



AVCS

ADMIRALTY
Vector Chart Service

Using the ADMIRALTY Vector Chart Service with SAM ECDIS

This guide is based on the SAM ECDISPILOT Basic Version 1.0.11.12



United Kingdom
Hydrographic Office

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1 Introduction

- > The purpose of this guide is to provide equipment-specific information to assist users in managing their AVCS ENC holdings.
- > This guide should be used in conjunction with the AVCS User Guide, as well as the ECDIS Operators Manual or other documentation as supplied by the equipment manufacturer.
- > The actual instructions and screenshots in this guide are based on the version of the SAM ECDIS installed in the UKHO as detailed on the front cover. There may be minor differences between certain models (i.e. screen layouts may vary).

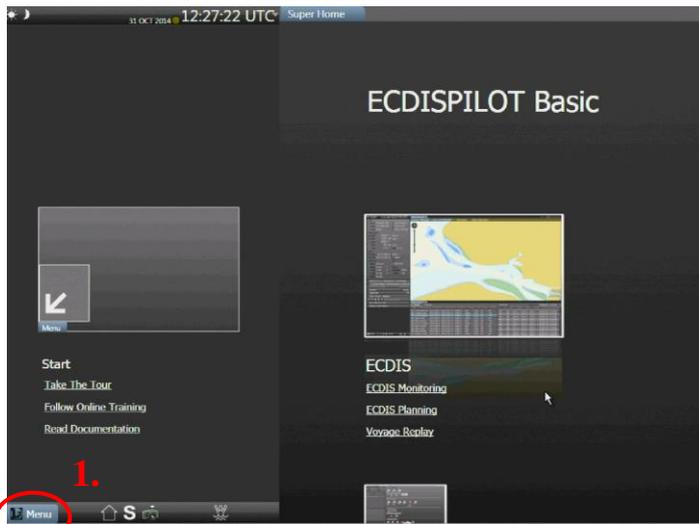
2 Data Management

All ENC Data Management takes place within the Maintenance section of the SAM Electronics ECDISPILOT. This can be accessed via the Super Home screen

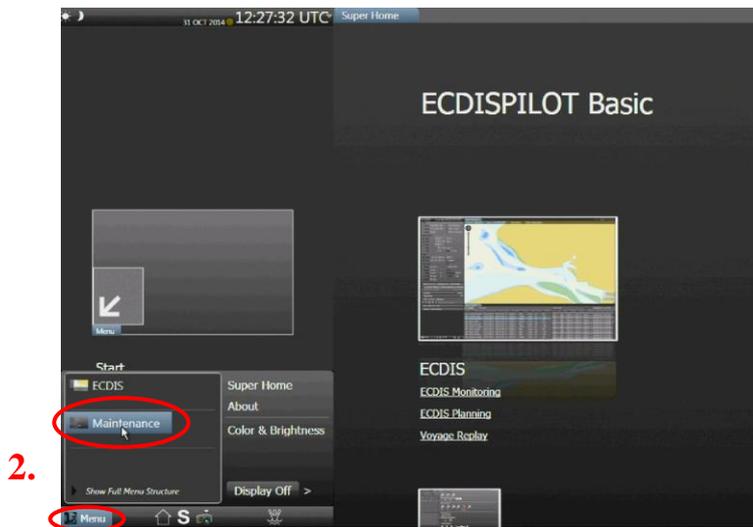
The 'Chart Maintenance' utility is accessed by clicking on the 'Tree' Menu within the SAM ChartPilot 1100 ECDIS.

Note: All chart licensing and data management operations are carried out in the 'Maintenance' section of the SAM Electronics ECDISPILOT.

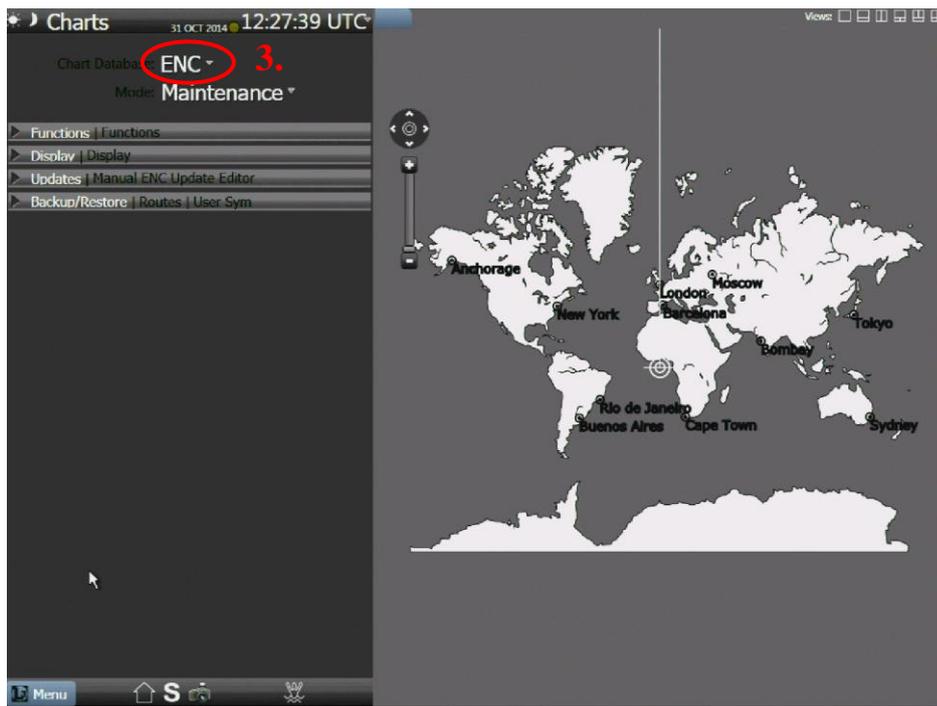
1. From the 'Super Home' screen select the 'Start Menu'



2. From the 'Start' menu select 'Maintenance'



3. Ensure functions are carried out with the 'Chart Database' set to 'ENC'



3 The User Permit Number (UPN)

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.

It is not possible to extract the User Permit Number from the ECDIS. The User Permit Number will be provided with the ECDIS at the time of installation and can be referred to in the ECDIS Documentation Supplied by SAM Electronics.

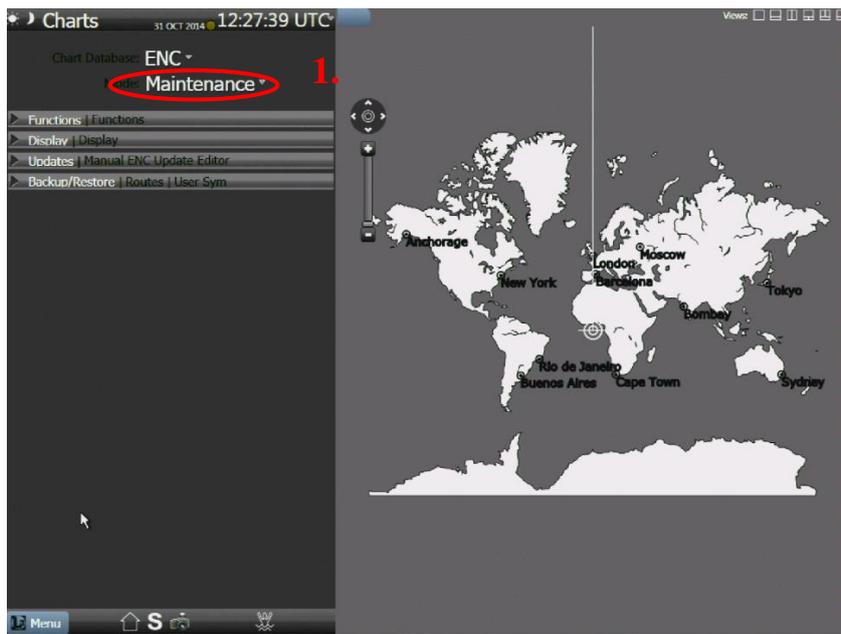
4 Deleting ENC Data

New AVCS customers who had previously subscribed to other ENC services are **strongly** recommended to remove (purge) all ENC Permits and ENCs from the system before installing AVCS. For more information please refer to the 'Data Cleansing' section in the AVCS User Guide.

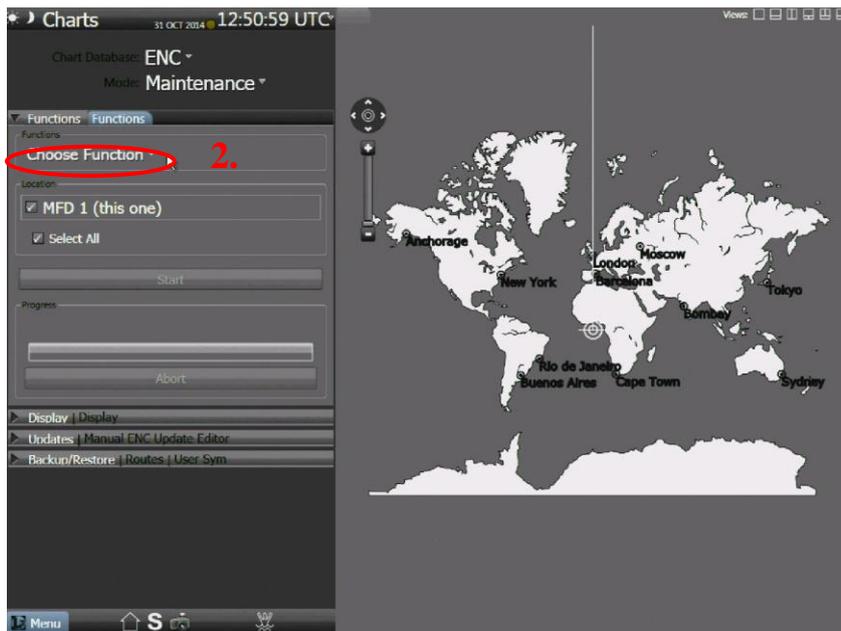
To delete ENC data from the system:

Maintenance → ENC → Maintenance → Delete Cells → Start → Select All → Continue → OK

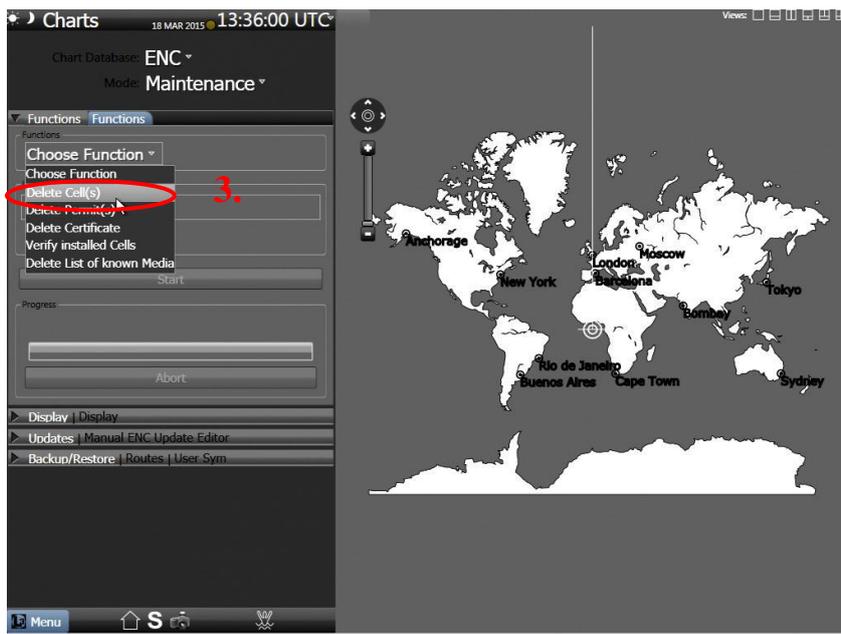
1. From the 'Maintenance' menu, select 'Maintenance' from the 'Modes' menu



