

PLEASE READ CAREFULLY

- ❖ Participating bidders are required to submit bids according to instructions mentioned in bidding documents. These bids should meet the requirements / criteria illustrated in bidding documents along with fulfillment of other terms and conditions of tenders.
- ❖ According to PPRA rule 31 no bidder is allowed to alter or modify his bids after the bids have been opened. Moreover, as per rule 36 (vi) no amendment in the technical proposal is permitted during technical evaluation. Therefore in the light of prevailing Govt procedures, requests for amendments in quotations and clarifications leading to change of substance of bid after opening of bids cannot be accepted and bids not conforming to tender requirements are liable to be rejected.
- ❖ Participating bidders are therefore requested to read the bidding documents thoroughly and submit their quotes accordingly without any condition in conformance to all tender requirements including DP, Bid validity, provisioning of original quotation from foreign principal, 10% BG confirmation etc for consideration of bid. Bid found non-conforming to tender requirements is liable to be rejected on tender opening date.



**GOVERNMENT OF PAKISTAN
MINISTRY OF DEFENCE PRODUCTION
PAKISTAN AERONAUTICAL COMPLEX BOARD KAMRA**

INVITATION TO TENDER AND GENERAL INSTRUCTIONS TO BIDDERS
(SINGLE STAGE TWO ENVELOPE BASIS)

(F O B)

Tender No PACB/741/80592009/0677/P-1
Directorate of Central Procurement
Pakistan Aeronautical Complex Board
Kamra Distt. Attock
Tel: +92-051-90990-2543, 2244
Fax: +92 (057) 9317491
Email: adcp@pac.org.pk
07 March, 2018

To,

PPRA & PAC Websites

Dear Sir,

1. I invite you to tender for supply of store / services details in the attached **Schedule to Tender** (Form PACB -002A)
2. **CONDITION GOVERNING CONTRACTS.** The “Contract” made as a result of this Tender Inquiry shall mean the agreement entered in to between the parties i.e. the “Purchaser” and the “Seller” on PACB Contract Form (PACB – 003) in accordance with the law of contract Act, 1872 and those contained in PAC purchase procedures and other special conditions that may be added to given contract for the supply of PAC stores specified therein.

3. DELIVERY OF TENDER. (SINGLE STAGE TWO ENVELOPE BASIS)

(a) **Technical Offer:** It shall contain all relevant specifications along with essential literature / brochure in duplicate in a separate envelope and clearly marked “**Technical Offer without prices**”, tender number and date of opening.

(b) **Commercial Offer:** It shall indicate prices quoted in figures as well as in words and clearly marked on face of a separate envelope “**Commercial Offer with prices**”, tender number and date of opening.

(c) Both the “**Envelops**” of Technical and Commercial offers should be enclosed in one cover, properly sealed and bear the address of Directorate of Central Procurement (DCP) PACB Kamra with tender number and opening date. **Bid Security shall be sealed in an envelope separate from technical and financial bids.**

4. FORM PACB - 002A & PACB - 002B: Form **PACB - 002A & PACB - 002B (Annexure D & E)** duly filled-in are to be returned with the offer duly signed by the authorized signatory person of bidding firm.

5. SINGLE/MULTIPLE OFFERS: Only one offer can be made in relevant currency for same item. Multiple rates, if quoted, will be rejected. Multiple quotation against the tender will also be rejected.

6. DATE & TIME FOR RECEIPT OF TENDER: The tender must reach DCP PACB Kamra by the date and time specified in the **Schedule to Tender** (PACB – 002A attached). Tenders received after the prescribed date and time will, NOT be entertained. The appointed time will, however fall on next working day in case of closed/forced holiday. Telegraphed / Faxed / Telexed bids will be rejected unless specifically asked for. Tender can also be sent through courier however you are required to intimate this office (DCP) regarding dispatch of quotation through courier giving details of the courier through fax so that courier service may be tracked to ensure your participation in the Tender. In case tender is despatched by courier then same should reach DCP, PAC Board at least 01 day prior to tender opening date. You or your representative may also attend the proceeding (Name / Designation of attendees’ along with copy of CNIC will be required 03 days prior to tender opening date for arranging their entry).

7. DELIVERY PERIOD: Stores are required of within minimum possible delivery period but **not later than 06 to 09 months from signing the contract.** Offers with minimum delivery period are likely to be preferred. However delivery period is to be factual as no extension will be subsequently granted except under unavoidable circumstances beyond control of SELLER or under Force Majeure for which intimation with full justification / evidences is to be dispatched well in advance for consideration.

8. RIGHTS RESERVED: PAC Board Kamra reserves the right to accept or reject any tender and to annul the tendering process and reject all tenders at any time prior to contract award as per rule 33 of PPRA rules 2004 without thereby incurring any liability to the affected Bidder. Moreover, past performance of the firms may also be considered.

9. ADDITION AND DELETION OF STORE: The purchaser has the right to increase or decrease the quantity of any item and cancellation of the contract partially or fully without any financial repercussion on either side without assigning any reason within 30 days of signing the contract. Such information will be passed on to the supplier / seller through the fastest means e.g. telephone, telegram or fax etc.

10. VALIDITY OF QUOTATION: The quotation be valid till **30 June, 2018**.

11. TECHNICAL LITERATURE, SPECIFICATIONS AND INTERCHANGEABILITY:

Offers are to be submitted in duplicate supported by brochures and technical literature in original. Offers must conform to tender specifications. A certificate of complete interchangeability must be endorsed on the quotation for all substitute or in-lieu items, otherwise the same are likely to be rejected. A copy of relevant page of publication must be attached to prove correctness of offered / interchangeable / in-lieu item. Prices of master, substitute and in-lieu items must be quoted separately. **Firms may contact Tel Ext 051-90990-4295, provmrf@pac.org.pk or Directorate of Log, MRF PAC Karma District Attock.**

12. DEVIATION FROM SPECIFICATIONS: Stores received at consignee, if found not conforming to the contract specifications will be rejected and replacement in accordance with contractual specifications against rejected stores would be provided to consignee as per delivery schedule laid down in the contract. The replacement will be provided without any additional cost. In case stores are rejected after delivery schedule of the contract, replacement is to be provided at the earliest or by the date advised by Directorate of Central Procurement PAC Board.

13. PACKING: Stores must be dispatched in standard trade packing unless otherwise specified to protect them against any damage. Any loss/damage caused due to poor packing will be recovered from the Supplier. In case items are shipped through sea, packing shall be sea worthy.

14. RESTRICTION OF EXPORT / IMPORT LICENSE: Offer subject to restriction of Import/Export License will not be entertained.

15. APPLICATION OF OFFICIAL SECRET ACT 1923: All matters connected with this inquiry and subsequent actions arising thereafter fall within the scope of the Pakistan Official Secret Act 1923 which forbid providing contractual information to un-authorized / un-concerned person / organization. It is therefore, requested to ensure complete secrecy regarding documents and stores concerned with the inquiry to limit the number of employees having accesses to this information.

16. QUOTING OF PRICES: Prices are to be quoted as follows: -

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(a) FOB price of the stores (Line Item Wise).

(b) Percentage of agent commission (on Ex-Factory price). Agent commission is to be exclusive of quoted price. Principal must indicate if agent commission is not applicable. If there is no indication of agent commission in principal's Performa invoice, agent commission will neither be given by the principal nor by the Buyer.

