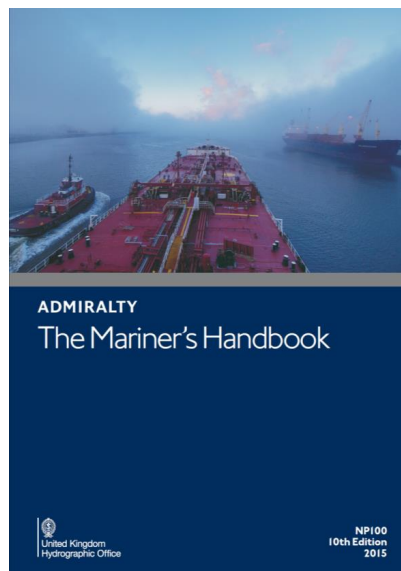




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The Mariner's Handbook:

*What is the maximum draught that
can fit into the port?*



Susie Alder, Product Manager



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The Mariner's Handbook

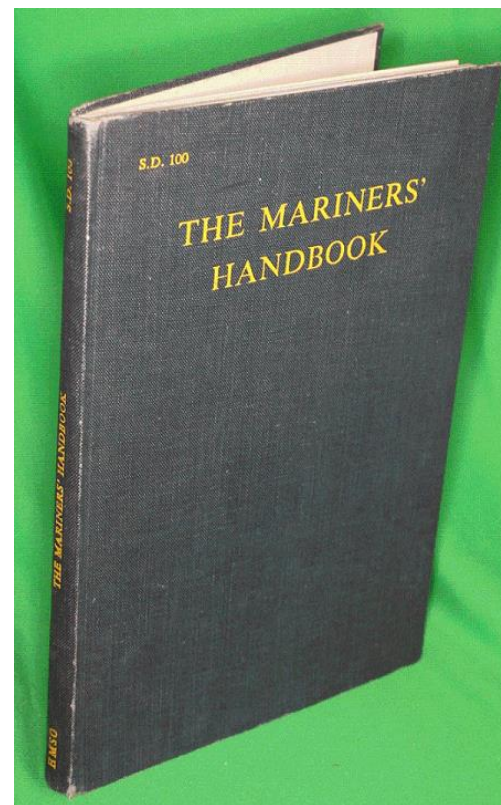
- **Background**
- **How is the new edition different?**
- **Why is it relevant at the conference today?**



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History

- **First published 1962**
- **Mostly hydrographic sources**





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**New edition approximately every 5
years**

**1st edition
1962**



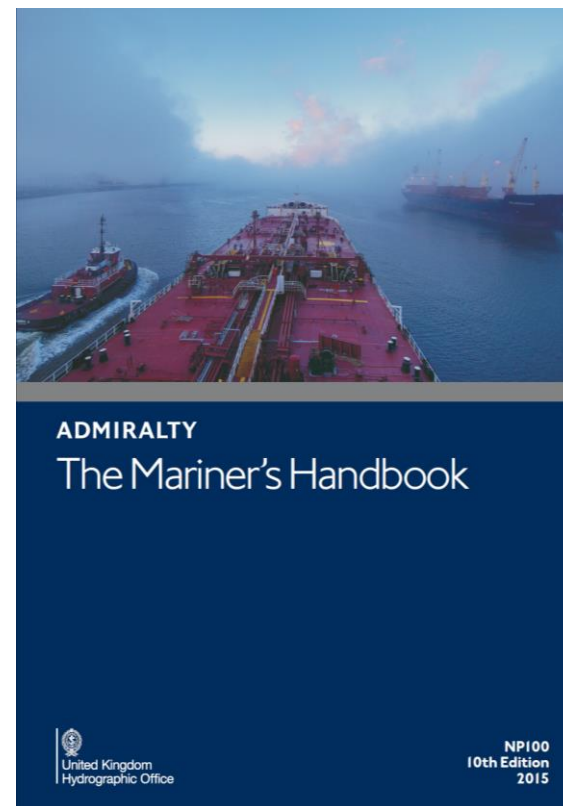
**10th edition
2015**



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The Mariner's Handbook

- **9 revisions**
- **10th edition published 2015**





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The Mariner's Handbook

■ What is different?

