

**PERMISSION TO PARTICIPATE IN TENDER**

- 1. REGISTERED AND INDEXED FIRMS MAY PARTICIPATE WITHOUT ANY FORMAL APPROVAL. OFFER MUST BE ACCOMPANIED WITH A CHALLAN FORM OF RS. 200/- (OBTAINABLE FROM STATE BANK OF PAKISTAN/ GOVERNMENT TREASURY) AND DEBIT ABLE TO MAJOR HEAD C02501-20, MAIN HEAD 12, SUB HEAD 'A' MISCELLANEOUS (CODE HEAD 1/845/30).**
  
- 2. UN-REGISTERED/ UN-INDEXED FIRMS SHOULD SEEK PRIOR APPROVAL FROM DP (Air) FOR PARTICIPATION ON 5% ERNEST MONEY. SUCH REQUEST SHOULD BE IN FORM OF A LETTER ON COMPANY'S LETTERHEAD AND IT SHOULD BE SIGNED BY AN AUTHORIZED PERSON OF THE COMPANY. OFFER MUST BE ACCOMPANIED WITH CHALLAN FORMS OF Rs. 200/- AND Rs. 2,000/- (OBTAINABLE FROM STATE BANK OF PAKISTAN/ GOVERNMENT TREASURY) AND DEBIT ABLE TO MAJOR HEAD C02501-20, MAIN HEAD 12, SUB HEAD 'A' MISCELLANEOUS (CODE HEAD 1/845/30).**
  
- 3. BARRED FIRMS ARE NOT ALLOWED TO PARTICIPATE.**

**INVITATION TO TENDER**  
**GENERAL INSTRUCTIONS TO TENDER**  
**FOR / CIP/F.O.B/DIRECT**

No **436377 /P-43**  
Directorate of Procurement  
(Air)  
Air Headquarters, Nur Khan,  
Chaklala Rawalpindi  
Tel: **+92-51-9281363**  
Fax: **+92+51-9271499**  
Dated: **29-01-2019**

M/s \_\_\_\_\_

**Invitation to Tender and General Instructions**

Dear Sir,

1. I invite you to tender for the supply of stores/ development/ repair/ overhaul/ training/ documents as per details indicated in the attached Schedule to Tender (Form DP-2).
2. **Conditions Governing Contracts.** This IT mean the agreement entered into between the parties i.e. the "Purchaser" and the 'Seller' on Directorate General Defence purchase (DGDP) contract Form "DP-19" in accordance with the law of contract Act, 1872 and those contained in Defence Purchase Procedure DP-35 (Revised 2017) and other special conditions that may be added to given contract for the supply of Defence Stores specified herein.
3. **Delivery of Tender.** The offer is to be submitted in duplicate as under:-

- a. **Technical Offer.** Should contain all relevant specifications in duplicate in an envelope and clearly marked "Technical Offer" without prices, tender number and date of opening. Both the "envelopes" of commercial and technical offers should be enclosed in one cover, properly sealed and bear the address of this office without any indication that there is tender within. Technical offer will be opened half an hour after the date and time for receipt of tender mentioned in DP-2.
- b. **Commercial Offer**
  - i. The offer will be in single and indicate prices quoted in figures as well in words along with essential literature/ brochure. It should be clearly marked in fact on the envelope "Commercial Offer", tender number and date of opening. Commercial offer of only those firms will be opened, whose technical offers are accepted by technical authorities. Date of opening of commercial offer would be intimated after receipt of technical scrutiny report from technical authorities. Commercial offer of technically rejected forms will be returned to the firms unopened.
  - ii. If the equipment/ system is quoted, the price of all major and optional components to be quoted separately. Conversion rate of FE/CL components will be considered w.e.f opening of commercial offer.
- c. The tender duly sealed will be addressed to the following:  
(Name of Officer receiving the tender) (Appointment/ designation of above officer) i.e

**ADP-43**  
**Directorate of Procurement (Air)**  
**Air Headquarters, Nur Khan (Chaklala)**  
**Rawalpindi. Pakistan**  
**Tel: +92-51-9281363**  
**Fax: +92-51-9271499**

**Special Instructions:** Tender documents and its conditions may please be read point by point and understood properly before quoting. All tender conditions should be responded clearly. In case of any deviation due to non-acceptance of tender conditions(s), the same should be highlighted along with your changed offer/ conditions outlined by Purchaser in this IT.

4. **Date and Time for Receipt of Tender.** Your tender must reach this office by the date and time specified in the Schedule to Tender (Form DP-2) attached. This Directorate will not accept any

excuse of delay occurring in post. Tenders received after the appointed/ fixed time will NOT be entertained. The appointed time will, however, fall on next working day in case of closed/forced holiday.

5. **Validity of Offer**

- a. The validity period of quotations must be indicated and should invariably be 120 days from the date of opening of commercial offer or 30<sup>th</sup> June which ever is earlier.
- b. The quoting firm will certify that in case of an additional requirement of the contract items(s) in any qty(s) within a period of 12 months from the date of signing the contract, these will also be supplied (at the on going contract rates) with discount.

6. **Part Bid.** You may quote for the whole or any portion, or to state in the tender that the rate quoted, shall apply only if the entire quantity is taken from you. The Director Procurement reserves the right of accepting the whole or any part of the tender or portion of the quantity offered, and you shall supply these at the rate quoted.

**Note** This condition would be used very rarely except ration items.

7. **Return of IT/ With-drawal of Offer**

a. In case you are Not quoting, please return the tender inquiry stating the reason of NOT quoting. In case of failure to return the ITs either quoted or not quoted consecutively on three occasions, this Directorate, in the interest of economy, will consider the exclusion of your firm's name from our future distribution list of invitation to tender.

b. If the firm withdraws its offer within validity period the competent authority may place such firm under embargo for a period, which may be extended up to one year.

8. **Photocopies of documents.** Following information/ copy of documents must be provided/ attached with offer:-

- a. A copy of letter showing firm's financial capability.
- b. Registration/ renewal letter/ indexation/ additional indexation letter as applicable.
- c. Income tax No to be mentioned on the offer and copy of registration certificate issued by sales tax department.
- d. Foreign seller has to provide its registration Number issued by respective Department of Commerce authorizing export of subject stores.
- e. Principal/ Agency Agreement. (In case of FOB contracts)

9. **Disqualification.** Offers are liable to be rejected if:-

- a. Taxes and duties, freight/ transportation and insurance charges NOT indicated separately.
- b. There is any deviation from the General/ Special/ Technical Instructions.
- c. Offers are found conditional or incomplete in any respect.
- d. Treasury Challan is NOT attached with the offer.
- e. Form DP-3 duly signed, is NOT received with the offers.
- f. Multiple rates are quoted against one items.
- g. Manufacture's relevant original brochures and technical details on major equipment assemblies are not attached in support of specification.
- h. Received later than appointed/ fixed date and time.
- j. Subject to restriction of export license.
- k. If the validity of the agency agreement is expired.
- l. The commercial offer against FOB/ CIF/ C&F tender quoted in local currency and vice versa.
- m. Principals invoice in duplicate clearly indicating whether prices, quoted are inclusive or exclusive of the agent commission is not enclosed.
- n. Earnest money not provided where applicable.
- o. If validity of offer is not quoted as required on IT or made subject to confirmation later.
- p. Offer made through Fax/ E-mail/ Cable/ Telex.
- q. If your offer is found to be based on cartel action in connivance with other sources/ participants of the tender.
- r. Un-called offer/ quotations will be rejected.

10. **Earnest Money/ Tender Bond:-** Your tender must be accompanied by a Bank Draft in favour of CMA (DP), Rawalpindi for the following amount:-

- a. **Registered Firms:** 2% of the quoted value subject to maximum ceiling of Rs. 0.200 Million.
- b. **Un-registered Firms:** 5% of the quoted value subject to maximum ceiling of Rs 0.400 Million.

**Note:**

In case of firm wins a contract on EM, it will deposit following documents for provisional Regn before the award of contracts:-

S. No	Local Supplier	Foreign Supplier
i)	Three filled copies of SVA-8121 of each member of management	Three filled copies of SVA-8121-D of each member of management
ii)	Three filled copies of SVA-8121-A	Three filled copies of SVA-8121
iii)	Three photocopies of NIC for each member of management	Three photocopy of Resident Card or equivalent identification Card for each member of management
iv)	Three PP size photographs for each member of management	Three PP size photographs for each member of management
v)	Challan Form (*)	Challan Form (*)
vi)	Bank Statement for last one year	Financial standing/audit balance sheet
vii)	Photocopy of NTN	Photocopy of passport
viii)	Foreign Principal Agency Agreement in case of local agent	Agency Agreement in case of Trading House/Company/Exporter/Stockiest etc.

d. **Return of Earnest Money**

- (1) Earnest money to the unsuccessful bidders will be returned on finalization of the contract.
- (2) Earnest money of the firm/ firms with whom contract is concluded will be returned on submission of Bank Guarantee stipulated in the contract.

11. **Treasury Challan**

- a. Offers must be accompanied with a challan form of Rs. 200/- (obtainable from Stare Bank of Pakistan/ Government Treasury) and debit able to **Major Head C02501-20, Main Head 12, Sub Head 'A' Miscellaneous (Code Head 1/845/30)**. Each offer will be covered by one challan.
- b. In case of un-registered firms, whether they have applied for registration or not, will pay tender inquiry fee (Challan Form) at following rates:-
- |     |   |            |
|-----|---|------------|
| (1) | Bid for value upto. Rs 2, 50,000/-                    | Rs 1,000/- |
| (2) | Bid for value from Rs. 2, 50,000/- to Rs 50, 00,000/- | Rs 1,500/- |
| (3) | Bid for value above Rs 50, 00,000/-                   | Rs 2,000/- |

**Note:- Offer of Un Registered firms will be considered with 5% EM {Subject to approval of DP (Air)}.**

12. **Rights Reserved.** Respective procurement agency reserves full rights to accept or reject any or all offers including the lowest, after assigning grounds for its rejection and upon request, the grounds of rejection shall be communicated to supplier / contractor, who submit the offer

13. **Application of Official Secret Acts.** All the matters connected with this enquiry and subsequent actions arising there from come within the scope of the Official Secret Act 1923. You are, therefore, requested to ensure complete secrecy regarding documents and stores concerned with the enquiry and to limit the number of your employees having access to this information.

14. **FORM DP-2, DP-3 and Questionnaires.** Form DP-2, DP-3 and Questionnaires duly filled in are to be returned with the offer duly signed by the authorized signatory/ person.

15. **Copy of DP-35 Revised 2017.** Copies of DP-35 revised 2017 are available with Registration Section DGDP and the same be obtained by the Supplier on payment at the rate of Rs 250/- each.

16. **Acknowledgement.** If applicable, firms will send acknowledgement slips within 07 days form the date of receipt of IT. In case IT is not received by a registered firm within 10 days IT published in the Bulletin, the firm must ask for it from ADP-43 DP(Air) in writing with intimation to Registration Section (DGDP).

17. **Appeal against rejection of Bid.** Bidder aggrieved by technical rejection of their offers may forward their appeal to Grievance Redressed Committee constituted at DP (Air). All such appeals be forwarded in writing within 15 days of technical rejection. Complaints received after 15 days would not be entertained.

18. **Tender Opening:** Technical offer shall be opened at least thirty minutes after the deadline for submission of bids on same day. Commercial offers will be opened at later stage if Technical Offers is found acceptable on examination by technical authorities of Service HQ. Date and time for opening of Commercial offer shall be intimated later. Only legitimate / registered representatives of firm will be allowed to attend the tender opening.

