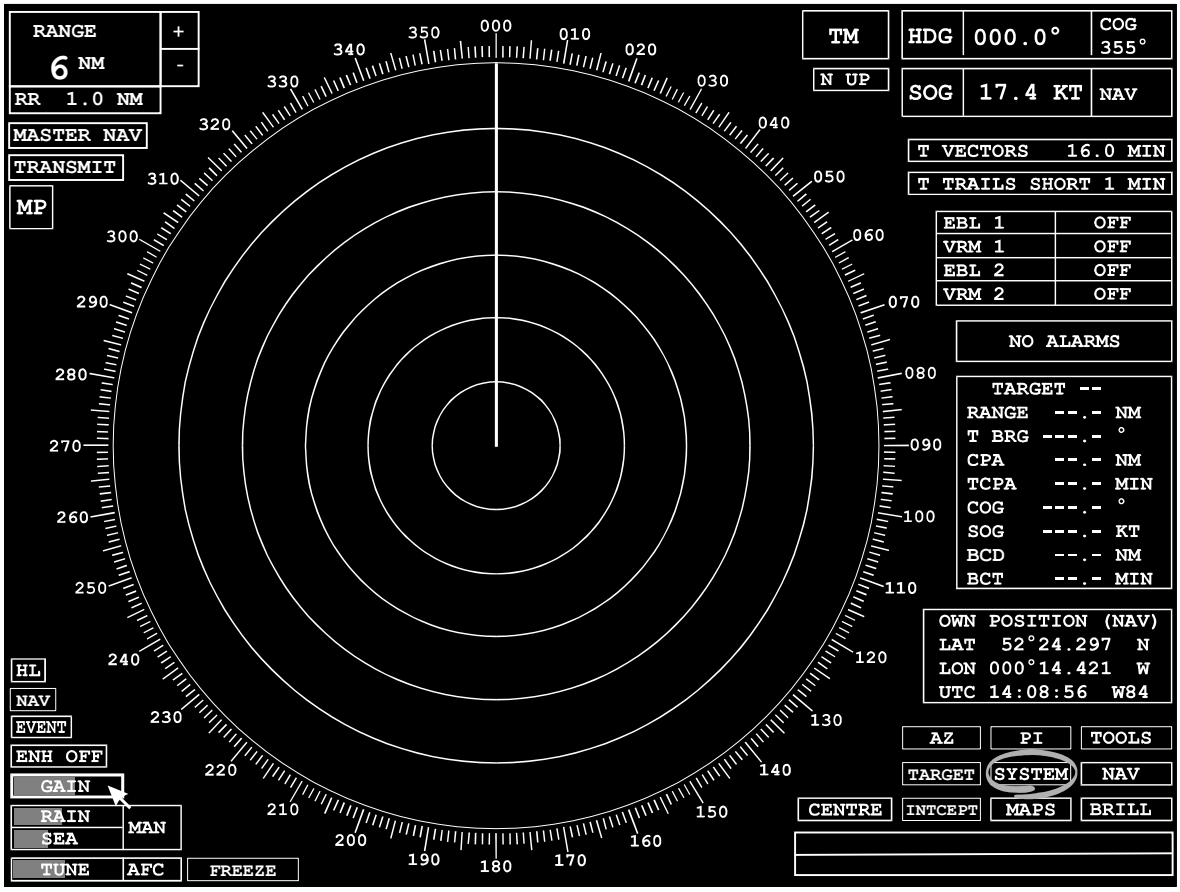
CHAPTER 14 System



Covered in this chapter:

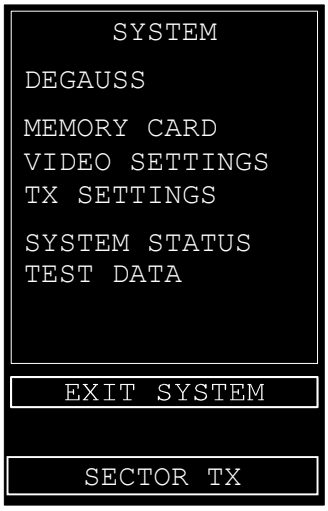
- Degaussing the monitor (CRT Display).
- Viewing the video processing settings.
- Viewing the transceiver operating parameters
- Viewing the current status of system technical parameters.
- Memory card status, initialization and management.
- Viewing test data, transceiver status and BIST.
- Sector Transmission

Introduction

The SYSTEM soft key provides a means of access to a number of additional system facilities. Many of these facilities are provided for maintenance and diagnostic purposes only and are, therefore, not intended to be used by the radar operator but by maintenance personnel.

