

**10<sup>th</sup> CSPWG MEETING**  
**Wellington, New Zealand, 21-24 January, 2014**

**Paper for Consideration by CSPCWG**  
**Existence Doubtful (ED)**

<b>Submitted by:</b>	Chairman
<b>Executive Summary:</b>	US (in response to WG Letter 07/2013) questioned the meaning of ED
<b>Related Documents:</b>	S-4 B-424; S-32; INT1 I1
<b>Related Projects:</b>	None

### **Introduction / Background.**

CSPCWG Letter 07/2013 discussed 'Reported depths/dangers' (WG9 Action 30) and 'ED' (WG9 Action 51). A well-articulated response from US (Rob Heeley) raised concerns about how these terms are used in charts and the potential for misunderstanding by the mariner. In WG Letter 13/2013, I promised to submit a proposed change to the definition of 'Existence Doubtful' (ED) to the Hydrographic Dictionary WG. The text of my letter follows:

Dear Jean [Laporte]

#### **Subject: Definition of Existence Doubtful**

The existing definitions in S-32 are:

Reported Danger: An object dangerous to navigation which is shown on a chart but the existence of which has not been confirmed. Sometimes called vigia.

Existence Doubtful: Of uncertain existence. The expression is used principally on charts to indicate the possible existence of a rock, shoal, etc., the actual existence of which has not been established. Usually shown by the abbreviation 'ED'.

In guiding the compiler in the use of ED and Rep on charts, we found it is difficult to distinguish between the two usages. An extract from comments by US (Rob Heeley) at Annex [also Annex to this paper] give a flavour of the difficulty, with the most relevant portions highlighted in yellow.

I responded to Heeley as follows:

Your explanation of when to use ED as well is useful. The current definition of ED is almost the same as Reported. It certainly does not give very good guidance for cartographers in selecting when to apply it, or for the chart user on exactly what the difference is. Perhaps the S-32 (and therefore S-4 and INT1 definitions) should be changed to (changes in blue):

Existence Doubtful: Of **possible** existence. The expression is used principally on charts to indicate the **reported** existence of a rock, shoal, etc., the actual existence of which **is considered improbable**. Usually shown by the abbreviation 'ED'.

Please take for HDWG consideration. Jeff Wootton is also aware of this proposal and suggested it should be copied to the Chairman of DQWG.

### **Analysis / Discussion.**

Chairman DQWG takes a slightly different view (in response to the letter above):

Interesting letter. I do still have grave concerns about the term ED at all. If it [*Chairman: presumably 'it' here is the feature in question*] is not doubtful enough to remove then it should be Rep rather than ED. Also, as in Heeley's letter, I cannot ever see a ship captain deciding to go over an ED if it is of a potential danger to his ship. Hence I cannot see the advantage in having the ED legend on a chart. Similarly the Rep legend should not encourage navigators to cross it but should indicate further worries in that if HOs are willing to put Rep dangers on charts then the quality of survey in the area must be poor and so other dangers could well exist as well.

This is true, except that indicating 'ED' may serve to demonstrate that an apparently aberrant sounding is not a printing error, but a 'possible' actual depth. 'Rep' would achieve this just as well. Both abbreviations are also designed to encourage vessels to send further reports if they find anything to prove, disprove or in anyway indicate the likelihood one way of the other.

Should HOs make a judgment whether a reported danger is improbable, or leave that to the mariner to decide from the context? If so, 'Rep' is adequate and we can eliminate 'ED' from our options.

### **Conclusions.**

ED is no longer useful and could be misunderstood.

### **Recommendations.**

Make ED obsolescent and add an explanation of this decision in S-4. 'Rep' to be used in all cases, whether the feature is 'probable' or 'improbable', leaving the mariner to determine which it is.

Leave HDWG to determine whether the definition of the now obsolescent term 'Existence Doubtful' should be amended (but inform them of the CSPCWG decision).

### **Justification and Impacts.**

Simplification of chart symbols and abbreviations.

### **Action required of CSPCWG.**

The CSPCWG is invited to:

Endorse the recommendation.

Advise the Secretary to prepare a update for S-4 for submission to Member States.

