

Paper for Consideration by S-101PT

Portrayal of Fairways

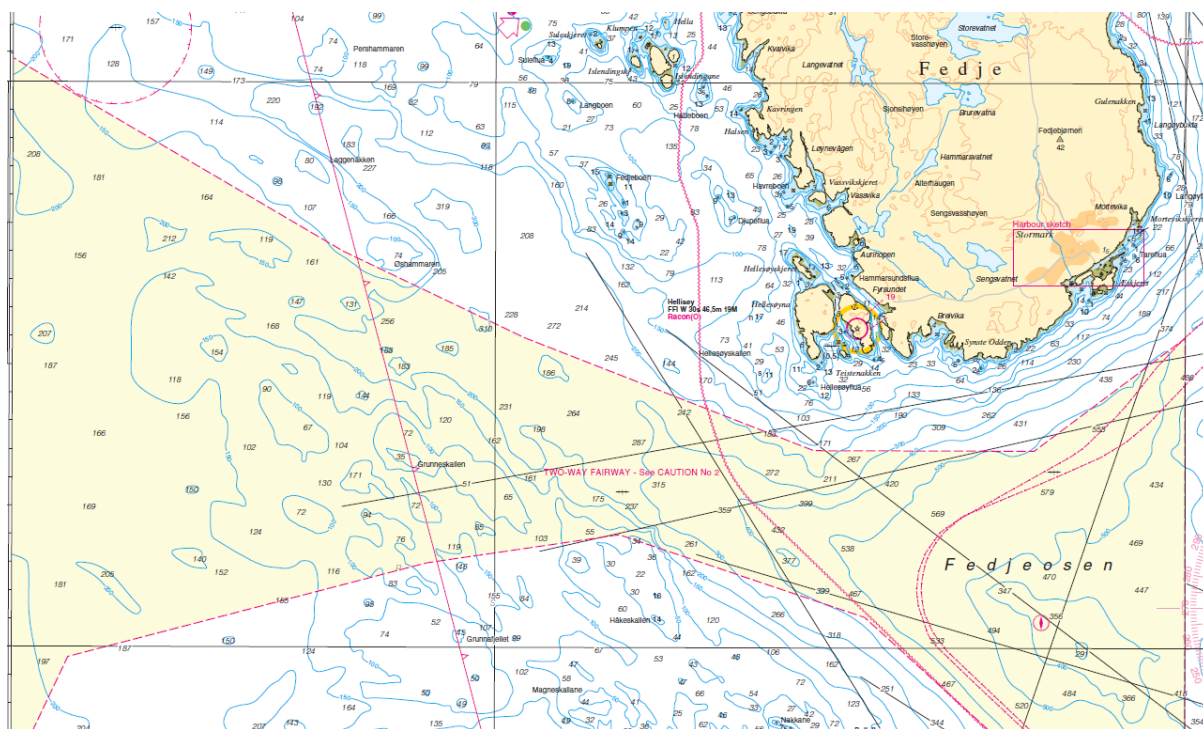
Submitted by:	Norwegian Hydrographic Service
Executive Summary:	Considerations for the portrayal of Fairways.
Related Documents:	-
Related Projects:	-

