010 is shown in Table 1. A minimum of approximately 80% of this funding is anticipated for F-35 applications. Anticipated total funding for initial task orders is shown in Table 2. Of the total funding identified in Table 1, the funding and funding profile in Table 3 is planned for F135 Durability Demonstrator efforts focusing on STOVL technologies and on integration of shared engine technologies. Total funding not identified in Table 2 and Table 3 constitutes anticipated funding for future taskings.

Table 1. Potential Funding for BAA 09-010

FY09	FY10	FY11	FY12	FY13	FY14	Total
$0.5M	$9.0M	$9.0M	$9.0M	$9.0M	$9.0M	$45.5M

NOTE: *This funding profile is an estimate for the shared ceiling only and is not a promise for funding, as all funding is subject to change due to Government discretion and availability.*

Table 2 Anticipated Total Funding for BAA 09-010 Initial Orders

FY09	FY10	FY11	FY12	FY13	FY14	Total
$0.5M	$6.5M	$3.3M				$10.3M

NOTE: *This funding profile is an estimate only and is not a promise for funding, as all funding is subject to change due to Government discretion and availability.*

Table 3 Planned Funding for F135 Durability Demonstrator Efforts

FY09	FY10	FY11	FY12	FY13	FY14	Total
	$2.5	$5.6	$7.4	$7.6		$23.1M

NOTE: *This funding profile is an estimate only and is not a promise for funding, as all funding is subject to change due to Government discretion and availability.*

III. ELIGIBILITY INFORMATION

1. Eligible Offeror: Prospective Offerors shall have a DoD-coordinated VAATE Advanced Turbo Propulsion Plan (ATPP), shall develop an ATPP and coordinate through the DoD prior to proposal submittal, or shall have a documented working relationship with a company with a DoD-coordinated VAATE ATPP. Direct questions regarding development of an ATPP to the Technical Point of Contact listed above. All responsible sources from academia and industry may submit proposals under this BAA. Historically Black Colleges and Universities (HBCUs) and Minority Institutions (MIs) are encouraged to submit proposals and join others in submitting

proposals. However, no portion of this BAA will be set aside for HBCU and MI participation. Small businesses are encouraged to propose on all or any part of this solicitation.

2. Cost Sharing or Matching: Cost Sharing or Matching is not required, but may be proposed.

3. Federally Funded Research and Development Centers: Federally Funded Research & Development Centers (FFRDCs), including Department of Energy National Laboratories, are not eligible to receive awards under this BAA. However, teaming arrangements between FFRDCs and eligible principal bidders are allowed so long as they are permitted under the sponsoring agreement between the Government and the specific FFRDC.

4. Navy Laboratories and Warfare Centers: Navy laboratories and warfare centers as well as other Department of Defense and civilian agency laboratories are also not eligible to receive awards under this BAA and should not directly submit full proposals in response to this BAA. If any such organization is interested in one or more of the programs described herein, the organization should contact an appropriate ONR POC to discuss its area of interest. The various scientific divisions of ONR are identified at http://www.onr.navy.mil/. As with FFRDCs, these types of federal organizations may team with other responsible sources from academia and industry that are submitting proposals under this BAA.

5. Other
   a. Foreign participation: No
   b. Export Control: This acquisition involves data that are subject to export control laws and regulations. Only contractors who are registered and certified with the Defense Logistics Services Center (DLSC) and have a legitimate business purpose may participate in this solicitation. Contact the Defense Logistics Services Center, 74 Washington Avenue N., Battle Creek, Michigan 40917-3084 (1-800-352-3572) for further information on the certification process. You must submit a copy of your approved DD Form 2345, Militarily Critical Technical Data Agreement, with your proposal.
   c. Teaming Arrangements: Teams are encouraged to submit proposals in any and all areas. However, Performers must be willing to cooperate and exchange software, data and other information in an integrated program with other contractors, as well as with system integrators, selected by ONR.
   d. ITAR: Some topics cover export controlled technologies. Research in these areas is limited to “U.S. persons” as defined in the International Traffic in Arms Regulations (ITAR) - 22 CFR § 1201.1 et seq.
   e. Proposals are to be unclassified. Section VII, Other Information, Paragraph 2a Security Information applies. Once a contract is awarded, the work may be classified. In such a case, the vendor would need to be able to provide suitable storage in accordance with DD Form 254.

