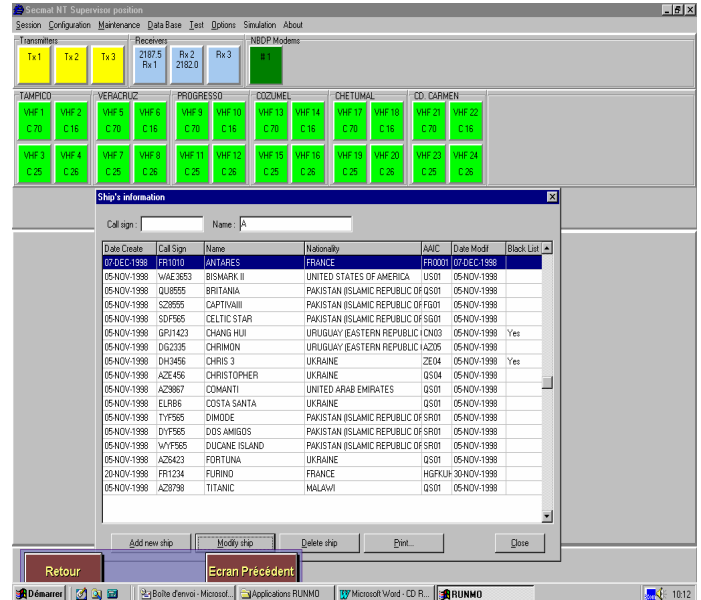


VHF  
Frequency Band

COMMERCIAL AUTOMATIC RADIOTELEPHONY  
SHIP-TO-SHORE DSC CALLS HANDLING SOFTWARE

This software module has been developed to handle Ship-to-Shore DSC calls set-up in Commercial Automatic Radiotelephony, for VHF frequency band.

- Designed to meet ITU-R M.493, M.541 and M.689 Recommendations
- Control of radio equipment
- Control of PSTN accesses
- Automatic call authorisation
- Billing ticket list handling
- Fully compatible with other Maritime Mobile Service software modules
- Running under WINDOWS à XP



## TECHNICAL ASPECTS

### Receiving a call from a ship

The DSC calling sequence is transmitted on the VHF calling channel (Channel 70) and received by the VHF receiver of the coast station.

The ACSE (Access Control Switching Equipment) demodulates and decodes DSC calling sequence.

### Identification of the ship

The authorisation of the calling ship ID is checked in the Ship List Database and if a working channel is free, the ACSE of the coast station initiates the transmission of an acknowledgement sequence on the DSC calling channel via a DSC modulator and a transmitter.

### Case of not authorised ships

Procedure if a the calling ship is not authorised in the Ship List database.

### Optional "Ring back" procedure

Procedure if no working channel is available at the coast station.

### Call connection

Once the ACSE of the coast station begins dialling the subscriber number, the line circuit is connected to the radio path. Timing of the call for billing purposes starts after the subscriber answers, i.e. "off-hook" condition detected.

During any period of the call, the coast station ACSE detects the PSTN busy tone signal.

### Call completion

End of communication either by ship station or "busy tone" signal or "on-hook" condition detected from the PSTN.

- stops the call timing
- transmits a DSC acknowledgement with the chargeable duration of the call on the working channel.

### Required equipment

- Access Control and Switching Equipment.
- A PC Pentium equipped with WINDOWS™ XP is recommended.

### Other modules required

- Billing ticket list handling software in Radiotelephony for VHF.

