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BAA 07-38 PROPOSER INFORMATION PAMPHLET

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MULTILINGUAL AUTOMATIC DOCUMENT CLASSIFICATION ANALYSIS and TRANSLATION (MADCAT), SOL BAA 07-38, Proposals Due: Initial Closing: June 27, 2007, at 12:00 noon ET. Final Closing: April 25, 2008. Technical point of contact: Joseph P. Olive, DARPA/IPTO; EMAIL BAA 07-38@darpa.mil; FAX: (703) 741-7804.

This announcement will be posted directly to www.fbo.gov. The following information is for those wishing to respond to the announcement. This notice, in conjunction with the BAA 07-38 FBO Announcement, constitutes the total BAA. No additional information is available, nor will a formal Request for Proposal (RFP) or additional solicitation regarding this announcement be issued. Requests for same will be disregarded.

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PROGRAMMATICS

INTRODUCTION

DARPA seeks strong, responsive proposals from well-qualified sources for a new language technology program called Multilingual Automatic Document Classification Analysis and Translation (MADCAT). The goal of this program is to automatically convert foreign language text images into English transcripts, thus eliminating the need for linguists and analysts while automatically providing relevant, distilled actionable information to military command and personnel in a timely fashion.

BACKGROUND

The United States has a compelling need for reliable information affecting military command, soldiers in the field, and national security. Currently, our warfighters encounter foreign language images in many forms, including, but not limited to graffiti, road signs, printed media, and captured records in the form of paper and computer files. Given the quantity of foreign language material, it is difficult to interpret the salient pieces of information, much of which is either ignored or analyzed too late to be of any use.

TERMINOLOGY

Image	Scanned, photographed, or computer-stored Portable Document Format (PDF) file
Text	Ordinary text (in machine-readable form)
Document	A complete hard-copy or PDF document or a set of captured images
Source Language	Language of the document
Processing Engine	Software-based system to convert an image to English text
Insertion	Transition of technology into a particular operational use
Team	Prime contractor and any subcontractors

PROGRAM GOALS

The goal of the MADCAT program is to develop and apply computer software technologies to classify, analyze and interpret analog Arabic text images. Automatic processing “engines” will convert images from hard-copy documents, PDF images or camera-captured pictures (e.g. signs, graffiti, or televised text images) to English text for use by English-speaking military personnel and analysts.

Each MADCAT team will develop an integrated system capable of:

- accepting an image,
- analyzing the image to determine the language and type of script,

- classifying the image to determine the kind of material that is being presented (a picture, a newspaper article, a technical memo, a ledger, etc.),
- segmenting the image and interpreting the different text zones and finally,
- producing an accurate English translation of the source language text, whether printed or handwritten.

Initially, the source language will be Arabic. There may be additional languages tested during subsequent program phases.

As successful technologies emerge, contractors will include them in a series of carefully selected operational applications. The goal is to get functional technologies into the hands of users quickly. Other programs and agencies may enhance and modify emerging MADCAT technologies to suit their needs and incorporate them into their operating environments.

MADCAT engines must be able to process documents/images of *all* of the following types:

- Newspapers
- Letters
- Scientific articles
- Memos
- Ledgers
- Maps
- Diagrams
- Graffiti
- Signs

MADCAT engines must be:

- Robust, scalable, and portable
- Able to deal with the full range of source data described above
- Adaptable to different media and languages (not point solutions specialized to particular languages, scripts or media)
- Domain-independent
- Demonstrably language-independent

Although the main thrust of the program is to develop technology to handle Arabic documents, the offerors should explain how underlying technology can be quickly adapted to other languages and scripts. The language and script independence will be evaluated by testing a surprise language during subsequent program phases.

DARPA's desired end result includes:

- A transcription engine that produces English transcripts with 95% accuracy from Arabic printed images for 95% of the documents
- A transcription engine that produces English transcripts with 90% accuracy from Arabic handwritten or combined handwritten and printed images for 95% of the documents

PROPOSALS SOUGHT

This BAA seeks proposals that address the following MADCAT tasks, which are described in detail below.

