

# PAKISTAN AERONAUTICAL COMPLEX, KAMRA MIRAGE REBUILD FACTORY

## TENDER NOTICE NO MRF/17-18/10 DATED 05 March, 2018.

1. Mirage Rebuild Factory, Pakistan Aeronautical Complex Board Kamra invites sealed bids from the Original manufacturer / authorized distributors / suppliers / contractor registered with Income Tax and Sales Tax Department and PACB registered for supply of following Miscellaneous items on F.O.R Basis (Professional Tax certificate, Punjab is mandatory). Details of requirements is as follows:-

“STAR SEVEN SEGMENT DISPLAY CIRCUIT MODIFIED , MONOCHROME LASER PRINTER EPSON EPL-N2500 , UNIVERSAL BATTERY CHARGER , WIRE GAUGE SET , ADOPTER COMPRESSOR AIR BLEED VALVE , WAX MICRO CRYSTLYNE , EVOSTICK 529 , PRIMER ENCAPSULATING AND POTTING , WALKIE TALKIE SET HANDHELD WITH ACCESSORIES , WRENCH POWER , PUSHER ENTRANCE GUIDE VANE , SHEILD HEAT T/M OUTER MEMBER , ELECTRIC TRANSPORTER , NICKEL SULFAMATE , STORAGE CABINET , MICRO BAR 175-200MM , STATIC DISSIPATIVE MATS , UNITES A THYRISTERS SERIES 434 , RUBBER MAT , L.E.D , LAPTOP-INTEL CORE I7 (HP-15-AC129 NE 6TH GENERATION) , RACKS ALUMINIUM 9X6X3FT , TEST RIG MACHINE (L/R) , COMPUTER INTEL CORE I7 WITH LED AND COMPLETE ACCESSORIES, MONOCHROME LASER PRINTER EPSON EPL-N2500. WELDING POWDER PLASMA, RADIO SCOPY SYS 225KV (L/R), FIBER GLASS WITH SILICON ADHESIVE”

2. List of items can also be downloaded from PPRA website [www.ppra.org.pk](http://www.ppra.org.pk) and as well as PACB website [www.pac.org.pk](http://www.pac.org.pk) free of cost or can be collected from DTE of Log (LP Section) MRF PAC Kamra Distt Attock from 06-03-2018 during working hours (except holidays).

3. The quotations, prepared in accordance with the instruction in the Tender List, must reach at Mirage Rebuild Factory PACB Kamra **before 16-03-2018 at 1000 Hrs. Quotations will be opened on the same day at 1100 Hrs.** The advertisement is also available on PPRA website at [www.ppra.org.pk](http://www.ppra.org.pk) and as well as PACB website [www.pac.org.pk](http://www.pac.org.pk)

**DUE DATE : 20-03-2018 before 1000 Hrs.**  
**TENDER OPENING TIME : 20-03-2018 at 1100 Hrs.**

Please contact **Tele # 051-9099-4294 / 4414, 4417 or Fax No 057-9317412** for any other information.

