

STATEMENT OF WORK  
ATFLIR Optical Mirror Recoat

The Fleet Readiness Center Southeast (FRCSE) requires refurbishment of two (2) mirrors (one 16" and one 24") used on an ATFLIR optical test set. The reflective coating on these mirrors has degraded to the point of making them unusable.

**SCOPE:**

1. FRCSE will crate and ship the mirrors in their mounts to the contractor. The contractor shall be responsible for uncrating the mirror assemblies and removing the optics from their housings.
2. The contractor shall remove existing reflective protected silver coating on optics and recoat with protected silver. The removal and reapplication of coating shall not alter any other physical characteristics of the optics.

The protected silver coating must meet the following specifications:

- A. The average reflectivity shall be greater than 96% from 500 - 1100nm and greater than 95.0% from 1.1 - .5 $\mu$ m at 0° - 15° angle of incidence.
  - B. The non-uniformity of coating shall be 5% or less.
  - C. The coating shall be subjected to adhesion, humidity, adhesion (post humidity) and moderate abrasion tests of MIL-PRF-13830 in the sequence listed here.
  - D. The coating shall withstand at least 1 J/cm<sup>2</sup> with 20nsec pulses at 1064nm laser damage threshold minimum.
  - E. All of the above tests shall be performed on witness samples (nominal size 1 inch diameter and .04 inch thick.) Witness samples are to be made from the same material and coated along with the deliverable hardware.
  - F. Contractor shall deliver test report in their own format, covering the above parameters and witness samples to FRCSE.
  - G. Upon request, a government representative shall have the ability to in person witness the above testing.
3. After completion of recoat the contractor shall reinstall the optics in their respective housings and reuse provided crates to ship back to FRCSE:

Fleet Readiness Center Southeast  
Bldg 110, Door 12  
Code: 63130, POC: Ryan Johnson, 790-4221  
NAS Jacksonville, FL 32212

4. The contractor shall complete recoat of mirrors and return to FRCSE within 120 days from receipt of mirrors at contractor facility.
5. Government Point of Contact:  
Ryan Johnson Code 6.3.1.3.0  
Ph: 904-790-4221  
Em: ryan.a.johnson3@navy.mil

JUSTIFICATION FOR SOLE SOURCE (Simplified Acquisitions <\$150K)

The service or material listed on N6588616RX6A144 is sole source and competition is precluded for reasons indicated below. There are no substitutes available for this material or service.

Restricted to the following source: Provide original manufacturer's name. (If a sole source manufacturer distributes via dealers, ALSO provide dealer information.)

Manufacturer: Arizona Optical Systems

Manufacturer POC & phone nr: Martin Valente 1-520-777-4179

Mfr. Address: 5575 S. Houghton Road, Tucson, Arizona 85747

Dealer / Rep N/A

Dealer / Rep address / phone nr. N/A

Description of the item or service required, the estimated cost, and required delivery date.

Recoat reflective surface of two optical test mirrors used in ATFLIR system testing. Estimated cost is \$80,000 and the delivery date required is 6 months after contract award.

Specific characteristics of the material or service that limit the availability to a sole source (unique features, function of the item, etc.). Describe in detail why only this suggested source can furnish the requirements to the exclusion of other sources.

Arizona Optical Systems (AOS) is the original manufacturer of these mirrors. Raytheon designed and contracted AOS to build these mirrors for their ATFLIR test set. Raytheon has the proprietary data rights on the manufacturing drawings and specifications that these mirrors were built with, and are required for an appropriate repair. AOS is the only source of repair that Raytheon will permit the release of this data to since they are the original manufacturer.

The requested material or service represents the minimum requirements of the government.

CHECK & FILL IN ALL APPLICABLE BLANKS BELOW

       The material/service must be compatible in all aspects (form, fit and function) with existing systems presently installed/performing. Describe the equipment/function you have now and how the new item/service must coordinate, connect, or interface with the existing system.

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  X   A patent, copyright or proprietary data limits competition.

The proprietary data required to repair these mirrors is owned by Raytheon. Raytheon's only allowable source of repair for this item is the original manufacturer, Arizona Optical Systems. Raytheon has provided FRCSE written permission to release this data only to AOS. Without this data no other manufacturer can properly repair these mirrors.

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       These are "direct replacements" parts/components for existing equipment.

       Other information to support a sole source buy:

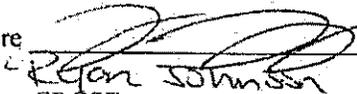
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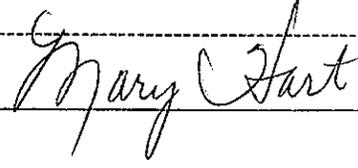
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I CERTIFY THAT STATEMENTS CHECKED, AND INFORMATION PROVIDED ABOVE, ARE COMPLETE AND CORRECT TO THE BEST OF MY KNOWLEDGE. I UNDERSTAND THAT THE PROCESSING OF THIS SOLE SOURCE JUSTIFICATION PRECLUDES THE USE OF FULL AND OPEN COMPETITION.

Signature  Title Mechanical Engineer  
Activity FRCSE Date Nov 23, 2015

Contracting Officer Signature   
Date 17 Mar 16  
SAP Sole Source