

THE AUTOMATED RADIO TELEX SYSTEM.



MARITEX

An automated radio telex system for fast and reliable communications in Marine, Land Mobile, Military and Diplomatic applications.

The Maritex system forms a radical communication system with a base station and a number of mobile units. The base station has a number of radio channels available. Each channel is represented by an ARQ error correcting equipment, a transmitter and a receiver.

THE MARITEX PRINCIPLE IS STRAIGHT-FORWARD.

At the base station the radio channels are controlled by a computer, which also controls arriving and departing telex lines. The ARQ's employed in the system are of the type recommended in CCIR Rec 476.

A mobile unit consists of a teleprinter, an ARQ, an auto-tuned transmitter and a receiver. Each mobile unit is assigned an unique number, which may be a telex number, giving access to all international telex subscribers.

The mobile unit's receiver scans all base station frequencies constantly in sequence to detect a call. When a call is detected the transmitter is tuned automatically and a message is printed on the teleprinter.

THE COMPUTER STORES ALL RELEVANT INFORMATION.

The base station computer holds information on the positions of the mobile units. A stored radio propa-

gation forecast helps the computer to call the mobile unit on the right frequency and in the right direction. Thereby the probability of reaching the mobile units is increased significantly.

When idle, the base station transmits a FREE-signal. Mobile units cannot call unless the selected channel is free. The base station guides the mobile unit operator along the entire transmission sequence in accordance with CCIR rec 492.

FAST MESSAGE THROUGHPUT.

A computerized communication system with dedicated equipment offers

times will become shorter.

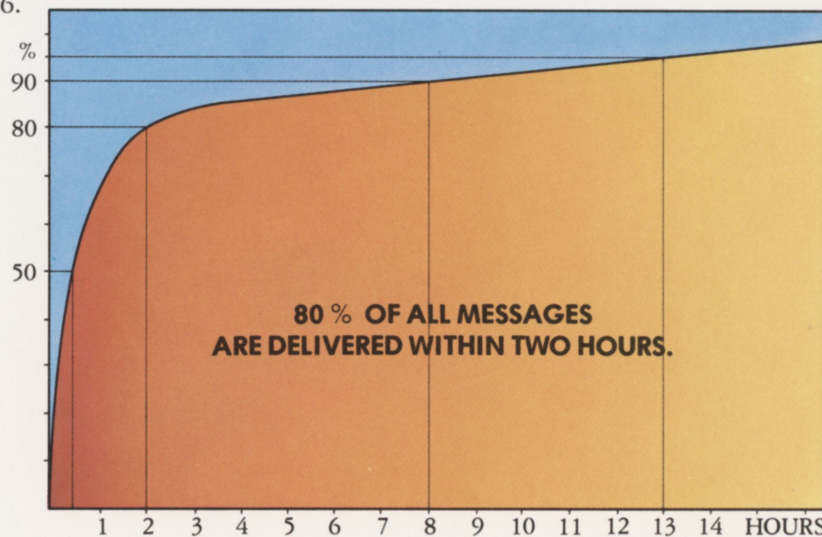
LOW MANPOWER, LOW COSTS.

In maritime communications radio telegrams are standard. The cost of telegrams tends to increase since they are manually handled at the coast station. An automated telex system requires only one active person during the transmission — the sender. Thus coast or base station manpower requirements are kept down to a minimum and the rates can be kept low to promote system usage.

FUTURE DEMANDS MET TODAY.

In the eighties most coast stations will be required to handle direct-printing services. A Maritex system in this application will not only increase message throughput, but it will do it without increased manpower requirements due to the automatic operation.