**DIRECTOR LOGISTICS  
MRF PACB KAMRA  
DISTT ATTOCK**

**Directorate of Logistics MRF, PAC Kamra**



Contact No. 051-90994294, 4414 & 4417, Fax No. 057-9317412

**LIST OF OPEN TENDER NO MRF/17-18/10  
DATED 05-03-2018 OPENING DATE 20-03-2018**

SN O	PART NO	NOUN	QTY	U/I	SPECIFICATION
1	AMS5646-0.110INCH	STAINLESS STEEL SHEET 0.110 INCH	1	SH	STAINLESS STEEL SHEET 0.110 INCH THICKNESS
2	AMS5646-0.040INCH	STAINLESS STEEL SHEET 0.040INCH	1	SH	STAINLESS STEEL SHEET 0.040 INCH THICKNESS
3	PIC16F876	STAR SEVEN SEGMENT DISPLAY CIRCUIT MODIFIED	6	EA	REQUIRED FOR SECURITY ALARM SYSTEM.
4	21B/7010PK0006	MONOCHROME LASER PRINTER EPSON EPL-N2500	5	EA	MONOCHROME LASER PRINTER EPSON EPL-N2500 EQUIVALENT OR HIGHER
5	6125PK000516/D GMP	UNIVERSAL BATTERY CHARGER	1	EA	MADE NEXTEX OR EQUIVALENT
6	ST60880	WIRE GUAGE SET	1	EA	ACCURACY 0.0005 INCHES MAKE & MODEL JERAMES TOOLS MANUFACTURING SANTEE CALIFORNIA OR EQUIVALENT
7	6799198	ADOPTER COMPRESSOR AIR BLEED VALVE	EA	1	PT NO 6799198 NSN/4920-00772-119 MAKE ALISON USA OR EQUIVALENT
8	9060-66-027-1106	WAX MICRO CRYSTLYNE	KG	3	PART NO. 9060-66-027-1106 NOUN. WAX MICRO CRYSTLYNE
9	DTD900/4564	EVOSTICK 529	LTR	3	PART NO. DTD900/4564 NOUN. EVOSTICK 529
10	8010-66-050-2538	PRIMER ENCAPSULATING AND POTTING	KG	3	
11	PD-788G	WALKIE TALKIE SET HANDHELD WITH ACCESSORIES	AS REQUIRED	EA	SPECS STTSCHED AT THE END OF THIS TENDER
12	6796896	WRENCH POWER	EA	1	PT NO 6796896
13	6797664	PUSHER ENTRANCE GUIDE VANE	EA	1	PT NO 6797664
14	6796807	SHEILD HEAT T/M OUTER MEMBER	EA	1	:
15	HS4	ELECTRIC TRANSPORTER	EA	1	MANUFACTURIER" ZALLYS OR EQUIVALENT OPERATOR: PEDESTRIAN

 <p>جہان تازہ کی افکار تازہ سے نمود</p>	<p><b>PAKISTAN AERONAUTICAL COMPLEX</b></p> <p>2 A SYMBOL OF EXCELLENCE IN AVIATION</p> <p><a href="http://www.pac.org.pk">www.pac.org.pk</a></p>	 <p>عملی رسم سے لوہیں ہے شاہین کی پرواز</p>
--	---	--

POWER UNIT: ELECTRIC  
 PERFORMANCE: MAX. FWD SPEED TOL. +-5% M.U KM/H HS 5 )3.1MPH)  
 MAX.BACKWARD SPEED: +-5% M.U KM/H HS 4 (2.5 MPH)  
 MAX LOAD CAPACITY ON FLAT GROUND: M.U KG,HS: 500 (1102 LB)  
 MAX.LOAD CAPACITY ON FLAT GROUND (WITH REINFORCED DRIVE AXLE SHAFTS: KG 1000 (2205 LB)  
 MAX.SLOP WITH LOAD: % 30  
 STOPPING DISTANCE IN DECELERATION (WITHOUT LOAD) +- 10% M.U M HS 1,1 (3.6 FT)  
 LOAD CAPACITY MAX SPEED SPEED: +-5% M.U KM/H HS4-HS4 L5 (3.1 MPH)MAX BACKWARD SPEED: +- 5% M.U KM/H HS4-HS4 L 4(2.5 MPH) MAX LOAD CAPACITY ON FLAT GROUND: KG 600 (1323 LB)  
 MAX SLOP WITH LOAD : % 30  
 STOPPING DISTANCE WITH DECELERATION (WITH OUT LOAD) +-10% M 1,1 (3.6FT)  
 TYPE OF CONTROL :TILLERS  
 TYPE OF START CONTROL:HANDLEBAR GAS GRIP  
 BATTERIES: N ° 2  
 BATTERIES TYPE: TRACTION LEAD ACID  
 BATTERY VOLTAGE: 12V  
 NOMINAL CAPACITY 5H: AH 72  
 NOMINAL CAPAITY 20 H:96AH  
 WEIGHT OF EACY BATTERY: 25 KG (55LB)  
 BATTERIES PCS: N O 2  
 BATTERY TYPE : TRACTIONAGM BATTERIES  
 NOMINAL CAPACITY K5 : 50AH  
 NOMIANAL CAPACITY: K20 70AH  
 WEIGHT OF EACH BATTERY:KG 22 (49 LB)  
 TECHNICAL DATA FOR STANDARD CHARGER:BATTERY CHARGER : EXTERNAL -HIGH FREQUENCY  
 INPUT VOLTAGE:110/240 V  
 INPUT FREQUENCY: 50-60 HZ  
 BATTERY CHARGER CAPACITY:10 AH  
 MOTOR : ELECTRIC  
 ENGINE VOLTAGE 24V  
 RATING (S2-10')1 (1.36CV) KW  
 MAXIMUM PEAK POWER 2,2 (2.99 CV)KW,TRANSMISSION DATA:



**PAKISTAN AERONAUTICAL COMPLEX**  
 3 A SYMBOL OF EXCELLENCE IN AVIATION  
[www.pac.org.pk](http://www.pac.org.pk)



					TRANSMISSION SYSTEM:MECHANICAL TRANSMISSION LUBRICATION:INOIL BATH SERVICE BRAKE: ELECTRONIC PARKING BRAKE:ELECTRO-MECHANICAL FRAME MADEOF :STEEL FRAME TREATMENT: POLYESTER POWDER COATING WHEELS: INFLATION PRESSURE:2/ (3 WITH LOAD)
16	6850PK0940024	NICKEL SULFAMATE	60	KG	REQUIRED TO BE USED IN NICKEL PLATING CHEMICAL FORMULA= $NI (NH_2SO_3)_2$ CHEMICAL COMPOSITION: ELEMENT NICKEL,:LIMIT BY WEIGHT:145-190 G/L(19 TO 26 OZ/US GAL) ANHYDROUS NICKEL SULFAMATE LIMIT BY WEIGHT: 620 TO 840 G/L (83 TO 112 OZ/US GAL) IMPURITIES: (IN ANHYDROUS SALT)(A) FE=0.0025% MAX(B):CU 0.0025% (C):FE+CU=0.0050%MAX (D)ZN=0.0030% MAX,(E)MN=0.0030% MAX(F)=SO <sub>4</sub> =0.60% MAX (G) PB=0.006% MAX DENSITY=1.50 TO 1.57 KG/DM <sub>3</sub> (0.054 TO 0.056LB/CU.IN ELECTROMETRIC PH AT 20 DEG °C- - 70DEG °F :3 TO 5 APPEARANCE : CLEAR GREEN CONCENTRATED SOLUTION
17	21B/305	STORAGE CABINET	6	EA	STORAGE CABINET 5FT HX6FT WX2 FT DEEP,12 DRAWERS STORAGE CABINET.MATERIAL CRC E,G.GRADE 1 IMPORTED , THICKNESS 0.8MM TO 2MM . DRAWER RUNNING ON DOUBLE BALL BEARING SYSTEM. ALL DRAWER HAVE BUILT IN HANDLE AND CARD FRAME.DRAWEWRS HAVE CRADLE FOR HANGING CRAFT POCKET,SAFETY LOCKS MECHANISM WHICH ALLOWS ONE DRAWER TO OPEN AT ONE TIME. CABINET FITTED WITH CYLINDER LOCKS AND KEYS IN DUPLICATE . TOP 08 DRAWER OF CABINET ARE EQUALLY DIVIDED IN 30 DIFFERENT SIZED CELLS CAN BE ORGANIZED . EACH CABINET HAVING 06 PORTABEL WHEELS PORTION SPECIMAN DIAGRAM IS AT THE END OF THIS TENDER