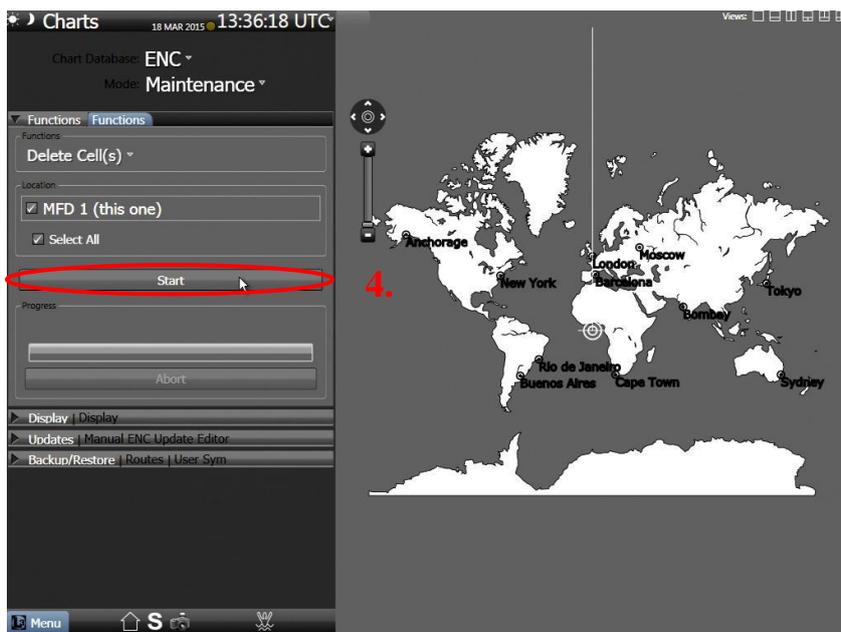
2. Select the 'Functions' tab



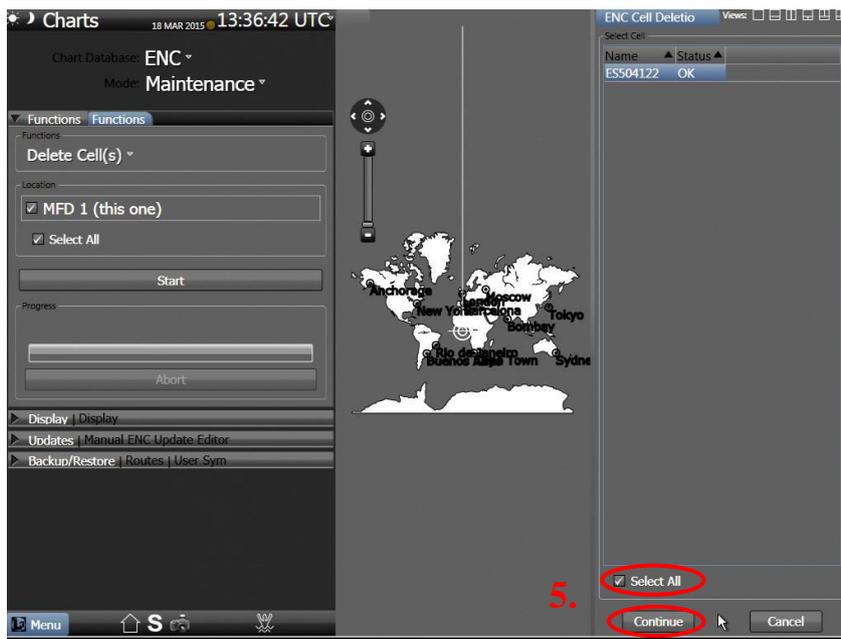
3. Select the *'Delete Cell(s)'* option from the *'Choose Function'* dropdown menu



4. Click *'Start'*

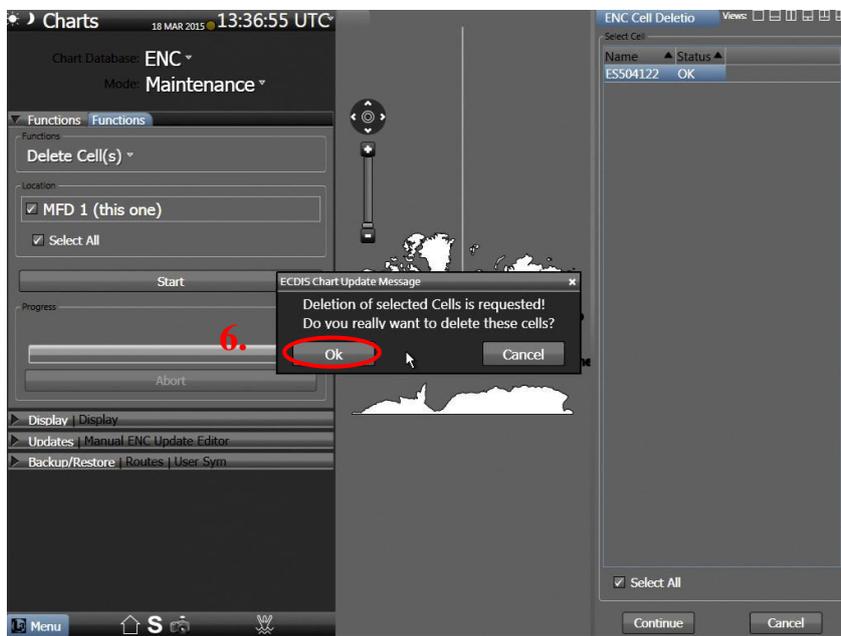


5. Click 'Select All' in the 'ENC Cells Delete' window and select 'Continue'



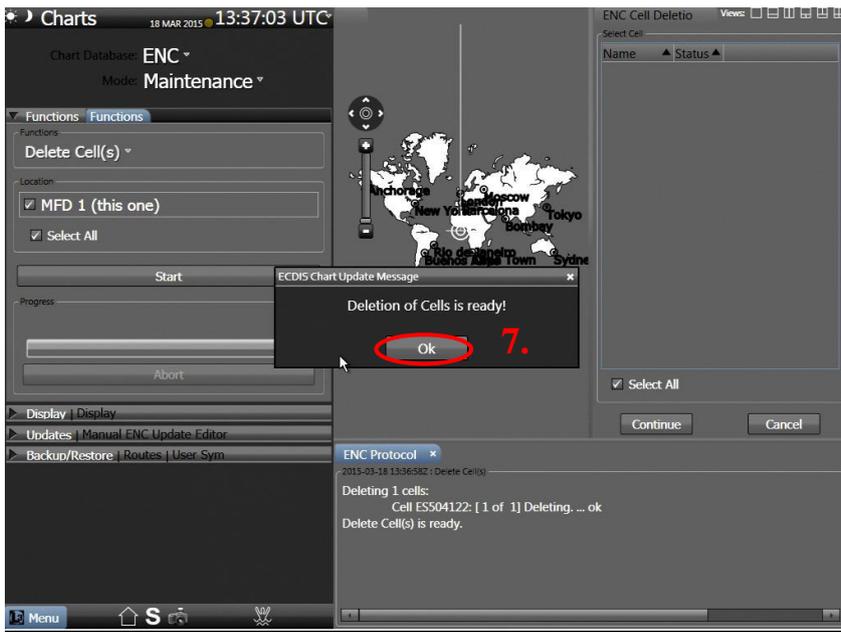
Note: Cells can be deleted individually by selecting them from the list of installed cells and selecting 'Continue'. This can be done individually or for groups of cells.

6. Select 'OK'

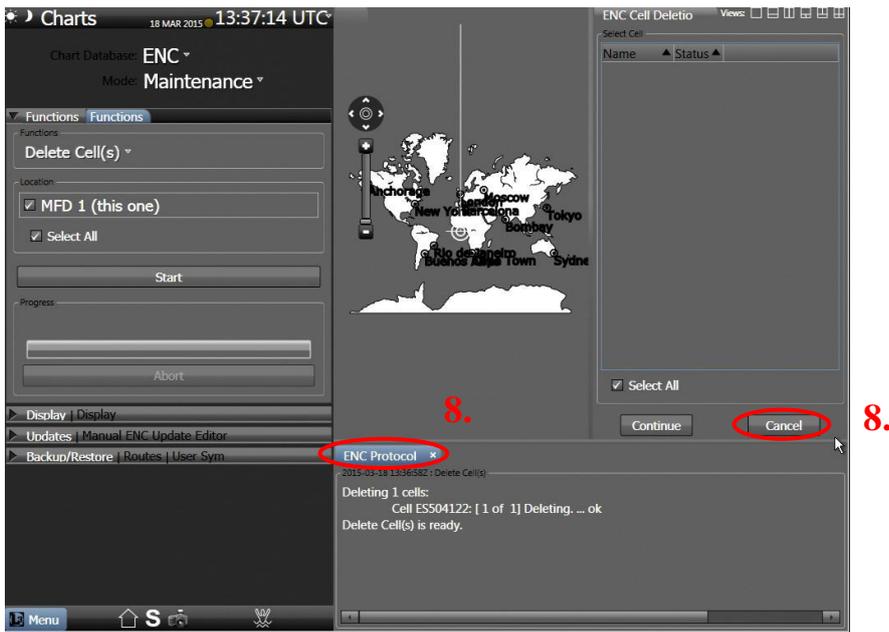


The selected ENC's will then be removed from the ECDIS

7. Confirmation will appear, select 'OK'



8. Select 'Cancel' and close the 'ENC Protocol' window



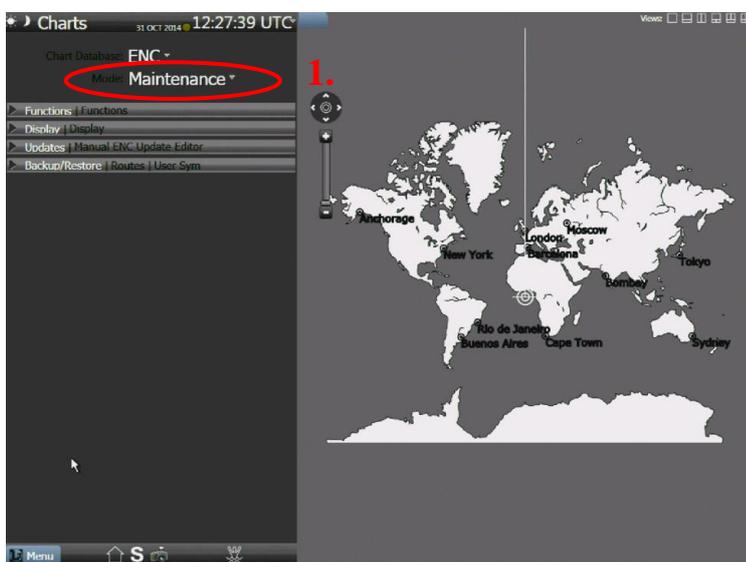
5 Deleting ENC Permits

If the user has previously subscribed to another ENC service it is advised to remove these ENC permits from the ECDIS system before use. The user must select the cells for which permits are to be deleted. In most instances this will simply involve selecting all cells. In certain circumstances it may be required to remove permits for individual cells, in this case simply select the cells for which permits need to be deleted.