- Structure
- Layout – use of tables
- Images and diagrams
- Glossary
- Revised depth diagram



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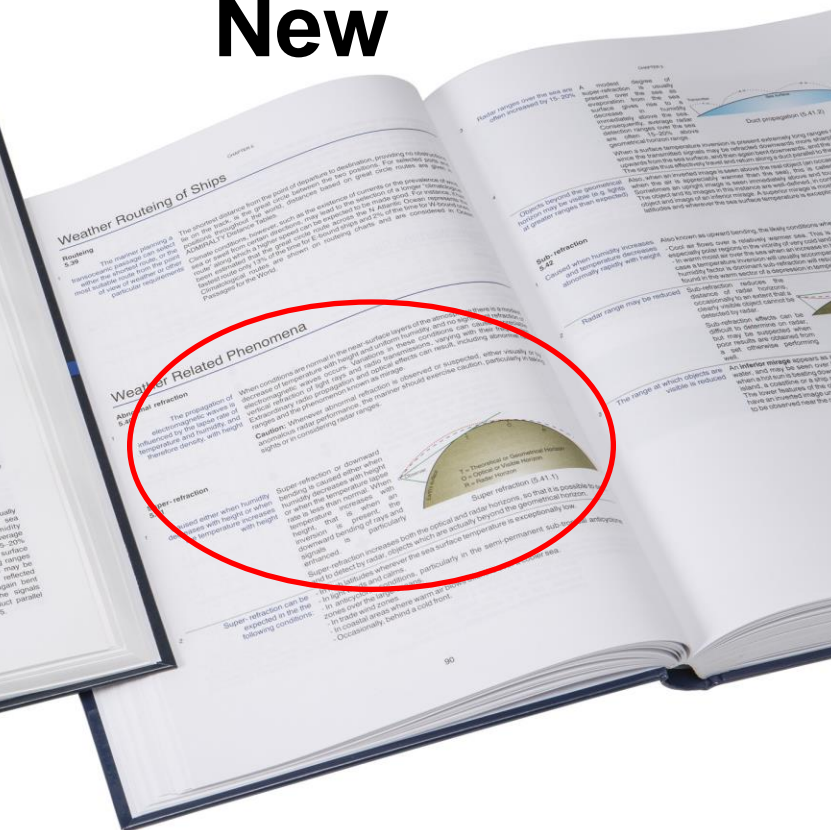
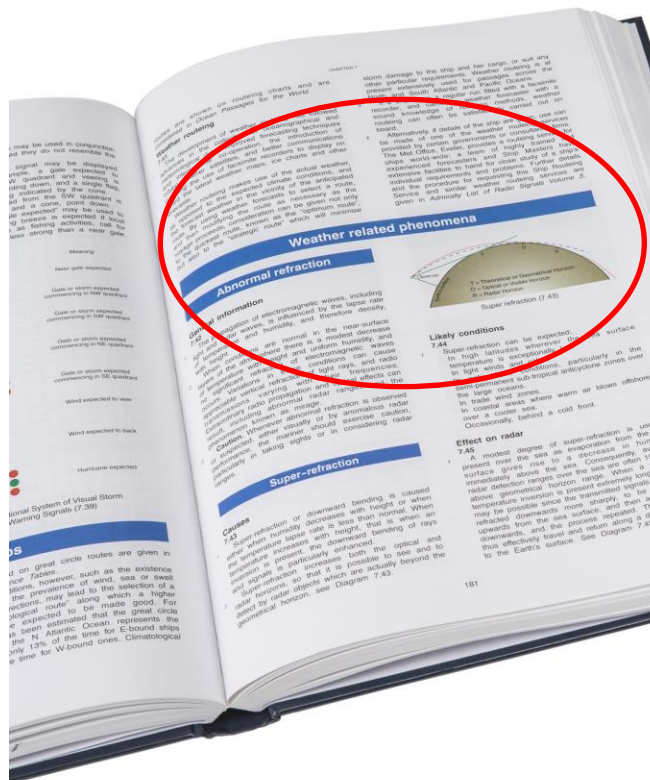
- **10th edition = Major revision - 12 month process**
- **Content rewritten and sources updated**
- **Contributors:**
 - IHMA representatives
 - Port of Rotterdam
 - Major shipping companies
- **Use of subject matter experts across UKHO and external organisations**



