

The AVCS logo consists of the letters 'AVCS' in white, bold, sans-serif font, centered within a solid magenta rectangular background.

ADMIRALTY
Vector Chart Service

Using the ADMIRALTY Vector Chart Service with the JRC ECDIS – JAN 701B/901B/2000

This guide is based on JRC ECDIS – JAN-701B/901B/2000 Version 70B.

The guide should be used in conjunction with the AVCS User Guide, as well as the ECDIS Operators Manual or other documentations as supplied by the equipment manufacturer



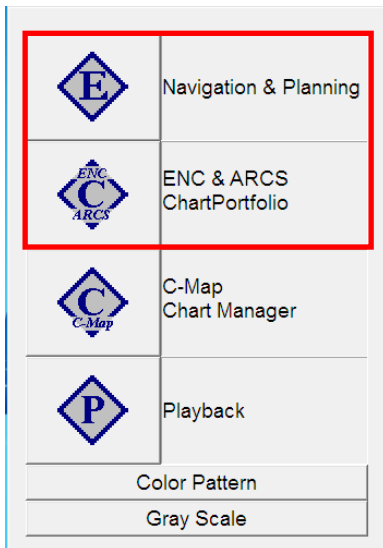
United Kingdom
Hydrographic Office

Version 1.0

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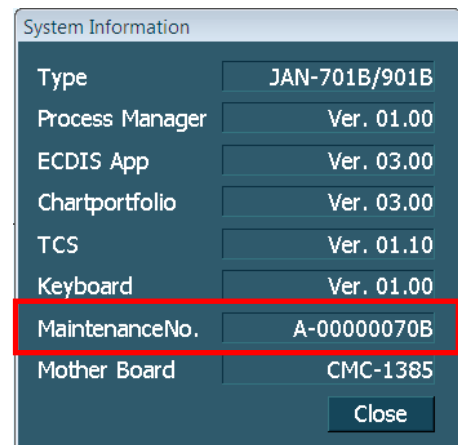
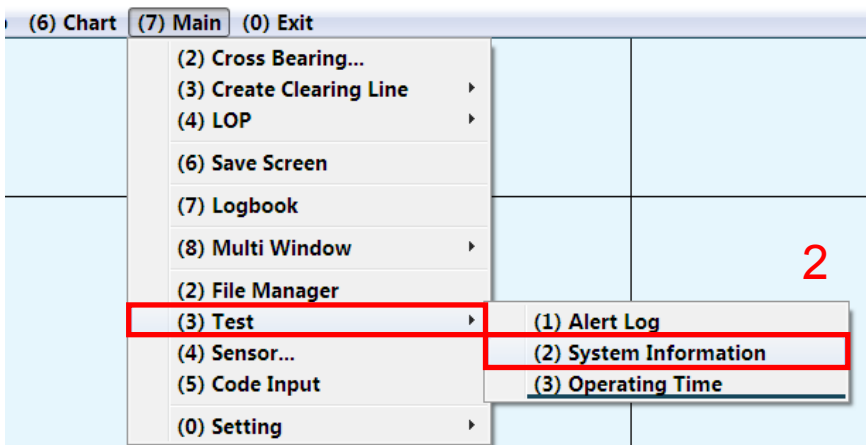
1 Data Management

All electronic navigational charts (ENCs) licensing and data management operations are carried out through the **Navigation & Planning** and **ENC & ARCS ChartPortfolio** at Main Menu.



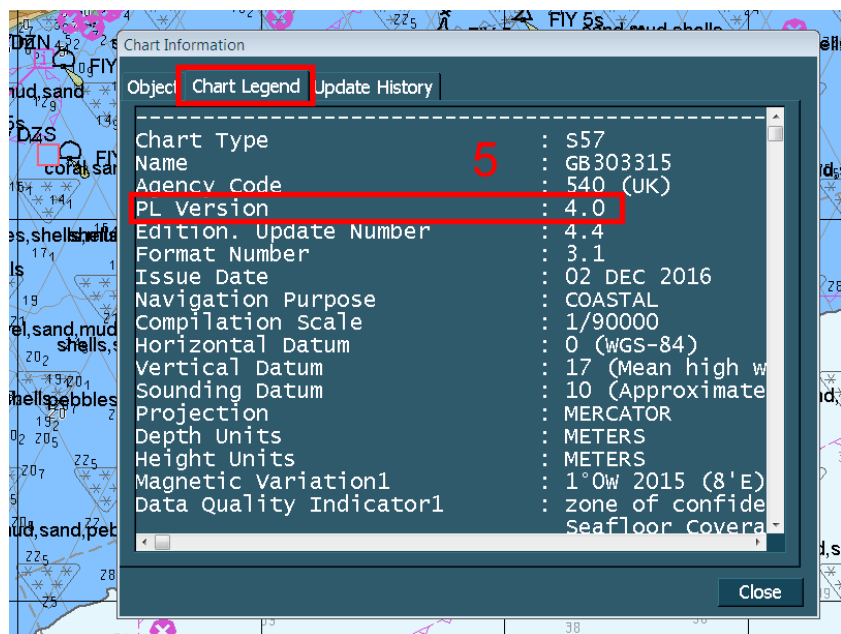
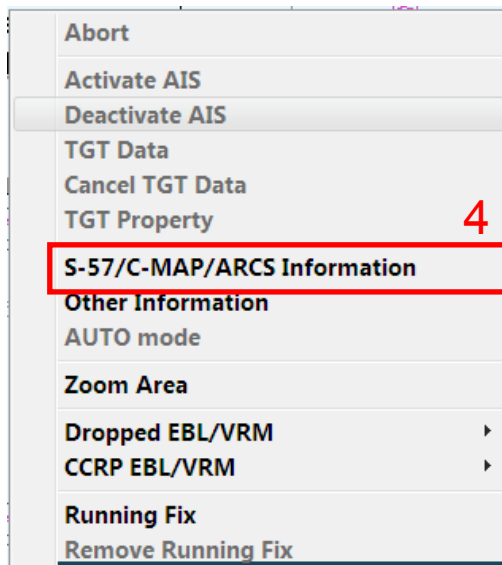
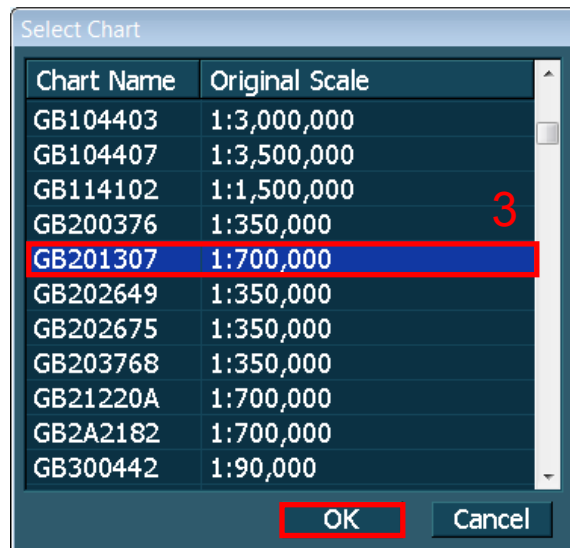
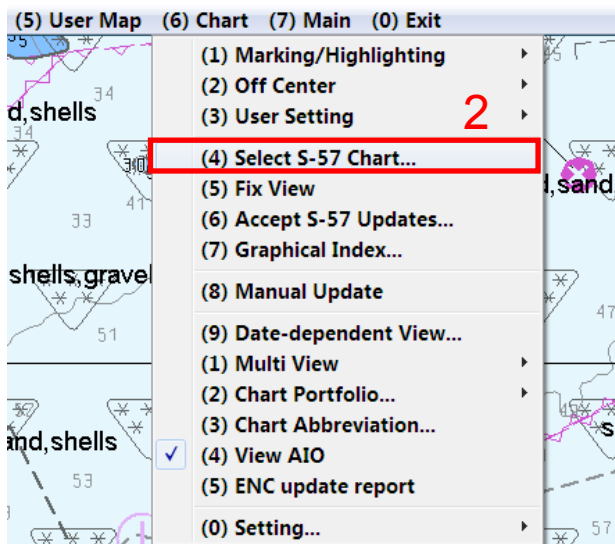
To check the JRC JAN-701B/901B/2000 ECDIS Software Version:

1. Click **Navigation & Planning** option.
2. At **(7) Main**, click **(3) Test** then **(2) System Information**.
3. At System Information window, check the **Maintenance No.**



To check Presentation Library (PL) Edition:

1. Click **Navigation & Planning** option.
2. At **(6) Chart**, click **(4) Select S-57 Chart...** to open any installed licenced ENC.
3. At **Select Chart** window, click any **Chart Name** and Select **OK** to display it.
4. When ENC is open, right click the mouse and click on **S-57/C-MAP/ARCS information** then click on ENC object to view chart information.
5. At **Chart Information** window, view the **Chart Legend** tab and check the **PL Version** Number.

