

**AVCS**

**ADMIRALTY**  
Vector Chart Service

# Using the ADMIRALTY Vector Chart Service with the SAM NACOS Platinum.

This guide is based on SAM ECDIS PILOT Version 2.1.02.16

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

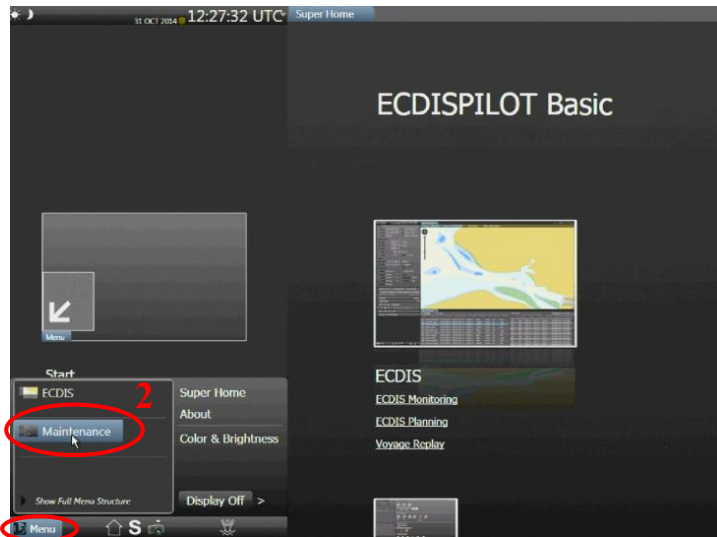
The 'Chart Maintenance' utility is accessed by clicking on the 'Tree' Menu within the SAM ChartPilot 1100 ECDIS.

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

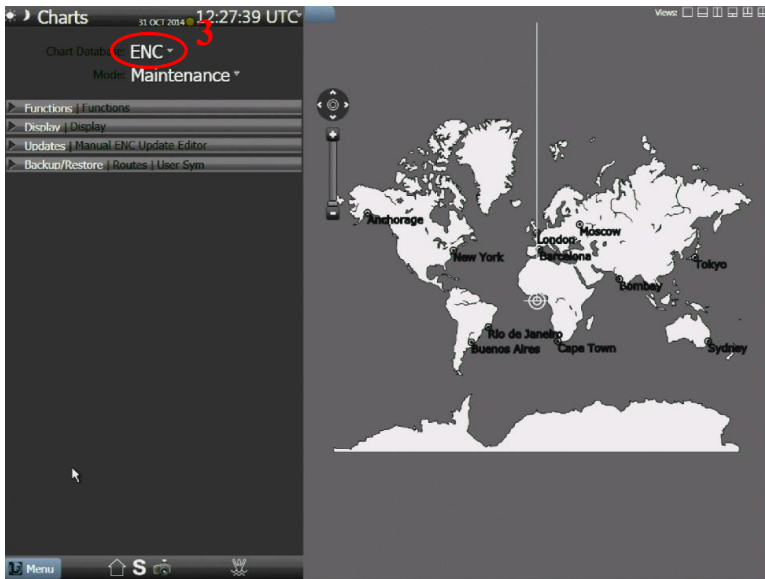
1. From the 'Super Home' screen select the 'Start Menu'



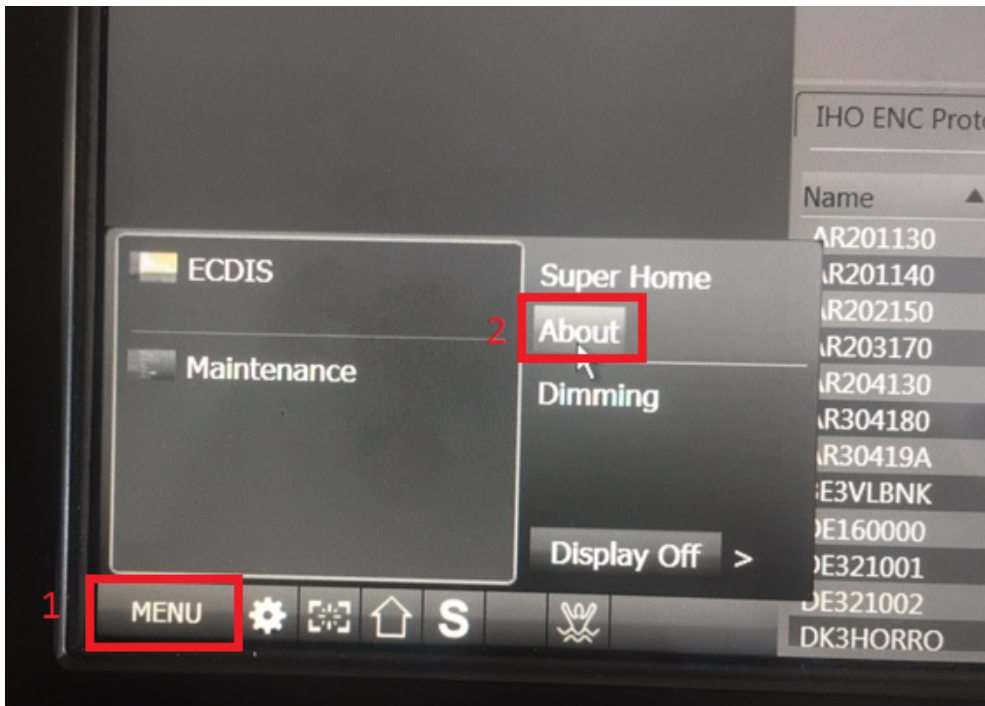
2. From the 'Start' menu select 'Maintenance'



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

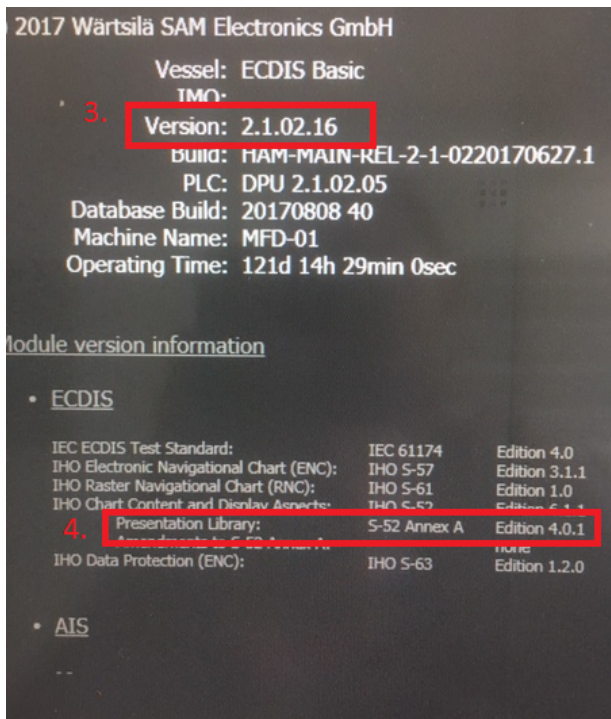


To check the ECDIS Software Version and Presentation Library:



1. Select 'Menu'.

2. Select 'About'.



3. The software version is shown here.

4. The presentation library is shown here.

## 2 The User Permit Number

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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.

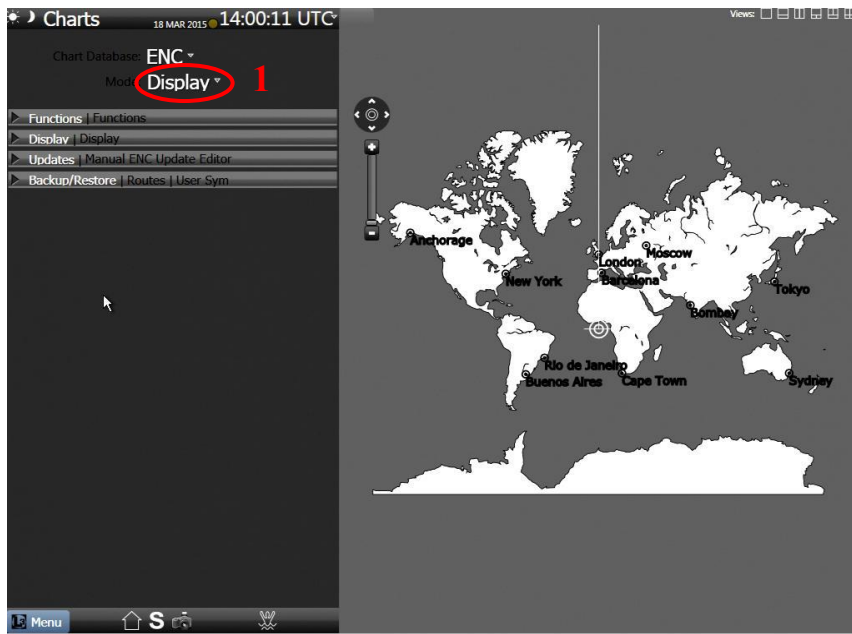
### 3 The Public Key

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.

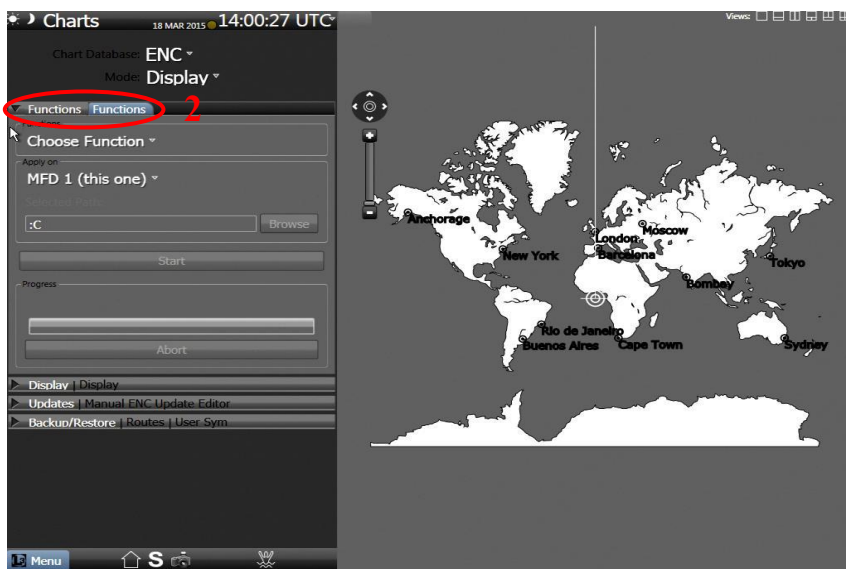
The IHO.CRT is hard coded into the SAM ECDISPILOT and cannot be deleted. There is therefore no need to install the IHO.CRT into the SAM ECDISPILOT.

To view the installed Public Key follow the instructions below:

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.

