

**PLEASE READ CAREFULLY**

- ❖ Participating bidder is required to submit bid according to instructions mentioned in bidding documents. These bid 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 bid 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 bidder is therefore requested to read the bidding documents thoroughly and submit 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 R)**

**Tender No PACB/741/90865031/0742/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](mailto:adcp@pac.org.pk)

April, 2019

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 into 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 - 02A & PACB - 02B:** Form **PACB - 02A & PACB - 02B** duly filled-in are to be returned with the offer duly signed by the authorized signatory person.

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 working 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 working days prior to tender opening date for arranging their entry).

7. **DELIVERY PERIOD:** Stores are required within minimum possible delivery period **03 to 06 months**, in the shortest time frame. 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, 2019**.

**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. EXAMINATION OF SPECIFICATION / SAMPLES:** When sealed pattern of stores are mentioned in the "Schedule to Tender" these may be seen at the place stated in the schedule and should be examined by you, or competent person on your behalf before the submission of tender.

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

- (a) FOR price of the stores (Line Item Wise).

(b) 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).

(c) Shelf / installation life of each item (if applicable) is to be mentioned separately.

**18. PRICES:** The prices quoted must be per unit of issue / accounting unit as shown in the "Schedule to Tender" inclusive of sales tax/excise duty and surcharges. The breakdown of taxes/excise duty is to indicated separately. The prices must be stated for each item separately both in figures and words in Pak currency. Over writing / erasing in prices will be rejected. Mention GST separately.

**19. COUNTRY OF MANUFACTURE:** Country /place of manufacture of stores is to be provided alongwith offer.

**20. 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) Form PACB-002A, PACB-002B & PACB-002C 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. 200/-

(p) Bid Security not provided.

(q) Offer with Prior sale condition.

21. **PAYMENT:**

Payment would be **100%** on proof of up-gradation / installation, commissioning.



22. **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 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.
- (f) Registration number issued by respective Department of Commerce or concerned department authorising to deal in subject store and export of store.
- (g) List and evidence of certification from recognized international bodies like ISO.
- (h) 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.
- (j) Firm/Supplier name, complete address, contact numbers, and email addresses.
- (k) Undertaking that their firm and their proprietors have not been in litigation/blacklisted by any Govt./Semi-Govt/Autonomous body.
- (l) Any other document if required during procurement proceedings according to Rule 17 of PPRA rules 2004.

**Note: Security clearance of firm is mandatory before participation in tender. Firms having applied for security clearance or those intend to apply for security clearance soon after tender date can also participate in tender after submission of following additional documents. However firm will be required to apply for security clearance immediately after tender submission:-**

- (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 Manufacturer confirming that the bidder is authorized to deal with the item quoted.

**23. 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 (ISO) who is the accounts officer specified in the contract. CMA (ISO) 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 ahead of the 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.

**24. INSPECTION / ACCEPTANCE OF STORES:**

(a) Stores will be accepted at firm's premises/consignee by the inspector / Inspection officer of the PAC Board.

(b) Warranty / Guarantee as per format for period of one year will be applicable for stores commencing from the acceptance of store / installation at consignee.

**25. 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.

**26. TENDER OPENING:** Only authorized person of firm will be allowed to attend tender opening.

**27. 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 Bid Security.

**28. TREASURY CHALLAN:** Offer must be accompanied by Challan Form No. F-32A of Rs, 200/- 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.

**29. SEQUENCE OF QUOTATION:** Quotation must be prepared according to the item serial no sequence of Schedule to Tender (Form **PACB-002A**).

**30. 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.

**31. BID SECURITY:** The Bid Security@ 5% (not exceeding 0.150 M) will be deposited by all firms. Bid Security will be deposited in favour of CMA (ISO) in the form of CDR / Pay order / Demand draft only at the time of tenders 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 Bid Security.

