

- 1. This document is a justification for other than full and open competition prepared by NASA's Armstrong Flight Research Center (NASA AFRC).**
- 2. The nature and/or description of the action being approved:** Sole Source Award for Chapter 10 data/video recorder/video encoder from the manufacturer, Zodiac Aerospace (Heim).
- 3. Description of the supplies or services required, including an estimated value:**

Requirements:

- (1) Record two RS-485 (clock & data) PCM inputs at up to 20 Mbps
- (2) Record four NTSC video inputs
- (3) Record four HD-SDI (SMPTE 292m 720 or 1080p) video inputs
- (4) Sufficient solid state data storage to record all inputs at their maximum data rate for four hours
- (5) Encode video using H.264 compression and output a PCM data stream, RS-485 (clock & data), that is compatible with Zodiac/Heim TRM 200 decoder
- (6) Ability to switch encoded video input (configuration) using discrete inputs (cockpit switches) during flight
- (7) Ability to up convert lower resolution video to 1080p output
- (8) Ability to stream video via EthernetUnit configuration through an Ethernet port
- (9) Compliance with Dryden's Center Procedure (DCP) DCP-O-018 environmental requirements

This procurement will provide a single hardware unit Chapter 10 data/video recorder/video encoder for the NASA Armstrong F-15D Instrumentation Development effort.

MDR-8sfRC, 8 slot Ch. 10 recorder  
MVCR1A, SD video input module (Qty. 2)  
MVCR3, HD video input module (Qty. 2)  
SBP, MDR Slot Blanking Plate (Qty. 3)  
RRM1200, 1.2 TB Rugged Dual Drive solid state RAID (Qty. 2)  
W101, Download Station for DSM/RSM/RRM cartridges  
Hybrid module, 3x PCM and 2x Ethernet inputs, 3x PCM outputs

- 4. Statutory authority permitting other than full and open competition:**

This requirement will be procured under statutory authority 41 U.S.C. 3304(a)(1) per FAR 6.302-1, Only one responsible source and no other supplies or services will satisfy agency requirements.

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

Alternative brands will require qualification of new manufacturer's unit and redesign of the current F-15D instrumentation system electrical and mechanical drawings. The government

would incur significant costs to modify the system. Estimate is 6 to 8 weeks of FTE time to redesign with a similar delay to the project schedule.

The following functionality needed to meet requirements is unique to the recommended manufacturer, Zodiac Aerospace's (Heim) product.

- (1) Compatibility with TRM 200 video decoder (requirement 5, section 3)
- (2) Ability to switch encoded video input (configuration) using discrete inputs (cockpit switches) during flight (requirement 6, section 3)

**6. Description of the efforts made to ensure that offers are solicited from as many potential sources as practicable, including whether a notice was or will be publicized as required by Federal Acquisition Regulation (FAR) 5.202:**

A notice of contract action will be posted to the Federal Business Opportunity (FBO) website to allow interested vendors to submit a response.

**7. A determination by the contracting officer that the anticipated cost to the Government will be fair and reasonable:**

The Government expects to obtain fair and reasonable pricing as each item is listed on the Air Force IDIQ.

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

An internet search was conducted of alternate manufacturers. Requirements were discussed with representatives of TTC and Delta Digital Video. It was determined that they do not have an equivalent unit at this time.

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

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

AMPEX has presented a unit with similar functionality, but it does not meet requirements 5 & 6 from section 3. Also, it would still require electrical and mechanical redesign. Unit footprint, connectors, and connector pin out are different between manufacturers.

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

NASA AFRC will continue to research the commercial market for changing technology and vendors that have the ability to meet the requirement.

**12. Contracting officer certifies that the justification is accurate and complete to the best of the contracting officer's knowledge and belief.**

**JUSTIFICATION FOR OTHER THAN FULL AND OPEN COMPETITION**

**Initiator:** I certify that the facts presented in this Justification are accurate and complete.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

**Contracting Officer:  
(Concurrence)**

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

**Procurement Officer:** \_\_\_\_\_  
**(Concurrence)** Signature

\_\_\_\_\_  
Date