Accessing the SYSTEM Facilities

1. Position the screen cursor over the SYSTEM soft key.
2. Left click to reveal the SYSTEM menu shown on the left.



The facilities listed below can be accessed from the menu.

DEGAUSS CRT ONLY	Degaussing the radar monitor.
MEMORY CARD	Monitoring the status of the internal memory cards and management of the data stored on them.
VIDEO SETTINGS	Viewing the settings of the video processing parameters.
TX SETTINGS	Viewing the settings of the transceiver operating parameters for either the BM E transceiver or the SCOUT transceiver.
PERF MONITOR	Not fitted (BM E Transceiver only).
SYSTEM STATUS	Viewing system status details.
TEST DATA	Monitoring system hardware performance

Note - A left click on the EXIT SYSTEM soft key, will close the menu and exit the system facilities.

Degaussing (CRT Fitted)

When the Radar Monitor has a CRT fitted, the display is degaussed automatically one minute after power-up. After this initial degaussing, a fresh degauss can be selected from the SYSTEM menu.

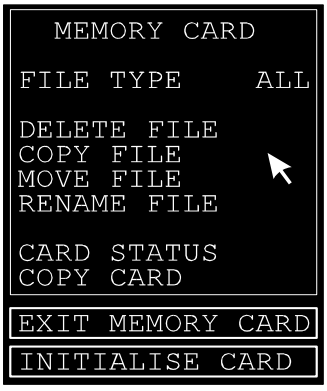
To Degauss the Radar Monitor (CRT fitted)

1. Position the screen cursor over the DEGAUSS option in the SYSTEM menu.
2. Left click to initiate a degauss.
   The word **INHIBITED** will be displayed for a period of 30 seconds during which time further selection is prevented.

Memory Card Facilities

Management of the internal memory cards is carried out using a number of file handling and data transfer options. The system is fitted with two memory card slots identified as CARD A and CARD B. Each card is fitted with a back-up battery for maintaining data when the primary power source is switched-OFF.

Accessing the Memory Card Facilities

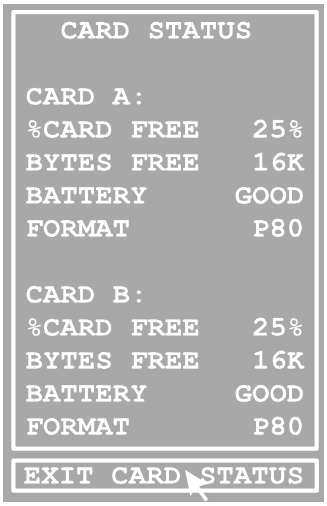


1. Within the SYSTEM menu, position the screen cursor over the MEMORY CARD option.
2. Left click to reveal the MEMORY CARD menu shown on the left.

Note - In addition to the menu, EXIT and INITIALISE soft keys are also displayed. A left click on the EXIT MEMORY CARD soft key, will close the menu and exit the memory card facilities.

Card STATUS

1. Within the MEMORY CARD menu, position the screen cursor over the CARD STATUS caption.



2. Left click to reveal the CARD STATUS menu shown on the left.

   Note - This data displayed in this menu is for information ONLY and cannot be changed.

3. Left click on the EXIT CARD STATUS soft key (under the STATUS menu) to return to the MEMORY CARD menu.

File Management

Files can be selected by **TYPE** (Maps , Folios, ALL etc.). Once the file 'type' has been selected, files can be deleted, copied, moved or renamed by selecting the appropriate option from the MEMORY CARD menu. When any of these options is selected, a drop down menu is displayed listing all files of the type selected, see example left.

Whenever this menu is displayed, the following conditions apply.

- A left click on the CARD *n*: FILE caption at the top of the menu, will toggle between Card A and Card B.
- A left click on a listed file will replace the list with a dialogue box requiring confirmation of the selected option.
- A right click at any time will remove the list or dialogue box without taking further action.

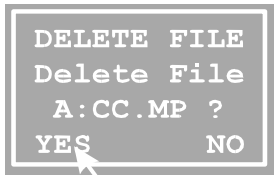
Selecting a FILE TYPE

From within the MEMORY CARD menu, left click repeatedly on the FILE TYPE option to cycle through the file types available.

Note - A right click will reveal the drop down menu shown on the left which lists the file types available. Left click on the type required.