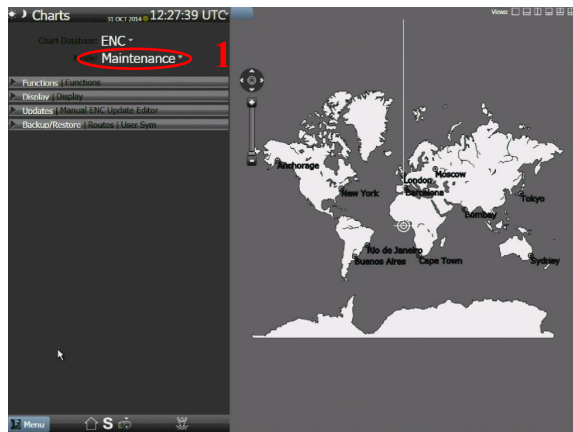


## 4 Deleting ENC Data

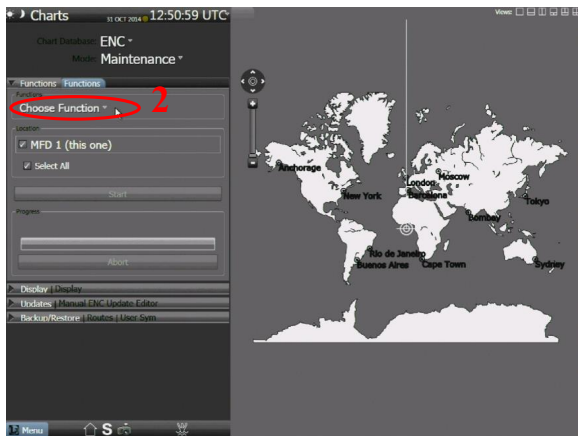
New AVCS customers who had previously subscribed to other ENC services are required to remove (purge) all ENC Permits and data from the system before installing AVCS.

To delete all ENCs data from the system:

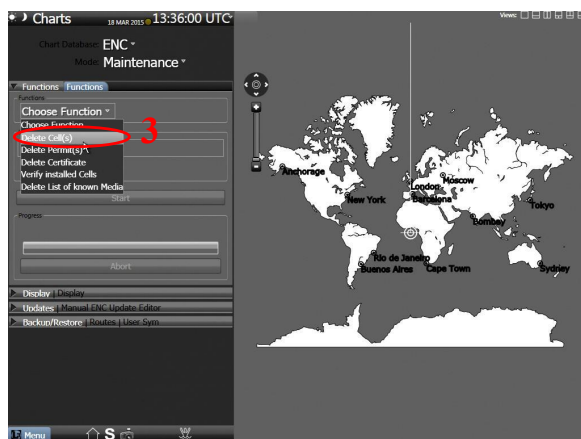
1. From the 'Maintenance' menu, select 'Maintenance' from the 'Modes' menu



2. Select the 'Functions' tab

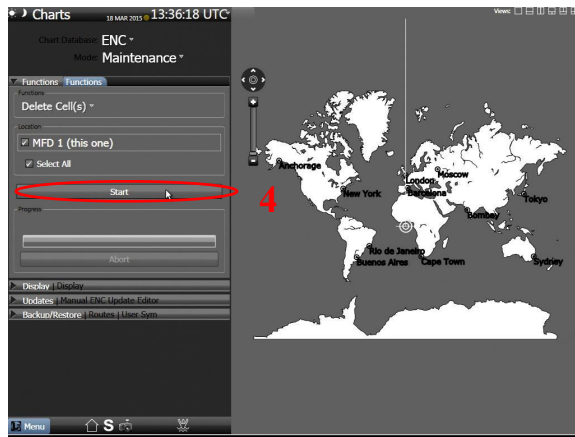


3. Select the 'Delete Cell(s)' option from the 'Choose Function' dropdown menu

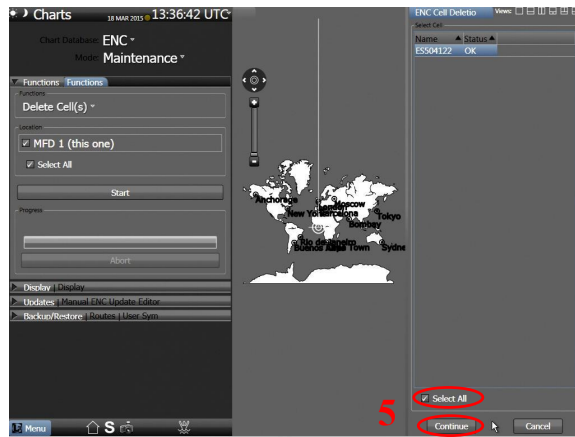




4. Click 'Start'

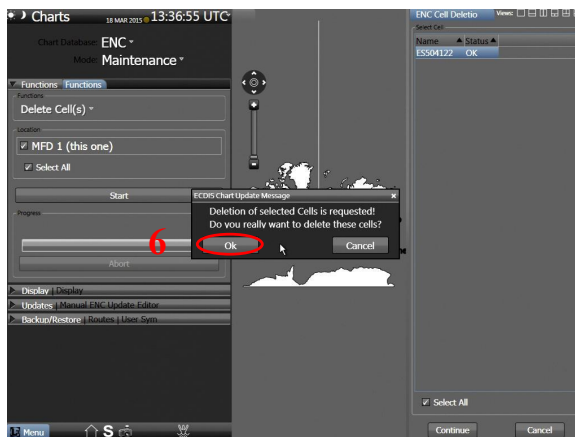


5. Click 'Select All' in the 'ENC Cells Delete' window and select 'Continue'

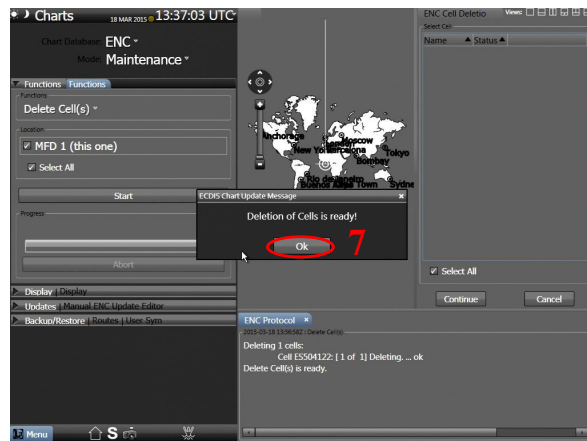


**Note:** Cells can be deleted individually by selecting them from the list of installed cells and selecting 'Continue'. This can be done individually or for groups of cells.

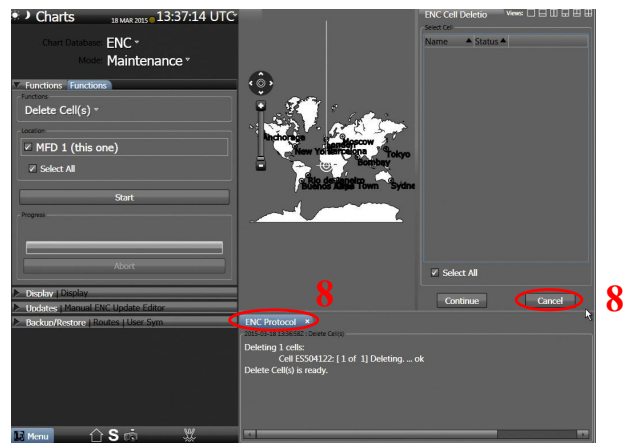
6. Select 'OK'



7. Confirmation will appear, select 'OK'



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

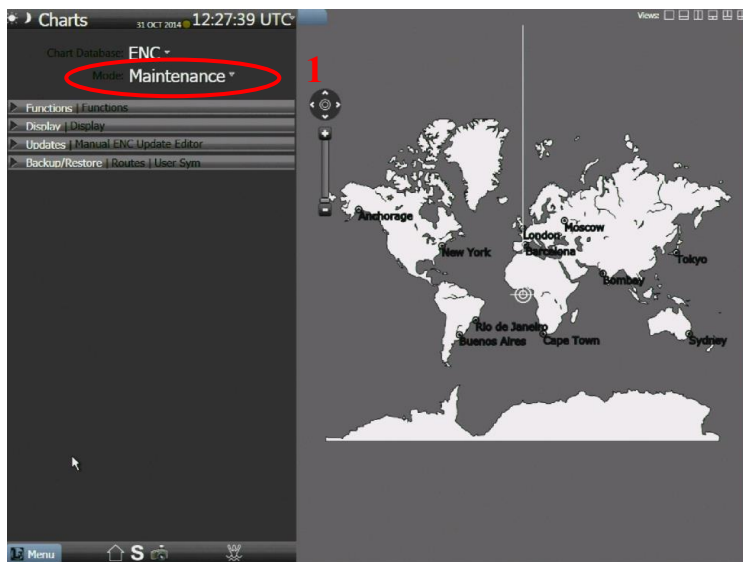


## 5 Deleting ENC Permits

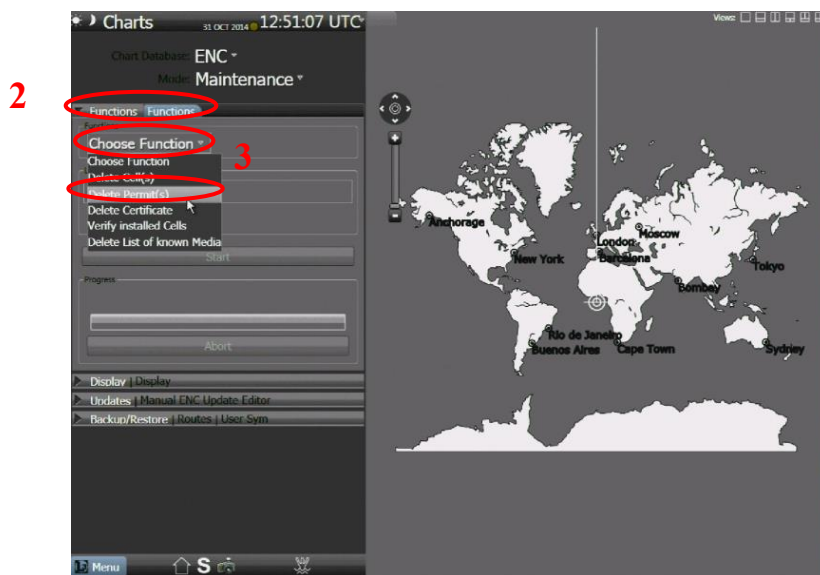
If the user has previously subscribed to another ENC service please remove these ENC permits from the ECDIS system before use. The user must select the cells for which permits are to be deleted. In most instances this will simply involve selecting all cells. In certain circumstances it may be required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

To delete ENC Permits:

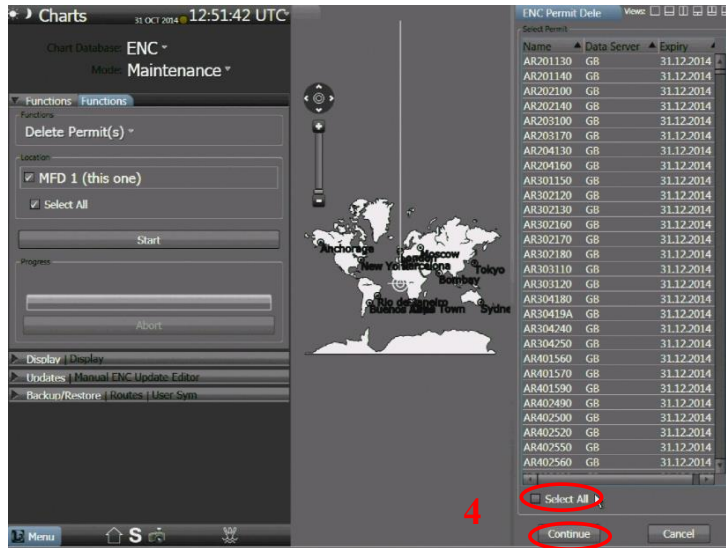
1. From the 'Maintenance' menu make sure 'ENC' is selected from the 'Chart Database' menu and select 'Maintenance' from the 'Mode' drop down menu.