**Note: - No Quote will be accepted without Bid Security which will be as per IT clause 31. However, Bid Security must be provided in shape of CDR / Pay order / Demand draft only otherwise your quotation will be rejected.**

**32. 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”.

**33. ARBITRATION**

All matters of dispute or difference, except regarding rejection of stores / Services by the Project Management Office (PMO) / Quality inspector or cancellation of the contract by the Purchaser arising out of this contract between the parties hereto, the same shall be settled by mutual agreement, failing which they shall refer for Arbitration to a final settlement by an Arbitration Tribunal, in

Pakistan comprising three arbitrators. One arbitrator shall be appointed by each party and the third arbitrator being appointed by the two arbitrators already appointed or in the event that the two Arbitrators do not agree upon the third arbitrator, a judge of superior court of Pakistan shall appoint the third Arbitrator. The arbitration proceedings will be held at PAC Kamra District Attock Pakistan. The arbitration award shall be un-spoken.

**34. LITIGATION**

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

**35. 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.

**36. 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.

**37. 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.

**38. REGISTERED SUPPLIER WITH FBR:**

- (a) Only registered supplier who are on Active Taxpayers List (ATL) of FBR eligible to supply goods / services Government Department.
- (b) The payment to the registered persons will be linked with the active taxpayer status of the suppliers as per FBR database if any registered supplier is not in ATL his payment will be stopped till he files his mandatory returns and appears on ATL of FBR.

**39. DISCREPANCY**

The consignee will render a discrepancy report within 30 days after receipt of the material in Pakistan for any discrepancy found in consignment and shortage in quantities for which the seller is responsible to replace short quantity free of cost. If the seller is unable to provide the replacement for the rejected store / short quantities within 90 days, the seller will make a complete refund of any payment received against the rejected store / short quantities to the purchaser. In case of surplus supply by the seller, the purchaser will render to the seller the material delivered in excess at seller's expense. Discrepancy report regarding loss/damage will be immediately lodged with the seller/carrier given reasonable time be provided to the purchaser to inspect the store. The seller will co-operate with purchaser in filling claims with the carrier. In case the stores on checking / test after receipt at consignee's warehouse are found not conforming strictly to the contract specification and other particular, the Seller shall immediately replace the rejected store by acceptable store free of cost and without any obligation to the Purchaser. If the seller is unable to provide the replacement for the rejected store within 90 days, the seller will make a complete refund of any payment received against the rejected store to the purchaser. Rejected stores will be disposed off by the Seller under his own arrangements within 14 days from the date of rejection and within 72 hours in case of dangerous, infected and perishable stores. In case the seller fails to lift the stores within the above mentioned stipulated period he will pay storage charges at the following rates. Moreover, purchaser shall not be liable for the safety and security of stores / items if not so lifted by the seller after the above stated time period.

**Cost of the Stores Storage Charges**

a. Upto Rs. 1 M	5% per Annum
b. Above 1 and upto 5 M	4% " "
c. 5 to 10 M	3% " "
d. over 10 M	2% " "

**40. 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 Proc  
PAC Board Kamra  
Tel Ext: 2576

Enclosure:-

SCHEDULE TO TENDER	Form (PACB – 02A)
UNDERTAKEN	Form (PACB – 02B)
QUESTIONNAIRE	Form (PACB – 02C)
SPECIAL INSTRUCTIONS	Form (PACB – 02D)

**SCHEDULE OF STORES**

Tender Inquiry No: - **PACB/741/90865031/0742/P-1**

TENDER SUBMISSION TIME: - Before 1030 Hrs on opening date

TIME & DATE OF OPENING **1100 Hrs on 06-05-2019**

**(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.)

**UP-GRADATION OF ELECTRONIC UNIT QTY 01 EA**

**(AS PER FOLLOWING SPECIFICATIONS)**

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### SPECIFICATIONS/ SCOPE OF WORK

1. Upgradation of tester used in Servo shop is required to be carried out with more accurate gauging instruments and associated result feedback in printed form as an output. Detailed requirements for the upgradation of subject testers is as follows:

(a) **Digitized Solution:** A completely digitized solution for the upgradation of the subject testers would be required along with the provisioning of complete circuit drawings. The proposed digitized solution is to be backed up an internally incorporated Uninterrupted Power Supply in case of a power failure.

(b) **Correlation:** Automatic/ self-Calibration of the testers is required along with a correlation certificate.