IV. APPLICATION AND SUBMISSION INFORMATION

1. Application and Submission Process for Full Proposals -

The due date for receipt of Full Proposals is 19 Feb 2009. It is anticipated that initial selections will be made during March 2009. As soon as the final proposal evaluation process is completed, Offerors will be notified via email or letter of its selection or non-selection for an award. Proposals exceeding the page limit may not be evaluated.

2. Content and Format of Full Proposals -

Full Proposals submitted under the BAA are expected to be Unclassified. Confidential/classified proposals are not permitted and will not be accepted or considered for award.

Proposal submissions will be protected from unauthorized disclosure in accordance with FAR Subpart 15.207, applicable law, and DoD/DoN regulations. Offerors are expected to appropriately mark each page of their submission that contains proprietary information. The proposal shall include a severable, self-standing Statement of Work, which contains only unclassified information and does not include any proprietary restrictions.

IMPORTANT NOTE: Titles given to the Full Proposals should be descriptive of the work they cover and not be merely a copy of the title of this solicitation.

The proposal format and content identified below are applicable to the submission of proposals for contracts.

Full Proposal Format – Volume 1 - Technical Proposal, Volume 2 - Cost Proposal

- Paper Size – 8.5 x 11 inch paper
- Margins – 1 inch
- Spacing – single or double-spaced
- Font – Times New Roman, 12 point
- Number of Pages – Volume 1 is limited to no more than 44 pages. There is no page limit for Volume II. Limitations within sections of the proposal are indicated in the individual descriptions shown below. The cover page, table of contents, data rights assertions, other agencies listing, and resumes are excluded from the page limitations. Full Proposals exceeding the page limit may not be evaluated.
- Copies – one (1) original, five (5) copies, and five (5) electronic copies on a CD-ROM (in Microsoft® Word or Excel 97 compatible or .PDF format).

Full Proposal Content

VOLUME 1: Technical Proposal

• **Cover Page:** This should include the words "Technical Proposal" and the following:

1) BAA number;
2) Title of Proposal;
3) Identity of prime Offeror and complete list of subcontractors, if applicable;
4) Technical contact (name, address, phone/fax, electronic mail address)
5) Administrative/business contact (name, address, phone/fax, electronic mail address) and;
6) Duration of effort
7) Cover page must be signed and dated

• **Table of Contents:** (not included in page limitation) An alphabetical/numerical listing of the sections within the proposal, including corresponding page numbers.

• **Technical Approach:** (20 pages) A description of the technical problem, program objectives, how Offeror's approach improves on what is currently available, proposed technical solution, testing and validation approach and criteria, and expected benefits to current and future Naval aviation systems.

• **Statement of Work:** (10 Pages)
(a). ID/IQ Basic: A Statement of Work (SOW) should clearly detail the scope and objectives of the effort and the technical approach. It shall include a general discussion of the nature and scope of the research and the technical approach as it applies to the overall Statement of Objectives (SOO). It is anticipated that the proposed SOW will be incorporated as an attachment to the resultant award instrument. To this end, the proposals must include a severable, self-standing SOW, without any proprietary restrictions, which can be attached to the contract award. Include a detailed listing of the technical tasks/subtasks organized by month.

(b). Orders: Proposals shall include a discussion of the nature and scope of the research and the technical approach specific to the applicable objective. Additional information on prior work in this area should be part of the technical approach. It is anticipated that the proposed task order SOW will be incorporated as an attachment to the resultant task order award instrument. Each task order proposal must include a non-proprietary SOW for the proposed task order, which can be attached to the award.

• **Project Schedule and Milestones:** (2 Pages, pages can be fold-outs) A summary of the schedule of events and milestones.

• **Assertion of Data Rights and/or Rights in Computer Software:** (Not included in page limitation) For a contract award, an Offeror may provide with its proposal assertions

to restrict use, release or disclosure of data and/or computer software that will be provided in the course of contract performance. The rules governing these assertions are prescribed in Defense Federal Acquisition Regulation Supplement (DFARS) clauses 252.227-7013, -7014 and - 7017. These clauses may be accessed at the following web address:

http://farsite.hill.af.mil/VFDFARA.HTM

The Government may challenge assertions that are provided in improper format or that do not properly acknowledge earlier federal funding of related research by the Offeror.