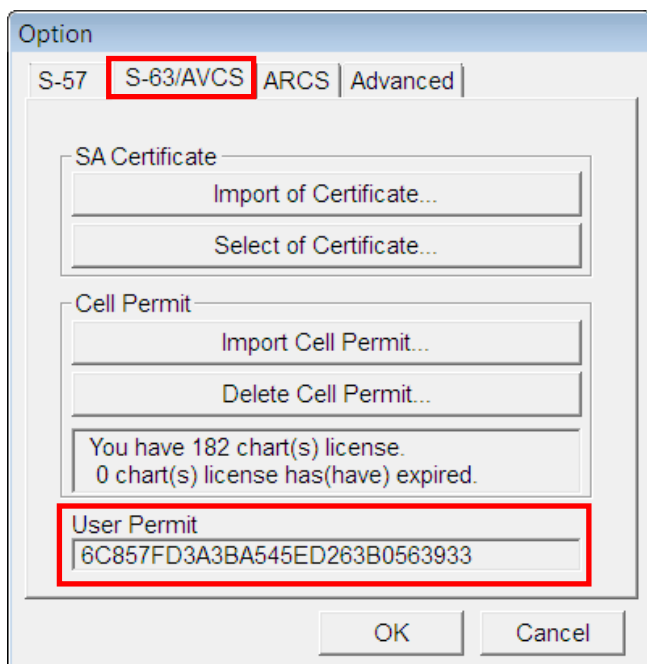
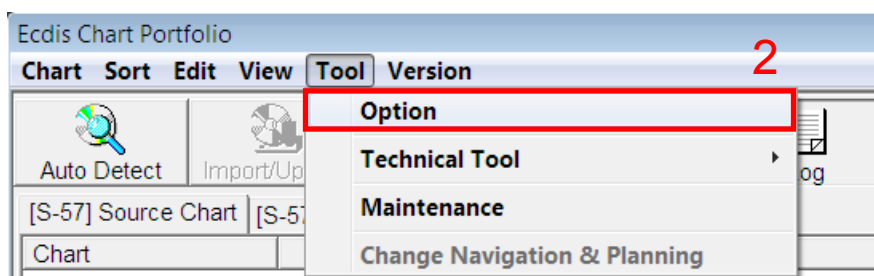


2 The User Permit Number

The 'User Permit Number' is a 28 character alphanumeric string that is unique to each ECDIS installation or group of ECDIS, e.g. multiple bridge installations. The 'User Permit Number' should have been supplied at the time of delivery and must be used when ordering an AVCS licence.

To check the User Permit Number:

1. Click **ENC & ARCS ChartPortfolio** option.
2. At **Tool** option, click **Option**.
3. At **Option** window, click **S-63/AVCS** tab and check the **User Permit Number**.

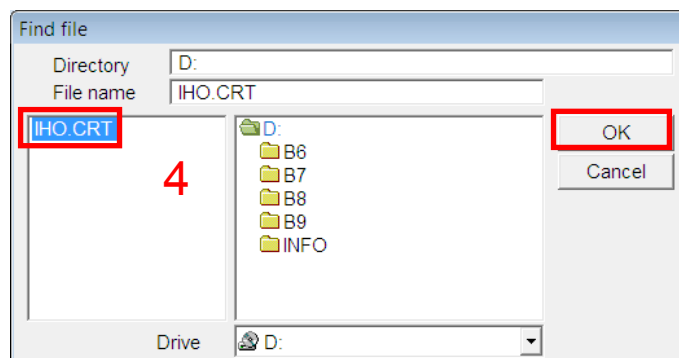
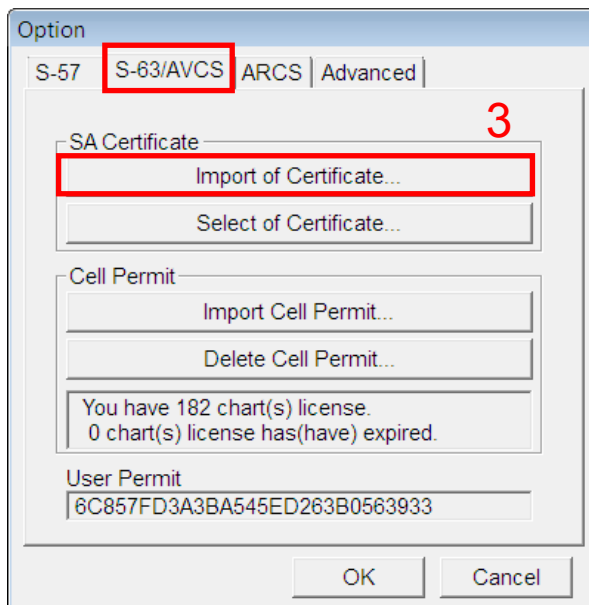
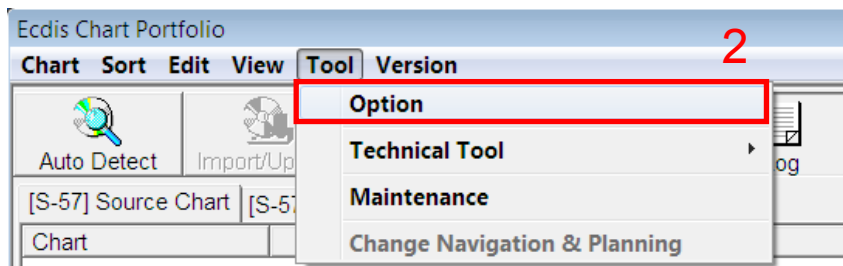


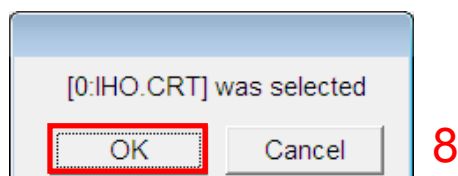
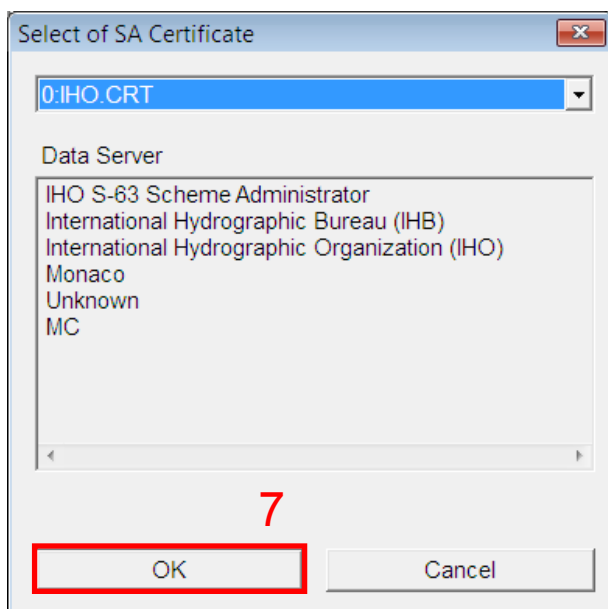
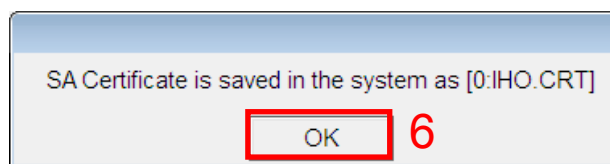
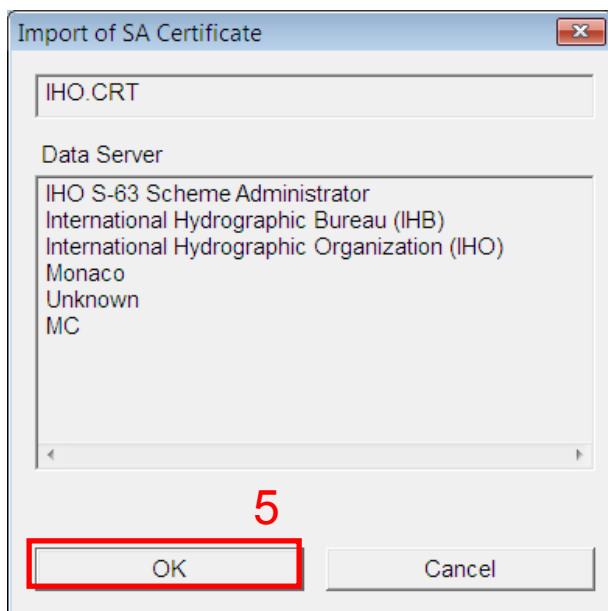
3 The Public Key

The Admiralty Vector Chart Service currently uses the IHO.CRT, issued by the International Hydrographic Organization, to authenticate its AVCS ENC's. The IHO Public Key is included in all AVCS media.

To install the IHO Public Key:

1. Insert AVCS DVD or CD media then click **ENC & ARCS ChartPortfolio** option.
2. At **Tool** option, click **Option**.
3. At **Option** window, click **S-63/AVCS** tab then click on **Import of Certificate...**
4. Select the DVD Drive (**Default Q Drive**) then select **IHO.CRT** file and click **OK** button.
5. At **Import of SA Certificate** window, click **OK**.
6. Once it is installed, it will display SA Certificate is saved in the system as **[X:IHO.CRT]**.
7. At **Option** window, click **S-63/AVCS** tab then click on **Select of Certificate...**
8. At **Select of SA Certificate** window, select the correct **[X:IHO.CRT]** and click **OK**.
9. Once the SA Certificate is selected, it will display **[X:IHO.CRT]** was selected then click **OK** to end.