(c) **Applicability:** The design and architecture of the proposed upgrade must be simple enough to make the tester compatible with other weapon systems used by Pakistan Air force. Furthermore, support is to be provided in case of different hardware/ hardware interface is encountered. Moreover, compatibility/ modification of the testers with civilian aircraft components is also to be ensured (Compatibility with hydraulic fluid SKYDROLL used in commercial aircrafts). The upgrade is to focus on development new test jig modified to house Servo Control of DA-20 aircraft. The servo control along with all the dimensions will be provided by MRF. The newly manufactured test jig is to be an up scaled model of test jigs present in the shop. Complete automation of the electronic test rack is to be ensured with future provisioning of upgrade/ inclusion of new checks in the test bench. A suitable hydraulic prime mover (hydraulic pump) Qty 02 is to be provided.

(d) **Results/ Data sheet printing:** The testers must have an inherent capability of printing all the results as mentioned in the data sheet for further dispatch with the components.

(e) **Trouble shooting Guide:** Complete circuit diagrams of all the testers including sub-assemblies is to be provided for electrical circuitry along with a detailed trouble shooting guide. Removal / installation and repair scheme of all the mechanical/ associated sub-assemblies is to be provided.

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(NAJAM-UL-HASSNAIN)  
Group Captain  
Chief Engineer (Compta)  
MRP PAC Kairra



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(f) **Documentation:** Interactive Electronic Technical Manual is to be incorporated in Servo shop. Complete illustrated parts breakdown (IPBs), technical drawings, technical and maintenance manuals, inspection/calibration schedule and procedures with troubleshooting guide for the entire machinery must be provided.

(g) **Training:** Training on operations, calibration, trouble shooting, electric circuit tracing and replacement of components procedures would be required for adequate number of personnel of MRF at OEM facilities inclusive of air ticketing, boarding, lodging, transportation and VISAs etc.

(h) **Spare Support Package:** A spare support package based on high consumption/ MTBF, inclusive of sensors, transducers and cards would be required to avoid down time and to ensure smooth operation. Moreover, 1 additional spare of all the electronic replacement units (Part of the modification) is also to be provided in order to cater for any unserviceability of the unit. Additionally in case of hydraulic prime movers (for Servo control test bench), Qty 02 extra prime movers are to be provided (as mentioned in Servo control test rig upgradation).

(i) **Long Term Spares and Customer Support:** Long term spares and customer support includes:-

- (i) 03 years warranty of all parts and workmanship defects. (Cost of transportation of equipment and personnel will be the responsibility of vendor during warranty period).
- (ii) Long term spare support of at least 10 years after commissioning.
- (iii) Establishing of local technical team by the vendor for rapid support.

(J) **Installation/ commissioning:** Installation/ commissioning of the upgraded testers is to be carried out by OEM certified, trained and experienced specialists. Moreover, Factory Acceptance Test (FAT) will also be carried out by Components Overhaul Group MRF in accordance with the predefined MRF requirements and guidelines. Any anomalies and discrepancies encountered during FAT are to be addressed by the OEM and within the contract cost.

(NAJIBULL HASSNAIN)  
Group Captain  
Chief Engineer (Compts)  
MRF PAC Kamra

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MIRAGE REBUILD FACTORY PACB, KAMRA  
(Components Overhaul Wing)

UP GRADATION OF TESTERS  
(Components Overhaul Wing)

1. Introduction:-

Servo Shop was established in 1985 to provide the 4<sup>th</sup> Line Maintenance facility for Mirage Aircraft in Pakistan. Before this establishment all the servo controls were sent to France for all types of maintenance. A total of 10 Pt No's of servo control are on the repair capability list (RCL) of this shop. The detail of RCL is as under:-

