

Important information for AVCS users

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This document provides important information for users of AVCS, including general cautions about the use of ENC's within ECDIS.

This document should be read by all users who are new to AVCS and/or the use of ENC's in ECDIS. Short term information and information of immediate navigational significance is given in the README.TXT file contained in the AVCS exchange sets. The README.TXT file should be checked for new information each time your ECDIS is updated.

Significant changes to this document will be announced in the README.TXT file.

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Transition of AVCS and the ADMIRALTY ECDIS Service from S-63 Edition 1.0

The International Hydrographic Organization (IHO) terminated Edition 1.0 of the IHO Data Protection Scheme on 31 December 2013. ENC service providers that deliver data in S-63 format were then required to use Edition 1.1 of the standard. The Standard has since been updated to Edition 1.2.

AVCS is available in S-63 Edition 1.2 format on DVD and via the Internet.

Use of the date symbol

Routing measures such as Traffic Separation Schemes (TSS) are usually implemented or changed at specific dates and times. Advance notice of all known changes is given in ADMIRALTY Preliminary Notices to Mariners (PNM).

Notice of such changes is usually also given in ENC's (using Updates or New Editions) in advance of the implementation date by using the attributes Date Start (DATSTA) on new features that are being introduced and Date End (DATEND) on existing features that are being discontinued. The purpose of these attributes is to allow mariners to preview forthcoming changes and ECDIS to apply the changes automatically at the appropriate time.

The way in which ECDIS equipment will display the features encoded using DATSTA and DATEND varies, although most ECDIS will use one of the following methods:

- › The ECDIS will use the attributes to display only those features that are valid on a user-selected date.



- › The ECDIS will display, according to the selection of the user, either the features that are valid on the current date or all features (regardless of their validity).
- › The ECDIS will display all features (regardless of their validity) with no user-selectable options. In this case, it may still be possible to obtain information on the date and time window for which particular features are valid by using the cursor-pick report to view the date-dependent attributes.

It is important for users to understand the user settings available in their ECDIS to ensure the best possible display of these features. It is also important that users ensure that their ECDIS is up-to-date for the latest IHO standards (see below).

ECDIS operating with Edition 4.0 of the IHO Presentation Library

ECDIS must be maintained to the latest IHO standards. For a graphical way to establish that the ECDIS is up to date, the mariner can use ECDIS Chart 1 to review the new symbols introduced in IHO S-52 Presentation Library Edition 4.0. ECDIS Chart 1 is a legend of the entire set of symbols that may be used within an ENC, and is installed on all type-approved ECDIS systems.

ENCs derived from charts on non-WGS84 compatible datums

Positions obtained from Global Navigation Satellite Systems, such as GPS, are normally referred to WGS84 Datum. In many parts of the world, however, charts were originally produced on a variety of local datums for which the shift to WGS84 may be unknown or unreliable. ENCs derived from such charts may not be accurately referred to WGS84 Datum. This can result in small but noticeable positional differences where adjoining cells have been shifted by slightly different amounts. Mariners are warned that these differences may be significant to navigation and are therefore advised to confirm GPS positions shown in the chart display using alternative navigational techniques, particularly when closing the shore or navigating in the vicinity of dangers.

The differences between satellite-derived positions and positions on these cells cannot be accurately determined, so the estimated values of the differences for these cells are detailed in the Information attribute of Caution Areas, for example: "Positions in this region lie within $\pm nn$ metres of WGS84 Datum". Such cells may also contain a warning encoded as the name of a Sea Area feature covering the cell, for example: "This chart cannot be accurately referenced to WGS84 Datum; see caution message". They are intended for use with this warning continuously displayed and should not be used otherwise.

Updating of ENCs in line with paper charts

The UKHO's weekly updating service for ENCs includes the latest updates issued by all the contributing Hydrographic Offices. These updates may or may not be synchronised with Notices to Mariners and New Editions produced for their national paper chart series. In some cases, therefore, ENCs may be more or less up to date than the corresponding paper chart of the same area.

