Enquiry No. CS/AE/FL/IITK/ 2018-19/10

Enquiry Date: 16.08.2018

Closing Date: Extended till: 30.08.2018

# TENDER NOTIFICATION FOR MODIFICATION OF CESSNA 206-H AIRCRAFT FOR CLOUD SEEDING OPERATION

Flight Laboratory, Department of Aerospace Engineering, Indian Institute of Technology Kanpur is inviting tenders from qualified service providers for DGCA approved modification of CESSNA 206-H aircraft in accordance with DGCA Airworthiness Advisory Circular no. 1 of 2017 for the purpose of Cloud seeding operation.

Technical bid and financial bid together will be used to choose "techno-commercially" lowest bidder.

#### **Desirable Qualifications:**

#### Bidders must include the following supporting evidences as part of their documentation.

- Details of distribution of contracts of modifying aircrafts for cloud seeding operation that are completed/under execution over the years.
- Client satisfaction certificates
- Skill set of Engineers to be involved including FAA approvals/ratings held.
- Bidders must include details of references (email, phone numbers etc.) to support the prequalification requirements

## **TECHNICAL REQUIREMENTS**

- The bid should include:
- Customized burn in place flare rack for Cessna 206-H aircraft.
- **▶** Flare Controller, parts, wiring and tooling
- ➤ Installation of G-meter for cloud seeding operation as per DGCA CAR Section 2 Series I part II
- **▶** Certification from FAA/ DGCA.
- > Provision of Documentation required for submission and approval from DGCA.
- Ref. Links:
  - ❖ DGCA AAC 1of 2017
  - DGCA CAR Section 2 Series I part II
  - Compliance with DGCA annexure –III in part 3 of AED handbook of procedures.

# Modification documents required for modification of Cessna 206-H aircraft for cloud seeding operation (to be submitted at DGCA office for modification approval):

- a) Detailed description of the proposed modification, including related correspondence with manufacturer/DOA.
- b) A master documentation list detailing the individual drawings and specifications which define the modification;
- c) Drawings and instructions necessary for incorporation of the modification;
- d) Testing procedures or methods to meet certification and operating rules, such as flammability, carbon monoxide, and noise requirements.
- e) Test procedures that are appropriate to the modification and to verify that the modification meets applicable certification requirements;
- f) Detailed design standards, to ensure that the operator has considered all applicable design requirements and acceptance engineering reports including expected test results to be used in determining the compliance of the modified product;
- g) A record of the change in mass and moment arm when the modification is installed on an aircraft.
- h) A record of the change in electrical load (if any) when the modification is installed on an aircraft;
- i) Supplements to: (1) The approved flight manual (2) Maintenance instructions;
  - (3) Instructions for continuing airworthiness (4) Repair instructions, (if any)
- j) The following aspects to be considered for modifying the aircraft and the same to be confirmed in writing.
- 1) Whether tests or inspections during the progress or after the completion of the modification are necessary to ensure it complies with the specified requirements.
- 2) The qualifications of persons who may be required to assess completed work and certify that it complies with the approved design.
- 3) Whether significant changes in the weight and centre of gravity position of the aircraft will occur and if re-weighing or preparation of a new weight and balance report is necessary.
- 4) Whether the flight or operating characteristics of an aircraft may have been affected by the work and the necessity to have the aircraft Inspected and certified as fit for flight and flight tested.
- 5) Whether amendments of particulars in the certificate of airworthiness or associated documents are required.
- 6) Whether amendments are necessary to the approved maintenance schedule or other data or documents approved for maintenance or other work on the aircraft.
- 7) Whether amendments are necessary to any data specified in the flight crew operating manual.
- k) Any other factors that may affect safety or Airworthiness.

1) Any other Statutory compliance required.

## **Terms & Conditions**

- 1. Enquiry must be submitted in two bid system i.e. "Technical Bid" & "Financial Bid "in separate sealed envelope. These two envelopes should be packed in a separate big envelope and to be addressed to The Head (. Kind Attention: Dr. A. K. Ghosh, HOD), Department of Aerospace Engineering, IIT Kanpur, UP-208016
- 2. The Inquiry reference number should be clearly mentioned on all three envelopes i.e the main envelope enclosing Technical bid and Financial bid and the Technical and Financial bid envelope as well.
- 3. Bidders should clearly mention Equipment price, associated wing and part price in Indian Rupees (INR) or with rate conversion and effective date in case of foreign currency.
- 4. Price quoted should be exclusive of taxes.
- 5. The terms of sale should be clearly mentioned in the quote.
- 6. Warranty/Maintenance support for appropriate period must be clearly mentioned in the quote.
- 7. IIT Kanpur reserves the right to withhold the work and order, change the specification without any prior notice.
- 8. The bid must reach the specified office before the closing date of bid submission; late entries will not be entertained.

(Prof.A.K.Ghosh) Head,AE

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