Development and enhancement of integrated and interactive search and rescue aid tools for the Indian Ocean

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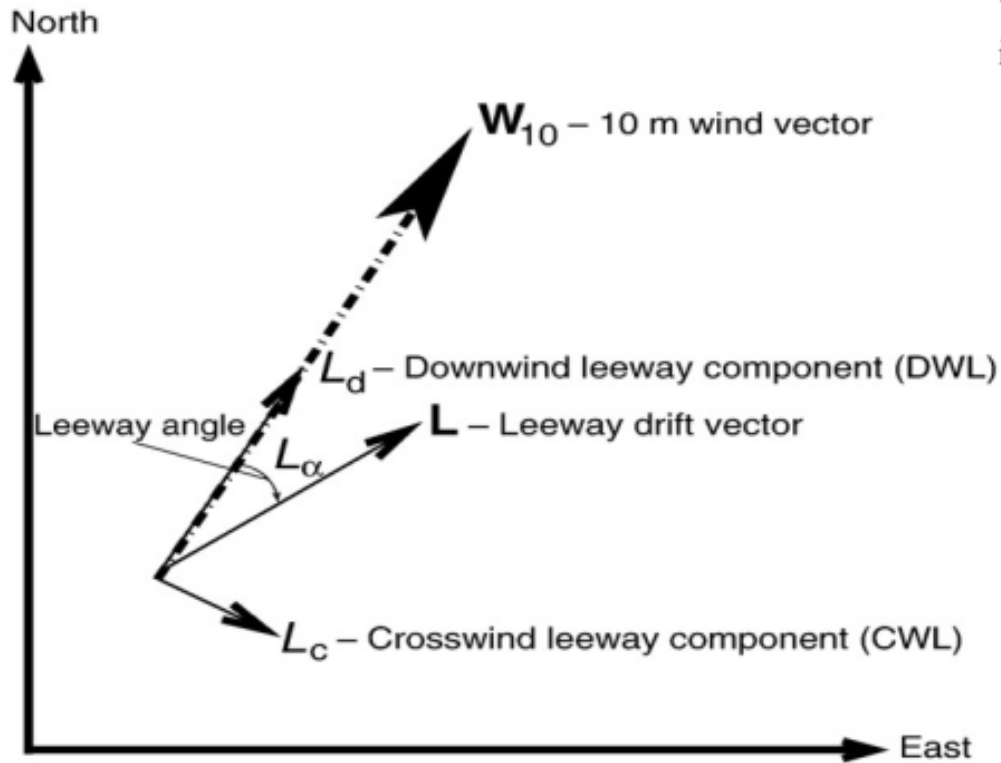
the ensemble members is deduced.

Fig 1. shows a drifting object whose leeway L (leeway wind vector) consist of a downwind componenet (DWL), L_d, and a crosswind component (CWL), L_c . The angle between the downwind direction and the leeway drift direction is termed the leeway divergence angle, L_α . [taken from
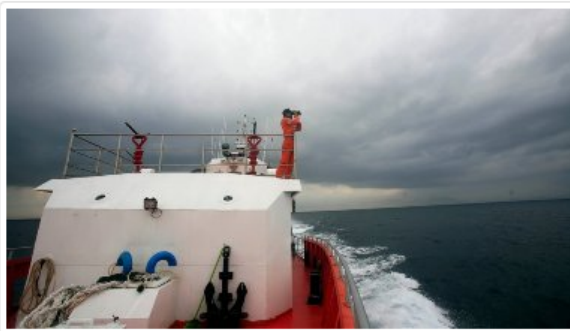
SARAT
Search and Rescue Aid Tool

About SARAT

ESSO-INCOIS (under the MoES) has successfully developed a Search And Rescue Aid Tool (SARAT) for facilitating the search and rescue operations in the seas to locate individuals/vessels in distress in the shortest possible time. This has been initiated and developed under the Make in India program. The tool uses model ensembling that accounts for uncertainties in the initial location as well as last known time of the missing object, to locate the person or object with high probability. The movement of the missing objects are governed mainly by the currents and winds. The tool is based on model currents derived from very high resolution Regional Ocean Modelling System run operationally on High Performance Computers at INCOIS.

