**Proposal for Consideration by TSMAD**
**Victoria (Canada)**
**29<sup>th</sup> November – 3<sup>rd</sup> December 2010**

**Proposal for Discussion of Encoding Bulletin 31 And the 50KB Limit**

***Submitted by:***         Canada
***Executive Summary:***   This is a discussion paper proposing the extension of
the 50KB limit for an Update.
***Related Documents:***   N/A
***Related Projects:***      S-101

## Introduction / Background

Encoding Bulletin 31 reads as follows:

> **EB31 - ENC PS Clause 5.7 Updating and UOC Clause 2.6 Updating**
>
> Clause 5.7 of Edition 2.0 (November 2000) of the ENC Product Specification (S-57 Appendix B.1) and Clause 2.6 of Edition 2.1 (April 2002) of the Use of the Object Catalogue for ENC provide guidance on encoding, and the method of issuing, ENC updates. This guidance does not include advice on recommended maximum cell size for ENC updates, or whether it is allowable to publish an ENC update that changes the limit of data coverage for an ENC cell.
>
> New tests introduced in Edition 3 (2008) of International Electrotechnical Commission document IEC 61174 - Marine Navigation and Radiocommunication Equipment and Systems – Electronic Chart Display and Information Systems (ECDIS) – Operational Performance Requirements, Methods of Testing and Required Test Results, include instruction that an update must be rejected if its extent goes beyond the base cell limit.
>
> It has also been reported that some ECDIS experience problems in loading large update data sets.
>
> Encoders are therefore advised that an ENC update (ER application profile) data set must not change the limit of data coverage for the base ENC cell, as the update may be rejected by the ECDIS. Where the limit of data coverage for a base ENC cell is to be changed, this should be done by issuing a new edition of the cell.
>
> **Encoders are further advised that, as a guide, an ENC update should not exceed 50 Kilobytes in size, as some ECDIS experience problems with loading large update data sets.**
>
> [June 2009]

This recommended size restriction is extremely prohibitive to releasing updates to ENCs and in fact dictates that many new editions will be required.

In a database world where HO's are doing constant maintenance it will be more difficult to limit the size of updates in a reasonable manner. And in effect will dictate that more new editions will be required. However, it is our responsibility to deliver the data to the mariner in the most efficient means possible. Which means, HOs need to deliver updates as efficiently as possible, and not send out entire new editions every time a simple change is required.

Canada has currently updated its policy and will now issues new editions to incorporate patches to ENCs and is striving to release updates of reasonable size. If an update is deemed too large, CHS will release this as a new edition. However, the 50KB size is too restricting.

When comments where recently requested on the IHO EUWG letter 02/2010, Canada, made the following response::

> *Some testing should be done to see if 'ratio' would be a better way to go. After all, some ENC cells are not very big (some just over 50KB base cells). In these circumstances, issuing 50KB updates seems redundant… the update would be almost the same size as the base cell. A new edition may be more efficient.*
>
> *Maybe a maximum size for an update is not the only thing to consider. Maybe if the update was a certain percentage size of the base cell, then a new edition should be issued instead?*

Canada would like to know how the number, 50KB, was chosen and how fixed is this limit?

**Recommendation**

It is recommended that the 'recommended limit' of 50KB be extended to a maximum of 100KB to allow for reasonable sized updates.