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

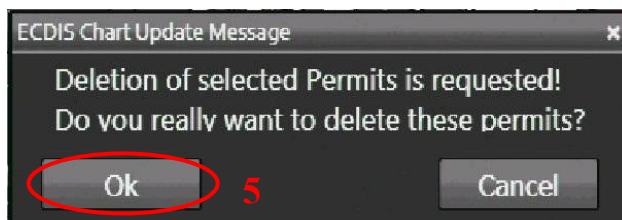


4. Click 'Select All' in the 'ENC Permits Delete' window and select 'Continue'

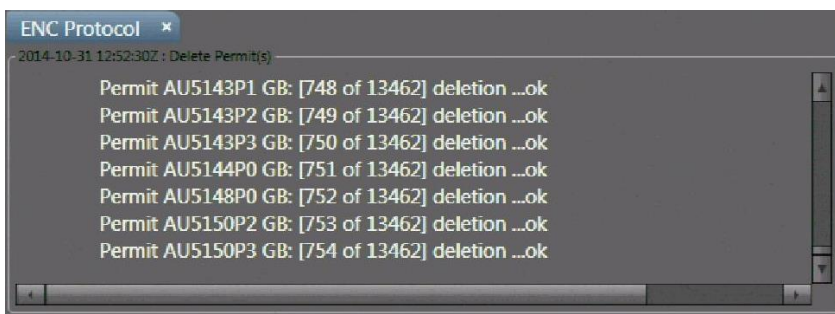


**Note:** Permits can be deleted individually by selecting them from the list of installed permits and selecting 'Continue'. This can be done for individual permits or for groups of permits.

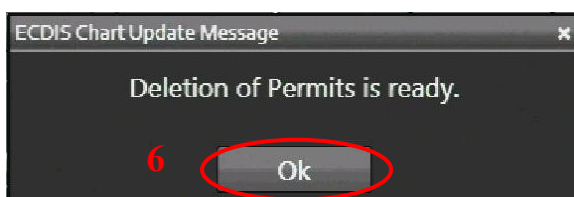
5. Select 'OK' to delete selected permits



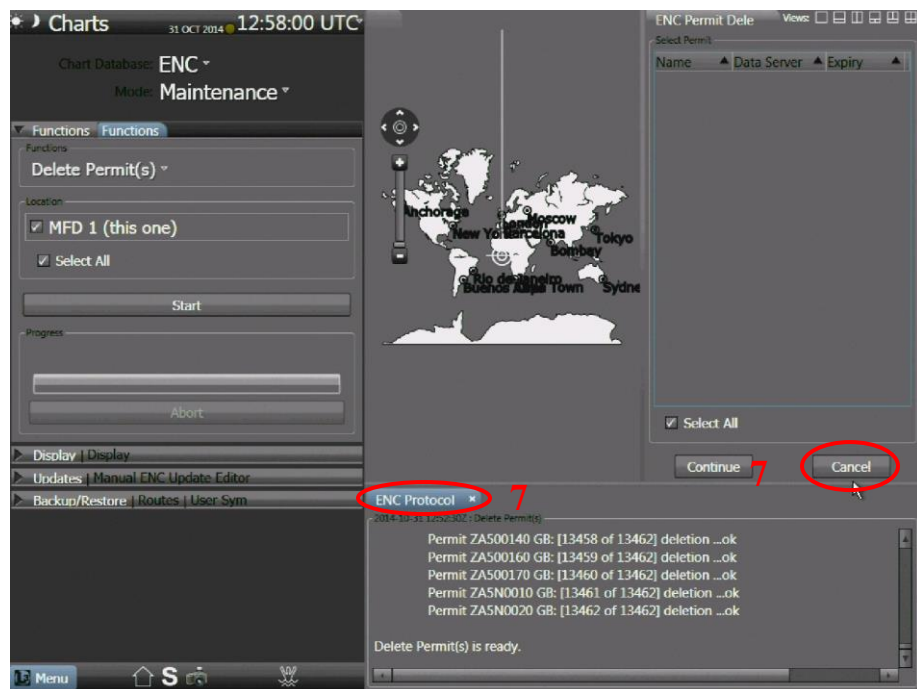
The deletion of permits will commence and the progress can be followed in the 'ENC Protocol' window.



6. Select 'OK'



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

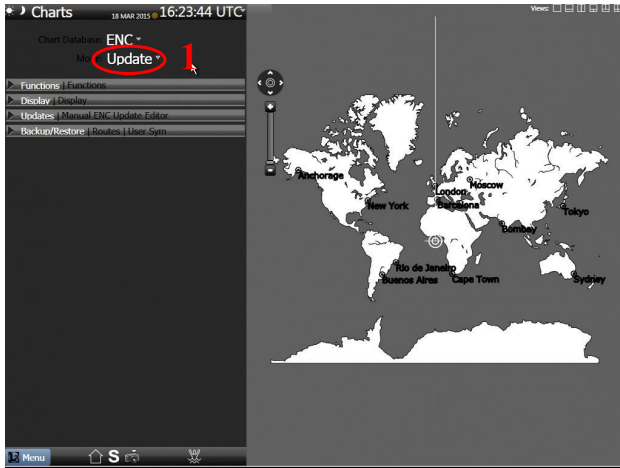


## 6 Installing ENC Permits

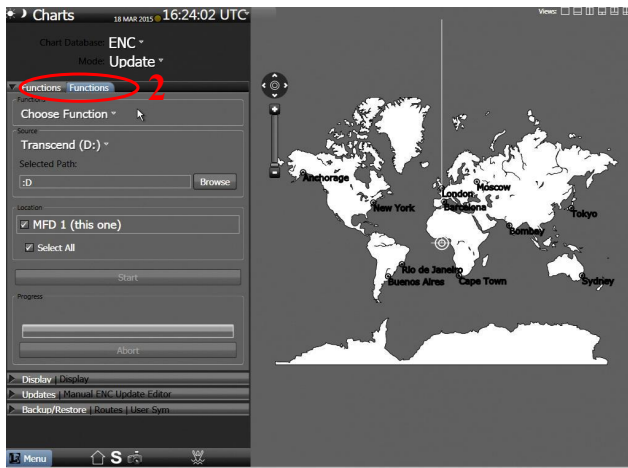
**Note:** Ensure the correct Permit is installed into the ECDIS workstation.

To install AVCS ENC Permits:

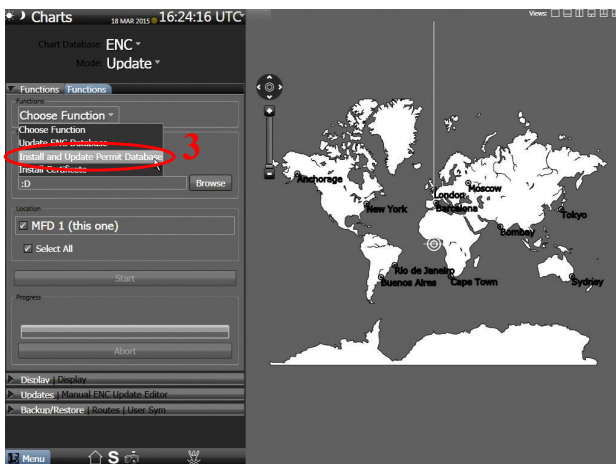
1. From the 'Maintenance' menu make sure 'ENC' is selected and select 'Update' from the 'Modes' menu



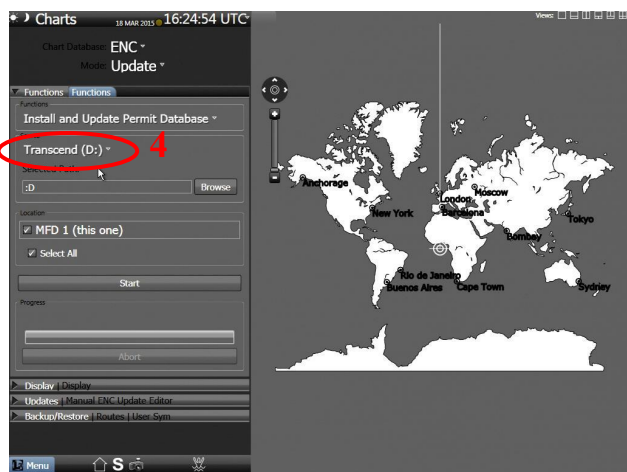
2. Select 'Functions' tab



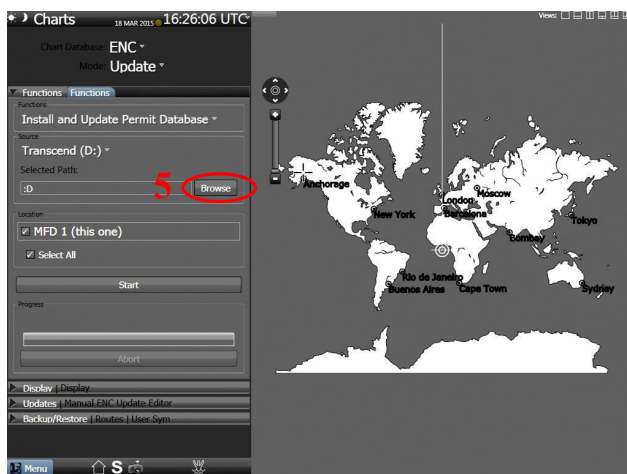
3. Select 'Install & Update Permit Database'



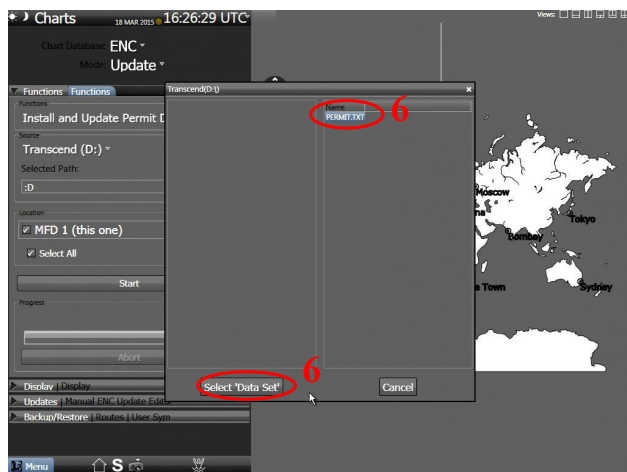
4. Select the appropriate 'Drive'