S NO	PART NO	PL PART NO	NOUN	MFG	SYSTEM	STATUS	LIFE	A/C TYPE	UPA	MODE OF OPERATION
1	103-33-1A		ELEVON SERVO	AMD.BA	A/C CONTROLS	LIFE	5000 HRS	ALL MIR	1	Hyd and Mechanical.
2	103-33-1B		ELEVON SERVO	AMD.BA	A/C CONTROLS	LIFE	5000 HRS	ALL MIR	1	"-
3	103-34-1	103-34-5	RUDDER SERVO	AMD.BA	A/C CONTROLS	LIFE	5000 HRS	ALL MIR	1	Mech + Hyd + Electro Hyd Mode
4	103-35-4	103-35-6	DAMPER SERVO	AMD.BA	A/C CONTROLS	LIFE	5000 HRS	ALL MIR	1	Electro Hyd Mode
5	103-35-5	103-35-7	DAMPER SERVO	AMD.BA	A/C CONTROLS	LIFE	5000 HRS	ALL MIR	1	"-
6	103-36-H1		ROLL PRE-SERVO	AMD.BA	A/C CONTROLS	LIFE	5000 HRS	ONLY FOR DP	1	Hyd and Mechanical.
7	103-41-3		ELEVON SERVO	AMD.BA	A/C CONTROLS	LIFE	5000 HRS	ALL MIR	2	"-
8	103-43-10	103-43-20	ROLL SERVO	AMD.BA	A/C CONTROLS	LIFE	5000 HRS	ALL MIR	1	Mech + Hyd + Electro Hyd Mode
9	103-43-4		PRE-SERVO	AMD.BA	A/C CONTROLS	LIFE	5000 HRS	ONLY FOR DP	1	"-
10	103-43-9	103-43-19	PRE-SERVO	AMD.BA	A/C CONTROLS	LIFE	5000 HRS	SINGLE SEATER A/C	1	"-

2. Recourses Available:-

(a) Hydraulic power

A hydraulic pressure generator Pt No G1-15-802-07 which generates / distribute 3000 PSI hydraulic pressure serve as a life line in the servo shop operations. A standby system Pt No MMB-018-07 is also installed in this shop. Both hyd pumps are driven by electric motor.

(b) Electrical Power:-

Three electrical power sources equally serve as a life in servo shop for electro hyd operations of hyd controls.

- (i) 115 V 3  $\phi$  400 CPS Available through convertor.
- (ii) 28 VDC Available through rectifier fitted in shop.
- (iii) 220 V 50 CPS Commercial supply.

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(NAJAM ULLAH HASSNAIN)  
Group Captain  
Chief Engineer (Compta)  
MRF PAC Kamra

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**3. Testers**

Following are the main testers which are used for different adjustment / testing of servo controls in shop.

**(a) Electronic Test Rack Pt No MEA092-04:-**

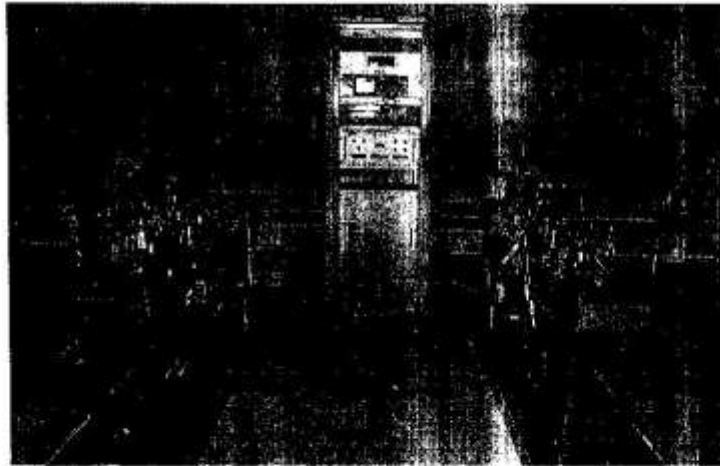
This is the main tester which is used for electronic adjustment of servo controls in electro hydraulic mode of operation. Electronic test rack is used either in collaboration with Yaw and Damper servo test bench or with pre servo test bench according to requirement.

**(b) Yaw and Pitch Damper Servo Test Bench Pt No G1-15- 549LO2.**

This test bench is initially used for adjustment / testing of Rudder and pitch damper servo controls in hydraulic mode of operation. And later on the same test bench in collaboration with electronic test rack is used for adjustment / testing in electro hyd mode of operation.

**(c) Pre Servo Test Bench Pt No G1-15-559LO2**

This test bench is initially used for adjustment / testing of pitch pre servo and roll pre servo in hydraulic mode of operation. And later on the same test bench in collaboration with electronic test rack is used for adjustment / testing in electro hyd mode of operation



**(d) Eleveon Servo Test Bench Pt No G1-15-548LO2**

This test bench is used for adjustment and testing of Inner eleveon servo and outer eleveon servo in hyd mode of operation only. Eleveon servo are not designated to operate in electro hydraulic mode of operation.

