

## **3.0 SBIR-PROPOSAL PREPARATION INSTRUCTIONS AND REQUIREMENTS**

### **3.1 Proposal Requirements**

A proposal to any DoD Component under the SBIR Program is to provide sufficient information to persuade the DoD Component that the proposed work represents an innovative approach to the investigation of an important scientific or engineering problem and is worthy of support under the stated criteria.

The quality of the scientific or technical content of the proposal will be the principal basis upon which proposals will be evaluated. The proposed research or research and development must be responsive to the chosen topic, although need not use the exact approach specified in the topic (see Section 4.1). Any small business contemplating a bid for work on any specific topic should determine that (a) the technical approach has a reasonable chance of meeting the topic objective, (b) this approach is innovative, not routine, and (c) the firm has the capability to implement the technical approach, i.e. has or can obtain people and equipment suitable to the task.

**3.2 Proposal Checklist.** Those responding to this solicitation should note the proposal preparation tips listed below:

- 1) Read and follow all instructions contained in this solicitation, including the instructions in Section 8.0 of the DoD component to which you are applying.
- 2) Use the free technical information services from DTIC and other information assistance organizations (Section 7.1 - 7.4).
- 3) Register your firm on the secure password-protected DoD Electronic Submission Web Site (<http://www.dodsbir.net/submission>) and, as instructed on the Web Site, prepare your proposal. A complete proposal consists of the proposal cover sheets, technical proposal, cost proposal, and Company Commercialization Report.
- 4) The proposal cost adheres to the Component criteria specified and the cost on the cover sheets matches the cost on the cost proposal.
- 5) The proposal is limited to only ONE solicitation topic.

- 6) The Project Summary on the cover sheets contains NO proprietary information. Mark proprietary information within the technical proposal as instructed in Section 5.6.
- 7) The content in the technical proposal, including the option (if applicable), includes the items in Section 3.5.b.
- 8) The header on each page of your technical proposal should contain your company name and topic number.
- 9) The Company Commercialization Report is submitted online in accordance with Section 3.5.d. This report is required even if the firm has not received prior SBIR funding.
- 10) Limit your proposal to 25 pages (excluding Company Commercialization Report).
- 11) Use a type size no smaller than a 10-point font

Note: Public access to the internet is available at most public libraries, local schools or a Small Business Development Center (SBDC) in your area. If you have any questions, please contact the DoD Help Desk 866-SBIRHLP (866-724-7457).

### **3.3 Proprietary Information**

If information is provided which constitutes a trade secret, proprietary commercial or financial information, confidential personal information, or data affecting the national security, it will be treated in confidence to the extent permitted by law, provided it is clearly marked in accordance with Section 5.6. The cost proposal information, will be treated as proprietary whether or not it is indicated.

### **3.4 Limitations on Length of Proposal**

This solicitation is designed to reduce the investment of time and cost to small firms in preparing a formal proposal. Those who wish to respond must submit a direct, concise, and informative research or research and development proposal of no more than 25 pages, excluding Company Commercialization Report, (no type smaller than 10-point on standard 8 1/2 " X 11" paper with one (1) inch margins), *including Proposal Cover Sheet, Cost Proposal, and any enclosures or*

*attachments*. Promotional and non-project related discussion is discouraged. The space allocated to each will depend on the problem chosen and the principal investigator's approach. In the interest of equity, pages in excess of the 25-page limitation (including attachments, appendices, or references, but excluding Company Commercialization Report) will not be considered for review or award.

### **3.5 Phase I Proposal Format**

a . **Proposal Cover Sheets.** On the DoD Electronic Submission Web Site ([www.dodsbir.net/submission](http://www.dodsbir.net/submission)), prepare Proposal Cover Sheets, including a brief technical abstract of the proposed R&D project and a discussion of anticipated benefits and potential commercial applications. Your cover sheets will count as the first two pages of your proposal no matter how they print out. If your proposal is selected for award, the technical abstract and discussion of anticipated benefits will be publicly released on the Internet; therefore, do not include proprietary or classified information in these sections.

For Components requiring proposal submission by mail (see Section 8.0), print out a hard copy of the Proposal Cover Sheet from the Web Site and include it, with the appropriate signatures, as the first two pages of your proposal. Also include a copy of the signed Proposal Cover Sheet in the additional copies of the proposal that you submit per Section 6.0 of this solicitation.

b. **Technical Proposal.** Covers the following items in the order given below. Begin your technical proposal on Page 3 (since the cover sheets are pages 1 and 2). If electronic submission of your technical proposal is required by the DoD Component (see Component instructions, Section 8.0), first create the cover sheet and then upload the technical proposal file in Portable Document Format (PDF) onto the DoD Electronic Submission website. Perform a virus check before uploading the technical proposal file. If a virus is detected, it may cause rejection of the proposal. The technical proposal should be a single file, including graphics and attachments (and cost proposal if not using the Web Site's on-line cost proposal form).