Annex to CSPCWG Letter of 24 October 2013 to HDWG

**Extract from US(NOAA) response to CSPCWG Letter 07/2013**

S-32 defines “reported danger” as “an object dangerous to navigation which is shown on a chart but the existence of which has not been confirmed. Sometimes called *vigia*.” The definition includes **all dangers**, not just a shoal.

Hundreds, if not thousands, of reported objects, other than shoals, have already been charted using the current S-32 definition for “reported danger” and the current text in B-424.5 for using “*Rep*” in association with a reported danger.

At NOAA, we have charted rocks, wrecks, shoals or other dangerous features that have been reported to exist as “*Rep*” when the existence is believable (making “*ED*” inappropriate), but the object has not been “confirmed” (see S-32 definition) by a trusted survey.

We interpret this as agreeing with the existing B-424.5 text and existing S-32 definition for “reported danger”.

According to the Use of the Object Catalogue for ENC (UOC), Section 6.5, a “**Reported Danger**” should be encoded with a QUAPOS of 7 or 8 (7 = **reported** (not surveyed); 8 = **reported** (not confirmed]).

The UOC also states that a “**Reported danger**” should be encoded with a QUASOU of 8 or 9 [8 = **value reported** (not surveyed); 9 = **value reported** (not confirmed)]. A (QUASOU) of 9 = value **reported** not confirmed, which is defined as, “depth value obtained from a report, which has not been possible to confirm. S-57 and the UOC also use “Reported” as an encoding value for rocks, coral reefs and wrecks. Thousands of features have been encoded using these guidelines. The proposed revision to S-4, B-424.5 would remove the use of “*Rep*” with such reported dangers.

Although not expressly stated in S-32, Existence Doubtful (*ED*), would indicate that the chart producer has sufficient reason to **doubt** that the object actually **exists**, but cannot prove it without an authoritative survey.

If the *H.M.S. Guy Fawkes* reports in passage that it observed a sunken wreck, I’d chart a wreck with a “*Rep*”. I don’t doubt that the wreck is there (British sailors don’t lie), so I’m **not** inclined to chart it as “*ED*”. I don’t doubt that it exists. The position might even be accurate. When I get a survey, I can remove the “*Rep*”.

If, on the other hand, I get reports that large vessels repeatedly cross a charted wreck covered by 2 metres, but I don’t have a survey or investigation report from a trusted source, I’d use the “*ED*” label because I tend to doubt that the wreck is really there, but I can’t prove it.

Perhaps, there is a difference in the perception of the word, “doubtful.” The Oxford Dictionary (a British favourite) defines “doubtful as 1. Feeling uncertain about

something, 2. Not known with certainty, and 3, which better fits the American perception.....”**improbable.**”

Webster’s Dictionary (commonly used in the United States) defines doubt as, “to be skeptical, to tend to distrust, disbelieve.”

### **B-424.3**

B-424.3 The proposed text for S-4 states., “ED, meaning EXISTENCE DOUBTFUL., must be used to indicate the possible, but unconfirmed , existence of a rock, shoal. Etc (sometimes called a “vigia”) “

I hesitate to chart a danger as “EXISTENCE DOUBTFUL” if its existence is possible, or probable, but I don’t have confirmation. “Doubtful” means that I don’t think that it actually exists. Why would I think that it doesn’t exist, if someone just reported that it does exist?

Scenario:

1. A professional mariner reports a DANGER.
2. Dangers are “dangerous.”
3. Reading the proposed S-4 , Section 424.3, edit, the cartographer charts “*ED*”, **meaning Existence doubtful, (which) must be used to indicate the possible, but unconfirmed, existence of a rock, shoal, etc”**
4. The next month, a cruise ship Captain, sees the “*ED*” label, determines that the hydrographic office **doubts** that the danger **exists**, that its existence is improbable, and proceeds to ignore the existing but unconfirmed danger.
5. Launch the lifeboats!

Additional proposed text for B-424.3 states that “Equally, satellite imagery and other modern data sources may enable previously reported doubtful features to be removed from charts with confidence. “

I’m not removing that Shoal ED or Subm Pile ED, or Rock ED from a muddy, turbid, navigable river without a hydrographic investigation.