• **Deliverables:** (2 Page) A detailed description of the results and products to be delivered inclusive of the timeframe in which it will be delivered per the Contract Data Requirements List (CDRL).

• **Management Approach:** (5 Pages) A discussion of the overall approach to the management of this effort, including brief discussions of the total organization; use of personnel; project/function/subcontractor/sub recipient relationships; government research interfaces; and planning, scheduling and control practice. Identify which personnel and subcontractors/subrecipients (if any) will be involved. Include a description of the facilities that are required for the proposed effort with a description of any Government Furnished Equipment/Hardware/Software/Information required, by version and/or configuration.

• **Personnel:** (Not included in page limitation) The Offeror shall provide resumes of proposed key personnel to be utilized by the contractor/subcontractor in the performance of this contract. The Offeror shall ensure that the proposed personnel are fully capable of performing in an efficient, reliable and professional manner.

• **Past Performance:** (5 Pages) A detailed description of similar efforts performed on past Government or privately funded programs, especially as they pertain to Naval Integrated Propulsion and Power system design, development, and testing.

• **Other Agencies**: (Not included in the page limitation) Include the name(s) of any other agencies to which the proposal has also been submitted.

VOLUME 2: Cost Proposal

Although not required and provided for informational purposes only, adhering to the instructions delineated below may expedite contract or assistance award placement. Detailed instructions, entitled "Instructions for Preparing Cost Proposals for Contracts and Agreements", including a sample template for preparing costs proposals for contracts and agreements, may be found at ONR's website listed under the 'Acquisition Department – Contracts & Grants Submitting a Proposal' link at: http://www.onr.navy.mil/02/how_to.asp

The a) ID/IQ Basic and b) Task Order Cost Proposals shall each consist of a cover page and two parts, Part 1 will provide a detailed cost breakdown of all costs by cost category by calendar or Government fiscal year, and Part 2 will provide a cost breakdown by

task/sub-task corresponding to the task numbers in the proposed Statement of Work. Options must be separately priced.

Cover Page: The use of the SF 1411 is optional. The words "Cost Proposal" should appear on the cover page in addition to the following information:

- BAA number
- Title of Proposal
- Identity of prime Offeror and complete list of subcontractors, if applicable
- Technical contact (name, address, phone/fax, electronic mail address)
- Administrative/business contact (name, address, phone/fax, electronic mail address) and
- Duration of effort
- Cost and pricing submittals must be valid for 180 days

Part 1 – Contract Costs: Detailed breakdown of all costs by cost category by calendar or Government fiscal year:

- Direct Labor – Individual labor categories or persons, with associated labor hours and unburdened direct labor rates. Provide escalation rates for out years;
- Indirect Costs – Fringe Benefits, Overhead, G&A, COM, etc. and their applicable allocation bases. If composite rates are used, provide the calculations used in deriving composite rates;
- Travel – Provide a breakout of travel costs including the purpose and number of trips, origin and destinations(s), duration, travelers per trip, and the airfare, hotel, per diem, car rental costs, etc. for each trip;
- Subcontract – A cost proposal as detailed as the Offeror's cost proposal will be required to be submitted by the subcontractor. The subcontractor's cost proposal can be provided in a sealed envelope with the Offeror's cost proposal or may be sent directly to the Government. Subcontractor proposals must be received and reviewed prior to contract award. The prime contractor should perform and provide a cost/price analysis of each subcontractor's cost proposal*;

*__Note__: DoD Federal Acquisition Regulation provision 252.215-7003 (48 CFR §252.215-7003) is incorporated into this solicitation by reference. The offeror is to exclude excessive pass-through charges from subcontractors. The offeror must identify in its proposal the percentage of effort it intends to perform and the percentage to be performed by each of its proposed subcontractors. If more than 70 percent of the total effort will be formed through subcontractors, the offeror must include the additional information required by the above-cited clause.