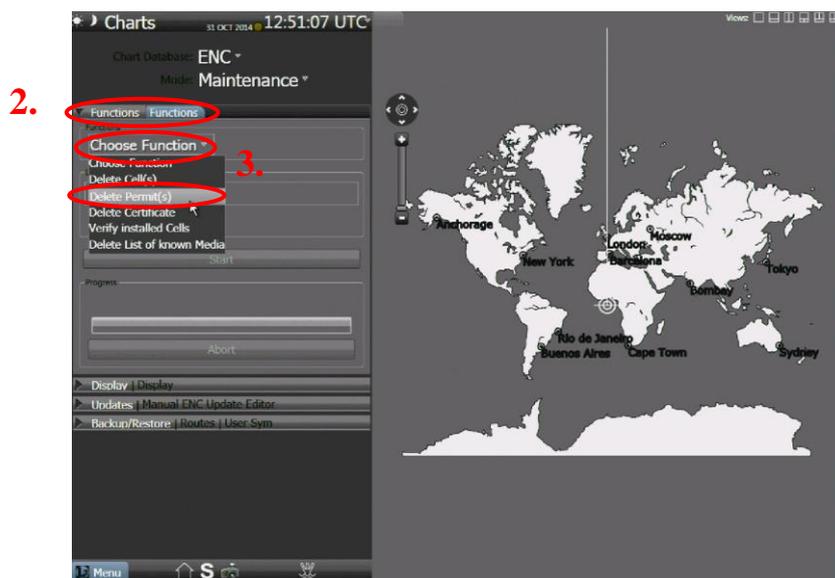
To delete ENC permits:

Maintenance → *ENC* → *Maintenance* → *Functions* → *Delete Permit(s)* → *Start* → *OK*

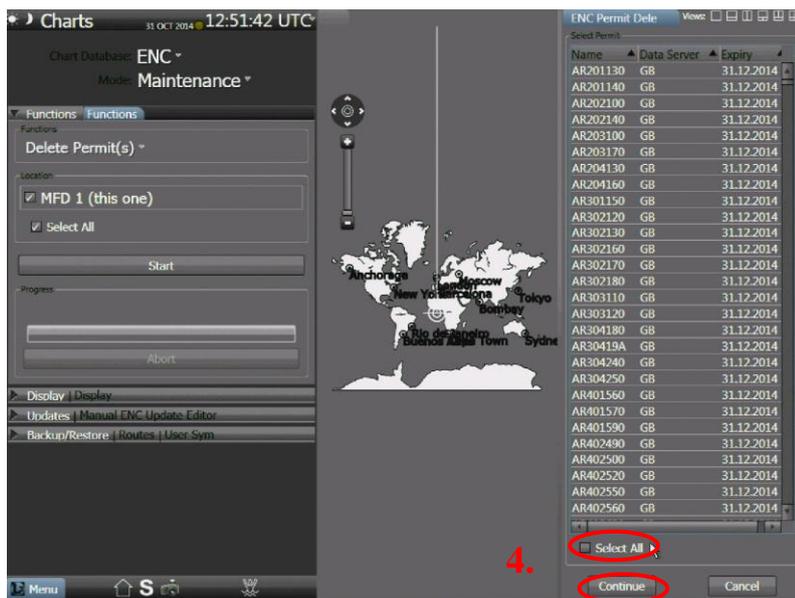
1. From the 'Maintenance' menu make sure 'ENC' is selected from the 'Chart Database' menu and select 'Maintenance' from the 'Mode' drop down menu.



2. Select the 'Functions' tab
3. Select 'Delete Permit(s)' option from the 'Choose Function' drop down menu

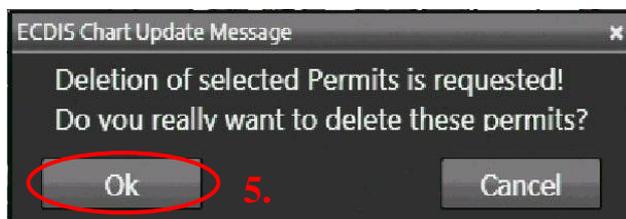


4. Click 'Select All' in the 'ENC Permits Delete' window and select 'Continue'

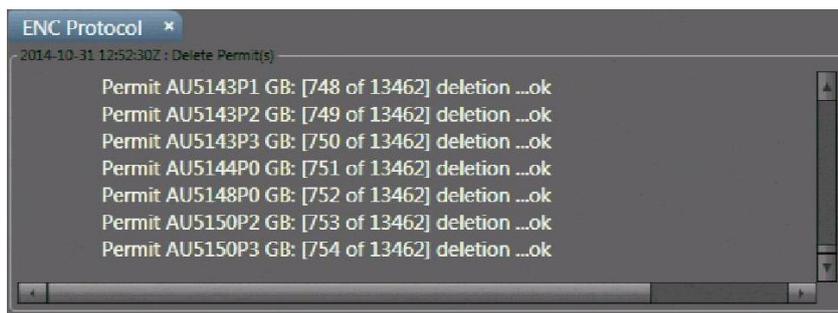


Note: Permits can be deleted individually by selecting them from the list of installed permits and selecting 'Continue'. This can be done for individual permits or for groups of permits.

5. Select 'OK' to delete selected permits



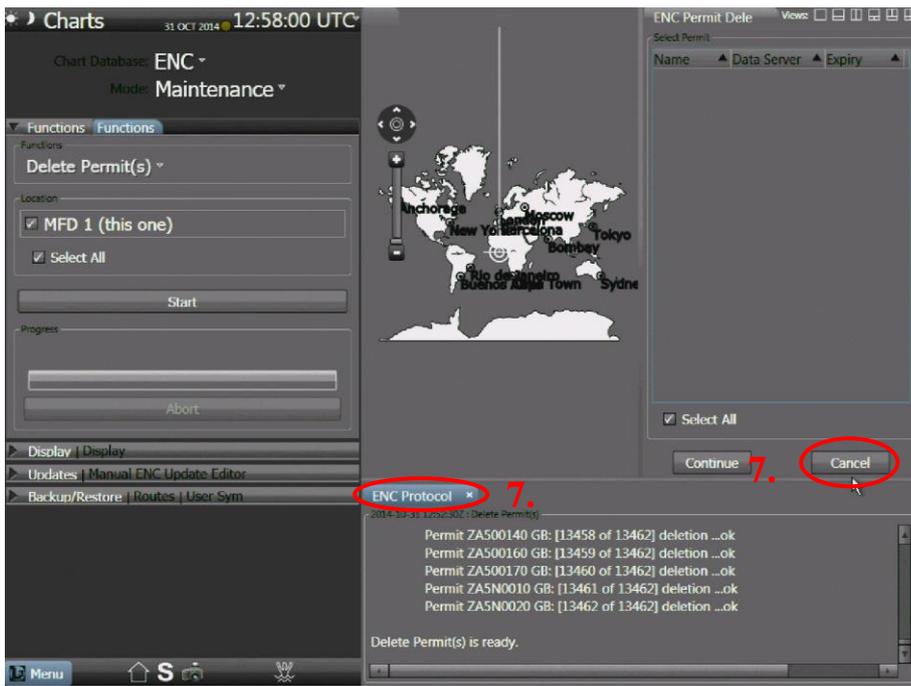
The deletion of permits will commence and the progress can be followed in the 'ENC Protocol' window.



6. Select 'OK'



7. Select 'Cancel' and close the 'ENC Protocol' window



6 The Public Key

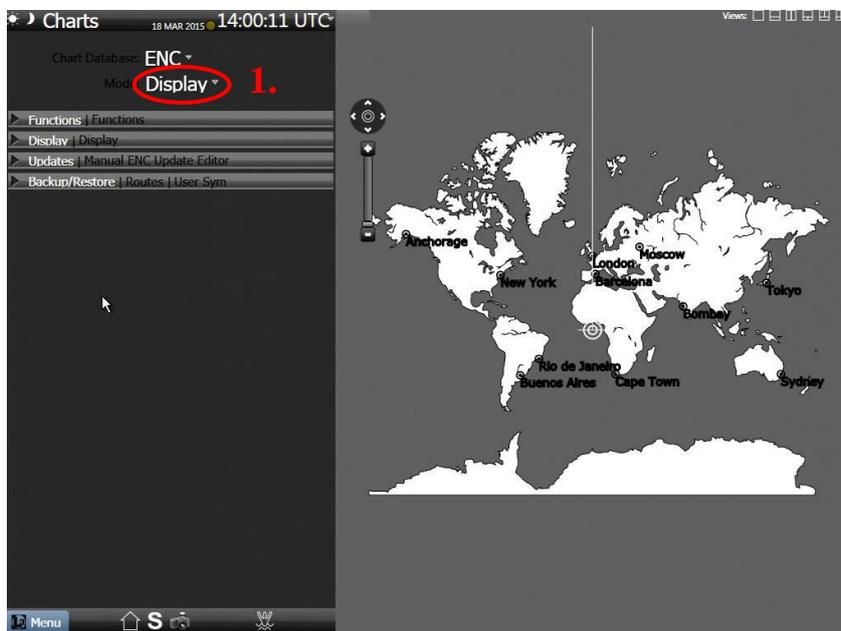
The Admiralty Vector Chart Service currently uses the IHO.CRT, issued by the International Hydrographic Organisation, to authenticate its AVCS ENC's. The IHO Public Key is included in all AVCS media.

The IHO.CRT is hard coded into the SAM ECDISPILOT and cannot be deleted. There is therefore no need to install the IHO.CRT into the SAM ECDISPILOT.

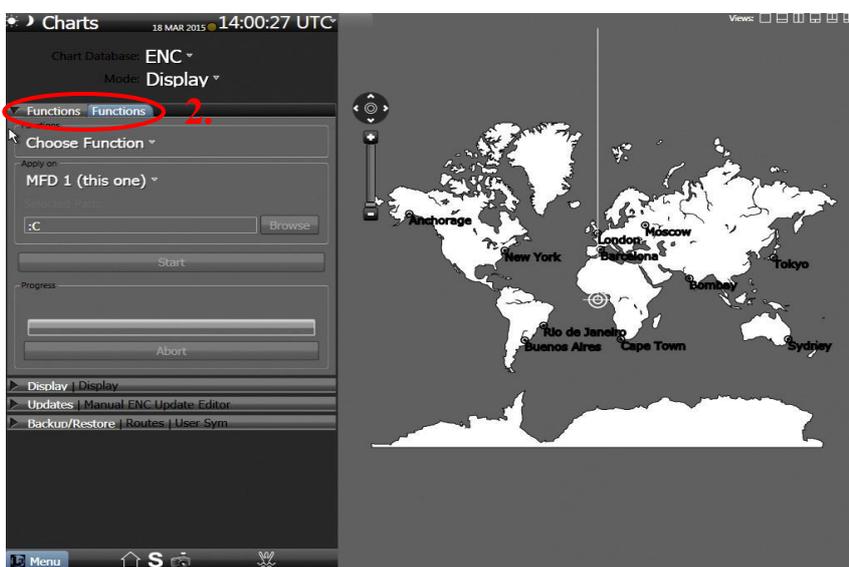
To view the installed Public Key follow the instructions below:

Maintenance → *ENC* → *Display* → *Show List of Installed Certificates* → *Start*

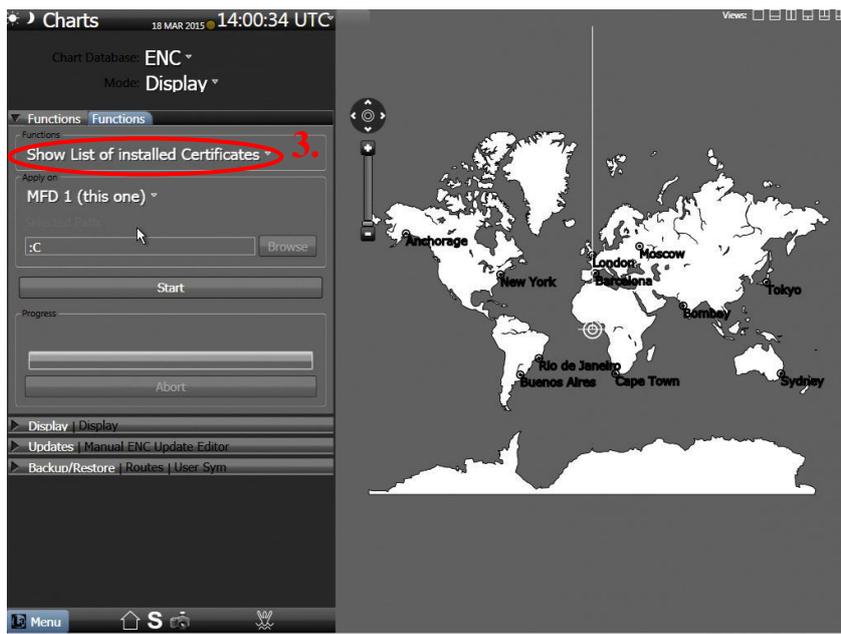
1. From the 'Maintenance' menu make sure 'ENC' is selected from the 'Chart Database' menu and select 'Display' from the 'Modes' menu