(c) The prices must be stated for each item separately both in figures and words. Additional information if any must be linked with entries on the Schedule to Tender (Form **PACB – 002A**)

(d) Original quotation from the foreign manufacturer / supplier / principal must be attached in support of the quoted price. Principal is to endorse following certificate on the original quotation:-

“Certified that stores offered are factory new and from latest production and prices quoted are not more than the international market prices and also not more than those being charged from other buyers “.

- (e) Shelf / installation life of each item (if applicable) is to be mentioned separately.
- (f) Certificate as per attached Annex “A” duly signed by the principal and agent must be attached with quotation.

17. PROVISION OF OEM CERTIFICATE:

Certificate of OEM for certified vendors or Agency Agreement must be attached with quotation.

18. DISQUALIFICATION: Offers are liable to be rejected if:-

- (a) There is deviation from any instruction described in this invitation to tender.
- (b) Offers are found conditional or incomplete in any respect.
- (c) Multiple quotations against the tender.
- (d) Multiple rates are quoted against one item.
- (e) Manufacturer relevant brochure is not attached (in case of equipment or major assemblies of equipment).
- (f) **Annexure “A”, Form PACB-002A (Annexure “D”) and PACB-002B (Annexure “E”)** duly filled – in and signed by the Bidders are not received with the offer.
- (g) Offer received later than appointed date and time.
- (h) Tender specification if not conforming to the offer. In case of equipment/ major assemblies manufacturer’s brochures shows specifications different from those given in tender.
- (j) Offer subject to restriction of Export License.
- (k) Over writing / erasing in prices.
- (l) Change in prices by the supplier after opening of commercial offers unless asked by Directorate of Central Procurement PAC Board.
- (m) Validity of offer is not quoted as required in IT or made subject to confirmation later.

- (n) Offers not accompanied with prescribed tender / Challan fee of Rs. 100/-
- (p) Bid Security not provided.
- (q) **Performa Invoice of Principal / Principal Invoice**, in duplicate clearly indicating whether prices quoted are inclusive of the agent commission, is not enclosed.
- (r) Agency agreement of agent with Principal / OEM and link between Principal and OEM is not provided.
- (s) The validity of agency agreement has expired.
- (t) Offer without certification of OEM.
- (u) If OEM and principal name, contact details (Ph No, Fax No, Email etc) and complete address is not mentioned.
- (v) Offer with Prior sale condition.

19. **PAYMENT:** Payment will be made as per following details with 10% Performance Bank Guarantee:-

PHASE NO I : INFRASTRUCTURE (PAYMENT SCHEDULE)

SUB PHASE	HEAD	DETAILS	PAYMENT (% of Infrastructure cost)
1	Design and drawings	Payment to be released after acceptance of detailed drawings and building design of METC by MRF	10%
2	Building material / Bill of materials	Payment to be released after construction material is made available at METC site and bill of materials is provided	10%
3	Foundations completion	Payment to be released after initial foundations are laid down for test cell building	10%
4	Building structure completion	Payment to be released after initial structure of building is complete	40%
5	Integration of allied services and systems	Integration and functional testing of allied services and systems related to METC	20%
6	Final acceptance	After successful correlation and commissioning of METC	10%

PHASE NO II : DATA ACQUISITION SYSTEM (PAYMENT SCHEDULE)

SUB PHASE	HEAD	DETAILS	PAYMENT (% of DAS Cost)
1	PDR	Payment to be released after final PDR document acceptance by MRF	5%
2	CDR	Payment to be released after final CDR document acceptance by MRF	10%
3	Drawings + Bill of materials	Complete drawings and complete bill of materials (including manufacturer details, part No and quantity) is to be provided for payment to be released	15%
4	Pre-shipment Equipment Inspection and Acceptance and Shipment of Equipment	Physical inspection and acceptance of equipment prior to shipment as per bill of materials, PDR and CDR and satisfactory Equipment acceptance report document duly signed, stamped by MRF Authorities.	40%
5	Installation at site / Functional testing	Installation and functional testing of equipment at test cell site along with all relevant documents (IPC, technical manuals, calibration manuals and calibration equipment and testers etc).	20%
6	Final acceptance	After successful correlation and commissioning of METC	10%

PHASE NO III : FIRE DETECTION / SUPPRESSION SYSTEM (PAYMENT SCHEDULE)

SUB PHASE	HEAD	DETAILS	PAYMENT (% of Fire System Cost)
1	PDR	Payment to be released after acceptance of PDR document by MRF	5%
2	CDR	Payment to be released after acceptance of CDR document by MRF	10%
3	Drawings + Bill of materials	Detailed drawings and complete bill of materials is to be provided	10%
4	Pre-shipment Equipment Inspection and Acceptance and Shipment of Equipment	Physical inspection and acceptance of equipment prior to shipment as per bill of materials, PDR and CDR and satisfactory Equipment acceptance report document duly signed, stamped by MRF Authorities.	50%
5	CommissioningFinal acceptance	Installation and functional testing of equipment at test cell site	25%

PHASE NO IV : FUEL & OIL SUPPLY AND STORAGE SYSTEM (PAYMENT SCHEDULE)

SUB PHASE	HEAD	DETAILS	PAYMENT (% of Fuel & Oil system cost)
1	PDR	Payment to be released after acceptance of PDR document by MRF	5%
2	CDR	Payment to be released after acceptance of CDR document by MRF	10%
3	Drawings + Bill of materials	Detailed drawings and complete bill of materials is to be provided	10%
4	Pre-shipment Equipment Inspection and Acceptance and Shipment of Equipment	Physical inspection and acceptance of equipment prior to shipment as per bill of materials, PDR and CDR and satisfactory Equipment acceptance report document duly signed, stamped by MRF Authorities.	50%
5	CommissioningFinal acceptance	Installation and functional testing of equipment at test cell site along with all relevant documents (IPC, calibration procedures)	25%

PHASE NO V : PNEUMATIC SYSTEM AND ASSOCIATED SERVICES (PAYMENT SCHEDULE)

SUB PHASE	HEAD	DETAILS	PAYMENT (% of Pneumatic system)
1	PDR	Payment to be released after acceptance of PDR document by MRF	5%
2	CDR	Payment to be released after acceptance of CDR document by MRF	10%
3	Drawings + Bill of materials	Detailed drawings and complete bill of materials is to be provided	10%
4	Pre-shipment Equipment Inspection and Acceptance and Shipment of Equipment	Physical inspection and acceptance of equipment prior to shipment as per bill of materials, PDR and CDR and satisfactory Equipment acceptance report document duly signed, stamped by MRF Authorities.	50%
5	CommissioningFinal acceptance	Installation and functional testing of equipment at test cell site	25%