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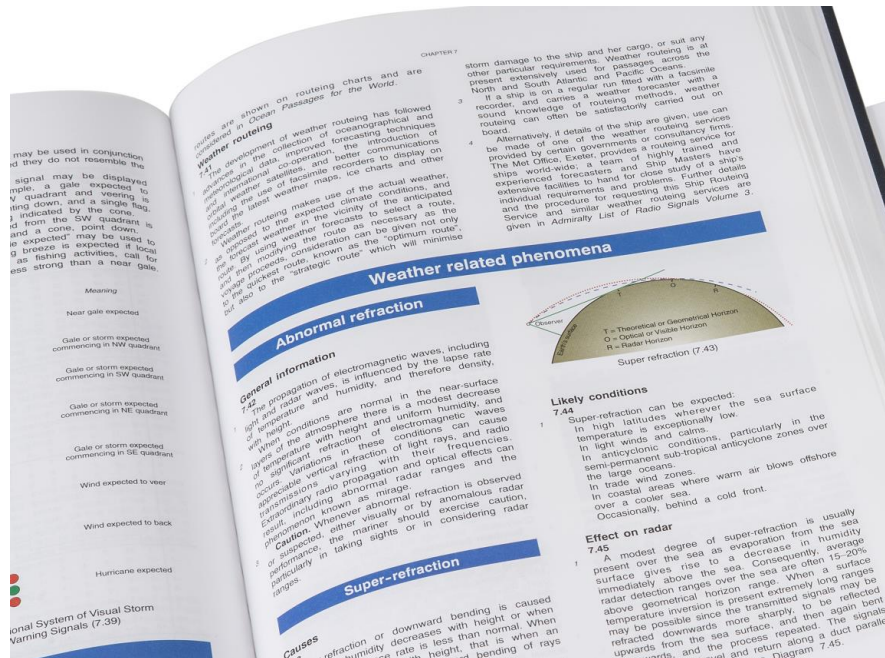
Old

New





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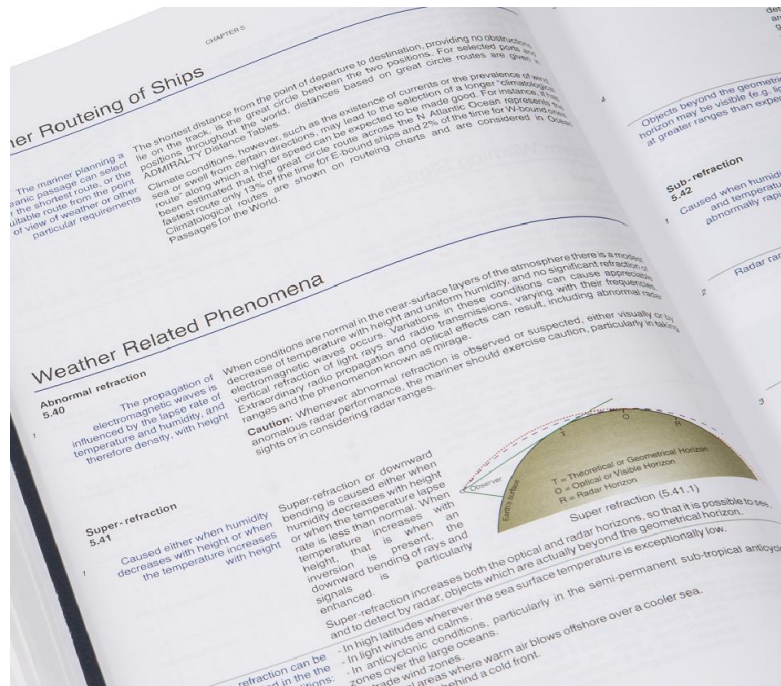


Old

- Two columns
- Lots of text



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New

- Use of tables
- More graphics
- Improved glossary



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The Mariner's Handbook

■ The real question:

- Is it still useful and relevant to me as a Harbour Master?