19. **Reservations/Preference:-** Supplier/contractors intending to avail any reservations for preferences like Price Preference, First Right of refusal, Intellectual Property Rights or any other in accordance with the policy of the Federal Govt, authority or SRO are to intimate DP (Air) at least 07 days in advance of tender submission date alongwith supporting documents and are to clearly mention such reservation/preference in Tender Technical & Commercial proposals.

**(ASAD UR RAHMAN)**  
Squadron Leader  
ADP-43  
E-mail: adp43@paf.gov.pk

**Enclosures:-**

1. Matrix Proforma
2. DP-2, Part-I
3. Appendix-I to DP-2, Part-I (Schedule of Tender)
4. Appendix-II to DP-2, Part-I (Technical Specs)
5. DP-2, Part-II
6. Appendix-I to DP-2, Part-II
7. Appendix-II to DP-2, Part-II
8. Appendix-III to DP-2, Part-II
9. Appendix-IV to DP-2, Part-II
10. Appendix-V to DP-2, Part-II
11. DP-2, Part-III
12. DP-3

**MATRIX PROFORMA**  
**PAK RUPEES TENDER**

- Notes:**
- This mandatory Proforma is to be filled and attached with technical offer. Non-filling / incomplete filling may result in outright rejection of offer.
  - Please fill the blank columns and tick ( √ ) the choice of YES or NO, as applicable. No column is to be left un-actioned.

S. No	Description of Requirement	Firm's Compliance
1.	Firm's Name, Address, Email, Phone No & Fax No.	
2.	Firm's Sales Tax Registration No / NTN are:-	STRN : _____ NTN : _____
3.	Firm's Sales Tax Registration Certificate and NTN Certificate are attached with "Technical Offer"	<input type="checkbox"/> YES <input type="checkbox"/> NO
4.	Whether Firm is registered with DGDP or not as stockiest / Local Manufacturer?	<input type="checkbox"/> YES <input type="checkbox"/> NO
5.	Whether tendered store is Indexed with the DGDP registered firm?	<input type="checkbox"/> YES <input type="checkbox"/> NO
6.	Copy of DGDP Registration Certificate along with extension certificate is attached with Technical Offer.	<input type="checkbox"/> YES <input type="checkbox"/> NO
7.	Original Treasury Challan Form valuing Rs 200/- is attached with Technical Offer (both by registered and un-registered firms)	<input type="checkbox"/> YES <input type="checkbox"/> NO
8.	Original Treasury Challan Form valuing Rs 1,000/- or Rs 1,500/- or 2,000/- (as per bid value defined at para 11b of FORM DP-1) is attached with "Technical Offer" (Only by DGDP un-Registered firms )	<input type="checkbox"/> YES <input type="checkbox"/> NO
9.	Bank Draft in lieu of Earnest Money as per the required amount in favour of <b>CMA (DP), Rawalpindi</b> is attached with "Technical Offer" in a <b>separate sealed envelope</b> titled " <b>Earnest Money Tender No _____</b> ". { Earnest money @ 5% (max ceiling Rs 0.400 Mil ) by Un-registered firm Earnest money @ 2% (max ceiling Rs 0.200 Mil ) by Registered firm }	<input type="checkbox"/> YES <input type="checkbox"/> NO
10.	Firm's Proforma invoice <b>without</b> prices is attached with Technical Offer. This is also known as Bill of Quantity. This should bear exactly the same Serial No as per IT. If some item(s), required in IT, is not quoted then its Serial No should be skipped.	<input type="checkbox"/> YES <input type="checkbox"/> NO
11.	Offered prices should be in <b>Pak Rupees</b> on DDP delivery till consignee's end basis.	<input type="checkbox"/> YES <input type="checkbox"/> NO
12.	The validity period of Offered prices must be indicated and should be at-least 90 days from the date of opening the tender, extendable for further 30 days if needed.	<input type="checkbox"/> YES <input type="checkbox"/> NO
13.	"Technical Offer" must be submitted in 02 sets and "Commercial Offer" in 01 set only. "Technical Offer" in 02 sets should be packed separately in sealed envelope titled "Technical Offer" and "Commercial Offer" should be packed separately in another sealed envelope titled "Commercial Offer". Such sealed envelopes should further be sealed in one large envelop having Tender No and Firm's name clearly written.	<input type="checkbox"/> YES <input type="checkbox"/> NO
14.	Technical Scrutiny Report (TSR) document is duly filled, signed and stamped at appropriate columns by the firm. Such filled TSR document must be enclosed with the Technical Offer.	<input type="checkbox"/> YES <input type="checkbox"/> NO
15.	Firm can quote any number of Line items. However, in case of a <b>Packaged Indent</b> , all items in a package have been quoted. (Details of all or certain items making a package (if applicable) is mentioned at	<input type="checkbox"/> YES <input type="checkbox"/> NO

	"Special Notes" under "Schedule of Stores". )		
16.	Firm's Financial Capability establishing documents like Audit Report / Bank Statement etc which should support execution of the contract (if awarded) in terms of finance availability is attached with Technical Offer. (For Un-registered Firms Only)	<input type="checkbox"/> YES	<input type="checkbox"/> NO
17.	Firm's existing Financial load (in Million) {Value of all ongoing contracts with DP(Air)/ DP (Army)/ DP (Navy) or any other Govt/ Civil Organization		
18.	After award of contract, for imported items, Firm has to provide Import Documents (Bill of Entry)/Goods Declaration Certificate / Country of Origin Certificate / OEM's COC during inspection of store by PAF Inspection Team at firm's premises.	<input type="checkbox"/> YES	<input type="checkbox"/> NO
19.	After award of contract, Firm will be responsible for delivery of contracted store till consignee's end after the Acceptance by PAF Inspection Team at firm's premises.	<input type="checkbox"/> YES	<input type="checkbox"/> NO
20.	Store will be delivered within required time period of <b>03 Months</b> after signing of the contract.	<input type="checkbox"/> YES	<input type="checkbox"/> NO
21.	List all Manufacturers / Maker's Name, Brand Name and address of OEM of offered equipment.		
22.	Country of Origin of store. List down names of countries in case of more than one country.		
23.	Submission of Contract Performance / Warranty Bank Guarantee @ 10% of contract value which should be valid 2 months beyond expiry of warranty period.	<input type="checkbox"/> YES	<input type="checkbox"/> NO
24.	Warranty of equipment is minimum <b>36 Months</b> after release of CRVs.	<input type="checkbox"/> YES	<input type="checkbox"/> NO
25.	Acceptance of Terms of Payment : 80% on "I-Note" (Issued after delivery of store to consignee and Acceptance by Specialist/User Directorate) and 20% on release of Certified Receipt Vouchers (CRVs) by the Consignee.	<input type="checkbox"/> YES	<input type="checkbox"/> NO
26.	Acceptance of Special Notes as per IT.	<input type="checkbox"/> YES	<input type="checkbox"/> NO
27.	Acceptance of Inspection Criteria as per IT.	<input type="checkbox"/> YES	<input type="checkbox"/> NO

**Comments / Justification by Firm for non-compliance (if any):-**

---



---



---



---



---

\_\_\_\_\_  
**Signatures:** \_\_\_\_\_

**Name & Designation:** \_\_\_\_\_

**Direct Contact No & email:** \_\_\_\_\_

**Stamp of Firm:**  
 \_\_\_\_\_

**SCHEDULE OF TENDER**

1. I/T No 436377/P-43
2. Time and Date of Opening: 19-02-2019 at 1100 Hrs
3. **Please see the Schedule of Tender at Appendix-I to DP-2, Part-I.**

**General Instructions**

1. Tech Specification/ GSR/ NSR/ ASR are reflected at Appendix-II to this schedule must be studied carefully prior to filling in Tender.
2. Date by which stores are required \_\_\_\_\_ (in case of not possible for you to give delivery by given date please indicate DP by which store can be delivered by the firm).
3. As per the IT quotation will be submitted on FOR/ FOB/ CIF/ C&F/ FAS/CIP Basis and in case of FOR (import) the principal invoices on C&F basis to be attached with offer.
4. The firm shall indicate availability of raw material and in case the same is to be imported then will give the requirement for import license.
5. The price quoted must be not per accounting unit as shown in the schedule to tender inclusive of sales Tax/ Excise Duty/ Surcharge (fix/ variable taxes or any other relevant tax). The breakdown of price will be indicated is as under:-

a.	Ex-factory/ Base price	-	LC/ Relevant FE
b.	Taxes/ Duties	-	LC/ Relevant FE
c.	Total price	-	LC/ Relevant FE
d.	Freight/ transportation/ Allied Charges	-	LC/ Relevant FE
e.	Insurance Charges	-	LC
f.	Agent commission (agent Commission ranging for 0.5% To 4% will be declared in the offer in case of contracts involving local agent whereas foreign principal is not paying commission to local agent then in that case the firm will attached certificate as Appendix-II	-	LC/ Relevant FE
6. Prices will be mentioned for each items separately both in figures, and words. Additional information if any would be linked with entries on the schedule tender.
7. Only one rate will be quoted for entire qty, items wise and multi-rates if quoted will lead to rejection of offer.
8. In case of FOR Contracts the price will be quoted in Pak Currency and in case store is to be imported, then quotation should be on FOB basis indicating the element to be added to make it CIF/ C&F/ FSA in such cased %age to be paid in foreign, currency and commission to be paid in Pak Currency will be clearly indicated.
9. Original quotations from the mfr/ supplier must be attached in support of quoted price. A certificate from the principal will be endorsed on the original quotation to the effect that the prices do include \_\_\_\_\_ - \_\_\_\_\_ %age of agent commission discount and do not include any such commission. And apart from this, there is no other element of agent's commission/ discount included in the quotation. Only one rate will be quoted for entire qty items-wise.
10. In case of OEM products are offered, OEM part No and its interchangeability with demanded part No should be indicated and provided with the help of relevant catalogue/ extract.
11. FOR Station/ FOB & FAS port must be given while filling the schedule.
12. In case of FOB/ CIF/ C&F/ FAS/ CIP requirements the prices will be indicated in US\$/ EURO/ UK£ (in case quoted prices are in different currencies then for the sake of comparison, these will be converted into Pak Currency at rate prevailing on opening day of commercial offers).

**Special Instructions.** You may say “Agreed” / “Not Agreed” to conditions/ clauses mentioned in the succeeding Part II & III of this DP-2. In case of disagreement you may suggest option/ alternative course for consideration by Procurement agency but it will not be binding on Director of Procurement to Accent the same.



