



February 4, 2014

Reply to Attn of: 420

**TO:** 12/Contracting Officer, Science and Flight Projects Contracting Branch,  
Office of Procurement

**FROM:** 420/Climate Science Branch, Science Directorate

**SUBJECT:** Justification for Other Than Full and Open Competition (JOFOC) for  
"Cloud-Aerosol Lidar and Infrared Pathfinder Satellite Observation  
(CALIPSO) Payload Sustaining Engineering Support Services"

**This document is a justification for other than full and open competition prepared by the NASA Langley Research Center.**

**1. The nature and/or description of the action being approved:**

Since the launch of the Cloud-Aerosol Lidar and Infrared Pathfinder Satellite Observation (CALIPSO) satellite, Ball Aerospace & Technologies Corp (BATC) has provided sustaining and non-sustaining engineering support throughout the life of this mission. The expiration of the current support contract will create a void in vital post-launch engineering services required for continuation of the CALIPSO science mission. Therefore, NASA Langley Research Center (LaRC) proposes to award a sole source contract to BATC for continued provision of these highly specialized engineering services for CALIPSO satellite payload and ground systems operations. This justification provides the rationale for contracting by other than full and open competition for the acquisition of continuing post-launch support for CALIPSO.

**2. Description of the supplies or services required, including an estimated value:**

The proposed contract will provide highly specialized post-launch sustaining and non-sustaining engineering services, including flight software maintenance, anomaly resolution and other satellite payload system support, reception of CALIPSO's X-band data transmission and the processing, archival, and delivery of Level 0 data to LaRC, and other services necessary for the successful CALIPSO operations. NASA intends to issue an Indefinite Delivery, Indefinite Quantity (IDIQ) contract and issue task orders as necessary for CALIPSO engineering services support. The Government estimate for the IDIQ maximum value is \$5,000,000 over a five-year period of performance.

### **3. Statutory authority permitting other than full and open competition:**

Authority for the Justification for Other Than Full and Open Competition is permitted by 10 U.S.C. 2304(c)(1) as implemented by Federal Acquisition Regulation (FAR) FAR 6.302-1, "Only One Responsible Source and No Other Supplies or Services will Satisfy Agency Requirements." Pursuant to FAR 6.302-1(a)(2)(iii), the sustaining engineering services to be provided from BATC are deemed to be available only from the original source in the case of follow-on contracts for the continued provision of highly specialized services. Award of this contract to any other source would result in substantial duplication of cost to the Government that could not be recovered through competition as well as unacceptable delays in fulfilling the agency's requirements.

### **4. A demonstration that the proposed contractor's unique qualifications or the nature of the acquisition requires use of the authority cited:**

Under contract NAS1-99135, BATC designed, developed, fabricated, tested, participated in launch activities and provided post-launch engineering support during the first 3 years of on-orbit operations. BATC continues to provide sustaining engineering support and Payload Data Delivery System (PDDS) management through a follow-on contract (NNL09AA15C) which expires March 30, 2014.

During the performance of these contracts, BATC has obtained comprehensive, intimate knowledge of the CALIPSO satellite payload and ground system which encompasses the proprietary LIDAR optics, instrumentation, control systems and software, all developed specifically for the CALIPSO mission. As part of the joint mission objective CALIPSO interfaces with the French (Centre National d'Etudes Spatiales/ CNES) satellite mission platform; BATC has specialized knowledge of not only the NASA CALIPSO program, but also the interfacing spacecraft platform, the ground processing facilities, and specialized frequency filters. Additionally, BATC has extensive experience supporting the prime mission system in both stand-alone and interfacing performance environments.

BATC's unique technical expertise with CALIPSO is required to effectively and efficiently perform critical engineering services that may be required to sustain CALIPSO while in orbit. No other contractor could perform the required support for this highly complex satellite payload system without a substantial duplication of cost that cannot be recovered through competition. This is because any other source would be required to develop specialized expertise on the CALIPSO satellite payload and ground systems and obtain an understanding of the technical challenges previously encountered and resolved in developing and maintaining the satellite over an extended period of time. This unique knowledge of the satellite payload technology, including software, testing processes and previously resolved technical issues and upgrades, makes BATC the only source capable of providing the required services within the timeframe required, without substantial duplication of cost, and without substantial risk

of loss of level 0 science data. Therefore, BATC is uniquely qualified to provide comprehensive engineering support required to meet the CALIPSO satellite payload and ground system needs.

**5. Description of the efforts made to ensure that offers are solicited from as many potential sources as practicable:**

Following approval of this JOFOC, a synopsis of our requirements will be published on the NASA Acquisition Internet Service (NAIS) and also publicized as required by FAR 5.201(b) on the Federal Business Opportunities (FedBizOpps) announcing NASA LaRC's intention to negotiate with BATC on a sole source basis.

**6. Description of the market survey conducted, and the results, or a statement of the reasons a market survey was not conducted:**

Because of BATC's unique history of producing the CALIPSO satellite payload and providing highly specialized post-launch sustaining and non-sustaining engineering services supporting the payload and ground systems, market research to locate another qualified vendor would not be productive. This CALIPSO post-launch engineering services contract will rely extensively upon the knowledge and expertise BATC has gained over many years and could not reasonably be performed by another source.

**7. Other facts supporting the use of other than full and open competition:**

None

**8. Sources, if any, that expressed an interest in writing in the acquisition:**

If a source expresses an interest in response to the synopsis (see item 6), NASA will review the capabilities of each source and will document its findings.

**9. The actions the agency may take to remove or overcome any barriers to competition before any subsequent acquisition for the supplies or services required:**

This contract will provide post-launch engineering services for the CALIPSO mission. If the effective life of the mission extends beyond the period of performance on this contract, it is expected that continued services will be required by BATC for the reasons specified herein.

**Technical Officer Certification:**

I certify that the supporting data presented in this justification are accurate and complete.

\_\_\_\_\_  
David G. MacDonnell  
CALIPSO Independent Technical Authority

\_\_\_\_\_  
Date

**Contracting Officer Certification:**

I will ensure that the cost to the Government is determined fair and reasonable prior to award and certify that this justification is accurate and complete to the best of my knowledge and belief.

\_\_\_\_\_  
Timothy P. Cannella  
Contracting Officer

\_\_\_\_\_  
Date

**Concurrence:**

\_\_\_\_\_  
Rosemary C. Froehlich  
Head, Science and Flight Projects Contracting Branch

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Date

\_\_\_\_\_  
Office of Chief Counsel

\_\_\_\_\_  
Date

\_\_\_\_\_  
David H. Jones  
Acting Procurement Officer

\_\_\_\_\_  
Date

**Approval:**

\_\_\_\_\_  
David E. Bowles  
Competition Advocate

\_\_\_\_\_  
Date