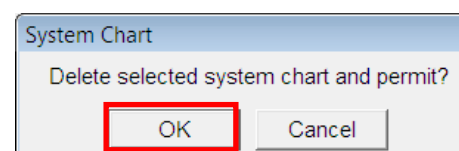
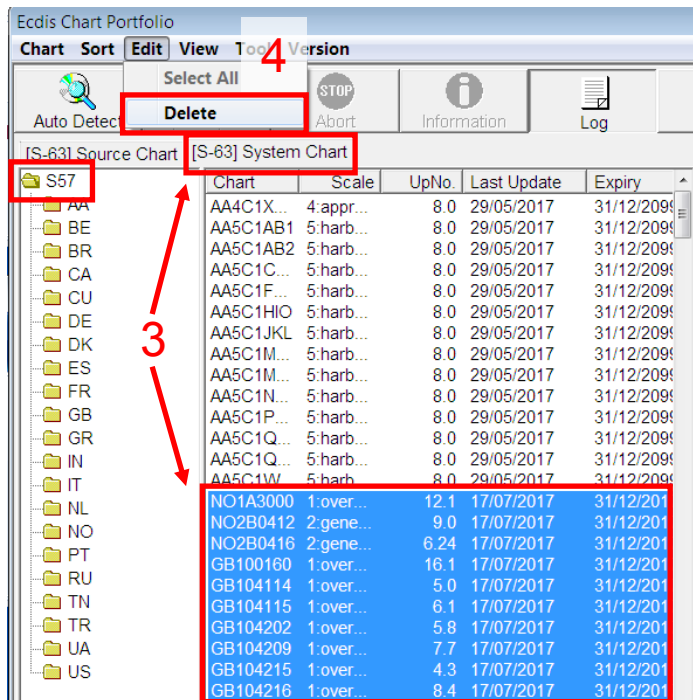
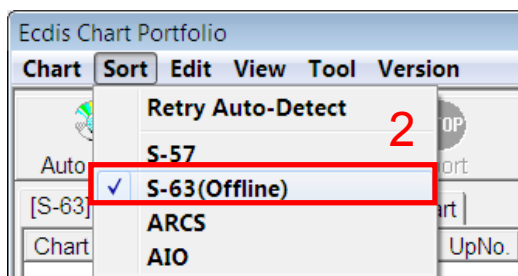
4 Deleting ENC Data

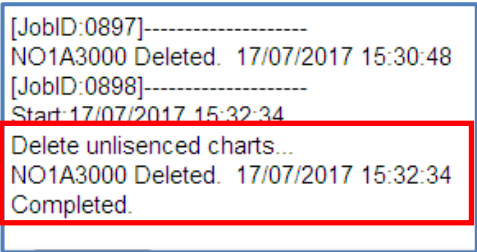
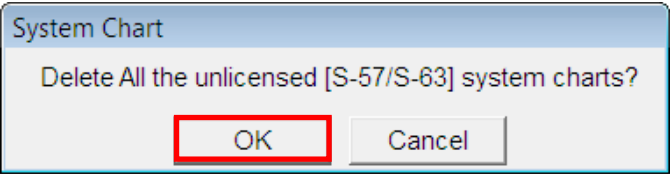
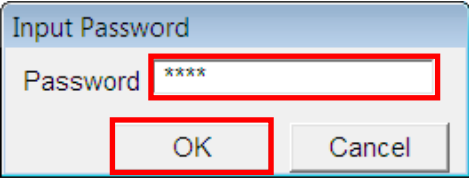
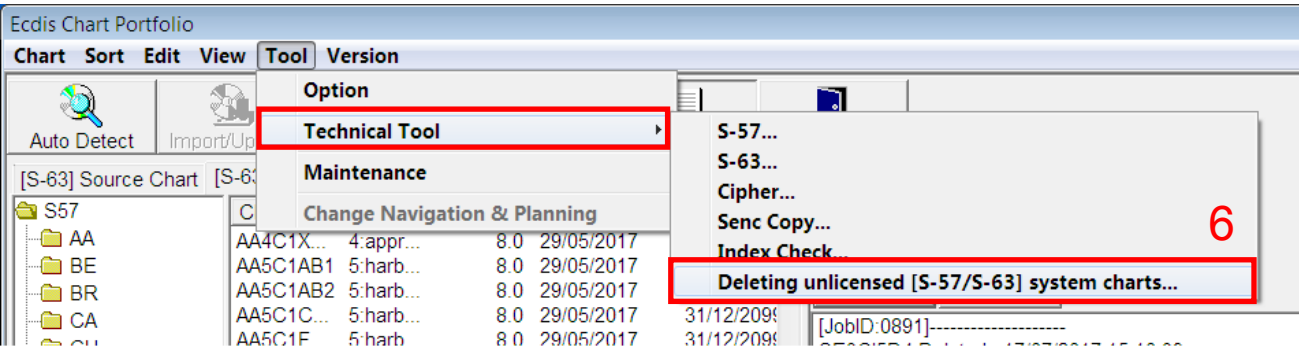
New AVCS customers who had previously subscribed to other ENC services are required to remove (purge) all ENC Permits and data from the system before installing AVCS.

Note: Do not delete AA Cells

To delete all or required ENCs data from the system:

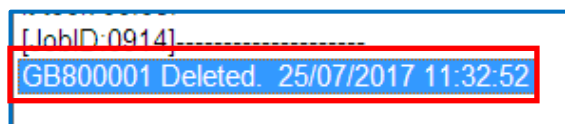
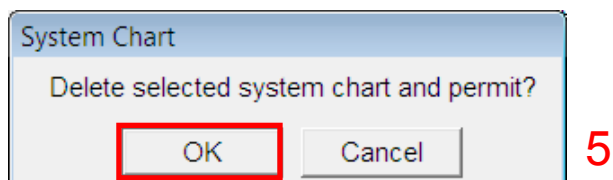
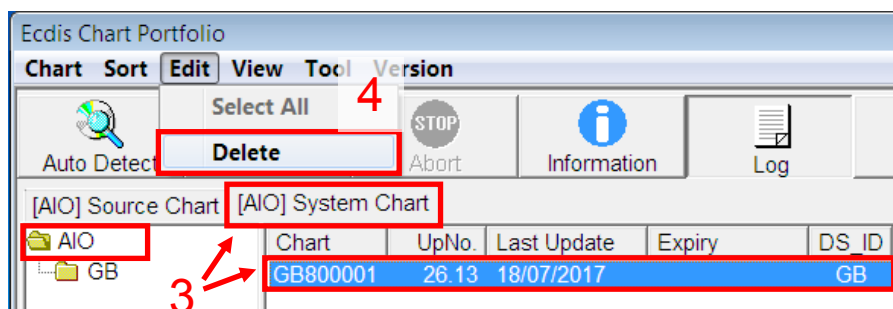
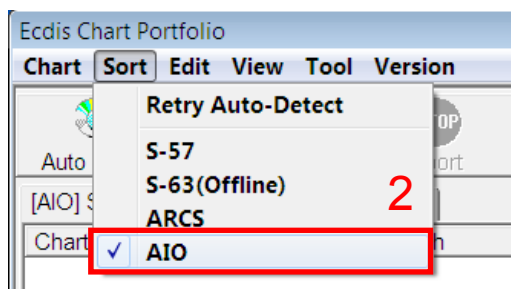
1. Click **ENC & ARCS ChartPortfolio** option.
2. At **Sort** option, click **S-63(Offline)** option.
3. Click **[S-63] System Chart** tab and click **S57** folder to view installed ENCs then select ENCs.
4. At **Edit** option, select **Delete** to remove installed ENC data and permit.
5. At **System Chart** window, select **OK** to 'Delete selected system chart and permit?'.
6. At **Tool** option, click **Technical Tool** then **Deleting unlicensed [S-57/S-63] system charts...**
7. At **Input Password** window, enter password **8510** and **OK**.
8. At **System Chart** window, click **OK** to delete ALL the unlicensed [S-57/S-63] system charts. Check **Log** details.





To delete AIO data from the system:

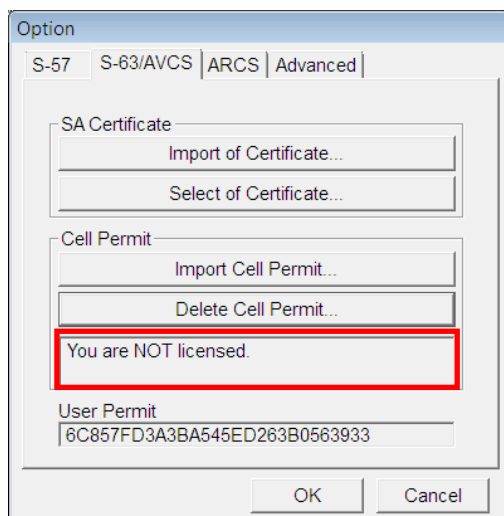
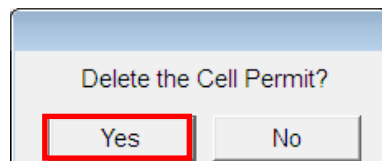
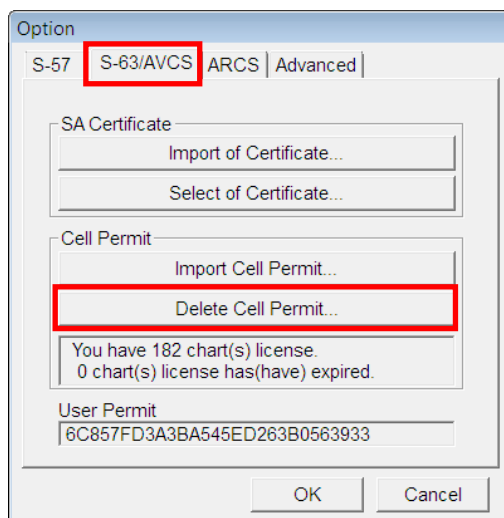
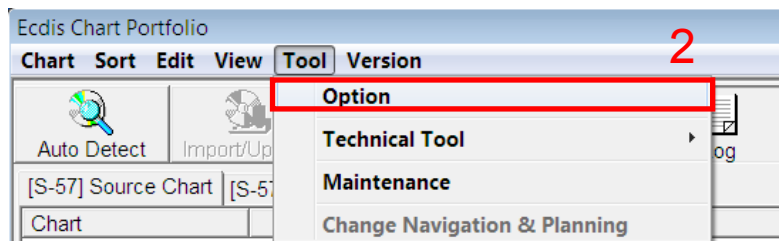
1. Click **ENC & ARCS ChartPortfolio** option.
2. At **Sort** option, click **AIO** option.
3. Click **[AIO] System Chart** tab and click **AIO** folder to view installed AIO chart name then select GB800001.
4. At **Edit** option, Select **Delete** to remove installed AIO data and permit.
5. At **System Chart** window, select **OK** to 'Delete selected system chart and permit?' Check **Log** details.