- Task 1: Automatic transcription into English of printed Arabic images
- Task 2: Automatic transcription into English of handwritten or combined handwritten and printed Arabic images
- Task 3: Linguistic data acquisition
- Task 4: Evaluations

Offerors are invited to submit proposals for one or more of the MADCAT tasks. Separate tasks should be submitted via separate proposals. However, if an offeror submits a proposal for tasks 1 and 2, a combined cost proposal must be submitted in addition to the separate cost proposals since there should be economy of cost.

TASK 1: AUTOMATIC TRANSCRIPTION INTO ENGLISH OF PRINTED ARABIC IMAGES

These engines will accept input in the form of scanned, photographed or PDF documents. The output will consist of English translation (with confidence measures), with the proper capitalization and punctuation, while preserving the original layout of the documents.

Proposals to develop these engines must describe the means of producing the translated transcripts. They must specify the variety of algorithms for processing noisy and corrupted documents and removing skewing. In addition, the proposals must specify means of identifying the languages and scripts, segmenting the documents, interpreting the layouts, and specify the language models and syntax used for different regions.

These engines will be evaluated on the variety of documents listed above. Accuracy will be measured by word error rate (where capitalization and punctuation errors are treated as word errors). Word error rates will be computed from the number of edits that a human editor needs to make to the processed document in order to convey the same meaning as a human generated gold standard translation of the same document divided by the number of words in the translated document. For example,

language printed images must be no less than 40% accuracy for 70% of the documents and the final target performance must be at least 95% accuracy for 90% of the documents.

TASK 3: LINGUISTIC DATA ACQUISITION

Throughout the duration of the program, a minimum of 10,000 printed documents, 15,000 handwritten and 15,000 mixed printed and handwritten documents (the data must contain writing samples of at least 500 different writers) will need to be collected and organized. These must be annotated for effective research, algorithm development, and performance evaluation. Annotation will consist of segmentation, zone interpretation, transcription and translation to English.

The data collected may include, but is not limited to:

- Large quantities of naturally occurring images from multiple sources and genres (of the types described above)
- Annotated versions of that data
- Lexical resources of various kinds

The data must respect the privacy expectations of the authors and be freely distributable to researchers.

Proposals are sought for efforts to provide such data, and may include the development of associated access tools. Proposals should indicate what data and tools the offerors believe will be needed and explain how they propose to satisfy those needs. The proposals should also include a schedule for delivery of the data for development and testing. Offerors should be aware that training data will be required for tasks 1 and 2 periodically throughout the phases of the program.

TASK 4: EVALUATIONS

DARPA seeks proposals for methods of evaluating the accuracy of the processing engines developed under tasks 1 and 2 using the accuracy measurements previously described. Offerors should detail methods for generation of a gold standard translation and methods for editing system output. Offerors should also include detailed schedules for execution of the evaluation process. The results of the evaluations must be delivered one month before the end of each phase.

TEAMING & COLLABORATION

Offerors are encouraged to form strong, multi-site, multidisciplinary teams. The goal of teaming is to achieve faster, stronger progress through critical

mass efforts and address all aspects of this program to produce a complete system.

Each team, consisting of a prime contractor and an appropriate mix of subcontractors, should submit a single, unified proposal per task. (For simplicity, this document uses the term "team" even when there are no subcontractors.)

In order for the program to make maximum progress, contractors must share detailed technical information about any techniques that they develop or use with other contractors. (They may first file patent applications, provided they do so promptly.) Sites will also be expected to share any data that they may possess.

Offerors must also identify and share data to help the overall program succeed. See Section L under "Proposal Preparation and Format" below.

If requested to do so, contractors doing algorithmic research must provide detailed technical descriptions of the algorithms they are developing as part of this program.

PROGRAM SCOPE

Proposed research should investigate innovative approaches and techniques that lead to or enable revolutionary advances in the state of the art. Proposals are not limited to the descriptions of services listed above, and alternative visions will be considered. However, proposals should address research that substantially contributes toward the goals stated. Specifically excluded is research that primarily results in minor, evolutionary improvements to the existing state of practice or focuses on special-purpose systems or narrow applications.

GENERAL INFORMATION & OTHER REQUIREMENTS

A. WEB SITE, INDUSTRY DAY, TEAMING AND ONGOING Q&A

The solicitation web page at <http://www.darpa.mil/ipto/solicitations.htm> will have information on the industry day, teaming and a Frequently Asked Questions (FAQ) list.