- 20. SEQUENCE OF QUOTATION:** Quotation must be prepared according to the item serial no sequence of Schedule to Tender (Form **PACB-002A**).
- 21. WARRANTY / GUARANTEE OF STORE:** Warranty / guarantee for a period of three years be applicable for stores commencing from acceptance of store at consignee.
- 22. COUNTRY OF ORIGIN AND MODE OF SHIPMENT:** Following details must be provided in your offer / quotation and Performa invoice: -
- (a) Country of origin, place of manufacture of store and beneficiary should be mentioned.
 - (b) Name of port connecting PIAC aircraft / PNSC ship where from the store will be shipped. The firm may like to ensure the availability of PIA flight or PNSC operation from the port of shipment before signing the contract.
 - (c) Where PNSC or PIAC do not operate, the supplier would ship the stores through Pakistan / Foreign flag Vessel / Airline on freight pre-paid basis with prior approval of procuring agency and claim it subsequently. Freight and Insurance charges should not exceed 7.50 % of FOB value of the stores.
- 23. FAX QUOTATION:** Fax / Email quotations will not be accepted except when specifically called for under emergency / urgency, however, Fax / Email quotation, if received will only be considered subject to condition that original Performa invoice for each quotation is received within 7 days of Tender Inquiry opening or as advised by procurement agency. In case original quotation is not received within specified time, the offer will be excluded from the competition without any notice to bidder.
- 24. LC CHARGES:** Payment will be made through irrevocable and non-transferable Letter of Credit. LC opening / advising confirmation and additional charges will be borne by the beneficiary / supplier as per prevailing Bank rates. LC charges within Pakistan will be borne by the purchaser. Charges outside Pakistan are to borne by the seller. Any additional charges incurred due to request of supplier will be borne by the supplier.
- 25. QUALITY INSPECTION:** Items supplied are liable to be inspected by the quality inspectors of to the respective factory of PAC before acceptance.
- 26. SUBMISSION OF CERTIFICATE:** The certificate as per attached Annexure "A" is to be submitted along with offer / quotation.
- 27. TENDER OPENING:** Technical offer i.e. without prices will be opened on the date and time mentioned at Annex "C" of tender in the presence of bidders" representatives who choose to attend. The bidders" representatives who are present shall sign a tender opening register / form evidencing their attendance. However time and date for opening of Commercial offers of all those firms whose technical offers are accepted will be intimated later. Commercial offers of firms, which are not technically accepted will be returned to the firms un-opened. Representative of Foreign Liaison Office will not be allowed to attend Tender Opening unless it is registered with Pakistan Aeronautical Complex Kamra. No unauthorized person will be allowed to attend the tender opening.

28. BID SECURITY: The Bid Security@ 5% of quote (not exceeding 0.50 M) will be deposited by all firms. Bid Security will be deposited in favour of CMA (DP) in the form of CDR / Pay order / Demand draft only at the time of tender opening (with technical quotation), in a separate envelope. Bid Security will be returned to all firms except three commercially lowest bidding firms on finalization of commercial quotes. Whereas Bid Security to the 2nd and 3rd commercially lowest bidders will be returned on signing of the contract. Bid Security of the contract concluding firm will be returned on submission of bank guarantee and on receipt of performance bank guarantee acceptance certificate from CMA. Quotations once submitted cannot be withdrawn (Partially/Fully) during validity of the quotation. Firms not complying with the said instructions would be liable for disciplinary action beside forfeiture of the earnest money.

Note: - No Quote will be accepted without Bid Security which will be as per IT clause 28. However, Bid Security must be provided in shape of CDR/ Pay order / Demand draft only otherwise your quotation will be rejected.

29. END USER CERTIFICATE (EUC): EUC if required at any stage may be mentioned in the quotation.

30. CHECKING OF STORE: Store will be checked at consignee in the presence of representative of Supplier if he arrives within 15 days after initiation of letter.

31. WITHDRAWAL OF OFFER: If the firm withdraws its offer or backs out from providing items won by the firm within validity period at any stage of contract finalization, the Competent Authority may place such firm under Embargo for a period of six months, which may extend upto one year / forfeit the earnest money.

32. TREASURY CHALLAN: Offer must be accompanied by Challan Form No. F-32A of Rs, 100/- obtained from State Bank of Pakistan/ Govt treasury under "**Departmental Receipt Major Head 1221000**" CMA (ISO's) Rawalpindi on behalf of "Director Central Procurement PAC Board Kamra". Only one offer can be made for same item on one Challan. Multiple offer / rates, if quoted will be rejected.

33. DOCUMENTS REQUIRED: Following information's / copies of document must be provided with Tender: -

- (a) Proof of appearance on Active tax payer list of FBR.
- (b) Photo copies of valid registration and indexation of foreign principal with PACB/DGDP applicable to the store / equipment offered.
- (c) A copy of letter showing firm's financial capability. Bank statement for last 01 year and other details to ascertain financial capability of firm.
- (d) Copies of audited accounts of the company for the last two accounting years that are prepared in accordance with the International Accounting Standards (IAS).
- (e) Photo copies of General Index number (GID), National Tax number (NTN), Sales Tax registration certificate. Foreign firms are required to provide copy of the

company's valid Tax Compliance certificate issued by Revenue Authority of the domiciled country, valid as at the tender closing date.

(f) List and evidence of certification from recognized international bodies like ISO.

(g) List of major clients and references (complete with names of contact persons, address and telephone numbers) of which the company has supplied similar items in the last 05 years. Number of years in the business or dealing in similar items may also be mentioned.

(h) Firm/Supplier name, complete address, contact numbers, and email addresses.

(j) Undertaking that their firm and their proprietors have not been in litigation/blacklisted by any Govt./Semi-Govt/Autonomous body.

(k) Any other document if required during procurement proceedings according to Rule 17 of PPRA rules 2004.

Note: Security clearance / registration of firm is mandatory. Documents for security clearance / registration are available on PAC website (www.pac.org.pk) and for your convenience. You are requested to apply for security clearance for consideration of your quote and subsequent award of contract (If lowest evaluated bidder).

(l) In case of foreign supplier photocopy of resident card, passport or equivalent identification card of person signing the tender is to be provided along with 02 passport size photographs.

(m) Local agents / firms have to submit the copy of CNIC and 02 passport size photographs of person signing tender.

(n) Letter of authorisation from the OEM confirming that the bidder is authorized to deal with the item quoted.

34. FORCE MAJEURE

“Force Majeure” means any event, act / or other circumstances not being an event, act or circumstances, under the control of the Purchaser or of the Seller. The Seller will notify the Purchaser in writing of any such event within 15 days by Fax/Telex/Telegram of its commencement, which is relied upon by the Seller for its failure to comply with its obligation. The Purchaser have the right to conduct investigations to satisfy itself about the genuineness of the “Force Majeure” event Non-availability of raw material for the manufacture of stores, or of export permit for the export of the contracted stores from the country of its origin, not constitute “Force Majeure”.

35. ARBITRATION

All matters of dispute or difference, except regarding rejection of stores / Services by the inspector and or cancellation of the contract by the Purchaser arising out of this contract between the parties hereto, shall be settled by mutual agreement, failing which they shall

refer for Arbitration to a final settlement by an Arbitration Tribunal, in Pakistan. The dispute shall be referred for adjudication to two arbitrators one to be nominated by each party, who before entering upon the reference shall appoint an umpire by mutual agreement, and if they do not agree a judge of the Superior Court of Pakistan will be requested to appoint the umpire. The arbitration proceedings shall be held in Pakistan and under Pakistan Law & Arbitration Act, 1940. Arbitration award will be firm and final and un-challengeable in any court of law.

36. LITIGATION

In case of any dispute only Court of Jurisdiction at Attock Pakistan will have the Jurisdiction to decide the matter.

37. RISK PURCHASE

In the event of failure on the part of the Seller to comply with the contractual obligations, the contract is liable to be cancelled at his risk and expense in accordance with General Condition Governing Contracts.

