# SDB for Sea Trials

**SDB Day**

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# SDB for Sea Trials

The Requirement – Satellite Data – Paper Charts – AML Charts - Pros & Cons - Conclusions

## Outline

- The Requirement
- Satellite Data
- Paper Charts
- AML Charts
- Pros & Cons
- Conclusions

# SDB for Sea Trials



A set of sea areas had to be examined in order to explore their suitability for sea trials:

- Channels
- Coastal Areas
- Open Sea

They had to be investigated for

- Available Depth
- Obstructions
- Bottom Types

# SDB for Sea Trials



Optical Data:

- Resolution 2m, 5m, 30m
- Archived and Tasked
- Used for
  - SDB
  - Surface Obstructions
  - Bottom Types
- Turbidity (water, atmosphere)
- No Submerged Obstructions
- Quality of positions

Radar Data:

- Resolution 3m
- Tasked
- Used for Surface Obstructions

# SDB for Sea Trials



A0 Raster Paper Charts had been produced showing

- Grid
- Depth Areas with Quality
- Obstructions with Details
- Bottom Type Areas
- Legend

Symbology:

- Distinct Colour Bands
- Distinct Colour Bands combined with Grey Scale

Objects & Attributes:

- AML Catalogue was used

# SDB for Sea Trials



AML Charts had been produced from Raster and Point Object Data

- CLB, LBO, ESB
- Contour generation (areas, contours)
- Generation of objects with attributes (A, L, P)

Challenges:

- Contour generation
- CLB does not cater for quality
- Surface Obstructions had to be put to LBO (P)

# SDB for Sea Trials



Pros:

- Satellite Data & Chart Products where quickly available and allowed for detailed preparation, execution and evaluation of trials
- Conventional Chart tables and electronic systems could be used

Challenges:

- Quality of tasked optical satellite data
- No submerged obstructions
- Quality of positions
- Contour generation
- No quality in CLB
- Surface obstructions in LBO

# SDB for Sea Trials



Pros:

Satellite Data & Chart Product provided timely for

- Available Depths (**in deep water, too**)
- Surface Obstructions (all areas)
- Bottom Characteristics (shallow areas (quality))

Challenges:

Trial personnel had to be trained to deal with

- unidentified objects
- dynamic objects
- Missing quality in CLB
- LBO used for surface obstructions

# SDB for Sea Trials



1) Do satellite-based earth observation again, when sea trials have to be performed in large, remote, dynamic sea areas

2) Adapt to budget, risk, task, and complexity of areas and trials

# Contact

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