■ How is it useful in port operations?

- Calculation of max allowed draught
- Contributes to safety and efficiency
- A common vocabulary is ESSENTIAL



Depth Diagram and Glossary

- A key visual aid
- Definitions for essential terms

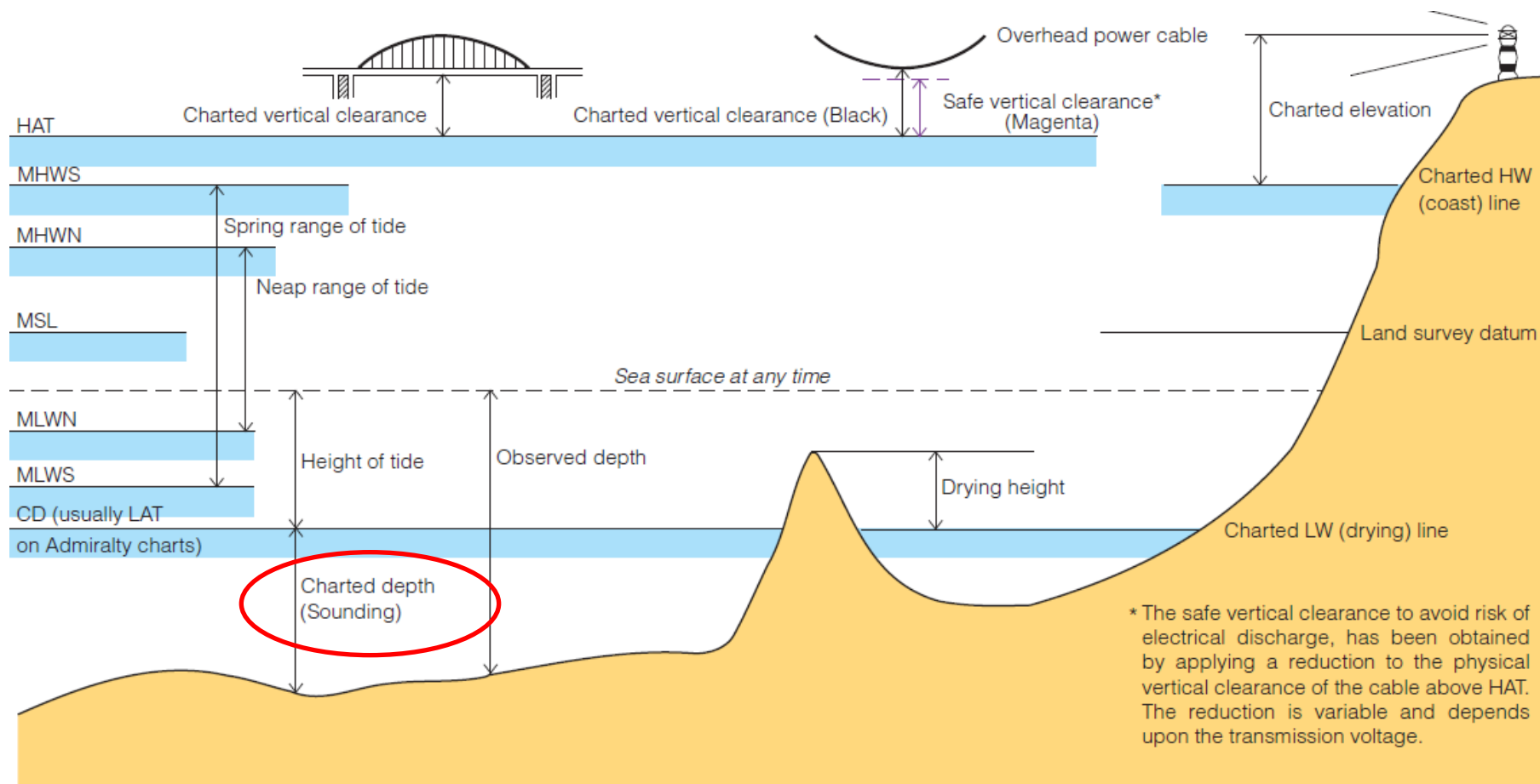
- Working together with IHMA to close the gap
 - Reduce confusion
- Additional terminology
 - Making it clearer

