16th Baška GNSS Conference: PNT Technologies, Techniques and Applications
and
The 3rd Workshop on Smart, Blue and Green Maritime Technologies

Poster section

SBGMT

Decision-Making Process for Places of Refuge Through the STM System

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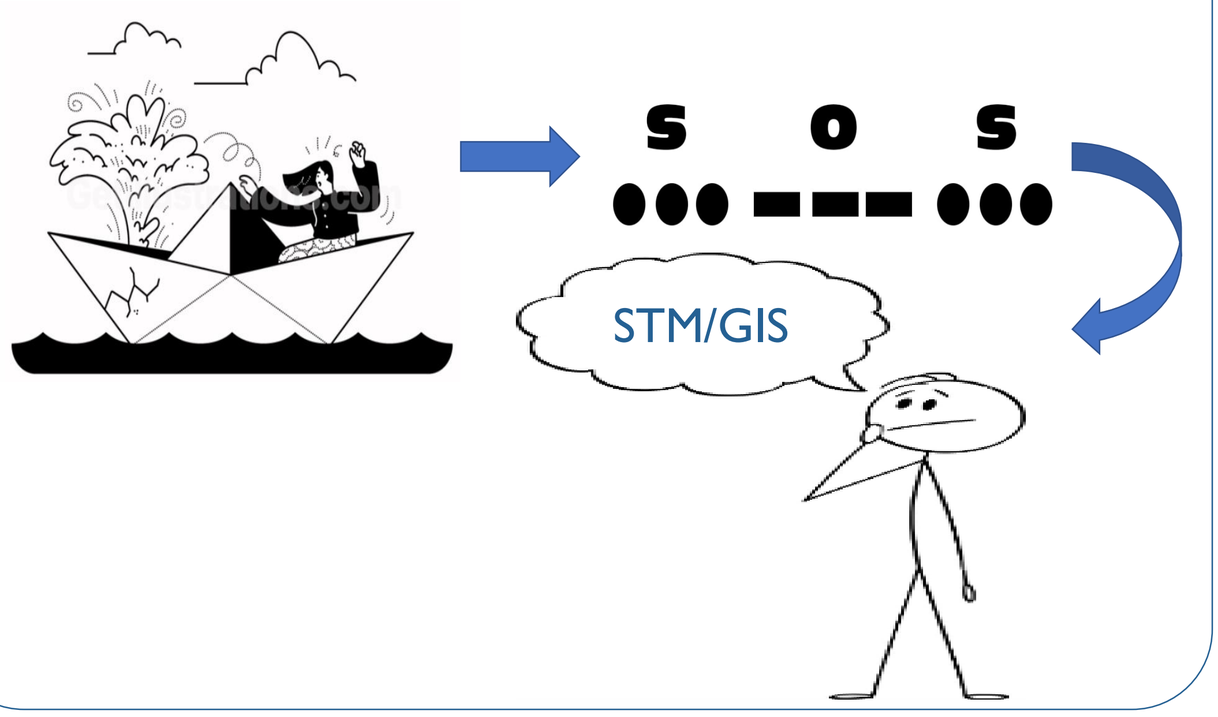
Abstract

When a vessel is in distress and needs assistance, the IMO provides guidelines for places of refuge. In some situations, deciding on a suitable place of refuge represents a long-lasting process that depends on a variety of influencing factors. The aim of the article is to propose, present, and discuss a solution for time optimisation and improvement of communication processes towards making decisions for places of refuge as a possible integration of the STM system and the GIS application.

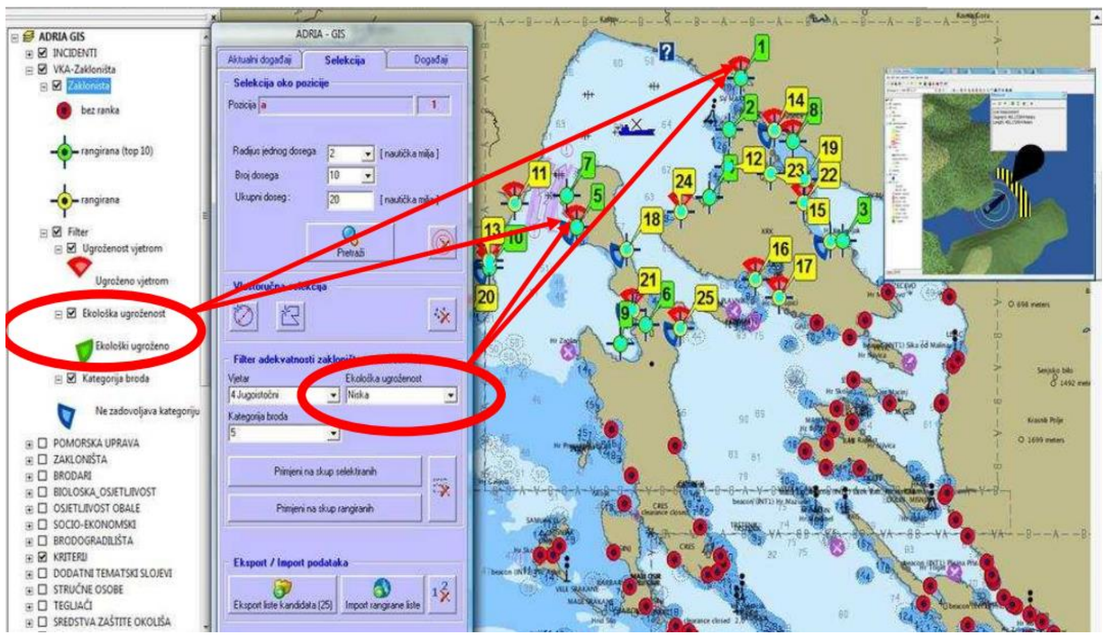
Introduction and Background

Place of refuges represent a place where a ship in need of assistance can take action to enable it to stabilize its condition. Good example of decision-making process for places of refuge in the Republic of Croatia is based on GIS application. The proposed article discusses a conceptual integration of GIS application into the STM system.