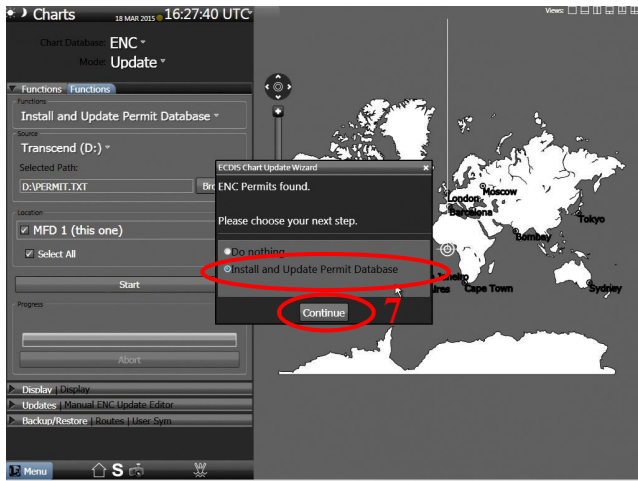
5. Select 'Browse'



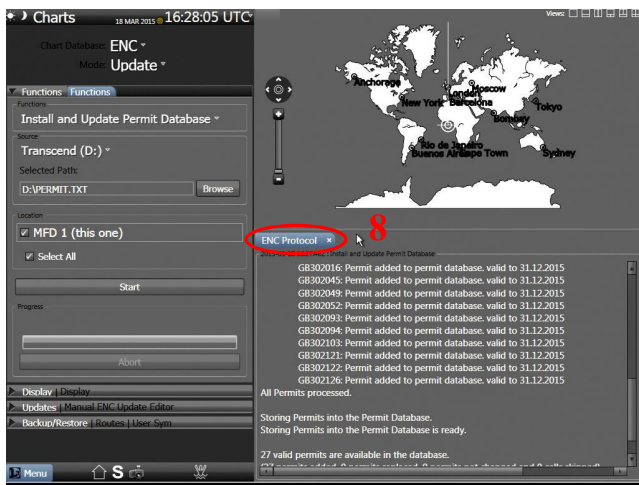
6. Locate and select the 'PERMIT.TXT' file for installation and select 'Select Data Set'



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



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





## 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.

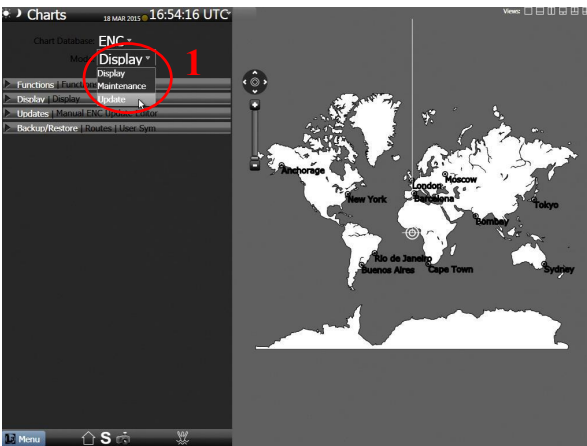
The process described here should be used in almost all circumstances as it will automatically select data to be loaded according to the permit file installed by the user.

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

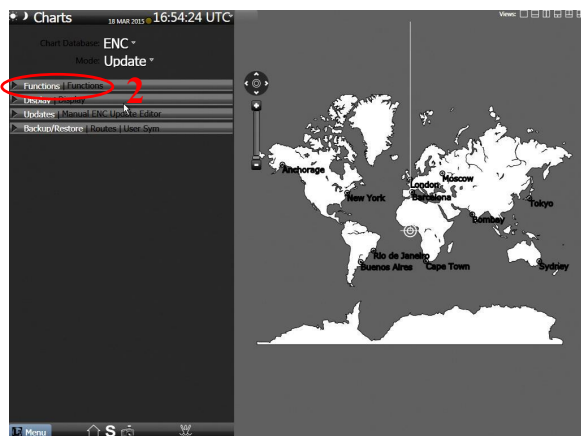
**Note:** The loading process within the ECDIS will be very similar to that required for the AVCS Update Procedure however there are some minor differences which are detailed below. Screenshots are included where the process differs to that of the Updating Procedure (Section 9)

To install AVCS DVD Media:

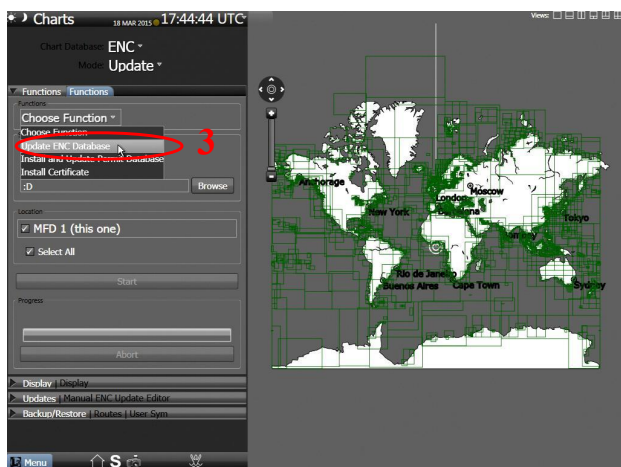
1. Select 'Maintenance' menu and make sure 'ENC' is selected from the 'Chart Database' and select 'Update' from the 'Modes' menu



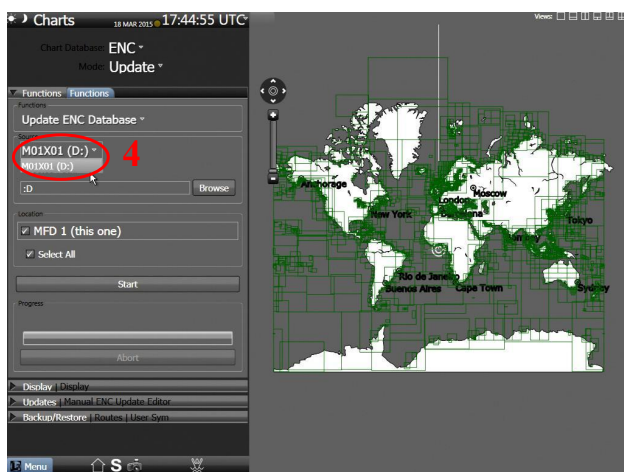
2. Select 'Functions' tab



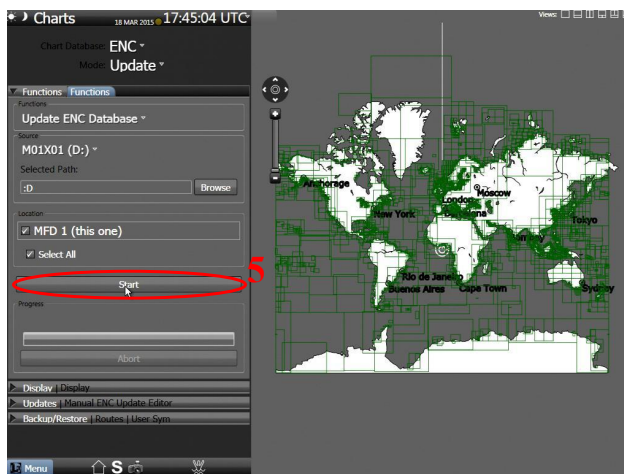
3. Select the 'Update ENC Database' option from the 'Choose Function' drop down menu



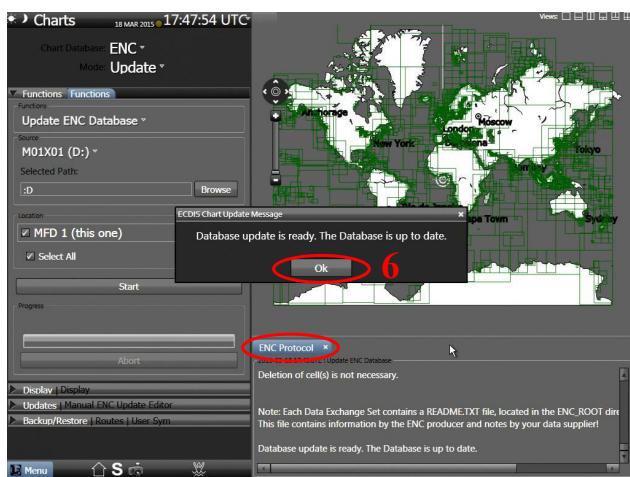
4. Confirm that the 'CD Drive' is selected



5. Select 'Start'



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



## 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.

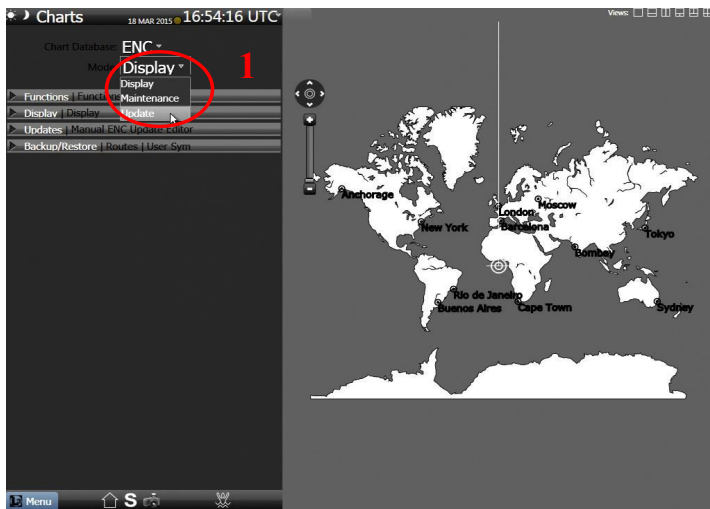
The process described here should be used in almost all circumstances as it will automatically select data to be loaded according to the permit file installed by the user.

