



DEFENSE ADVANCED RESEARCH PROJECTS AGENCY
3701 NORTH FAIRFAX DRIVE
ARLINGTON, VA 22203-1714

Dear **BAA 07-26** Proposer Information Requester:

The BAA 07-26 Proposer Information Pamphlet is enclosed in response to your request. This pamphlet is divided into three sections.

SECTION I: Proposer Information provides further information on **Steep-subthreshold-slope Transistors for Electronics with Extremely-low Power (STEEP)**, the submission, evaluation, and funding processes, proposal, and other general information.

SECTION II: Broad Agency Announcement (BAA) 07-26, Steep-subthreshold-slope Transistors for Electronics with Extremely-low Power (STEEP), is a reprint of the BAA which was posted on the Federal Business Opportunities (FedBizOpps) website at <http://www.fedbizopps.gov/> and the Grants.gov website at <http://www.grants.gov/>.

SECTION III: Defense Advanced Research Projects Agency/Microsystems Technology Office (DARPA/MTO) provides information on current programs within MTO.

Thank you for your interest in BAA 07-26 **Steep-subthreshold-slope Transistors for Electronics with Extremely-low Power (STEEP)**.

Sincerely,

A handwritten signature in cursive script that reads "Michael Fritze".

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SECTION I: BAA 07-26 Proposer Information

This section provides further information on Steep-subthreshold-slope Transistors for Electronics with Extremely-low Power (STEEP), the submission, evaluation, and funding processes, proposal and proposal abstract formats, and other general information.

The Defense Advanced Research Projects Agency (DARPA) often selects its research efforts through the Broad Agency Announcement (BAA) process. The BAA will appear first on the FedBizOpps website, <http://www.fedbizopps.gov/> and Grants.gov website at <http://www.grants.gov/>. Interested proposers must obtain Section 2 (Broad Agency Announcement) as it includes important information regarding this solicitation. Both documents together constitute the BAA. The following information is for those wishing to respond to the BAA.

This BAA affords offerors the choice of submitting proposals for the award of a Procurement Contract, Grant, Cooperative Agreement, Technology Investment Agreement, or Other Transaction for Prototype Agreement. The Government reserves the right to determine the type of award instrument appropriate under the circumstances.

DARPA is soliciting innovative research proposals leading to transistors with steep subthreshold slopes (1/S less than 60 mV/decade) but without sacrificing transistor performance. The Steep-subthreshold-slope Transistors for Electronics with Extremely-low Power (STEEP) program will culminate with circuits making use of steep subthreshold slope transistors to demonstrate significant power savings, both active and standby, of at least 10X. Specifically excluded is research that primarily results in evolutionary improvements to the existing state of practice.

BACKGROUND AND DESCRIPTION

One of the key challenges facing electronics, especially for DoD applications, is the reduction of power consumption in state-of-the-art complementary metal-oxide-semiconductor (CMOS) processes. High power efficiencies (Ops/Watt) are an important requirement for a wide variety of critical military systems including communications, sensors, and space applications. Achieving ultra-low power electronic performance in state-of-the-art CMOS technologies is becoming increasingly difficult. Barriers to this goal include subthreshold leakage, gate leakage and the limited amount of voltage scaling possible for state-of-the-art technologies.

According to the 2006 ITRS Roadmap, supply voltages for logic technology are predicted to remain quite close to 1.0 V all the way down to the 32 nm node in 2013. This prediction makes the realization of ultra-low power high-performance electronics quite challenging. A key reason for this limitation is the sharpness of the subthreshold swing (1/S). Typical subthreshold slopes for bulk CMOS are in the range 80-90 mV/decade while fully depleted

silicon on insulator (SOI) can achieve 62 mV/dec. This sharpness of this slope limits the amount that the gate bias voltage can be reduced before the lower performance weak inversion or subthreshold regimes are reached. In addition, lowering the gate bias voltage, for a fixed subthreshold slope, requires a commensurate reduction of the threshold voltage which will exponentially increase the leakage current.

PROGRAM OBJECTIVES AND STRUCTURE

The objective of the STEEP program is to develop novel transistor technologies that will enable high-performance logic circuits with extremely low power consumption.

This BAA solicits innovative approaches for achieving transistor subthreshold slopes below 60 mV/decade without performance penalty. Current CMOS technology uses transistors that work by electronically modulating a thermionic energy barrier. The high energy tail of the carrier (electron or hole) distribution function is responsible for the theoretical subthreshold slope limit for this type of switch of 60 mV/decade. Innovative approaches are sought to develop transistors based on non-thermionic switching physics. For example, one of the possible approaches includes the use of band-to-band tunneling based switches. However, a specifically excluded approach is mechanical (MEMs) switches, which may be addressed under another DARPA program. In addition, three terminal devices with gain are desired and CMOS compatibility is a key attribute of the proposed device scheme.

The STEEP program will be conducted in three phases each having definite and measurable milestones, the most critical of which will be referred to as Go/No-Go (GNG) metrics. Each phase will culminate in a specified device and/or circuit demonstration which will serve to validate that the goals of the phase have been achieved. The period of performance for each of these phases and the milestone schedule will be proposed by offerors within their technical proposals and will be factors considered as part of the source selection process (see below). In general, a shorter phase is preferable, but each phase should clearly be adequate in duration to meet its objectives with reasonable risks and costs. Proposals should discuss plans for managing these factors.

The three distinct phases of the program are:

Phase I: Steep-subthreshold-slope Transistor Development. The objectives of this phase are to develop transistors with steep subthreshold slope (less than 60 mV/dec) and associated device models. The demonstration transistors at the end of Phase I will demonstrate ultra-low power consumption and satisfy the GNG metrics listed in Table 1.

Phase II: Transistor Optimization & Circuit Integration. The objectives of this phase are to significantly improve the transistor performance and model as well as to develop fabrication process to demonstrate ultra-low-power circuits. The specific circuit demonstrators to validate performance will be a ring oscillator and a static random access memory (SRAM) satisfying the GNG metrics listed below.

Phase III: Yield Enhancement. The objective of this phase is to scale the STEEP transistor technology to a much larger circuit with ultra-high yield. The specific circuit demonstrator to validate performance will be a 128 kbits SRAM satisfying the GNG metrics listed below.

PROGRAM GO/NO-GO METRICS AND MILESTONES

The performer will be expected to achieve identified milestones, the most critical of which will be referred to as Go/No-Go (GNG) metrics. The proposal should very clearly identify a milestones schedule. **Milestones should be quantifiable and measurable and should not simply reflect the completion of task elements.**

Circuit test and evaluation will be a critical aspect of this program. In particular, demonstrations should be performed by the contractors at the end of each program phase to verify that they have met the GNG requirements. Bidders should describe, in some detail, how they plan to evaluate the Demonstration Circuits and how they will demonstrate that they meet GNG requirements.