The minimum system may consist of one radio channel. A scanning receiver, an auto tuned trans-



gation forecast helps the computer to call the mobile unit on the right frequency and in the right direction. Thereby the probability of reaching the mobile units is increased significantly. 80% of all messages are delivered within 2 hours. 50% reach their destination within 30 minutes. This applies to a population of mobile units which are spread all over the world. With even more dedicated equipment (antennas) transit

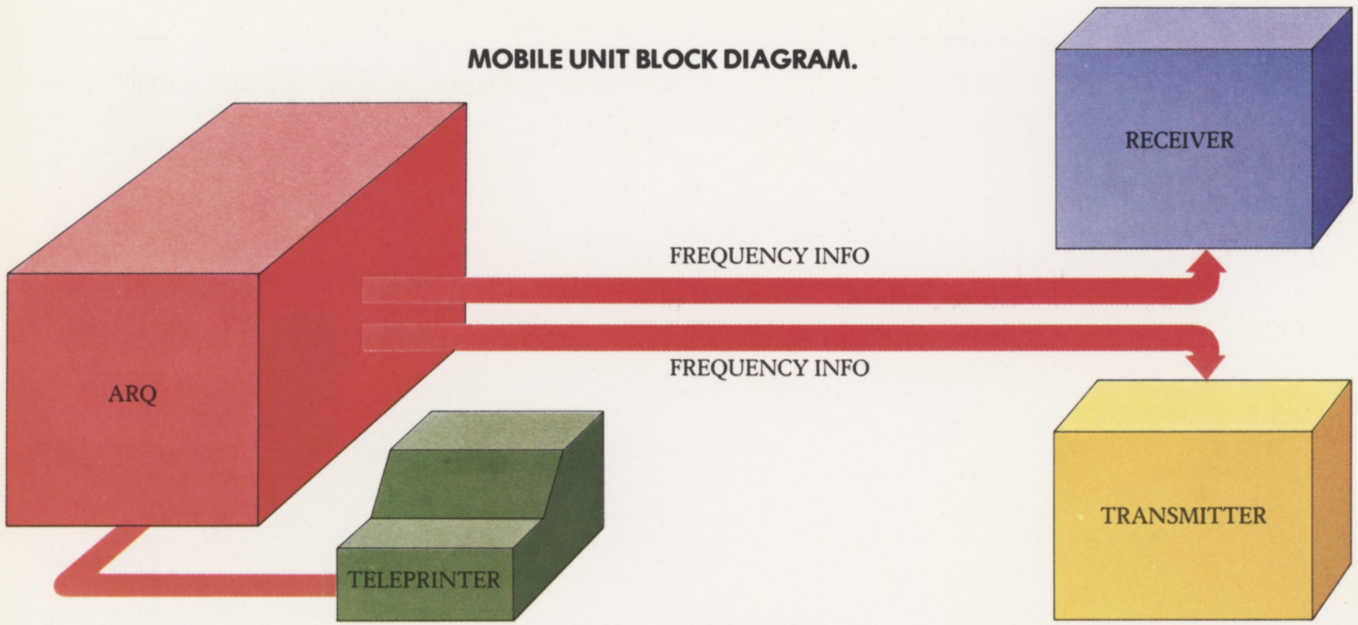
mitter and a semi-automatic telex switch will be sufficient. In this context STA's STARQ 78 will provide an excellent solution since it has an inbuilt frequency control arrangement.

Each Maritex application will be tailored to customer demands. The system adapts to commercial, military, diplomatic and other governmental applications.



Computer installation at Gothenburg Maritex centre.

MOBILE UNIT BLOCK DIAGRAM.

