

BAA08-02, Round 2  
High Resolution, Affordable Emissive Micro-Display  
March 21, 2008  
Proposers' Day Conference  
Questions and Answers

- Q: BAA08-02 states the target application for this emissive-micro display is for dynamic holography. Why is this not a dynamic holography program?
- A: A cost effective dynamic holography system for rapid decision making is currently under development. The intended plan is to further drive down the dynamic holography system cost by incorporating the inexpensive and commercialized emissive micro-display into it.
- Q: Is it sufficient to claim the emissive-micro display can/will only support dynamic holography applications?
- A: No. Commercial needs can not be entirely supported by dynamic holography. Proposers must demonstrate their knowledge and understanding of the entire commercial market space (beyond dynamic holography).
- Q: Why does the program focus on the development of an "emissive" display?
- A: An emissive display is more likely to meet the program's objective/scope. Specifically, an emissive display is more likely to meet the cost metric because no additional backing components, i.e. imaging light source, are required.
- Q: Are lasers the best emission source?
- A: Lasers are good but not necessary.
- Q: What are the most important program metrics?
- A: Production Cost. The additional metrics are listed in descending weight in BAA08-02, Section 1.2.
- Q: Should the device cost be justified at a projected volume?
- A: Yes.
- Q: Should one cost milestone be set at the end of each Phase 1 and Phase 2?
- A: No. Proposers are highly encouraged to establish additional interim non-critical management milestones at a regular interval throughout Phase 1 and Phase 2 (Reference: BAA08-02, Section 4.3.2.1.B, Section II, Section C).
- Q: How often should milestones occur?
- A: It is recommended proposers establish month-to-month milestones (based on internal/intermediate and final metrics) throughout Phase 1 and Phase 2. Measurable critical milestones should occur every six (6) months after start of effort. (Reference: BAA08-02, Section 4.3.2.1, Section II.C).
- Q: We are confident our technical approach will be successful. Should we discuss risk mitigation strategies?
- A: Yes. Reference: BAA08-02, Section 5.1.1, 2<sup>nd</sup> paragraph: "The proposal should identify major technical risks and planned mitigation efforts that are clearly defined and feasible.
- Q: Is the pixel pitch metric flexible?

A: Yes, but only within a range. Going a factor of 2 larger would be of no use and going a factor of 10 smaller would provide no added value.

Q: Is the area metric flexible?

A: Yes. Determine an optimization path that increases area and decreases production cost.

Q: What were the area and pixel pitch metrics based on?

A: Data streams that can be handled by current/near-current data processing chips.

Q: Can you be more specific on the operating temperature range?

A: For shipping purposes, the non-operating device needs to sustain temperatures in the given range. It is beneficial if the device can also operate over the extremes of the given temperature range.

Q: Are teaming agreements necessary?

A: Teaming agreements are encouraged. It is unlikely one organization will have all the expertise necessary for success. Proposers should assemble a cohesive team and address each member's unique capability/capabilities (developing, manufacturing, commercializing, etc.).

Q: What is the Phase 1 CDR deliverable?

A: It is a proof-of-concept device that operates and demonstrates a solid path to a low-risk Phase 2 prototype.

Q: Should the cost be defined for both Phase 1 and Phase 2?

A: Yes. Costs should be proposed for each phase in accordance with the requirements of BAA08-02, Section 4.3.2.2.

Q: Can we estimate fees in the cost proposal?

A: No. Proposers must have a complete and fully supported cost proposal as set forth in Section 4.3.2.2.

Q: What should the technical proposal discuss in regards to the commercialization plan?

A: Proposers should discuss established teaming agreements with potential partners.

Q: Is the commercialization plan a deliverable?

A: Yes. A quality, very business centric plan will satisfy the deliverable associated with the plans and capability to accomplish technology transition and commercialization (Reference: BAA08-02, Section 4.3.2.1, Section II.B).

Q: Can we exceed the technical proposal 50 page limit?

A: No. Proposers must present a complete solution within the first 50 pages. However, proposers may include a brief bibliography of relevant technical papers and research notes, and copies of no more than three (3) relevant papers in Section IV of the technical proposal (Reference: BAA08-02, Section 4.3.2.1, Section IV).

Q: I have a question regarding the BAA. Who should I email?

A: [BAA08-02@darpa.mil](mailto:BAA08-02@darpa.mil)

Q: What are the major requirements?

A: A realistic, justified and substantiated path to meeting the Phase 2 \$10/cm<sup>2</sup> metric; a solid plan to manufacture the device into real product; and a complete cost bid on both Phase 1 and Phase 2.

Q: Is this for tactical or strategic/intelligence visualization?

A: Strategic/intelligence. The idea is to go from strategic to tactical with the ability to make faster/better decisions for success at higher levels.

Q: If we do not choose to use a US manufacturer, do we still need a surety of supply agreement?

A: Absolutely. This must be established in your submitted proposal.

Q: If we have an overseas supplier, can we assume the cost will be lower since the value of the dollar is down?

A: No.

Q: Packaging for environments will be costly. Can you specify the environment we should package for?

A: Your device will need to operate in an office application environment. Consider humidity, dust, etc. In addition, assume your device needs to survive DHL shipping.

Q: When should our team have the capability to produce a total of 1 million units?

A: Proposers are highly encouraged to show how your team will have the future capability to make 1 million units. If your team needs to order equipment to accomplish this metric then it is recommended that you address potential issues such as capitalization of such equipment.

Q: What should be included in the commercialization strategy?

A: Proposers must identify the main manufacturer as a non-funded member. It would be beneficial to include a letter that shows support from manufacturer if successful.

Q: Should we just define a path to 1 million pieces?

A: No. Proposers should also determine the appropriate funding and cost for productization of 1m<sup>2</sup> of display.

Q: Should we show an intermediate volume in our commercialization plan?

A: Yes. Consider costs in regards to market value, purchase orders, opportunities, amount of material, investor space, etc.

Q: How is the angle of divergence measured?

A: It is a FWHM (full-width, half-maximum) measurement. At 1m, ½ of the maximum beam intensity should be contained within 30° of divergence.