



UK Hydrographic
Office

UKHO S-100 overview to SAIHC

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Agenda

- › UKHO S-100 Strategy Themes and Goals
- › UKHO S-100 Priorities and Roadmap
- › Work Completed
- › Work in Progress
- › UKHO Gridding Analysis Phase I



UKHO S-100 strategy themes and goals



Standards development

- › Development of Standards of Regulations through the IHO Working Groups



Collaboration

- › Collaboration across Commercial and Defence through OEMs and ECDIS manufacturers



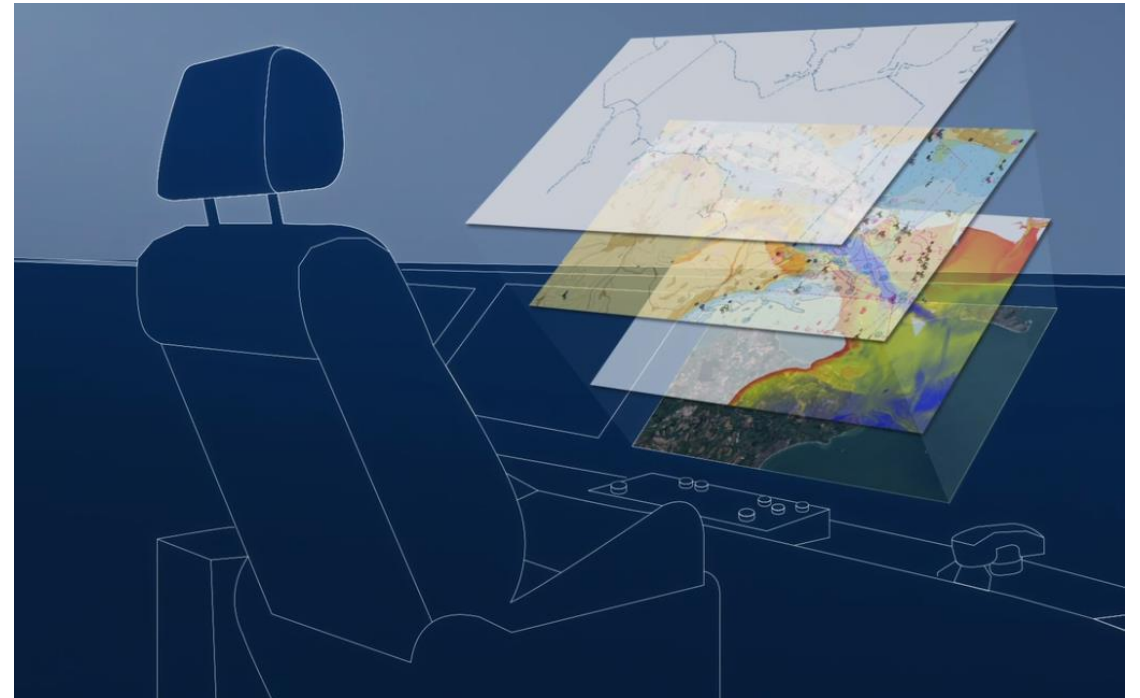
UKHO capability

- › Flexible workforce through SMEs and skilled workforce
- › Flexible infrastructure through production systems



UKHO S-100 priorities and roadmap

- › S-101 - Electronic Navigational Chart (ENC)
- › S-102 - Bathymetric Surface
- › S-104 - Water Level Information for Surface Navigation
- › S-111 - Surface Currents
- › S-121 - Maritime Limits and Boundaries
- › S-122 - Marine Protected Areas
- › S-124 - Navigational Warnings
- › S-129 - Under Keel Clearance Management (UKCM)





Work completed

- › S-101 – Trial data sets produced
- › S-102 – Trial data sets produced
- › S-121 – Sponsored OGC pilot for production and user access to S-121

Our S-100 Expertise

The UK Hydrographic Office (UKHO) is committed to supporting the development of S-100 products and services. These new and complementary products and services will utilise the IHO S-100 Data Framework which will become the new standard for marine navigation during the S-100 Implementation Decade 2020-30.

More broadly, as we prepare to enter the United Nations' 'Decade of Ocean Science for Sustainable Development', it has never been more important to bring together multiple sources of marine data to build new partnerships and provide solutions to new challenges. That's why we're working hard to make the data sets we hold more accessible - helping you to make the most of the marine environment.

Here you will find the UKHO's S-100 trial data sets for download, designed to support your development, testing and use of future S-100 products and services. As the development of other IHO S-100 product specifications matures we will look to create and add additional data sets to the site.

Discover our S-100 trial data sets

[Download all UKHO S-100 trial data sets](#)

S-101 Electronic Navigational Charts

An Electronic Navigational Chart (ENC) is a vector chart produced on the authority of a government authorised Hydrographic Office or other relevant government institution.

Its primary purpose is for use within an Electronic Chart Display and Information System (ECDIS) to meet International Maritime Organization (IMO) and Safety of Life at Sea (SOLAS) chart carriage requirements.

The ENC contains an extraction of real-world information necessary for the safe navigation of vessels.

For more information on the S-101 standard including the latest product specification and feature catalogue please visit the [IHO website](#).

[Download S-101 trial data](#)

S-102 Bathymetric Surface

The Bathymetric Surface data product is a set of matrix grid values, organised to form a quadrilateral grid coverage with associated metadata. These values represent a bathymetric depth model for an area of the sea, river, lake or other navigable water.

The data set includes both estimated depth values and uncertainty estimates associated with the depth values.

In addition, a discrete point set called a 'tracking list' allows users to override any particular grid matrix value to deliberately bias the data for safety of navigation. The data set can carry both measured depth information that may be used for scientific purposes, as well as corrected depth information that may be used for navigation.

For more information on the S-102 standard including the latest product specification please visit the [IHO website](#).

[Download S-102 trial data](#)



Work in progress

- › S-104 – Dynamic Water Levels – Proof of Concept
- › S-III – Surface Currents – Scoping data requirements for user needs
- › S-122 – Marine Protected Areas – Producing trial data sets
- › Data Ingest Portal
- › Data encryption
- › Data licencing
- › Further gridding analysis and understanding user needs



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UKHO Gridding Analysis Phase 1

- › UK Rationale
- › Background
- › Benefits
- › Next Steps
- › Phase 2



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Thank you