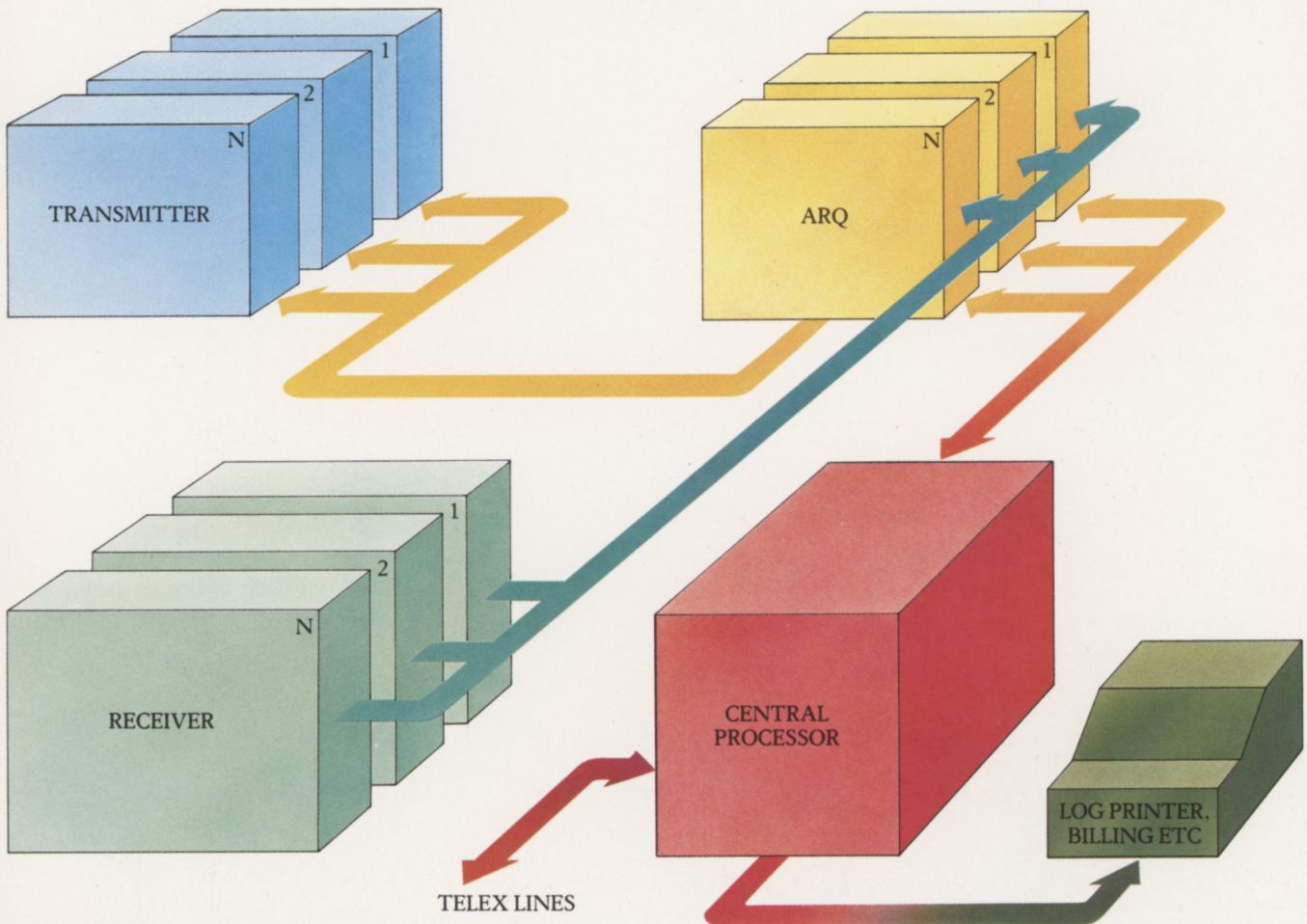


The ARQ controls receiver and transmitter. In standby the receiver scans

a set of radio channels to detect calls. When called the ARQ initiates trans-

mitter tuning and stops receiver scanning.