5 Deleting ENC Permits

To delete ENC Permits:

1. Click **ENC & ARCS ChartPortfolio** option.
2. At **Tool** option, click **Option**.
3. At **Option** window, click **S-63/AVCS** tab and click **Delete Cell Permit...** button.
4. At Delete the Cell Permit window, click **Yes** button to remove installed permit.
5. At Cell Permit window, user will view 'You are NOT licensed'.

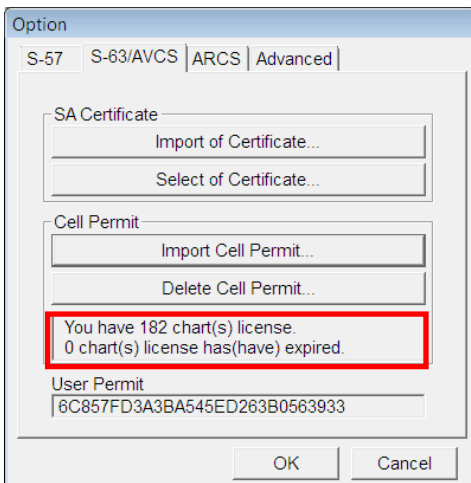
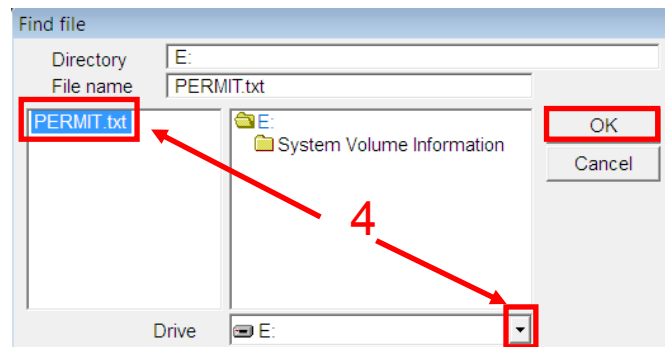
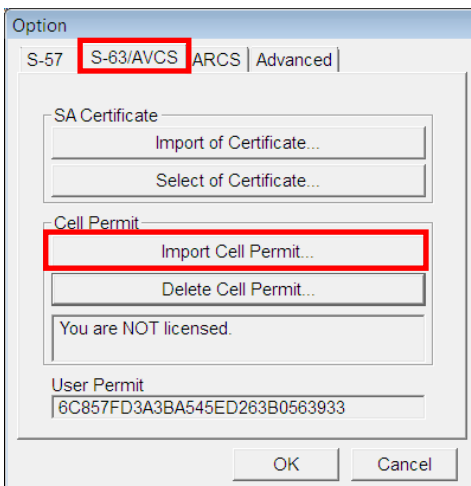
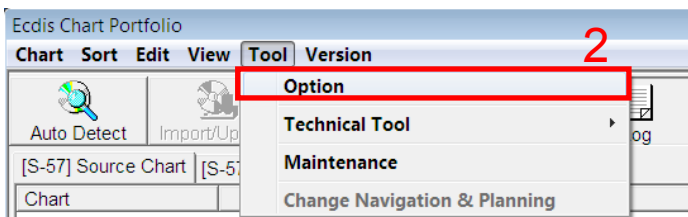


6 Installing ENC Permits

Note: Ensure the correct Permit is installed into the ECDIS workstation.

To install AVCS ENC Permits including AIO PERMIT:

1. Insert the CD/USB Stick Media containing **PERMIT.TXT** then click **ENC & ARCS ChartPortfolio** option.
2. At **Tool** option, click **Option**.
3. At **Option** window, click **S-63/AVCS** tab and click **Import Cell Permit...** button.
4. At **Find file** window, browse to the drive then click **PERMIT.TXT** and click **OK** to install permit. Once completed, click **OK**.
5. At **Option** window, user will view 'You are xxx chart(s) license'.



7 Installing AVCS DVDs

There are currently 2 AVCS DVD Media. AVCS DVD Media contain all the latest Base and Update data. It is likely that users will need to install both DVDs in order to load all licensed ENC's. Reference to the Schedule A can avoid the unnecessary loading of both DVDs and save the user time.

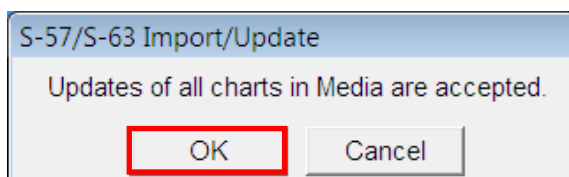
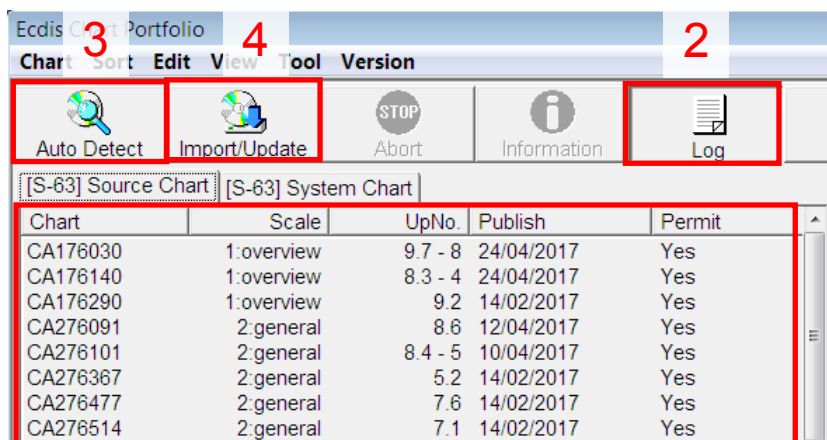
The process described here should be used in almost all circumstances as it will automatically select data to be loaded according to the permit file installed by the user.

Note:

1. Ensure the latest permits have been installed before attempting to install any data.
2. Ensure Source Chart Path is at default Q drive to read AVCS CD/DVD media. Refer to Section 10.

To install AVCS DVD Media:

1. Insert the latest AVCS DVD Media and then click **ENC & ARCS ChartPortfolio** option.
2. Click **Log** button to check any charts installation failure.
3. Click **Auto Detect** button to read the ENC data content from AVCS Media. **[S-63] Source Chart** window will display licenced ENC's to be installed.
4. Click **Import/Update** button to install ENC data.
5. At **S-57/S-63 Import/Update** window, click **OK** to accept to load all updates in Media. Review the **Log** details once the chart installation is completed.



5

GB50264A(UpNo.8.0) OK
 GB50282B(UpNo.20.0) OK
 GB602290(UpNo.3.0) OK
 GB602290(UpNo.3.1) OK
 Completed Import/Update 72 Chart(s)
 Unable to Import/Update 0 Chart(s)
 Completed.
 It took 00:01.

8 Installing AVCS Base CDs

There are currently 9 AVCS Base CDs but this number will grow as more ENC's become available for distribution within AVCS. It is unlikely that users will need to install all of the CDs in order to load all licensed ENC's. Reference to the Schedule A can avoid the unnecessary loading of some CDs and save the user time.

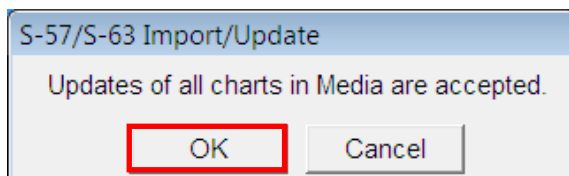
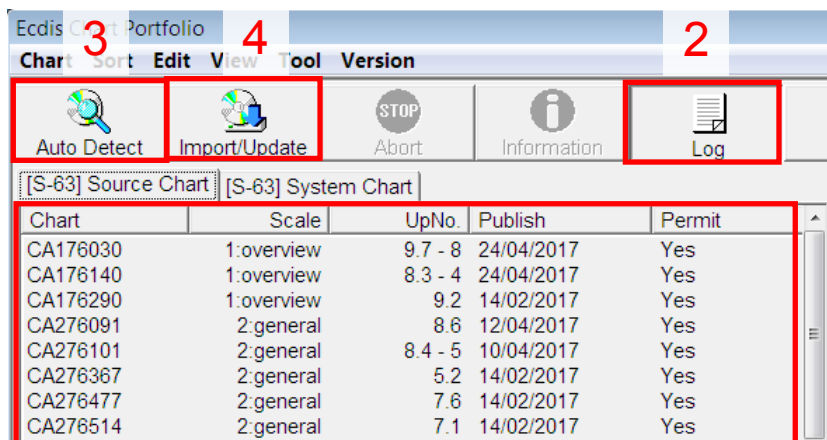
The process described here should be used in almost all circumstances as it will automatically select data to be loaded according to the permit file installed by the user.