Groups or individuals wishing to advertise for MADCAT partners may use the bulletin board at <http://csc-ballston.dmeid.org/baa/MADCATteaming.htm>

B. OFFEROR ELIGIBILITY

All responsible sources capable of satisfying the Government's needs and the requirements of the solicitation may submit a proposal that shall be considered by DARPA. Historically Black Colleges and Universities (HBCUs), Small Disadvantaged Businesses and Minority Institutions (MIs) are encouraged to submit proposals and join

others in submitting proposals. However, no portion of this announcement will be set aside for Small Disadvantaged Business, HBCU and MI participation due to the impracticality of reserving discrete or severable areas of this research for exclusive competition among these entities. Independent proposals from Government/National laboratories may be subject to applicable direct competition limitations, however, certain Federally Funded Research and Development Centers are excepted per P.L. 103-337§ 217 and P.L 105-261 § 3136.

Foreign participants and/or individuals may participate to the extent that such participants comply with any necessary Non-Disclosure Agreements, Security Regulations, Export Laws, and other governing statutes applicable under the circumstances.

C. SUBMISSION PROCESS

Proposals not meeting the format described in this pamphlet may not be reviewed. Proposals **MUST** be submitted to DARPA in hard copy. Any submissions sent via fax or email will be disregarded (see Exception note below). Responding to this announcement requires completion of an online Cover Sheet for each Proposal prior to submission. To do so, the offeror must go to <https://csc-ballston.dmeid.org/baa/index.asp?BAAid=07-38> and follow the instructions there.

Each offeror is responsible for printing the Confirmation Sheet and attaching it to every proposal copy. If an offeror intends to submit more than one Proposal, a unique User Id and password must be used in creating each Cover Sheet.

All proposals must include the following:

- One (1) printed original of the full proposal including the Confirmation Sheet. Please do not use 3-ring binders.
- One (1) electronic copy of the full proposal. This electronic copy must be:
 - On a CD
 - In PDF or Microsoft Word for IBM-compatible format
 - Clearly labeled with BAA 07-38, offeror organization, proposal title (short title recommended)

DARPA will acknowledge receipt of complete submissions and assign control numbers that should be used in all further correspondence regarding proposals.

The full proposal (hard and electronic copies) must be submitted in time to reach DARPA by 12:00 PM (ET) June 27, 2007 (initial closing), in order to be considered during the initial evaluation phase. However, BAA 07-38 MADCAT will remain open until 12:00 NOON (ET) April 25, 2008 (final closing date). Thus, proposals may be submitted at any time from issuance of this announcement through 12:00 NOON (ET) April 25, 2008, however, offerors are warned that the likelihood of funding is greatly reduced for proposals submitted after the initial closing date deadline.

Exception: University (prime) grant submissions may be made via the Grants.gov web site (<http://www.grants.gov>) by using the "Apply for Grants" function. Duplicate hard/electronic copies do not need to be mailed to DARPA however offerors must still submit an online coversheet as described above.

Failure to comply with the submission procedures may result in the submission not being evaluated.

D. ADMINISTRATIVE NOTES

Restrictive notices notwithstanding, proposals may be handled for administrative purposes by support contractors. These support contractors are prohibited from competition in DARPA technical research and are bound by appropriate non-disclosure requirements.

Subject to the restrictions set forth in FAR 37.203(d), input on technical aspects of the proposals may be solicited by DARPA from non-Government consultants /experts who are strictly bound by the appropriate non-disclosure requirements.

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. Upon completion of the source selection process, the original of each proposal received will be retained at DARPA and all other copies will be destroyed.

E. BAA CORRESPONDENCE AND ADMINISTRATIVE ADDRESSES

DARPA will use electronic mail for all technical and administrative correspondence regarding this BAA, with the exception of selected/not-selected notifications. These official notifications will be sent via US mail to the Technical POC identified on the proposal coversheet.

Administrative, technical or contractual questions should be sent via e-mail to BAA07-38@darpa.mil. If e-mail is not available, please fax questions to (703) 741-7804, Attention: MADCAT Solicitation. All requests must include the name, email address, and phone number of a point of contact.