To install AVCS Base CD:

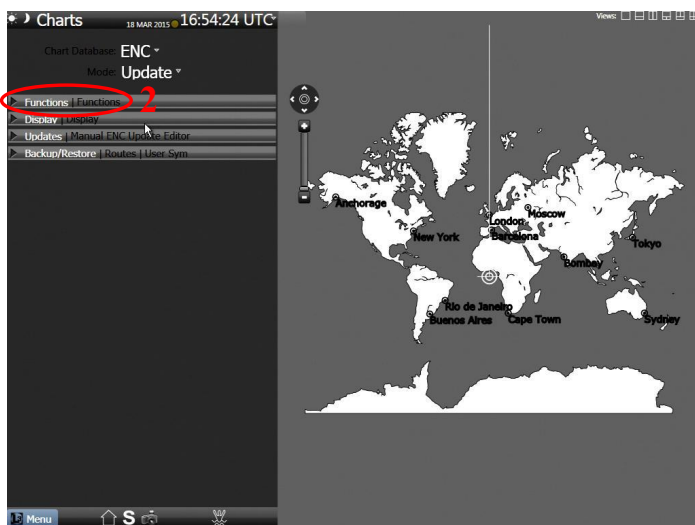
**Note:** Ensure the latest permits have been installed before attempting to install any data

**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.

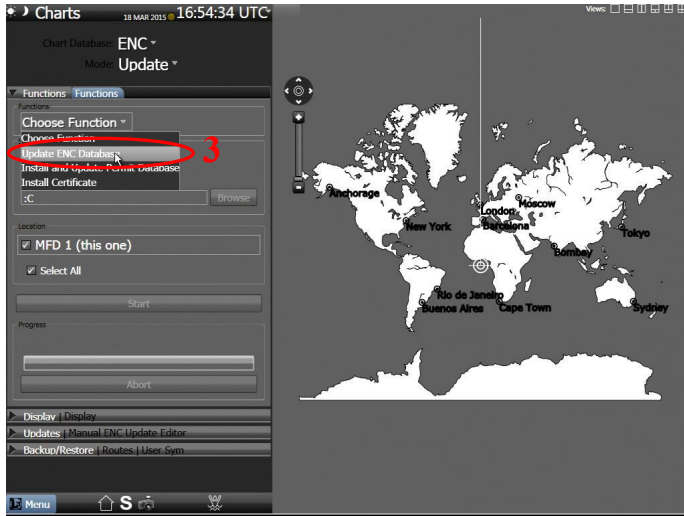
1. Select 'Maintenance' menu and make sure 'ENC' is selected from the 'Chart Database' and select 'Update' from the 'Modes' menu



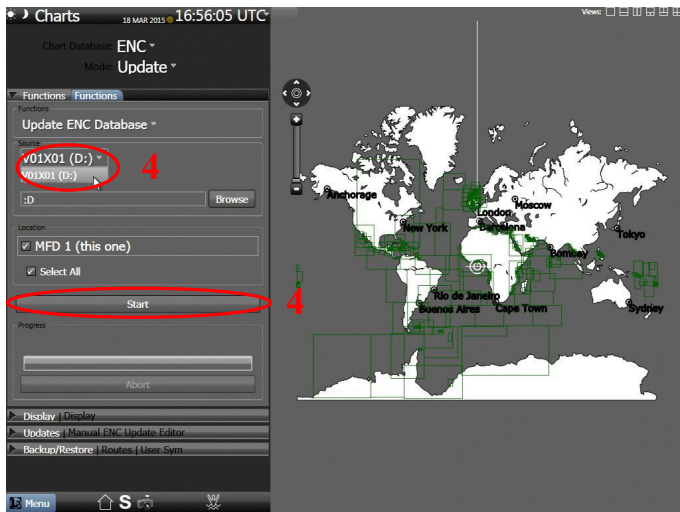
2. Select 'Functions' tab



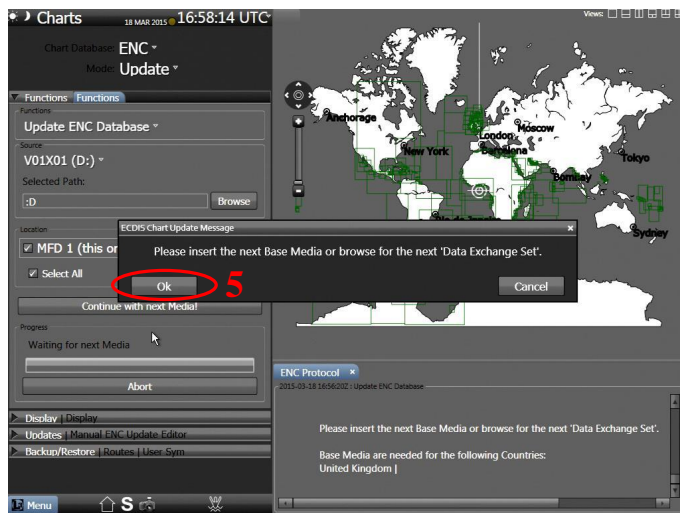
3. Select the 'Update ENC Database' option from the 'Choose Function' drop down menu



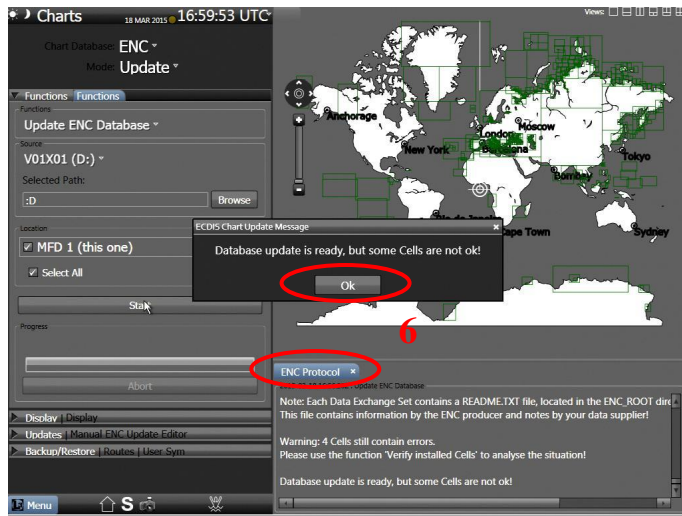
4. Confirm that the 'CD Drive' is selected and select 'Start'



5. 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.

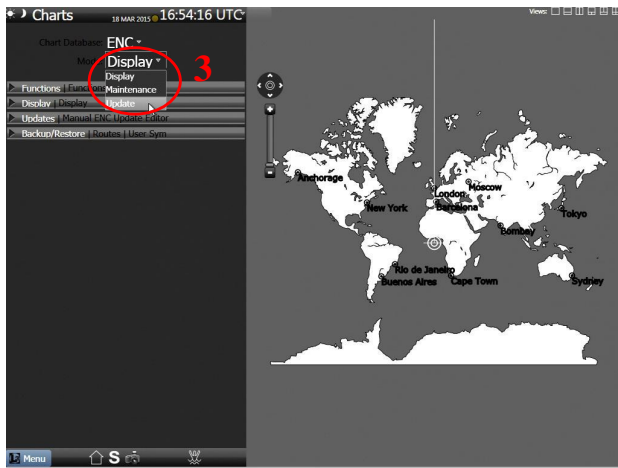
## Installing AVCS Update CD

Note: 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

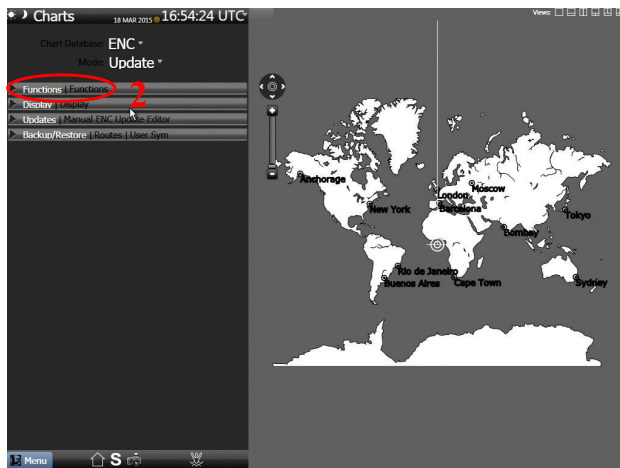
**Note:** Check the AVCS Update CD for the required Base CDs to be applied first.

To install AVCS Update CD:

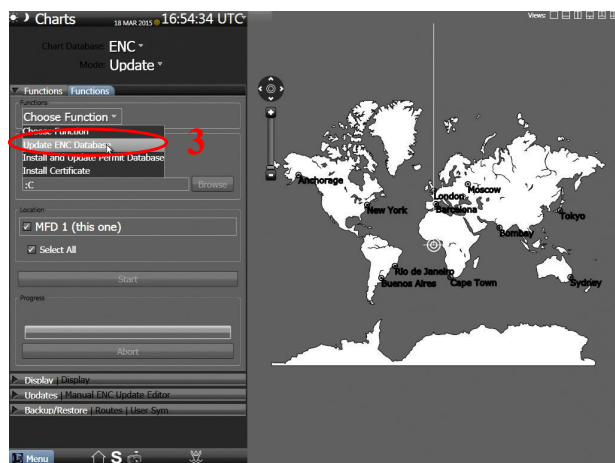
1. Select 'Maintenance' menu and make sure 'ENC' is selected from the 'Chart Database' and select 'Update' from the 'Modes' menu



2. Select 'Functions' tab

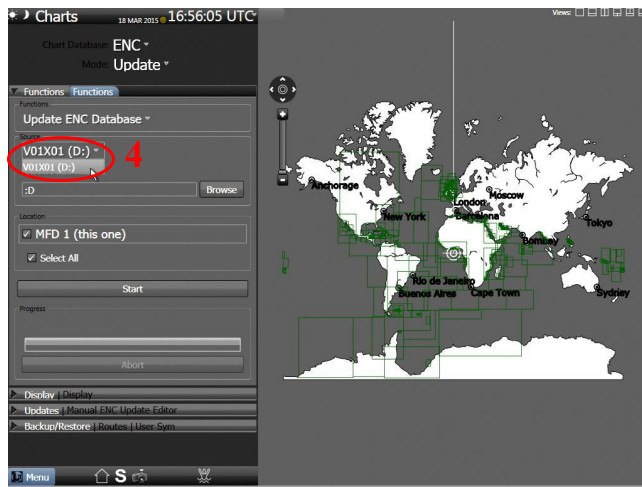


3. Select the 'Update ENC Database' option from the 'Choose Function' drop down menu

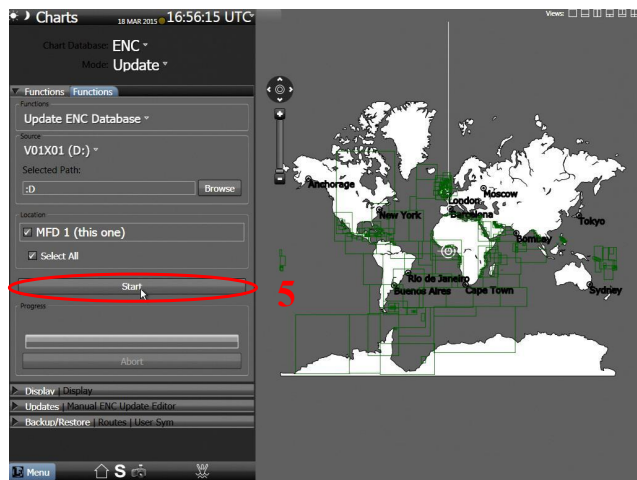




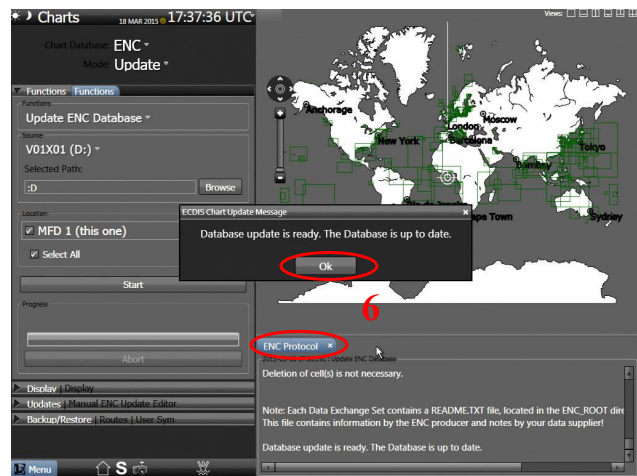
4. Confirm that the 'CD Drive' is selected