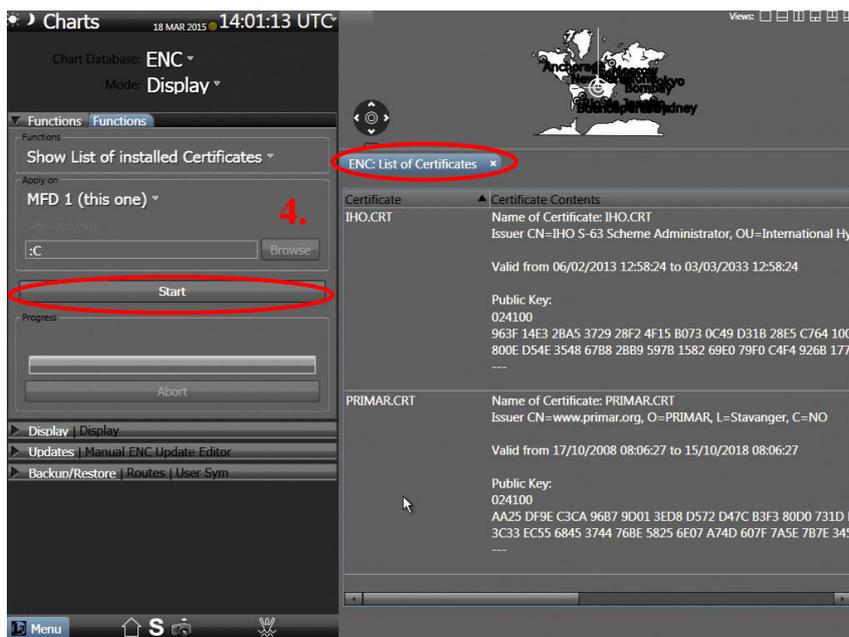
2. Select the 'Functions' tab



3. Select 'Show List of installed Certificates'



4. Select 'Start', the list of installed Certificates will be displayed in the 'ENC List of Certificates' window.

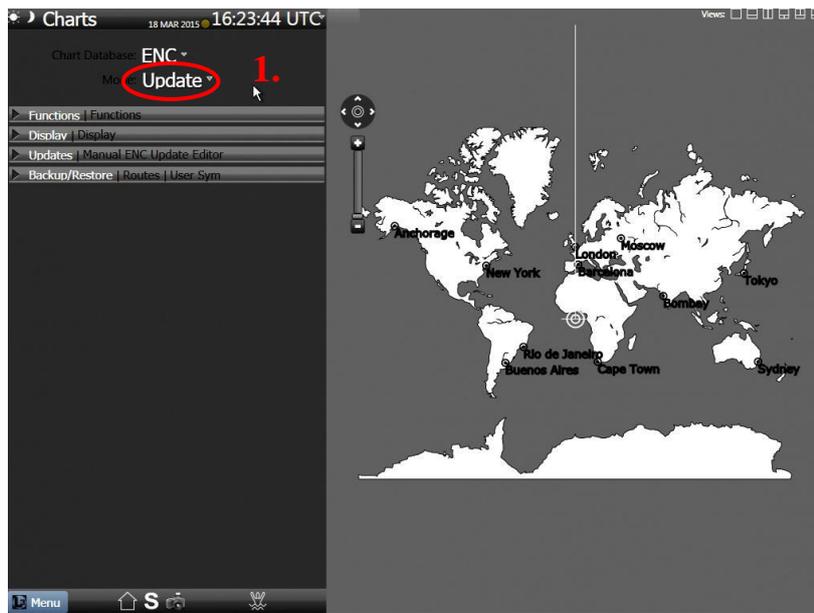


7 Installing ENC Permits

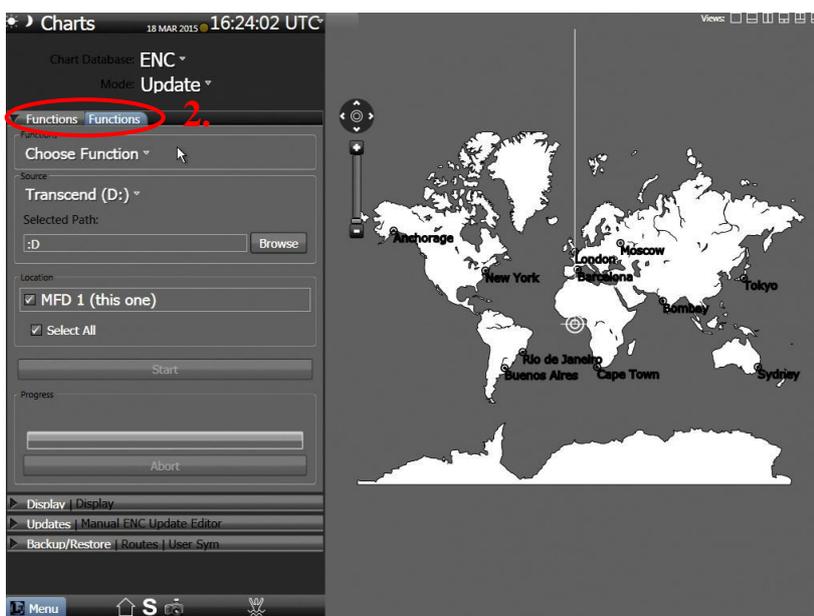
To install AVCS ENC Permits:

Maintenance → *ENC* → *Update* → *Install & Update Permit Database* → *Browse to permit location* → *Data Set* → *Install & Update Permit Database* → *Continue*

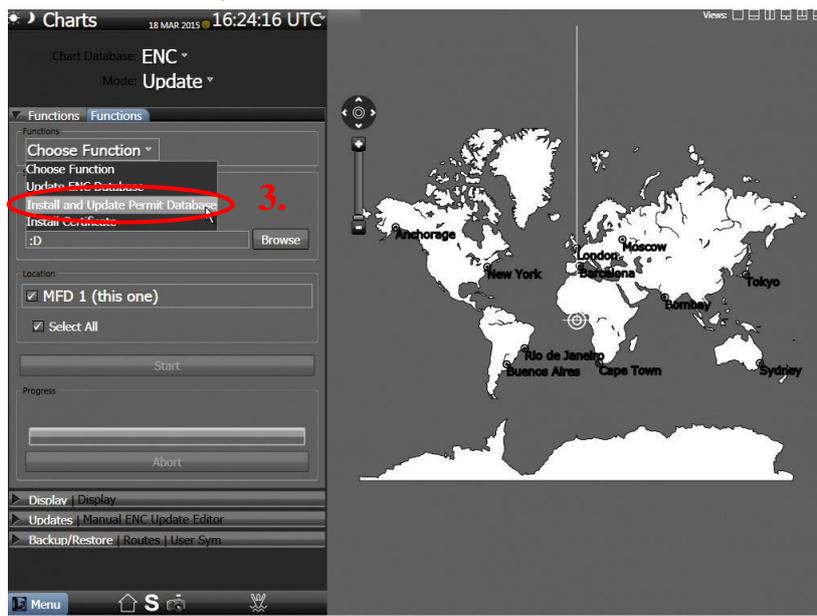
1. From the 'Maintenance' menu make sure 'ENC' is selected and select 'Update' from the 'Modes' menu



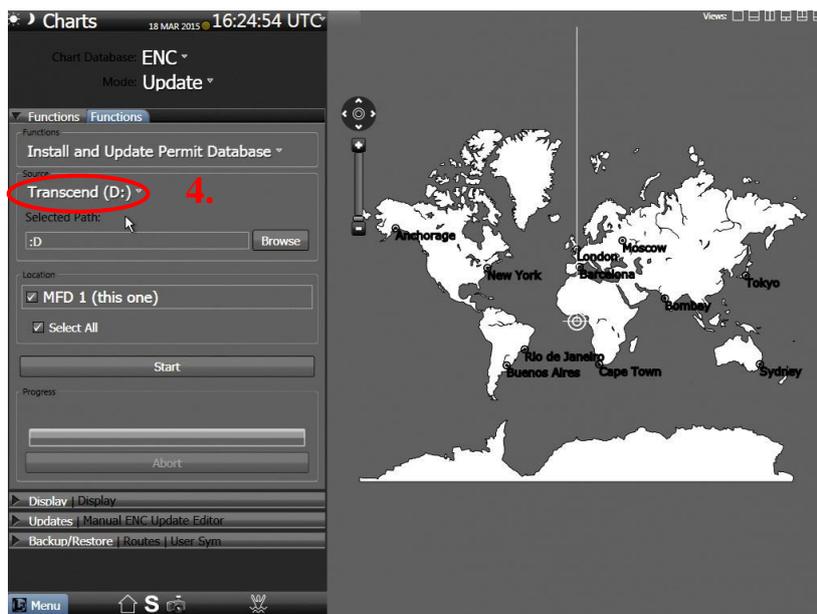
2. Select 'Functions' tab



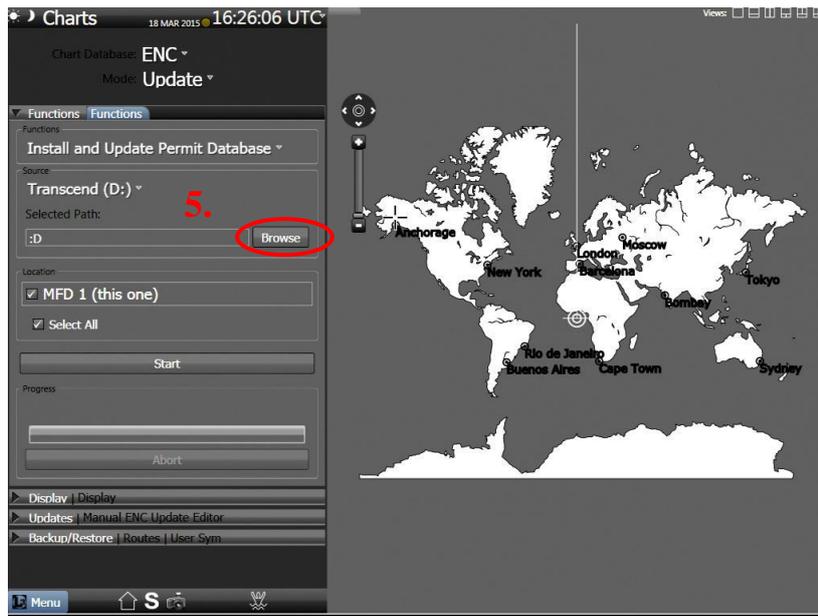
3. Select 'Install & Update Permit Database'



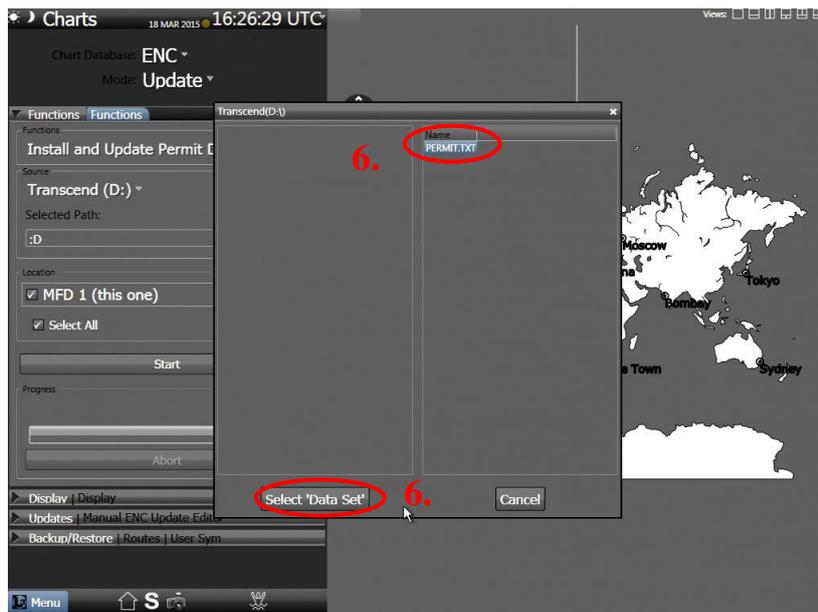
4. Select the appropriate 'Drive'