38. TERMINATION OF CONTRACT.

The purchaser shall be entitled to terminate this contract for default on the part of supplier. If the supplier becomes bankrupt, or have a receiving order made against him, or compound with his creditors, or being a corporation commences to be wound up, not being a

member's voluntary winding up for the purpose of reconstitution or amalgamation, or carries on its business under a receiver for the benefit of its creditors. In case the Purchaser elects to terminate this Contract, the Purchaser shall give notice in writing to the Supplier to make

good the default. Should the Supplier fail to initiate proceedings in order to comply with the notice within 15 days from the date of serving of such notice,, the Purchaser may forthwith terminate this contract by notice in writing to the Supplier without prejudice to any rights which may have occurred there under to either PARTY prior to such termination. Termination of the Contract shall be without prejudice to any right of arbitration under the contract hereafter. Moreover, The purchaser has the right to increase or decrease the quantity of any item and cancellation of the contract partially or fully without any financial repercussion on either side without assigning any reason within 30 days of signing the contract. Such information will be passed on to the supplier / seller through the fastest means e.g. telephone, telegram or fax etc.

If the supplier delays delivery of any Equipment to be supplied to the Purchaser under this Contract for more than 21(twenty one) days from the time specified for delivery, there of or, 15 days for any extension of subsequent delays then the purchaser reserve the right to terminate this contract without prior notice to the supplier and purchase from elsewhere (other firm or country) stores not delivered, at the risk and expense of the supplier. However, intimation to such a cancellation would be affected by registered letter sent to be supplier and without need to legal or judicial or other formalities. In addition the purchaser will have the right to recover any loss or damage or payment made to the supplier.

Upon termination the Supplier shall refund all such payments for which goods and/or services have not been delivered or rendered. The Supplier shall refund the amount due with interest at 1% above the Libor rate.

39. SECURITY DEPOSIT / BANK GUARANTEE:

To ensure timely and correct supply of stores / services, the firm shall furnish an unconditional bank guarantee (BG) from a scheduled bank of Pakistan for an amount up to 10% of the contract value on a judicial stamp paper of the value of (Rs 100.00) as per prescribed format in the currency same as of contract. The bank guarantee shall be endorsed in favour of CMA (DP) Rawalpindi who is the accounts officer specified in the contract. CMA (DP) Rawalpindi have the like power of seeking encashment at site of the bank guarantee as if the same has been demanded by the purchaser himself. The bank guarantee shall be submitted by the supplier at the time of Contract signing and will remain valid for up to 60 days after completion of warranty period and remain in force till one year beyond date given in the contract. If period of contract is extended, the supplier shall arrange the extension of bank guarantee within 30 days after the original period to keep its validity always one year ahead of the extended period.

40. LATE DELIVERY

If the Supplier fails to deliver any or all of the Goods by the Date(s) of delivery or perform the Related Services within the period specified in the Contract, the Purchaser may take following actions:-

- (a) Cancel the contract, and/or.
- (b) To purchase from elsewhere stores not delivered, at the risk and expense of the Supplier and without notice to him, or
- (c) To recover liquidated damages when the Competent Purchase Officer is satisfied that the failure to supply the stores / services within the scheduled delivery period has been for reasons within the control of the Supplier, and/or if the Government has suffered loss for reasons of belated delivery. These liquidated damages, if imposed, will be recovered at the rate of up to 2% but not less than 1% (depending on the merit of the case as decided by Competent Purchase Officer) of the value of stores / service supplied late per month or a part of a month for the period exceeding the original delivery period, subject to the provision that the total liquidated damages thus imposed will not exceed 10% of the total value of the stores / services delivered late.
- (d) The purchaser's decision under this clause shall NOT be subjected to arbitration.

41. AUTHORITY TO SIGN DOCUMENTS: Tender must be accompanied by Letter of Authorization to sign the Tender on behalf of the Bidder. Bidder must prove that the person who signs this Tender is fully authorized to bind his establishment / company. Such proof shall be in the form of clear official documents fully legalized by designated authorities in respective countries.

42. BIDDING CLARIFICATIONS TO TENDER: In case any clarification is required regarding tender, firm may contact on following address however, queries in regards to the tender shall only be entertained till one week prior to the deadline for submission of tenders.

Technical Clarification: Directorate of Log MRF PAC Kamra Tel No 051-90990-4510
(Email: provmrf@pac.org.pk)

Bidding / Contracting Procedure: Directorate of Central Procurement PAC Board Kamra Tel No 051-90990-2543 (Email: adcp@pac.org.pk)

Yours sincerely,

(IMRAN BIN IRFAN)
Squadron Leader
Dy Dir Central Procurement
PAC Board Kamra
Tel: 051-90990-2576

Enclosure: -

- | | |
|---|-------------------------------------|
| (i) Certificate (Annex "A") | (ii) Questionnaire (Annex "B") |
| (iii) Schedule of Stores (Annex "C") | (iv) Form (PACB – 002A) (Annex "D") |
| (v) Form (PACB – 002B) (Annex "E") | (vi) Form (PACB – 002C) (Annex "F") |
| (vii) Details of Bank Guarantee (Annex "G") | |

CERTIFICATE

TENDER / CONTRACT No PACB/741/80592009/0677/P-1

It is certified that no person, firm, cooperation, subsidiary or entity in Pakistan or elsewhere shall directly receive any rebate, bonus commission, gift or favour in cash or kind other than commission allowed to M/S (FULL NAME TITLE OF THE COMPANY WITH ADDRESS) against contract No _____ dated _____ In case if it is discovered that contents of this certificate have been infringed / violated by the supplier the purchaser will have the right to cancel the contract and / or impose a penalty equal to 25% of the contract value.

AGENT-

Seal & Signature

PRINCIPAL

Seal & Signature

COUNTERSIGNATURE

Director Central Procurement

Seal & Signature

QUESTIONNAIRE TO BE FILLED IN BY BIDDER

Firm is required to provide confirmation of following points and in case of any change, same is to be highlighted in remarks column.

S.No	Description	Yes / No	Remarks
1.	Whether stores offered conform to the specification and confirmation to this effect has been made in the quotation given in Form PACB – 002A .		
2.	Whether deviation from the demanded specification is attached with Form PACB – 002A .		
3.	Whether complete quotation has been submitted in duplicate.		
4.	Whether the prices are exclusive of taxes/duties if so whether taxes/duties have been shown separately.		
5.	Whether Form PACB–002A & 002B duly filled in and signed by the Bidder have been returned in herewith.		
6.	Whether original invoice Performa from principal has been enclosed herewith.		
7.	Whether copy of valid registration / business authorization of firm have been enclosed herewith.		
8.	Whether tender fee challan amounting to Rs 100/- has been enclosed herewith.		
9.	Whether details of financial capability (Bank Statement etc.) and financial load of contracts outstanding against your firm have been provided.		
10.	It is confirmed that no Taxes / Duties & Dues payable to Pakistan Govt are outstanding at the part of vendor / firm.		
11.	Copy of NTN, sales tax certificate OR Equivalent Tax compliance Certificate (for foreign firms) has been attached.		
12.	It is confirmed that firm and their proprietors have not been in litigation / blacklisted by any Govt./Semi-Govt / Autonomous body		
13.	Valid, original agency agreement has been attached with quotation.		
14.	Unit Price has been provided against same unit of issue as mentioned in IT. In case of change in unit of issue, price has been converted as per ITs unit of issue in a separate column along with conversion formula		
15.	Specimen of End User Certificate has been attached (If required)		
16.	Country of origin and port of shipment have been mentioned.		
17.	All requisite documents as per Para 33 of Invitation to tender have been attached.		
18.	10% PBG will be provided at the time of signing of contract		
19.	Warranty / Guarantee will be provided for required period		
20.	Letter of Authorization to sign Tender Documents on behalf of firm has been attached.		
21.	Incoterm is as per IT .i.e. FCA / FOB etc		
22.	Offer is without any condition		
23.	All terms and conditions mentioned in IT are acceptable		

Dated: _____

(Signature of Bidder & Stamp)

SCHEDULE OF STORES

Tender Inquiry No: - PACB/741/80592009/0677/P-1

TENDER SUBMISSION TIME: - Before 1030 Hrs on opening date

TIME & DATE OF OPENING **1100 Hrs on 30-04-2018**

(Note: Firms are requested to read carefully all the paras of IT. Moreover, unit price against same unit of issue as mentioned in IT is to be provided. However, if any change may be required in unit of issue the price must be converted as per IT's unit of issue in separate column. Furthermore, conversion of unit of issue and unit price must be mentioned in commercial quote.)