5. Select 'Start'



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





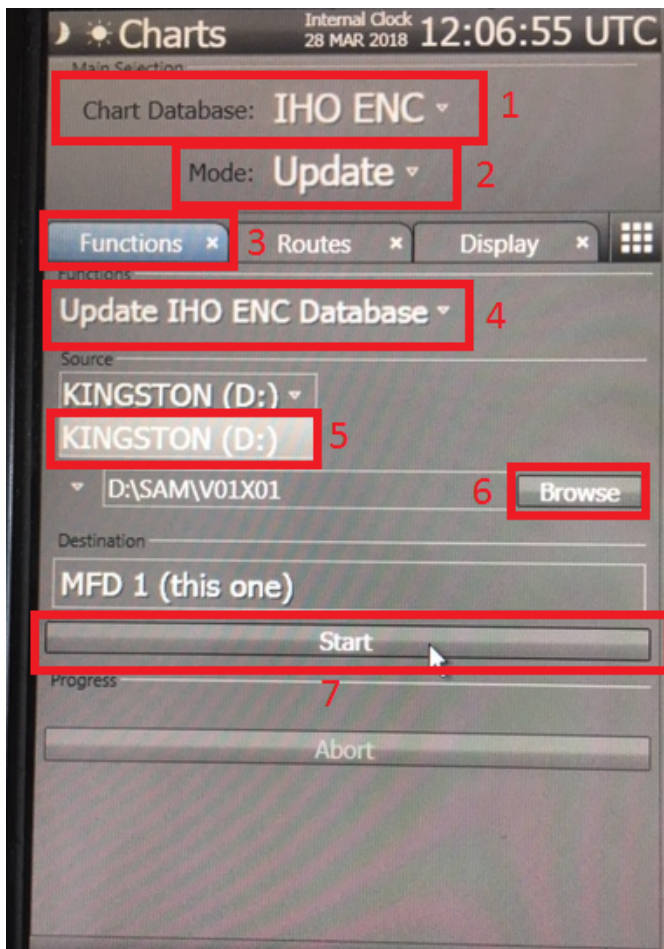
## 11 Installing Exchange Set using USB media

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 install AVCS/AIO Exchange Set using USB Stick:

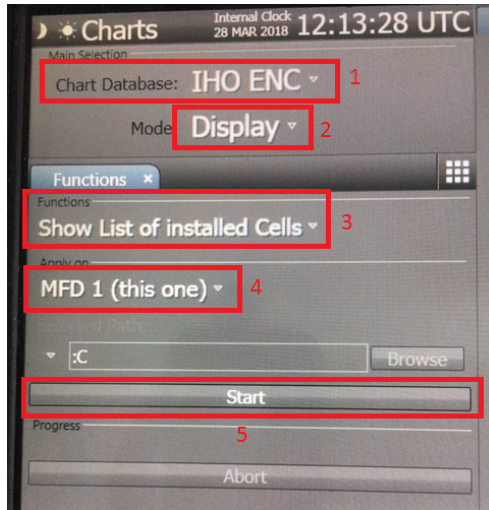
**Note:** Do not save PERMIT.TXT together with the ENC/AIO Exchange Set.

1. Ensure you have set the Chart database to 'IHO ENC'
2. In the Mode select 'Update'
3. Ensure the 'Functions' tab is selected.
4. Select 'Update IHO ENC Database'
5. In the source box select your external media storage.
6. If the data is in a sub folder select 'Browse' and navigate to the exchange set.
7. Select 'Start' and the exchange set will begin to install.
8. Once all cells have been installed select 'OK' and close the 'ENC Protocol Window'

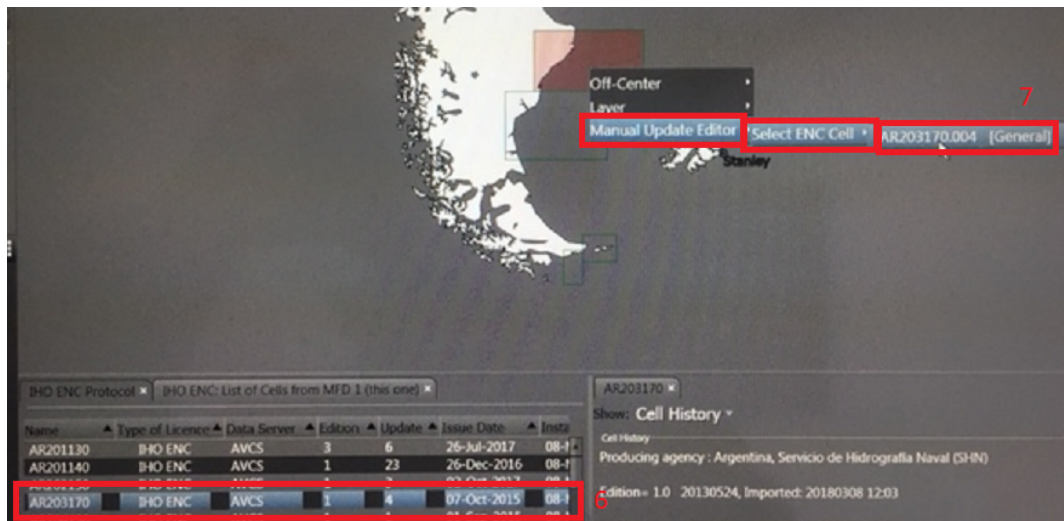


## 11 Viewing an ENC

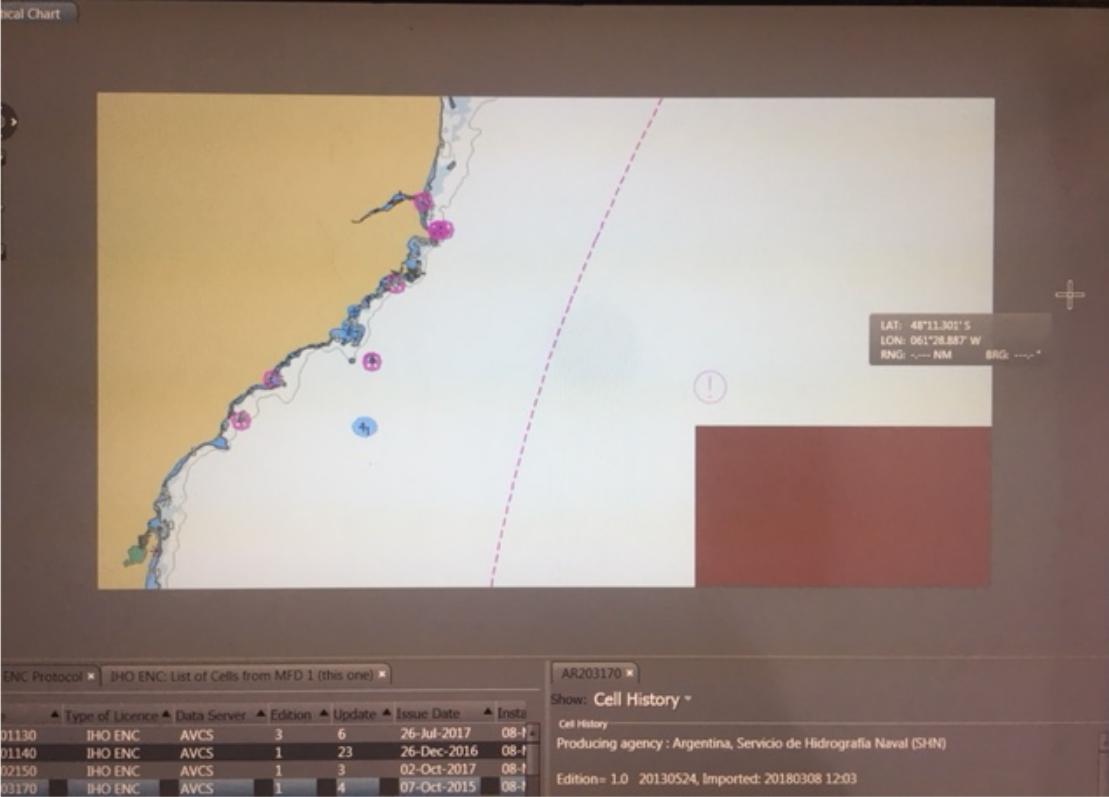
To view ENC data:



1. Ensure you have set the Chart database to 'IHO ENC'
2. In the Mode select 'Display'
3. Ensure the 'Functions' tab is selected and select 'Show List of installed Cells'
4. Select 'MFD 1 this one '
5. Select 'Start' and let the process run.



6. Double click on the ENC you wish to view in the table named 'List of Cells from MFD1' this will pan the geographic view to the required ENC.
7. Right click over the green ENC polygon then select 'Manual Update Editor', 'Select ENC Cell' and then select the ENC name.



You can also use the 'ECDIS' mode form the main menu and navigate to where you have ENC coverage to display the ENC.

## 12 Installing AIO Permits

To install AIO Permits:

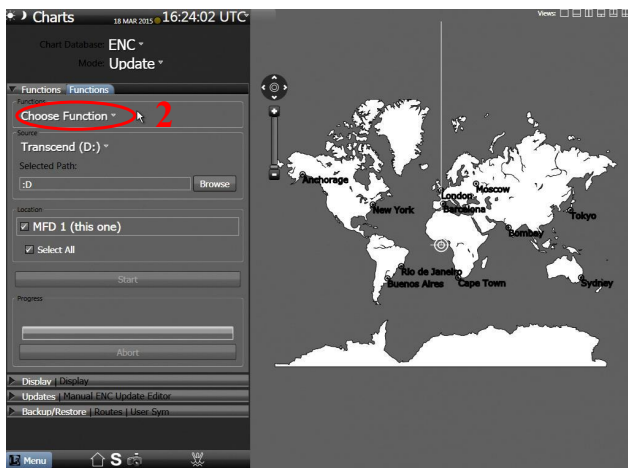
**Note:** Ensure the correct Permit is installed into the ECDIS workstation which contain the AIO permit starting with "GB80001".