Solicitation Web site and Electronic File Retrieval:
<http://www.darpa.mil/ipto/solicitations/solicitations.htm>.

Postal address: DARPA/IPTO, ATTN: BAA 07-38, 3701 N. Fairfax Drive, Arlington, VA 22203-1714. For deliveries that require a phone number, such as FedEx or UPS, please use 703-696-2356, which is the DARPA mailroom.

For hand deliveries, the courier shall deliver the package to the DARPA Visitor Control Center at the address specified above. To ensure proper handling, the outer package, as well as the cover page of the proposal, must be marked "IPTO BAA 07-38."

F. PERIOD OF PERFORMANCE, ACQUISITION PLAN, FUNDING, AND AWARD INFORMATION

Multiple awards are anticipated. The amount of resources made available to this BAA will depend on the quality of the proposals received and the availability of funds. As soon as the evaluation of a proposal is complete, the offeror will be notified that 1) the proposal has been selected for funding pending contract negotiations, or 2) the proposal has not been selected. The Government reserves the right to select for negotiation all, some, one, or none of the proposals received in response to this solicitation, and to make awards without discussions with offerors. The Government also reserves the right to conduct discussions if the Source Selection Authority later determines them to be necessary. If warranted, portions of resulting awards may be segregated into pre-priced options. Additionally, DARPA reserves the right to award without discussions, and to accept proposals in their entirety or to select only portions of proposals for award. In the event that DARPA desires to award only portions of a proposal, negotiations may be opened with that offeror. If the proposed effort is inherently divisible and nothing is gained from the aggregation, offerors should consider submitting it as multiple independent efforts. The Government reserves the right to fund proposals in phases with options for continued work at the end of one or more of the phases. Awards under this BAA will be made to offerors on the basis of the evaluation criteria listed below (see section labeled "Proposal Evaluation Criteria"), and program balance to provide best value to the Government. Proposals identified for negotiation may result in a grant, contract, cooperative agreement, or other transaction depending upon the nature of the work proposed, the required degree of interaction between parties, and other factors. The Government reserves the right to choose the appropriate instrument. Offerors should note that the required degree of interaction between parties, regardless of award instrument, will be high and continuous.

G. MEETINGS AND TRAVEL REQUIREMENTS

There will be a program kickoff meeting and PI meetings about twice every year that all key participants will be required to attend. Performers should also anticipate periodic site visits at the Program Manager's discretion. Contractors will be expected to participate in various technical exchanges and coordination and planning activities with DARPA and other participants. For budgetary purposes, sites should plan on sending representatives to two 3-day MADCAT workshop per year. These will be in addition to whatever travel is needed for collaboration within a research team.

H. REPORTING REQUIREMENTS

The award document for each proposal selected and funded will contain a mandatory requirement for four DARPA/IPTO Quarterly Status Reports each year, one of which will be an annual project summary. These reports will be electronically submitted by each awardee under this BAA via the DARPA Technical – Financial Information Management System (T-FIMS). The T-FIMS URL and instructions will be furnished by the contracting agent upon award.

In addition, each performing contractor (including subs) on each team will be expected to provide monthly financial status reports to the Program Manager. There may also be additional reporting requirements for grants and cooperative agreements.

I. HUMAN USE

Proposals selected for contract award 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/html2/d32162x.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, 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 offeror 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/>). Any aspects of a proposal involving human use should be specifically called out as a separate element of the statement of work and cost proposal to allow for independent review and approval of those elements.

J. SECURITY CLASSIFICATION

Security classification guidance on a DD Form 254 (DoD Contract Security Classification Specification) will not be provided at this time since DARPA is soliciting ideas only and does not encourage classified proposals in response to this announcement. However, after reviewing incoming proposals, if a determination is made that contract award may result in access to classified information, a DD Form 254 will be issued upon contract award. ***If you choose to submit a classified proposal you must first receive the permission of the Original Classification Authority to use their information in replying to this announcement.***

K. PUBLICATION APPROVAL

The following provision will be incorporated into any resultant contract/other transaction/cooperative agreement:

- a. There shall be **no** dissemination or publication, except within and between the Contractor/Awardee 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 DARPA Technical Information Officer (DARPA/TIO)**. 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/Awardee.

