



Fig. 9 Optimal Search Route as Calculated

In this case, the optimal search route has been generated within five generations and is reasonable for dominant weather conditions and by the popular code of practice.

IV. CONCLUSIONS

The authors have developed an algorithm for optimal multi-direction search route in search and rescue operation for a search and rescue vessel strategy. Building an adapted BFO algorithm can be used to calculate the optimal route for multi-directional search by BFO algorithm is highly reliable, capable of calculating and giving suggestions optimal route, even in complicated weather conditions.

Determining the search area and computing optimal search options are critical to the search results. The BFO algorithm can be applied effectively to determine and applies it to compute the optimal multi-direction search route for search and rescue vessel around the East Sea of Vietnam.

To improve the efficiency of the computation, it is necessary to study the change in the direction of the search and rescue vessel due to the weather during the search and rescue operation, and the search area is changed due to the weather also. These works will be studied by the authors shortly.

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