To install AIO Permits:

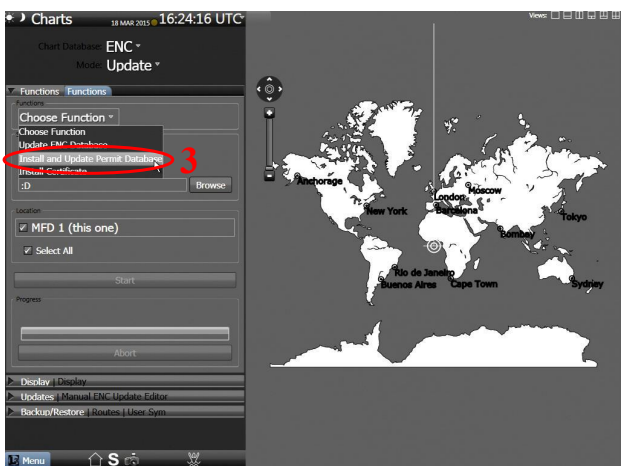
1. From the 'Maintenance' menu make sure 'ENC' is selected and select 'Update' from the 'Modes' menu



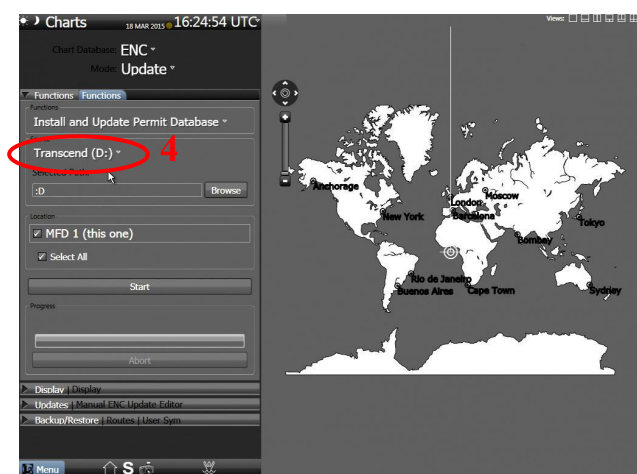
2. Select 'Functions' tab



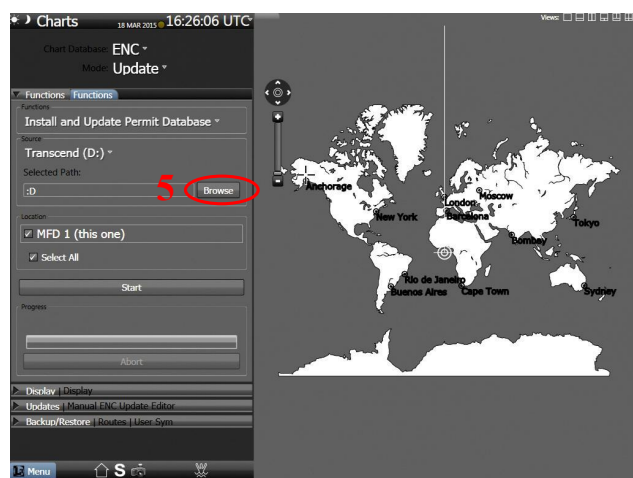
3. Select 'Install & Update Permit Database'



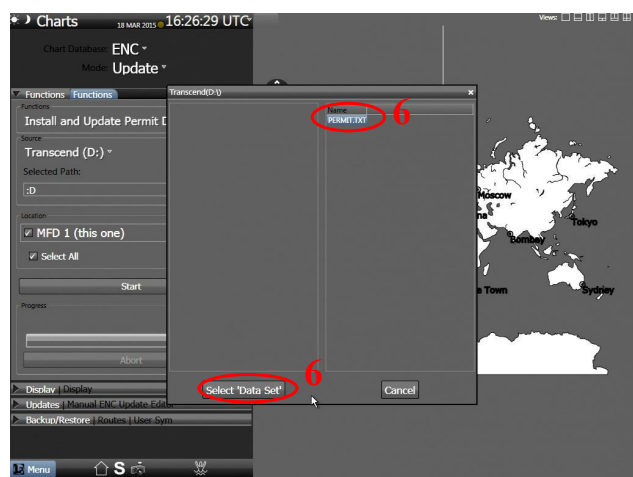
4. Select the appropriate 'Drive'



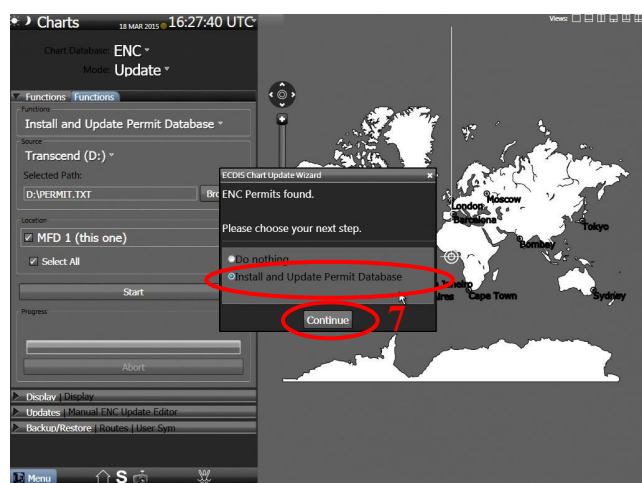
5. Select 'Browse'



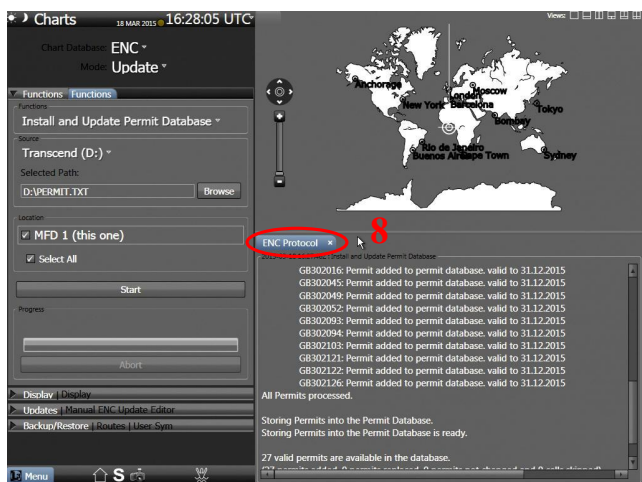
6. Locate and select the 'PERMIT.TXT' file for installation and select 'Select Data Set'



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



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

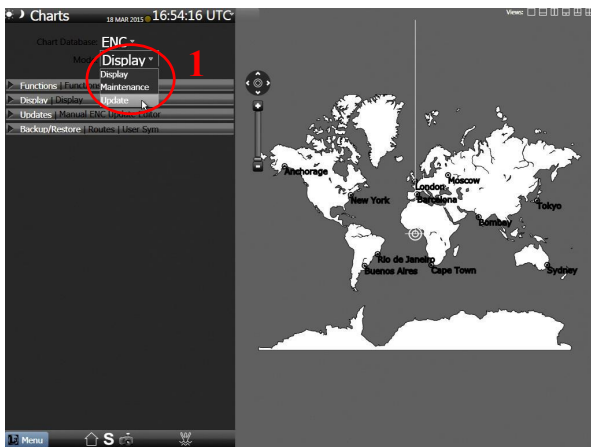




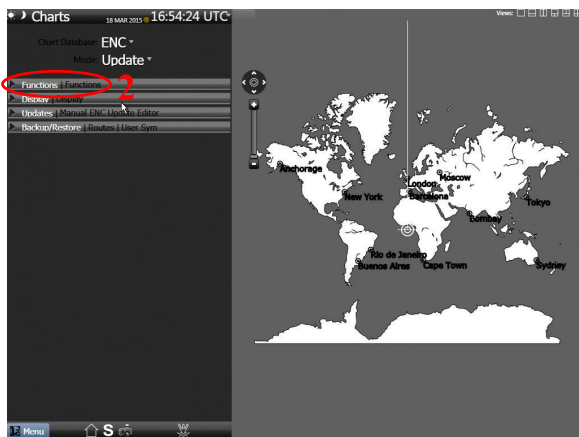
## 13 Installing AIO CD

To install AIO CD:

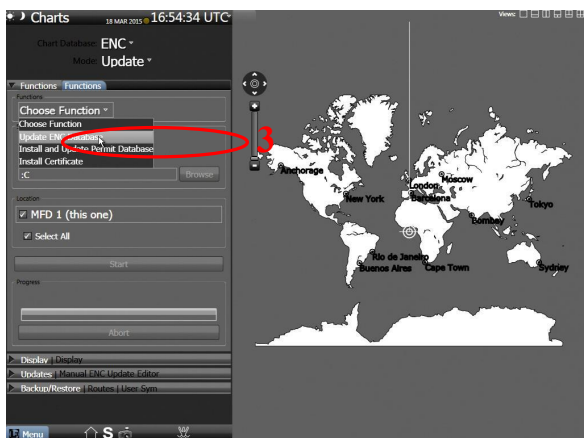
1. Select 'Maintenance' menu and make sure 'ENC' is selected from the 'Chart Database' and select 'Update' from the 'Modes' menu



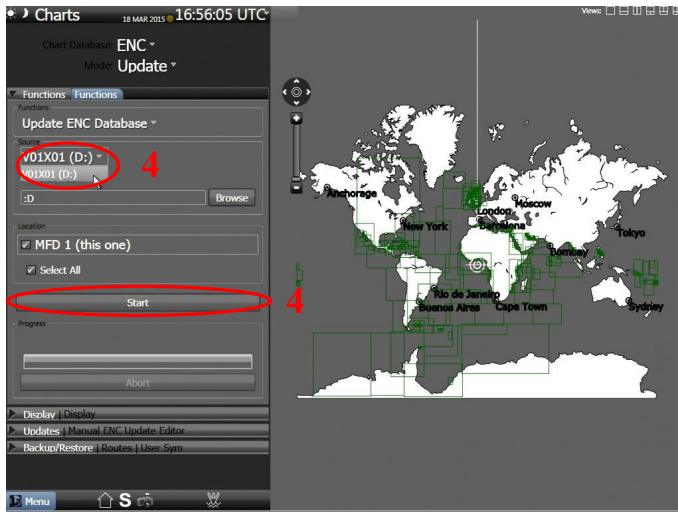
2. Select 'Functions' tab



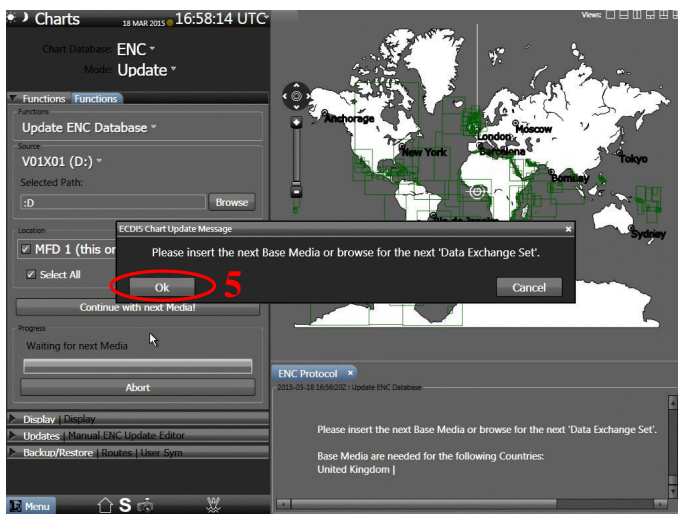
3. Select the 'Update ENC Database' option from the 'Choose Function' drop down menu



4. Confirm that the 'CD Drive' is selected and select 'Start'



5. The AIO cell will start to install.



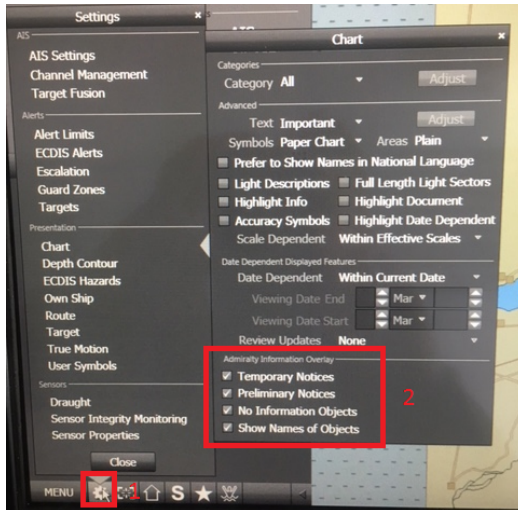
6. Once the AIO cell has been installed select 'OK' and close the 'ENC Protocol Window'



## 14 Using the AIO

To enable AIO data:

1. Go to the 'Settings' box on the bottom toolbar.
2. Ensure you have all the boxes ticked up under the 'Admiralty Information Overlay'.