(1) **Identification and Significance of the Problem or Opportunity.** Define the specific technical problem or opportunity addressed and its importance. (Begin on Page 3 of your proposal.)

(2) **Phase I Technical Objectives.** Enumerate the specific objectives of the Phase I work, including the questions it will try to answer to determine the feasibility of the proposed approach.

(3) **Phase I Work Plan.** Provide an explicit, detailed description of the Phase I approach. If a Phase I option is required or allowed by the Component to which you are submitting, it should describe appropriate research activities which would commence at the end of the Phase I should the Component elect to exercise the option. The plan should indicate what is planned, how and where the work will be carried out, a schedule of major events, and the final product to be delivered. The Phase I effort should attempt to determine the technical feasibility of the proposed concept. The methods planned to achieve each objective or task should be discussed explicitly and in detail. This section should be a substantial portion of the total proposal.

(4) **Related Work.** Describe significant activities directly related to the proposed effort, including any conducted by the principal investigator, the proposing firm, consultants, or others. Describe how these activities interface with the proposed project and discuss any planned coordination with outside sources. The proposal must persuade reviewers of the proposer's awareness of the state-of-the-art in the specific topic.

Describe previous work not directly related to the proposed effort but similar. Provide the following: (1) short description, (2) client for which work was performed (including individual to be contacted and phone number), and (3) date of completion.

(5) **Relationship with Future Research or Research and Development.**

(1) State the anticipated results of the proposed approach if the project is successful.

(2) Discuss the significance of the Phase I effort in providing a foundation for Phase II research or research and development effort.

(6) **Commercialization Strategy.** Describe in approximately one page your company's strategy for commercializing this technology in DoD and/or private sector markets. Provide specific information on the market need the technology will address and the size of the market. Also include a schedule showing the quantitative commercialization results from this SBIR project that your company expects to achieve and when (i.e., amount of additional investment, sales revenue, etc. - see Section 5.4).

(7) **Key Personnel.** Identify key personnel who will be involved in the Phase I effort including information on directly related education and experience. A concise resume of the principal investigator, including a list of relevant publications (if any), must be included. All resumes will count toward the 25-page limitation. Identify any foreign nationals you expect to be involved on this project, country of origin and level of involvement.

(8) **Facilities/Equipment.** Describe available instrumentation and physical facilities necessary to carry out the Phase I effort. Items of equipment to be purchased (as detailed in the cost proposal) shall be justified under this section. Also state whether or not the facilities where the proposed work will be performed meet environmental laws and regulations of federal, state (name), and local Governments for, but not limited to, the following groupings: airborne emissions, waterborne effluents, external radiation levels, outdoor noise, solid and bulk waste disposal practices, and handling and storage of toxic and hazardous materials.

(9) **Subcontractors/Consultants.** Involvement of a university or other subcontractors or consultants in the project may be appropriate. (See Section 2.6) If such involvement is intended, it should be described in detail and identified in the cost proposal. A minimum of two-thirds of the research and/or analytical work in Phase I, as measured by direct and indirect costs, must be carried out by the proposing firm, unless otherwise approved in writing by the contracting officer.

(10) **Prior, Current, or Pending Support of Similar Proposals or Awards.**  
*Warning* -- While it is permissible, with proposal notification, to submit

identical proposals or proposals containing a significant amount of essentially equivalent work (see section 2.8) for consideration under numerous federal program solicitations, it is unlawful to enter into contracts or grants requiring essentially equivalent effort. If there is any question concerning this, it must be disclosed to the soliciting agency or agencies before award.

If a proposal submitted in response to this solicitation is substantially the same as another proposal that has been funded, is now being funded, or is pending with another Federal Agency or DoD Component or the same DoD Component, the proposer must so indicate on the Proposal Cover Sheet and provide the following information:

- (a) Name and address of the Federal Agency(s) or DoD Component to which a proposal was submitted, will be submitted, or from which an award is expected or has been received.
- (b) Date of proposal submission or date of award.
- (c) Title of proposal.
- (d) Name and title of principal investigator for each proposal submitted or award received.
- (e) Title, number, and date of solicitation(s) under which the proposal was submitted, will be submitted, or under which award is expected or has been received.
- (f) If award was received, state contract number.
- (g) Specify the applicable topics for each SBIR proposal submitted or award received.

*Note: If Section 3.4.b(10) does not apply, state in the proposal "No prior, current, or pending support for proposed work."*

- c. **Cost Proposal.** Complete the cost proposal in the format shown in the [Cost Breakdown Guidance](#), either using the on-line cost proposal form on the DoD Electronic Submission Web Site or as the last page(s) of your technical proposal. Some items in the [Cost Breakdown Guidance](#) may not apply to the proposed project. If such is the case, there is no need to provide information on each and every item. What matters is that enough information be provided to allow the DoD Component to understand how the proposer plans to use the requested funds if the contract is awarded.