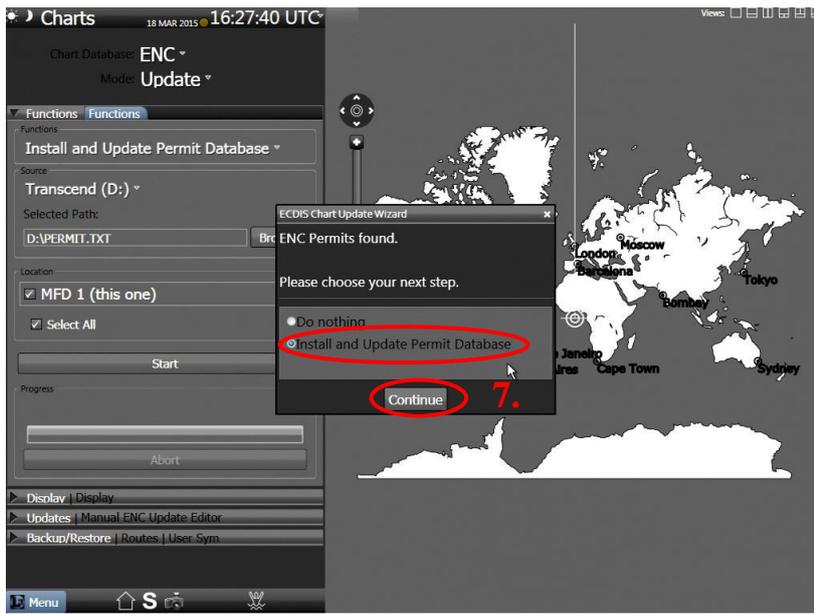
5. Select 'Browse'



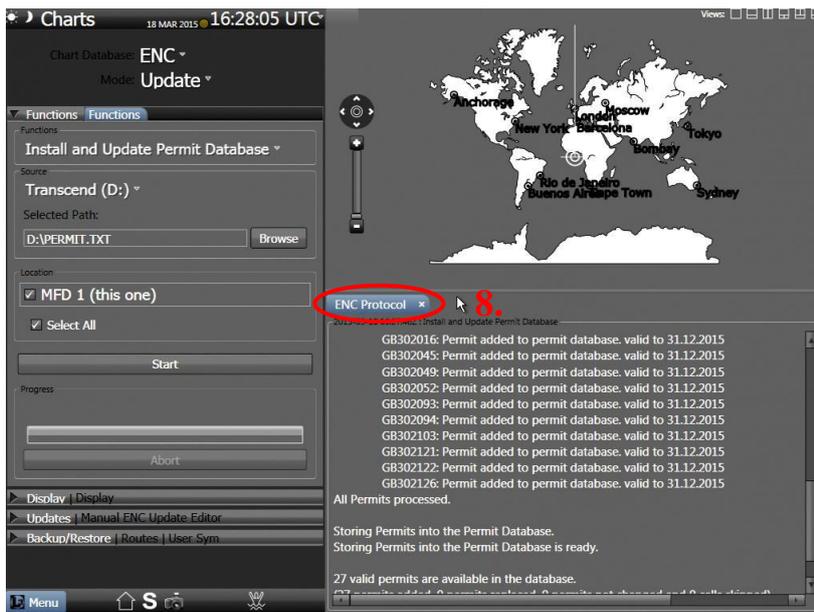
6. Locate and select the 'PERMIT.TXT' file for installation and select 'Select 'Data Set''



7. Select 'Install & Update Permit Database' and select 'Continue'



8. The Permits will then install. Once complete close the 'ENC Protocol Window'



8 Installing AVCS Base CDs

There are currently 9 AVCS Base CDs but this number will grow as more ENCs 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 ENCs. Reference to the **Schedule A** can avoid the unnecessary loading of some CDs and save the user time.

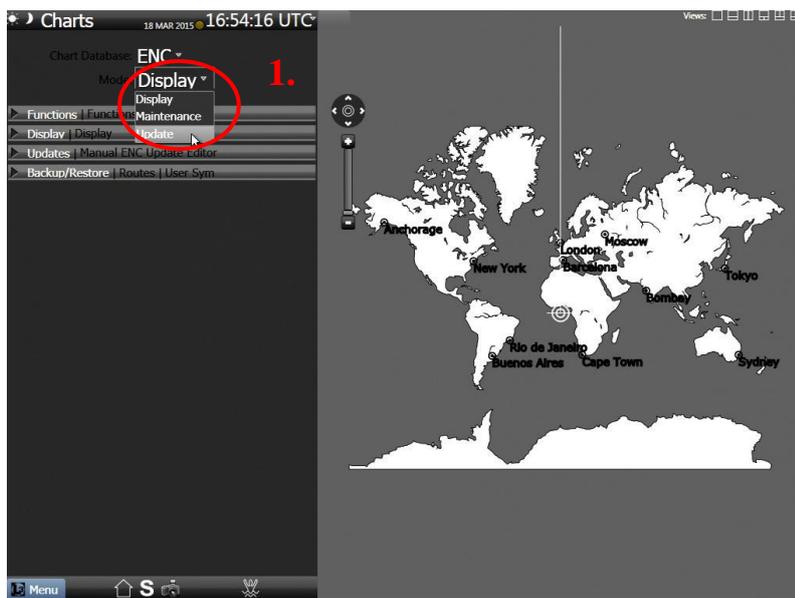
The process described here should be used in almost all circumstances as it will automatically select data to be loaded according to the permit file installed by the user.

Note: It is acknowledged that SAM ECDIS are designed to operate in an integrated way whereby Chartpilots and Multipilots may be linked. For more detail regarding the chart installation process it is recommended that users refer to their Operators Manual.

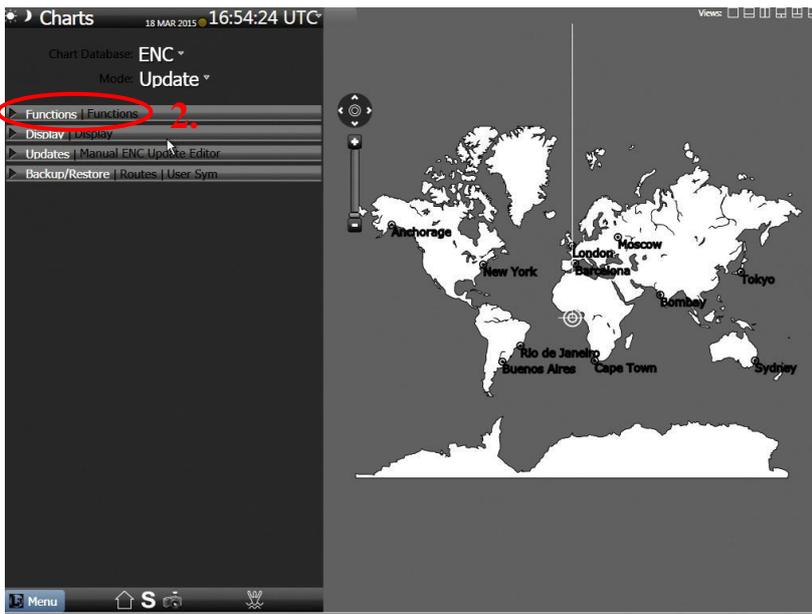
Note: Ensure the latest permits have been installed before attempting to install any data

Chart Maintenance → Transfer → OK → Add All → OK → OK

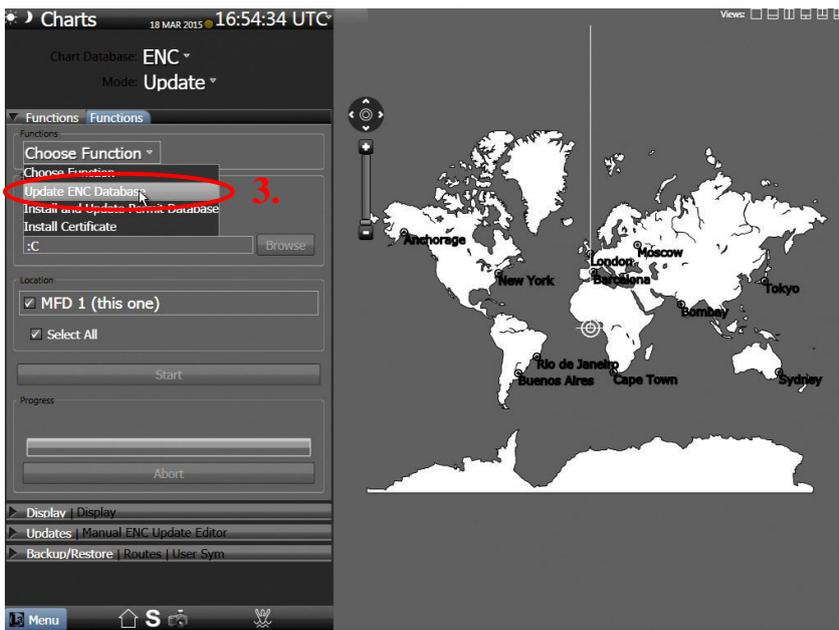
1. Select 'Maintenance' menu and make sure 'ENC' is selected from the 'Chart Database' and select 'Update' from the 'Modes' menu



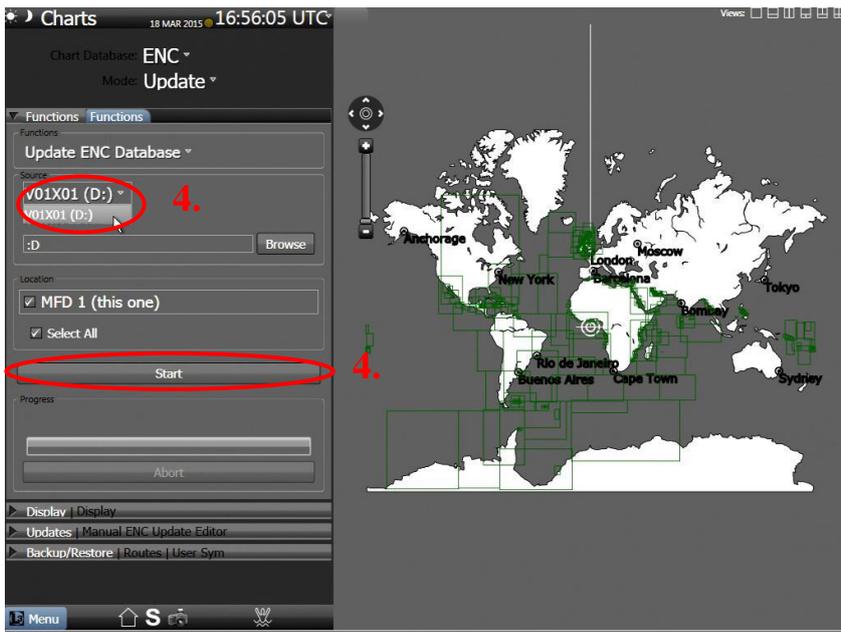
2. Select 'Functions' tab



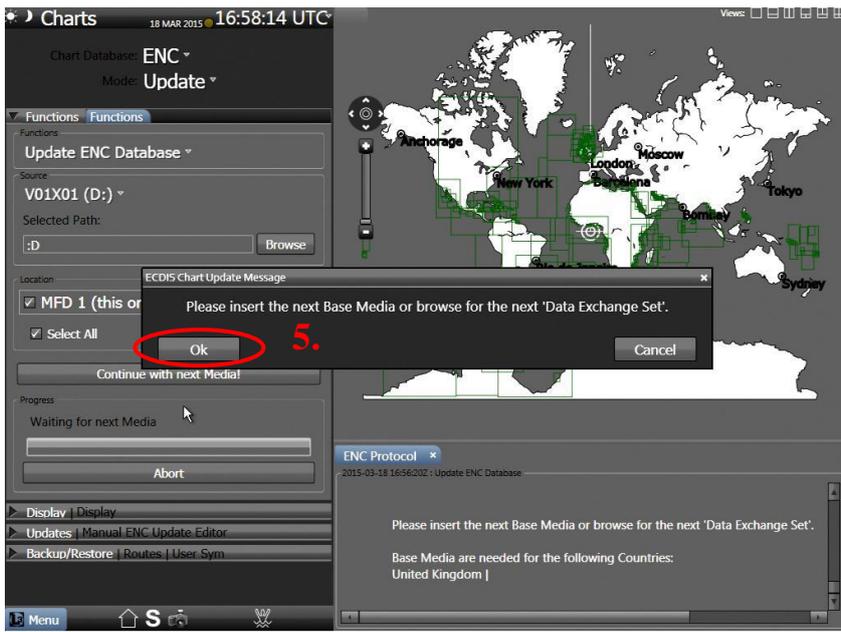
3. Select the 'Update ENC Database' option from the 'Choose Function' drop down menu



