

# Advanced Research and Development Activity (ARDA) PRELIMINARY SOLICITATION INFORMATION

for

## Advanced Question & Answering for INTelligence (AQUAINT)

ARDA's AQUAINT Program is seeking innovative, creative, high-risk, high-payoff research to achieve significant advancements in technologies and methods for advanced question answering against large heterogeneous collections of structured and unstructured information of multiple media and genre types (including structured and unstructured text, speech, document images, other multi-media) in English and multiple foreign languages, as well as video, images, geospatial, and abstract data.

The ultimate goal of the AQUAINT Program is not to develop question and answer capabilities for only single, isolated, factually based questions whose answers can be found as a single string or within a relatively short window of text (e.g. a 50 or 250 byte window) in a single document. Rather this R&D program intends to address a scenario in which multiple, inter-related questions are asked in a particular topic area by a skilled, professional information analyst who is attempting to respond to larger, more complex information needs or requirements. While some capabilities exist in these areas today, they are extremely limited and inadequate to meet the Government's broader requirements for question and answering. In addition, ARDA has a high interest in demonstrating the improved effectiveness achieved by combining the capabilities emerging from the R&D sponsored under the AQUAINT Program in an integrated, "plug-and-play" system environment.

ARDA anticipates that the AQUAINT program will run in three two-year phases over a period of six years, starting in FY2001. The forthcoming solicitation will be for R&D proposals for the first 24-month phase of the program with the anticipation that multiple contracts will be awarded at various funding levels. Researchers and developers in the following areas may be interested in requesting further information about ACQUAINT:

- (1) Question Understanding and Interpretation (including contextual interpretation, query expansion, query taxonomy),
- (2) Determining the Answer (including information retrieval and extraction from multiple media/languages and data types, interpretation, synthesis, resolving conflicting information, justification),
- (3) Formulating and Presenting the Answer (including summarization, synthesis, generation), AND/OR
- (4) Cross-Cutting/ Enabling/Enhancing Technologies that directly and materially support the goals of the AQUAINT Program and one or more of the areas (1) to (3) listed above (including advanced reasoning, sharable knowledge sources, role of context in Q&A, role of knowledge in Q&A, and language processing required to further Q&A, content representation, and interactive Q&A).

The Request for Proposal for Phase I of AQUAINT will be released in the near future. The solicitation will be open to all research and development organizations located in the U.S. including: large and small businesses, academic and eligible non-profit and not-for-profit institutions, and collaborative ventures from mixed sources. If you would like to be placed on the bidders list for the AQUAINT Program please send an e-mail to: [aquaint@nsa.gov](mailto:aquaint@nsa.gov) and include the following information:

- Name of company/institution,
- Name or Names of Technical Point(s) of Contact,
- Name of Contracting Point of Contact

For each Point of Contact (POC) provide the following: Name/Office Symbol of Subordinate Element (Department, Division, Office etc.) within the Company/Institution, Email Address, Telephone number, Fax Number, Postal Mailing Address. Solicitations packages will be sent to the Contracting POCs via e-mail and the Technical POCs notified simultaneously via email

Additional information about ARDA is available at: <http://www.ic-arda.org>