- (1) List all key personnel by name as well as by number on hours dedicated to the project as direct labor.
- (2) Special tooling and test equipment and material cost may be included under Phases I and II. The inclusion of equipment and material will be carefully reviewed relative to need and appropriateness for the work proposed. The purchase of special tooling and test equipment must, in the opinion of the Contracting Officer, be advantageous to the Government and should be related directly to the specific topic. These may include such items as innovative instrumentation and/or automatic test equipment. Title to property furnished by the Government or acquired with Government funds will be vested with the DoD Component, unless it is determined that transfer of title to the contractor would be more cost effective than recovery of the equipment by the DoD Component.
- (3) Cost for travel funds must be justified and related to the needs of the project.
- (4) Cost sharing is permitted for proposals under this solicitation; however, cost sharing is not required nor will it be an evaluation factor in the consideration of a Phase I proposal.
- (5) A Phase I Option (if applicable) should be fully costed separately from the Phase I (base) approach. For Phase I, the on-line cost proposal form (if applicable) will count as one page no matter how it prints out. Additional cost proposal information may be required at the end of your technical proposal (See Component Instructions, Section 8.0).

When a proposal is selected for award, the proposer should be prepared to submit further documentation to its DoD contracting officer to substantiate costs (e.g., a brief explanation of cost estimates for equipment, materials, and consultants or subcontractors).

d. **Company Commercialization Report.** If your firm is submitting a Phase I or Phase II proposal, it is required to prepare a Company Commercialization Report through the password-protected DoD Electronic Submission Web Site ([www.dodsbir.net/submission](http://www.dodsbir.net/submission)). If you submit a proposal, you must submit a company commercialization report whether or not you have previously received SBIR or STTR awards. As instructed on the Web Site, list in the Report the quantitative commercialization results of your firm's prior Phase II projects, including the items listed in section 5.4 of this solicitation

(sales revenue, additional investment, etc.). The Web Site will then compare these results to the historical averages for the DoD SBIR Program to calculate a Commercialization Achievement Index (CAI) value. Only firms with five or more completed Phase II projects will receive a CAI score; otherwise the CAI is N/A. Firms with a CAI at the 5th percentile or below may receive no more than half of the evaluation points available for commercial potential criteria (see Section 4.4). For Components requiring proposal submission by mail (see Section 8.0) print out a hard copy of the Report, and attach it to the back of your proposal. This report need only be prepared once and submitted with all your proposals for this solicitation.

As noted on the Web Site, your firm may also, at its option, include at the end of the Report additional, explanatory material (no more than five pages) relating to the firm's record of commercializing its prior SBIR or STTR projects, such as: commercialization successes (in government and/or private sector markets) that are not fully captured in the quantitative results (e.g. commercialization resulting from your firm's prior Phase I projects); any mitigating factors that could account for low commercialization; and recent changes in the firm's organization or personnel designed to increase the firm's commercialization success. The Company Commercialization Report and additional explanatory material (if any) will not be counted toward the 25-page limit for Phase I proposals. A Report showing that a firm has received no prior Phase II awards will not affect the firm's ability to obtain an SBIR award.

### **3.6 Page Numbering and Bindings**

Number all pages of your proposal consecutively. The cover sheets are pages 1 and 2. The technical proposal begins on page 3. For Components requiring hardcopy, do not use special bindings or covers. Staple the pages in the upper left hand corner of each proposal.

### **3.7 Phase II Proposal Format**

This solicitation is for Phase I only. A Phase II proposal can be submitted only by a Phase I awardee and only in response to a request from the agency; that is, Phase II is not initiated by a solicitation.

Each Phase II proposal must contain a Proposal Cover Sheet, technical proposal, cost proposal and a Company Commercialization Report (see Section 3.4). In addition, each Phase II proposal must contain a two-page commercialization strategy, addressing the following questions:

- (1) What is the first product that this technology will go into?
- (2) Who will be your customers, and what is your estimate of the market size?
- (3) How much money will you need to bring the technology to market, and how will you raise that money?
- (4) Does your company contain marketing expertise and, if not, how do you intend to bring that expertise into the company?
- (5) Who are your competitors, and what is your price and/or quality advantage over your competitors?

The commercialization strategy must also include a schedule showing the quantitative commercialization results from the Phase II project that your company expects to report in its Company Commercialization Report Updates one year after the start of Phase II, at the completion of Phase II, and after the completion of Phase II (i.e., amount of additional investment, sales revenue, etc. - see section 5.4).

Additional instructions regarding Phase II proposal preparation and submission will be provided or made available by the DoD Components to all Phase I winners at time of Phase I contract award.

### **3.8 False Statements**

Knowingly and willfully making any false, fictitious, or fraudulent statements or representations may be a felony under the Federal Criminal False Statement Act (18 U.S.C. Sec 1001), punishable by a fine of up to \$10,000, up to five years in prison, or both.