**SCHEDULE OF TENDER**

TENDER INQUIRY NO. : 436377/P-43  
TENDER TITLE : PROCUREMENT OF COMMUNICATION AND NETWORK RELATED HARDWARE AT PAF BASES / UNITS  
TENDER TYPE : Pak Rupees (FOR), DDP Rawalpindi (Incoterm 2010)  
SUBMISSION TIME : Before 1030 Hrs on opening date.  
TIME & DATE OF OPENING : 1100 Hrs on 19-02-2019  
DELIVERY PERIOD : Within 03 Months after signing of contract

**SCHEDULE OF STORE**  
**{ PROCUREMENT OF COMMUNICATION AND NETWORK RELATED HARDWARE AT PAF BASES / UNITS }**

S No	Part No	Description of Store	A/U	Qty
1	MDRJCGANQ1N	DIGITAL REPEATER STATION SLR 5500	EA	7
2	5805/NL-ANT150F2	B/BAND ANTENNA ANT 150FT TELEWAV	EA	7
3	5805/NL-TPRD-1554	DUPLEXER BROAD BAND 144-174MHZ	EA	7
4	5805/NL-HKVN4108	LINKED CAPACITY PLUS DR3000	EA	7
5	5805/NL-SCBL-0004	LOW LOSS CABLE ANDREW LDF4-50A	MR	425
6	5805/NL-PL-259	CONNECTOR FOR LOW LOSS CABLE	EA	7
7	5805/NL-EXIDE-XP100	12 VOLT DC BATTERY	EA	7
8	5805/NL-MDH56JDN9KA1AN	MOTO TRBO DP4801 DIG/SIC RADIO	EA	73
9	5E/PAF-185	DROP WIRE WL40 IN COILS	KM	27
10	10G/PAF-TA-312/PT	FIELD TELEPHONE SET(TA-312/PT)	EA	31
11	5805/NL-ITU-T-G652X12CORE	OPTICAL FIBER CABLE 12 CORE	KM	14

**NOTE** Quotations are to be submitted on “FOR (Pak Rs), DDP Rawalpindi delivery till consignee end”.

- Particular Governing Supply**  
Specification/ Technical data entered against each item on the indent form for guidance of manufacturer and inspectors. **(TSR Attached)**
- Inspection Criteria:-**  
100% physical inspection will be under taken by AHQ Dte of Q&E/No 1 QC Flt, PAF with assistance of Co-Opted member of Specialist Dte at firm premises as follows:-

**Physical Check**

- Store will be checked for physical damage, scratches and deformity.

- b. Brand name, model, country of origin and dimensions.
- c. Accessories / leads/cables/connectors/Screws/nuts/ bolts.
- d. All items will be indentified with serial number and commercial part number.
- e. Operating/maintenance / safety brochures / manuals and IPBs (if Applicable).
- f. OEM Certificate and verifiable documents will be provided by the supplier that store has been procured from certified source.
- g. Hardware configuration must be checked as per contractual specification at firm premises.
- h. Store must be factory new and from current production.

i. **Functional Checks**

Functional / fitment / operational check will be carried out at PAF designated site by the specialist Dte as per contractual specifications at site designated by Air Headquarters {Dte of Network (Bases)}.

d. **Warranty:-**

A warranty sticker is to be pasted on each item by the firm highlighting following information's:

- |       |                          |      |                       |
|-------|--------------------------|------|-----------------------|
| (i)   | Name<br>of firm.         | (ii) | Contract No and date. |
| (iii) | Description<br>of store. | (iv) | Warranty validity     |

e. **Packing**

- (i) Each item will be packed separately using original waterproof packing by the firm.
- (ii) Packing must be suitable for transportation of item over long distance by road / rail / sea / air.

**Note:** In case of premature failure, firm has to replace the item free of cost. The supplier will provide all necessary facilities to the inspection staff for prompt and smooth inspection of store.

- f. **Delivery of store:** After satisfactory physical check store shall be dispatched to consignee by the supplier at his own arrangement.

3. **Issuance of I Note:-**

Inspection Note will be issued by Dte of Q&E / No 1 QC Flt after the receipt of delivery challan duly signed and stamped by consignee and acceptance certificate from specialist Directorate.

**SPECIAL NOTES:-**

1. Technical vetting shall be carried out by Dte of Network(Bases) before finalization of the contract in accordance with technical specifications mentioned in the indent.
2. For technical vetting supplier is to provide requisite information as per attached technical specification of the indented item in accordance with instructions given there in.
3. Dte of Q&E along with rep of Dte of Networks (Bases) is to carry out physical inspection of store in the presence of rep of supplier at firm premises and

functional check at designated unit within PAF for subsequent issuance of inspection/functional check certificate to all concerned.

4. CRV shall be related after physical check at firms premise receipt of store. Functional check and issue of acceptance certificate by AHQ {Dte of Networks (Bases)} and I note by Dte of Q&E.
5. Warranty of equipment shall be for 36 Months after release of CRV. The supplier should ensure provisioning of spares for 05 years and will provide a list of recommended spares for two years operations.
6. The supplier shall provide warranty replacement of equipment within one month of the intimation of the fault.
7. The supplier will collect under warranty equipment from No 203ALD.PAF deposit back after repair replacement at No 203ALD, PAF by himself.
8. Country of origin must be Malaysia or USA for Walkie Talkie equipment.
9. Store should be factory new and from latest production batch. The batch No and a certificate in this regard be submitted at time of stores delivery.



## TECHNICAL SPECIFICATIONS : 'DIGITAL SECURE WALKIE TALKIE SYSTEM' {TECHNICAL SCRUTINY REPORT (TSR)}

1. **Repeater Station.** 'Digital Repeater Station SLR5500 ' Part No MDRJCGANQ1AN      OR      Equivalent Professional Secure Digital Repeater Station

INDENTED ITEM'S SPECIFICATIONS (BY USER)	SPECIFICATIONS OFFERED BY THE SUPPLIER	COMMENTS BY USER / AHQ
1	2	3
<b>(a) General.</b> State 'Compliance' or 'Non-compliance' against each specification under column 2.		
(i) <b>Operation Mode:</b> - Analogue Mode		
- Digital Mode		
- Dynamic Mix Mode (Repeat Analogue Calls while in Digital Mode)		
(ii) <b>Digital waveform and signalling:</b> - Compliant with Digital Mobile Radio (DMR) standard 'ETSI-T102361 of European Telecommunications Standards Institute.		
- DMR Association Inter Operability (IOP) Certification to be provided at the time of Technical Opening.		
- The offered product must be listed as DMR IOP Certified product on the DMR Association website.		
(iii) <b>Compatibility and Inter-operability:</b> - <b>Analogue Mode:</b> Able to repeat calls of GP-2000 sets held with the PAF in Analogue Mode.		
- <b>Digital Mode:</b> Repeat calls of existing MOTOTRBO (DP3601, DP4801, and DM3601 & DM4601) and Hytera (PD788G & MD788G) Walkie Talkie sets held with PAF.		
- <b>Secure Digital Mode:</b> Repeat Secure Digital calls of PAF's existing MOTOTRBO Walkie Talkie set (DP3601, DP4801, DM3601 and DM4601) without any special / additional arrangement, hardware, licensing or use of spectrum.		

INDENTED ITEM'S SPECIFICATIONS (BY USER)	SPECIFICATIONS OFFERED BY THE SUPPLIER	COMMENTS BY USER / AHQ
1	2	3
<ul style="list-style-type: none"> <li>- <b>IP Site Connect Mode:</b> Repeat calls of PAF's existing MOTOTRBO Walkie Talkie sets (DP3601, DP4801, DM3601 and DM4601).</li> </ul>		
<ul style="list-style-type: none"> <li>- <b>Capacity Plus Mode:</b> Register and repeat calls of existing inventory of MOTOTRBO Walkie Talkie sets (DP3601, DP4801, DM3601 &amp; DM4601) DP4801 &amp; DM4601 without any special / additional arrangement, hardware, licensing or use of spectrum.</li> </ul> <p><b>Notes:</b></p> <ol style="list-style-type: none"> <li>1. <i>In case a new model / product is introduced by the supplier, it will undergo compatibility trials.</i></li> <li>2. <i>Products found incompatible in any one of the areas above would be rejected on technical grounds.</i></li> </ol>		
<p>(iv) <b>Security</b></p> <ul style="list-style-type: none"> <li>- Fully capable of repeating 256 bit AES encrypted calls generated from MOTOTRBO 4000 series radio sets.</li> </ul>		
<ul style="list-style-type: none"> <li>- Equipped with Restricted Access to System (RAS) functionality through Key Authentication.</li> </ul>		
<ul style="list-style-type: none"> <li>- Equipped with Restricted Access to System (RAS) through Radio ID Check feature.</li> </ul>		
<p>(v) <b>Dual slot Slots</b></p> <ul style="list-style-type: none"> <li>- Dual slot TDMA operation in digital mode allowing two parallel voice communication sessions to take place on the same frequency channel at any given time.</li> </ul>		
<ul style="list-style-type: none"> <li>- Automatic time slot assignment through pseudo trunking or capacity plus feature, thereby allowing automatic time slot assignments.</li> </ul>		
<p>(vi) Firmware capable of supporting 'Server Functionality' for GPS Tracking and voice recording features</p>		
<p>(vii) Integrated / External power supply with AC/DC Options</p>		
<p>(viii) Rack mountable with handles</p>		
<p>(ix) 100 % continuous full duty cycle operation</p>		

INDENTED ITEM'S SPECIFICATIONS (BY USER)	SPECIFICATIONS OFFERED BY THE SUPPLIER	COMMENTS BY USER / AHQ
1	2	3
(x) IP multi-site connect feature for connectivity of Repeater Stations over IP cloud		
(xi) Remote configuration / diagnoses over IP network		
(xii) Audio recording feature through Turbo Net Enterprise Version 4 Dispatcher Software held with the PAF		
(xiii) Voice calls through Dispatcher software over IP network		
(xiv) <b>Capacity Plus:</b> Capable of Capacity Plus single site trunking feature through license activation.		
(xv) <b>Audio Recording:</b> Audio recording feature through Turbo Net Enterprise Version 4 dispatcher software.		
(xvi) <b>Accessory Connector on Repeater Station:</b> - Dual audio output and possibility to connect two repeater stations back to back.		
- Capability to connect phone patch on Repeater Station.		
<b>(b) Electrical / Frequency Specifications.</b> Provide <u>exact value</u> of offered product against each parameter under column 2.		
(i) <b>Frequency Range of radio set:</b> 136 – 174 MHz		
(ii) <b>Channel Spacing:</b> 12.5/20/25 KHz		
(iii) <b>Inter-modulation</b> ≥ 65 dB		
(iv) <b>Spurious Rejection</b> ≥ 70 dB		
(v) <b>Power Output:</b> 25 to 45 Watts (selectable / adjustable)		
(vi) <b>Conducted Spurious Emissions</b> < -57 dBm		
(vii) <b>Audio response:</b> +1, -3 dB		
(viii) <b>Adjacent Channel Power</b> - -60 dB @ 12.5 kHz - -70 dB @ 20/25 kHz		
(ix) <b>Frequency Stability:</b> ± 0.5 ppm		
(x) <b>Digital Vocoder:</b> AMBE++		
<b>(c) Environmental Parameters.</b> State 'Compliance' or 'Non-compliance' against each specification under column 2.		