Table 1 shows the minimal set of key GNG metrics which must be achieved by the conclusion of each phase. Bidders may, at their option, propose a more ambitious and/or detailed set of GNG metrics.

Table 1: Metrics and Milestones by Phase:

Metric	Unit	SOA	Phase I	Phase II	Phase III
GNG Metrics					
Subthreshold Swing ⁽¹⁾	mV/dec	62	≤ 30	≤ 20	
I _{ON} ⁽¹⁾	μA/μm	>1000	≥ 200	≥ 1000	
I _{OFF} ⁽¹⁾	nA/μm	>100	≤ 100	≤ 10	
V _{dd} ⁽¹⁾	V	~1	≤ 0.5	≤ 0.2	
Delay (CV/I)	psec	< 5	NA	< 5	
Device Uniformity (I _{ON} , V _T) ⁽¹⁾	%	NA		≤ 10 (8-12" wfrs)	
Off-State power reduction ⁽²⁾			10X (device)	100 X (device + circuit)	
On-state power reduction ⁽³⁾			4 X (device)	25 X (device + circuit)	
Transistor count			10 ⁰ - 10 ²	10 ² - 10 ⁴	10 ⁴ - 10 ⁶
SRAM Yield			NA	100% @ 1 kbits	100% @ 128 kbits

- (1) Device metrics must be met simultaneously
- (2) Off-State power reduction must be demonstrated by SRAM
- (3) On-State power reduction must be demonstrated by ring oscillator

Please note that the most important metrics are the subthreshold slope steepness and the number of current decades this steep slope can be achieved over. A variety of material systems can be considered as long as CMOS compatibility is demonstrated for the process proposed. There must be a clear path for the demonstration of circuit metrics (Ring

oscillators, SRAMS, etc) using the devices proposed. The ultimate goal is the demonstration of ultra-low power dissipation (both active and standby) from demo circuit blocks.

SUBMISSION PROCESS

Proposers are **strongly encouraged** to submit a proposal abstract in advance of a full proposal. This procedure is intended to minimize unnecessary effort in proposal preparation and review. The time and date for submission of proposal abstracts is specified in the BAA. DARPA will acknowledge receipt of the submission and assign a control number that should be used in all further correspondence regarding the proposal abstract.

DARPA will respond to proposal abstracts with a recommendation to propose or not propose and the time and date for submission of a full proposal. DARPA will attempt to review proposal abstracts within thirty (30) calendar days after receipt and will allow proposers at least thirty (30) calendar days after review of their proposal abstracts in order to complete and submit their full proposals. Upon review, DARPA will provide written feedback on the likelihood of a full proposal being selected and the time and date for submission of a full proposal. Early submissions of proposal abstracts and full proposals are strongly encouraged because selections may be made at any time during the evaluation process. Regardless of the recommendation, the decision to propose is the responsibility of the proposer. All submitted proposals will be fully reviewed regardless of the disposition of the proposal abstract. Proposers not submitting proposal abstracts are required to submit full proposals by the time and date specified in the BAA in order to be considered during the initial round of selections; however, proposals received after this deadline may be received and evaluated up to one year from date of posting on FedBizOpps and Grants.gov. Full proposals submitted after the due date stated in the BAA or due date otherwise specified by DARPA after review of proposal abstracts may be selected contingent on the availability of funds.

The typical proposal should express a consolidated effort in support of one or more related technical concepts or ideas. Disjoint efforts should not be incorporated into a single proposal.

Restrictive notices notwithstanding, proposals may be handled, for administrative purposes only, by a support contractor. This support contractor is prohibited from competition in DARPA technical research and is bound by appropriate nondisclosure requirements. Proposals and proposal abstracts may not be submitted by fax or e-mail; any so sent will be disregarded.

Awards made under this BAA are subject to the provisions of the Federal Acquisition Regulation (FAR) Subpart 9.5, Organizational Conflict of Interest. All offerors and proposed subcontractors must affirmatively state whether they are providing scientific, engineering and technical assistance (SETA) or similar support to any DARPA technical office(s) through an active contract or subcontract. All affirmations must state which office(s) the offeror supports, and identify the prime contract number. Affirmations should be furnished at the time of proposal submission. All facts relevant to the existence or potential existence of organizational conflicts of interest, as that term is defined in the FAR 9.501, must be disclosed. The disclosure

shall include a description of the action the offeror has taken, or proposes to take, to avoid, neutralize or mitigate such conflict.

Proposals selected for funding are required to comply with provisions of the Common Rule (32 CFR 219) on the protection of human subjects in research (<http://www.dtic.mil/biosys/downloads/32cfr219.pdf>) and the Department of Defense Directive 3216.2 (<http://www.dtic.mil/whs/directives/corres/html/32162.htm>). All proposals that involve the use of human subjects are required to include documentation of their ability to follow Federal guidelines for the protection of human subjects. This includes, but is not limited to, protocol approval mechanisms, approved Institutional Review Boards (IRBs), and Federal Wide Assurances. These requirements are based on expected human use issues sometime during the entire length of the proposed effort. For proposals involving “greater than minimal risk” to human subjects within the first year of the project, performers must provide evidence of protocol submission to a federally approved IRB *at the time of final proposal submission to DARPA*. For proposals that are forecasted to involve “greater than minimal risk” after the first year, a discussion on how and when the proposer will comply with submission to a federally approved IRB needs to be provided in the submission. More information on applicable federal regulations can be found at the Department of Health and Human Services – Office of Human Research Protections website (<http://www.dhhs.gov/ohrp/>).

EVALUATION CRITERIA/EVALUATION AND FUNDING PROCESSES

Proposals will not be evaluated against each other since they are not submitted in accordance with a common work statement. DARPA's intent is to review proposals as soon as possible after they arrive; however, proposals may be reviewed periodically for administrative reasons.

For evaluation purposes, a proposal is the two-volume document described in PROPOSAL FORMAT (see below). Other supporting or background materials submitted with the proposal will be considered for the reviewer's convenience only and not considered part of the proposal.

Evaluation of proposals will be accomplished through a technical review of each proposal using the following criteria, which are listed in descending order of relative importance: (1) overall scientific and technical merit; (2) potential contribution and relevance to the DARPA mission; (3) relevance of intermediate milestones and GNG metrics; (4) realism of the proposed schedule; (5) plans and capability to accomplish technology transition; (6) offeror's capabilities and related experience; and (7) cost reasonableness and realism. Note: Cost/Price reasonableness will be made prior to the award. The following are descriptions of the above listed criteria.