Deleting Files

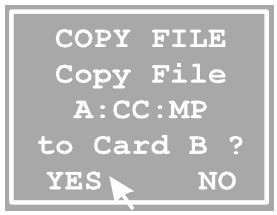
1. Within the MEMORY CARD menu, left click on the DELETE FILE option to reveal a drop down menu listing all files of the 'type' selected.
   See **File Management**.



2. Left click on the file to be deleted.
   This will replace the list with the dialogue box shown on the left.
3. Left click on YES to delete the selected file.
   Or
   Left click on NO to close the dialog box without taking further action.
   Or
   Right click to cancel.

Copying Files

1. Within the MEMORY CARD menu, left click on the COPY FILE option to reveal a drop down menu listing all files of the 'type' selected.
   See **File Management**.

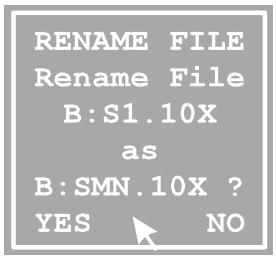


2. Left click on the file to be copied.
   This will replace the list with the dialogue box shown on the left.
3. Left click on YES to copy the selected file.
   Or
   Left click on NO to close the dialog box without taking further action.
   Or
   Right click to cancel.

Note - If the selected filename already exists on the destination card, the choice is given of overwriting the existing file or of cancelling the copy function.

To Rename a File

1. Within the MEMORY CARD menu, left click on the RENAME FILE option to reveal a drop down menu listing all files of the 'type' selected. See **File Management**.
2. Left click on the file to be renamed.
   This will reveal a drop down alpha-numeric keypad labelled 'RENAME FILE'.
   Alpha-numeric keypads and their use are described in Chapter 15.

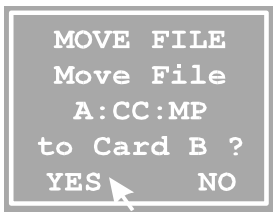


3. Use the keypad to enter the new filename, or right click to cancel. When a new filename has been entered, the dialog box shown on the left is displayed (the file names shown are for example only).
4. Left click on YES to rename the selected file.
   Or
   Left click on NO to close the dialog box without taking further action.
   Or
   Right click to cancel.

Note - If the new filename already exists on the destination card, the choice is given of overwriting the existing file or of cancelling the rename function.

Moving a File

1. Within the MEMORY CARD menu, left click on the MOVE FILE option to reveal a drop down menu listing all files of the 'type' selected.



2. Left click on the file to be moved.
   This will replace the list with the dialogue box shown on the left.
3. Left click on YES to move the selected file.
   Or
   Left click on NO to close the dialog box without taking further action.
   Or
   Right click to cancel.

Note - If the selected filename already exists on the destination card, the choice is given of overwriting the existing file or of cancelling the move function.

To Copy one Card to the Other

1. Within the MEMORY CARD menu, position the screen cursor over the COPY CARD option.
2. Left click to reveal the dialog box shown below.

3. Position the screen cursor over the ‘A to B’ or ‘B to A’ caption to select the direction of copy required.
4. Left click to transfer the files from one card to the other. If any of the filenames being copied already exist on the destination card, the option to overwrite or cancel the transfer is given.

Note -A left click on the CANCEL caption will abort the copy operation. A temporary prompt 'Copying card' is briefly displayed at the start of copying. When copying is complete, which can take 30 seconds or more, the prompt 'Card copy completed' is briefly displayed. The BYTES FREE and %CARD FREE lines in the CARD STATUS menu can be monitored during a COPY CARD operation. Cards must NOT be removed until the 'Card copy completed' prompt has been displayed.

To Initialise a Card

The INITIALISE CARD soft key under the MEMORY CARD menu is used to erase the contents of a card.

1. Position the screen cursor over the INITIALISE CARD soft key.
2. Left click to reveal the dialog box shown below.

3. Position the screen cursor over the A or B caption to select Card A or Card B as required.
4. Left click to initialise the selected card.

Note - A left click on the CANCEL caption will abort the initialisation.

Additional Facilities

The following facilities (some of which are password protected) are used for setting up and monitoring the system. They also provide a useful diagnostic aid for locating system faults. Each facility, outlined only briefly below, is described in more detail in the Ship's Manual.

WARNING - *VESSEL SAFETY MY BE COMPROMISED BY UNAUTHORISED CHANGES TO ANY OF THE FOLLOWING.*

Video Setting Facilities

The video processing parameters are set up during commissioning (see Ship's Manual, Chapter 4) and once set are not normally altered. The current settings can be viewed in the VIDEO SETTINGS menu.

