

ANNEX O HF Operator Chat (Optional)

HF Operator Chat (HFCHAT) provides a simple and efficient chat communication between operators for exchange of short IA5 text messages. It can also be used to broadcast message to all operators. If provided, the HFCHAT client **shall** conform to the minimal requirements defined herein. The HFCHAT client is intended as a simple mechanism to allow subnetwork operators to test and coordinate their system configurations. It is not a general purpose chat system.

O.1. Changes in This Edition

The text of this annex is taken from Annex F Section F.7 of Edition 3.

The functional differences between this specification and Edition 3 are set out in Section O.4.

There are no significant functional changes.

O.2. General Requirements for HFCHAT

HFCHAT clients **shall** use the ITA5 / ASCII character set to exchange short text messages between subnetwork operators.

HFCHAT messages **shall** consist of sequences of characters terminated by a carriage-return/line-feed pair (i.e., terminated by the octet-pair 0x0D, 0x0A).

The HFCHAT messages length, i.e., the number of octets in the character sequence and including terminating carriage-return/line-feed pair, **shall** not exceed the subnetwork MTU size.

In general, methods of presentation and display to the operator of HFCHAT messages, as well as methods for text-message entry, are beyond the scope of this STANAG and left as implementation options. The following implementation guidelines are recommended, however:

- HFCHAT clients **should** provide a common entry and display area for HFCHAT messages.
- HFCHAT clients **should** provide a short, viewable history of previous messages sent and received (e.g., of the last N messages, N a value (configurable or not) in the range [10,100]).
- HFCHAT clients **should** provide an indication of the source of any HFCHAT messages that it receives (e.g., by displaying the STANAG 5066 address of the originator of the HFCHAT message)
- HFCHAT clients **should** provide an indication of the time-of-receipt of any

HFCHAT messages that it receives.

- HFCHAT clients **should** provide confirmation-of-delivery (node delivery) indications for HFCHAT messages it sends when they are sent using ARQ delivery service.
- HFCHAT clients **should** provide both 1:1 and broadcast transmission.

O.3. Subnetwork Service Requirements

An HFCHAT client **shall** bind to the HF Subnetwork at SAP ID 5.

Priority of messages **should** be configurable and **may** be operator-selectable. Default priority **shall** be 12.

HFCHAT clients **may** use either point-to-point or point-to-multi-point addressing modes to send HFCHAT messages.

The default subnetwork-service requirements when using the point-to-point addressing mode **shall** be as follows:

- Transmission Mode = ARQ
- Delivery Confirmation = NODE DELIVERY
- Deliver in Order = IN-ORDER DELIVERY

For point-to-point operation, the address in the primitive will be an individual node address corresponding appropriately to the HF subnetwork address of the remote HFCHAT client to which the message is addressed.

The default subnetwork-service requirements when using the point-to-multipoint addressing mode **shall** be as follows:

- Transmission Mode = non-ARQ; number of repeats (configurable)
- Delivery Confirmation = NONE
- Deliver in Order = NOT IN-ORDER DELIVERY

For point-to-multipoint operation, the address in the primitive will be a multicast-address corresponding to the group of remote HFCHAT clients to which the message is addressed. Establishment of the multicast address for the group may be done through standard operating procedure or out-of-band channel. Option to use the default broadcast address **should** be provided.

The message's sequence of characters **shall**⁽¹⁾ be bit- and byte-aligned with the octets in an S_Primitive's U_PDU, with the least-significant bit (LSB) of each character aligned with the LSB of the octet. The unused eighth (i.e, MSB) of the octet **shall**⁽²⁾ be set to zero.

HFCHAT messages **shall** be encapsulated and sent within S_PRIMITIVES, one message per S_PRIMITIVE, with the message-terminating carriage-return/line-feed pair encapsulated in the S_PRIMITIVE as the last two octets of the U_PDU field.

O.4. Changes Since Edition 3

Minor clarifications and corrections made.