

PC, teletype and radio team up

Even though the combination of radio and teletype (RATT) is generally no longer regarded as a modern means of information exchange, it is often the only available basis for data transmission due to its widespread use. Whether onboard a ship or in an embassy, teletype is still frequently used for sending text messages by radio. Texts are normally written in the internationally defined format ACP-127 (allied communication protocol). For transmission, the individual teletype characters are converted to 5-bit Baudot code. FSK (frequency-shift keying) is used to modulate the radio link. With data transmission rates between 50 and 600 baud, FSK may be comparatively slow but it is very resistant to interference.

teletype unit at the other (FIG 1). With the aid of this program, texts can be generated on a PC, and the teletype-writer at the distant station prints them out on paper or as punched tape. Conversely, conventional teletype messages are intelligible to ACP-MHS stations, which store them as files. The user is thus able to replace the teletype-writer by a PC and the program DS150 without losing teletype as a medium. DS150 also supports the administration and logging of all received and transmitted messages in log books (FIG 2). The program's convenient user interface, the intuitive operating concept and a special mask-oriented editor simplify errorfree generation of teletype messages in line with strict ACP-127 guidelines. Depending on the individ-

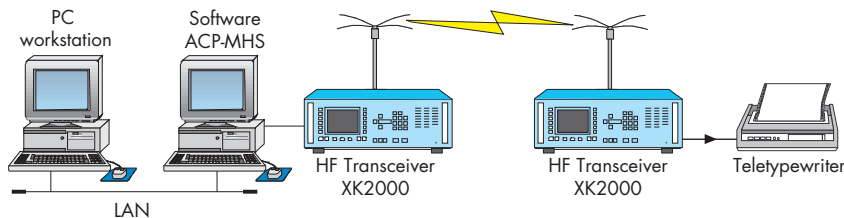


FIG 1 Radio data transmission with teletypewriter and ACP Message Handling System DS150

The ACP-127 format, which also serves for automatic archiving, addressing, prioritizing and classification, requires the observance of strict formal guidelines and involves a great deal of effort, especially in the preparation of texts and handling of received messages. If large numbers of messages are to be received or transmitted, management tools that support the user are indispensable. A tool of this type is now offered by Rohde & Schwarz in the form of the software product **ACP Message Handling System DS150** (ACP-MHS DS150). It runs under Windows NT and allows data exchange on a radio path between a PC at one end and a

ual requirements, HF, VHF or UHF radio equipment may be used for transmitting the generated messages.

Besides RATT operation, the software also allows automatic reception of broadcast messages. Messages received in this way are automatically analyzed and placed in receive queues according to priority. The messages can be sorted within the queues according to various criteria such as date time group (DTG) or station serial number (SSN). In contrast to the point-to-point links of RATT operation, no confirmation is issued for broadcast messages.

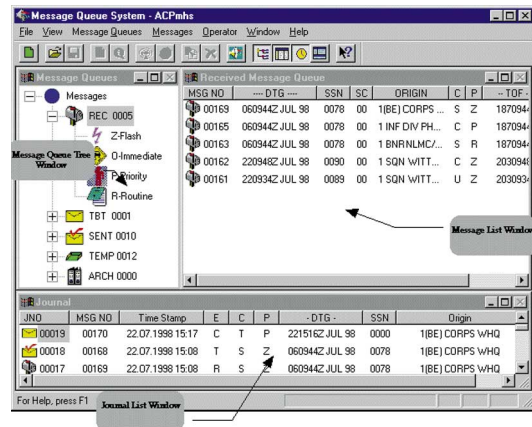


FIG 2 User interface of log book with various sorting criteria

ACP-MHS Software DS150 does away with the restricted interoperability between teletype and other computer-based data services. Combined with the E-mail product PostMan DS100 [1; 2], the software may also be used to attach ACP messages to E-mails for transmission on all types of networks. The other way round, DS150 can forward received E-mail messages to teletype subscribers.

Thomas A. Kneidel; Peter Maurer

REFERENCES

- [1] Kneidel, T.: When the PostMan rings on Internet. News from Rohde & Schwarz (1997) No. 153, pp 28-29
- [2] Kneidel, T.: PostMan on tour. News from Rohde & Schwarz (1998) No. 159, p 34