

**DEFENSE LOGISTICS AGENCY (DLA)  
SMALL BUSINESS INNOVATION RESEARCH (SBIR) PROGRAM  
SBIR FY07.2 Proposal Submission Instructions**

Information about DLA can be found at <http://www.dla.mil/>. The DLA SBIR program is implemented, administered and managed by the DLA Logistics Research and Development Division, DLA-J339. General questions should be directed to:

Defense Logistics Agency DLA-J339  
ATTN: Dan Gearing, SBIR Program Manager  
8725 John J. Kingman Drive, MSC 6233  
Fort Belvoir, VA 22060-6221  
E-mail: DLASBIR@dla.mil

Use of e-mail is encouraged.

During the pre-release period (April 12 – May 13, 2007) contact the topic authors listed for each topic in the solicitation. To obtain answers to technical questions during the formal Solicitation period (May 14 – June 13 2007), visit <http://www.dodsbir.net/sitis>. For general inquiries or problems with the electronic submission, contact the DoD Help Desk at 1-866-724-7457 (8am to 5pm EST).

DLA's projected funding levels support a steady state of about 6 Phase I awards and 2 Phase II awards annually. DLA reserves the right to limit awards under any topic.

**DLA SBIR PROGRAM PRINCIPLES**

DLA seeks to solicit high risk research and development proposals from the small business community. All selections shall demonstrate and involve a degree of technical risk where the technical feasibility of the proposed work has not yet been fully established. DLA prefers market-driven companies which can move technology into the commercial high volume market. Phase I proposals should demonstrate the feasibility of the proposed technology and the merit of a Phase II for a prototype or at least a proof-of-concept demonstration. Phase II selections will be strongly influenced on future market possibilities and commercialization potential demonstrated. The demonstration of commercialization potential is best evidenced by Phase II funding commitments, public or private, submitted as part of the Phase II proposal.

**SUBMISSION OF DLA SBIR PROPOSALS**

The entire proposal (which includes Cover Sheets, Technical Proposal, Cost Proposal, and Company Commercialization Report) must be submitted electronically via the DoD SBIR/STTR Proposal Submission Site (<http://www.dodsbir.net/submission>); DLA **WILL NOT** accept any proposals which are not submitted via this site. Do not send a hardcopy of the proposal. Hand or electronic signature on the proposal is also NOT required. If you experience problems uploading a proposal, call the DoD Help Desk 1-866-724-7457 (8am to 5pm EST). Selection and non-selection letters will be sent electronically via e-mail.

Proposals not conforming to the terms of this solicitation will not be considered. Only Government personnel will evaluate proposals.

**FOREIGN NATIONALS**

If the offeror proposes to use a foreign national(s) [any person who is NOT a citizen or national of the United States, a lawful permanent resident, or a protected individual as defined by 8 U.S.C. 1324b(a)(3) – refer to section 2.15 of the DoD SBIR Program Solicitation 7.2 for definitions of “lawful permanent resident” and “protected individual”] as key personnel, the following information should be provided: individuals full name (including alias or other spellings of name), date of birth, place of birth, nationality, registration number or visa information, port of entry,

type of position and brief description of work to be performed, address where work will be performed, and copy of visa card or permanent resident card.

### **PHASE I OPTION MUST BE INCLUDED AS PART OF PHASE I PROPOSAL**

Phase I contracts are expected to have a period of performance of six to nine months and a maximum cost of \$100,000. For those Phase I efforts selected for Phase II awards, DLA plans to award a Phase I option while a Phase II contract is being negotiated. Only Phase I efforts selected for Phase II awards through DLA's competitive process will be eligible to exercise the Phase I Option. The Phase I Option, which **must** be included as part of the Phase I proposal, covers activities over a period of up to four months and should describe appropriate initial Phase II activities that may lead to the successful demonstration of a product or technology. The Phase I Option proposal must be included within the 25-page limit for the Phase I proposal.

A firm-fixed-price-level-of-effort-term Phase I cost proposal (\$150,000 maximum) must be submitted in detail online. Proposers that participate in this solicitation must complete the Phase I Cost Proposal not to exceed the maximum dollar amount of \$100,000 and a Phase I option Cost Proposal not to exceed the maximum dollar amount of \$50,000. Phase I and Phase I option costs must be shown separately but may be presented side by side on a single Cost Proposal. The Cost Proposal counts toward the 25-page Phase I proposal limitation. The Phase I Cost Proposal must include a cost estimate for travel to Washington DC for a program review.

### **PHASE I KEY DATES**

07.2 Solicitation Pre-release	April 12 – May 13, 2007
07.2 Solicitation Open	May 14 – June 13 2007
Phase I evaluations	June – August 2007
Phase I selections	August 2007
Phase I awards	October 2007

### **PHASE II PROPOSAL SUBMISSION**

The small, high-tech business community often needs time to coordinate technical and marketing plans before making a Phase II proposal. Phase II proposals may be submitted anytime, for any amount, after the effective date of the Phase I effort. The preferred contract type for DLA Phase II is firm-fixed-price-level-of-effort-term. Although the proposed contract type will not affect selection for negotiation, Phase II may be delayed if another contract type is proposed.

The DLA SBIR program, in its decision process for Phase II award selections, uses three criteria: (1) technical sufficiency; (2) a company's ability to demonstrate commercialization potential by attracting private-sector co-investment support during the performance of Phase II (the value that DLA places on this depends on the type of co-investment support (cash or support-in-kind), the amount of matching support, and timing of the matching support); (3) qualifications of the proposed principal/key investigators, supporting staff and consultants.