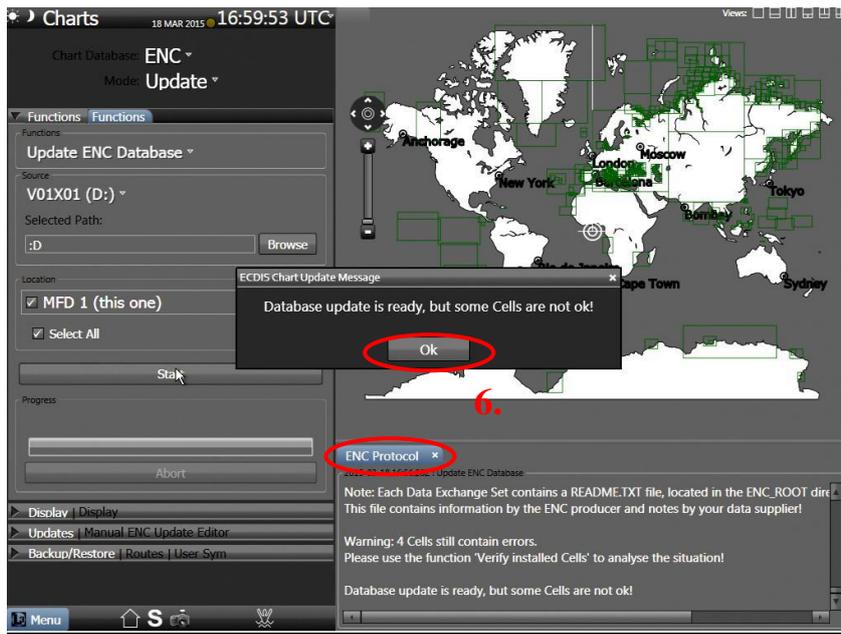
- Confirm that the 'CD Drive' is selected and select 'Start'



- The cells will start to install. Insert additional AVCS Base Media as required and select 'OK'



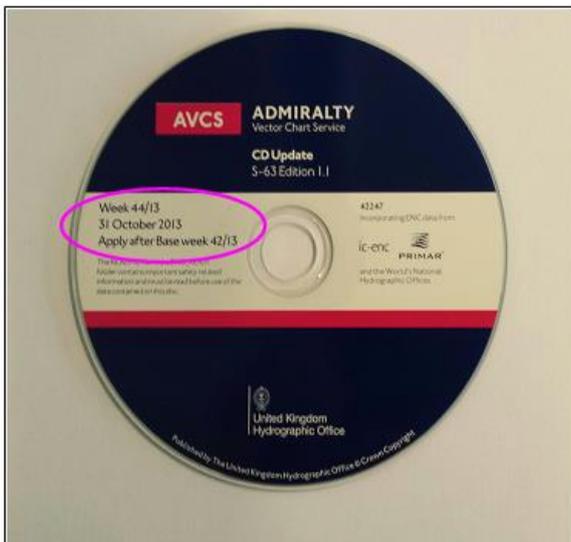
6. Once all cells have been installed select 'OK' and close the 'ENC Protocol Window'



Note: Make sure that all the required AVCS Base CDs have been inserted and the import operations completed before installing the latest Update CD. Updates cannot be applied unless the ENC base file is present in the system database.

9 Installing AVCS Update CD

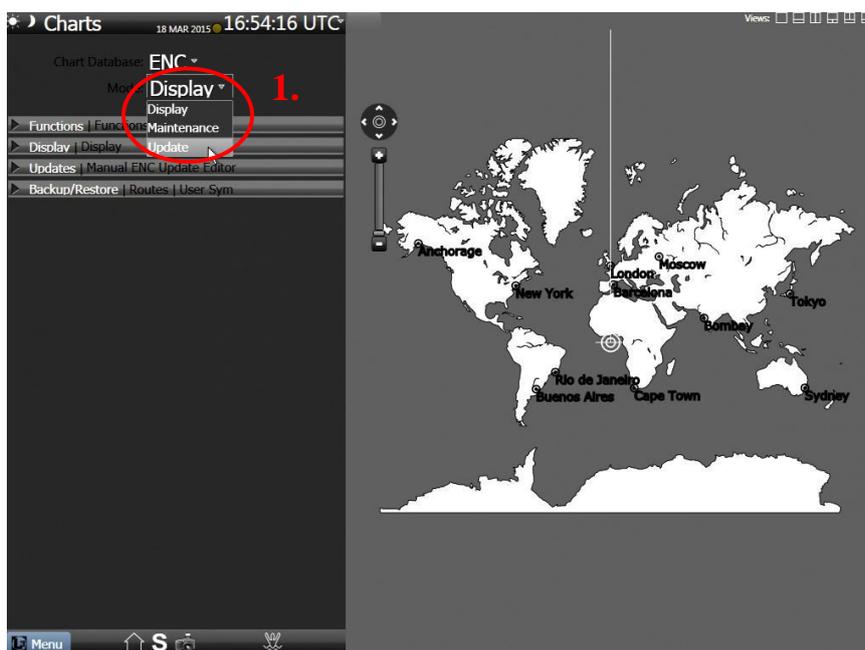
The Weekly AVCS Update CD must only be inserted into the 'CD Drive' after having installed the latest required Base CD(s).



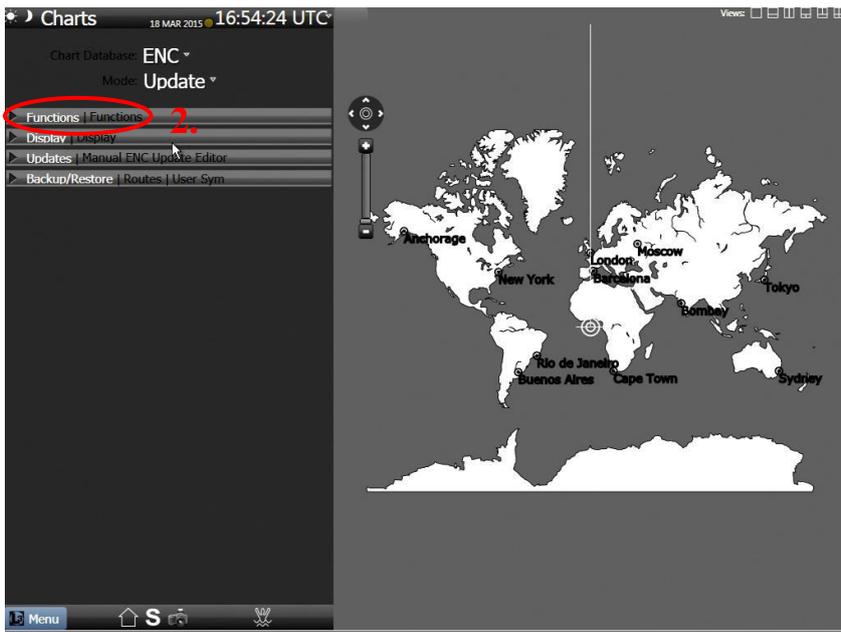
Note: Base CDs are re-issued about every 6 to 8 weeks. The AVCS update disc will indicate which Base disc week must have been installed. It is important that users do not attempt to load an Update CD that is not consistent with the Base CDs.

Maintenance → Update → Update ENC → 'CD Drive' → Start

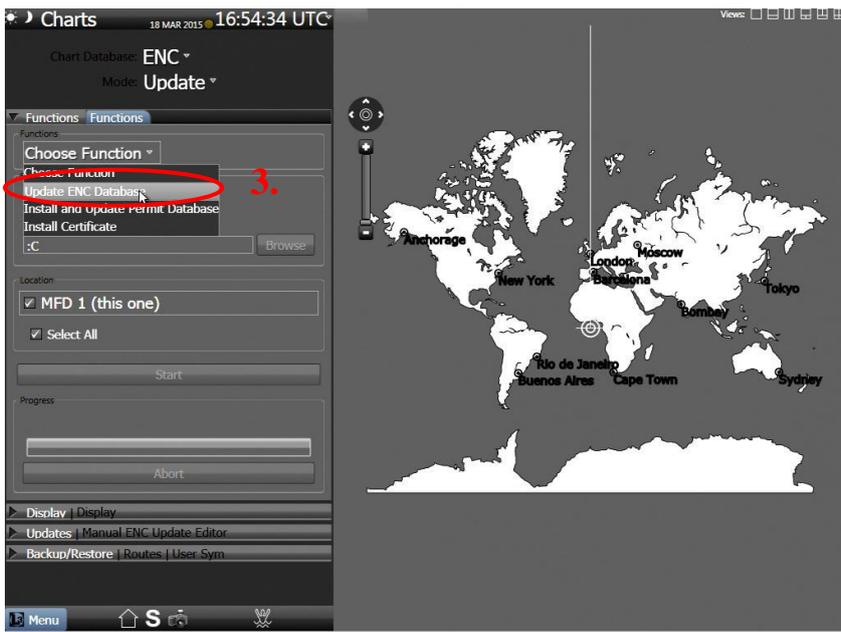
1. Select 'Maintenance' menu and make sure 'ENC' is selected from the 'Chart Database' and select 'Update' from the 'Modes' menu



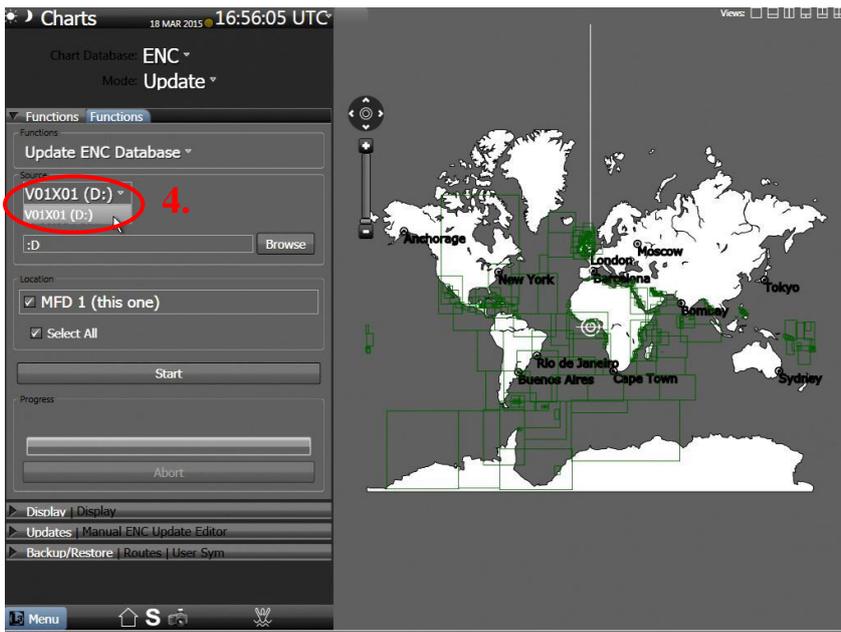
2. Select 'Functions' tab



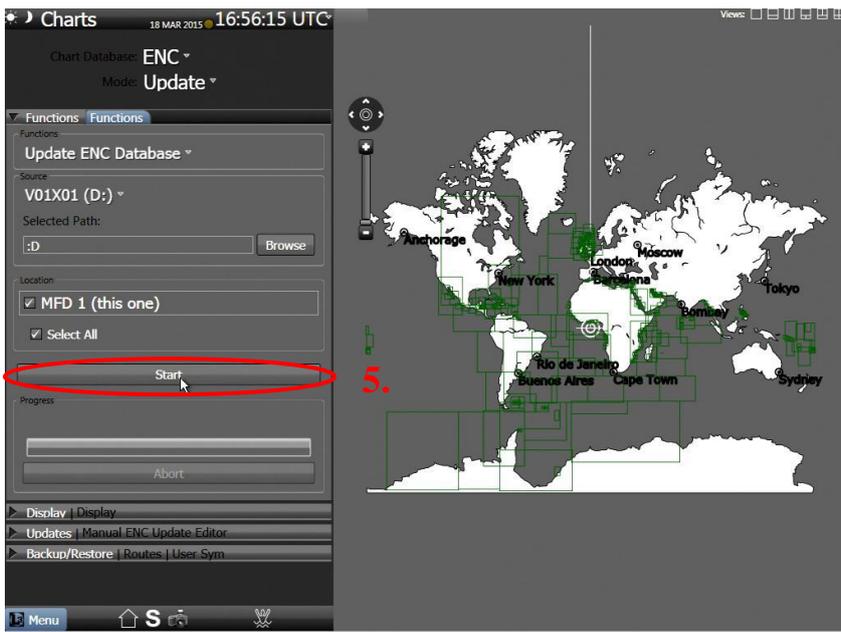
3. Select the 'Update ENC Database' option from the 'Choose Function' drop down menu