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(NAJIBUL HOSSAIN)  
Group Captain  
Chief Engineer (Operations)  
MPC PAC RAJSH

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(e) A presetting test bench (mechanical) Pt No G1-15-167LO2 in collaboration with a presetting test bench (electrical) Pt No G1-15-167RO1 is used for preliminary setting of all types of electro hydraulic servo controls before adjustment / testing on electronic test rack.

(f) UPGRADE OF SHOP INFRASTRUCTURE

An upgrade of entire shop infrastructure is also required to be carried out which should include following works:

S No	Work	Remarks
1	(a) Gypsum Ceiling	
	(b) Industrial Tiles	
	(c) Wall Crack Repair	
	(d) Aluminum Doors with lock	
	(e) Aluminum Sliding Windows	
	(f) Distemper Complete shop	
	(g) Environmental control to maintain temp from 18 to 25°C in the shop.	
2	(a) Renovation of Internal Electrification	
3	(a) Stainless Steel Sheet 3mm for Workshop table	
4	(a) Repair/replacement of false ceiling at Compt O/H Wing Gallery Tech Area MRF.	
5	(a) Replacement of Tube lights/Energy savers with LED Panel Lights at Compt Wing Gallery and O/c Compt Wing In MRF Tech Area.	

**Upgradation Requirements:**

A completely digitized solution for the upgrade of the subject testers would be required along with the provisioning of complete circuit drawings. The proposed digitized solution is to be backed up an internally incorporated Uninterrupted Power Supply in case of a power failure. The tester must have an inherent capability of printing all the results as mentioned in the data sheet for further dispatch with the components.

The upgrade is to focus on development of new test rig modified to house servo controls of DA-20 aircraft. The servo control along with all the dimensions will be provided by MRF. The newly manufactured test rig is to be an up scaled model of test rig present in the shop. Complete automation of the electronic test rack is to be ensured with future provision of upgrade/ inclusion of new checks in the test bench. A suitable hydraulic prime mover (Hydraulic pump) Qty 02 is to be provided.

(NAJAM ULLAH HASSNAIN)  
Group Captain  
Chief Engineer (Compta)  
MRF PAC Kamra

CONFIDENTIAL

**SPECIFICATION AND CAPABILITIES**

**1. Dimensions**

- (a) Height : 1800 mm
- (b) Width : 640 mm
- (c) Depth : 830 mm
- (d) Weight : 190 Kg (419 lbs)

**2. TECHNICAL FEATURES**

**(a) Power Supply Voltages**

- (i) 28 VDC
- (ii) 220 V AC, 50/60 Hz
- (iii) 115 V AC, 400 Hz

**3. Description**

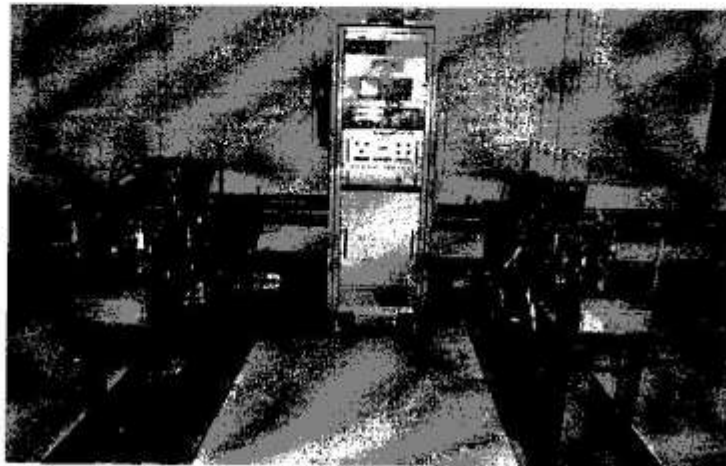
Rack MEA092-04 consist of a metal cabinet in which the following are installed in the front

- (a) One digital Multimeter
- (b) One Oscilloscope
- (c) One Servo scope Plug in Unit
- (d) One Analyzer Plug in Unit
- (e) One Measuring Bridge Plug in Unit
- (f) One sliding Cable Stowage Drawer
- (g) One Fan Plug in Unit
- (h) One Sliding Work Table

**4. USE**

The Rack, associated with hydraulic test benches type G1-15-549 and G1-15-559 is used to check and adjust electro-hydraulic servo controls type 103-4, 103-35 and 103-43.