Note:

- Ensure the latest permits have been installed before attempting to install any data.
- Ensure Source Chart Path is at default Q drive to read AVCS CD/DVD media. Refer to Section 10.

To install AVCS Base CD:

1. Insert the latest AVCS Base CD Media and then click **ENC & ARCS ChartPortfolio** option.
2. Click **Log** button to check any charts installation failure.
3. Click **Auto Detect** button to read the ENC data content from AVCS Media. **[S-63] Source Chart** window will display licenced ENC's to be installed.
4. Click **Import/Update** button to install ENC data.
5. At **S-57/S-63 Import/Update** window, click **OK** to accept to load all updates in Media. Review the **Log** details once the chart installation is completed.



5

```
GB50264A(UpNo.8.0) OK
GB50282B(UpNo.20.0) OK
GB602290(UpNo.3.0) OK
GB602290(UpNo.3.1) OK
Completed Import/Update 72 Chart(s)
Unable to Import/Update 0 Chart(s)
Completed.
It took 00:01.
```

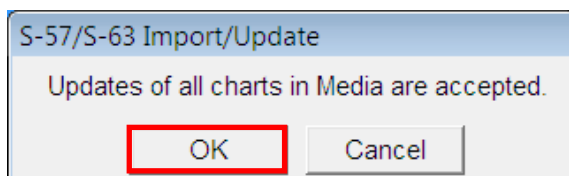
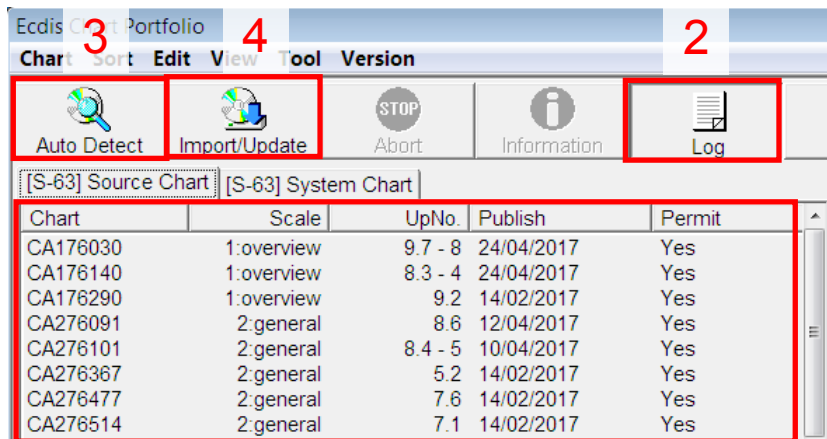
9 Installing AVCS Update CD

The AVCS update disc will indicate which Base disc week must have been installed. It is important that users do not attempt to load an Update CD that is not consistent with the Base CDs

Note: Check the AVCS Update CD for the required Base CDs to be applied first.

To install AVCS Update CD:

1. Insert the latest AVCS Update CD Media and then click **ENC & ARCS ChartPortfolio** option.
2. Click **Log** button to check any charts installation failure.
3. Click **Auto Detect** button to read the ENC data content from AVCS Media. **[S-63] Source Chart** window will display licenced ENCs to be installed.
4. Click **Import/Update** button to install ENC data.
5. At **S-57/S-63 Import/Update** window, click **OK** to accept to load all updates in Media. Review the **Log** details once the chart installation is completed.



GB50264A(UpNo.8.0) OK
 GB50282B(UpNo.20.0) OK
 GB602290(UpNo.3.0) OK
 GB602290(UpNo.3.1) OK
 Completed Import/Update 72 Chart(s)
 Unable to Import/Update 0 Chart(s)
 Completed.
 It took 00:01.

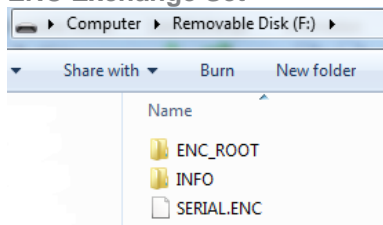
10 Installing Exchange Set Using USB Media

The exchange set contained the latest Notices to Mariners' corrections, New Editions and New Charts issued since the last update for their AVCS holdings. The exchange set can be downloaded using online chart updating software.

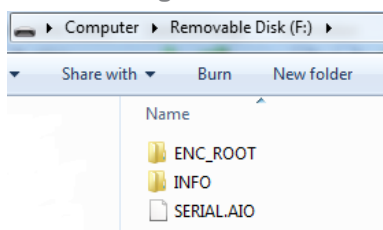
To create AVCS/AIO Exchange Set into Virus Free USB Media:

1. Save **ENC_ROOT**, **INFO** and **SERIAL.ENC** or **SERIAL.AIO** into root directory of an empty USB Media.
2. Carry out Virus Scan on USB Media after copying the Exchange Set.

ENC Exchange Set

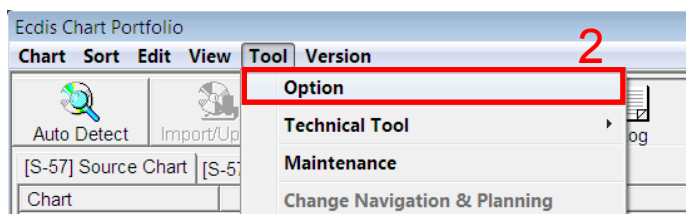


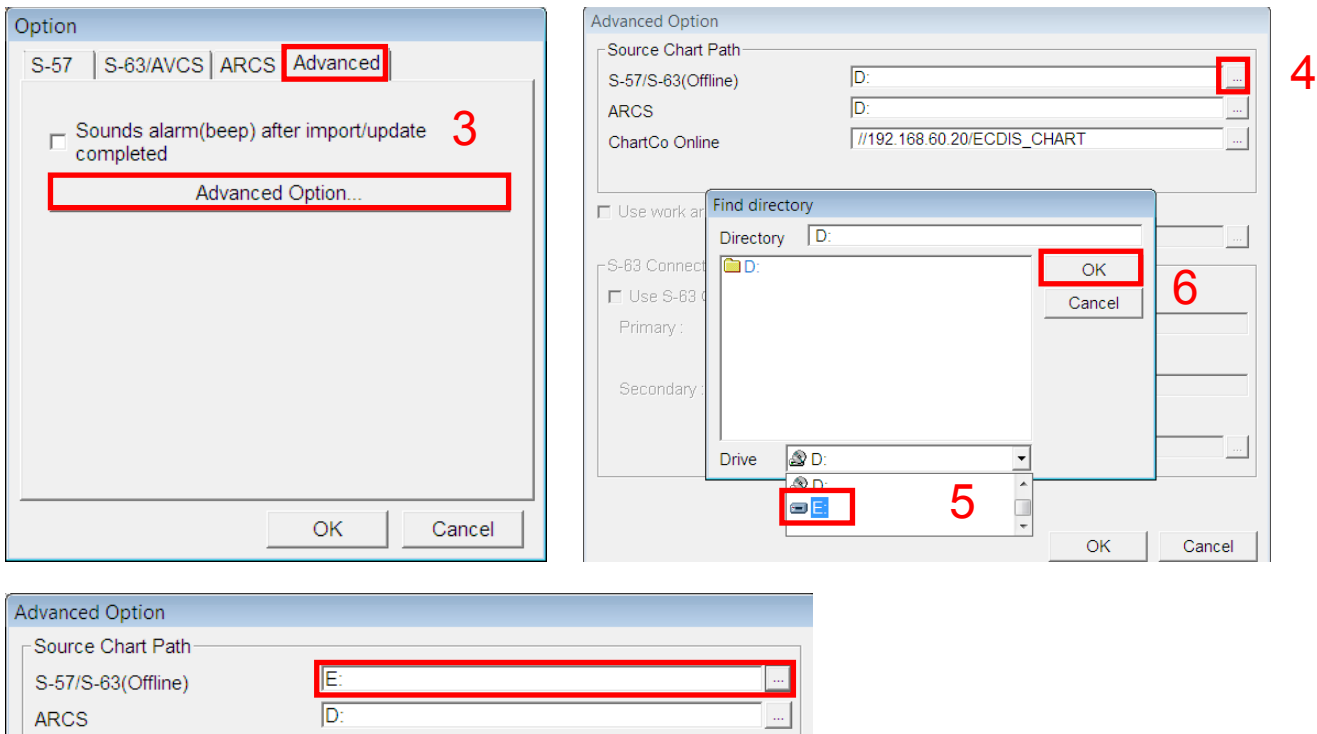
AIO Exchange Set



To change Source Chart Path to read USB drive:

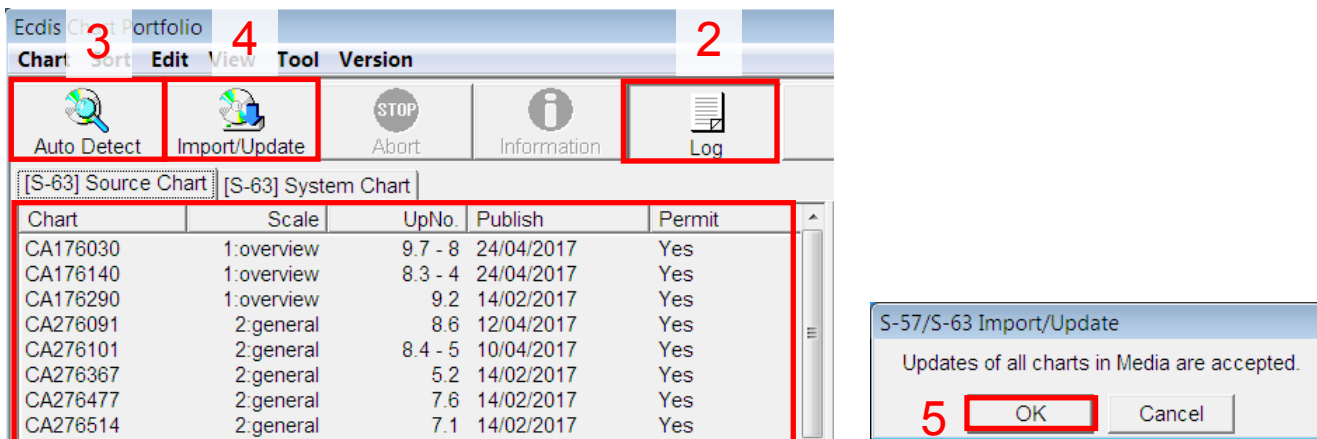
1. Insert the USB Media containing the AVCS/AIO Exchange Set and click **ENC & ARCS ChartPortfolio** option.
2. At **Tool** option, click **Option**.
3. At **Option** window, click **Advanced** tab and click **Advanced Option...** button.
4. At **Advanced Option** window, user needs to change the Source Chart Path for S-57/S-63(Offline) to read USB drive. Click the **Browse** button.
5. At **Find directory** window, browse and select the USB drive and click **OK** to set system to read the USB drive.
6. Once completed, click **OK** to end.