INDENTED ITEM'S SPECIFICATIONS (BY USER)	SPECIFICATIONS OFFERED BY THE SUPPLIER	COMMENTS BY USER / AHQ
1	2	3
(i) <b>Operating Temperature:</b> -30° to 60° C		
(ii) <b>Storage Temperature:</b> -40° to 85° C		
(iii) OEM would be required to demonstrate compliance with environmental specification during Factory Acceptance Tests of the offered product.		
<b>(d) Special Features.</b> State 'Compliance' or 'Non-compliance' against each specification under column 2.		
(i) Provision of requisite number of Repeater Diagnostic and Control (RDAC) software along with licenses to monitor complete quantity of Repeater Stations being quoted against the indent while deployed in Networked environment.		
(ii) Direct integration with Dispatcher Console running Trubo Net Ver 4 application through Ethernet.		
<b>(e) Required Items and Accessories.</b> State 'Compliance' or 'Non-compliance' against each specification under column 2.		
(i) Accessories to be provided with each Repeater Station - Power Cord		
- Rack mounting kit (not required if form factor of offered Repeater Station is Rack mountable)		
- User guide / Operator Manual in hard copy		
- Computer Programming Software (CPS) CD (Qty 01 against 05 Repeater Stations)		
- Repeater Station Power Supply (Required make: Hytera PS22002, Fully compatible with Repeater, Rated Power: 300 W, Float charge capability, Protection against polarity reverse and over discharge, Auto switch to battery, 220 V AC input) (Required only if built-in Power Supply is not provided in the repeater)		
<b>(f) Publications, Training and Support.</b> State 'Compliance' or 'Non-compliance' against each specification under column 2.		
(i) <b>Operators Manual</b> <b>Softcopy:</b> Qty 01 <b>Hardcopy:</b> Qty 01 with each Repeater Station		



INDENTED ITEM'S SPECIFICATIONS (BY USER)	SPECIFICATIONS OFFERED BY THE SUPPLIER	COMMENTS BY USER / AHQ
1	2	3
<p>(ii) <b>Technical Manual:</b>  <b>Softcopy:</b> Qty 01  <b>Hardcopy:</b> Qty 20  <i>Note: Technical manual to include details on operating principle, block level design of the repeater station and its detailed technical specifications.</i></p>		
<p>(iii) <b>Service / Repair Manuals</b>  <b>Softcopy:</b> Qty 01  <b>Hardcopy:</b> Qty 05 sets  <b>Notes:</b>  (1) <i>Service / repair manuals to include detailed servicing, optimization and firmware loading procedures.</i>  (2) <i>Detailed module / card level troubleshooting procedures are also to be included.</i>  (3) <i>Identification of test points and expected values on each point is to be provided for each card / module of the set.</i></p>		
<p>(iv) <b>Parts catalogue / illustrated parts breakdown (IPB) list</b>  <b>Softcopy:</b> Qty 01  <b>Hardcopy:</b> Qty 05  <b>Notes:</b>  (1) <i>Part catalogue to identify all parts down to component level.</i>  (2) <i>Separate IPB is not required if parts identification and ordering information is covered in Service / Repair or Technical Manual.</i></p>		
<p>(v) <b>Schematics for all circuit boards and their interconnection</b>  <b>Hardcopy:</b> Qty 05 sets  <b>Note:</b> <i>Separate schematics diagrams are not required if same is covered in Service / Repair or Technical Manual.</i></p>		
<p>(vi) <b>Parts list along with prices</b>  <b>Note:</b> <i>Parts list is to be provided as part of technical proposal against indent. The list must contain <b>Part Number</b> for part ordering information along with <b>Price</b>.</i></p>		

INDENTED ITEM'S SPECIFICATIONS (BY USER)	SPECIFICATIONS OFFERED BY THE SUPPLIER	COMMENTS BY USER / AHQ
1	2	3
(vii) <b>Operators Training:</b> 02 x two weeks training for 20 PAF Personnel each at PAF's premises		
(viii) <b>Firmware:</b> Provision of Firmware (Hex files / binaries), along with procedure and tools required for firmware loading.		
(ix) Free firmware upgrade for next five years		
(x) Free firmware upgrade against software bugs for next ten years		
<b>(g) Shop level repair setup</b>		
(i) Supplier is to provide complete details regarding shop level setup required for maintenance / repair of the system in his technical proposal.		
(ii) System Specific Test Equipment (SSTE) or any other special PME required for testing / repair of the system is to be provided by the supplier as part of contracted stores. <i>Note: Cost effects for such testers are to be separately mentioned and their requirement would be finalized by specialist Directorate [Dte of Networks (Bases)].</i>		
<b>(h) Technical Proposal Checklist.</b> Following are essential requirements for technical vetting of the offered product. Relevant equipment / documents / publications are to be provided as part of the technical offer. State compliance for each requirement under column 2 and provide relevant item accordingly.		
(i) Provision of <b>Product's Data Sheet</b> in technical proposal		
(ii) Provision of sample of offered product for test and trials.		
(iii) Provision of manufacturer's certificate with complete details of the manufacturer including company profile, address, products and compliance with International manufacturing standards.		
(iv) Provision of one set of complete range of publications for evaluation by Specialist Directorate.		
(v) Provision of parts list along with prices.		
(vi) Provision of certificate of supportability of the offered product for next 15 years.		
(vii) Acceptance of Physical Check criteria attached with the indent		

<b>INDENTED ITEM'S SPECIFICATIONS (BY USER)</b>	<b>SPECIFICATIONS OFFERED BY THE SUPPLIER</b>	<b>COMMENTS BY USER / AHQ</b>
<b>1</b>	<b>2</b>	<b>3</b>
(viii) Acceptance of Functional Check criteria attached with the indent		
(ix) State compliance with specifications given in sub-paras (a), (c), (d), (e), (f) and (g) above.		
(x) Provide exact values against specifications under sub-para (b) above.		

**2-7. Accessories.** Additional accessories of Digital Repeater Station SLR5500 include

<b>(2) B/Band Antenna ANT150FT</b>		
(i) <b>Required Item:</b> Fiberglass Collinear Antenna ANT150F2 Telewave USA		
(ii) <b>Frequency Range:</b> 148 to 174 MHz 2.5 dBd		
(iii) Omni-directional		
(iv) Antenna to be provided with complete mounting kit		
(v) Detailed specifications sheet depicting radiation pattern of offered antenna is to be provided for technical vetting		
<b>(3) Duplexer Broad Band</b>		
(i) <b>Required Item:</b> Band pass / Reject Duplexer TRPD-1554 Telewave USA		
(ii) <b>Frequency Range:</b> 155 to 175 MHz		
(iii) Duplexer to be provided along with complete cable set for connection with Repeater Station		
(iv) Detailed specifications sheet of offered duplexer is to be provided for technical vetting		
<b>(4) Linked Capacity Plus License</b>		
(i) <b>Nature of Item:</b> Feature license key for Digital Repeater Station		
(ii) Fully compatible with Digital Repeater Stations offered against indent		
(iii) Provide multi- site multi channel trunking configuration for offered Repeater Stations		
(iv) <b>Minimum System Capacity</b> <ul style="list-style-type: none"> <li>- 08 Trunked Repeater Stations per site for capacity enhancement per site</li> <li>- IP Site Connectivity of 15 Sites</li> </ul>		
(v) Availability of Wide Area Talk Group to light up only the sites which are statically associated with the talk Group. The call is rejected when a radio tries to initiate a wide area Group Call from a site not associated with the Talk group.		

(vi) Local Talk Group where a local call 'lights up' only one site where the initiating radio is located.		
(vii) Private Call initially "lights up" all the sites but after small interval (300 to 400 ms), the call continues only at the sites (at most two) where the source radio or destination radio are present		

(vii) License and feature activation on offered Repeater Stations.		
(ix) On site activation, configuration and commissioning of Linked Capacity Plus features at PAF Sites where repeater Stations provided against the indent deployed.		
(x) Support for next five years for software upgrades and bugs.		
(xi) In case offered feature license is not provided to PAF in the past, its capability would be established through test/trials by the supplier at the time of technical opening at location designated by Air Headquarters {Dte of Networks (Bases)}. The demo would be arranged by the supplier at No Cost No Obligation basis within one week of Technical Opening of the tender.		

**(5) Low Loss Cable**

(i) <b>Required Item:</b> LDF4-50A Helix Low Density Foam Coaxial Cable by CommScope / Andrew		
(ii) <b>Cable Impedance:</b> 50 ± 1 Ohm		
(iii) <b>Insulation Resistance:</b> 100000 Mega Ohm x km		
(iv) <b>Operating Frequency:</b> 1 – 8800 MHz		
(v) <b>Peak Power:</b> 40 kW		
(vi) <b>Operating Temperature:</b> -55 to 85° C		
(vii) <b>Attenuation</b> - Less than 0.82 dB/100 ft at 150 MHz - Less than 0.89 dB/100 ft at 174 MHz		
(viii) To be provided in rolls of 200 m each		
(ix) Detailed specifications sheet of offered cable is to be provided for technical vetting		

<b>(6) Connectors Set</b>		
(i) To be provided in sets of 2		
(ii) Fully compatible with Duplexer and antenna RF connections		
(iii) Make, model and detailed specifications sheet of offered connectors is to be provided for technical vetting		
(iv) Connectors of only renowned manufacturers, compatible with International standards would be acceptable		

(ii) Complete with accessories required for charging and optimizing offered walkie talkie sets / batteries.		
(iii) Minimum capacity: 06		
(iv) LCD to view information of batteries under charging.		
(v) Capable of reconditioning the battery		
(vi) Charging / discharging and battery strength detection		
<b>(7) Repeater Station Battery</b>		
(i) <b>Required Capacity:</b> 12 V 100 AH		
(ii) <b>Make:</b> Volta / Exide / AGS/XP100 Phonix		

8. **Handheld / Portable Walkie Talkie Set.** 'MOTOTRBO DP4801 Digital Secure Portable Radio' Part No 5805/NL MDH56JDN9KA1AN **OR** Equivalent Professional Secure Digital Two-way Handheld / Portable Radio Set

INDENTED ITEM'S SPECIFICATIONS (BY USER)	SPECIFICATIONS OFFERED BY THE SUPPLIER	COMMENTS BY USER / AHQ
1	2	3
<b>(a) General.</b> State 'Compliance' or 'Non-compliance' against each specification under column 2.		
(i) <b>Operation Mode:</b> - Analogue Mode		
- Digital Mode		
- Secure Digital Mode with 256 Bit AES Encryption		
- Capable of scanning and receiving analogue calls (of GP-2000 Motorola) set in digital mode and allowing operator to respond to analogue calls through automatic transition from digital to analogue mode and back.		
(ii) <b>Digital waveform and signalling:</b> - Compliant with Digital Mobile Radio (DMR) standard 'ETSI-T102361 of European Telecommunications Standards Institute.		
- DMR Association Inter Operability (IOP) Certification to be provided at the time of Technical Opening.		
- The offered product must be listed as DMR IOP Certified product on the DMR Association website.		
(iii) <b>Compatibility and Inter-operability:</b> - <b>Analogue Mode:</b> Interoperable with GP-2000 sets held with the PAF in Analogue Mode.		
- <b>Digital Mode:</b> Interoperable with existing MOTOTRBO (DP3601, DP4801, DM3601 and DM4601) and Hytera (PD788G & MD788G) Walkie Talkie sets held with PAF.		