Vendor conference for resolution of clarification will be held at PAC Board Kamra at 1000hrs on 15 Mar, 2018 during which the requirement of above TSR will be explained in detail to the vendors' reps for uniformity of understanding. Subsequently, the TSR can be revised, if required, based on mutual discussions during said meeting so as to ensure best possible Test Cell solution for MRF. For co-ordination please contact Sqn Ldr Ehtisham Cell 0322-8501797.

**ESTABLISHMENT OF MULTI ENGINE TEST CELL FACILITY FOR HONEYWELL
TFE731-2A-2A AND TELEDYNE'S J69-T-25A ENGINES AT MRF PAC KAMRA
SET – 01**

No.	Technical Requirement	Feature	Compliance Status
1. Multi Engine Test Cell			
(i)	Engine Type	Turbo fan Engine & Turbo Jet Engine	
(ii)	Engine Make & Models	Honeywell: TFE71-2A-2A & Teledyne J69-T-25A	
a. Turn Key Solution			
(i)	Full Parameter Testing of TFE731-2A-2A & J69-T-25A engines as per OEM standards pertaining to PAF engines.	The complete project would be handled on TURN KEY basis i.e planning, designing, construction/manufacturing and initial operation/ calibration would be the responsibility of the manufacturer.	
b.	Design Criteria		

(i)	An overhead design METC	(i) An overhead design METC is required to be established including all requisite adapters for both types of engines (ii) Hydraulically operated servicing platform of 12ft x 12ft with load caring capacity of 500 Kg minimum in test cell area which can be raised or lowered from 02 places	
(ii)	Thrust frame adapters	Minimum capacity 10'000 lbs thrust class	
(iii)	Engine dress kit and all other accessories details (Factory new, Calibrated and OEM certified)	(i) 01 dress kit for each type of engine (ii) Must include 01 adapter for each type of engine to attach with thrust frame (iii) OEM/OEM certified facility certifications for thrust frame adapter and engine dress kit	
(iv)	Engine Preparation Room	(i) 30 feet x 30 feet engine preparation room (ii) An overhead bridge crane of minimum 2 Ton capacity to run the entire length of engine preparation room (iii) An overhead monorail system capable of accommodating both types of engines with adapters for transporting the engines to test cell should also be included.	
(v)	Infrastructure & Sound Proofing	(i) Infrastructure should be able to support a minimum of 10'000 lbs thrust class engine (ii) Noise level of 50db maximum for control room and 70db maximum at 100m distance from METC	
(vi)	Fuel Farm Area, Fuel Supply system and related instrumentation specifications and details	(i) Fuel storage tank type and capacity and level indicating system details (ii) Fuel supply sytem, buffer tank, pressure indicating system details	
(vii)	Oil Storage, Supply and related instrumentation system specifications and details		
(viii)	Pneumatic System and associated equipment specifications and details		
(ix)	Electrical System and Standby power generation/source specifications and details		
(x)	Fire detection and extinguishing system	(i) FM200/Norvik for indoors (ii) AFFF for fuel farm area	

c. Data Acquisition and Control System			
(i)	Marking of ID plates of complete DAS, Control System and all operating system software & reports generation must be in English		
(ii)	Control consoles for operation and control of engine in test area and test facility sytem with the necessary visulization and touch screens		
(iii)	Engine specific software capable of recording following parameters as per respective OEM parameters:-		
	* Customized testing		
	* Engine performance calculation		
	* Post processing transients		
	* Dymanic alarms and reports in accordance with OEM parameters		
	* System loging capabilities for all parameters of both engines for at least 8 hours continuously		
(iv)	DAS integrated backup system capable of auto takeover in case of malfunction		
(v)	DAS remote troubleshooting, diagnosis and maintenance by OEM		
(vi)	The DAS capable of Auto Shutdown of the engine in case of any emergency situation		
(vii)	DAS incorporated with warning alarms for out of limit parameters as per respective OEM standards		
(viii)	DAS digital control throttle compatable with both engines OEM test requirmets		
(ix)	Commercial off the shelf (COTS) hardware		
(x)	Unintrupted power supply for DAS		
2. Line Plan & Associated Services			

(i)	Detailed line plan for building and associated services in conformance with OEM certified guidelines	(i) Infrastructure to include servicing rooms for compressed air, fuel, oil and electrical systems (ii) Tools store/crib size 15 ft × 15 ft (iii) POL room for storage of lubricants and chemicals size 10 ft × 10ft (iv) Engine control room should be equipped with observation window of shatter proof glass enabling full view of the engine under test run and able to accomodate 08 personnel (iv) Sound proof and airconditioned office space size 15 ft ×12 ft and washroom for supervisor and crew room for 10 personnel	
(ii)	Cost of infrastructure and associated services	To include details of engine detuners	
(iii)	Appointed local contractor		
3. Site Survey			
(i)	Site survey prior to shipment of METC by test cell OEM to ensure all pre-requisites for installation and commissioning of METC are complete as per OEM requirements		
4. Installation / Commissioning			
(i)	Installation and commisioning of METC by OEM certified, trained and experienced specialist		
5. Acceptance			
(i)	FAT and SAT to be carried out by MRF in accordance with predefined MRF requirements, Engine OEM guidelines and Test Cell OEM suggestions		
(ii)	Test cell OEM to provide proposal for ATP and SAT of METC duely verified by OEM/OEM certified facility for approval of MRF		
(ii)	Anomalies / discrepancies encountered during FAT to be addressed by contractor prior to shipment of stores and within the contract cost		

(iii)	Timeline chart for FAT / SAT and METC commissioning		
(iv)	Boarding / Lodging / Transportation and VISAS for FAT for 06 PAC personnel		
6. Accessories			
(i)	Tools, testers, special tools and GHE / GSE details (Factory new, Calibrated and OEM certified)		
(ii)	Additional specific tools / testers for SAT & METC commissioning		
7. Publications			
(i)	OEM certified publications including IPC for operation, maintenance, calibration and trouble shooting of METC and associated equipment in english language		
8. Spares, Extra Channels, Expandables & Consumables			
(i)	Required expandables and consumables for installation / commissioning of METC		
(ii)	OEM to provide minimum of 02 spare channels (with Transducers) of each type and 01 spare transducer and Cards (RPM, Vibrations, Fuel Flow & Temp) in spare kit		
(iii)	Minimum 10% of expabdables & consumables to cater for rejections		
9. Commissioning of METC			
(i)	OEM / OEM certified facility authenticated SAT certificate		
(ii)	Entry regarding Commissioning of METC to be endorsed by contractor in Test Cell Log Book during SAT		
(iii)	PAC personnel will have complete access to METC during its installation /commissioning/ SAT		
10. Training			
(i)	Comprehensive training to 10 PAC personnel including but not limited to testing, maintenance, adjustments, operation and trouble shooting of METC		
(ii)	Provisioning of requisite technical publications in english		
11. Calibration & Corelation			