The user has the option to select upto 60 types of missing objects (based on shape and buoyancy). Users can select a specific point where the object was last seen using the interactive map or they can also select a coastal location, distance travelled and bearing angle so that the last known location of the missing object is estimated. The results generated are displayed in an interactive map depicting the probable area to be searched and is also sent as a text message to emails/Mobile Phones. All the requests and responses are provided in languages of the coastal states so that local fishermen can use it immediately to search their fellow fishermen in distress.

This tool is also available as a mobile application for the users

Login Here

please login

Registered Email-id

Password

☐ Remember me

Sign In   Sign Up

Forgot Password?

Developed & Maintained by:ESSO-Indian National Centre for Ocean Information Services,Hyderabad.

ESSO   INCOIS

SARAT

Search and Rescue Aid Tool

English

Enter Missing Object Information

Missing Object: Person In Water(PIW-1)

Last Known and Search Time

Last Known Time :* 2018-03-15 05:30:00
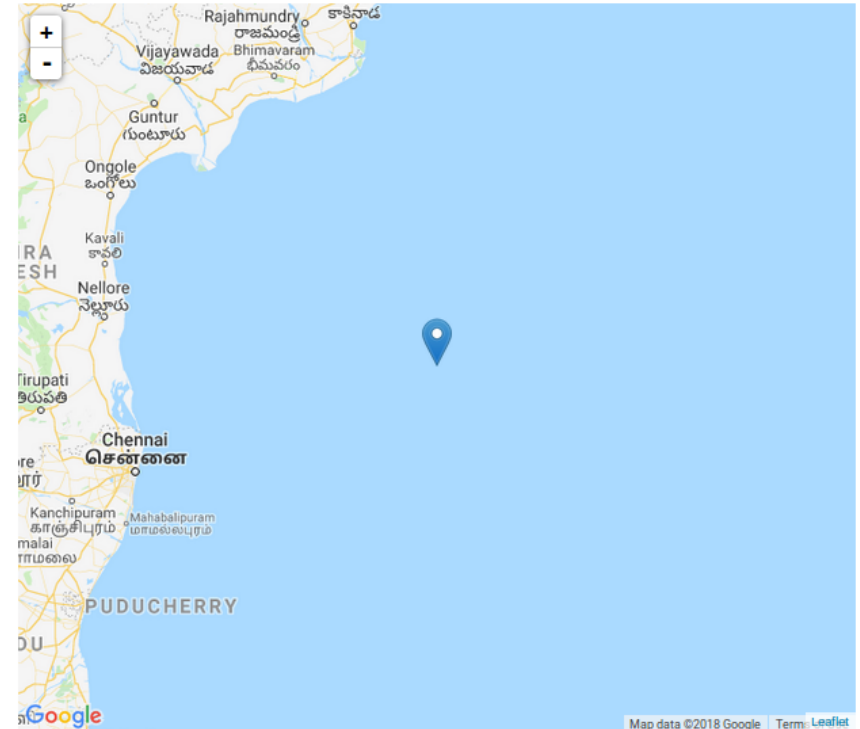
Search Time :* 2018-03-19 05:30:00

Last Known position.

Knows Exact longitude Latitude (Missing place): ● Yes ○ No

Longitude Latitude in: ● DD(Degrees Decimals)
○ DMS(Degrees minutes seconds)

Longitude :* 83

Latitude :* 14

Submit

SARAT

Search and Rescue Aid Tool

New Request   Previous Requests   Feedback   Logout

Enter Missing Object Information

Missing Object: Person In Water(PIW-1)

Last Known and Search Time

Last Known Time :*   2018-03-15 05:30:00

Search Time :*   2018-03-19 05:30:00

Last Known position.

