



BIDS AND AWARDS COMMITTEE

Bid Bulletin No. 1

Supply and Delivery of Technical Equipment and Scientific Equipment (Static / Mock-Up Gas Turbine Engine) for Philippine State College Of Aeronautics
–Institute of Engineering and Technology
Reference No. PB2023 – Goods - 18

This Supplemental Bid Bulletin No. 1 dated October 3, 2023 is being issued to clarify, modify or amend items in the Bidding Documents.

The following items in the Bidding Documents for the **Supply and Delivery Of Technical Equipment and Scientific Equipment (Static / Mock-Up Gas Turbine Engine) for Philippine State College of Aeronautics –Institute of Engineering and Technology** as discussed and agreed during the pre-bid conference held last September 27, 2023 are hereby revised/amended:

1. Invitation to Bid

from	to
7. Bids must be duly received by the BAC Secretariat through <u>manual submission</u> at the office address indicated below on or before 12:50 PM on October 10, 2023 . Online or electronic submission of bids is not permitted. Late bids shall not be accepted.	7. Bids must be duly received by the BAC Secretariat through <u>manual submission</u> at the office address indicated below on or before 2:50 PM on October 10, 2023 . Online or electronic submission of bids is not permitted. Late bids shall not be accepted.
9. Bid opening shall be on October 10, 2023 at 1:00 PM at the given address below. Bids will be opened in the presence of the bidders' representatives who choose to attend the activity.	9. Bid opening shall be on October 10, 2023 at 3:00 PM at the given address below. Bids will be opened in the presence of the bidders' representatives who choose to attend the activity.

2. Special Conditions of Contract

From...	To...
A. STATIC / MOCK-UP GAS TURBINE ENGINE REQUIREMENTS AND SPECIFICATIONS 1. Component Requirements and inclusions: a. Either of the following type of gas turbine engine: a. Turbojet Engine b. Turboshaft Engine c. Turbofan Engine d. Turboprop Engine b. Compressor Section: at least 4 axial stages c. Combustion Section: at least one	A. STATIC / MOCK-UP GAS TURBINE ENGINE REQUIREMENTS AND SPECIFICATIONS 1. Component Requirements and inclusions: a. Either of the following type of gas turbine engine: a) Turboshaft Engine b. Compressor Section: at least single stages c. Combustion Section: at least



can – single burner d. Turbine Section: at least single stage e. Oil and Fuel System (including tanks, lines and pumps) f. Preferably with related electrical systems g. Engine stands or mounting must be available B. Project Details and other Requirements 1. Other Project Requirements The project will cover the supply and delivery of the one mock-up engine and must be completed within the project duration requirement. The full delivery shall include: a. Training for not less than forty faculty members b. All related technical manuals and publication published in English language. c. Preferably with similar computer-based training material covering: i. Gas Turbine Engine Fundamentals ii. Engine Performance iii. Gas Turbine Engine Components and Related Systems iv. Engine Maintenance and Operations	one can – single burner d. Turbine Section: at least single stage e. Oil and Fuel System (including tanks, lines and pumps) f. Preferably with related electrical systems g. Engine stands or mounting must be available B. Project Details and other Requirements 1. Other Project Requirements The project will cover the supply and delivery of the one mock-up engine and must be completed within the project duration requirement. The full delivery shall include: a. Training for not less than forty faculty members. b. All related technical manuals and publication published in English language. c. Preferably with similar computer-based training material covering specifically for turboshaft: i. Gas Turbine Engine Fundamentals ii. Engine Performance iii. Gas Turbine Engine Components and Related Systems iv. Engine Maintenance and Operations
2.2 <i>[If partial payment is allowed, state]</i> “The terms of payment shall be as follows: _____.” NOT APPLICABLE	2.2 Advance payment of the contract amount will be considered as long as it conforms with Annex “D” of the revised 2016 IRR of RA No. 9184.

3. Section VI. Schedule of Requirements

From...	To...
STATIC / MOCK-UP GAS TURBINE ENGINE REQUIREMENTS AND SPECIFICATIONS Component Requirements and inclusions: 1. Either of the following type of gas turbine engine:	STATIC / MOCK-UP GAS TURBINE ENGINE REQUIREMENTS AND SPECIFICATIONS Component Requirements and inclusions: 1. Either of the following type of gas turbine engine:



a) Turbojet Engine b) Turboshaft Engine c) Turbofan Engine d) Turboprop Engine 2. Compressor Section: at least 4 axial stages 3. Combustion Section: at least one can – single burner 4. Turbine Section: at least single stage 5. Oil and Fuel System (including tanks, lines and pumps) 6. Preferably with related electrical systems 7. Engine stands or mounting must be available	a) Turboshaft Engine 2. Compressor Section: at least single stages 3. Combustion Section: at least one can – single burner 4. Turbine Section: at least single stage 5. Oil and Fuel System (including tanks, lines and pumps) 6. Preferably with related electrical systems 7. Engine stands or mounting must be available
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4. Technical Specification