Methodology

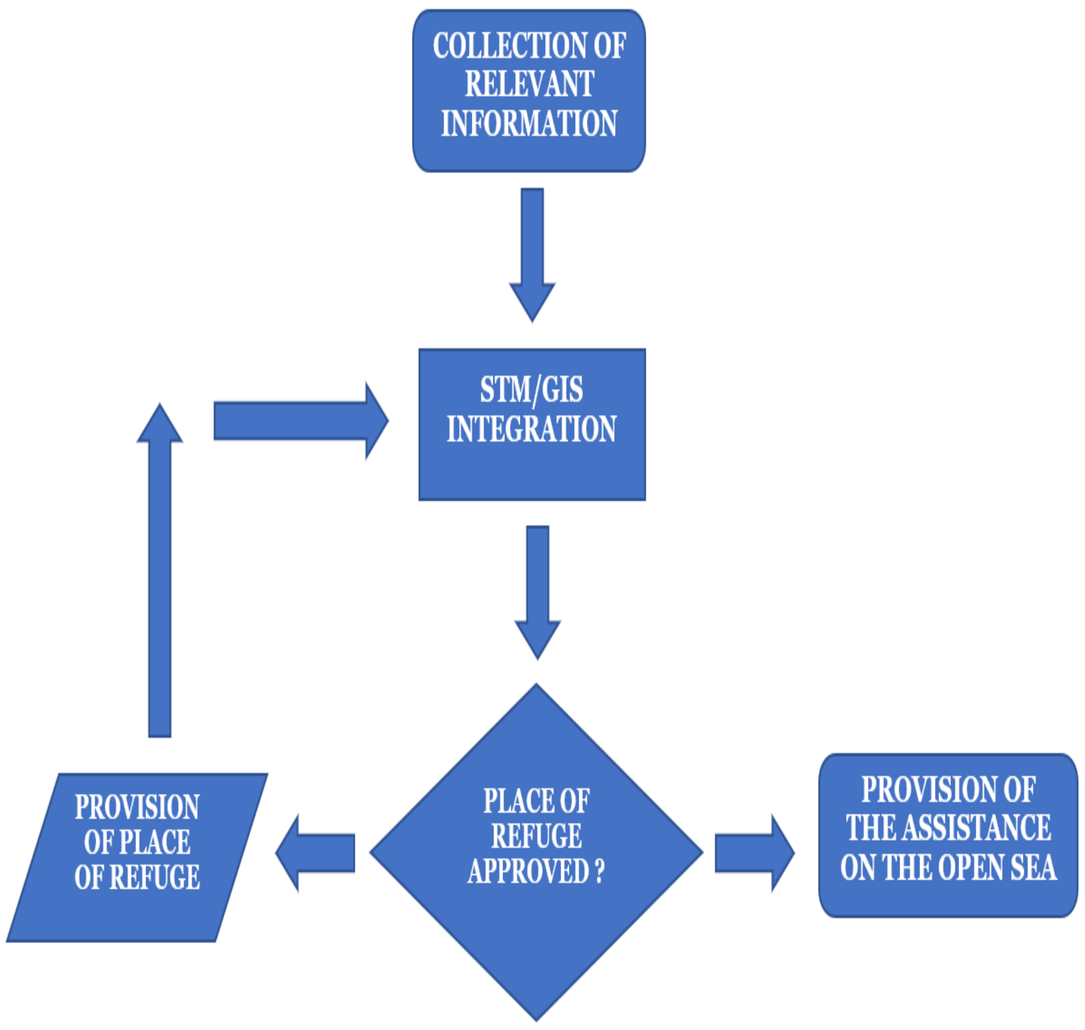
Multi-citeria decision analysis together with information given by GIS application is basis for the decision-making process.



Multi-criteria analysis

Results and Discussion

The architecture of improvement of communication through the STM is presented as a decision-making algorithm.
The process starts by collecting all relevant information required to decide on a suitable place of refuge. This information is entered by the vessel into the STM/GIS integration system. In case of an approved decision for a place of refuge, the officers on board will have a visible route in STM that will lead them to the location of place of refuge predefined in the GIS database.



Decision-making process for place of refuge

The need for continuous improvement of the database and other information important for choosing a suitable place of refuge, remains a matter of further refinements and work towards the proposal realisation.

Conclusion

The proposed integration between STM system and GIS application can significantly reduce the time of information exchange between the ship in distress and the responsible persons on shore and provide with sound and clear directives towards the place of refuge.

Acknowledgements: This research is funded by the EUREKA project (Adriatic-Ionian joint approach for development and harmonisation of procedures and regulations in the field of navigation safety).