- Consultant – Provide a breakdown of the consultant's hours, the hourly rate proposed, any other proposed consultant costs, a copy of the signed Consulting Agreement or other documentation supporting the proposed consultant cost, and a copy of the consultant's proposed statement of work if it is not already separately identified in the prime contractor's proposal;

- Materials & Supplies – Provide an itemized list of all proposed materials and supplies including quantities, unit prices, proposed vendors (if known), and the basis for the estimate (e.g., quotes, prior purchases, catalog price lists);
- Contractor Acquired Equipment or Facilities – Equipment and/or facilities are normally furnished by the Contractor. If acquisition of equipment and/or facilities is proposed, a justification for the purchase of the items must be provided. Provide an itemized list of all equipment and/or facilities costs and the basis for the estimate (e.g., quotes, prior purchases, catalog price lists);
- Other Direct Costs – Provide an itemized list of all other proposed other direct costs and the basis for the estimate (e.g., quotes, prior purchases, catalog price lists);
- Options – The Base Period of Performance and Option Periods must be priced at the submission of the proposal. Any proposal containing unpriced options will not be included in the contract;
- Fee/Profit (Contract Proposals Only) – Profit or fee is not allowed on direct costs for facilities or in cost-sharing contracts.

Part 2: Cost breakdown by task/sub-task corresponding to the same task breakdown in the proposed Statement of Work.

3. Significant Dates and Times -

Schedule of Events

EVENT	DATE	TIME (EST)
Deadline for Submission of Questions	**29 Jan 2009**	**4:00 PM**
Full FY09 Proposal	**19 Feb 2009**	**4:00 PM**
Notification of Initial Selection for FY09 Awards	**Mar 2009***	
FY09 Contract Awards	**Jul 2009***	
Kick-off Meeting	**2 weeks after Contract Award**	

***These dates are estimates as of the date of this announcement.**

NOTE: Due to changes in security procedures since September 11, 2001, the time required for hard-copy written materials to be received at the Office of Naval Research has increased. Thus, it is recommended that any hard-copy proposal be mailed several days before the deadline established in the solicitation so that it will not be received late and thus be ineligible for award consideration.

4. Submission of Late Proposals -
Any proposal, modification, or revision that is received at the designated Government office after the exact time specified for receipt of proposals is "late" and will not be considered unless it is received before the award is made, the contracting officer determines that accepting the late proposal would not unduly delay the acquisition and:

- If it was transmitted through an electronic commerce method authorized by the announcement,

- It was received at the initial point of entry to the Government infrastructure not later than 5:00 P.M. one working day prior to the date specified for receipt of proposals; or
- There is acceptable evidence to establish that it was received at the Government installation designated for receipt of proposals and was under the Government's control prior to the time set for receipt of proposals; or
- It was the only proposal received

However, a late modification of an otherwise timely and successful proposal that makes its terms more favorable to the Government will be considered at any time it is received and may be accepted.

Acceptable evidence to establish the time or receipt at the Government installation includes the time/date stamp of that installation on the proposal wrapper, other documentary evidence of receipt maintained by the installation, or oral testimony or statements of Government personnel.

If an emergency or unanticipated event interrupts normal Government processes so that proposals cannot be received at the Government office designated for receipt of proposals by the exact time specified in the announcement, and urgent Government requirements preclude amendment of the announcement closing date, the time specified for receipt of proposals will be deemed to be extended to the same time of day specified in the announcement on the first work day on which normal Government processes resume. The contracting officer must promptly notify any Offeror if its proposal, modifications, or revision was received late and must inform the Offeror whether its proposal will be considered.

5. Address for the Submission of Hard Copy Full Proposals for Contracts -

Hard copies of full proposals for Contracts should be sent to ONR at the following address:

Office of Naval Research
Attn: Dr. Joseph Doychak, Room 1128
875 North Randolph Street
Arlington, VA 22203-1995

V. EVALUATION INFORMATION

1. Evaluation Criteria -

Award decisions will be based on a competitive selection of one or more proposals resulting from a technical and cost review. Evaluations will be conducted using the following "Best Value" criteria:

Technical:

1) The relevance of the proposed effort to achieving the objectives identified in the Statement of Objectives (Section I, 6.2 of this BAA)
2) Soundness of the offeror's approach, including his understanding of the scope of work and technical, schedule, and risk management efforts for achieving the objectives
3) The uniqueness and innovativeness of the approach proposed to accomplish the objectives
4) The availability and competence of experienced engineering and other technical personnel, their experience with the applicable technologies and an effective management structure
5) The demonstrated availability of any necessary research, test, laboratory, or shop facilities

Cost:

The reasonableness and realism of the proposed cost and fee, plus consideration of proposed budgets and funding profiles.