The entire Phase II proposal (which includes Cover Sheets, Technical Proposal, Cost Proposal, and Company Commercialization Report) must be submitted electronically via the DoD SBIR/STTR Proposal Submission Site (<http://www.dodsbir.net/submission>); DLA **WILL NOT** accept any proposals which are not submitted via this site. Do not send a hardcopy of the proposal. Hand or electronic signature on the proposal is also NOT required. If you experience problems uploading a proposal, call the DoD Help Desk 1-866-724-7457 (8am to 5pm EST). Selection and non-selection letters will be sent electronically via e-mail.

### **FAST TRACK**

See Section 4.5 of the DoD SBIR Program Solicitation for more information.

### **PHASE II ENHANCEMENT POLICY**

DLA does not utilize a Phase II enhancement process.

### **PHASE I SUMMARY REPORTS**

All Phase I award winners must submit a Phase I Final Summary Report at the end of their Phase I project. The Phase I summary report is an unclassified, non-sensitive, and non-proprietary summation of Phase I results that is intended for public viewing on the DLA web site. A summary report should not exceed 700 words, and should include the technology description and anticipated applications / benefits for government and or private sector use. It should require minimal work from the contractor because most of this information is required in the final technical report. This requirement for a final report will also apply to any subsequent Phase II contract.

### **DLA SUBMISSION OF FINAL REPORTS**

All final reports will be submitted to the awarding organization in accordance with Contract Data Requirements List (CDRL). Companies should not submit final reports directly to the Defense Technical Information Center (DTIC).

## **DLA SBIR 07.2 Topic Index**

DLA07-01      Advanced Technologies for Discrete-Parts Manufacturing

## DLA SBIR 07.2 Topic Descriptions

DLA07-01      TITLE: Advanced Technologies for Discrete-Parts Manufacturing

TECHNOLOGY AREAS: Air Platform, Ground/Sea Vehicles, Materials/Processes, Weapons

OBJECTIVE: The Defense Logistics Agency (DLA) seeks to provide responsive, best value supplies consistently to our customers. DLA continually investigates diverse technologies for manufacturing which would lead to the highest level of innovation in the discrete-parts support of fielded weapon systems (many of which were designed in the 1960's, 1970's and 1980's) with a future impact on both commercial technology and government applications. As such, advanced technology demonstrations for affordability and advanced industrial practices to demonstrate the combination of improved discrete-parts manufacturing and improved business methods are of interest. All these areas of manufacturing technologies provide potential avenues toward achieving breakthrough advances. Proposed efforts funded under this topic may encompass any specific discrete-parts manufacturing technology at any level resulting in a unit cost reduction. Research and Development efforts selected under this topic shall demonstrate and involve a degree of risk where the technical feasibility of the proposed work has not been fully established. Further, proposed efforts must be judged to be at a Technology Readiness Level of less than 6 -- system/subsystem model or prototype demonstration in a relevant environment -- but greater than 3 -- analytical and experimental critical function and/or characteristic proof of concept -- to receive funding consideration.

DESCRIPTION: DLA seeks drastically lower unit costs of discrete-parts support through manufacturing revolutions that also have applicability to low and high volume production from commercial sales. This will result in an improvement in the affordability of these innovations to DLA and its customers and the development of cost effective methods to sustain existing defense systems while potentially impacting the next generation of defense systems. The proposals must include and will be judged, in part, on an economic analysis of the expected market impact of the technology proposed. This topic seeks a revolution in the reduction of unit cost metrics. Incremental advancements will receive very little consideration. DLA seeks herein only projects that are too risky for ordinary capital investment by the private sector.

PHASE I: Determine, insofar as possible, the scientific, technical and commercial feasibility of the idea. Include, where appropriate, a process technology roadmap for implementing promising approaches for near term insertion in support of Department of Defense (DoD) systems, subsystems or component production.

PHASE II: Develop applicable and feasible prototype demonstrations for the approach described, and demonstrate a degree of commercial viability. Validate the feasibility of the innovative discrete-parts manufacturing process by demonstrating its use in the production, testing and integration of items for DLA. Validation would include, but not be limited to, system simulations, operation in test-beds, or operation in a demonstration system. A partnership with a current or potential supplier to DLA is highly desirable. Identify any commercial benefit or application opportunities of the innovation. Innovative processes should be developed with the intent to readily transition to production in support of DLA and its supply chains.

PHASE III: Technology transition via successful demonstration of a new process technology. This demonstration should show near-term application to one or more Department of Defense systems, subsystems or components. This demonstration should also verify the potential for enhancement of quality, reliability, performance and/or reduction of unit cost or total ownership cost of the proposed subject.

Private Sector Commercial Potential: Discrete-parts manufacturing improvements have a direct applicability to all defense system technologies. Discrete-parts manufacturing technologies, processes, and systems have wide applicability to the defense industry including air, ground, sea, and weapons technologies. There is leverage into the private sector industries as well as civilian sector relevance. Many of the technologies under this topic would be directly applicable to other DoD agencies, NASA, and any commercial manufacturing venue. Advanced technologies for discrete-parts manufacturing would directly improve production in the commercial sector resulting in reduced cost and improved productivity.

REFERENCES: 1) Transactions of the North American Manufacturing Research Institution/Society of Manufacturing Engineers (NAMRI/SME).

KEYWORDS: Manufacturing, machine tools, machining, material cutting, material forming, material additive processes, process/machine intelligence, manufacturing modeling, manufacturing simulation, manufacturing monitoring, manufacturing control systems.