

**6th DQWG Meeting  
Silver Spring, USA (24-26 July 2012)**

**Paper for Consideration by DQWG**

**TSMAD assessment of Data Quality Proposals for S-100 register and S-101**

<b>Submitted by:</b>	United States (NOAA)
<b>Executive Summary:</b>	This paper is to report on the United States (NOAA) observations regarding the new features proposed by DQWG for the replacement of M_ACCY, M_QUAL, and M_SREL
<b>Related Documents:</b>	TSMAD23 -4.5.13, 4.5.13A, 4.5.13B
<b>Related Projects:</b>	S-100 Register and S-101 Feature Catalogue

### Introduction / Background

In 2011, TSMAD requested that DQWG examine the meta-features that are currently used in S-57 ENC's to encode and depict data quality indicators for bathymetric, survey and non-bathymetric data. As a result DQWG submitted a paper at TSMAD 23 for initial assessment. This paper was then referred to the Data Classification and Encoding Guide sub working group for further discussion.

Recognizing that the work of the DQWG is still in progress, this paper only represents observations from the United States (NOAA) to DQWG regarding the modelling of the features and hopes that DQWG will take these under consideration while finalizing its model.

### Analysis/Discussion

Prior to TSMAD24, the DCEG sub working group held a meeting to further discuss the work of DQWG. At this meeting the following new features and their associated attributes were discussed in great detail.

QualityOfSurvey  
QualityOfNonBathymetricData  
QualityOfBathymetricData

For QualityOfSurvey, the initial assessment is that this feature is a fully developed realization of M\_SREL and the only comment is that there will be a new complex attribute for survey date range.

For QualityOfNonBathymetricData, the United States (NOAA) has the following remarks:

1. Category of Temporal Variation should not be bound to this feature for S-101 as it was not considered relevant for the ENC.
2. Orientation Uncertainty should be part of a complex attribute for orientation which would include sub-attributes for orientation value and orientation uncertainty
  - a. In addition, this new complex should be included at the relevant feature level (eg, NAVLNE, RECTRC) rather than at the meta level.

For QualityOfBathymetricData, the United States (NOAA) has the following remarks:

1. Category of Temporal Variation – this is one of key things that is missing from S-57 and we appreciate its inclusion. Please note the following comments regarding the enumerant values:
  - a. Remove Un-Assessed as an allowable attribute
  - b. Re-visit the enumerants for temporal variation. It is unclear what the term event would convey to the mariner.

- c. Recommend changing Likely to change/unlikely to change to subject to change/not subject to change

The United States recognizes that the most important aspect of the DQWG work is the improved visualization of survey indicators, however, noting that the population of CATZOC has been a slow process in the existing environment, we wonder if such a radical model change representing the underlying data is the way forward in S-101 and if DQWG has studied the cost resources to Hydrographic Offices when it comes to the implementation of the revised data quality indicators.

**Recommendations**

The United States (NOAA) asks that DQWG consider its initial assessment regarding Quality of Bathymetric Data and Quality of Non Bathymetric Data as part of its ongoing discussions.

**Action Required of DQWG:**

The DQWG is invited to:

- a. Note the United States (NOAA) recommendations as part of their ongoing discussions.