NAV or SCOUT TX Setting Facilities

The operating parameters for selected transceivers are set up during commissioning (see Ship's Manual, Chapter 4) and once set are not normally altered. The current settings can be viewed in the NAV (or SCOUT) SETTINGS menu. The menu is used for the input of initial settings and any subsequent changes BUT requires a password for access. Information on NAV or SCOUT is dependant on which transceiver is selected for operation

System Status Display

The SYSTEM STATUS menu gives an indication of prevailing conditions, including software versions, hardware configuration and running times.

Test Data Facilities

The test data facilities provide the means of monitoring system performance and displaying the results of Built In Self Tests (BIST). This includes testing the transceiver's hardware.

Sector Transmission

This function is only available when the NAV transceiver is selected as the active transceiver.

The Sector Transmission facility allows the operator to define one or two north-stabilised arcs in which the transceiver will transmit. Radar video outside the sectors is blanked; and radar transmission is inhibited if the radar is a master. It is possible to set up Transmission Sectors even when the radar is a slave, so that the operator can prepare to be a master.

If used in conjunction with the standard, unstabilised, sector blanking facility, then the condition for transmission on a particular bearing is that the bearing is both a Transmission Sector and not in blank sector. The facility is only available when a working compass is fitted. If the compass fails, then the transceiver is inhibited over 360°, if sector transmission is on. It is not possible to switch the facility on if the compass has failed, although a compass failure will not switch the operator control off automatically. Sector Transmission is available in all presentation modes, motion modes and range scales.

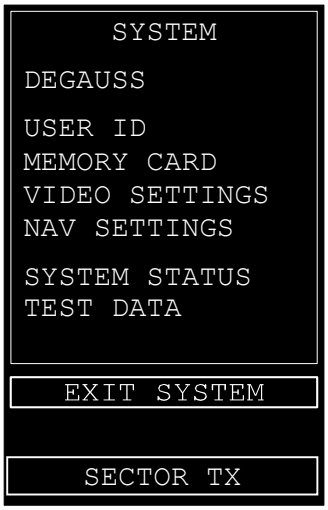
By default, Transmission Sectors is off, with transmission over 360°, apart from any sector blanking. The sectors can be adjusted to one-degree resolution.

Magenta guidelines are displayed when adjusting the sectors; their brilliance is adjusted as part of the Tools group of synthetics. The default sector angles on power up are 90° to 110° for sector 1 and 250° to 270° for sector 2.
The LOW VIDEO alarm is not raised as long as the arc over which the transceiver is transmitting is at least 10°. Setting the video level is not available when Sector Transmission is in use.

When the NAV transceiver TRANSMIT is selected and not in SECTOR TX menu, Red dashed radial lines are shown in the video circle to show the limits of transmission.

When the SCOUT transceiver is selected the Red radial lines are suppressed as transmission will be over the full 360° of the scan. Inside the SECTOR TX menu the ON/OFF of each sector is shown in orange to show that they are not be available in this mode.

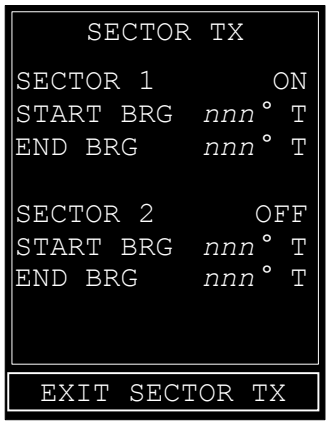
Selecting Sector Transmission



The SECTOR TX menu is selected by the left clicking on the SECTOR TX soft key below the SYSTEM menu.

The SECTOR TX menu is shown below.

Entering the menu causes dashed magenta radial guidelines to be drawn from the video origin to the edge of the video circle for each of the sectors that are currently switched on. The lines are removed when the menu is exited.



The sectors can then be adjusted in one of three ways: Firstly, by dragging one of the lines to the desired angle. The bearing updates in the menu as the guidelines are dragged. Secondly, by a left click on one of the bearing entry lines, this allows the bearing in the menu to be adjusted by moving the pointing device; the guidelines adjust accordingly during this operation. Thirdly, by a right click on one of the bearing entry lines, this allows entry by a keypad displayed on the screen. Sectors can be adjusted with either SCOUT or NAV transceivers selected, and in either STANDBY or TRANSMIT mode. They can however only be active with the NAV transceiver.

The angles are true angles, irrespective of the presentation mode.