INDENTED ITEM'S SPECIFICATIONS (BY USER)	SPECIFICATIONS OFFERED BY THE SUPPLIER	COMMENTS BY USER / AHQ
1	2	3
<ul style="list-style-type: none"> <li>- <b>Secure Digital Mode:</b> Seamless interoperability with existing MOTOTRBO (DP4801 and DM4601) Walkie Talkie sets held with PAF using 256 Bit AES Encryption without any special / additional arrangement, hardware, licensing or use of spectrum. Moreover, transparent translation / availability of all available digital / analogue features across and between MOTOTRBO (DP4801 and DM4601) Walkie Talkie sets and Walkie Talkie sets offered against the indent.</li> </ul>		
<ul style="list-style-type: none"> <li>- <b>Operation through Repeater Station.</b> Capable of operating through PAF's existing MOTOTRBO DR3000 Repeater Stations held with the PAF in Plain Digital, Secure Digital, IP Site Connect and Capacity Plus modes without any special / additional arrangement, hardware, licensing or use of spectrum..</li> </ul> <p><b>Notes:</b></p> <ol style="list-style-type: none"> <li>1. <i>In case a new model / product is introduced by the supplier, it will undergo compatibility trials.</i></li> <li>2. <i>Products found incompatible in any one of the areas above would be rejected on technical grounds.</i></li> </ol>		
<p>(iv) <b>Encryption:</b></p> <ul style="list-style-type: none"> <li>- Fully compliant Advanced Encryption Standard (AES) (key length of 256 bits) on Air Interface of the walkie talkie set as per DMR standard</li> </ul>		
<ul style="list-style-type: none"> <li>- Provision of key management system according to system design</li> </ul>		
<ul style="list-style-type: none"> <li>- Provision of requisite API and documentation to enable user to develop customized encryption in future</li> </ul>		
<ul style="list-style-type: none"> <li>- <b>Customization Capability.</b> System should be able to support incorporation of customized encryption and key management solution without any additional hardware procurement</li> </ul>		



INDENTED ITEM'S SPECIFICATIONS (BY USER)	SPECIFICATIONS OFFERED BY THE SUPPLIER	COMMENTS BY USER / AHQ
1	2	3
(v) <b>Location Tracking:</b> Integrated GPS Device with location tracking <i>Note: GPS tracking feature is to be demonstrated in product offered for technical evaluation and during system acceptance.</i>		
(vi) <b>Display</b> - Multicolour (min 256 colour) Large size LCD display		
- Indications for callings, scanning and monitoring		
- Flexible menu driven interface with user friendly icons		
- At least two lines of text for ease of reading messages		
(vii) <b>Data handling capability:</b> Integrated data communication port compatible with PC		
(viii) <b>Text messaging:</b> Text messaging up to 256 characters with Predictive Text entry.		
(ix) <b>Dual slot Slots</b> - Dual slot TDMA operation in digital mode allowing two parallel voice communication sessions to take place on the same frequency channel at any given time.		
- Automatic time slot assignment through pseudo trunking or capacity plus feature, thereby allowing automatic time slot assignments.		
(x) Types of calls possible in digital mode - Private call		
- Group call		
- All call		
(xi) Large easy to use navigate buttons allowing easy access to menu driven interfaces		
(xii) Front speakers		
(xiii) Programmable buttons for easy access to required features such as one touch calling		

INDENTED ITEM'S SPECIFICATIONS (BY USER)	SPECIFICATIONS OFFERED BY THE SUPPLIER	COMMENTS BY USER / AHQ
1	2	3
(xiv) Large, textured push-to-talk button for easy access even while wearing gloves		
(xv) Integrated GPS monopole		
(xvi) At least 1000 programmable channels		
(xvii) Batteries <ul style="list-style-type: none"> <li>- Required battery life with 5-5-90 (transmit talk–receive–standby time in percentage) Duty Cycle               <ul style="list-style-type: none"> <li>o <b>Digital operation mode:</b> Min 16 Hrs</li> <li>o <b>Analogue operation mode:</b> Min 11 Hrs</li> </ul> </li> </ul>		
<ul style="list-style-type: none"> <li>- Battery pack cells would be of Japanese origin, to be annotated on its label.</li> </ul>		
<ul style="list-style-type: none"> <li>- Provided batteries would be from fresh production.</li> </ul>		
<ul style="list-style-type: none"> <li>- Batteries would be IP57 compliant.</li> </ul>		
<ul style="list-style-type: none"> <li>- Batteries will have min of 100 % service life remaining at the time of delivery.</li> </ul>		
<ul style="list-style-type: none"> <li>- Information regarding battery health, service life and current charging status would be available through soft menu of Walkie Talkie set.</li> </ul> <p><i><b>Note:</b> Battery life would be tested in accordance with specification during technical evaluation of the offered product, as well as, during functional check upon receipt of stores.</i></p>		
(xviii) <b>Bluetooth</b> <ul style="list-style-type: none"> <li>- Walkie Talkie sets would be equipped with built-in Bluetooth feature.</li> </ul>		
<ul style="list-style-type: none"> <li>- Required built-in hardware for Bluetooth and related feature license would be provided with each set.</li> </ul>		
(xix) <b>Over the Air Programming (OTAP)</b> <ul style="list-style-type: none"> <li>- Capability for over the air programming of Radio sets would be provided.</li> </ul>		

INDENTED ITEM'S SPECIFICATIONS (BY USER)	SPECIFICATIONS OFFERED BY THE SUPPLIER	COMMENTS BY USER / AHQ
1	2	3
<ul style="list-style-type: none"> <li>- Radio management software required for 'Over the Air Programming' would be included and provided as part of the contract.</li> </ul>		
<ul style="list-style-type: none"> <li>- Radio management software will have no limitations in terms of time or number of radios supported.</li> </ul>		
<ul style="list-style-type: none"> <li>- Radio management software will be equipped with necessary licensing to manage complete range of Radios provided under the contract.</li> </ul>		
(xx) Roaming feature along with license for use with IP Site Connect to be available on each set.		
(xxi) <b>Integration with Turbo Net</b> <ul style="list-style-type: none"> <li>- Seamless integration with Turbo Net Enterprise Version 4 Dispatch Software operating with the PAF.</li> </ul>		
<ul style="list-style-type: none"> <li>- Utilization of the offered sets with existing licenses in Turbo Net Enterprise Version 4 Dispatch Software operating with PAF.</li> </ul>		
<ul style="list-style-type: none"> <li>- Availability of all features through Turbo Net as being made available by PAF's existing MOTOTRBO (DP4801 and DM4601) Walkie Talkie sets without any special / additional arrangements, hardware, licensing or use of spectrum.</li> </ul>		
<b>(b) Electrical / Frequency Specifications.</b> Provide <u>exact value</u> of offered product against each parameter under column 2.		
(i) <b>Frequency Range of radio set:</b> 136 – 174 MHz		
(ii) <b>Channel Spacing:</b> 12.5/25 KHz		
(iii) <b>Inter-modulation</b> ≥ 65 dB		
(iv) <b>Spurious Rejection</b> ≥ 70 dB		
(v) <b>Rated Audio</b> ≥ 500 mW		
(vi) <b>Power Output:</b> 1 to 5 Watts (user selectable / adjustable)		
(vii) <b>Conducted Spurious Emissions</b> < -57 dBm		

INDENTED ITEM'S SPECIFICATIONS (BY USER)	SPECIFICATIONS OFFERED BY THE SUPPLIER	COMMENTS BY USER / AHQ
1	2	3
(viii) <b>Audio response:</b> - +1, -3 dB - Complied with TIA603D standard		
(ix) <b>Adjacent Channel Power</b> - -60 dB @ 12.5 kHz - -70 dB @ 25 kHz		
(x) <b>Frequency Stability:</b> ± 1.5 ppm		
(xi) <b>Digital Vocoder:</b> AMBE++		
(xii) <b>Required GPS performance</b> - Time to first fix (TTFF) Cold Start < 1 min - Time to first fix (TTFF) Hot Start < 10 sec - Horizontal accuracy < 10 m		
<b>(c) Environmental Parameters.</b> State 'Compliance' or 'Non-compliance' against each specification under column 2.		
(i) <b>Walkie Talkie Operating Temperature:</b> -30° to 60° C		
(ii) <b>Storage Temperature:</b> -40° to 85° C		
(iii) <b>Resistance against Dust and Water intrusion:</b> Compliance with IP rating 57 or higher		
(iv) <b>Protection against temperature, shock and humidity:</b> Compliance with MIL-STD-810 C/D/E/F		
(v) OEM would be required to demonstrate compliance with environmental specification during Factory Acceptance Tests of the offered product.		
<b>(d) Special Features.</b> State 'Compliance' or 'Non-compliance' against each specification under column 2.		
(i) Availability of Call / Message Alert		
(ii) Remote monitor		
(iii) Remote enable / disable		
(iv) Radio check		

INDENTED ITEM'S SPECIFICATIONS (BY USER)	SPECIFICATIONS OFFERED BY THE SUPPLIER	COMMENTS BY USER / AHQ
1	2	3
(v) Compatibility with multi-site IP connectivity feature of Repeater Station		
(vi) Caller identification		
<b>(e) Required Accessories.</b> State 'Compliance' or 'Non-compliance' against each specification under column 2.		
(i) Accessories to be provided with each walkie talkie set - High capacity Li-Ion battery { to meet required Battery Life given under (a)(xvii)}		
- Charger		
- Band specific set of Antennas to cover complete Band of 136 to 174 MHz (Single wide band antenna would not be acceptable)		
- Belt clip		
- Power Adapter (EU standard; compatible with local power sockets)		
- Strap		
- User guide / Operator Manual in hard copy		
- Computer Programming Software (CPS) CD (Qty 01 per 50 sets)		
<b>(f) Publications, Training and Support.</b> State 'Compliance' or 'Non-compliance' against each specification under column 2.		
(i) <b>Operators Manual</b> <b>Softcopy:</b> Qty 01 <b>Hardcopy:</b> Qty 01 with each Walkie Talkie set		
(ii) <b>Technical Manual:</b> <b>Softcopy:</b> Qty 01 <b>Hardcopy:</b> Qty 20 <i>Note: Technical manual to include details on operating principle, block level design of the portable walkie talkie set and its detailed technical specifications.</i>		

INDENTED ITEM'S SPECIFICATIONS (BY USER)	SPECIFICATIONS OFFERED BY THE SUPPLIER	COMMENTS BY USER / AHQ
1	2	3
<p>(iii) <b>Service / Repair Manuals</b>  <b>Softcopy:</b> Qty 01  <b>Hardcopy:</b> Qty 05 sets  <b>Notes:</b>  (1) <i>Service / repair manuals to include detailed servicing, optimization and firmware loading procedures.</i>  (2) <i>Detailed module / card level troubleshooting procedures are also to be included.</i>  (3) <i>Identification of test points and expected values on each point is to be provided for each card / module of the set.</i></p>		
<p>(iv) <b>Parts catalogue / illustrated parts breakdown (IPB) list</b>  <b>Softcopy:</b> Qty 01  <b>Hardcopy:</b> Qty 05  <b>Notes:</b>  (1) <i>Part catalogue to identify all parts down to component level.</i>  (2) <i>Separate IPB is not required if parts identification and ordering information is covered in Service / Repair or Technical Manual.</i></p>		
<p>(v) <b>Schematics for all circuit boards and their interconnection</b>  <b>Hardcopy:</b> Qty 05 sets  <b>Note:</b> <i>Separate schematics diagrams are not required if same is covered in Service / Repair or Technical Manual.</i></p>		
<p>(vi) <b>Parts list along with prices</b>  <b>Note:</b> <i>Parts list is to be provided as part of technical proposal against indent. The list must contain <b>Part Number</b> for part ordering information along with <b>Price</b>.</i></p>		
<p>(vii) <b>Operators Training:</b> 02 x two weeks training for 20 PAF Personnel each at PAF's premises</p>		
<p>(vii) <b>Firmware:</b> Provision of Firmware (Hex files / binaries), along with procedure and tools required for firmware loading.</p>		
<p>(ix) Free firmware upgrade for next five years</p>		

INDENTED ITEM'S SPECIFICATIONS (BY USER)	SPECIFICATIONS OFFERED BY THE SUPPLIER	COMMENTS BY USER / AHQ
1	2	3
(x) Free firmware upgrade against software bugs for next ten years		
<b>(g) Shop level repair setup</b>		
(i) Supplier is to provide complete details regarding shop level setup required for maintenance / repair of the system in his technical proposal.		
(ii) System Specific Test Equipment (SSTE) or any other special PME required for testing / repair of the system is to be provided by the supplier as part of contracted stores. <i>Note: Cost effects for such testers are to be separately mentioned and their requirement would be finalized by specialist Directorate {Dte of Networks (Bases)}.</i>		
<b>(h) Technical Proposal Checklist.</b> Following are essential requirements for technical vetting of the offered product. Relevant equipment / documents / publications are to be provided as part of the technical offer. State compliance for each requirement under column 2 and provide relevant item accordingly.		
(i) Provision of <b>Product's Data Sheet</b> in technical proposal		
(ii) Provision of sample of offered product for test and trials.		
(iii) Provision of manufacturer's certificate with complete details of the manufacturer including company profile, address, products and compliance with International manufacturing standards.		
(iv) Provision of one set of complete range of publications for evaluation by Specialist Directorate.		
(v) Provision of parts list along with prices.		
(vi) Provision of certificate of supportability of the offered product for next 15 years.		
(vii) Acceptance of Physical Check criteria attached with the indent		
(viii) Acceptance of Functional Check criteria attached with the indent		
(ix) State compliance with specifications given in sub-paras (a), (c), (d), (e), (f) and (g) above.		
(x) Provide exact values against specifications under sub-para (b) above.		