To install Exchange Set using USB Media:

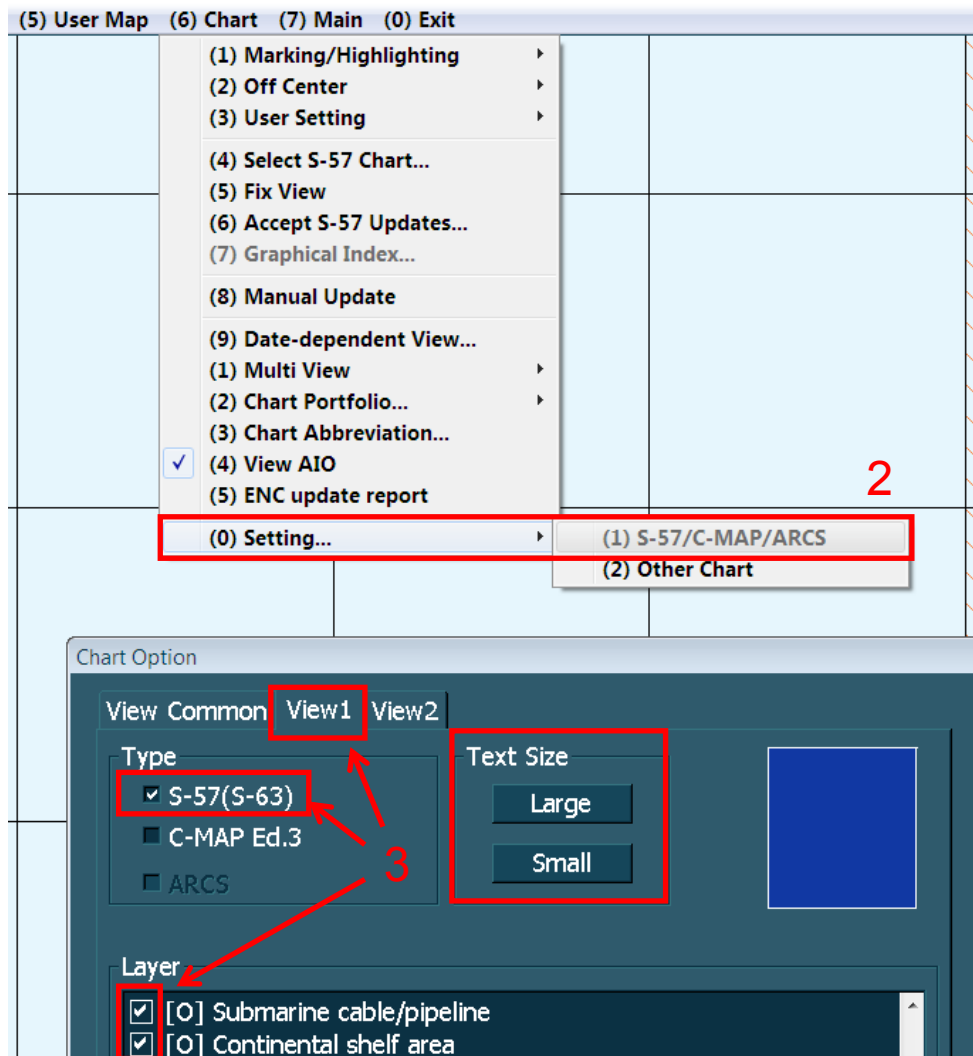
1. Insert the USB Media containing the AVCS/AIO Exchange Set and click **ENC & ARCS ChartPortfolio** option.
2. Click **Log** button to check any charts installation failure.
3. Click **Auto Detect** button to read the ENC/AIO data content from USB Media. **[S-63] Source Chart** window will display licenced ENC/AIO to be installed.
4. Click **Import/Update** button to install ENC/AIO data.
5. At **S-57/S-63 Import/Update** window, click **OK** to accept to load all updates in Media. Review the **Log** details once the chart installation is completed.
6. After chart installation, change the **Source Chart Path for S-57/S-63(Offline)** to **Q** drive to read DVD/CD media.



11 View an ENC

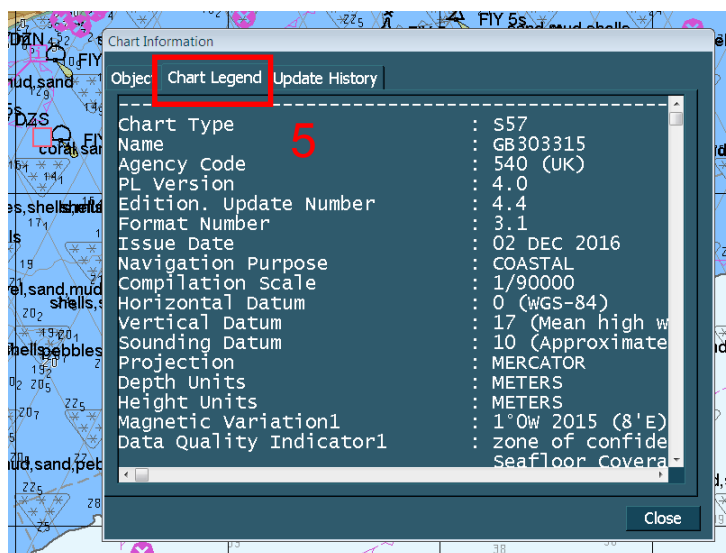
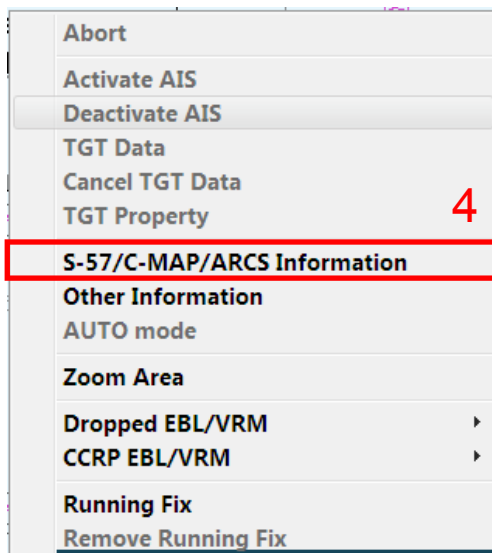
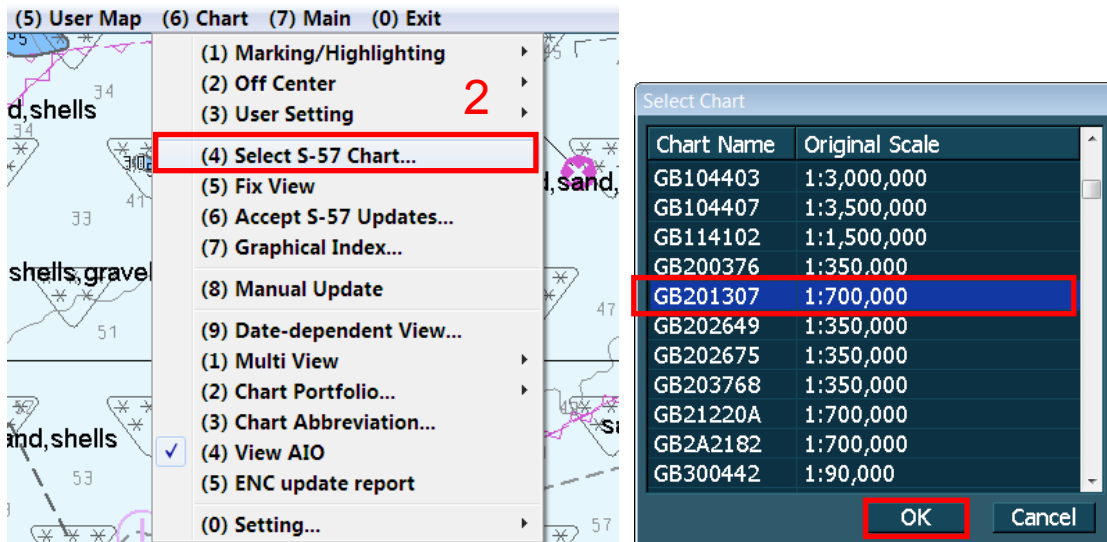
To setup Chart Display:

1. Click **Navigation & Planning** option.
2. At **(6) Chart**, click **(0) Setting...** then click **(1) S-57/C-MAP/ARCS**.
3. At **Chart Option** window, click **View1** or **View2** tab and click **S-57(S-63)** Type option. User can change the chart **Layer** and **Text** settings or adjust the **Text Size** then click **Apply** to amend the changes.