Knows Exact longitude Latitude (Missing place):   ○ Yes   ● No

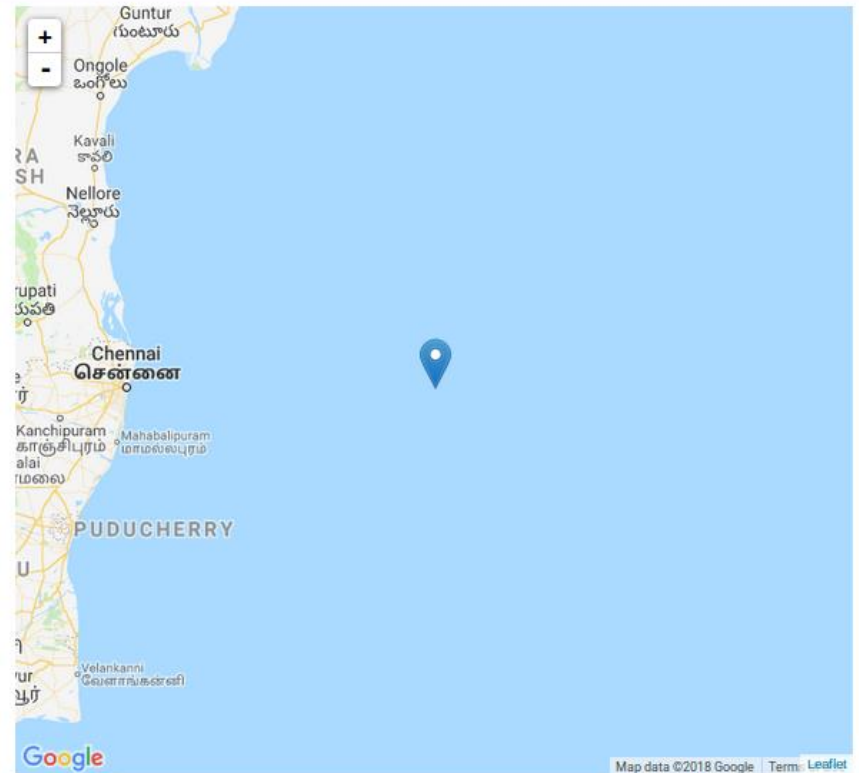**Select State***   Tamil Nadu

Landing Center*   Mahabalipuram

Distance Traveled(in KMs):*   300

Bearing Angle:*   80

Longitude :*   82.920

Latitude :*   13.066

Submit

Map data ©2018 Google | Terms Leaflet

PROBABLE SEARCH REGIONS

Click Here to download Advisory

Longitude: 83.287 Latitude: 14.229

Click Here to Download

50% probability@(83.2868,14.2286)

10% probability
30% probability
50% probability
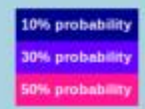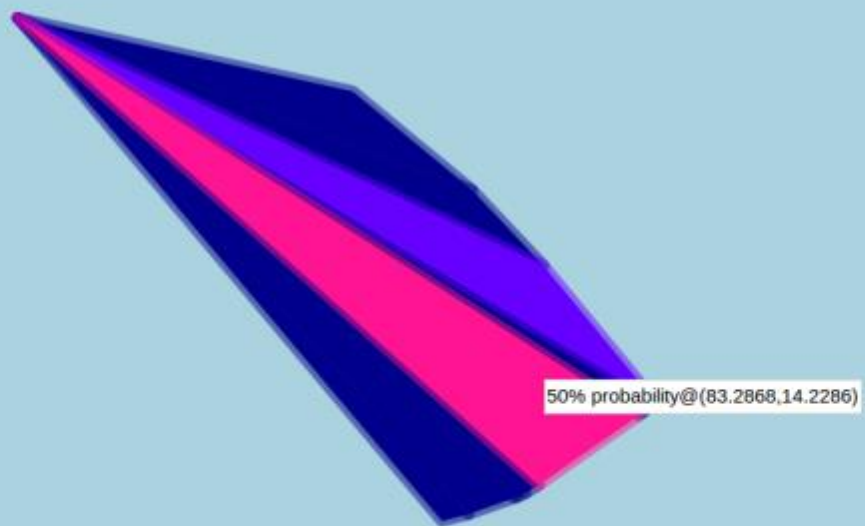
SARAT