## TECHNICAL SPECIFICATIONS : DROP WIRE (WL-40)

S No	PART No & NOMENCLATURE	IDENTED ITEM'S SPECIFICATIONS (BY USER)	SPECIFICATIONS OFFERED BY THE SUPPLIER	COMMENTS BY USER / AHQ
1	2	3	4	5
9	5E/PAF-185 Drop Wire (WL-40)	<b>(a) General Construction.</b> State 'Compliance' or 'Non-compliance' against each specification under column 4.		
		(i) <b>Cable type:</b> Field Comm Cable (Drop Wire WL-40)		
		(ii) <b>Conductor Material:</b> Annealed Copper, uniform in quality and free from defects		
		(iii) <b>Circuit handling capability:</b> Voice		
		(iv) <b>No of pairs:</b> <b>Pt No 5E/PAF-185 :</b> Two conductors forming a pair running in parallel		
		(v) <b>Pair colour scheme:</b> Black		
		(vi) <b>Conductor Insulation:</b> High density solid polyethylene of continuous and uniform thickness		
		(vii) <b>Ambient temperature:</b> -20° C to +70° C		
		(viii) <b>Relative humidity:</b> up to 100 %		
		(ix) <b>Carbon concentration:</b> 2.6 ±0.25 %		
		(x) <b>Minimum tensile strength:</b> 19.3 mpa		
		(xi) <b>Minimum Ultimate Elongation:</b> 400 %		
		(xii) <b>Density:</b> 0.941 - 0.950 <sup>3</sup> g/cm		
		(xiii) <b>Melt Index:</b> 0.8 g/10 minutes		
		(xiv) <b>Brooking load of the single conductor:</b> Minimum 90 Kg		
	(xv) <b>Wind loading:</b> 167 Km/hour without ice loading			

	(xvi) <b>Wind loading:</b> 90 Km/hour with ice loading of 5 Kg per meter of length		
	(xvii) <b>Conductor Strength:</b> Any length of the conductor shall withstand wrapping for five consecutive turns in a closed helix about a cylindrical mandrel having a diameter of 1.2 mm without developing surface crack or other evidence of failure. The conductor shall be wrapped at the rate of approximately one turn per second		
	<b>(b) Physical Dimension / Parameters.</b> Provide exact value of offered product against each parameter under column 4		
	(i) <b>Conductor diameter:</b> 1.0 ±0.2 mm diameter		
	(ii) <b>Nominal thickness of sheath:</b> 1.0 ±0.1 mm		
	(iii) <b>Length of Cable per roll:</b> 500 m		
	<b>(c) Electric Characteristics.</b> Provide exact value of offered product against each parameter under column 4		
	(i) <b>Attenuation at 800 Hz dry Drop wire (in air):</b> 1.05 db/Km		
	(ii) <b>Attenuation at 800 Hz wet Drop wire (in air):</b> 0.91 db/Km		
	(iii) <b>Dielectric Strength Conductor to Conductor:</b> Min 10 kV for 3 sec		
	(iv) <b>Insulation resistance of each conductor at 20° C:</b> Not less than 5,000 Mega Ohm/km for 50 VDC applied for one Minute		
	(v) <b>Mutual capacitance at 800 Hz dry Drop wire :</b> ≤ 35 nF/Km		
	(vi) <b>Mutual capacitance at 800 Hz wet Drop wire :</b> ≤ 50 nF/Km		
	<b>(d) Misc Specifications.</b> State 'Compliance' or 'Non-compliance' against each specification under column 4.		
	(i) Cable to be delivered in rolls with suitable protection		

		(ii) Manufacturer's name and the year of manufacture shall be recorded throughout the length of the Drop wire in embossed letters at interval of about 1 meter.		
		(iii) Provision of manufacturer's certificate depicting current year of production and compliance to International standard at the time of delivery.		
		(iv) Provision of manufacturer's certificate of warranty (up to 12 months after release of CRV) at the time of delivery.		
		<b>(e) Requirements for Technical Vetting.</b> Following are essential requirements for Technical Vetting of the offered product. State compliance for each requirement under column 4.		
		(i) Provision of <b>Product's Data Sheet</b> depicting following parameters. - Cable's overall diameter in mm - Approx weight in kg/roll		
		(ii) Provision of sample of offered product		
		(iii) Provision of manufacturer's certificate with complete details of the manufacturer including company profile, address, products and compliance with International manufacturing standard.		
		(iv) Acceptance of Physical Check criteria attached with these specifications		
		(v) Acceptance of Functional Check criteria attached with these specifications		
		(vi) State compliance with specification given in sub-paras (a), (b) and (e).		
		(vii) Provision of exact values of offered product for specifications under sub-paras (b) and (c) above.		

<b>(Specialist Directorate)</b>	<b>(Supplier)</b>	<b>(Specialist Directorate)</b>
---------------------------------	-------------------	---------------------------------

**Notes:-**

1. Columns No 1, 2 and 3 are to be filled by Specialist Directorate at the time of submission of Draft Indent to Dte of Contract Management.
2. Column No 4 is to be filled by Suppliers at the time of submission of technical offer. Non-availability of requisite information in the column would result in rejection of the offered product on 'Technical Grounds : Insufficient information'.
3. Column No 5 is to be filled in on receipt of the same pro-forma from DP (Air) for clearance of TSR by Specialist Directorate.

## TECHNICAL SPECIFICATIONS : 'FIELD TELEPHONE'

S No	PART No & NOMENCLATURE	INDENTED ITEM'S SPECIFICATIONS (BY USER)	SPECIFICATIONS OFFERED BY THE SUPPLIER	COMMENTS BY USER / AHQ
1	2	3	4	5
10	<b>10G/PAF-TA-312/PT Field Telephone (TA-312/PT)</b>  <b>Or</b> <b>Equivalent</b>	<b>(a) General.</b> State 'Compliance' or 'Non-compliance' against each specification under column 4.		
		(i) <b>Operation:</b> Magneto / LB circuit		
		(ii) <b>PTT Button:</b> On handset		
		(iii) <b>Availability of Ring Generator:</b> Rotary hand magneto generator		
		(iv) Rugged and waterproof		
		(v) Visual and Acoustic Warning for received calls (Adjustable Volume)		
		(vi) <b>Power Requirement:</b> 02 x 1.5 V dry batteries or equivalent		
		<b>(b) Electric / Frequency Parameters.</b> Provide <u>exact value</u> of offered product against each parameter under column 4.		
		(i) <b>Frequency Range:</b> 300 to 3400 Hz		
		(ii) <b>Ring / Call signal</b> <b>Frequency:</b> 18 to 30 Hz (Nominal Value: 20 Hz) <b>Voltage:</b> 60 - 90 V AC		
		(iii) <b>Attenuation of Side tone:</b> 15 to 18 dB		
		(iv) <b>Battery Voltage:</b> 3 to 6 V DC (Nominal Value : 3 V DC)		
		<b>(c) Physical Construction and Environmental Parameters.</b> State 'Compliance' or 'Non-compliance' against each specification under column 4.		
		(i) <b>Operating Temperature:</b> -20 C° to +55 C°		
		(ii) <b>Humidity Limit:</b> 0 to 95 %		
		(iii) Compact (1 piece construction) and portable		
		(iv) Ruggedized dust and water proof casing		

S No	PART No & NOMENCLATURE	INDENTED ITEM'S SPECIFICATIONS (BY USER)	SPECIFICATIONS OFFERED BY THE SUPPLIER	COMMENTS BY USER / AHQ
1	2	3	4	5
		(v) Water and dust proofing in compliance with IP-67		
		(vi) Environmental protection (humidity, water, shock and vibration) in compliance with MIL-STD-810F		
		(viii) Two wire binding posts for connection to Line		
		(ix) All material (wires, buttons, indicators etc) used in construction of the phone should be from fresh production (within 06 to 08 months)		
		(x) <b>Required colour scheme:</b> Olive Green		
		<b>(d) Performance Requirements.</b> State 'Compliance' or 'Non-compliance' against each specification under column 4.		
		(i) <b>Transmission distance:</b> > 14 - 22 km		
		(ii) Compliance with MIL-STD-461-F for Interference Protection		
		(iii) Prolonged operation (> 72 Hours) without deterioration in performance		
		<b>(e) Required Features / Accessories.</b> State 'Compliance' or 'Non-compliance' against each specification under column 4.		
		(i) Provision of PTT button on handset		
		(ii) Carrying pouch made of tough fabric		
		(iii) Ring buzzer with volume control		
		(v) Availability of grip on Field telephone set for placing / holding of hand set		
		<b>(f) Documentation / Publications and Training.</b> State 'Compliance' or 'Non-compliance' against each specification under column 4.		
		(i) <b>Operators Manual</b> <b>Hardcopy:</b> Qty 01 with each Telephone set		

S No	PART No & NOMENCLATURE	INDENTED ITEM'S SPECIFICATIONS (BY USER)	SPECIFICATIONS OFFERED BY THE SUPPLIER	COMMENTS BY USER / AHQ
1	2	3	4	5
		(ii) <b>Technical Manual:</b> <b>Hardcopy:</b> Qty 01 with each Telephone set <i>Note: Technical manual must include details on operating principle, block level design of the Telephone set and its detailed technical specifications.</i>		
		(iii) <b>Service / Repair Manuals</b> <b>Softcopy:</b> Qty 01 <b>Hardcopy:</b> Qty 03 sets <i>Note: Service / repair manuals must Include detailed troubleshooting procedures. Test points and expected values on each test point is to be provided for cards installed in the set.</i>		
		(iv) <b>Parts catalogue / illustrated parts breakdown (IPB) list</b> <b>Softcopy:</b> Qty 01 <b>Hardcopy:</b> Qty 03 <i>Note: Separate IPB is not required if parts identification and ordering information is covered in Service / Repair or Technical Manual.</i>		
		(v) <b>Schematics for all circuit boards in the Telephone Set</b> <b>Hardcopy:</b> Qty 02 sets		
		(vi) <b>Parts list along with prices</b> <i>Note: Parts list is to be provided as part of technical proposal against indent. The list must contain <b>Part Number</b> for part ordering information along with <b>Price</b>.</i>		
		(viii) <b>Maintenance / Repair Training:</b> 02 Weeks training to 10 PAF personnel at mutually agreed location.		