S No	Noun	Part No	OEM	Date of MFG
1.	Electronic Unit	MEA092-02	Dassault France	March, 1983



**Special Requirements:-**

1. Payment would be 100% on Proof of up-gradation / installation, commissioning.
2. Packing would be proper to with-stand shock during transit by Road.
3. Quality check of by Quality control Aircraft MRF PAC Kamra.

1.

**Form PACB – 02A**

**PAKISTAN AERONAUTICAL COMPLEX BOARD  
KAMRA**

**SCHEDULE TO TENDER**

19. . Tender Inquiry No PACB/741/90865031/0742/P-1

2. Time and Date of opening Tender at 1100 Hrs on 06-05-2019

(1)	(2)	(3)	(4)	(5)	(6)
Item No	Description of stores and specifications	Unit of issue	Qty	Price per unit	Total price

**Grand**

**Total** \_\_\_\_\_

signing)

**Signature of  
Tenderer**  
(Capacity in which

**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 – 02A** and further agree that this offer will remain valid upto \_\_\_\_\_ 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 ispatched 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.

Yours faithfully

**Witness's Signature:**

Name:

N.I.C No.

Address:

Signing:

Date:

**Signature of Tenderers:**

Name:

N.I.C No.

Capacity in which

Address:

Date:

Tele:



Telex/Fax:

**QUESTIONNAIRE TO BE FILLED IN BY BIDDER**

Firm is required to provide confirmation of following points and in case of

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 <b>PACB – 002A</b> .		
2.	Whether deviation from the demanded specification is attached with <b>Form PACB – 002A</b> .		
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 <b>Form PACB-002A &amp; 002B</b> duly filled in and signed by the Bidder have been returned in herewith.		
6.	Whether copy of valid registration / business authorization of firm have been enclosed herewith.		
7.	Whether tender fee challan amounting to Rs 100/- has been enclosed herewith.		
8.	Whether details of financial capability (Bank Statement etc.) and financial load of contracts outstanding against your firm have been provided.		
9.	It is confirmed that no Taxes / Duties & Dues payable to Pakistan Govt are outstanding at the part of vendor / firm.		
10.	Copy of NTN and Sales Tax Registration Certificate		
11.	It is confirmed that firm and their proprietors have not been in litigation / blacklisted by any Govt./Semi-Govt / Autonomous body		
12.	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		
13.	All requisite documents as per <b>Para 22</b> of Invitation to tender have been attached.		
14.	10% PBG will be provided at the time of signing of contract		
15.	Warranty / Guarantee will be provided for required period		
16.	Letter of Authorization to sign Tender Documents on behalf of firm has been attached.		
17.	Offer is without any condition		
18.	Your firm agree to all terms & Conditions of invitation to tendered general instructions.		
19.	All terms & condition mentioned in invitation to tender are acceptable		

any change, same is to be highlighted in remarks column.

Dated: \_\_\_\_\_

Stamp)

(Signature of Bidder &

**Form PACB-002D****SPECIAL INSTRUCTIONS**

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

<b>S.No</b>	<b>Description / Requirement</b>	<b>Remarks / Attached</b>
1.	Delivery Period	
2.	Quotation Validity (Must be 30-06-19)	
3.	Terms of Payment (As per Para 21 of IT)	
4.	BG% (Confirmation to provide 10% BG)	
5.	Complete Bank address and Account Details For Payment.	
6.	Previous Experience (Nature of Business and No of Years in Business)	
7.	Registration Status With PAC Board	
8.	Signing Authority (Name, Designation, Contact Details)	
9.	Address of firm along with contact No, email etc	

**GENERAL CONDITIONS FOR BG**

(a) To ensure timely and correct supply of stores, the firm will furnish an unconditional Bank Guarantee within 30 days of the signing of the contract from a schedule Bank for an amount of Rs \_\_\_\_\_ i.e. \_\_\_\_\_% 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 CMA who is the Account Officer specified in the contract. The CMA 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 10% of total value of contract excluding taxes/duties and freight/handling charges etc. It shall remain enforce 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 10% of contract value excluding taxes/duties and freight /handling charges, etc. Duration of BG against Warranty Clause is variable. Normally under DPL –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 fail 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 (ISO) 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 the 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 (ISO) Rawalpindi.