

BAHAMAS MARITIME AUTHORITY

BMA INFORMATION BULLETIN No. 51

Carriage of Electronic Charts

Guidance for Shipowners, Managers, Masters, Bahamas
Recognised Organisations and Bahamas Approved Inspectors

This bulletin advises of the means of complying with SOLAS 1974, as amended,
Regulation V/19.2.1.5

*NOTE: This bulletin should be read in conjunction with IMO Resolution A. 817 (19),
as amended, and IMO Safety of Navigation Circular 207*

1. The revised Regulation 19 of SOLAS 1974, as amended, Chapter V accepts the carriage of an electronic chart display and information system (ECDIS), which conforms to the performance standards for electronic charts. The Bahamas recognises that ECDIS satisfies the chart Carriage requirement of SOLAS 1974, as amended, Regulation V/19.2.1.4.
2. For the purpose of compliance with SOLAS 1974, as amended, Regulation V/19.2.1.5, the following back-up arrangements is deemed acceptable for Bahamian registered ships:

Primary System	Back-up arrangement
ECDIS operating with electronic navigational chart (ENC) mode	Either a 2 nd independent ECDIS, which has a separate power supply and data input, operating with electronic navigational chart (ENC) mode OR Paper Charts (adequate and up to date) for intended voyages.
ECDIS operating in the Raster Chart Display System (RCDS) mode	Paper Charts (adequate and up to date) for intended voyages.

3. Masters should be guided by the limitations of RCDS as outlined in the attached IMO Safety of Navigation Circular.



Ref. T2/6.01

SN/Circ.207
7 January 1999

DIFFERENCES BETWEEN RCDS AND ECDIS

1 The Maritime Safety Committee, at its seventieth session (7 to 11 December 1998), adopted amendments to the performance standards for Electronic Chart Display and Information Systems (ECDIS) to include the use of Raster Chart Display Systems (RCDS).

2 These amendments permit ECDIS equipment to operate in two modes:

- .1 the ECDIS mode when ENC data is used; and
- .2 the RCDS mode when ENC data is not available.

However, the RCDS mode does not have the full functionality of ECDIS, and can only be used together with an appropriate portfolio of up-to-date paper charts.

3 The mariners' attention is therefore drawn to the following limitations of the RCDS mode:

- .1 unlike ECDIS where there are no chart boundaries, RCDS is a chart-based system similar to a portfolio of paper charts;
- .2 Raster navigational chart (RNC) data, itself, will not trigger automatic alarms (e.g. anti-grounding). However, some alarms can be generated by the RCDS from user-inserted information. These can include:
 - clearing lines
 - ship safety contour lines
 - isolated dangers
 - danger areas
- .3 horizontal datums and chart projections may differ between RNCs. Mariners should understand how the chart horizontal datum relates to the datum of the position fixing system. In some instances, this may appear as a shift in position. This difference may be most noticeable at grid intersections and during route monitoring;
- .4 chart features cannot be simplified or removed to suit a particular navigational circumstance or task at hand. This could affect the superimposition of radar/ARPA;
- .5 without selecting different scale charts, the look-ahead capability may be somewhat limited. This may lead to some inconvenience when determining range and bearing or the identity of distant objects;

- .6 orientation of the RCDS display to other than chart-up, may affect the readability of chart text and symbols (e.g., course-up, route-up);
- .7 it may not be possible to interrogate RNC features to gain additional information about charted objects;
- .8 it is not possible to display a ship's safety contour or safety depth and highlight it on the display, unless these features are manually entered during route planning;
- .9 depending on the source of the RNC, different colours may be used to show similar chart information. There may also be differences in colours used during day and nighttime;
- .10 an RNC should be displayed at the scale of the paper chart. Excessive zooming in or zooming out can seriously degrade RCDS capability, for example, by degrading the legibility of the chart image; and
- .11 mariners should be aware that in confined waters, the accuracy of chart data (i.e., paper charts, ENC or RNC data) may be less than that of the position-fixing system in use. This may be the case when using differential GNSS. ECDIS provides an indication in the ENC which allows a determination of the quality of the data.

3 Member Governments are requested to bring this information to the attention of the relevant authorities and all seafarers for guidance and action, as appropriate.