1. OVERALL SCIENTIFIC AND TECHNICAL MERIT

The proposed technical approach is feasible, achievable, complete and supported by a proposed technical team that has the expertise and experience to accomplish the proposed tasks. Task descriptions and associated technical elements provided are complete and in a logical sequence with all proposed deliverables clearly defined such that a final product that achieves the goal can

be expected as a result of award. The proposal identifies major technical risks and planned mitigation efforts are clearly defined and feasible.

2. POTENTIAL CONTRIBUTION AND RELEVANCE TO THE DARPA MISSION

The potential contributions of the proposed effort with relevance to the national technology base will be evaluated. Specifically, DARPA's mission is to maintain the technological superiority of the U.S. military and prevent technological surprise from harming our national security by sponsoring revolutionary, high-payoff research that bridges the gap between fundamental discoveries and their military use.

3. RELEVANCE OF INTERMEDIATE MILESTONES AND GNG METRICS

The relevance and aggressiveness of the intermediate milestones and Go/No Go metrics proposed in the development schedule in an efficient time frame will be evaluated.

4. REALISM OF PROPOSED SCHEDULE

The offerors' abilities to aggressively pursue performance metrics in the shortest timeframe and to accurately account for that timeframe will be evaluated.

5. PLANS AND CAPABILITY TO ACCOMPLISH TECHNOLOGY TRANSITION

The capability to transition the technology to the research, industrial, and operational military communities in such a way as to enhance U.S. defense, to include the extent to which IP being delivered with less than unlimited rights, creates a barrier to technology transition.

6. OFFEROR'S CAPABILITIES AND RELATED EXPERIENCE

The proposer's prior experience in similar efforts must clearly demonstrate an ability to deliver products/conduct research that meet the proposed technical performance within the proposed budget and schedule. The proposed team has the expertise to manage the cost and schedule. Similar efforts completed/ongoing by the proposer in this area are fully described including identification of other Government sponsors.

7. COST REASONABLENESS AND REALISM

The objective of this criterion is to establish that the proposed costs are reasonable and realistic for the technical and management approach offered, as well as to determine the proposer's practical understanding of the effort. This will be principally measured by cost per labor-hour, and the number of labor-hours across labor categories and task activity (e.g., WBS elements). The evaluation criterion recognize that undue emphasis on cost may motivate proposers to offer low-risk ideas with minimum uncertainty and to staff the effort with junior personnel in order to be in a more competitive posture. DARPA discourages such cost strategies. Cost reduction approaches that will be received favorably include innovative management concepts that maximize direct funding for technology and limit diversion of funds into overhead.

As soon as the proposal evaluation is completed, the proposer will be notified of selectability or non-selectability. Selectable proposals will be considered for funding; non-selectable proposals will be destroyed. (One copy of non-selectable proposals may be retained for file purposes.) Additionally, DARPA reserves the right to select for award all, some or none of

the proposals received and to award without discussions. In the event that DARPA desires to award only portions of a proposal, negotiations will be opened with that offeror. All responsible sources capable of satisfying the Government's needs may submit a proposal which shall be considered by DARPA. Awards will be made to offerors whose proposals are determined to be the most advantageous to the Government, all factors considered, including the potential contributions of the proposed work to the overall research program and the availability of funding for the effort. Awards may be made to any offeror whose proposal is determined selectable regardless of its overall rating. **NOTE PROPOSERS ARE CAUTIONED THAT EVALUATION SCORES MAY BE LOWERED AND/OR PROPOSALS REJECTED IF SUBMITTAL INSTRUCTIONS ARE NOT FOLLOWED.**

Proposals identified for funding may result in a procurement contract, grant, cooperative agreement, or other transaction depending upon the nature of the work proposed, the required degree of interaction between parties, and other factors. If warranted, portions of resulting awards may be segregated into pre-priced options.

The cost of preparing proposals in response to this announcement is not considered an allowable direct charge to any resulting contract or any other contract. Proposers are warned that only contracting officers are legally authorized to commit the Government.

TEAMING ARRANGEMENTS

Teaming is strongly encouraged and teaming arrangements should be explained clearly in the proposal abstracts and full proposals. Preference will be given to integrated teams capable of addressing different technological and scientific aspects of the STEEP program. Teams composed of partners from industry, academia and national laboratories are encouraged. While innovative proposals from small groups will be considered, a website (<http://www.davincinetbook.com/teams>) will be established to facilitate teaming between interested parties. Specific information content, communications, networking, and team formation are the sole responsibilities of the participants. Neither DARPA nor the Department of Defense (DoD) endorses the destination website or the information and organizations contained therein, nor does DARPA or the DoD exercise any responsibility at the destination. This website is provided consistent with the stated purpose of this BAA.

PROPOSER'S QUESTIONS

A "Proposer's Questions," website will be posted for BAA 07-26 on the DARPA, Microsystems Technology Office solicitations page (www.darpa.mil/baa/#07-26). If you would like to have a question answered and posted on this site, please send your question to the following address: BAA07-26@darpa.mil.

FORMAT AND SUBMITTAL

The form and format for abstracts and proposals follows below. Abstracts and proposals that do not satisfy these form and format requirements may be rejected without further review or

evaluation. All submissions should be in the English language. Abstracts should be submitted electronically; a paper copy is not required. Proposals should also be submitted electronically accompanied by a transmittal letter signed by an official who is authorized to commit the offeror. Electronic copies should be in Microsoft Word format or PDF and submitted in accordance with the Submission Guidelines below. Proposals received by MTO but not submitted specifically to the BAA may be considered under the BAA.

PROPOSAL ABSTRACT FORMAT

Proposal abstracts are encouraged in advance of full proposals in order to provide potential offerors with a rapid response and to minimize unnecessary effort. An abstract should be a brief summary. It introduces the idea, solicits interaction with MTO, and avoids the expense of generating proposals that have little likelihood of selection within this BAA. Abstracts should summarize the planned proposal and clearly articulate the innovative concept or technology development being proposed. Proposal abstracts should follow the same general structure described for Volume I under PROPOSAL FORMAT (see below), but are expected to provide a concise, summary rather than extensive detail, of ONLY section I and II. The proposal abstract should provide schedule and cost information. **The cover sheet should be clearly marked "PROPOSAL ABSTRACT" and the total length should not exceed ten (10) pages.** All pages shall be printable on 8-1/2 by 11 inch paper with type not smaller than 12 point. The page limitation for proposal abstracts includes all figures, tables, and charts. No formal transmittal letter is required.

PROPOSAL FORMAT

All full proposals must be in the format given below. Nonconforming proposals may be rejected without review. Proposals shall consist of two volumes. All pages shall be printable on 8-1/2 by 11 inch paper with type not smaller than 12 point. The page limitation for full proposals includes all figures, tables, and charts. Volume I, Technical and Management Proposal, may include an attached bibliography of relevant technical papers or research notes (published and unpublished) which document the technical ideas and approach upon which the proposal is based. Copies of not more than three (3) relevant papers can be included with the submission. The bibliography and attached papers are not included in the page counts given below. The submission of other supporting materials along with the proposal is strongly discouraged and will not be considered for review. Except for the attached bibliography, Volume I shall not exceed fifty (50) pages, not including Section IV. Maximum page lengths for each section are shown in braces { } below.