From...	To...
STATIC / MOCK-UP GAS TURBINE ENGINE REQUIREMENTS AND SPECIFICATIONS Component Requirements and inclusions: 1. Either of the following type of gas turbine engine: e) Turbojet Engine f) Turboshaft Engine g) Turbofan Engine h) Turboprop Engine 2. Compressor Section: at least 4 axial stages 3. Combustion Section: at least one can – single burner 4. Turbine Section: at least single stage 5. Oil and Fuel System (including tanks, lines and pumps) 6. Preferably with related electrical systems 7. Engine stands or mounting must be available	STATIC / MOCK-UP GAS TURBINE ENGINE REQUIREMENTS AND SPECIFICATIONS Component Requirements and inclusions: 1. Either of the following type of gas turbine engine: b) Turboshaft Engine 2. Compressor Section: at least single stages 3. Combustion Section: at least one can – single burner 4. Turbine Section: at least single stage 5. Oil and Fuel System (including tanks, lines and pumps) 6. Preferably with related electrical systems 7. Engine stands or mounting must be available
	Additional requirement for Technical Specifications submitted by the end - user: 1. Power Output: not less than 300 hp 2. Engine RPM : not less than 50,000 RPM (Compressor) : not less than 30,000 RPM (Turbine) : not less than 5,000 RPM (Shaft)



	3. Engine Torque Output: not less than 400 lb_f.ft 4. Engine Weight: not more than 160 lbs 5. Power: Weight Ratio: at least 2:1 or better 6. Engine Air Mass Flow: not less than 2.75 lb_m per sec 7. Engine Compressor Ratio: 6:1 or better 8. Maximum Turbine Inlet Temperature: not more than 1300 Kelvin 9. Engine Specific Fuel Consumption: not more than 0.75 lb_m hp per hour In addition, although the Computer – based training is not required but preferred by the unit headed by the end – user, the CBT may contain the following: 1. General Fundamental Gas Turbine Engine or Turboshaft Engine 2. Engine Efficiencies, Engine Rating and Relevant Engine Performance Parameters 3. General GTE Components including compressor, turbine, combustion chamber and accessories 4. Engine installation and general gas turbine operations such as lubrication, fuel system, ignition system, etc.
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5. Other Discussion

a. The BAC secretariat read and discussed the contents of the bidding documents. Bidders are made to understand the different documents they need to submit as discussed in provided checklist. Bidders are reminded to sign all pages of the duplicate copies and requested to bring one flashdrive containing the e-copies of their submitted eligibility, technical and financial requirements. The BAC secretariat added that Section VI (Schedule of Requirements) and Section VII. (Technical Specifications) of the Bidding Documents must be signed by the bidder's authorized representative and both must be included in the first envelope during the bid submission.

b. Mr. Kenneth Camyr Mindajao explained the budget availability of the project. He explained that the College need to obligate the fund to the winning bidder within the year. He also added that advance payment can be considered as long as the College president approved it.

c. It was also made clear with the prospective bidders that the Aircraft Materials Distributor certified by the Civil Aviation Authority of the Philippines will be a requirement to be submitted by the bidders during the opening of bids.

d. Also, it was agreed that the Certificate of Authorized Distributorship will be part of post – qualification documents to be submitted and complied by the bidder otherwise it will be a ground for disqualification for being non-responsive.

e. It was mentioned that the warranty period is one (1) year starting from the issuance of certificate of final inspection and acceptance. It was also mentioned that the counting of warranty period will be halted on day when the supplier is notified that the unit's part or performance is found to be defective.



Republic of the Philippines
Philippine State College of Aeronautics
Piccio Garden, Villamor, Pasay City

The counting of warranty period will resume on the day when the college issued certificate of acceptance for the repaired/replaced unit.

This Supplemental Bid Bulletin No. 1 shall form part of the Bid Documents. Any provision in the Bid Documents inconsistent herewith is hereby amended, modified, and superseded accordingly.

For the information and guidance of all concerned.

Issued this 3rd day of October, 2023 in the City of Pasay.

A handwritten signature in blue ink, consisting of a stylized 'D' and 'E' followed by a vertical line.

(Sgd.) MR. DARBY P. ESPERANZATE
Chairman, Bids & Awards Committee