**PAKISTAN AERONAUTICAL COMPLEX**  
4 A SYMBOL OF EXCELLENCE IN AVIATION  
[www.pac.org.pk](http://www.pac.org.pk)



18	08-1260A	MICRO BAR 175-200MM	1	EA	PT NO 08-12604
19	DY1003	STATIC DISSIPATIVE MATS	30	MT R	WIDTH 1000MM,THICKNESS 2MM, STATIC FREE , BLUE COLOUR
20	435-100-28-03-008-001-00	UNITES A THYRISTERS SERIES 434	2	EA	MAKE :EUROTHERM OR EQUIVALENT AMP:150 AMP,VOLTAGE: 440 REQUIRED TO BE USED ON RIPOCH FURNANCE R6-001
21	32C/598L	RUBBER MAT	1200	KG	COLOUR BLACK,THICKNESS: .3MM OR .4MM WIDTH:3 FT SAMPLE AVAILABLE AT L.P SECTION
22	7020PK3130001	L.E.D	4	EA	SIZE REQUIRED: 55 INCH MAKE SAMSUNG OR EQUIVALENT
23	HP-15-AC129NE	LAPTOP-INTEL CORE I7 (HP-15-AC129 NE 6TH GENERATION)	2	EA	MAKE HP INTEL CORE I7 OR EQUIVLENT
24	5410PK2280001	RACKS ALUMINIUM 9X6X3FT	8	EA	04 WHEELS .AND HEIGHT FROM WHEELS TO SHELF 06 INCHES HUGHT 6 FEET.LENGTH 9 FT
25	RSP-951	TEST RIG MACHINE (L/R)	1	EA	SCOPE OF WORK : BOOST PRESSURE MANOSTATE:01 EA
26	7020PK2030002	COMPUTER INTEL CORE I7 WITH LED AND COMPLETE ACCESSORIES	AS REQUIRED	EA	(A) BRAND/MODEL=DELL/IBM/HP (B) PROCESSOR=INTEL CORE I7 2.8GHZ OR HIGHER (C) RAM=04 GB DDR-III OR MORE (D) HARD DISK=500 GB 7200RPM OR MORE (E) LAN CARD=10/100/1000 MBPS BUILT-IN (F) KEYBOARD=BRANDED (G) MONITOR=20" LED MULTIMEDIA (BRANDED) OR EQUIVALENT (H) ADDITIONAL REQUIREMENT=MOUSE PAD & DUST COVER (J) WARRENTY=OEM MINIMUM 03 YEARS
27	21B/7010PK0006	MONOCHROME LASER PRINTER EPSON EPL-N2500	5	EA	MONOCHROME LASER PRINTER EPSON EPL-N2500 EQUIVALENT OR HIGHER
28	METCO210NS	WELDING POWDER PLASMA	200	LB S	CHEMISTRY:ZRO <sub>2</sub> 24MGO PARTICLE SIZE:90+11 μM(-170MESH+11μM) MAKE SULZER METCO OR EQUIVALENT
29	RADIO SCOPY	RADIO SCOPY SYS 225KV (L/R)	1	EA	SCOPE OF WORK ROBOT CONTROLLER MALFUNCTION
30	P-419	FIBER GLASS WITH SILICON ADHESIVE	50	EA	LENGTH 36 YD WIDTH 50 MM COMPANY 3M

	<p><b>PAKISTAN AERONAUTICAL COMPLEX</b></p> <p>5 A SYMBOL OF EXCELLENCE IN AVIATION</p> <p><a href="http://www.pac.org.pk">www.pac.org.pk</a></p>	
---	---	---

## TERMS & CONDITIONS:-

- (i) GST may be indicated separately. The envelopes must be marked with "Item's name and Commercial / Technical offer". Literature / brochures of equipment must be attached with technical offer.
- (ii) Quotations must be submitted in two copies for single line item i.e. one copy with technical details without price and one copy as commercial offer in one envelopes (no quotation will be accepted if it contains more than 01 item in a single quotation)
- (iii) Validity period should not be less than 90-120 days.
- (iv) Complete technical specifications, MSDS, OEM & Conformance Certificate, Calibration certificate, Fitness report where applicable are required. Sample of chemicals may be asked for test.
- (v) Quotation received after due date / time will not be entertained. The CFA reserves the right to accept / reject the part or whole tender.
- (vi) Professional Tax certificate, Punjab is mandatory.
- (vii) Quantity can be increased / decreased at the time of order as per our requirement.
- (viii) 05% of earnest money (CDR/BD) is also required in case of qualifying (for non registered with PAC Board).

