

Voyage Planning and Execution within Planned Navigation Corridors

Purpose

To ensure that navigation corridors are used appropriately when planning on ECDIS, and to ensure that a voyage plan approved by the ship's Master is executed within the planned navigation corridor so far as is reasonably practicable.

Guidance for

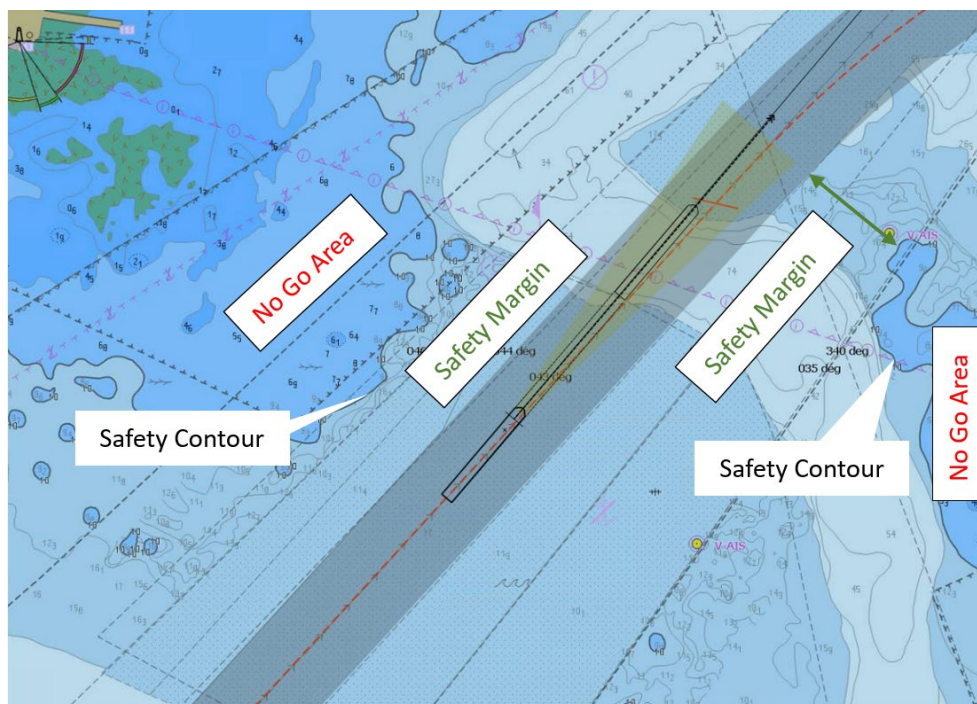
- Ship operators
- Masters
- Officers Of the Watch (OOW's)
- Recognised organisations
- Flag states

Voyage Planning with XTD/XTL (cross track distances or limits)

"Voyage and passage planning includes appraisal, i.e. gathering all information relevant to the contemplated voyage or passage; detailed planning of the whole voyage or passage from berth to berth, including those areas necessitating the presence of a pilot; execution of the plan; and the monitoring of the progress of the vessel in the implementation of the plan". IMO Guidelines for Voyage Planning (Res A.893(21)).

Having made a full appraisal of the intended voyage, a detailed passage plan is to be plotted on an ECDIS whilst also factoring in the intended XTD/XTL from berth to berth for each leg. This determines the planned navigational corridor for each leg of the passage that is electronically checked for charted hazards using the route check function. Any specific dangers that are identified can then be considered and amended as necessary prior to the Master's final approval of the overall passage plan and start of the voyage.

When a bridge team is monitoring and executing the voyage, remaining within the planned navigation corridor is intended to minimise workload as it readily indicates pre-checked waters where the ship can safely navigate.



Navigating within the planned navigation corridor

The safety contour setting, which should be set at the safety depth, is used to define a generally “No-Go” area i.e. where the ship may be in imminent danger and should avoid where possible. Note that this setting uses the closest available chart contour that is at least as deep as the setting entered, for example if the chart has contours at 10m and 15m and the safety contour setting is 11m, then the safety contour on the chart will be the 15m contour. Depth soundings that are equal to or shallower than the safety depth will be black and must always be avoided (soundings deeper than the safety depth are grey).

Guidance for departing from the Planned Navigation Corridor into the Safety Margin.

The voyage is expected to be executed in accordance with the voyage plan, and monitored to remain within the planned navigation corridor so far as is reasonably practicable. Any departure from the approved voyage plan is to be carefully considered.

An adequate balance between the width of the planned navigational corridor and the safety margin is to be determined for each leg of the voyage plan by taking into account:

- GNSS accuracy.
- Vessel's characteristics.
- ENC's Zone of Confidence (ZoC).
- Expected traffic conditions.

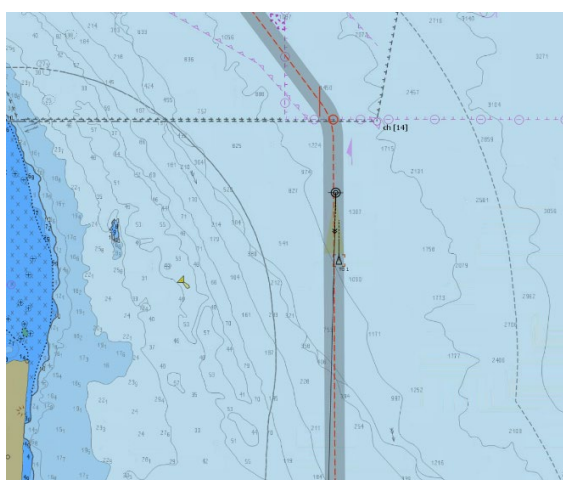
Areas outside of the planned navigation corridor up to No-Go areas are considered a safety margin available for unplanned/unforeseen circumstances. Departing from the approved navigation corridor into the safety margin requires additional caution to maintain situational awareness since this area has not been electronically verified, pre checked or approved by the Master.

When it is necessary to immediately use the safety margin outside the planned navigation corridor, a visual check and assessment of the ECDIS should be made by the bridge team and a plan discussed/agreed by all to execute a deviation and return as soon as possible given the circumstances. The use of ECDIS look ahead functionalities in such cases becomes paramount.

Should a non-urgent deviation from the voyage plan be identified, the Master is to be consulted and the voyage plan amended prior to leaving the planned navigation corridor.

Recording reasons for departing from the approved voyage plan will aid verification of sound navigation practices.

AMSA recognises the need for reasonable use of the safety margins outside the planned navigation corridor. However, unreasonable, and systematic use of the safety margins may indicate the need to reassess the voyage planning practices.



Close quarters situation developing within the planned navigation corridor



Ship manoeuvres outside the planned navigation corridor to avoid risk of collision

Port State Control (PSC) inspections

Voyage planning requirements giving effect to SOLAS requirements are established in Australian legislation in Marine Order 27.

A deficiency may be considered where an Australian PSC Officer finds:

- unreasonable and systemic use of the safety margins outside of the planned navigation corridor.
- no consideration given in voyage planning to the variation in XTD/XTL depending on confined or open waters.

IMO references

A.893(21) – Guidelines for Voyage Planning

MSC.232(82) – Revised Performance Standards for Electronic Chart Display and Information Systems (ECDIS)

MSC.530(106) – Performance standards for Electronic Chart Display and Information Systems (ECDIS)

MSC.1/Circ.1503/Rev.2 ECDIS – Guidance for Good Practice