(i)	All Test Cell equipment to be Calibrated		
(ii)	Test Cell OEM to perform Correlation of METC with Gold Parameters / Gold Engine upon commissioning of METC in PAC premises		
(iii)	Calibration and Correlation Certificate from respective OEMs / OEM certified Facility		
(iv)	Minimum of 03 successful test cell runs of each type of Engine after correlation		
(v)	On-site training of 05 personnel on calibration procedures and trouble shooting techniques		
(vi)	Provisioning of Calibration Equipment and tools		
(vii)	Provisioning of requisite technical publications in english		
12. Boarding / Lodging / Travelling			
(i)	Boarding/lodging of contractors foreign teams in in PAC will be arranged by PAC		
(ii)	Traveling of the contractor's teams within/outside PAC premises will be the responsibility of the vendor		
(iii)	The security of the contractor's foreign teams in PAC premises will be provided by PAC		
(iv)	Shared office space and storage facility will be provided to the Contractor team within PAC premises		
(v)	All expenditure on office facilities will be borne by the vendor		
13. Life Cycle Support			
(i)	10 years life cycle supportability and on-site repair assistance certificate		
(ii)	Free of cost update for technical manuals of METC and associated equipment for 10 years		
14. Warranty			
(i)	03 years comprehensive warranty on METC and related accessories / parts after commissioning	Warrenty details to be provided as yearly plans	
15. Payment / CRV			

(i)	Payment against stores/services would be released after successful completion of milestone mutually agreed upon prior to contract		
16. Language			
(i)	English language will be mandatory for medium of communication between PAC and contractor		
17. Cost Breakdown			
(i)	The commercial proposals must provide detailed cost breakdown of the stores/services offered in the same.	The cost break down must include but not limited to Infrastructure cost, DAS cost (software and hardware), Fire detection /suppression system, Fuel / oil / pneumatic systems, and associated equipment (calibration equipment, testers, tools etc) costs.	

TECHNICAL SCRUTINY REPORT (TSR)

Establishment of Multi Engine Test Cell for K-8 & T-37 Aircraft TFE731-2A-2A & J69-T-25A Engines

Following guidelines/specifications are to be adhered to while awarding contract for establishment of Multi Engine Test Cell (METC) for M/s Honeywell engine model TFE731-2A-2A, and M/s Teledyne engine model J69-T-25A :-

NOTE:

Technical Requirements document in Microsoft excel format is also being provided along with TSR. These documents are to be studied in conjunction for clarity and understanding specific requirements of METC. Contract will be signed directly with OEM and local vendors are required to submit a letter of representation from respective OEM for participation in tender on OEM behalf.

1. **Multi Engine Test Cell.** Contractor shall provide factory new overhead design for Multi engine test cell facility (10,000 lbs thrust class) for both types of engines mentioned above. METC must include thrust frame adapter, Data Acquisition System, engine dress kit for each type of engine, GHE/GSE, engine preparation room, Fuel, Oil, Electrical, Fire Detection & Extinguishing systems and necessary correlation through OEM certified facility. Detailed specifications / requirements of METC are as follows: -

- (a) **Turn Key Solution:** The complete project would be handled on TURN KEY basis i.e planning, designing, construction/manufacturing and initial operation/ calibration would be the responsibility of the manufacturer.
- (b) **Design Criteria.** Following requirements must be considered in designing the METC.
 - (i) An overhead design METC is required to be established including all requisite adapters for full parameter testing of M/s Honeywell engine model TFE731-2A-2A, and M/s Teledyne engine model J69-T-25A as per respective OEM standards pertaining to PAF engines.
 - (ii) The METC must be completely digitized, sound proof, incorporated with new data acquisition system, sensors, transducers, signal control unit, engine vibration system, throttle system with electrical motor, cabling and CCTV system etc. All equipment shall be factory new.
 - (iii) Thrust frame adapter must be capable of supporting 10'000 lbs operational thrust class engines.

- (iv) 01 dress kit for each type of engine is to be provided.
- (v) METC must include 01 adapter for each type of engine for attachment with thrust frame adapter.
- (vi) OEM/OEM certified facility certifications for thrust frame adapter and engine dress kit items are mandatory.
- (vii) An overhead bridge crane of minimum 2 Ton capacity to run the entire length of engine preparation room should be installed. An overhead monorail system capable of accommodating both types of engines with adapters for transporting the engines to test cell should also be included.
- (viii) A Hydraulically operated servicing platform of size 12ft x 12ft is required in test cell area which can be raised or lowered with load carrying capacity of 500 Kg minimum. When not in use the platform should be flushed with floor. Provision of controlling the platform may also be provided from control room as well.
- (ix) METC Infrastructure should be able to support a minimum of 10'000 lbs thrust class engine.
- (x) Noise level of 50db maximum for engine control room and 70db maximum at 100m distance from METC.
- (xi) Fuel Farm Area, Fuel Supply system, associated equipment and instrumentation specifications and details are to be provided with the proposal.
- (xii) Oil Storage, Supply system, associated equipment and instrumentation specifications and details are to be provided with the proposal.
- (xiii) Pneumatic System including compressor and associated equipment specifications and details.
- (xiv) Electrical Systems, sub systems and Standby power generation/source specifications and details.
- (xv) Fire detection and extinguishing system specifications and details. Fire suppressing agents like FM200/Norvik should be considered for indoors use and AFFF for fuel farm area.

(c) **Data Acquisition and Control System.** The Data Acquisition and Control System includes: -

- (i) Markings and ID plates of complete DAS, Control System, related subassemblies, parts, and operating software/report generation must be in English language.

- (ii) The control console is to include the necessary visualization and touch screens that are required to operate and control the engine in the test area as well as various elements of the test facility system.
- (iii) Engine Specific Software that incorporates all customized testing sequence, calculation of engine performances, post-processing transients, dynamic alarms, and reports in accordance with TFE731-2A-2A and J69-T-25A engines respective OEMs parameters. System should have complete logging capabilities for all parameters of both engines. Logging system should be able to ensure at least 8 hours of continuous recording.
- (iv) DAS should have an integrated backup system capable of auto takeover in case of malfunction of main system.
- (v) DAS must be incorporated with the ability for remote troubleshooting, diagnosis and maintenance by OEM.
- (vi) DAS must be incorporated with warning alarms for out of limit acquired or computed parameters for TFE731-2A-2A and J69-T-25A engines as per respective OEM standards. The DAS must also be equipped for Auto Shutdown of the engine in case of any emergency situation.
- (vii) DAS must be incorporated with new digital control throttle that should be fully compatible with TFE731-2A-2A and J69-T-25A engines OEM test requirements.
- (viii) Preferably, the provided hardware should be commercial off the shelf (COTS) allowing local sourcing and self-maintenance, as required.
- (ix) Availability of uninterrupted Power Supply to data acquisition system, control throttle, screens, video and intercom circuits.