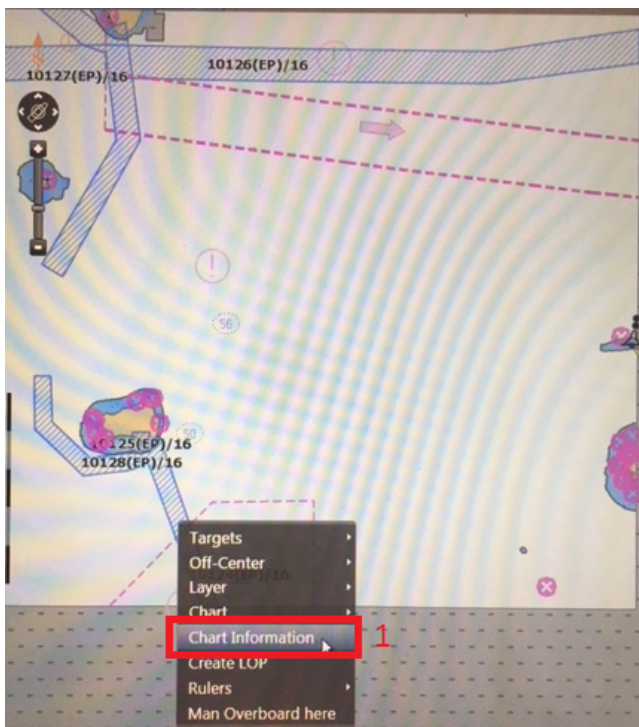


To view AIO data:

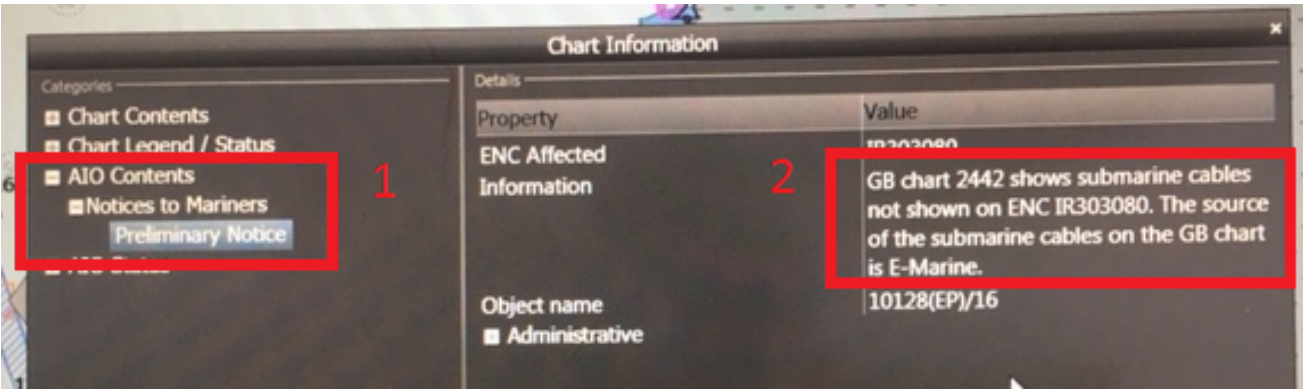
Open the desired ENC within the 'ECDIS' mode.

AIO T&P polygons are shown in the image below and consist of blue checked hatchings with the AIO number in black text centered over them.

1. Right click on the AIO polygon and select Chart Information.



From within the 'Chart Information' box select the AIO drop-down, then select the 'Notices to Mariners' drop-down and select Preliminary Notice.



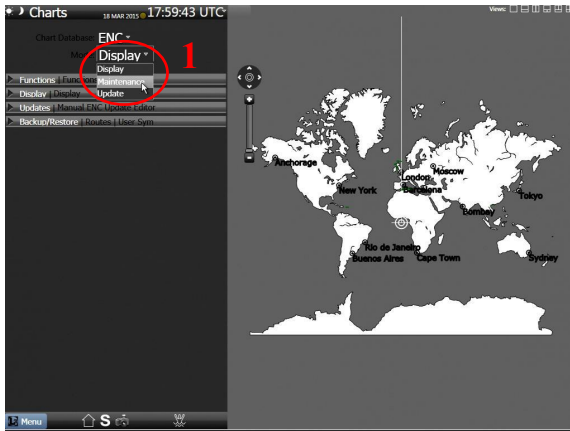
The information related to the notice is shown to the right of the box within the information field.

## 15 Systems Checks

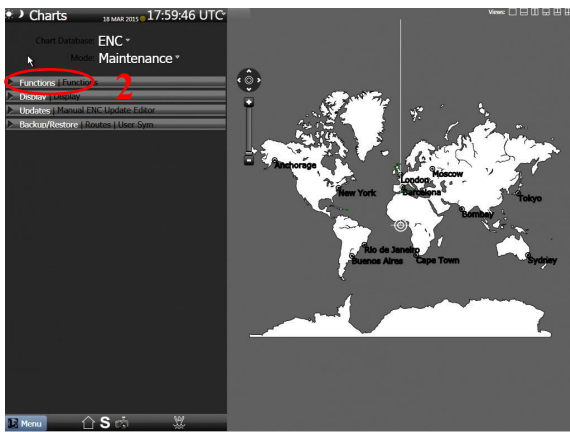
The user has the option to review the status of all installed ENC's from within the *ECDIS Chart Portfolio* dialog as follows:

To generate the installed charts status report:

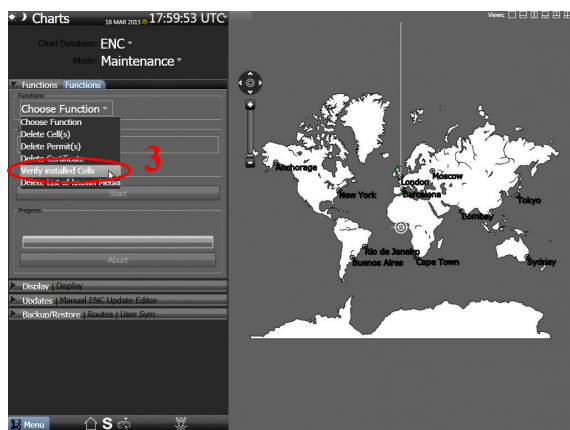
1. From the 'Maintenance' menu make sure 'ENC' is selected from the 'Chart Database' menu and select 'Maintenance' from the 'Mode' menu



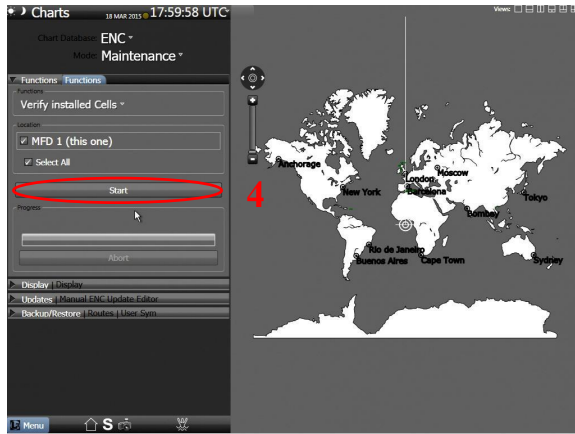
2. Select the 'Functions' tab



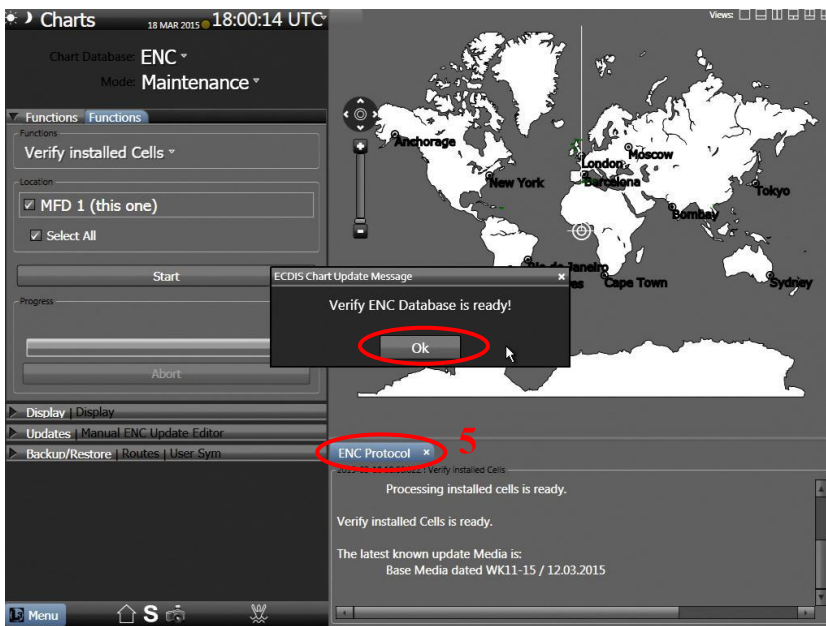
3. Select 'Verify installed Cells' from the 'Choose Function' menu



## 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'.



## 16 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
<b>Hardware problems:</b> difficulties with the keyboard, mouse, display or main system console, failure of a floppy disk or CD drive.	ECDIS Manufacturer
<b>Software problems:</b> difficulties with configuring or using the ECDIS system software, interfacing problems.	
<b>Chart installation problems:</b> problems with installing certificates, permits and AVCS ENC's, standard error codes displayed (see AVCS User Guide).	Admiralty Chart Agent
<b>Chart content problems:</b> 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](mailto: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.



United Kingdom  
Hydrographic Office

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TA1 2DN, United Kingdom  
Telephone +44 (0)1823 484444  
[customerservices@ukho.gov.uk](mailto:customerservices@ukho.gov.uk)  
[gov.uk/ukho](http://gov.uk/ukho)

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

[admiralty.co.uk](http://admiralty.co.uk)    