Overall, the technical evaluation criteria combined (1 – 5 above) are more important than the cost factor. The technical factors 1 and 2 are of equal value, and each is more important than factors 3, 4 and 5, which are also of equal value. The degree of importance of cost will increase with the degree of equality of the proposals in relation to the other factors on which selection is to be based, or when the cost is so significantly high as to diminish the value of the proposal's technical superiority to the Government.

For proposed awards to be made as contracts to other than small businesses, the socio-economic merits of each proposal will be evaluated based on the extent of the Offeror's commitment in providing meaningful subcontracting opportunities for small businesses, small disadvantaged businesses, woman-owned small businesses, HUBZone small businesses, veteran-owned small businesses, service disabled veteran-owned small businesses, historically black colleges and universities, and minority institutions.

2. Evaluation Panel -

Technical and cost proposals submitted under this BAA will be protected from unauthorized disclosure in accordance with FAR 3.104-4 and 15.207. The cognizant Program Officer and other Government scientific experts will perform the evaluation of technical proposals. Cost proposals will be evaluated by Government business professionals. Restrictive notices notwithstanding, one or more support contractors may be utilized as subject-matter-expert technical consultants. Similarly, support contractors may be utilized to evaluate cost proposals. However, proposal selection and award decisions are solely the responsibility of Government personnel. Each support contractor's employee having access to technical and cost proposals submitted in response to this BAA will be required to sign a non-disclosure statement prior to receipt of any proposal submissions.

VI. AWARD ADMINISTRATION INFORMATION

1. Administrative Requirements -

• The North American Industry Classification System (NAICS) code – The North American Industry Classification System (NAICS) code for this announcement is "541712" with a small business size standard of "500 employees."

• Central Contractor Registry (CCR) - Successful Offerors not already registered in the CCR will be required to register in CCR prior to award of any grant, contract, cooperative agreement, or other transaction agreement. Information on CCR registration is available at http://www.onr.navy.mil/02/ccr.htm.

• Certifications – For contracts, in accordance with FAR 4.1201, prospective contractors shall complete and submit electronic annual representations and certifications at http://orca.bpn.gov. In addition to completing the Online Representations and Certifications Application (ORCA), proposals must be accompanied with a completed DFARS and contract specific representations and certifications. These "DFARS and Contract Specific Representations and Certifications," i.e., Section K, may be accessed under the Contracts and Grants Section of the ONR Home Page at http://www.onr.navy.mil/02/rep_cert.asp

• Subcontracting Plans - Successful contract proposals that exceed $550,000, submitted by all but small business concerns, will be required to submit prior to award a Small Business Subcontracting Plan in accordance with FAR 52.219-9.

2. Reporting -

The following are typical data deliverables that will be required under this research effort:

a. Data Items**:** Contract Data Requirements List (CDRL), DD Form 1423-1. CDRL applicability will be determined based on dollar value of orders and contracts. CDRLs will be an attachment to the ID/IQ Basic Contract and will be determined based on the ceiling value; appropriate CDRLs will then be applied to individual orders based on the dollar value of the order. For example, the following information applies to the CDRLs
   - CONTRACT FUNDS STATUS REPORT (CFSR) applies to orders/stand-alone contracts of $1.3M and 1 year in duration
   - CONTRACT TECHNICAL STATUS REPORTS AND FINAL REPORT
   - CDRLs that apply at $20M or more are: CONTRACT PERFORMANCE REPORT (CPR), CONTRACT WORK BREAKDOWN STRUCTURE (CWBS), INFORMATION MANAGEMENT SYSTEM (IMS), and COST DATA SUMMARY REPORT (CDSR)

b. Software: Computer software is anticipated and format will be determined prior to task order award. All deliverables shall be clearly identified in the proposal.

c. Hardware: Hardware is anticipated and will be determined prior to task order award. All deliverables shall be clearly identified in the proposal. The performer shall provide documentation IAW DFARS 252.211-7003

VII. OTHER INFORMATION

1. Government Property/Government Furnished Equipment (GFE) and Facilities -

Each proposer must provide a very specific description of any equipment/hardware that it needs to acquire to perform the work. This description should indicate whether or not each particular piece of equipment/hardware will be included as part of a deliverable item under the resulting award. Also, this description should identify the component, nomenclature, and configuration of the equipment/hardware that it proposes to purchase for this effort. The purchase on a direct reimbursement basis of special test equipment or other equipment that is not included in a deliverable item will be evaluated for allowability on a case-by-case basis. Maximum use of Government integration, test, and experiment facilities is encouraged in each of the Offeror's proposals.