2. Line Plan & Associated Services. Contractor shall provide a detailed line plan of the building and associated services required for installation/commissioning of the METC. The infrastructure must include Engine Testing Area with thrust frame adapter and all requisite facilities including Fire suppression system, fuel system piping, and requisite platform to undertake engine testing of both types of engine. Test Cell building should also include servicing rooms for compressed air, fuel, oil and electrical systems, a Tools store/crib (15 ft X 15 ft) and POL storage room (10 ft X 10 ft) for lubricants and chemicals, Sound proof and air conditioned office space (15ft X 12 ft) and washroom for supervisor and crew room. Engine control room should be equipped with observation window of shatter proof glass enabling full view of the engine under test run and must have sitting capacity of minimum 08 personnel besides DAS hardware. An engine preparation area/room of size 30 feet x 30 feet for pre-rigging /de-rigging of engines are also required. The line plan must conform with the OEM certified guidelines and should include all pre-requisites including but not limited to detailed requirements for civil works, electrical and mechanical works, environmental conditioning, air pressure, fuel system for test bed, and any other external services. The cost of infrastructure required for the establishment of test cell and associated services will be part of the contract. Vendor will be responsible for the completion, quality and safety of all infrastructure requirements. During the course of establishment of METC infrastructure, PAC Kamra

reserves the right to appoint a supervisor to oversee the activities so as to ensure quality of stores and services. Upon completion, the building and associated services will be taken over by PAC as per the OEM defined specifications.

3. **Site Survey.** Prior to the shipment of the METC; a site survey will be required from the test cell OEM, to ensure that all pre-requisites for installation and commissioning of the test cell in line with PAF requirements and respective engine OEM standards for its successful operation have been completed. In this context, Contractor will provide details of personnel required to visit PAC for Site survey at least 03 months in advance.

4. **Installation / commissioning.** The installation/commissioning of METC is to be undertaken by OEM certified, trained and experienced specialists. In this context, contractor will provide details of foreign nationals required to visit PAC Kamra including but not limited to Site Acceptance Test (SAT), training, and commissioning of METC, at least 03 months in advance.

5. **Acceptance.** Factory Acceptance Test (FAT) and Site Acceptance Test (SAT) will be carried out by MRF in accordance with predefined MRF requirements and Engine OEM guidelines, and suggestions by Test Cell OEM. Test Cell OEM will provide proposal for Acceptance Test Procedures (ATP) and SAT of METC duly certified by the OEM/OEM certified facility for approval of MRF. A comprehensive timeline chart in respect of FAT/SAT and METC commissioning is to be provided by the contractor and made part of the contract. For FAT the contractor will bear all expenses including air ticketing, boarding, lodging, transportation, and VISAs, etc for 06 PAC personnel (02 officers + 04 technicians). Any anomalies and discrepancies encountered during FAT are to be addressed by contractor prior to shipment of stores and within the contract cost and predefined timeline.

6. **Engine Dress Kit and Accessories.** Engine Dress Kit and all other accessories required for performing TFE731-2A-2A and J69-T-25A engines test runs including but not limited to tools, testers, special tools, tooling, and GHE/GSE etc are to be provided by the contractor. These accessories including 01 dress kit for each type of engine and 01 adapter for each type of engine must be factory new, calibrated and certified by respective OEMs for conformance with PAF engines. The details of engine dress kit and list of all other accessories will be provided by the contractor as part of the proposal and same will be made part of the contract.

7. **Publications.** All publications including illustrated parts catalogue (IPC) required for operation, maintenance, calibration, and troubleshooting of the METC and associated equipment are to be provided in English language in both soft and hard copy. The set of publications must be certified by respective OEMs for conformance with PAF engines.

8. **Spares, ExtraChannels,Expendables, and consumables.** Minimum10% of Expendables and consumables are to be provided by the contractor to cater for rejections. OEM will also provide minimum of two spare channels (with transducers)of each type (in installed condition) and 01 spare transducer and cards (RPM, Vibration, Fuel flow & Temp) in spare kit. List of expandable and consumables including spare cards will be made part of the contract.

9. **Commissioning of METC.** PAC personnel will have complete access to METC during itsinstallation/commissioning/ SAT. Entry regardingcommissioning of METC will be endorsed in the Test cell log book by the contractor, during SAT. The SAT must finally be authenticated by the OEM/OEM certified facility.

10. **Training.**Contractor is to arrange comprehensive training to 10 PACpersonnel including but not limited to testing, maintenance, adjustments, operation,calibration and troubleshooting of METC, and also provide requisite technical publications in English language for the same.

11. **Calibration and Correlation.** All Test cell equipment is required to be calibrated and Test Cell OEM will perform correlation of METC with gold parameters/gold engine upon commissioning in PAC premises and perform minimum of 03 successful runs of each type of engine after correlation. It will also include on-site training of 05 PAC personnel on calibration procedures and troubleshooting techniques. Contractor will provide requisite publications in English language, tools and calibration equipment to PAC for subsequent conduct of calibrations in future. Calibration and Correlation Certificate from respective OEMs or OEM certified facility would be required.

12. **Boarding/lodging/traveling.** Boarding/lodging of contractors foreign teams in PAC will be arranged by PAC; however contractor will pay as per existing regulations. Traveling of the contractor's teams within/outside PAC premises will be the responsibility of the vendor. The security of the contractor's foreign teams in PAC premises will be provided by PAC. Shared office space and storage facility will be provided to the Contractor team within PAC premises. All expenditure on office facilities will be borne by the vendor.

13. **Life Cycle Support.** The contractor will render a certificate for at least 10 years life cycle supportability for METC and on-site repair assistance; on payment. Additionally, any updates in the technical manuals of the METC and associated equipment will be offered to PAC free-of-cost for at least 10 years. The same will be made part of the contract.

14. **Warranty.** Contractor would provide 03 year comprehensive warranty after commissioning on Engine test cell, its accessories, and parts. The schedule of warranty must be provided as yearly plans.

15. **Payment/CRV:** Payment against stores/services would be released after successful completion of milestone mutually agreed upon prior to contract.

16. **Language:** Medium of communication between PAC and Contractor team during SAT / commissioning of METC and Training would be English language. Accordingly, the contractor will have to make arrangements for requisite number of interpreters if required.

17. **Cost Breakdown.** The commercial proposals must provide detailed cost breakdown of the stores/services offered in the same.

INSPECTION CRITERIA TO BE FOLLOWED DURING ACCEPTANCE OF TFE731-2A-2A & J69-T-25A MULTI ENGINE TEST CELL

Following Criterion will be followed during acceptance phase of test bed.

1. Full Parameter Testing of TFE731-2A-2A & J69-T-25A engines will be carried out as per OEM standards.
2. Following areas will be focused during quality inspection phase.
 - Infrastructure & Sound Proofing
 - Thrust frame adapter
 - Engine Preparation Room
 - Fuel Farm Area
 - Fuel Supply system and related instrumentation
 - Oil Storage
 - Electrical supply and related instrumentation system.
 - Pneumatic System and (Compressor) associated equipment.
 - Fire extinguishing system
 - Engine dress kit and all other accessories details (Factory new, Calibrated and OEM certified)
 - Control consoles for operation and control of engine in test area and test facility system with the necessary visualization and touch screens
 - Engine specific software capable of recording following parameters as per respective OEM parameters:-
 - System logging capabilities for all parameters of both engines for at least 8 hours continuously
 - Customized testing
 - Engine performance calculation
 - Dynamic alarms and reports in accordance with OEM parameters
 - Post processing transients
 - DAS integrated backup system capable of auto takeover in case of malfunction
 - DAS remote troubleshooting, diagnosis and maintenance by OEM