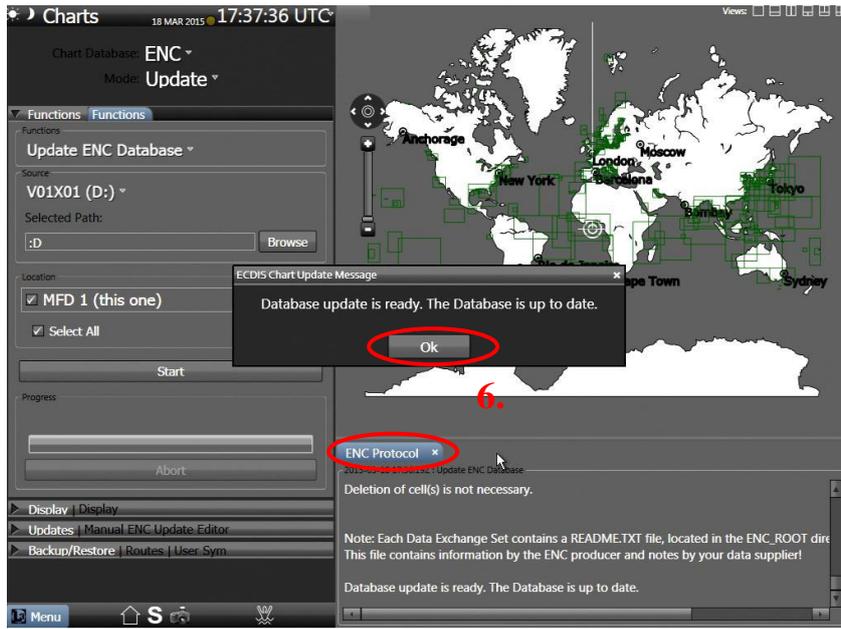
4. Confirm that the 'CD Drive' is selected



5. Select 'Start'



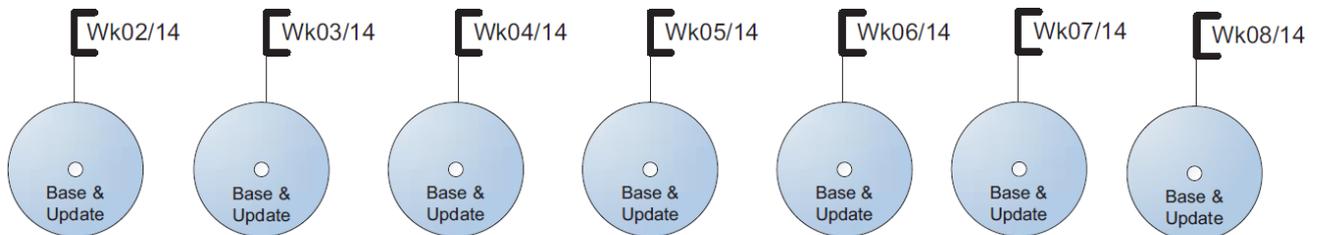
6. The updates will start to install. Once all updates have been installed click 'OK' and close the 'ENC Protocol Window'



10 Installing AVCS DVD

When using the AVCS DVD Service only one disc needs to be installed because it contains all the base ENC's and updates up to the date of its issue.

DVD Service



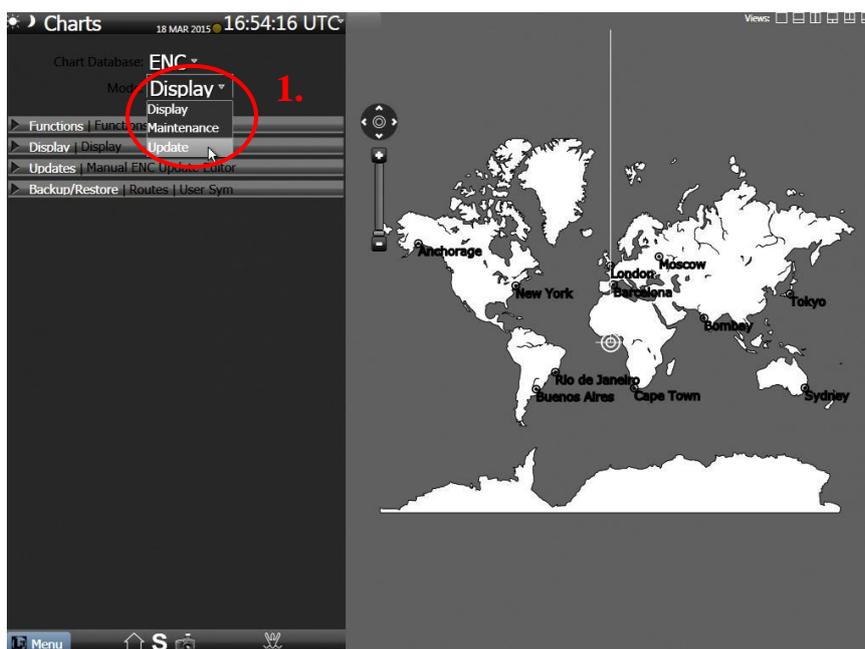
DVD contains Base and Update data for complete AVCS service each week

Week numbers are given as examples only and do not represent the data issued by the UKHO

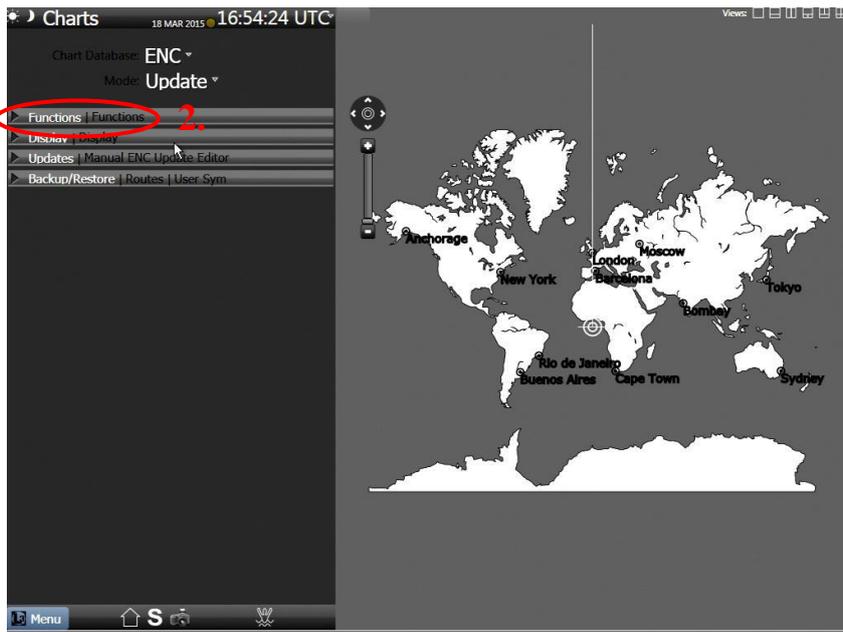
Note: The loading process within the ECDIS will be very similar to that required for the AVCS Update Procedure however there are some minor differences which are detailed below. Screenshots are included where the process differs to that of the Updating Procedure (Section 9)

Maintenance → Update → Update ENC Database → DVD Drive → Start → OK

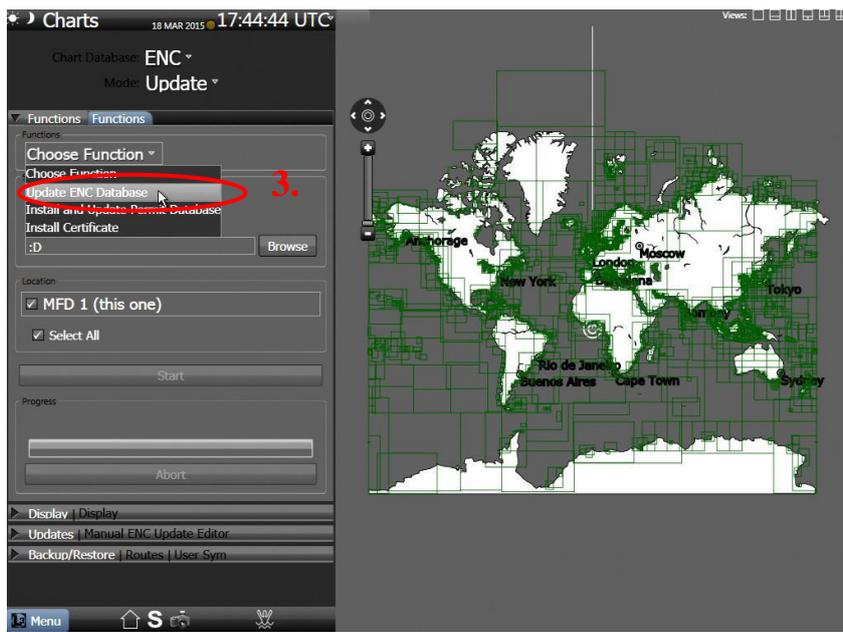
1. Select 'Maintenance' menu and make sure 'ENC' is selected from the 'Chart Database' and select 'Update' from the 'Modes' menu



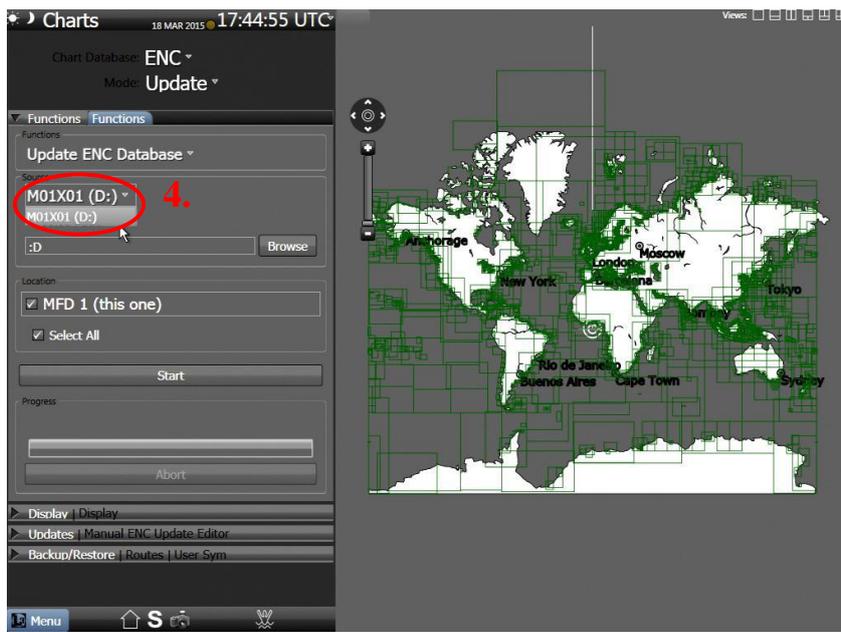
2. Select 'Functions' tab



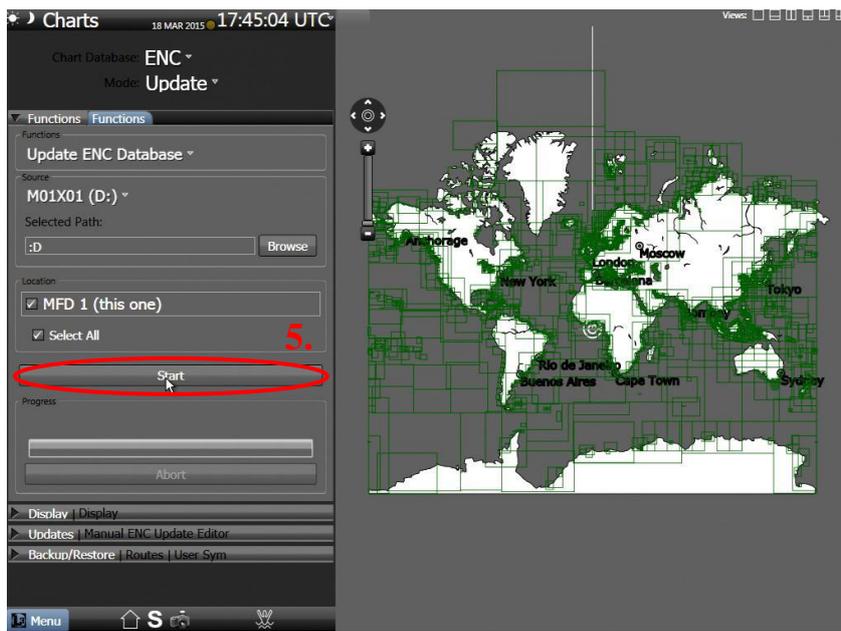
3. Select the 'Update ENC Database' option from the 'Choose Function' drop down menu