Government research facilities and operational military units are available and should be considered as potential government-furnished equipment/facilities. These facilities and resources are of high value and some are in constant demand by multiple programs. It is unlikely that all facilities would be used for any one specific program. The use of these facilities and resources will be negotiated as the program unfolds. Offerors should explain as part of their proposals which of these facilities are critical for the project's success.

2. Security Classification – a. A SECRET facility and storage clearance will be required and the proposal should discuss appropriate personnel and security clearance.

The contractor may require access to classified data up to and including SECRET in support of this work effort. Any extracts or use of such data will require the contractor to apply derivative classification and markings consistent with the source from which the extracts were made. Offerors planning to propose classified efforts are required to possess the necessary personnel and facilities to support the applicable level of security classification. **Do not include any classified information in the proposal.**

The security classification guidance for this work will be governed by the Security Classification Guide "Projects 668A/681 B/3066 - Air Breathing Turbine Engine Aircraft and Missile Propulsion", dated 6 January 1997, revised 25 October 2004.

b. TEMPEST requirements: TEMPEST requirements may apply. Generation of classified material for this solicitation is authorized only on equipment approved for classified processing by Naval TEMPEST authority.

c. Certified DD Form 2345, Militarily Critical Technical Data Agreement, is required to be submitted with the proposal. PL 98-94 (export control) applies. A foreign disclosure review of the technical data has been accomplished. Only contractors who are registered and certified with the Defense Logistics Services Center (DLSC) shall be provided copies of data subject to foreign disclosure restrictions. Contact the Defense Logistics Services Center, 74 Washington Avenue N., Battle Creek, Michigan 40917-3084 (1-800-352-3572) for further information on the certification process.

3. Department of Defense High Performance Computing Program -

The DoD High Performance Computing Program (HPCMP) furnishes the DoD S & T and RDT&E communities with use-access to very powerful high performance computing systems. Awardees of ONR contracts may be eligible to use HPCMP assets in support of their funded activities if ONR Program Officer approval is obtained and if security/screening requirements are favorably completed. Additional information and an application may be found at http://www.hpcmo.hpc.mil/.

4. Protection of Proprietary and Sensitive Information -

The parties acknowledge that, during performance of the contract resulting from this BAA, the recipient may require access to certain proprietary and confidential information (whether in its original or derived form) submitted to or produced by the Government. Such information includes, but is not limited to, business practices, proposals, designs, mission or operation concepts, sketches, management policies, cost and operating expense, technical data and trade secrets, proposed Navy budgetary information, and acquisition planning or acquisition actions, obtained either directly or indirectly as a result of the effort performed on behalf of ONR. The recipient shall take appropriate steps not only to safeguard such information, but also to prevent disclosure of such information to any party other than the Government. The recipient agrees to indoctrinate company personnel who will have access to or custody of the information concerning the nature of the confidential terms under which the Government received such information and shall stress that the information shall not be disclosed to any other party or to recipient personnel who do not need to know the contents thereof for the performance of the contract. Recipient personnel shall also be informed that they shall not engage in any other action, venture, or employment wherein this information will be used for any purpose by any other party.

5. Project Meetings and Reviews -

Various program reviews between the ONR sponsor and the performer will be held as necessary. At a minimum, Offerors should expect to support the following reviews:

- Monthly Program Management Reviews
- Preliminary Design Review
- Detailed Design Review
- Layout Review
- Instrumentation Review
- Test Readiness Review
- Post-Test Review

For costing purposes, Offerors should assume that 60% of these meetings will be at or near ONR, Arlington, VA and/or Patuxent River, MD and 40% at the contractor's facilities. Interim meetings are likely, but these will be accomplished via video conferences, telephone conferences, or via web-based collaboration tools.

6. Submission of Questions -

Any questions regarding this solicitation must be provided to either the Project Officer and/or the Business Point of Contact listed in this solicitation. All questions shall be submitted by electronic mail.

Questions regarding **full proposals** must be submitted by **1600 EST** on **29 January 2009.** Questions after this date and time may not be answered, and the due date for submission of the proposals will not be extended.