

No.I-17018/Proc./<sup>1909</sup>1470/HQ DG NDRF/2018 <sup>126</sup>

भारत सरकार, गृह मंत्रालय/Government of India, Ministry of Home Affairs

महानिदेशालय/Directorate General

राष्ट्रीय आपदा मोचन बल/National Disaster Response Force

क्रय शाखा/Procurement Branch

E-mail: [dg-ndrf@nic.in](mailto:dg-ndrf@nic.in)

ए-विंग द्वितीय तल/A-Wing, Second Floor

लोक नायक भवन/Lok Nayak Bhawan

खान मार्केट/Khan Market

नई दिल्ली / New Delhi— 110003

Dated, the <sup>13</sup> February, 2018

**Subject:- Swiss Challenge Method – Uploading on NDRF web Site/ CPP Portal**

It is to inform that National Disaster Response Force (NDRF) intends to procure **Falcon-2-Tactical Communication for Rescuers for Video/Voice/Data** Qty – 01 No. through Single Tender Enquiry on operational trial basis. The details is as under:-

Sl.No.	Nomenclature of the equipment	Specification & Description of Equipment	Qty.
1.	Falcon-2-Tactical Communication for Rescuers for Video/Voice/Data	Attached as <b>Appendix – “A”</b>	01 No.

2. All potential OEMs are hereby requested to submit their offer for above equipment in following proforma **within one week** from the date of uploading on NDRF Web site/ CPP Portal.

Sl.No.	Nomenclature of the equipment	Specification & Description of Equipment & Model	Qty

Note:- This quote will not be an offer or procurement but only as Technical Guidance for further reference.

Signature authority of Firm.

Encl: Appendix – A (2 pages)

Copy to:

IT Cell, HQ NDRF for needful action please.

  
(Keshav Kumar)

Second-In-Command (Proc.)  
HQ DG NDRF

द्वितीय सूचना अधिकारी, महानिदेशालय, NDRF  
(क्रय/प्रस्ताव)

महानिदेशालय, गृह मंत्रालय - नई दिल्ली  
HQ DG NDRF, Ministry of Home Affairs  
New Delhi, New Delhi



**TECHNICAL SPECIFICATION OF FALCON-2-TACTICAL  
COMMUNICATION FOR RESCUERS FOR VIDEO/VOICE/DATA**

<b>1. Radio Modem (Base Station)</b>		
Range	Up to 20 km (omni) 30-60 km (directional)	
Frequency	700-900 MHz	
Antenna	Omni 0-8dBi	
Antennas Connectors	2 x N-Type female	
Output Power (Average) (per channel)	Up to 8w	
Tx Power Control	50dB (@32dBm)	
Rx Dynamic Range	70dB	
Sensitivity	Max – 101 dBm	
Radio Access Method	OFDM – TDMA	
Duplexing	TDD	
Configuration	MIMO 2X2, Tx & Rx Diversity	
Channel BW	2.5 MHz/10 MHz	
Frequency Resolution	0.25 MHz	
Diversity Support	Tx & Rx Diversity	
FEC method	CTC	
Modulations	QPSK /16 QAM	
Throughput	1.6 – 10 mbps	
Encryption	AES 128 AES 256 and Custom Export Control	
<b>2. Environmental</b>		
Temperature Range	Operating	Storage
Extended Ruggedized	-20 to 60°C	-50 to 85°C
Humidity	5 to 95% non-condensing	
Sealing	IP67, dust, water proof, immersion in water up to 1 meter Outdoor, dust & rain proof	
Environment Casing	Shock, Vibration, Salt	
<b>3. Interfaces</b>		
Data	Ethernet 10/100 Mbps	
Full Ethernet	IP, TCP, UDP, RTP, HTTP Broadcast, Multicast, Unicast	
Protocol Transparency	Ethernet, VLAN, VPN	



Optional Interfaces*	RS232/ 485/ 422, GPIO, 1pps
<b>4. Power</b>	
DC Voltage	10-48 VC
Power Consumption	Up to 50W 20W Average
<b>5. Configuration and Management</b>	
Unit Monitoring Application	Available
Network Management Application	Available
<b>6. Radio Modem at terminal end</b>	
Range	Up to 15km (omni)
Frequency	700-900 MHz 902-928 MHz (ISM) 2.4 GHz (ISM) 2.3-2.7 GHz 5.8 GHz\ 4.9-5.9 GHz
Antenna	Omni 0-8dBi
Antennas Connectors	2X SMA female
Output Power (Average) (per channel)	Up to 1W
Tx Power Control	50dB
Rx Dynamic Range	70dB
Sensitivity	Max – 101dBm
Radio Access Method	OFDM – TDMA
Duplexing	TDD
Configuration	MIMO 2X2: Tx & Rx Diversity
Channel BW	2.5 MHz-10MHz:
Frequency Resolution	0.25 MHz
Diversity Support	Rx Diversity Tx & Rx Diversity
FEC method	CTC
Modulations	QPSK / 16QAM
Throughput	1.6 – 10 mbps
Synchronization	Synchronized w/o GPS
Encryption	AES 128 AES 256 and Custom Export Control
Additional hardware	Ruggedized Wi-Fi Router

\*\*\*\*\*