Volume I, Technical and Management Proposal

Section I. Administrative

- A. {1} **Cover sheet.** This should include: (1) BAA number; (2) Technical area; (3) Lead Organization Submitting proposal; (4) Type of business, selected among the following categories: "LARGE BUSINESS", "SMALL DISADVANTAGED BUSINESS",

"OTHER SMALL BUSINESS", "HBCU", "MI", "OTHER EDUCATIONAL", or "OTHER NONPROFIT"; (5) Contractor's reference number (if any); (6) Other team members (if applicable) and type of business for each; (7) Proposal title; (8) Technical point of contact to include: salutation, last name, first name, street address, city, state, zip code, telephone, fax (if available), electronic mail (if available); (9) Administrative point of contact to include: salutation, last name, first name, street address, city, state, zip code, telephone, fax (if available), electronic mail (if available), total funds requested from DARPA, and the amount of cost-share (if any); and (10) Date proposal was prepared.

B. {1} **Official Transmittal Letter.**

Section II. Summary of Proposal

This section provides an overview of the proposed work as well as an introduction to the associated technical and management issues. Further elaboration will be provided in Section III.

- A. {2} Innovative claims for the proposed research. This section is the centerpiece of the proposal and should succinctly describe the uniqueness and benefits of the proposed approach relative to the current state-of-art and alternate approaches.
- B. {2} Deliverables associated with the proposed research and the plans and capability to accomplish technology transition and commercialization. Include in this section all proprietary claims to results, prototypes, intellectual property, or systems supporting and/or necessary for the use of the research, results, and/or prototype. If there are no proprietary claims, this should be stated. See Page I-13 Intellectual Property.
- C. {2} Cost, schedule and milestones for the proposed research, including estimates of cost for each task in each year of the effort delineated by the prime and major subcontractors, total cost, and any company cost share. **Note: Milestones should be quantifiable and reasonable.** These milestones should enable and support a go/no go decision for the next part of the effort.
- D. {3} Technical rationale, technical approach, and constructive plan for accomplishment of technical goals in support of innovative claims and deliverable production. (In the full proposal, this section should be supplemented by a more detailed plan in Section III.)
- E. {2} General discussion of other research in this area.
- F. {1} A clearly defined organization chart for the program team which includes, as applicable: (1) the programmatic relationship of team members; (2) the unique capabilities of team members; (3) the task responsibilities of team members; (4) the

teaming strategy among the team members; (5) the key personnel along with the amount of effort to be expended by each person during each contract year.

Section III. Detailed Proposal Information

This section provides the detailed discussion of the proposed work necessary to enable an in-depth review of the specific technical and managerial issues. Specific attention must be given to addressing both risk and payoff of the proposed work that make it desirable to DARPA.

- A. {5} Statement of Work (SOW) written in plain English, outlining the scope of the effort and citing specific tasks to be performed and specific contractor requirements. This section should include a detailed description of deliverables associated with the proposed research by phase. NOTE: THE SOW SHOULD BE BROKEN OUT TO SUPPORT EACH OF THE PROGRAM PHASES.
- B. {5} Description of the results, products, transferable technology, and expected technology transfer path enhancing that of Section II.B.
- C. {2} Detailed technical rationale enhancing that of Section II.
- D. {8} Detailed technical approach enhancing and completing that of Section II.
- E. {2} Comparison with other ongoing research indicating advantages and disadvantages of the proposed effort.
- F. {2} Discussion of proposer's previous accomplishments and work in this or closely related research areas.
- G. {2} Description of the facilities that would be used for the proposed effort.
- H. {3} Detailed support enhancing that of Section II, including formal teaming agreements which are required to execute this program.
- I. {3} Cost schedule and milestones for the proposed research, including estimates of cost for each task in each year of the effort, total cost, and any company cost share. **Note: Milestones should be quantifiable and reasonable.** These milestones should enable and support a go/no go decision for the next part of the effort. Where the effort consists of multiple portions, which could reasonably be partitioned for purposes of funding, these should be identified as options with separate cost estimates for each.
- J. {4 charts} Slides summarizing the detailed technical approach, unique features, program milestones including technical attributes (quantitative milestones) and budget.

Section IV. Additional Information {Optional}

- A. A brief bibliography of relevant technical papers and research notes (published and unpublished) which document the technical ideas upon which the proposal is based may be provided. Copies of not more than three (3) relevant papers can be included in the submission. This Section does not count towards the overall page limit for Volume I.

Volume II, Cost Proposal – {No page limit}

- A. Cover sheet to include: (1) BAA number; (2) Technical area; (3) Lead Organization Submitting proposal; (4) Type of business, selected among the following categories: "LARGE BUSINESS", "SMALL DISADVANTAGED BUSINESS", "OTHER SMALL BUSINESS", "HBCU", "MI", "OTHER EDUCATIONAL", or "OTHER NONPROFIT"; (5) Contractor's reference number (if any); (6) Other team members (if applicable) and type of business for each; (7) Proposal title; (8) Technical point of contact to include: salutation, last name, first name, street address, city, state, zip code, telephone, fax (if available), electronic mail (if available); (9) Administrative point of contact to include: salutation, last name, first name, street address, city, state, zip code, telephone, fax (if available), and electronic mail (if available); (10) Award instrument requested: cost-plus-fixed-fee (CPFF), cost-contract--no fee, cost sharing contract--no fee, or other type of procurement contract (specify), grant, cooperative agreement, or other transaction; (11) Place(s) and period(s) of performance; (12) Total proposed cost separated by basic award and option(s) (if any); (13) Name, address, and telephone number of the offeror's cognizant Defense Contract Management Agency (DCMA) administration office (if known); (14) Name, address, and telephone number of the offeror's cognizant Defense Contract Audit Agency (DCAA) audit office (if known); (15) Date proposal was prepared; and (16) date of proposal expiration.
- B. Detailed cost breakdown to include: (1) total program cost broken down by major cost items (direct labor, subcontracts, materials, other direct costs, overhead charges, etc.) and further broken down by year; (2) major program tasks by year; (3) an itemization of major subcontracts and equipment purchases; (4) an itemization of any information technology (IT)¹ purchases; (5) a summary of projected funding requirements by month;

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- ¹ IT is defined as "any equipment, or interconnected system(s) or subsystem(s) of equipment that is used in the automatic acquisition, storage, manipulation, management, movement, control, display, switching, interchange, transmission, or reception of data or information by the agency. (a) For purposes of this definition, equipment is used by an agency if the equipment is used by the agency directly or is used by a contractor under a contract with the agency which – (1) Requires the use of such equipment; or (2) Requires the use, to a significant extent, of such equipment in the performance of a service or the furnishing of a product. (b) The term "information technology" includes computers, ancillary, software, firmware and similar procedures, services (including support services), and related resources. (c) The term "information technology" does not include – (1) Any equipment that is acquired by a contractor incidental to a contract; or (2) Any equipment that contains imbedded information technology that is used as an integral part of the product, but the principal function of which is not the acquisition, storage, manipulation, management, movement, control, display, switching, interchange, transmission, or reception of data or information. For example, HVAC (heating, ventilation, and air conditioning) equipment such as thermostats or temperature control devices, and medical equipment where information technology is integral to its operation, are not information technology."

and (6) the source, nature, and amount of any industry cost-sharing. Where the effort consists of multiple portions which could reasonably be partitioned for purposes of funding, these should be identified as options with separate cost estimates for each.

