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(54) Title: AN APPARATUS FOR DETERMINING AN OPTIMAL ROUTE OF A MARITIME SHIP

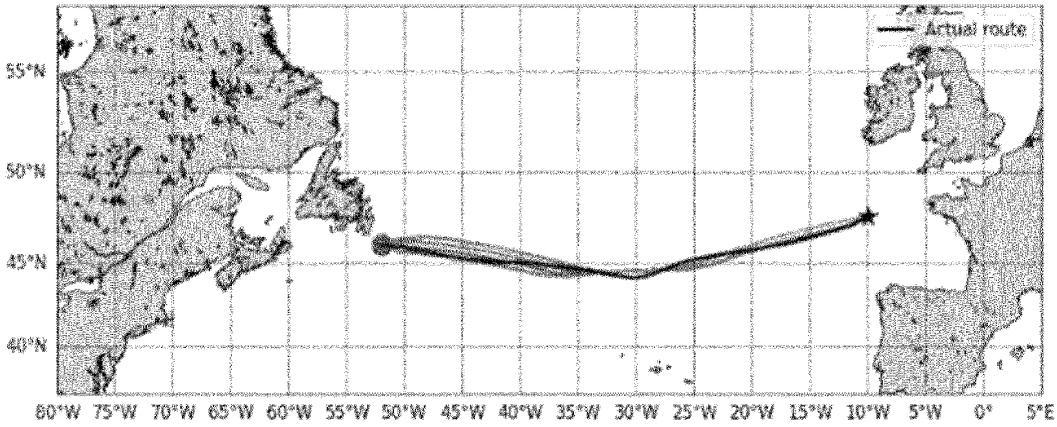


Fig. 9

(57) Abstract: The invention relates to an apparatus (100) for determining an optimalroute of a maritime ship.The apparatus (100) comprises a database (101) configured to store a predetermined service speedof the maritime ship. The apparatus (100) further comprises a processor (103) configured to generate a plurality of state nodes, to determine a plurality of time sets, to append the plurality of time sets to the plurality of state nodes to obtain a plurality of appended state nodes, to generate a plurality of edges based on the plurality of appended state nodes, to generate a graph based on the plurality of appended state nodes and the plurality of edges, to apply a preliminarily generated optimal routealgorithm on the graph to obtain a preliminarily defined optimal-routepath route, and to apply a genetic algorithm based on the preliminarily defined optimal-routepathto obtain the optimalroute of the maritime ship.

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