Introduction / Background

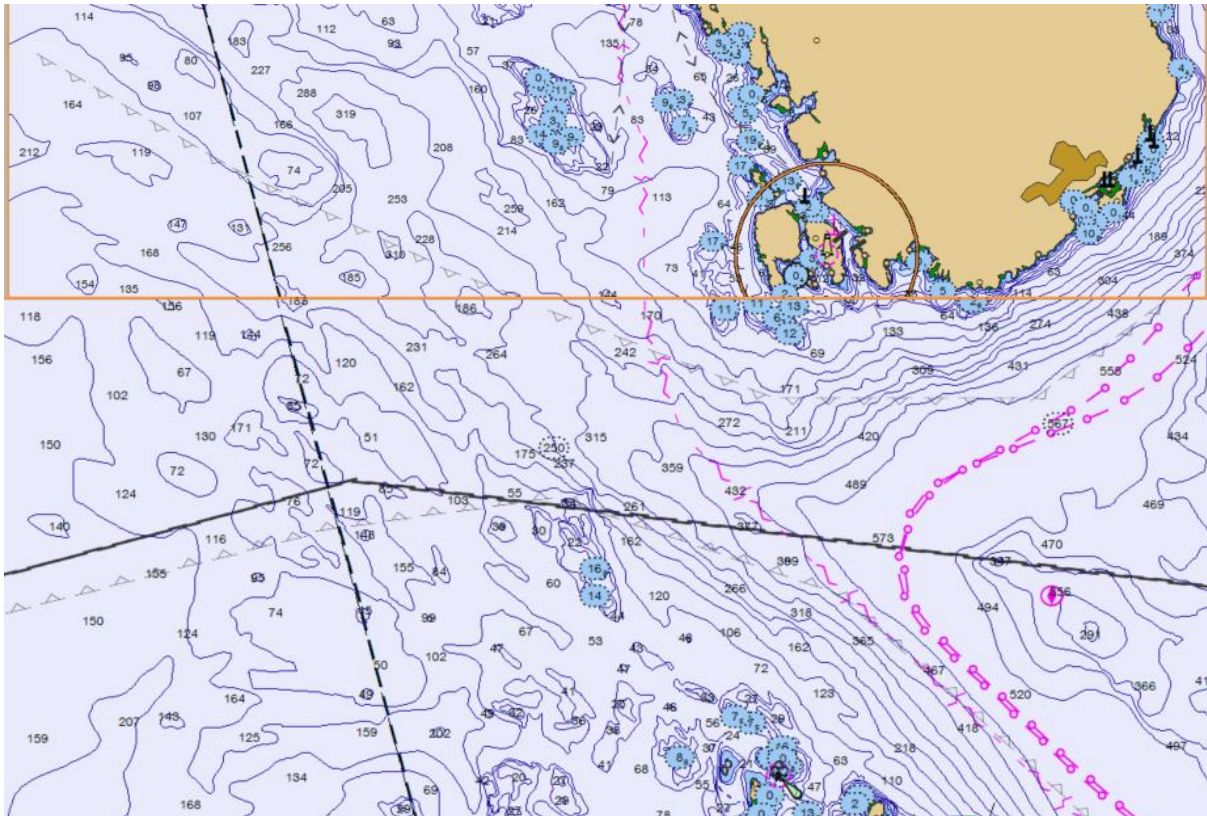
The Norwegian Hydrographic Service (NHS) recently received feedback regarding the portrayal of fairways in its products. The feedback, received from the Norwegian Coastal Administration (NCA), highlighted the differences in portrayal between paper charts and ENC's and expressed a strong desire for changes to the manner in which fairways are portrayed in ENC's in order to improve their visibility for the mariner.

Analysis/Discussion

The NCA is the regulatory authority responsible for the designation and maintenance of fairways in Norway. The NHS recently received feedback from the NCA highlighting a need for improvements in the way that fairways are portrayed in its ENC products. Fairways are portrayed differently in paper charts and ENC's. For paper charts, the relevant section of S-4 is B -434.5, which states that fairways must be delimited by a bold magenta dashed line: INT 1 M15. However, for ENC's the S-52 equivalent is portrayed using a light grey colour. The NCA provided the example from charts covering Fedjeosen north of Florø to highlight the difference.





1. Extract from Norwegian paper chart 483



2. Extract from Norwegian ENC

It is important that navigation lines and symbols show clearly against the background shade. However, as is demonstrated in the example given it is believed that currently fairways are not portrayed clearly enough in ENCs and this is problematic in the view of the NCA. Furthermore, the NCA assert that many vessels do not adjust the display of their ENCs when sailing in Norwegian waters, and highlight a tendency for mariners to have all available information displayed on the ENC. When used in this way the fairways are very difficult to see and it is recommended that the future symbology for fairways in ENCs should be amended to enable them to be more visible in the charts. Although it is acknowledged that this argument is underpinned to, an extent by errors in user behaviour it is still considered that changes in portrayal would make fairways more conspicuous therefore benefiting the mariner.

One potential solution would be to amend the colour assigned to the feature. Magenta is currently used to highlight critically important features including traffic routes.

Colour	X	Y	L	
Magenta	.30	.17	2.0	 Magenta, conspic
				 Magenta, faint

Use of magenta would result in the demarcation of the fairway appearing more clearly against the background shade. It is acknowledged that any proposed change could potentially cause confusion to mariners during the transition period from S-57 to S-101 with the dual fuel approach. The use of faint magenta could go some way to overcoming any problems in this regard. Use of faint magenta could potentially bring both improvements to the visibility of the fairways in S-101 ENCs whilst being similar enough to the existing S-57 symbology to prevent excessive confusion to the mariner.

Another alternative option to consider could be to continue to use the grey colour but increase the thickness of the lines. Increasing the thickness of the line would result in the feature appearing more prominent in the chart and thus improving the visibility of the boundary of the fairway for the mariner.

Conclusions:

The current portrayal of fairways in S-57 ENC's can be problematic with the features not showing clearly enough against the chart background. It is considered important to attempt to address this issue by amending the relevant symbol portrayal in S-101 ENC's.

Recommendations

S -101PT to consider amending the portrayal of fairways in S-101 ENC's.

Justification and Impacts

Although it is acknowledged that this action could be considered as low priority, it is nevertheless believed that amending the symbology will help improve the visibility of fairways in ENC's and its importance in this regard is underlined.

Action Required

The S 101PT is invited to:

- a. Note the issue raised in this paper
- b. Discuss the recommendation and take any necessary action.