- b. When submitting material for written approval for open publication as described in subparagraph (a) above, the Contractor/Awardee must submit a request for public release 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/Awardee'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.

L. EXPORT LICENSES

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 a resulting contract. In the absence of available license exemptions/exceptions, the Contractor shall be responsible for obtaining the appropriate licenses or other approvals, if required, for exports of hardware, technical data, and software, and for the provision of technical assistance.

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 including installations in the United States, where the foreign person will have access to export-controlled technical data or software.

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

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

PROPOSAL PREPARATION AND FORMAT

The proposal shall be delivered in two volumes, Volume 1 (technical proposal) and Volume 2 (cost proposal). The technical volume should include sections I and II as described below. The cost volume should include section III as described below.

Proposals shall include the following sections, each starting on a new page (where a "page" is 8-1/2 by 11 inches with type not smaller than 12 point). The submission of

other supporting materials along with the proposal is strongly discouraged. All submissions must be in English.

Individual elements of each section of the proposal shall not exceed the total of the maximum page lengths for each section as shown in braces { } below.

SECTION I. ADMINISTRATIVE

A. CONFIRMATION SHEET

The confirmation sheet (described under "Submission Process" of this announcement) will contain the following information:

- Announcement number;
- Technical topic area (i. e. task);
- Proposal title;
- Technical point of contact including: name, telephone number, electronic mail address, fax (if available) and mailing address;
- Administrative point of contact including: name, telephone number, electronic mail address, fax (if available) and mailing address;
- Summary of the costs of the proposed research, including total base cost, estimates of base cost in each year of the effort, estimates of itemized options in each year of the effort, and cost sharing if relevant;
- Contractor's type of business, selected from among the following categories: "WOMEN-OWNED LARGE BUSINESS," "OTHER LARGE BUSINESS," "SMALL DISADVANTAGED BUSINESS [Identify ethnic group from among the following: Asian-Indian American, Asian-Pacific American, Black American, Hispanic American, Native American, or Other]," "WOMEN-OWNED SMALL BUSINESS," "OTHER SMALL BUSINESS," "HBCU," "MI," "OTHER EDUCATIONAL," "OTHER NONPROFIT", or "FOREIGN CONCERN/ENTITY."

B. {1 CHART} POWERPOINT SUMMARY CHART

Section I should include a one slide summary of the proposal in PowerPoint that effectively and succinctly conveys the main objective, key innovations, expected impact, and other unique aspects of the proposal

C. {NO PAGE LIMIT} TABLE OF CONTENTS

Section I should include a table of contents for the overall technical volume.

SECTION II. 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. Page-counts listed in braces are maximums.

A. {1 PAGE} INNOVATIVE CLAIMS FOR THE PROPOSED RESEARCH.

This page is the centerpiece of the proposal and should succinctly describe the unique proposed approach and contributions.

B. {2 PAGES} PROPOSAL ROADMAP

The roadmap provides a top-level view of the content and structure of the proposal. It contains a synopsis for each of the roadmap areas defined below, which should be elaborated elsewhere. It is important to make the synopses as explicit and informative as possible. The roadmap must also cross-reference the proposal page number(s) where each area is elaborated. The required roadmap areas are:

- a. Main goals of the proposed research.
- b. Tangible benefits to end users (i.e., benefits of the capabilities afforded if the proposed technology is successful).
- c. Critical technical barriers (i.e., technical limitations that have, in the past, prevented achieving the proposed results).
- d. Main elements of the proposed technical approach.
- e. Basis of confidence (i.e. rationale that builds confidence that the proposed approach will overcome the technical barriers).
- f. Nature and description of end results to be delivered to DARPA. In what form will results be developed and delivered to DARPA and the scientific community? Note that DARPA encourages experiments, simulations, specifications, proofs, etc. to be documented and published to promote progress in the field. Offerors should specify both final and intermediate products.
- g. Cost and schedule of the proposed effort.

C. {2 PAGES} DETAILED RESEARCH OBJECTIVES

- a. Problem Description. Provide a concise description of the problem areas addressed. Make this specific to your approach and application domain.
- b. Research Goals. Identify specific research goals. Goals can be both system level and details.
- c. Expected Impact. Describe expected impact of your research.

