

HEADQUARTERS MULTINATIONAL CORPS NORTHEAST

PART III

TECHNICAL SPECIFICATIONS

Updated on 28 February 2023

Specification of SATCOM requirements for MNC NE

The MNC NE SATCOM capability requirements are divided into two phases:

Phase I – Permanent provision of satellite segment (12 months/year);

Phase II – Provision of satellite segment on request, not later than 14 days from receipt of an order.

1. During Phase I the SATCOM services provider will provide a satellite segment of X¹ MHz in Ku Band in geographical Europe region. The segment should be interoperable with the SATCOM VSAT terminals, which are already in use by HQ MNC NE. In addition, SATCOM services provider will upgrade or replacement of DATUM Satellite modems, if needed.
 - 1) VSAT terminals owned by HQ MNC NE:
 - a) MNC NE (Szczecin) static central station:
 - 3,7 m Andrew antenna;
 - Ku Band OMT;
 - LNB - PLL 1109HC (10,95 – 11,7 GHz);
 - Ku Band RF system 20 W;
 - 3 x SCPC/VSAT L-Band Satellite Modem: Datum PSM-4900L with V.35 interface;
 - 3x DATUM M7L LB.
 - b) Remote Station A (on a trailer):
 - 2,4 m Vertex antenna;
 - Ku Band OMT;
 - LNB - PLL 1109HC (10,95 – 11,7 GHz);
 - Ku Band RF system 8 W;

¹ Depending on the offered price on of the 4 options will be selected by HQMNCNE: 8 MHz; 12 MHz; 16 MHz or 20 MHz

- ~~2~~ x SCPC/VSAT L-Band Satellite Modem: Datum PSM-4900L with V.35 interface;
 - ~~2x DATUM M7L LB~~
- c) Remote Station B (transportable ground station):
- 2,4 m Prodelin antenna;
 - Ku Band OMT;
 - LNB - PLL 1109HC (10,95 – 11,7 GHz);
 - Ku Band RF system 8 W;
- ~~2~~ x SCPC/VSAT L-Band Satellite Modem: Datum PSM-4900L with V.35 interface;
 - ~~2x DATUM M7L LB~~
- 2) VSAT terminals (Portable/Transportable Satellite Terminal PPTS-1.8v2) provided by HQ MNC NE Command Support Brigade (CSB):
- 2,4 m antenna, gain: 47.0 – 49.0 dBi;
 - Ku Band; Rx: 10.950 – 12.750 GHz, Tx: 13.750 – 14.500 GHz ;
 - LNB – 3 types: NORSAT HS1057CN/LO 10GHz, 1107HAN/LO 10.75GHz, 1507HBN/LO 11.3GHz
- PPTS-1.8v2 terminals should be able to work on provided satellite segment both in SCPC and TDMA modes.
2. During Phase I the SATCOM services provider will provide a satellite segment for 6 x Inmarsat satellite terminals (Explorer 710 BGAN terminal- owned by HQ MNC NE) with following features:
- Global voice service;
 - High speed data transmission with static IP address assigned (ability of tunnelling to the static location LAN);
3. During Phase I the SATCOM services provider will provide a satellite segment for 20 x Iridium handheld telephones (HQ MNC NE owns 8x Iridium 9575 Extreme Satellite phones + 12 new (see para ~~1.d.4.~~ 4.) with following features:
- Global voice service;
 - GPS-enabled
4. The SATCOM services provider will sell, deliver and configure 12 (twelve) handheld satellite telephones (Iridium 9575 Extreme Satellite phone or equivalent) with the following features:
- Global voice service;
 - GPS-enabled

and at least 24 months warranty period.

5. On the HQ MNC NE request the SATCOM provider will provide satellite segment extension (Phase II) up to Y^2 MHz (from X MHz already provided in Phase I) ;

6. On the HQ MNC NE request SATCOM services provider will provide:

- 1 x UHF TACSAT channel:

- Interoperable with HARRIS AN/PRC-117F/G radio;
- 25kHz bandwidth
- DAMA or DS (Dedicated SATCOM) mode

7. Objects of agreement

a. The SATCOM provider undertakes to provide satellite services specified at para 1,2,3 & 5, for the period of three years.

b. The SATCOM provider undertakes to ensure 24hour/day helpdesk for the provided services, free of charge.

c. SATCOM segment allocation for MNC NE VSAT terminals will be done on case by case basis by the Provider based on the coordinated (by e-mail or fax) with HQ MNC NE SATCOM system design.

d. SATCOM provider will provide necessary upgrade of 3 VSAT stations (specified in point 1.1)a-b)c), and will provide their further maintenance within the validity of the contract.

e. The SATCOM provider undertakes to provide HQ MNC NE with technical support for exercises and missions on request;

8. Guarantee of availability:

a. Bit Error Rate (BER) ensured for data transmission channels is not bigger than 1×10^{-7} .

b. Real system availability is bigger than 99.5 % per annum.

9. Duration and implementation of the contract.

Contract with the chosen SATCOM provider enters into force on the date of its signing, however, **three-year validity period** of the agreement starts from the date of provision of the required capabilities. The contract can be extended up to 6 years if agreed by both sides.

10. The contract will be awarded to the lowest compliant bid evaluated with the following formula (wage) – see price Enclosure 5 to Part I):

² Depending on the offered price one of 2 options will be selected by HQMNCNE: up to 30 MHz or up to 50 MHz;

1) TOTAL PRICE FOR EQUIPMENT	5
2) TOTAL PRICE FOR SERVICE Phase I (yearly fee)	70
3) Rates for phone calls and data transmission	15
4) TOTAL PRICE FOR SERVICE Phase II (monthly fee)	10

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