Depths and Heights used in Charting

Chart Datum 1.16	
1 Chart Datum (CD) is the vertical plane of reference to which all charted depths and drying heights are related	In tidal areas CD is chosen to show the least depth of water found in any place under normal meteorological conditions. CD will vary from place to place in relation to the land survey datum, or Mean Sea Level.
Vertical clearances 1.17	
1 HAT(Highest Astronomical Tide) is used for vertical clearance Datum for vertical clearances may be adapted	In some areas national datums may be used, where this is the case national documents should specify any differences between the national datum and HAT. If high water levels in a specific area frequently deviate from HAT. In non-tidal waters a high water datum should be used.
Datums in use on charts 1.18	
1 CD is usually Lowest Astronomical Tide (LAT) but selection is dependent on tidal range	Where the tidal range is less than about 0.3 m, CD may be Mean Sea Level (MSL). Where the tidal range is appreciable, the Lowest Astronomical Tide (LAT), or as close to this level as is practically acceptable, should be adopted as CD. If low water levels in a specific area frequently deviate from LAT, CD may be adapted accordingly.
2 LAT is being adopted worldwide	Since LAT is the recommended CD with worldwide application, and has the additional merit of removing all negative values from tide tables it is being adopted worldwide gradually.
In offshore areas co-tidal charts and atlases may be available to reduce soundings to CD	
3 The CD must be the same as those for Tide Tables	For example co-tidal charts for the North Sea, compiled under the auspices of the North Sea Hydrographic Commission. In depths greater than 200 m a reduction for tide is not necessary. Whatever CD is used, it is essential that it is the same as the datum adopted for the predictions given in authoritative Tide Tables. Where, over time, datums are under adjustment to LAT or take into account changes to sea levels, the changes to Tide Tables and charts should be coordinated as far as possible.
4 Connection of CD and land survey datums are not quoted on charts	They should, however, be readily available for the use of surveyors and engineers in national Tide Tables.
Other factors affecting chart accuracy 1.19	
1 Graduations inserted on all plans	On old plans these graduations are often based on imperfect information, whenever an accurate geographical position is quoted it is necessary to quote the chart/plan number from which it has been derived.
Paper charts may have minor distortion	The paper on which charts are printed is subject to distortion, the effect is seldom sufficient to affect navigation. It should not be expected that accurate series of angles taken to different points will exactly agree, especially if the lines are to objects at some distance.