D. TECHNICAL APPROACH AND EVALUATION:

- a. {12 Pages} Technical Approach. Provide a detailed description of the technical approach. This section will elaborate on many of the topics identified in the proposal roadmap and will serve as the primary expression of the offerors' scientific and technical ideas.
- b. {2 Pages} Comparison with Current Technology. Describe state of the art approaches and the limitations that relate to the translation of foreign language images. Describe and analyze state of the art results, approaches, and limitations within the context of the problem area addressed by this research. Demonstrating problem understanding requires not just the enumeration of related efforts; rather, related work must be compared and contrasted to the proposed approach.

E. {3 PAGES} OVERALL STATEMENT OF WORK (SOW)

Written in plain English, the SOW must outline the scope of the effort and cite specific tasks to be performed, references to specific subcontractors if applicable, and specific contractor requirements.

F. {3 PAGES} TEAMING AND DETAILED INDIVIDUAL EFFORT DESCRIPTIONS

Provide an argument that the team size and composition are both necessary and sufficient to meet the program objectives. Provide detailed task descriptions, costs, and interdependencies for each individual effort and/or subcontractor. To the extent that graduate students and postdocs are involved in individual efforts, describe their role and contribution.

G. {2 PAGES} DELIVERABLES DESCRIPTION

List and provide detailed description for each proposed deliverable, including receiving organization and expected delivery date for each deliverable. Include in this section all proprietary claims to results, prototypes, 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. The offeror must submit a separate list of all technical data or computer software that will be furnished to the Government with other than unlimited rights (see section L below). Specify receiving organization and expected delivery date for each deliverable.

H. {3 PAGES} MANAGEMENT PLAN

Describe formal teaming agreements that are required to execute this program, a brief synopsis of all key personnel, and a clearly defined organization chart for the program team (prime contractor and subcontractors, if any). Information in this section must cover the following information:

- a. Programmatic relationship of team members;
- b. Unique capabilities of team members;
- c. Task responsibilities of team members;
- d. Teaming strategy among the team members;
- e. Key personnel along with the amount of effort to be expended by each person during each year; and
- f. Government role in project, if any

I. SCHEDULE AND MILESTONES.

This section should include:

- a. {1 Page} Schedule Graphic. Provide a graphic representation of project schedule including detail down to the individual effort level. This should include but not be limited to, a multi-phase development plan, which demonstrates a clear understanding of the proposed research; and a plan for periodic and increasingly robust tests over the project life that will show applicability to the overall program concept. Show all project milestones. Use absolute designations for all dates.
- b. {3 Pages} Detailed Individual Effort Descriptions. Provide detailed task descriptions for each individual effort and/or subcontractor in schedule graphic.
- c. {1 Page} Project Management and Interaction Plan. Describe the project management and interaction plans for the proposed work. If proposal includes subcontractors that are geographically distributed, clearly specify working / meeting models. Items to include in this category include software/code repositories, physical and virtual meeting plans, and online communication systems that may be used.

J. {NO PAGE LIMIT} PERSONNEL, QUALIFICATIONS, AND COMMITMENTS

List key personnel showing a concise summary of their qualifications, discussion of offeror's previous accomplishments and work in this or closely related research areas. Indicate the level of effort in terms of hours to be expended by each person during each contract year and other (current and proposed) major sources of support for them and/or commitments of their efforts. DARPA expects all key personnel associated with a proposal to make substantial time commitment to the proposed activity and the proposal will be evaluated accordingly.