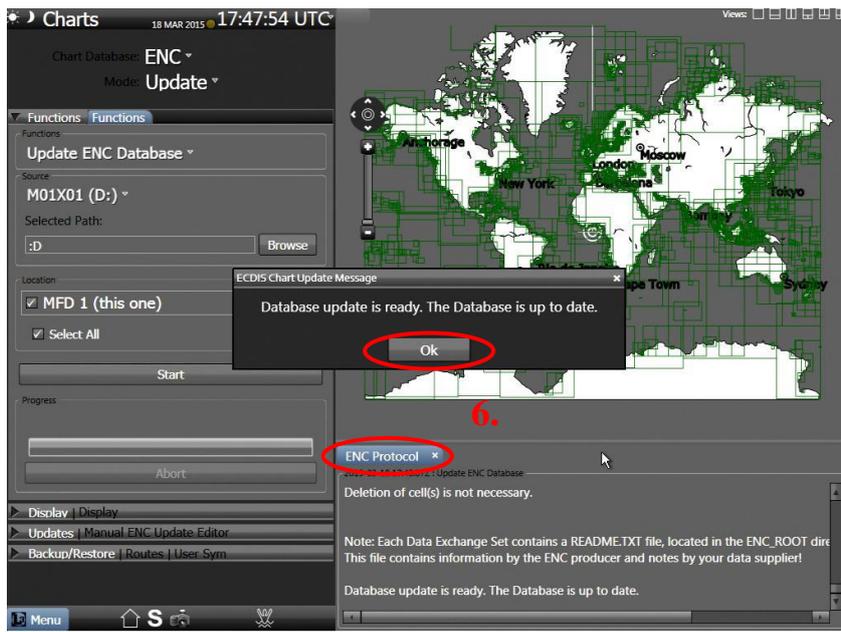
4. Confirm that the 'CD Drive' is selected



5. Select 'Start'



6. Once all cells have been installed select 'OK' and close the 'ENC Protocol Window'



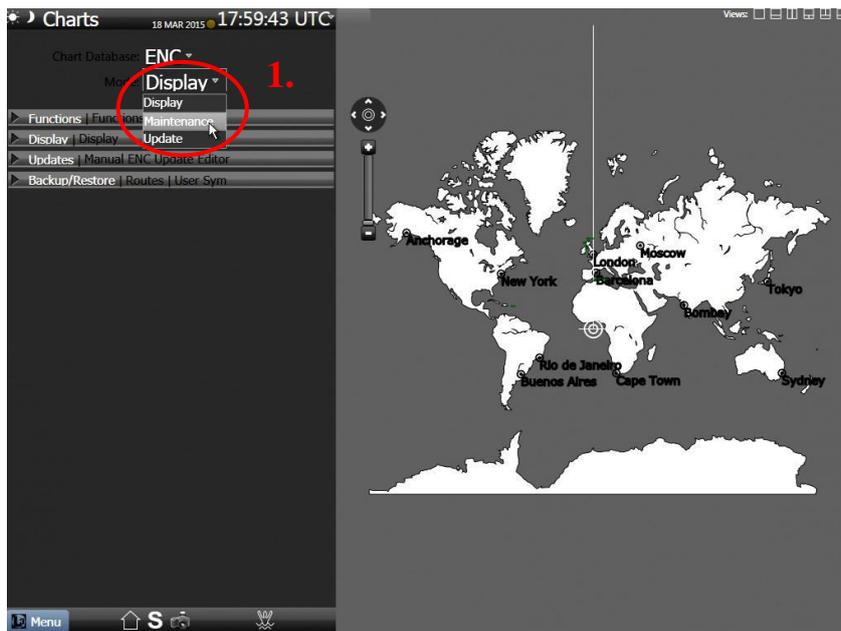
11 Systems Checks

The system provides the user with the capability to check the status of the installed AVCS cells.

To do this follow the below instructions:

Maintenance → *ENC* → *Maintenance* → *Verify Installed Cells* → *Start*

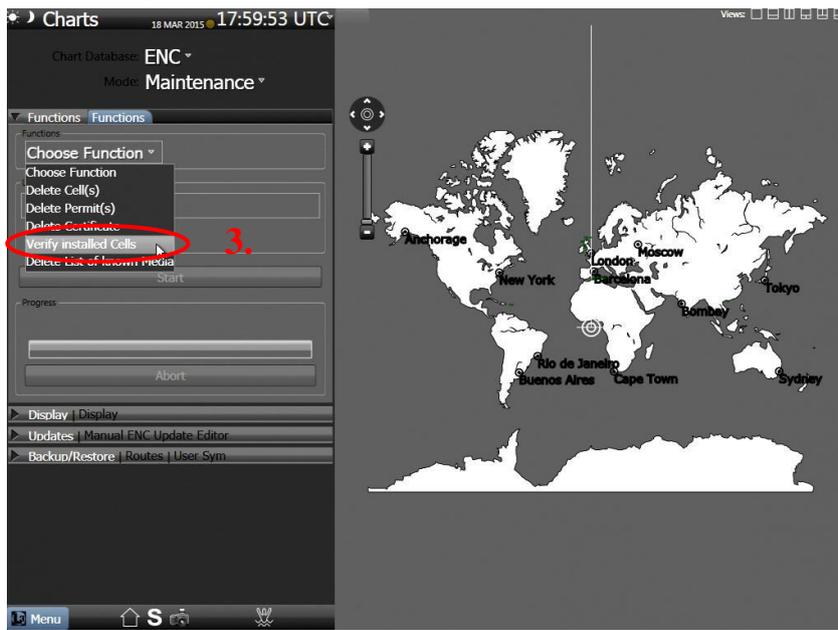
1. From the 'Maintenance' menu make sure 'ENC' is selected from the 'Chart Database' menu and select 'Maintenance' from the 'Mode' menu



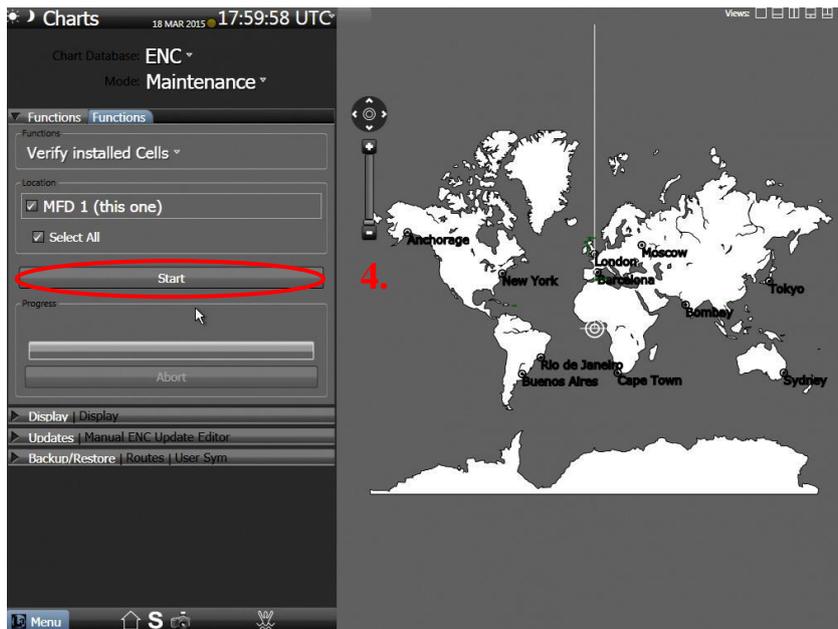
2. Select the 'Functions' tab



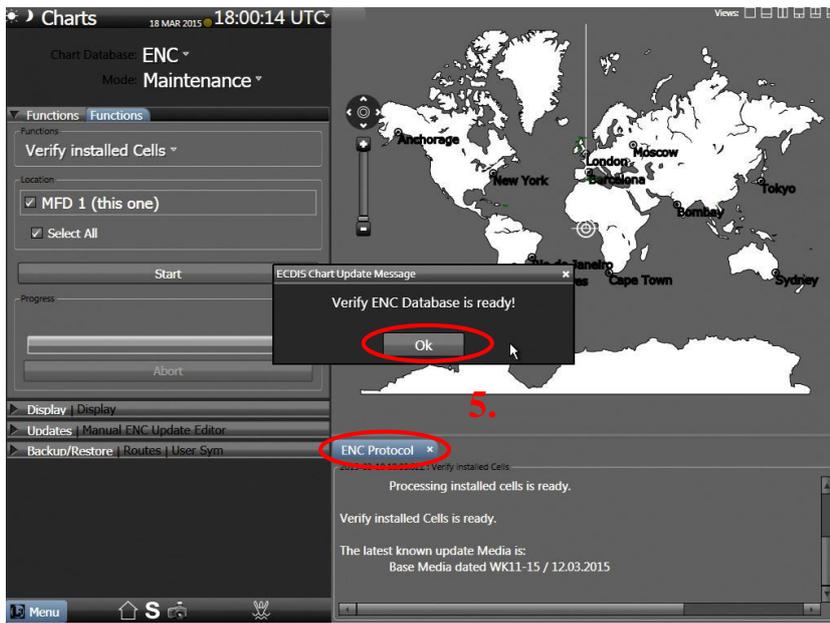
3. Select 'Verify installed Cells' from the 'Choose Function' menu



4. Select 'Start'



5. The ECDIS will now check the installed cells against the latest known media. Once completed click 'OK'. Any error message or out of date cells will display in the 'ENC Protocol window'.



12 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.ukho.gov.uk/Support>

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 your ECDIS Manufacturer or ADMIRALTY Chart Agent, 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' or USB port.	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
- > ECDIS/Software Manufacturer
- > Details of error message – Including 'SSE' error code
- > Screen shot(s) of error
- > Details of Base Discs used (date)
- > Details of Update CD used (date)
- > Details of Permits used (date)
- > 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 the AVCS emergency permit, please quote:

- > Vessel Name
- > ECDIS User Permit Number
- > Required ENCs

The permits can be sent directly to the vessel by email wherever possible, by fax, or simply by reading the characters out over the telephone or radio.

Please contact UKHO Customer Services using the contact details below:

Support Hours: 24/7	Telephone:	+44 (0)1823 723366
	Facsimile:	+44 (0)1823 330561
	Email:	customerservices@ukho.gov.uk
	Contact:	UKHO Customer Services
	Web:	http://www.ukho.gov.uk/Support

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.



**United Kingdom
Hydrographic Office**

The United Kingdom Hydrographic Office,
Admiralty Way, Taunton, Somerset,
TA1 2DN, United Kingdom
Telephone +44 (0)1823 723366
Fax +44 (0)1823 330561

customerservices@ukho.gov.uk

www.admiralty.co.uk

