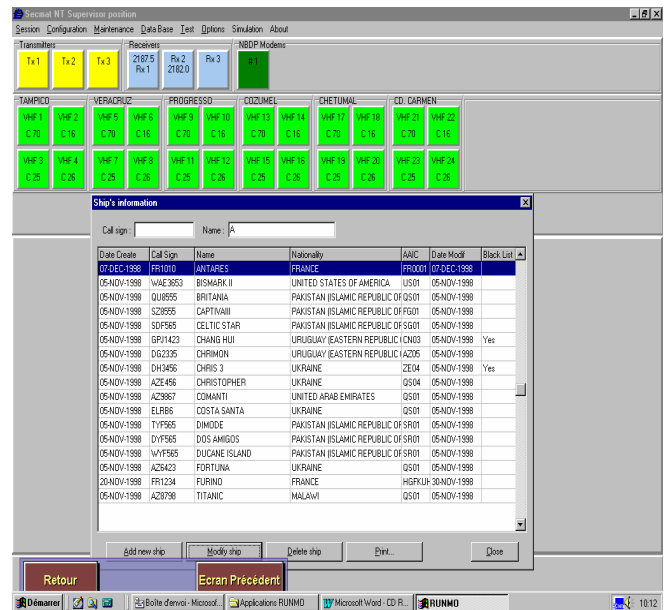


VHF  
Frequency Band

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

*The purpose of this software module is to set up Shore-to-Ship DSC calls, in Commercial Automatic Radiotelephony, for VHF frequency band.*

- **Designed to meet ITU-R M.493, M.541, M.689 and M.585 Recommendations**
- **Control of radio equipment**
- **Control of PSTN accesses**
- **Automatic call authorisation**
- **Billing ticket list handling**
- **Broadcasting of the traffic list**
- **Voice announcements generation to calling party**
- **Fully compatible with other Maritime Mobile Service software modules system**
- **Running under WINDOWS äXP**



### Shore-to-Ship calls

After the ACSE receives a call from the PSTN interface, the coast station checks the ship's identity in the Ship List database.

### File database structure

If the ship is in the database, the following information are held on file : type of onboard equipment (DSC, VHF/MF/HF), coast station calling channel, authorised or not.

### Ship call set-up

If the ship is authorised and if there is a working channel available, the coast station ACSE transmits a calling sequence on the DSC calling channel (Channel 70).

If no reply is received within 10 seconds, after 2 attempts, the coast station selects other radio stations and starts again the call set-up.

### Ship station acknowledgement

On receipt of an error-free calling sequence, the ship station within 3s automatically initiates the transmission of an acknowledgement sequence on the DSC calling channel.

The coast station sends the appropriate line signalling to the calling subscriber (ringing signal) and when the ship subscriber indicates that he is able to accept the call, by transmitting a carrier and a DSC call to the appropriate working channel within 1 minute period.

### Call connection and call completion

- The subsequent call set-up stages are the same as for Ship-to-Shore calls
- Billing starts when the called ship goes "off hook". It stops and is stored in the same way as for Ship-to-Shore calls.
- The billing ticket record produced by the ACSE can be post-processed for accounting purposes.

### Case of unauthorised ship

If the ship is not authorised, the PSTN caller is connected to a recorded announcement machine. Optionally, if the ship is not known, the PSTN caller is connected to the manual traffic position for a manual operation.

### Unsuccessful communication

The ACSE sends a voice recorded announcement and then a busy tone to the PSTN.

### Required equipment

- Access control and switching Equipment (ACSE).
- A PC Pentium equipped with WINDOWS™ XP.

### Other modules required

- Billing ticket list handling software in Radiotelephony for VHF.