Include a table of key individual time commitments as follows:

Key Individual	Project	Pending/Current	2007	2008	2009	2010
Jane Doe	MADCAT	Proposed	YYY hours	ZZZ hours	UUU hours	WWW hours
	Project 1	Current	2 hours	n/a	n/a	n/a
	Project 2	Pending	100 hours	100 hours	n/a	n/a
John Deer	MADCAT	Proposed				

K. {NO PAGE LIMIT} ORGANIZATIONAL CONFLICT OF INTEREST AFFIRMATIONS AND DISCLOSURE

Awards made under this announcement may be 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 (including their parent entities, subsidiaries, and affiliates as that term is defined in FAR 2.101) are supporting 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 FAR 2.101, must be disclosed, organized by task and year. This disclosure shall include a description of the action the offeror has taken, or proposes to take, to avoid, neutralize, or mitigate such conflict. **Important note: if the offeror does not comply with this disclosure requirement, the proposal will be rejected.**

L. {NO PAGE LIMIT} INTELLECTUAL PROPERTY

a. *FARS/DFARS Noncommercial Items IP Restrictions: (Technical Data and Computer Software).*

Offerors responding to this solicitation requesting a 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. Offerors shall follow the format under DFARS 252.227-7017 for this stated purpose. In the event that offerors 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 offerors should identify the data, documentation, 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. OFFERORS ARE ADVISED THAT OFFERS CONTAINING RESTRICTIONS ON INTELLECTUAL PROPERTY ARE BY NATURE LESS FAVORABLE AND VALUABLE TO THE GOVERNMENT. RESTRICTIONS WILL BE CONSIDERED IN THE EVALUATION PROCESS. If no restrictions are intended, then the offeror 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. FARS/DFARS Commercial Items IP Restrictions: (Technical Data and Computer Software)

Offerors responding to this solicitation requesting a 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 offerors do not submit the list, the Government will assume that there are no restrictions on the Government’s use of such commercial items. OFFERORS ARE ADVISED THAT OFFERS CONTAINING RESTRICTIONS ON INTELLECTUAL PROPERTY ARE BY NATURE LESS FAVORABLE AND VALUABLE TO THE GOVERNMENT. RESTRICTIONS WILL BE CONSIDERED IN THE EVALUATION PROCESS. If no restrictions are intended, then the offeror 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)

c. Non-FARS/DFARS IP restrictions: (Technical Data and Computer Software)

Offerors responding to this solicitation 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, offerors may use a format similar to that described in Paragraphs 3.4.1 and 3.4.2 herein. OFFERORS ARE ADVISED THAT OFFERS CONTAINING RESTRICTIONS ON INTELLECTUAL PROPERTY ARE BY NATURE LESS FAVORABLE AND VALUABLE TO THE GOVERNMENT. RESTRICTIONS WILL BE CONSIDERED IN THE EVALUATION PROCESS. If no restrictions are intended, then the offeror should state "NONE."

d. Patent dependencies

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.

e. IP representations – All offerors

Please also 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. If you are unable to make such a representation concerning non-patent related intellectual property, please provide a listing of the intellectual property to which you do not have needed rights, and provide a detailed explanation concerning how and when you plan to obtain these rights.

SECTION III. COST PROPOSAL

The cost volume should be a separate document from the technical and management volume comprising sections I and II.

A. COVER SHEET

- Name and address of offeror (include zip code);
- Name, title, and telephone number of offeror's point of contact;
- 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, agreement, or other award instrument;
- Place(s) and period(s) of performance;
- Total proposed funds requested from DARPA for the Base Effort, each option and the total proposed cost; and the amount of cost share (if any);
- Name, mailing address, telephone number and Point of Contact of the offerors cognizant government administration office (i.e., Office of Naval Research/Defense Contract Management Agency (DCMA)) (if known);
- Name, mailing address, telephone number, and Point of Contact of the Offeror's cognizant Defense Contract Audit Agency (DCAA) audit office (if known);
- Any Forward Pricing Rate Agreement, other such Approved Rate Information, or such other documentation that may assist in expediting negotiations (if available);
- Contractor and Government Entity (CAGE) Code,
- Dun and Bradstreet (DUN) Number;
- North American Industrial Classification System (NAICS) Number [NOTE: This was formerly the Standard Industrial Classification (SIC) Number]; and,
- Taxpayer Identification Number (TIN).
- All subcontractor proposal backup documentation to include items a. through l. above, as is applicable and available).

