



Hydrographic Services and Standards Committee

Strengthening the requirement to construct paper charts on WGS84

(HSSC5-05.5C)

HSSC 5

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Presented by Mr. Peter Jones (CSPCWG Chair)

Introduction & Background

- ✦ Paper charts historically constructed on variety of horizontal geodetic datums: local, national, regional – and many still are
- ✦ Adopting a single, coherent global position system enhances standardization:
 - Mitigates risk of positional error (HO, user)
 - Meets modern mariners' expectations
 - Eases the navigation task



Issues & Analysis (1 of 2)

- ✦ ENC's must be referenced to WGS84, with positional quality attributes assigned to data
- ✦ Mariners' understanding and application of datum issues less well understood – reliance on GNSS for navigation and positioning
- ✦ Resolving and re-positioning of source data required for database population
- ✦ Do chart-producing MS assign sufficient priority to this task in modernizing their chart folio?

Cont.



Issues & Analysis (2 of 2)

Revision of paper charts is costly and may be infrequent (leading to a long life in use):

- maximise opportunity to standardize
- INT charts
- ★ Recognise need to plan:
 - consult stakeholder authorities, external impacts
 - programme to minimise impact on chart user



Conclusions (1 of 2)

- ✦ Guidance exists in S-4 for both vertical and horizontal reference datums (B-405, B201)
- ✦ CSPCWG agreed to strengthen and clarify the principle and guidance
 - Developed by WG and published in S-4 edition 4.4.0, Sep 2013 (annex of paper refers)
- ✦ Not a new principle but raised to:
 - Enhance visibility of subject to MS' technical leaders

cont.



Conclusions (2 of 2)

- ★ Various precise geodetic terms exist:
 - ‘WGS84’ has become well known to mariners in respect of positions from GNSS
 - The term recognised by the navigator is applicable to the nautical chart
 - Where WGS84-compatible reference datums are applicable (e.g. CGCS2000, NAD83, ETRS89), ‘WGS-84’ must be added for the mariner’s understanding



Action requested of HSSC

- ★ For MS producing paper charts, to influence the priority assigned to this element of standardization in their chart revision plans to:
 - accelerate timescale in reaching community objective of constructing charts on a common global horizontal reference datum
- ★ Agree to the continued use of standardized term 'WGS84' in referencing GNSS positions in:
 - nautical charts (paper, ENC) horizontal reference datum
 - IHO product standards and specifications
- ★ Endorse these principles and recommendations