- C. Supporting cost and pricing information in sufficient detail to substantiate the summary cost estimates in B. above. Include a description of the method used to estimate costs and supporting documentation. Note: “cost or pricing data” as defined in FAR Subpart 15.4 shall be required if the offeror is seeking a procurement contract award of \$650,000 or greater unless the offeror requests an exception from the requirement to submit cost or pricing data. “Cost or pricing data” are not required if the offeror proposes an award instrument other than a procurement contract (e.g., a grant, cooperative agreement, or other transaction).

INTELLECTUAL PROPERTY

The government will assess items of intellectual property that are proposed to be delivered with less than unlimited rights as part of the “overall scientific and technical merit” and “plans and capability to accomplish technology transition” evaluation criteria.

- 1. Procurement Contract Proposers
 - a. Noncommercial Items (Technical Data and Computer Software)

Proposers responding to this BAA requesting a procurement contract to be issued under the FAR/DFARS, shall identify all noncommercial technical data, and noncommercial computer software that it plans to generate, develop, and/or deliver under any proposed award instrument in which the Government will acquire less than unlimited rights, and to assert specific restrictions on those deliverables. Proposers shall follow the format under DFARS 252.227-7017 for this stated purpose. In the event that proposers do not submit the list, the Government will assume that it automatically has “unlimited rights” to all noncommercial technical data and noncommercial computer software generated, developed, and/or delivered under any award instrument, unless it is substantiated that development of the noncommercial technical data and noncommercial computer software occurred with mixed funding. If mixed funding is anticipated in the development of noncommercial technical data, and noncommercial computer software generated, developed, and/or delivered under any award instrument, then proposers should identify the data and software in question, as subject to Government Purpose Rights (GPR). In accordance with DFARS 252.227-7013 Rights in Technical Data - Noncommercial Items, and DFARS 252.227-7014 Rights in Noncommercial Computer Software and Noncommercial Computer Software Documentation, the Government will automatically assume that any such GPR restriction is limited to a period of five (5) years in accordance with the applicable DFARS clauses, at which time the Government will acquire “unlimited rights” unless the parties agree otherwise. Proposers are admonished that the Government may use the list during the source selection evaluation process to evaluate the impact of any identified restrictions, and may

request additional information from the proposer, as may be necessary, to evaluate the proposer’s assertions. If no restrictions are intended, then the proposer should state “NONE.”

A sample list for complying with this request is as follows:

NONCOMMERCIAL			
Technical Data Computer Software To be Furnished With Restrictions	Basis for Assertion	Asserted Rights Category	Name of Person Asserting Restrictions
(LIST)	(LIST)	(LIST)	(LIST)

b. Commercial Items (Technical Data and Computer Software)

Proposers responding to this BAA requesting a procurement contract to be issued under the FAR/DFARS, shall identify all commercial technical data, and commercial computer software that may be embedded in any noncommercial deliverables contemplated under the research effort, along with any applicable restrictions on the Government’s use of such commercial technical data and/or commercial computer software. In the event that proposers do not submit the list, the Government will assume that there are no restrictions on the Government’s use of such commercial items. The Government may use the list during the source selection evaluation process to evaluate the impact of any identified restrictions, and may request additional information from the proposer, as may be necessary, to evaluate the proposer’s assertions. If no restrictions are intended, then the proposer should state “NONE.”

A sample list for complying with this request is as follows:

COMMERCIAL			
Technical Data Computer Software To be Furnished With Restrictions	Basis for Assertion	Asserted Rights Category	Name of Person Asserting Restrictions
(LIST)	(LIST)	(LIST)	(LIST)

2. NonProcurement Contract Proposers - Noncommercial and Commercial Items
(Technical Data and Computer Software)

Proposers responding to this BAA requesting a Grant, Cooperative Agreement, Technology Investment Agreement, or Other Transaction for Prototype shall follow the applicable rules and regulations governing these various award instruments, but in all cases should appropriately identify any potential restrictions on the Governments use of any Intellectual Property contemplated under those award instruments in question. This includes both Noncommercial Items and Commercial Items. Although not required, proposers may use a format similar to that described in Paragraphs 1.a and 1.b above.

The Government may use the list during the source selection evaluation process to evaluate the impact of any identified restrictions, and may request additional information from the proposer, as may be necessary, to evaluate the proposer's assertions. If no restrictions are intended, then the proposer should state "NONE."

3. All Proposers - Patents

Please include documentation proving your ownership of or possession of appropriate licensing rights to all patented inventions (or inventions for which a patent application has been filed) that will be utilized under your proposal for the DARPA program. If a patent application has been filed for an invention that your proposal utilizes, but the application has not yet been made publicly available and contains proprietary information, you may provide only the patent number, inventor name(s), assignee names (if any), filing date, filing date of any related provisional application, and a summary of the patent title, together with either: 1) a representation that you own the invention, or 2) proof of possession of appropriate licensing rights in the invention.

4. All Proposers - Intellectual Property Representations

Please provide a good faith representation that you either own or possess appropriate licensing rights to all other intellectual property that will be utilized under your proposal for the DARPA program.

GUIDANCE FOR CLASSIFIED INFORMATION AND DATA

The Government anticipates that proposals submitted under a BAA will be unclassified. In the event that a proposer chooses to submit a classified proposal or submit any documentation that may be classified, the following information is applicable.

Security Classification guidance on DD Form 254 will not be provided at this time since DARPA is soliciting ideas only. After reviewing the incoming proposals, if a determination is made that the award instrument may result in access to classified information, a DD Form 254 will be issued and attached as part of the award. Proposers choosing to submit a classified proposal must first receive permission from the Original Classification Authority to use their information in applying to this BAA. An applicable classification guide should be submitted to ensure that the proposal is protected appropriately.

