

Paper for Consideration by NCWG
Merging of PA and PD abbreviations on paper charts

Submitted by:	France
Executive Summary:	Proposal to merge PA and PD
Related Documents:	Paper NCWG7-06.3A - Merging of PA and PD abbreviations on paper charts
Related Projects:	S-4 (including INT1); S-101 FC and DCEG

Introduction / Background

1. At the NCWG meeting 7, France presented a paper that essentially recommended to:
 - Merge the use of PA and PD on paper charts (in favour of PA);
 - Add recommendation in S-4 to preferably encode quantity (POSACC) rather than quality (QUAPOS) attribute when possible.
2. Although there was a consensus in favour of the first recommendations, a few questions were raised by the Working Group, and it was decided that additional work had to be conducted before the NCWG could validate the proposal.
3. This paper tries to answer the questions raised at NCWG7 as stated in the NCWG7 Meeting report.

Analysis / Discussion

4. *“With regards PD the UK questioned whether in the S-101 environment, it would be possible to add some sort of value to the quantity of uncertainty when you have more than one reported position and you can’t differentiate between them.”*
 - ➔ In such a case, there is no guidance in S-4 on how to determine the charted position of the object. We assumed that the producing authority chooses to chart the object at the most “offshore” position or at the position that seems the most reliable, but other options exist. In such a case, attribute POSACC could be populated with the distance between the charted position and the furthest reported position. This rule could be transferred to S-101.
5. *“The IHO Sec enquired as to whether FR had experimented with the proposed merging in existing products to see if there were any impacts on the current products based on the database they have. FR confirmed that no experimentation with the proposal had yet taken place.”*
 - ➔ We do not see that this change would be an issue for databases and derived products. When a chart is being revised, object for which the geometry has QUAPOS=5 would have to be change to 4 in the S-57 database. The ENC product would have this change applied automatically. The same would apply to the paper chart (PD would be replaced by PA).
6. *“The IHO Sec raised concerns with the additional wording proposed to S-4 which was considered to constitute essentially encoding guidance for ENC’s... “*
 - ➔ The proposed wording for S-4 has been reviewed and references to S-57 removed (see below).

Conclusions

7. *“The Chair summarized the discussion by noting that in general the group approved the main principle but that additional work was required to agree on more suitable wording.”*
8. It is proposed to review S-4 as follows:

Text to be removed

Added or changed text

- **B-120** (Page 4)

† PD Position doubtful B 8

- **B-422** **WRECKS, FOUL GROUND, OBSTRUCTIONS**

...

h. The abbreviations ‘PA’, ‘PD’ and ‘ED’ may be inserted against wreck symbols as appropriate, see B-424.

- **B-424** **DOUBTFUL DANGER**

The **international abbreviations** ‘PA’, ‘PD’, ‘ED’, ‘SD’ must not be written in full or translated. Brackets and full stops should be omitted. The abbreviations should be in sloping letters when applied to a water feature, for example shoal or submerged wreck. Doubtful shoals must be encircled by a danger line, or the appropriate depth contour. However, existing depth contours should not be extended to accommodate these shoals.

Note : Technical Resolution 1/1947 as amended recommends hydrographic offices to ‘review the applicable legends appearing on their charts and remove all those that do not seem to refer to actual or possible dangers to navigation.’

The abbreviations ‘PA’, ‘PD’ and ‘ED’ may be applied to features other than dangers where necessary.

Note that reports of uncharted islands in unexpected places may be from sightings of floating debris or volcanic residue. Genuine uncharted islands in deep water are increasingly unlikely now that satellite imagery is readily available. Equally, satellite imagery and other modern data sources may enable previously reported doubtful features to be removed from charts with confidence.

- **B-424.1**

PA, meaning **Position Approximate**, must be used to indicate that the position of a shoal, wreck, or other object either has not been accurately determined or does not remain fixed or has been reported in various positions and not confirmed in any of them.

PA B7

- **B-424.2**

PD, meaning **Position doubtful**, was formerly used to indicate a shoal, wreck, or other object has been reported in various positions and not confirmed in any of them.

PD B8

It is no longer useful to chart PD, as it brings no additional value as compared to PA to the mariner in terms of navigation (see B-424.1).

- **C-404.3**

Doubtful dangers and reported shoal depths: these should be charted in

accordance with B-424. The former practice in encircling all reported depths by a danger line (INT1 I4) has been discontinued. When depths of less than 200 metres are involved, or implied, the appropriate blue tint shall be added (see C-402.4). The abbreviations *PA*, *PD*, *ED*, *SD* and *Rep* shall be used as appropriate (see B-422.1 to B-424.4). It is essential that doubtful dangers can be identified without ambiguity and that they can be distinguished from confirmed features, particularly where the small-scale chart is the largest scale for an ocean area. The year (in parentheses) in which the doubtful data was reported may be inserted, provided that this additional information does not render the chart less legible.

- INT1: B7 and B8 should be reviewed to be in line with B-424.1;
- INT1: “*PD*” should be deleted from the table of abbreviations.

Recommendation

9. In order to simplify the nautical chart and remove the ambiguous distinction between abbreviations *PA* and *PD*, it is recommended that the NCWG agrees with the changes detailed in the conclusion here before.

Action required of NCWG

10. The NCWG is invited to:
 - a. **Discuss** this paper and its recommendation.