S No	PART No & NOMENCLATURE	INDENTED ITEM'S SPECIFICATIONS (BY USER)	SPECIFICATIONS OFFERED BY THE SUPPLIER	COMMENTS BY USER / AHQ
1	2	3	4	5
		<p><b>(g) Technical Proposal Checklist.</b> Following are essential requirements for technical vetting of the offered product. Relevant equipment / documents / publications are to be provided as part of the technical offer. State compliance for each requirement under column 4 and provide relevant item accordingly.</p>		
		<p>(i) Provision of <b>Product's Data Sheet</b> in technical proposal with following information:</p> <ul style="list-style-type: none"> <li>- Layout depicting Interfaces and indicators</li> <li>- Physical dimensions</li> <li>- Weight</li> <li>- Electrical specifications of the equipment and its interfaces</li> <li>- Performance specifications</li> <li>- Main features</li> <li>- Specify compliant MIL Standards for environmental effects and ruggedness</li> </ul>		
		<p>(ii) Provision of sample of offered product for test and trials.</p>		
		<p>(iii) Provision of manufacturer's certificate with complete details of the manufacturer including company profile, address, products and compliance with International manufacturing standards.</p>		
		<p>(iv) Details of OEM, Make, Model and technical specifications of push button, indicator and handset are to be attached in technical offer for evaluation by Specialist Directorate.</p>		
		<p>(v) Provision of one set of complete range of publications for evaluation by Specialist Directorate.</p>		
		<p>(vi) Provision of parts list along with prices.</p>		
		<p>(vii) Provision of certificate of supportability of the offered product for next 15 years.</p>		
		<p>(viii) Acceptance of Physical Check criteria attached with the indent.</p>		



S No	PART No & NOMENCLATURE	INDENTED ITEM'S SPECIFICATIONS (BY USER)	SPECIFICATIONS OFFERED BY THE SUPPLIER	COMMENTS BY USER / AHQ
1	2	3	4	5
		(ix) Acceptance of Functional Check criteria attached with the indent.		
		(x) State compliance with specifications given in sub-paras (a), (c), (d), (e), (f) and (g) above.		
		(xi) Provision of exact values of offered product for specifications under sub-para (b) above.		
(Signature of Specialist Dte rep)			(Supplier's details & signature)	(Signature of Specialist Dte rep)

**Notes:-**

1. Columns No 1, 2 and 3 are to be filled by Specialist Directorate at the time of submission of Draft Indents to Dte of Contract Management.
2. Column No 4 is to be filled by Suppliers at the time of submission of technical offer. Non-availability of requisite information in the column would result in rejection of the offered product on 'Technical Grounds : Insufficient information'.
3. Column No 5 is to be filled in on receipt of the same pro-forma from DP (Air) for clearance of TSR by Specialist Directorate.

## TECHNICAL SPECIFICATIONS OPTICAL FIBER CABLE

S NO	PART No & NOMENCLATURE	INDENTED ITEM'S SPECIFICATIONS (BY USER)	SPECIFICATIONS OFFERED BY THE SUPPLIER*	COMMENTS BY USER / AHQ
11	5805/NL-ITU-T-G652X12CORE	As per attached brochures		
(Signature of Specialist Dte rep)			(Supplier's details & signature)	(Signature of Specialist Dte rep)

**Notes:-**

1. Columns No 1, 2 and 3 are to be filled by Specialist Directorate at the time of submission of Draft Indents to Dte of Contract Management.
2. Column No 4 is to be filled by Suppliers at the time of submission of technical offer. Non-availability of requisite information in the column would result in rejection of the offered product on 'Technical Grounds : Insufficient information'.
3. Column No 5 is to be filled in on receipt of the same pro-forma from DP (Air) for clearance of TSR by Specialist Directorate.

### Mechanical\Environmental Specifications of optical fiber

S. No.	Test	Specification
1	Tensile Strength	4000 N
2	Crush Strength	2500 N
3	Impact Resistance	2 kg Height: 1 meter
4	Repeated Bending	30 bends / min Load: 75/125 N
5	Torsion	± 180 deg Load: 400 N
6	Cable Bending	Minimum bending radius of 20 x Cable OD
7	Temperature Cycling	-10° to +70° C 5 cycles
8	Water Penetration	No presence of water at 1 meter after 24 Hrs

### Specifications of G. 652D Fiber

S. No.	Parameter	Unit	Requirement	Remarks
1	Chromatic Dispersion	Ps/nm.km	≤ 3.5	1285nm to 1330nm
		Ps/nm.km	≤ 18	at 1550nm
2	Mode Field Diameter	μm	9 ± 0.7	at 1310nm
			10.5 ± 0.7	at 1550nm
3	Mode Field Concentricity Error	μm	1.0	at 1310 nm
4	Change in attenuation vs. Bending (60mmx100turns)	dB	≤ 0.5	at 1310nm
			≤ 0.50	at 1550nm
5	Core-Clad Concentricity Error	μm	≤0.8	
6	Cladding Diameter	μm	125 ± 1.0	
7	Cladding Non-circularity	%	≤ 1.0 %	
8	Diameter of primary coated fiber	μm	245 ± 10	
9	Diameter of coloured fiber	μm	250 ± 10	
10	Proof Test Level	Kpsi	≥ 100	
11	Long term minimum bending	m	≤ 35	30 years
12	Fiber Curl	m	≥ 4	

13	Zero Dispersion Wavelength	nm	1301.5 ~ 1321.5	
14	Zero Dispersion Slope		≤ 0.092	
15	Attenuation at Water Peak	dB/km	≤ 0.35	
16	Attenuation Coefficient	at 1310nm	dB/km	≤ 0.35
		at 1383	dB/km	≤ 0.35
		at 1550nm	dB/km	≤ 0.22
		at 1625	dB/km	≤ 0.25
17	Point Discontinuity	at 1310nm & 1550nm	dB	≤ 0.10
18	Chromatic Dispersion	at 1285nm~1330nm	ps/nm.km	≤ 3.5
		at 1550nm	ps/nm.km	≤ 18
19	PMD	Maximum for each individual fiber	ps/√km	≤ 0.2
20	Cable Cut-off Wavelength( $\lambda_{cc}$ ,)		nm	$\lambda_{cc} \leq 1280$

**Note:** Accessories lists at S No (g) to (j) and (m), namely, Earbud with Mic & PTT, High Capacity Batteries, Heavy Duty Headset with Noise Reduction and Leather pouch are required for PAF's existing inventory of Motorola's MOTOTRBO Portable / Mobile Radios and Repeater Station. Their compatibility with existing inventory is to be established by providing sample at the time of technical opening.

<b>(Specialist Directorate)</b>	<b>(Supplier)</b>	<b>(Specialist Directorate)</b>
---------------------------------	-------------------	---------------------------------

**Notes:-**

1. Column No 1 is to be filled by Specialist Directorate at the time of submission of Draft Indents to Dte of Contract Management.
2. Column No 2 is to be filled by Suppliers at the time of submission of technical offer. Non-availability of requisite information in the column would result in rejection of the offered product on 'Technical Grounds: Insufficient information'.
3. Column No 3 is to be filled in on receipt of the same pro-forma from DP (Air) for clearance of TSR by Specialist Directorate.

(to be filled by DP as appropriate this IT as per DP-35)

1. **Warranty.** All goods/ stores/ offered would be brand new, from current year of production. These will be supplied on Form DPL-15 (Appendix III) and will be governed as per warranty clause. This warranty period may be covered by a BG as stipulated above depending on the value/ critically of the tendered equipment/ stores Format of BG against warranty is attached as appendix IV.
2. **Security Deposit/ Bank Guarantee (BG)**
  - a. BG equal to 10% will be imposed on all FOB/ FOR contracts on issuance of letter of Intent/ Acceptance or signing of the contract, the Supplier shall within a period of 30 days, submit a Security Deposit in the following forms:-
    - (i) Demand Draft/ Pay Order from any scheduled bank of Pakistan.
    - (ii) Cash deposit on Form PAFA 507 in favour of Controller Military Accounts (DP).
    - (iii) Treasury Receipt.
    - (iv) Unconditional and irrevocable Bank Guarantee form a scheduled bank of Pakistan, which shall be endorsed in favour of Controller Military Accounts (DP) in the case of local contracts.
    - (v) Unconditional and Irrevocable Bank Guarantee form a scheduled bank of State Bank of Pakistan or through LC opening Pakistani Bank in the case of foreign contracts. Such a Bank Guarantee shall be endorsed in favour of Controller Military Accounts (DP).
3. **Agent Commission.** In case of Involvement of foreign firm's local (Pakistani) agent, the commission %age being paid to the agent must be declared in the offer. This commission will be paid to agents in Pakistani currency (rupees) by CMA (DP) on satisfactory completion of supplier. Letter of Credit will be reduced by corresponding Dollar value of agency commission at the exchange rate of date of opening of commercial offer. In case firm does not have any local agent, then a certificate as per format attached as (appendix-II) will be signed by OEM/principal and included as integral part of contract.
4. **Taxes/ Duties/ Letter of Credit Charges.** All taxes/ duties/ import License Fee/ LC charges as applicable under Govt laws in Pakistan as well as country of Supplier shall be non Supplier's account.
5. **Term of Payment.** Principal/ Supplier may be allowed to draw 80% payment through Letter of Credit on dispatch of stores and 20% on issuance of Certificate Receipt Voucher (CRV) by consignee.
6. **Late Delivery.** In the event in delivery at Supplier's fault, the Supplier shall inform the purchaser before expiry of such delivery period giving reasons/ justification for it. The purchaser shall have the right to 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 within the scheduled delivery period has been for reasons with 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 upto 2% but not less than 1% (depending on the merit of the case as decided by Competent Purchase Officer) of the value of stores supplied late per month or a part of 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 delivered late
  - d. The purchaser's decision under this clause shall NOT be subjected to arbitration.
7. **Shipment.** In case of FOB contracts, shipment will be made through PNSC vessel or PIA on Purchaser's account. Details to be incorporated in the contract Shipment through foreign vessel/ flight due to any compulsion will require prior approval of Purchase/ DGDP. For further detail referred to DP-35.
8. **Insurance.** In case of FOB contract, insurance in this contract if required will be on Purchaser's account with NICL, Pakistan.
9. **Subletting.** Supplier not allowed wholly or part of the contract to any other firm/ company without prior permission of the Purchaser. Firm found in breach of this clause will be dealt with as per purchaser's right and discretion.
10. **Purchaser's Right.** Government of Pakistan (represented) by Directorate General Defence Purchase does not pledge himself to accept the lowest or any tender and reserves the right of accepting the whole or any part of the quantity offered. Please be notified that the tender does not constitute ANY obligation or commitments what-so-ever on the part of the Government of Pakistan to negotiate or conclude ANY or part thereof of the subject contract under any terms or conditions irrespective of the cost, lowest cost or any

gradation of the cost. Government of Pakistan reserves the right to cancel the indent, tender or inquiry or to reject any offer or quotation without assigning any reason or explanation.

The purchaser also reserves the right of deletion, addition and cancellation of the contract in part or full without assigning and reason whatsoever and without financial repercussion on either side within 30 days after the signing of contract. Such information will be passed to the supplier on his legal address by the purchaser through the fastest possible means i.e. Telephone, Fax, Telex, Cable Telegram etc.

11. **Export License/ Permit/ End User Cert.** It shall be the responsibility of the supplier to obtain from the Government concerned all permits and export licenses, etc required to enable each consignment to be shipped immediately as per the delivery schedule. In case the supplier fails to arrange export license within 30 days of signing the contract the purchaser reserves the right to cancel the contract on the risk and expense of the supplier without prior notice. The purchaser will provide End User Certificate (EUC) to the supplier within 15 days of signing of the contract for the purposes of getting the export license/ permit. However purchase will not be responsible to arrange export license/ permit on behalf of the supplier for the export of the contracted goods/ stores.

12. **Failure/ Termination.** The purchaser shall be entitled to terminate the contract on Risk and Expense for default on the part of supplier. In case the Purchaser elects to terminate the 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 servicing of such notice, the Purchaser may forthwith terminate this contract by notice in writing to the Supplier without prejudice to any rights of supplier. Extra cost if incurred on re-purchase form else where will be on your account.