Classified submissions shall be in accordance with the following guidance:

Collateral Classified Data: Use classification and marking guidance provided by previously issued security classification guides, the Information Security Regulation (DoD 5200.1-R), and the National Industrial Security Program Operating Manual (DoD 5220.22-M) when marking and transmitting information previously classified by another original classification authority. Classified information at the Confidential and Secret level may only be mailed via U.S. Postal Service (USPS) Registered Mail or U.S. Postal Service Express Mail (USPS only; not DHL, UPS

or FedEx). All classified information will be enclosed in opaque inner and outer covers and double wrapped. The inner envelope shall be sealed and plainly marked with the assigned classification and addresses of both sender and addressee. The inner envelope shall be addressed to:

Defense Advanced Research Projects Agency (DARPA)
ATTN: BAA07-26, DARPA/MTO, Dr. Michael Fritze
3701 North Fairfax Drive, Suite 514
Arlington, VA 22203-1714

The outer envelope shall be sealed with no identification as to the classification of its contents and addressed to:

Defense Advanced Research Projects Agency (DARPA)
Security & Intelligence Directorate, Attn: CDR
3701 North Fairfax Drive, Suite 832
Arlington, VA 22203-1714

All Top Secret materials should be hand carried via an authorized, two-person courier team to the DARPA Classified Document Registry (CDR).

Special Access Program (SAP) Information: Contact the DARPA Program Security Support Center (PSSC) at 703-812-1962/1970 for further guidance and instructions prior to transmitting to DARPA. All Top Secret SAP, must be transmitted via approved methods for such material. Consult the DoD Overprint to the National Industrial Security Program Operating Manual for further guidance. It is strongly recommended that you coordinate the transmission of SAP material and information with the DARPA PSSC prior to transmission.

Sensitive Compartmented Information (SCI) Data: Contact the DARPA Special Security Contact Office (SSCO) at 703-812-1993/1994 for the correct SCI courier address and instructions. All SCI should be transmitted through your servicing Special Security Officer (SSO) / Special Security Contact Officer (SSCO). All SCI data must be transmitted through your servicing Special Security Officer (SSO) / Special Security Contact Officer (SSCO). All SCI data must be transmitted through SCI channels only (i.e., approved SCI Facility to SCI facility via secure fax).

Proprietary Data: All proposals containing proprietary data should have the cover page and each page containing proprietary data clearly marked as containing proprietary data. It is the proposer's responsibility to clearly define to the Government what is considered proprietary in nature.

Proposers must have existing and in-place prior to execution of an award, approved capabilities (personnel and facilities) to perform research and development at the classification level they propose.

AWARD ADMINISTRATION INFORMATION

(1) Central Contractor Registration. Selected proposers not already registered in the Central Contractor Registry (CCR) will be required to register in CCR prior to any award under this BAA. Information on CCR registration is available at <http://www.ccr.gov>.

(2) Representations and Certifications. In accordance with Federal Acquisition Regulation 4.1201, prospective proposers shall complete electronic annual representations and certifications at <http://orca.bpn.gov>.

(3) Wide Area WorkFlow (WAWF). Unless using another approved electronic invoicing system, performers will be required to submit invoices for payment directly via the Internet/WAWAF at <http://wawf.eb.mil>. Registration to WAWF will be required prior to any award under this BAA.

PUBLIC RELEASE OR DISSEMINATION OF INFORMATION

The following provision will be incorporated into any resultant contract:

(a) There shall be no dissemination or publication, except within and between the Contractor and any subcontractors, of information developed under this contract or contained in the reports to be furnished pursuant to this contract without prior written approval of the Contracting Officer Representative (COR). All technical reports will be given proper review by appropriate authority to determine which Distribution Statement is to be applied prior to the initial distribution of these reports by the Contractor. Papers resulting from unclassified contracted fundamental research are exempt from prepublication controls and this review requirement, pursuant to DoD Instruction 5230.27 dated October 6, 1987.

(b) When submitting material for written approval for open publication as described in subparagraph (a) above, the Contractor must submit a request for public release request to the DARPA TIO and include the following information: 1) Document Information: document title, document author, short plain-language description of technology discussed in the material (approx 30 words), number of pages (or minutes of video) and document type (briefing, report, abstract, article, or paper); 2) Event Information: event type (conference, principle investigator meeting, article or paper), event date, desired date for DARPA's approval; 3) DARPA Sponsor: DARPA Program Manager, DARPA office, and contract number; and 4) Contractor's Information: POC name, e-mail and phone. Allow four weeks for processing; due dates under four weeks require a justification. Unusual electronic file formats may require additional processing time. Requests can be sent either via e-mail to tio@darpa.mil or via 3701 North Fairfax Drive, Arlington VA 22203-1714, telephone (571) 218-4235. Refer to www.darpa.mil/tio for information about DARPA's public release process.

EXPORT LICENSES

The following provision will be incorporated into any resultant contract:

Should this project develop beyond fundamental research (basic and applied research ordinarily published and shared broadly within the scientific community) with military or dual-use applications the following apply:

(1) The contractor shall comply with all U. S. export control laws and regulations, including the International Traffic in Arms Regulations (ITAR), 22 CFR Parts 120 through 130, and the Export Administration Regulations (EAR), 15 CFR Parts 730 through 799, in the performance of this contract. In the absence of available license exemptions/exceptions, the Contractor shall be responsible for obtaining the appropriate licenses or other approvals, for obtaining the appropriate licenses or other approvals, if required, for exports of (including deemed exports) hardware, technical data, and software, or for the provision of technical assistance.

(2) The Contractor shall be responsible for obtaining export licenses, if required, before utilizing foreign persons in the performance of this contract, including instances where the work is to be performed on-site at any Government installation (whether in or outside the United States), where the foreign person will have access to export-controlled technical data or software.

(3) The Contractor shall be responsible for all regulatory record keeping requirements associated with the use of licenses and license exemptions/exceptions.

(4) The Contractor shall be responsible for ensuring that the provisions of this clause apply to its subcontractors.

SUBCONTRACTING

Pursuant to Section 8(d) of the Small Business Act (15 U.S.C. 637(d)), it is the policy of the Government to enable small business and small disadvantaged business concerns to be considered fairly as subcontractors to contractors performing work or rendering services as prime contractors or subcontractors under Government contracts, and to assure that prime contractors and subcontractors carry out this policy. Each proposer who submits a contract proposal and includes subcontractors is required to submit a subcontracting plan IAW FAR 19.702(a) (1) and (2) should do so with their proposal. The plan format is outlined in FAR 19.704.

CONFIDENTIALITY

It is the policy of DARPA to treat all proposals as competitive information and to disclose their contents only for the purpose of evaluation. No proposals will be returned. The original of each proposal received will be retained at DARPA and all other copies of non-selected proposals destroyed. Documentation related to the source selection process will be marked SOURCE SELECTION INFORMATION – SEE FAR 2.101 AND 3.104.