Search And Rescue Aid Tool

ESSO–INDIAN NATIONAL CENTRE FOR OCEAN INFORMATION SERVICES

(Ministry of Earth Sciences, Government of India)

ISO 9001 : 2008 Certified Ocean State Forecast Services

Search and Rescue Advisory for Missing Object –Person In Water(PIW–1)

Based upon the SARAT simulations, REGION 1 indicate the most probable Search Region which has maximum probability of 50.0 % for locating and/or rescuing the object. REGION 2 indicate the second most probable Search Region of 30.0 % .

Advisory generated on: 19/03/2018 15:54 hrs IST   Valid Upto : 19/03/2018 05:30 hrs IST
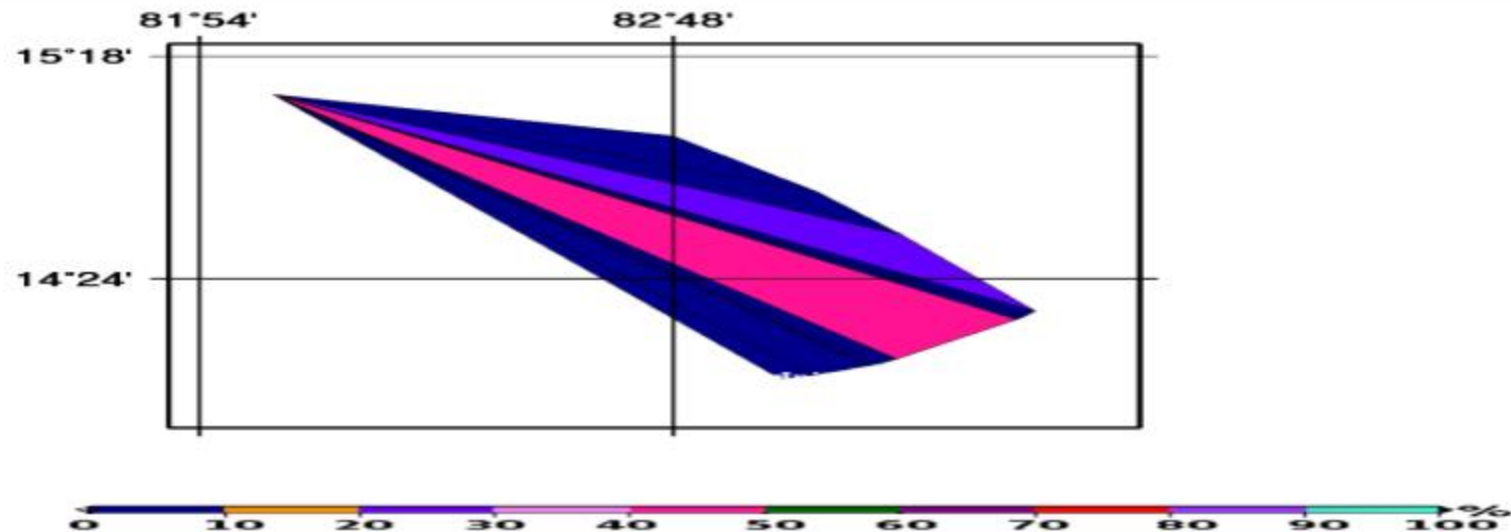
The model simulation has been done with 0.5 km Uncertainty in Initial Condition

Thank you