13. **Secrecy.** The Supplier shall undertake that any information about the sale/ purchase of the stores under this contract shall not be communicated to any person, other than the manufacturer of the stores, or to any press or agency not authorized by the Director General Defence Purchase Division to receive it. Any breach on this account will be punishable under the Official Secret Act-1923 in addition to termination of the contract at the risk of Supplier.

14. **Signature on Appendix V to DP-2 Part-II.** In case of un-registered firm, the attached Appendix V to DP-2 Part-II is required to be signed by the supplier. **(Ref DGDP letter No 1566/01/Gen/Registration dated 19 February, 2014)**

15. **Award of Contract to Un-Registered Firm Valuing Rs 1 Million and above** In case of contract is awarded to un-registered firm valuing Rs 1 million and above, BG from any scheduled Pakistani Bank will be submitted to DP (Air) **BEFORE SIGNING OF THE CONTRACT.** **(Ref DGDP letter No 1566/01/Gen/Registration dated 19 February, 2014)**

16. **Declaration of Movable / immovable Property:** Prior to the award of contract the potential supplier, the firm is required to provide details of movable / immovable property on Rs. 100 judicial stamp paper duly attested by the oath commissioner.

**CERTIFICATE**

It is certified that no person, firm, corporation, subsidiary or entity in Pakistan or elsewhere shall directly or indirectly receive any rebate, bonus, commission, gift or favour in case or kind other than the commission allowed to M/s (No one allowed) against Contract No----- . In case it is discovered that the 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% f the contract value.

**Agent**

**Principal**

\_\_\_\_\_  
**Seal & Signature**

\_\_\_\_\_  
**Seal & Signature**

**COUNTERSIGNATURE**

\_\_\_\_\_  
**DP Concerned**  
**Seal & Signature**

**GUARANTEE FORM DPL-15**  
**PRINCIPAL'S MANUFACTURER'S STANDARD WARRANTY/**  
**SELLER'S LETTER OF GUARANTEE**

Firm Name: **M/s** \_\_\_\_\_

Contract No: \_\_\_\_\_

1. We hereby guarantee that the articles supplied under the terms of this contract are produced now in accordance with approval drawings in all respect in accordance with the terms of the contract, and that the material used, whether or not of our manufacture, are in accordance with the latest appropriate standard specification, and also in accordance with the terms of the contract complete of good workmanship throughout and that will replace free of cost (FOB/ CIF/ C&F/ FOR) Karachi as the case may be every article or part hereof which before use or in use shall be found defective or is found not within the limits and tolerance of specification requirement or if any way are not in accordance with the requirement of the contract.
2. In case of our failure to replace the defective stores free of cost within a reasonable period, we will refund the relevant cost (FOB/ CIF/ C&F/ FOR) Karachi as the case may be in the currency/ currencies in which received plus freight charges, up to consignee's and the purchaser shall have the right to purchase the stores declared defective at our risk and expense.
3. The supplier also undertakes to make good the deficiency in supply if any.
4. The warranty will remain valid for -----on receipt of stores by the consignee.

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

**Note:** The signature must be the same as the one on the Tender/ Contract, if otherwise must be shown to be the signature a person capable of giving guarantee on behalf of the contractors.



**BANK GUARANTEE FOR PERFORMANCE ON  
JUDICIAL STAMP PAPER OF RS 100/- OR AS  
SUITABLE TO THE AMOUNT OF BG**

CONTRACT No:  
NAME OF FIRM/ CONTRACTOR:  
ADDRESS OF FIRM/ CONTRACT:  
NAME OF GUARANTOR: \_\_\_\_\_  
ADDRESS OF GUARANTOR: \_\_\_\_\_  
AMOUNT OF GUARANTOR: Rs \_\_\_\_\_  
DATE OF EXPIRY OF GUARANTEE: \_\_\_\_\_ (In Words)

To: **The President of Islamic Republic of Pakistan through the Controller of Military Accounts  
(Defence Purchase), Rawalpindi**  
Sir,

1. Whereas your good self have entered into Contract No. \_\_\_\_\_  
\_\_\_\_\_ dated \_\_\_\_\_

With Messrs \_\_\_\_\_  
Full Name and Address

Hereinafter referred to as our customer and that one of the conditions of the Contract is the submission of unconditional Bank Guarantee by our customer to your good-self for a sum of Rs \_\_\_\_\_ Rupees \_\_\_\_\_

2. In compliance with this stipulation of the contract, we hereby agree and undertake as under:-
- To pay to you unconditionally on demand and/ or without any reference to our Customer an amount not exceeding the sum of Rs \_\_\_\_\_ Rupees  
\_\_\_\_\_ as would be mentioned in your written Demand Notice.
  - To keep this Guarantee in force till \_\_\_\_\_
  - That the validity of this Bank Guarantee shall be kept one clear year ahead of the original/ extended delivery period or the warrantee of the stores which so ever is later in duration on receipt of information form our Customer i.e. \_\_\_\_\_ or form your office. Our liability under this Bank Guarantee shall cease on the closing of banking hours on the last date of validity of this Bank Guarantee. Claim received thereafter shall not be entertained by us whether your suffer a loss or not. On receipt of payment under this Guarantee, this document i.e. Bank Guarantee must be clearly cancelled, discharged and returned to us.
  - That we shall inform your office regarding termination of the validity of this Bank Guarantee one clear month before the actual expiry date of this Guarantee.
  - That with the consent of our customer you may amend/ alter any term/ cause of the contract or add/ delete any term/ clause to/ from this contract without making any reference to us. We do not reserve any right to receive any such amendment/ alternation or addition/ deletion provided such like actions do not increase our monetary liability under this Bank Guarantee which shall be limited only to Rs \_\_\_\_\_ (Rupees \_\_\_\_\_)
  - That the Bank Guarantee herein before given shall not be affected by any change in the constitution of the Bank or Customer/ Supplier or Vendor.
  - That this is an unconditional Bank Guarantee, which shall be encashed on sight on presentation without any reference to our Customer/ Supplier or Vendor.

**GUARANTOR :**

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

**Bank Seal & Signature:**

**AFFIDAVIT / UNDERTAKING**  
**(WORTH RS 100/- ON JUDICIAL STAMP PAPER)**

Mr \_\_\_\_\_ Authorized signatory/ Partner/MD of M/s \_\_\_\_\_, do hereby solemnly affirm to DP (Air), and Directorate General Defence Purchase, Ministry of Defence Production, Rawalpindi that our firm M/s \_\_\_\_\_ has applied for registration with Director General Defence Purchase (DGDP) duly completed all the documents required by Registration Section on \_\_\_\_\_ (date) i.e. before signing the contract. I certify that the above mentioned statement is correct. In case it is detected on any stage that our firm has not applied for registration with Director General Defence Purchase or statement given above is incorrect, our firm will be liable for disciplinary action initiated (i.e. debarring, the firm to do business with other Defence Establishment and Government Agencies). I also accept that any disciplinary action taken will not be challenged in any Court of Law.

Station \_\_\_\_\_

Signature \_\_\_\_\_

Dated \_\_\_\_\_

Name \_\_\_\_\_

Appointment in Firm \_\_\_\_\_

**ATTESTED BY OATH COMMISSIONER WITH STAMP**

**CERTIFICATE**

It is certified that no change/amendment has been made in the documents available on the PAF website. In case, found guilty of any tempering to the IT documents, severe disciplinary action will be taken against my firm.”

Principal / Agent

---

Seal & Signature

**TECHNICAL CONDITIONS/ SPECIFICATIONS OF STORES**

1. **Technical Specifications**

1.1 The store/ equipment should confirm to specification/ service requirements and technical data/ drawing (if applicable as per attached **Appendix "A"**. Offer not confirming to required specification or multi offers will be rejected. The supplier shall further undertake to provide all the contracted stores/ goods as per the specification.

1.2 All stores/ Items/ Goods delivered would be brand new, from current year of production, confirming to purchaser specifications/ satisfaction. The supplier will provide all the OEM certificate, quality certification/ inspection documents to the purchaser confirming the quality of the product being supplied under this contract. Stores must bear the manufacture's Identification marking/ monogram.

2. **Requirement of Samples.** The requirement of tender sample will be included in the IT in case the same is required for evaluation by technical authorities. Beside this advance sample if required will be made part of the IT as well as the contract.

3. **Change in Specification/ Mfr/ Model.** No alteration in make/ brand and quality of stores will be entertained after the tenders have been opened. To contrary, any change/ improvement requires approval of tech authority/ user.

4. **Technical Documentation.** All original publication, catalogues and technical/ operational manuals will be supplied free of coat by the supplier at the request of purchaser unless otherwise stated in the contract. Supplier will also provide two copies of compact disc and hand made drawings wherever applicable. The supplier will provide two sets of following documents free of coat for technical scrutiny of the offer (as applicable):-

- a. Technical literature of each item in original form.
- b. Manufacturer's Specifications/ Technical Data/ Drawings and packing details etc of each item in original form.
- c. Acceptance test procedure/ criteria of each item.
- d. Country of origin of each items and port of shipment.

5. **Interchangeability.** A certificate of complete interchangeability must be endorsed on the quotation for substitutes/ in lieu and superseded items. A copy of relevant page of publication must be attached to prove correctness of offered items.

6. **Checking of Store at Consignee End.** All stores will be checked at consignee's end, in the presence of supplier's representatives. If for the reasons of economy, or any other reason, the supplier decides not to nominate his representative for such checking; an advance written notice to this effect will be given by the supplier to the consignee prior to or immediately on shipment of stores. In such an even the supplier will clearly undertake that the decision of consignee with regard to quantities and description of a consignment will be taken as final and discrepancy found will be accordingly made up by supplier. In all other cases the consignee will inform the suppliers about arrival of consignment immediately on receipt of stores through registered mail or fax. If no response from the supplier is received within 15 days from initiation of letter the consignee will have the right to proceed with the checking without supplier's representative, Consignee's report on checking of stores will be binding on the supplier in such cases.

7. **Packing/ Marking.** The supplier shall be responsible for proper packing of the stores in accordance with the relevant paper particulars under the conditions laid down in the contract or other relevant Instructions on the subject in standard export packing worthy of transportation by Sea/ Air/ Road/ Rail so as to ensure their contents being free from loss or damage due to faulty packing on arrival at the ultimate destination. Packing of stores will be done at the expense of the Supplier. All packing cases, containers and other packing material shall become the property of the State on receipt. Marking of packages/ containers shall also be done by end at the expense of the Supplier in accordance with the instructions given by the Purchaser. Failure to mark consignment in accordance with these instructions will render the store liable to rejection. Any loss occurred/ demurrage paid due to wrong marking will be made good by the Supplier.

**UNDERTAKING**

**To:**

**The Director of Procurement (AIR)  
(Section P-43)  
Air Headquarters, Chaklala/ Rawalpindi**

Dear Sir,

1. I/We hereby offer to supply to the Director of Procurement (Air) the stores detailed in schedule to the tender inquiry or such portion thereof as you may specify in the acceptance of tender at the prices offered against the said schedule 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 conditions already stated therein or on before this date. I/We shall be bound by a communication of acceptance to be dispatched within the prescribed time.

2. I/We have understood the instructions to Tenders and General Conditions, Governing Contract in Form No DP-35 (Revised 2017) included in the pamphlet entitled, Government of Pakistan, Military of Defence (Directorate General Defence Purchase) "General Conditions Governing Contracts" and have thoroughly examined the specifications/ drawings and/ or patterns quoted in the schedule hereto and am/are fully aware of the nature of the stores required and my/ our offer is to supply stores strictly in accordance with the requirements.

**Yours faithfully,**

\_\_\_\_\_  
**(Witness's Signatures)**

\_\_\_\_\_  
**(Signature of Tenderer)**