B. {5 PAGES} COST DETAILS.

Total program cost broken down by fiscal year. *Note: Proposals that include task 1 AND task 2 should also break down their cost by task.* Cost breakdown categories:

- a. Direct Labor – Individual labor category or person, with associated labor hours and unburdened direct labor rates;
- b. Indirect Costs – Fringe Benefits, Overhead, General and Administrative Expense, Cost of Money, etc. (Must show base amount and rate);
- c. Travel – Number of trips, number of days per trip, departure and arrival destinations, number of people, etc.
- d. 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 will be requested from the subcontractor at a later date;
- e. Consultant – Provide consultant agreement or other document which verifies the proposed loaded daily/hourly rate;
- f. Materials – Should be specifically itemized with costs or estimated costs. An explanation of any estimating factors, including their derivation and application, shall

be provided. Please include a brief description of the offeror's procurement method to be used;

- g. Other Direct Costs – Should be itemized with costs or estimated costs. Backup documentation should be submitted to support proposed costs.
- h. Costs of major program efforts and major cost items by year and month;
- i. Supporting cost and pricing information.

Supplementary information should be provided in sufficient detail to substantiate the summary cost estimates above. Include a description of the method used to estimate costs and supporting documentation. Provide the basis of estimate for all proposed labor rates, indirect costs, overhead costs, other direct costs and materials, as applicable.

C. GOVERNMENT FURNISHED PROPERTY

Contractors requiring the purchase of information technology (IT) resources as Government Furnished Property (GFP) MUST attach to the submitted proposals the following information:

- a. A letter on corporate letterhead signed by a senior corporate official and addressed to Dr. Joseph P. Olive, Program Manager, DARPA/IPTO, stating that you either can not or will not provide the information technology (IT) resources necessary to conduct the said research.
- b. An explanation of the method of competitive acquisition or a sole source justification, as appropriate, for each IT resource item.
- c. If the resource is leased, a lease/purchase analysis clearly showing the reason for the lease decision.
- d. The cost for each IT resource item.

PROPOSAL EVALUATION CRITERIA

It is the policy of DARPA to ensure impartial, equitable, comprehensive proposal evaluations and to select the source (or sources) whose offer meets the Government's technical, policy, and programmatic goals. Pursuant to FAR 35.016, the primary basis for selecting proposals for acceptance shall be technical, importance to agency programs, and fund availability. In order to provide the desired evaluation, qualified Government personnel will conduct reviews and (if necessary) convene panels of experts in the appropriate areas. For evaluation purposes, a proposal is the document described in PROPOSAL PREPARATION AND FORMAT Section I, Section II, and Section III (see above.) 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.

Evaluation of proposals will be accomplished through a scientific review of each proposal using the following criteria. These criteria are listed in descending order of relative importance and the combination of all non-cost evaluation factors is significantly more important than cost.

1. **OVERALL SCIENTIFIC AND TECHNICAL MERIT:** The overall scientific and technical merit must be clearly identifiable and compelling. The technical concepts should be clearly defined and developed. The technical approach must be sufficiently detailed to support the proposed concepts and technical claims. Proposal must clearly conform to the stipulated metrics and evaluation plans. Proposal must also clearly define system integration approach and plans.
2. **INNOVATIVE TECHNICAL SOLUTION TO THE PROBLEM:** Offerors should apply new and/or existing technology in an innovative way that supports the objectives of the proposed effort. The proposed concepts and systems should show breadth of innovation across all the dimensions of the proposed solution.
3. **PLANS AND CAPABILITY TO ACCOMPLISH TECHNOLOGY TRANSITION:** Offerors should provide a clear explanation of how the technologies to be developed will be transitioned to capabilities for government use. Technology transition should be a major consideration in the design of experiments, particularly considering the potential for involving transition organizations in the experimentation process. The plan on how offeror intends to get developed technology and information to the user community will be considered.
4. **OFFEROR'S CAPABILITIES AND RELATED EXPERIENCE:** The qualifications, capabilities, and demonstrated achievements of the proposed principals and other key personnel for the primary and subcontractor organizations must be clearly shown.
5. **REALISM OF PROPOSED SCHEDULE:** The overall research agenda and timeline, including specific intermediate criteria, should clearly relate to theoretical obstacles that must be overcome.
6. **COST REALISM:** The overall estimated costs should be clearly justified and appropriate for the technical complexity of the effort. Evaluation will consider the value of the research to the government and the extent to which the proposed management plan will effectively achieve the capabilities proposed.