PROCUREMENT INTEGRITY, STANDARDS OF CONDUCT, ETHICAL CONSIDERATIONS, AND ORGANIZATIONAL CONFLICTS OF INTEREST (OCIs)

Certain post-employment restrictions on former federal officers and employees may exist, including special Government employees (including but not limited to Sections 207 and 208 of

Title 18, United States Code, the Procurement Integrity Act, 41 U.S.C. 423, and FAR 3.104). Proposers should be aware the Program Manager responsible for this BAA is assigned under the IPA program from the Massachusetts Institute of Technology/Lincoln Laboratory and as such is highly likely to have a formal conflict of interest with the University and with Lincoln Laboratory. The Program Manager is required to review and evaluate all proposals received under this BAA and be able to manage all selected efforts. If a conflict of interest exists with a proposer, the proposer must show a plan to mitigate the conflict in the proposal. In fact, it should be raised to the DARPA Contracting Officer before time and effort are expended in preparing a proposal. All proposers and proposed sub-contractors must therefore affirm whether they are providing scientific, engineering, and technical assistance (SETA) or similar support to any DARPA technical office(s) through an active contract or subcontract. All affirmations must state which office(s) the proposer supports and identify the prime contract numbers. Affirmations shall be furnished at the time of proposal submission. All facts relevant to the existence or potential existence of organizational conflicts of interest (FAR 9.5.) must be disclosed. The disclosure shall include a description of the action the proposer has taken or proposes to take to avoid, neutralize, or mitigate such conflict (e.g., Mitigation Plan). If the situation cannot be mitigated by the contractor, the proposal may be returned without technical evaluation and withdrawn from consideration for award under this BAA.

PERIOD OF SOLICITATION

This BAA will remain open from 3 April 2007 through 3 April 2008. The due date for abstract submission is 18 May 2007 (1600 EST) and proposal submission is due 27 July 2007 (1600 EST). Proposals submitted after 27 July 2007 will be accepted, but are not likely to be funded during the first round of program funding.

SUBMISSION GUIDELINES

1. Abstracts

DARPA/MTO will employ an electronic upload process, the Technical Financial Information Management System (T-FIMS) Proposal Submission System, for all abstract submissions to this BAA. Electronic abstracts should be in Microsoft Word format or PDF and submitted via a web site interface: Web Site: <https://www.tfims.darpa.mil/baa>.

Please note that abstracts should not be submitted via Grants.gov.

2. Proposals

Full proposals should be submitted electronically using one of the following two submission methods. Note that dual submissions are not required and a paper copy is not required.

- a. University (prime) grant submissions may be made via the Grants.gov web site, <http://www.grants.gov/>, by using the "Apply" function.

- b. Proposals may be submitted to this BAA via the T-FIMS Proposal Submission System. Electronic proposals should be in Microsoft Word format or PDF and submitted via a web site interface: Web Site: <https://www.tfims.darpa.mil/baa>.

PROPOSER REGISTRATION

Organizations planning to submit proposals via T-FIMS must register at: <http://www.tfims.darpa.mil/baa>. Only the lead or prime organization should register. One registration per proposal should be submitted. This means that an organization wishing to submit to multiple technical topic areas should complete a single registration for each proposal. Similarly, organizations wishing to submit an abstract and proposal should register for each submission separately. By registering, the Proposer has made no commitment to submit. Please note that it is recommended that proposers register on T-FIMS at least a week prior to the submission deadline to allow sufficient time for completing the registration process and uploading the submission.

SUBMISSION INFORMATION

All material submitted through T-FIMS or Grants.gov must be UNCLASSIFIED. Please DO NOT attempt to submit a CLASSIFIED material proposal through the electronic upload process as this is PROHIBITED. Offerors that intend to include classified, or potentially classified, information or data as part of their proposals shall submit an UNCLASSIFIED PROPOSAL referring to a classified annex. The offeror should contact the Technical POC for this BAA, or the Security POC cited above, for guidance on submitting the classified annex. Content of proposal submissions made through T-FIMS or Grants.gov must be UNCLASSIFIED.

The T-FIMS Proposal Submission System can support the following file formats: Portable Document Format (pdf), Word Document (doc), Plain Text (txt), Comma-separated Values (csv), PowerPoint Presentation (ppt), Excel Worksheet (xls), and Excel Workspace (xlw). PDF is the preferred format. Proposal submissions made through the T-FIMS Proposal Submission System must be no larger than 50 megabytes per file. This means that the Technical Volume file, as well as the Cost Volume file, must not exceed 50 megabytes, individually, as the T-FIMS program will not allow it.

This announcement and any additional supporting materials may be retrieved via the WWW at URL <http://www.darpa.mil/> in the solicitations area.

SECTION II: Reprint of Broad Agency Announcement BAA 07-26 “Steep-subthreshold-slope Transistors for Electronics with Extremely-low Power (STEEP)”

Defense Advanced Research Projects Agency (DARPA), Contracts Management Office (CMO), 3701 North Fairfax Drive, Arlington, VA 22203-1714.

A - **Steep-subthreshold-slope Transistors for Electronics with Extremely-low Power (STEEP)**, SOL BAA 07-26, DUE 072707, POC DR. MICHAEL FRITZE, DARPA/MTO, FAX (703) 696-2206.

PROGRAM OBJECTIVES AND DESCRIPTION

The Defense Advanced Research Projects Agency is soliciting research proposals in the area of Steep-subthreshold-slope Transistors for Electronics with Extremely-low Power (STEEP). Proposed research should investigate the development of novel transistor technologies that will enable high-performance logic circuits with extremely low power consumption.

The STEEP process developed must be consistent with achieving transistor subthreshold slopes below 60 mV/decade without performance penalty. Current CMOS technology uses transistors that work by electronically modulating a thermionic energy barrier. The high energy tail of the carrier (electron or hole) distribution function is responsible for the theoretical subthreshold slope limit for this type of switch of 60 mV/decade. Innovative approaches are sought to develop transistors based on non-thermionic switching physics.

Additional information on the program objectives and structure is provided in Section I of the BAA 07-26 Proposer Information Pamphlet referenced below.

PROGRAM SCOPE

The STEEP program will be conducted in three phases each having definite and measurable milestones, the most critical of which will be referred to as Go/No-Go (GNG) metrics. Each phase will culminate in a specified device and/or circuit demonstration which will serve to validate that the goals of the phase have been achieved. The period of performance for each of these phases and the milestone schedule will be proposed by offerors within their technical proposals and will be factors considered as part of the source selection process (see below). In general, a shorter phase is preferable, but each phase should clearly be adequate in duration to meet its objectives with reasonable risks and costs. Proposals should discuss plans for managing these factors.