**Directorate of Logistics MRF, PAC Kamra**

**Contact No. 051-90994294 & 4414, Fax No. 057-9317412**



S No	Features	Range
1	Frequency Range	VHF
2	No of Channels	>99
3	Channel Spacing	12.5/20/25 KHz
4	Operating Temperature	-20 °C to + 55 °C
5	Storage Temperature	-40 °C to + 85 °C
6	Battery	Battery having enhanced life with at least 9 hours operation i analogue and 13 hours in digital mode at 5/5/90 duty cycle
7	RF Power Output	1W and <5W user selectable
8	Frequency Stability (-20 °C to +55 °C)	± 1.5 ppm
9	Hum and Noise	40 dB @ 12.5 KHz 45 dB @ 20/25 KHz
10	Modulation Limiting	± 2.5 KHz @ 12.5 KHz ± 4.0 KHz @ 20 KHz ± 5.0 KHz @ 25 KHz
11	Conducted / Radiated Emission	-36 dBm < 1 GHz -30 dBm > 1 GHz
12	Adjacent Channel Power	60 dB @ 12.5 KHz 70 dB @ 20/25 KHz
13	Digital Vocoder Type	AMBE ++ or SELP
14	Digital Protocol	ETSI-TS 102 361-1, 2 & 3
15	Sensitivity Analogue	3.5 µV (12 db SINAD), 0.22 µV (typical) (12 db SINAD)
	Digital	0.4 µV (20 db SINAD)
16	Intermediation	5% BER : 0.3 µV
17	Adjacent Channel Selectivity	65dB
18	Spurious Rejection	60dB @ 12.5 KHz 70 dB @ 20/25 KHz
19	Rated Audio	70 dB
20	Audio Distortion	500 mW
21	Audio Response	@ Rated Audio 3% (typical)
22	Conducted Spurious Emission	+ 1 ~-3 dB
23	Mode	< - 57 dBm
24	Scan	Dual mode (analogue + Digital), should be compatible with Motorola GP2000
25	Encryption	Allows to monitor multiple channels and receive calls Enhance built-in voice and data encryption with key management. Atleast RC41 and preferably user customizable 256 bits AES
26	Data Communication	Integrated data port compatible with PC along with requisite software / drivers
27	Interface	Flexible, menu-driven interface with user-friendly icons and at least two lines of text for ease of reading text messages
28	Indicator	Tri-colour LED indicator for clear, visible feedback of calling, scanning and monitoring



**PAKISTAN AERONAUTICAL COMPLEX**  
 7 A SYMBOL OF EXCELLENCE IN AVIATION  
[www.pac.org.pk](http://www.pac.org.pk)



S No	Features	Range
29	Display	Large size TFT colour LCD Display
30	Buttons	* Large, easy to use navigation buttons allows easy access to intuitive menu-driven interfaces * Programmable buttons for easy access to required features such as one-touch calling * Large, textured push-to-talk button. Provides good tactile response and easy access, even when wearing gloves.
31	Speaker	Powerful, front projecting speaker
32	Antenna	Single Antenna with integrated GPS Monopole
33	Sealing	Rated IP57. Protected against Harm from dust or water spray
<b>Optional Features</b>		
34	GPS	Integrated GPS (with GPS location tracking) GPS performance: -TTFF (Time To First Fix) Cold Start < 1 minute -TTFF (Time To First Fix) Hot Start < 10 seconds - Horizontal Accuracy < 10 meters
35	IP	Multi site IP Connection
36	SMS	Atleast 256 characters
37	Emergency Button	To alert supervisor or dispatcher in an emergency situation
<b>Accessories / Manual</b>		
38	Operating Manual	
39	Service Manual	
40	Rapid Charger	
41	Multi Charger	Optional
42	Battery Optimizing System	Optional
43	Headphone	Optional
44	Bluetooth remote speaker microphone	Optional
45	Leather Cover	Optional
46	Software & Cable (PC to Radio)	Optional
47	Clone Cable	Optional
<b>Misc</b>		
48	Warranty minimum 02 years	
49	Spare & Maintenance Support atleast for 10 years	
50	Military Standards : MIL-STD-810 C, D, E, F and G standards for temperature, shock, vibration, rain salt fog, dust and sand, humidity and solar	



**PAKISTAN AERONAUTICAL COMPLEX**  
 8 A SYMBOL OF EXCELLENCE IN AVIATION  
[www.pac.org.pk](http://www.pac.org.pk)





**STORAGE CABINET SIZE 5X6X2 FT  
PART NO 21B/305**



**Specification**

**Size: 5 Ft H x 6Ft W x 2 Ft Deep**, 12 drawer's storage cabinet. Material CRC E,G. Grade 1 imported thickness 0.8mm to 2mm. Drawer running on double ball bearing system. All drawers have built-in handle and card frame. Drawers have cradle for hanging craft pocket. Safety locks mechanism which allows one drawer to open at one time. Cabinet fitted with cylinder lock and keys in duplicate. Top 08 drawers of cabinet are equally divided in 30 different sized cells can be organised. Each Cabinet having 06 portable wheels.