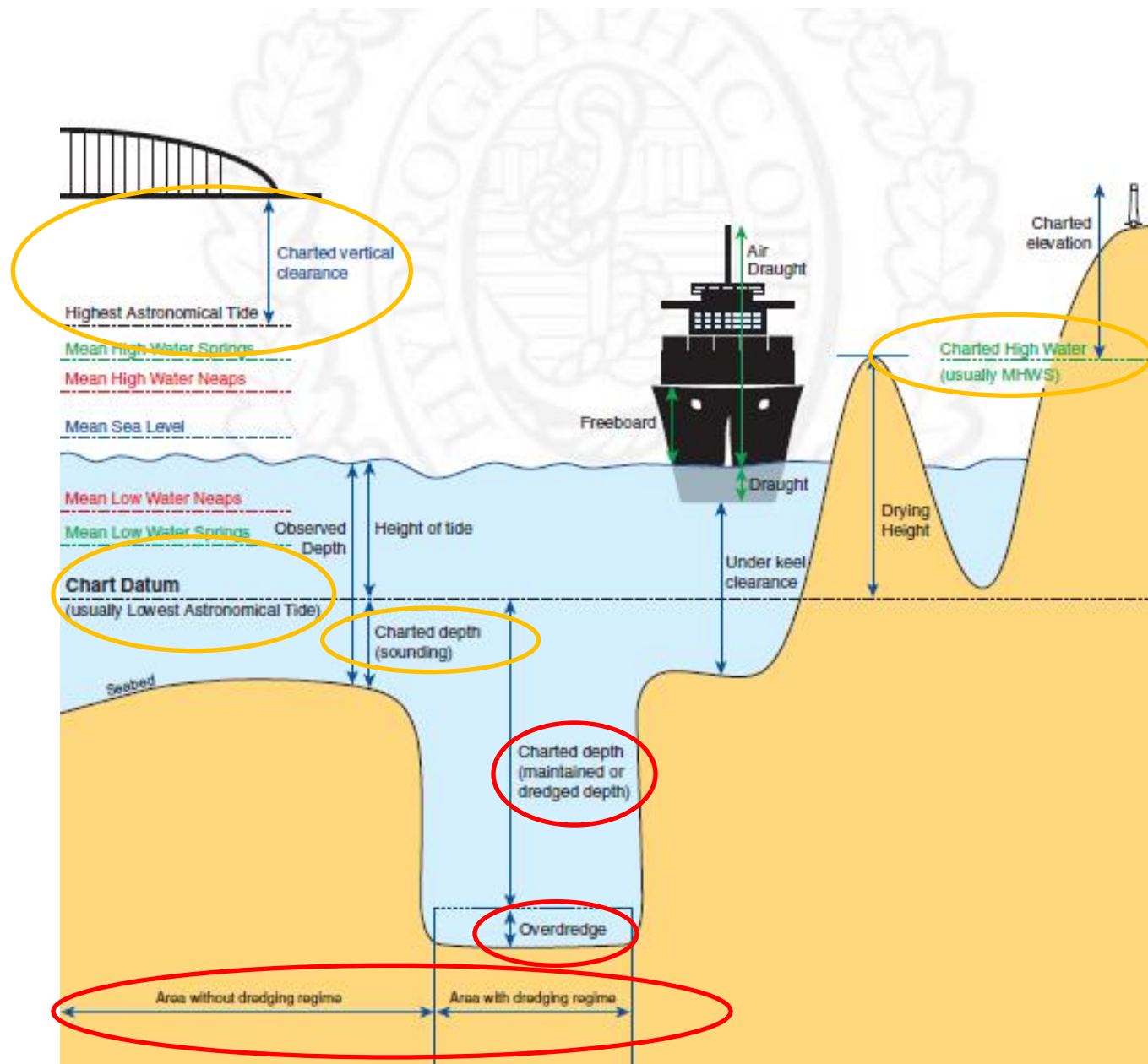
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- Ship
- Port-specific terms
- Datums qualified
- Agreed terminology