To view ENC data:

1. Click **Navigation & Planning** option.
2. At **(6) Chart**, click **(4) Select S-57 Chart...** to open any installed licenced ENCs at compilation scale.
3. Once the ENC is open to view, right click the mouse and click on **S-57/C-MAP/ARCS information** then click on ENC object to view chart information.
4. At **Chart Information** window, view the **Chart Legend** tab.



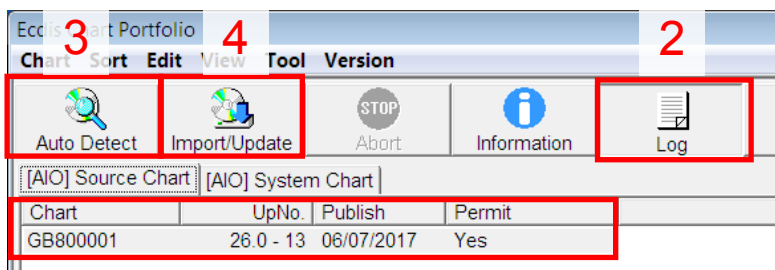
12 Installing AIO CD

Note:

1. Ensure the latest AVCS Permit including AIO have been installed before attempting to install any data
2. Ensure Source Chart Path is at default Q drive to read AVCS CD/DVD media. Refer to Section 10.

To install AIO CD:

1. Insert the latest AIO CD Media and then click **ENC & ARCS ChartPortfolio** option.
2. Click **Log** button to check any charts installation failure.
3. Click **Auto Detect** button to read the AIO data content from AIO Media. **[AIO] Source Chart** window will display licenced AIO to be installed.
4. Click **Import/Update** button to install AIO data (GB800001). Review the **Log** details once the chart installation is completed.



```
[JobID:0904]-----
Start:18/07/2017 15:26:20
AIO
Checking & Importing...
GB800001(UpNo.26.0) OK
GB800001(UpNo.26.1) OK
GB800001(UpNo.26.2) OK
GB800001(UpNo.26.3) OK
GB800001(UpNo.26.4) OK
GB800001(UpNo.26.5) OK
GB800001(UpNo.26.6) OK
GB800001(UpNo.26.7) OK
GB800001(UpNo.26.8) OK
GB800001(UpNo.26.9) OK
GB800001(UpNo.26.10) OK
GB800001(UpNo.26.11) OK
GB800001(UpNo.26.12) OK
GB800001(UpNo.26.13) OK
Completed Import/Update 14 Chart(s)
Unable to Import/Update 0 Chart(s)
Completed.
It took 00:01.
```

13 Using the AIO

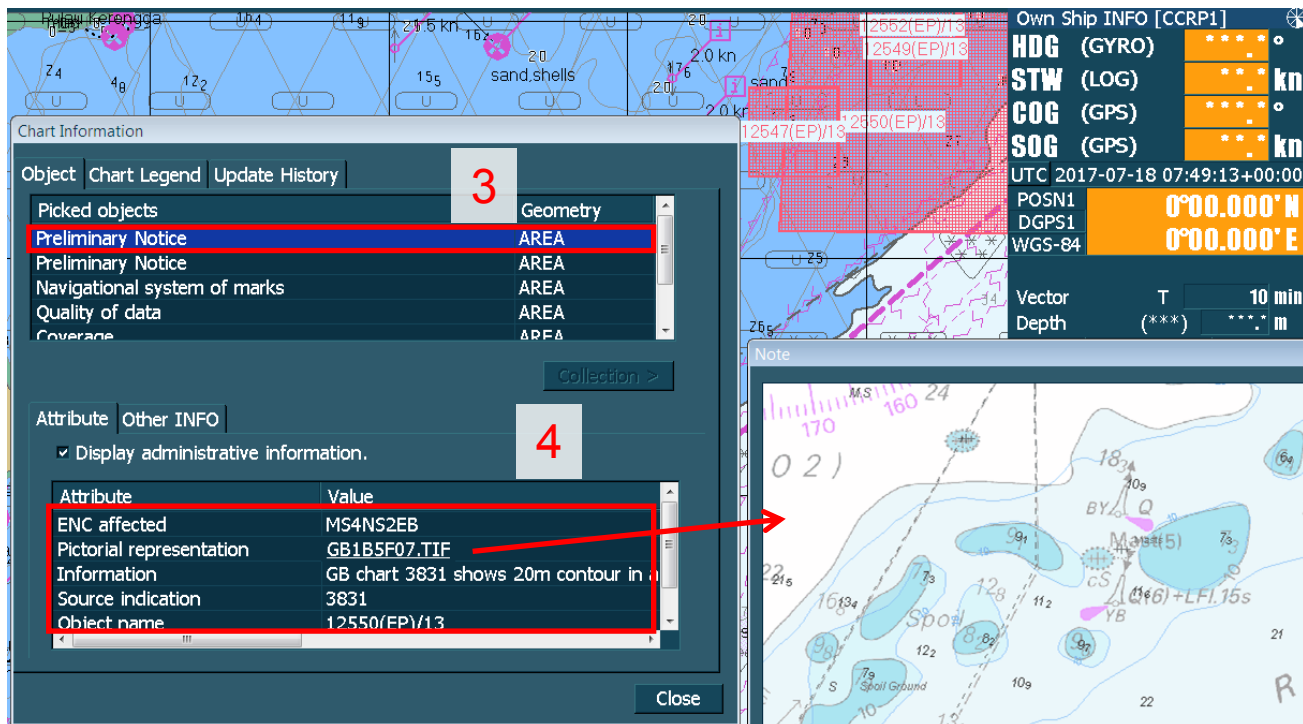
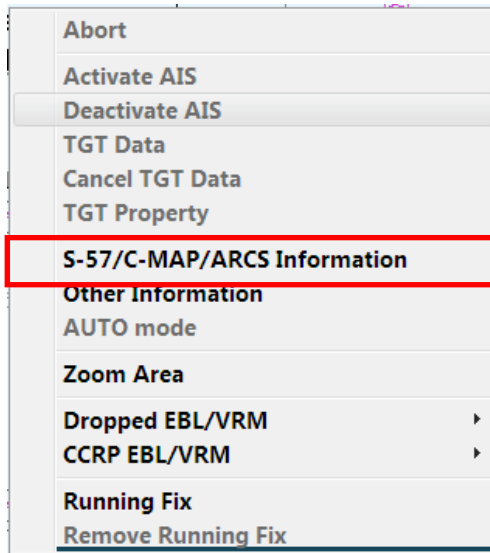
To enable AIO data:

1. Click **Navigation & Planning** option.
2. At **(6) Chart**, click **(4) View AIO**.
3. At **Chart INFO** (Right Bottom of the Main Display), click **Other** option.

The screenshot displays the main interface of the JRC JAN-701B/901B/2000. The top menu bar includes (5) User Map, (6) Chart, (7) Main, and (0) Exit. The 'Chart' menu is open, showing options (1) Marking/Highlighting, (2) Off Center, (3) User Setting, (4) Select S-57 Chart..., (5) Fix View, (6) Accept S-57 Updates..., (7) Graphical Index..., (8) Manual Update, (9) Date-dependent View..., (10) Multi View, (11) Chart Portfolio..., (12) Chart Abbreviation..., (13) View AIO (highlighted with a red box and a red '2'), (14) ENC update report, and (15) Setting... The background shows a nautical chart with various depth soundings and navigational markers. On the right side, the 'Own Ship INFO [CCRP1]' panel displays HDG (GYRO), STW (LOG), COG (GPS), and SOG (GPS) with corresponding status icons. Below this, the 'Vector' and 'Depth' sections show T (10 min) and (***). The 'Filter' section has Ring and Sector options. The 'Route' section shows UNLOAD and AUTO Select. The 'To WPT' section shows AUTO Select. The 'DIST' section shows ****.* NM and BRG ****.*. The 'CALC' section shows Drift, Route, and WPT. The 'DEST' section shows 0 and ****.* NM. The 'SPD' section shows Actual and ****.* kn. The 'TTG' section shows ****.*:****. The 'ETA' section shows ****.*:****. The 'Chart INFO' panel at the bottom right shows a red '3' next to the 'Other' option, which is highlighted with a red box. Other options in the Chart INFO panel include Home, Zoom Out, Zoom In, and Zoom Area.

To view AIO data:

1. At Main display, right **click the mouse** and click on **S-57/C-MAP/ARCS information** then click on the **AIO object** to read the detailed information.
2. At **Chart Information** window, view the **Object** tab.
3. Click on **Preliminary Notice or Temporary Notice** where UKHO has published an AIO Notice.
4. At **Attribute** window, view AIO information such as ENC Affected, Supporting Textual information and attached Text or Picture File Reference.