- The DAS capable of Auto Shutdown of the engine in case of any emergency situation.
- DAS digital control throttle compatible with both engines OEM test requirements
- Commercial off the shelf (COTS) hardware
- FAT and SAT to be carried out by MRF in accordance with predefined MRF requirements, Engine OEM guidelines and Test Cell OEM suggestions
- Test cell OEM to provide proposal for ATP and SAT of METC duly verified by OEM/OEM certified facility for approval of MRF
- Tools, testers, special tools and GHE / GSE details (Factory new, Calibrated and OEM certified)
- OEM certified publications including IPC for operation, maintenance, calibration and trouble shooting of METC and associated equipment in english language
- OEM to provide minimum of 02 spare channels of DAS (with Transducers) of each type and 01 spare transducer and Cards (RPM, Vibrations, Fuel Flow & Temp) in spare kit
- OEM / OEM certified facility authenticated SAT certificate
- PAC personnel will have complete access to METC during its installation /commissioning/ SAT
- Entry regarding Commissioning of METC to be endorsed by contractor in Test Cell Log Book during SAT
- Provisioning of requisite technical publications in English
- All Test Cell equipment to be Calibrated
- Test Cell OEM to perform Correlation of METC with Gold Parameters / Gold Engine upon commissioning of METC in PAC premises
- Calibration and Correlation Certificate from respective OEMs / OEM certified Facility
- Minimum of 03 successful test cell runs of each type of Engine after correlation
- Provisioning of Calibration Equipment and tools
- Provisioning of requisite technical publications in English

Notes:-

1. Quotation must be submitted on '**FOB**' basis only.
2. Payment will be made as per PAC Board procedure.
3. Store be dispatched by Air. However depending upon the nature, the items be dispatched by Sea with prior permission from DCP PAC Board.
4. Packing should be proper to with-stand shock during transit by Air / Sea.
5. OEM/Supplier conformance certificate.
6. 03 years comprehensive warranty of METC and related accessories / parts after commissioning.
7. METC will be inspected after establishment by MRF Quality Control Department / concerned technical staff.
8. Site survey prior to shipment of METC by Test Cell OEM to ensure all pre-requisite for installation and commissioning of METC are complete as per OEM requirements.
9. On site installation and commissioning is to be accomplished by the OEM certified, trained & experienced specialists.
10. Line plan & associated, acceptance, dress kit, accessories, publications, spares, extra channels, expendable, consumables , training, calibration and correlation, life cycle support and language as per attached technical requirements.

Annexure "D"

Form PACB-002A

**PAKISTAN AERONAUTICAL COMPLEX BOARD
KAMRA**

SCHEDULE TO TENDER

1. **TENDER INQUIRY NO: PACB/741/80592009/0677/P-1**
2. Time and Date of opening Tender at 1100 Hrs on **30-04-2018**

(1)	(2)	(3)	(4)	(5)	(6)
Item No	Part No. Description of stores with specifications	Unit of issue	Qty	Unit price	Total price

Grand Total

Signature of Bidder
(Capacity in which signing)

UNDER TAKING
(Fill in and Return)

To,

**Member Commercial
Pakistan Aeronautical Complex Board
Kamra Distt Attock**

Dear Sir,

I/We hereby offer to supply to PAC Board the stores detailed in the Schedule to Tender or such portion thereof as you may specify in the contract at the prices given in Form **PACB – 002A** and further agree that this offer will remain valid up to _____ and will not be withdrawn or altered in terms of rates quoted and the condition stated therein on or before this date. I/We shall be bound by your communication of acceptance to be dispatched within the prescribed time.

I/We understood the instructions to Tenders and condition of contract as laid down in Form **PACB-10** titled "**General Conditions Governing Contract**" and thoroughly examine specification / drawing and / or patterns quoted in the Schedule to Tender and am/are fully aware to the nature of the stores required and my/our offer is to supply stores strictly in accordance with the requirements.

Witness's Signature:

Name:

N.I.C No.

Address:

Date:

Signature of Bidder:

Name:

N.I.C No.

Capacity in which Signing:

Address:

Date:

Tel: Telex/Fax

SPECIAL INSTRUCTIONS

Under mentioned information must be provided along with quotation else your quotation will be rejected: -

S.No	Description / Requirement	Remarks / Attached
1.	Delivery Period	
2.	Quotation Validity (Must be 30-06-18)	
3.	Country Of Origin	
4.	Port of Shipment	
5.	Terms of Payment (As per Para 19 of IT)	
6.	BG% (Confirmation to provide 10% BG)	
7.	Warranty / Guarantee period offered by Firm	
8.	Beneficiary Details (Completed address along with contact No)	
9.	Complete Bank address and Account Details For Payment / Letter of Credit	
10.	Previous Experience (Nature of Business and No of Years in Business)	
11.	Registration Status With PAC Board	
12.	Signing Authority (Name, Designation, Contact Details)	
13.	Address of local firm along with contact No, email etc	
14.	Manufacturer and Brand Name (If applicable)	

GENERAL CONDITIONS FOR BG

(a) To ensure timely and correct supply of stores, the firm will furnish an unconditional Bank Guarantee at the time of the signing of the contract from a schedule Bank for an amount of _____ i.e. 10% of the total value of the contract (on a judicial Stamp paper of the value of Rs 100/-). The Bank Guarantee shall be endorsed in favour of DBA PACB who is the Account Officer specified in the contract. The DBA PACB concerned shall have the like power of seeking encashment of the Bank Guarantee as if the same has been demanded by the purchase officer himself.

(b) The Bank Guarantees will be of following types with validity and amount has mentioned in each type

(i) **Bank Guarantee against contract performance** It will be between 10% of total value of contract excluding taxes/duties and freight/handling charges etc. It shall remain inforce till 60 days beyond the Delivery Period stipulated in the contract.

(ii) **Bank Guarantee against Advance/ Down Payment.** It will be equal to amount paid in advance /down payment shall remain valid till 60-days beyond the Delivery Period stipulated in the contract.

(iii) **Bank Guarantee against Warranty Period.** It will be for amount of 10% of contract value excluding taxes/duties and freight /handling charges, etc. Duration of BG against Warranty Clause is variable. Normally under DP-15, it is for one year for the general type of equipment/ spares. For consumable goods, the warrantee period should also expire after 6 months or when the goods are fully consumed whichever is earlier or as per terms of contract.

(c) If the supply of store is on warranty, the supplier shall be bound to extend the validity of Bank guarantee for such further reasonable period if so required by the purchase officer to cover the warranty period.

(d) If the supplier fails to provide the Bank guarantee within 30 days after signing a contract, such failure shall constitute a breach of contract and the Director purchase shall be entitled to make other arrangements at the risk and expense of the supplier if no other BG / Bid Security of the same supplier for an equal amount is held up for final release, with the purchaser against any other completed contract(s). In the event of unsatisfactory performance or of any breach of terms of the contract, Bank guarantee shall be forfeited to the Govt. at the discretion of the purchaser. On satisfactory performance of the contract, the Bank Guarantee will be returned to the supplier by CMA (DP) Rawalpindi on receipt of instruction from the purchaser i.e. Directorates of Procurements etc.

(e) In case of FOR tenders/contract it is imperative that BGs are obtained from firms/suppliers/agents through scheduled Banks of State Bank of Pakistan so as to safeguard the interest of the state.

(f) In case of FOB tenders/contracts, Bank Guarantee is to be obtained preferably from LC opening Bank of Pakistan and through supplier, LC opening Bank abroad. In case firm does not agree to the aforesaid condition, then BG should at least, be obtained from supplier's country Bank located in Pakistan or any enlisted scheduled Bank of Pakistan in favour of LC opening Bank in Pakistan or any scheduled Bank of Pakistan, and the same will be a Bank to Bank Guarantee in favour of CMA (DP) Rawalpindi.