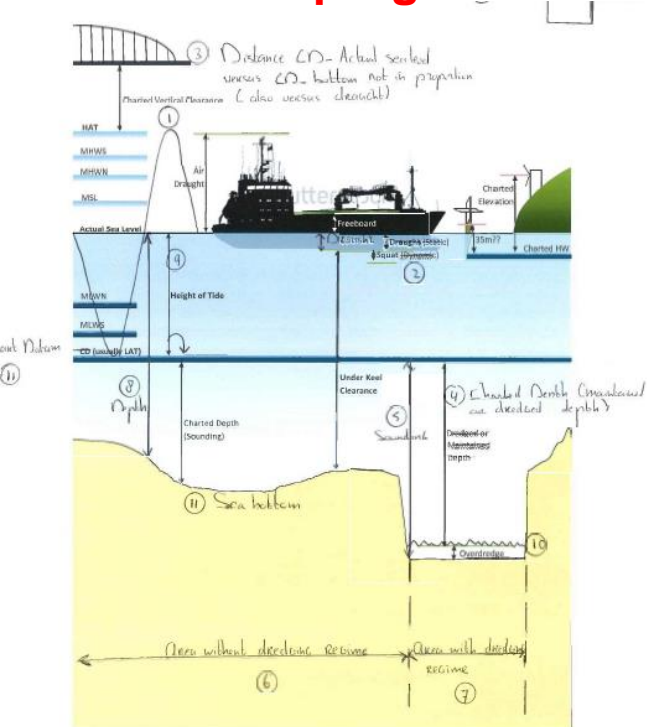


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A Common Language

- Draught vs Draft
- Sea floor vs Seabed
- Chart Datum vs CD
- Static/Dynamic Draught
- Charted depth vs Dredged depth
- Maintained depth vs Charted depth
- Squat

work in progress





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Glossary: Example New Terms

- **Controlled/contract depth**
- **Overdredge**
- **Dredging routine**
- **Siltation rate**
- **Minimum controlled bottom level**



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Impact on Port operations

- **Explaining admission policy**
- **Consistency of language**
 - Port ↔ shipping
 - Pilot station ↔ berth
- **Wording and explanations**
- **Common language = safe and efficient operations**
- **Standard publication**



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The Mariner's Handbook

- **It is still useful and relevant to me as a Harbour Master**
- **It is useful in port operations**



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The Mariner's Handbook

*What is the maximum draught that can fit
into the port?*



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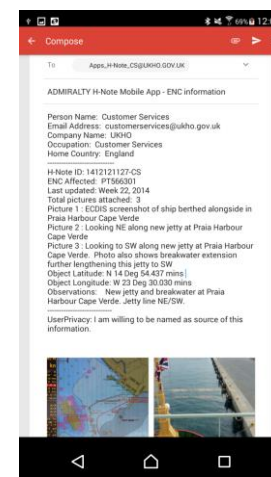
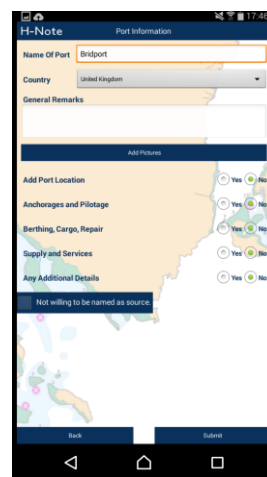
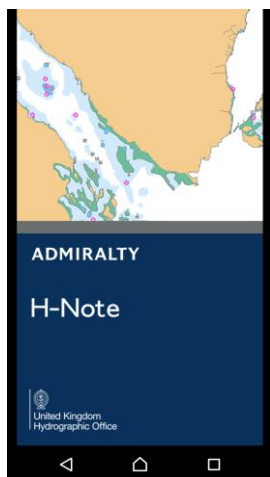
H-Note and MIP



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H-Note Mobile App

- The United Kingdom Hydrographic Office requests mariners report information affecting ADMIRALTY Charts and Publications, issues with ENC's and any other any other suspected dangers to navigation.
- The ADMIRALTY H-Note App presents a new way for you send Hydrographic data to the UKHO using a mobile device.
- The application takes advantage of your camera and GPS to help gather information and email it to us using your smart phone or Tablet's email software.
- Available on Android devices (Google Play) and iOS Apple devices (itunes App Store)





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Maritime Information Portal

- Spatial display of H-Notes, Product Limits, SD NMs, RNWs, Piracy Incidents and Ports.
- Available as a BETA and requesting feedback on desired functionality – send to research.development@ukho.gov.uk
- Available at www.ukho.gov.uk/mip