The three distinct phases of the program are:

- I. Steep-subthreshold-slope Transistor Development;
- II. Transistor Optimization & Circuit Integration; and
- III. Yield Enhancement.

TEAMING ARRANGEMENTS

Multiple awards are anticipated. Collaborative efforts/teaming are encouraged. A web site (<http://www.davincinetbook.com/teams>) has been established to facilitate formation of teaming arrangements between interested parties. Specific content, communications, networking, and team formation are the sole responsibility of the participants. Neither DARPA nor the Department of Defense (DoD) endorses the destination web site or the information and organizations contained therein, nor does DARPA or the DoD exercise any responsibility at the destination. This web site is provided consistent with the stated purpose of this BAA. Cost sharing is not required and is not an evaluation criterion but is encouraged where there is a reasonable probability of a potential commercial application related to the proposed research and development effort. The technical POC for this effort is Dr. Michael Fritze, fax: (703) 696-2206, electronic mail: BAA07-26@darpa.mil.

PROPOSER'S QUESTIONS

A "Proposer's Questions," website will be posted for BAA 07-26 on the DARPA, Microsystems Technology Office solicitations page (www.darpa.mil/baa/#eto). If you would like to have a question answered and posted on this site, please send your question to the following address: BAA07-26@darpa.mil.

GENERAL INFORMATION

Proposers must obtain a pamphlet entitled "BAA 07-26, Steep-subthreshold-slope Transistors for Electronics with Extremely-low Power (STEEP), Proposer Information Pamphlet" which provides further information on areas of interest, the submission, evaluation, and funding processes, proposal abstract formats, proposal formats, and other general information. This pamphlet may be obtained from the FedBizOpps website: <http://www.fedbizopps.gov/>, Grants.gov website: <http://www.grants.gov/>, World Wide Web (WWW) at URL <http://www.darpa.mil/> or by fax, electronic mail, or mail request to the administrative contact address given below. Proposals not meeting the format described in the pamphlet may not be reviewed.

In order to minimize unnecessary effort in proposal preparation and review, proposers are strongly encouraged to submit proposal abstracts in advance of full proposals. The proposal abstract must be submitted to <https://www.tfims.darpa.mil/baa> on or before 4:00 p.m., local time, Friday, May 18, 2007. Proposal abstracts received after this time and date may not be reviewed. Upon review, DARPA will provide written feedback on the

likelihood of a full proposal being selected and the time and date for submission of a full proposal. Proposal abstracts should not be submitted via grants.gov - the "Apply" function will be available for submission of full proposals should University offerors choose to submit in this way.

Proposers not submitting proposal abstracts must submit a full proposal to <https://www.tfims.darpa.mil/baa>, or via grants.gov for Universities wishing to use the "Apply" function, on or before 4:00 p.m., local time, Friday, July 27, 2007 in order to be considered during the initial round of selections; however, proposals received after this deadline may be received and evaluated up to one year from date of posting on FedBizOpps and Grants.gov. Full proposals submitted after the due date specified in the BAA or due date otherwise specified by DARPA after review of proposal abstracts may be selected contingent upon the availability of funds. This notice, in conjunction with the BAA 07-26, Proposer Information Pamphlet, constitutes the total BAA. No additional information is available, nor will a formal RFP or other solicitation regarding this announcement be issued. Requests for the same will be disregarded. The Government reserves the right to select for award all, some, or none of the proposals received. All responsible sources capable of satisfying the Government's needs may submit a proposal which shall be considered by DARPA. Input on technical aspects of the proposals may be solicited by DARPA from non-Government consultants /experts who are bound by appropriate non-disclosure requirements. Non-Government technical consultants/experts will not have access to proposals that are labeled by their offerors as "Government Only". Historically Black Colleges and Universities (HBCUs), Minority Institutions (MIs), and Small and Small Disadvantaged Businesses are encouraged to submit proposals and join others in submitting proposals; however, no portion of this BAA will be set aside for these organizations' participation due to the impracticality of reserving discrete or severable areas of research in deep ultraviolet avalanche photodetectors.

All administrative correspondence and questions on this solicitation, including requests for information on how to submit a proposal abstract or full proposal to this BAA, should be directed to one of the administrative addresses below; e-mail or fax is preferred. DARPA intends to use electronic mail and fax for correspondence regarding BAA 07-26. Proposals and proposal abstracts may not be submitted by fax or e-mail; any so sent will be disregarded. DARPA encourages use of the WWW for retrieving the Proposer Information Pamphlet and any other related information that may subsequently be provided.

EVALUATION CRITERIA

Evaluation of proposals will be accomplished through a technical review of each proposal using the following criteria, which are listed in descending order of relative importance: (1) overall scientific and technical merit; (2) potential contribution and relevance to the DARPA mission; (3) relevance of intermediate milestones and GNG metrics; (4) realism of the proposed schedule; (5) plans and capability to accomplish technology transition; (6) offeror's capabilities and related experience; and (7) cost reasonableness and realism.

Note: cost reasonableness and realism will only be significant in proposals which have significantly under or over-estimated the cost to complete their effort.

The administrative addresses for this BAA are:

Fax: (703) 696-2206 (Addressed to: DARPA/MTO, BAA 07-26),

Electronic Mail: BAA07-26@darpa.mil

Mail: DARPA/MTO, ATTN: BAA 07-26
3701 North Fairfax Drive
Arlington, VA 22203-1714

This announcement and the Proposer Information Pamphlet may be retrieved via the WWW at URL <http://www.darpa.mil/> in the solicitations area.

SECTION III: Defense Advanced Research Projects Agency/Microsystems Technology Office (DARPA/MTO)

The Defense Advanced Research Projects Agency (DARPA) is a separately organized agency within the Department of Defense (DoD) under a Director, appointed by the Secretary of Defense. The Agency engages in advanced basic and applied research and development projects essential to the DoD, and conducts prototype projects that embody technology that may be incorporated into joint programs, programs in support of deployed U.S. forces, or selected military department programs.

The Microsystems Technology Office (MTO) focuses on the heterogeneous microchip-scale integration of electronics, photonics, and microelectromechanical systems (MEMS) to produce a broad array of interface systems; sensors, sources, actuators, and displays; signal processors; and packaging and interconnect systems.

High risk technology development continues in the microsystems area in order to solve the national level problems of protection from biological and information attack and to enable affordable precision target kill, operational dominance for mobile distributed command and control, combined manned/unmanned warfare, and dynamic, adaptive military planning and execution.

Biochemical warfare is a major theme for the DARPA programs. MTO is concentrating on developing the microsystems for sensing and processing biological and chemical threats.

Addition detail can be found on the MTO office home page accessible from the WWW via URL <http://www.darpa.mil/>.