Practice also varies between Hydrographic Offices with regard to the updating of ENCs for Temporary (T) and Preliminary (P) Notices to Mariners. Most ENC producers include T&P NMs in their cells wherever possible, but where this is not the case mariners are advised to consult relevant T&P NMs published in Notices to Mariners bulletins or on the ENC producer's website (if available). For further details, see below.



Chart display content

Mariners should be aware that the appearance and content of the data displayed in electronic charts may differ substantially from the same or similar data in paper chart form. The ECDIS chart display is generated "on-the-fly" according to display rules defined by the IHO Presentation Library. The amount of detail that is displayed will depend on a number of factors, including:

- › The cells loaded on the ECDIS and available for display
- › The feature content of those cells (including any objects with date, time or scale dependent attributes)
- › The display scale set by the ECDIS user
- › The display mode set by the ECDIS user (i.e. "Base", "Standard" or "All")
- › The Safety Contour, Safety Depth and Safety Height set by the ECDIS user
- › Other user display options provided by the ECDIS (e.g. options to show isolated dangers in shallow waters, full length light sectors, etc.)
- › The ECDIS manufacturer's implementation of the IHO Presentation Library

Application of 'SCAMIN'

Each object in an ENC has a Scale Minimum (SCAMIN) value. This determines the display scale below which the object must not be displayed by an ECDIS and reduces excessive information on the screen. Latest ECDIS standards provide a control on the ECDIS that overrides this SCAMIN display criteria. Mariners should use this during planning to see all the information along the track.

National language attributes

Four national language attributes are defined in S-57 for use in ENCs. These are all string type attributes intended to hold text in a national language. Some national languages, especially those that use additional character sets, e.g. Turkish, Korean, etc. cannot be viewed in some ECDIS equipment. In these instances, reference should be made to the English language versions of these attributes.

The national language attributes affected are as follows and may be referenced from within the ECDIS with an unreadable text string:

- › NINFOM [Information in national language]
- › NOBJNM [Object name in national language]
- › NPLDST [Pilot district in national language]
- › NTXTDS [Textual description in national language]

In the case of NTXTDS [Textual description in national language], it may be the content of the linked text file that is unreadable.



Withdrawal of ENC's from ADMIRALTY services

"Cancellation" is the term used when an ENC producer issues an update to cancel and delete a base cell. Since an ENC can only be updated by the ENC producer, it follows that an ENC can only be cancelled by the ENC producer.

"Withdrawal" is the term used when the UKHO decides to withdraw an ENC from ADMIRALTY services, since the UKHO is unable to "cancel" an ENC from another ENC producer. The key distinction is that if an ENC is withdrawn, there is nothing to prevent end users continuing to use the cell until their permit expires.

While cells remain withdrawn they will not be updated and their carriage will not satisfy SOLAS requirements. Mariners are therefore recommended to remove these cells from ECDIS or ECS systems onto which they have been loaded.

The withdrawal of ENC's from ADMIRALTY services is communicated in the README.TXT file and Section VIII of the ADMIRALTY Notices to Mariners Bulletin. A full list of withdrawn ENC's is maintained in the Updates tab at admiralty.co.uk/avcs.

Temporary & Preliminary Notices to Mariners (T&P NMs) in ENC's

The issuing of temporary and preliminary information is considered an essential part of keeping navigational charts up to date. However, T&P NMs are produced for paper charts, not ENC's and not every ENC producer includes T&P NM information in their ENC's. If T&P information is included, it is likely to display with different content than that which appears in the NM for the paper chart. The producer may indicate the temporary nature of the information by using the DATSTA and DATEND attributes described above, or use the text description. Some Producers simply issue an update to the ENC with the new information, then another when the change expires.

The latest confirmed status of T&P NM information in the ENC's that are available in AVCS is shown in the ENC-TandP-NM-Status.pdf file available in the INFO folder on AVCS discs and the Updates tab at admiralty.co.uk/avcs.

To ensure that T&P NM information is as widely available to ENC users as possible, worldwide ADMIRALTY T&P NMs for paper charts are included in the ADMIRALTY Information Overlay (AIO) where the Producer does not code temporary information into their ENC's. AIO can be displayed on top of ENC's in most ECDIS equipment and some back-of-bridge software applications.