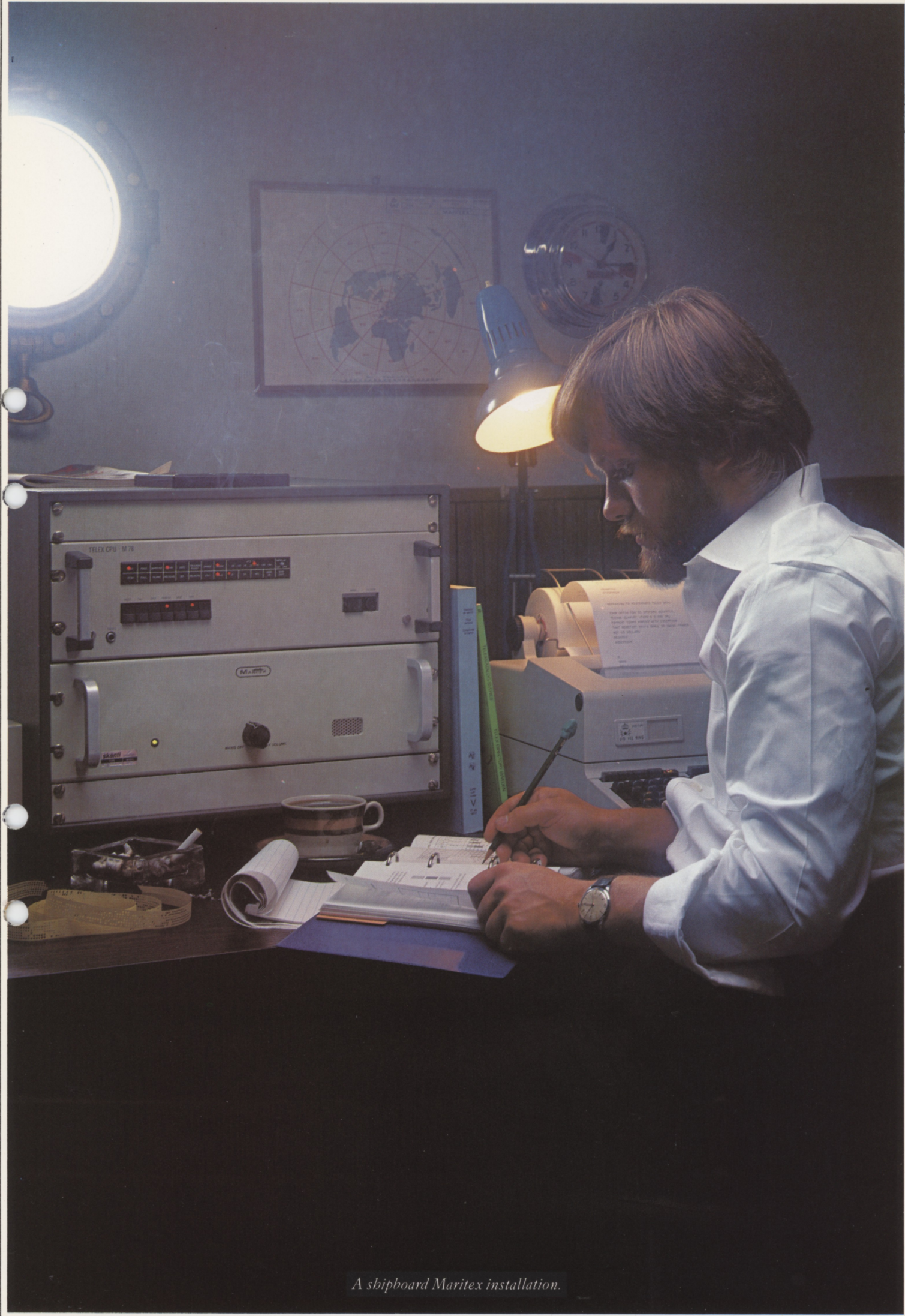
BASE STATION BLOCK DIAGRAM.



The computer program governs the ARQs, transmitters, receivers and telex lines. In standby the ARQs emit a FREE-signal. The receivers each watch a frequency. When called the ARQ transmits its response over the

corresponding transmitter. The computer also selects directional antennas to enhance system performance. A message from a telex subscriber is received, stored and for-

warded to the mobile unit when radio conditions allow. A message from a mobile unit is received, stored and forwarded to the telex subscriber immediately.



A shipboard Maritex installation.



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