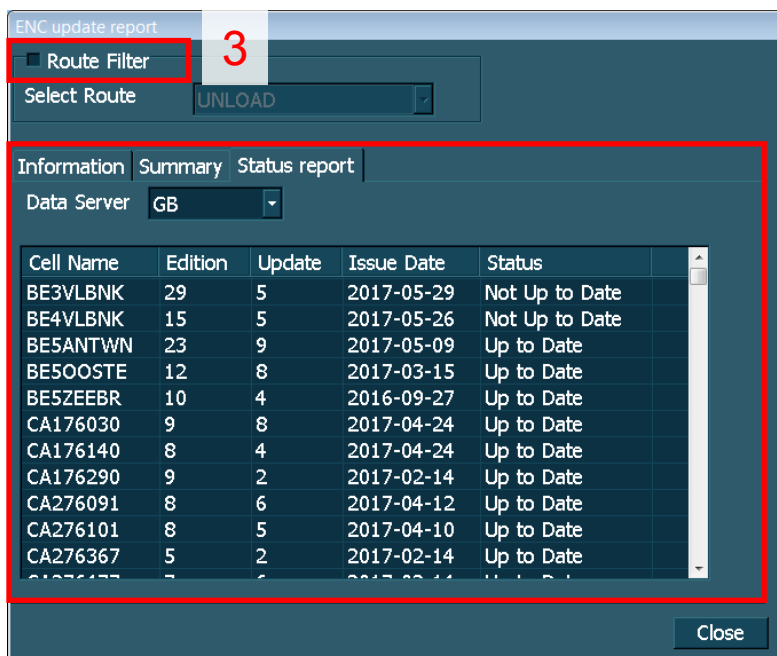
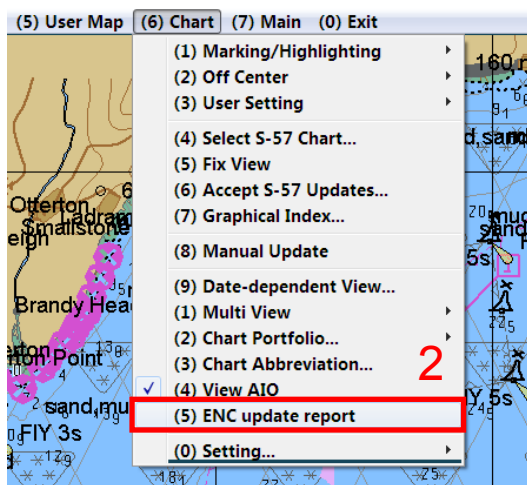
14 Systems Checks

The user has the option to review the status of all installed ENC's from within the ECDIS Chart Portfolio dialog as follows:

Note: All ENC's status will display 'Not Up to Date' if user did not update any ENC's for more than 4 weeks.

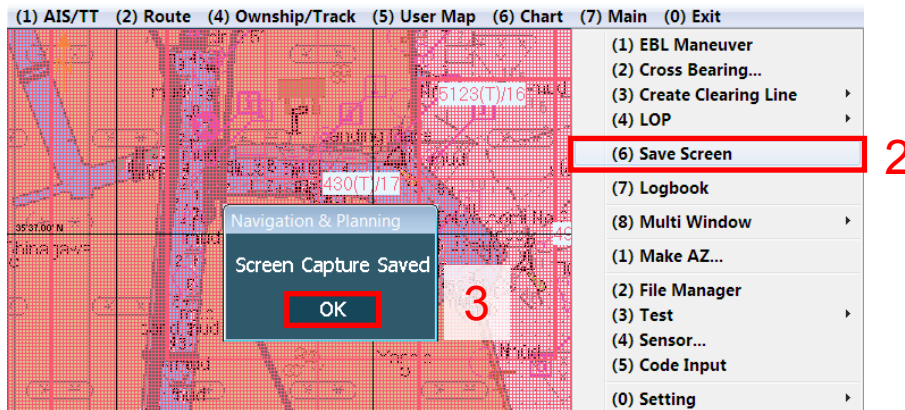
To generate the installed charts status report:

1. Click **Navigation & Planning** option.
2. At **(6) Chart**, click **(5) ENC update report**.
3. User can view ENC Status at **Information**, **Summary** and **Status Report** tab.
4. User can click **Route Filter** option and select **Route file** to filter the required ENC's status for their intended voyage on ENC update report.



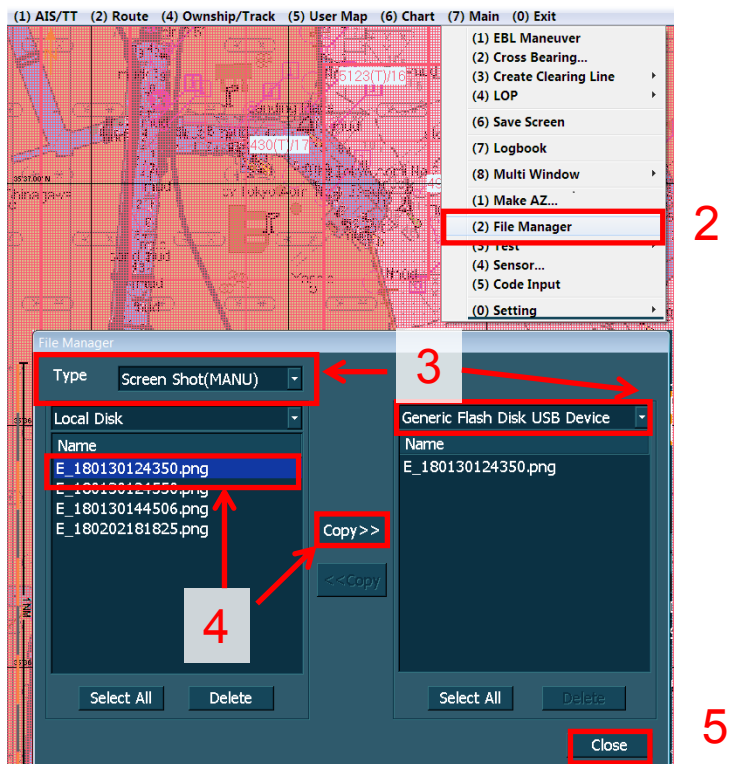
To capture the ECDIS Main Display:

1. Click **Navigation & Planning** option.
2. At **(7) Main**, click **(6) Save Screen**.
3. At **Navigation & Planning** window, click **OK** to end.



To export the Capture Screen into USB Media:

1. Insert the virus free USB Media and click **Navigation & Planning** option.
2. At **(7) Main**, click **(2) File Manager**.
3. At **File Manager** window, select Type: **Screen Shot (Manu)** then browse to **USB drive** at right column.
4. Select **File name** (YYMMDDxxxxx.png) then click **Copy >>** to copy image into USB Media.
5. Click **Close** to end and take out the USB Media.



15 Troubleshooting

Many of the difficulties that could be experienced when using the Admiralty Vector Chart Service with this system can be avoided by carefully following the instructions in this guide. However, issues that are known to have caused confusion in the past are detailed in the Frequently Asked Questions (FAQ) section which can be found at:

<http://www.admiralty.co.uk>

If you encounter problems that are not solved by referring to the FAQs, you may wish to seek Technical Support. Please see the section below for contact details.

Who should you contact?

You will receive the most effective support if you address your initial query to either the Manufacturer of your ECDIS equipment or the Chart Agent you obtain your AVCS charts from, but in certain circumstances you may need to contact the UKHO Customer Services.

Problem	Contact
Hardware problems: difficulties with the keyboard, mouse, display or main system console, failure of a floppy disk or CD drive.	ECDIS Manufacturer
Software problems: difficulties with configuring or using the ECDIS system software, interfacing problems.	
Chart installation problems: problems with installing certificates, permits and AVCS ENC's, standard error codes displayed (see AVCS User Guide).	Admiralty Chart Agent
Chart content problems: display anomalies or mismatched data displays.	
Problems that have not been resolved by your Admiralty Chart Agent.	UKHO Customer Services

When reporting a chart related problem it is useful if you can provide the following details :

- > Licence number
- > Vessel name
- > IMO
- > ECDIS/Software Manufacturer
- > ECDIS software version
- > Details of error message – Including 'SSE' error code
- > Screen shot(s) of error
- > Details of Base CD or DVD Discs used (week)
- > Details of Update CD used (week)
- > Details of Permits used (week)
- > Details of Cell number(s) errors apply to
- > Have there been any configuration changes to system(s)
- > Details of User Permit(s) and PIN Number(s)

Emergency Chart Permit Generation

In certain circumstances it may be necessary for a vessel to get access to an AVCS chart at very short notice, for instance if a route needs to be **diverted due to a medical or safety emergency**.

In these emergency circumstances only, individual AVCS ENC Permits can be obtained from the UKHO **24 hours a day, 365 days a year**.

To obtain an AVCS emergency permit please quote:

- Vessel Name
- ECDIS User Permit Number
- Required ENC(s)

These permits can be transmitted direct to the vessel by email wherever possible or by simply reading the characters out over the telephone or radio.

Support Hours: 0600-2200 Monday -Friday

Telephone: +44 (0)1823 484444

Email: customerservices@ukho.gov.uk

Contact: UKHO Customer Services

Web: <https://www.admiralty.co.uk/>

Feedback

We hope this User Guide assists you in using the ADMIRALTY Vector Chart Service with this system. If you have any feedback on the content of this particular guide, or the online FAQs, please forward your comments to your ADMIRALTY Chart Agent or directly to UKHO Customer Services.

About us

The United Kingdom Hydrographic Office is a leading provider of global marine geospatial data.

We help to inform maritime decision-making for navigation, infrastructure development and the management of marine resources.

Serving users worldwide

Our world-leading location based information is available through ADMIRALTY Maritime Data Solutions to users worldwide.

For more information, contact our global network of ADMIRALTY Chart Agents. Alternatively, contact our customer service team.



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Find out more about our market-leading
ADMIRALTY Maritime Products & Services:

admiralty.co.uk    