



# Maritime Search and Rescue

National Joint Council Presentation:

The Anatomy of a Maritime SAR Incident from Alert to Resolution





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**19th century** - Creation of lighthouses, lifeboat stations, and other coastal aids to navigation.



**1970s** - CCG began to develop more formal SAR capabilities and established Joint Rescue Coordination Centres (JRCCs).

**1800s - Early  
1900s**

**1940s -  
1960s**

**1970s -  
1980s**

**1990s -  
Present**



**Post World War II** - Maritime infrastructure expansion. In 1962, the Canadian Coast Guard was officially established.



**1990s** - Expansion of SAR capabilities through investing in advanced technology, specialized rescue vessels, and training

# Maritime Incidents

B Y T H E N U M B E R S

On an average day, the Canadian Coast Guard provides on-water response to:

- 12 incidents
- Assist 26 people
- Save 12 lives

And provides incident coordination for

- 18 incidents
- Assisting 47 people
- Saving 13 lives

Common Incidents:

- Disabled Vessels
- Medical Assistance
- Grounding
- Vessels Taking on Water
- Person in the Water (PIW)
- Capsizing

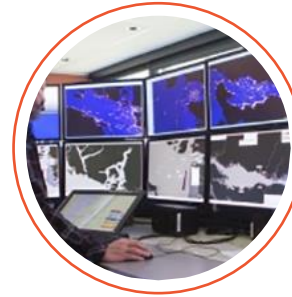


# Alerting



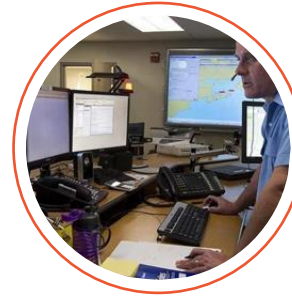
When a vessel is in distress, there are several communication methods to alert authorities or people in the area:

- Radio Communications or Telephone
- Beacons and Transponders
- Visual and Auditory Distress Signals



## Marine Communications and Traffic Services

24/7, 365 monitoring of marine radio.  
Conducts communications support for SAR incidents.



## Joint Rescue Coordination Centres

May directly receive alerts by phone or beacon.  
Coordinates incident response.

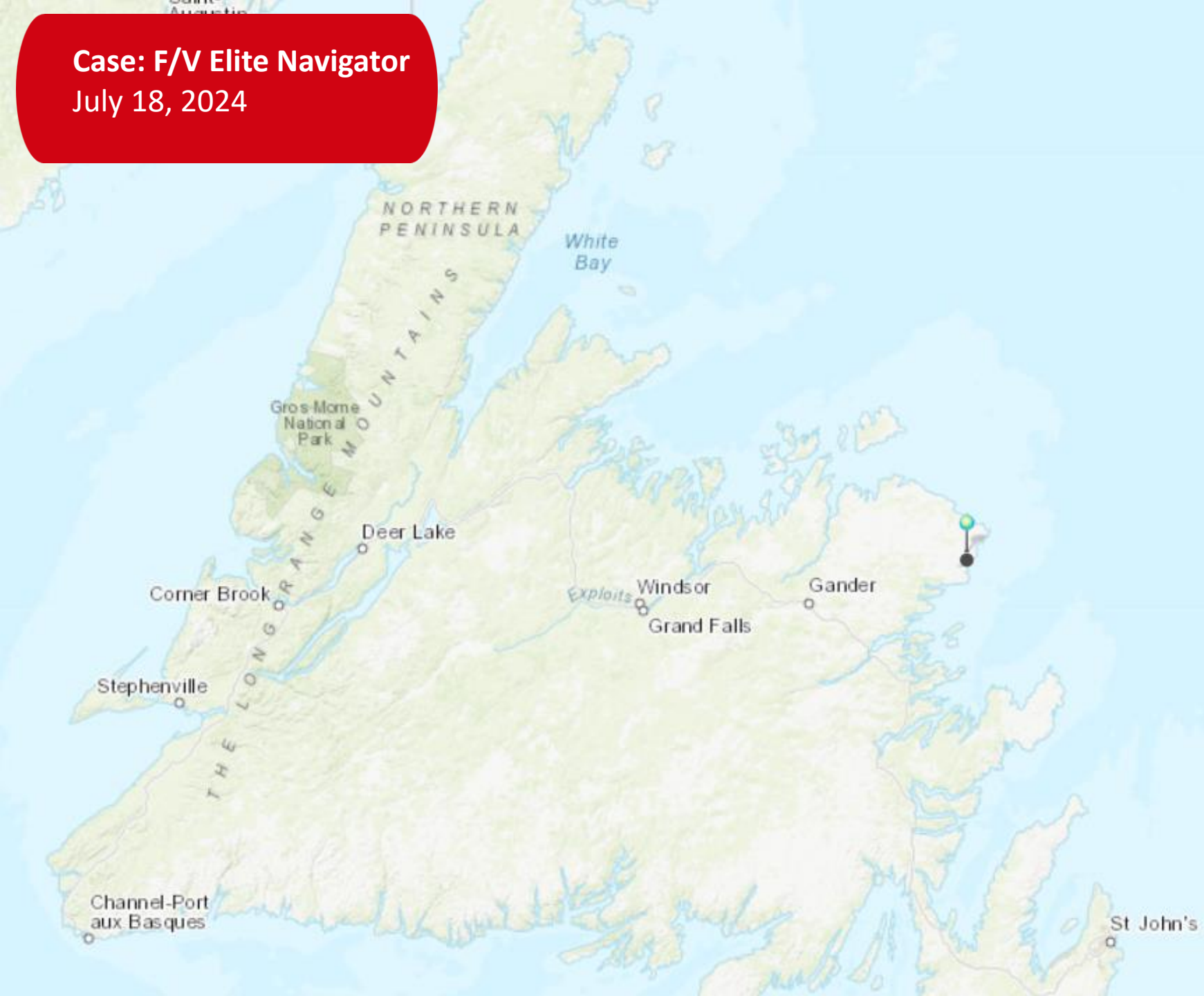


## Other Sources

911 Operators



Case: F/V Elite Navigator  
July 18, 2024

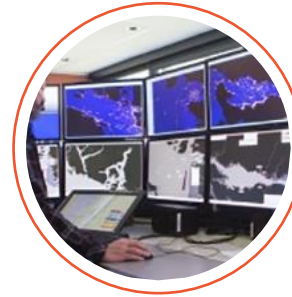


# Response and Coordination



Following an alert, the SAR system begins to respond.

- Distress broadcasts are issued.
- SAR Mission Coordinators task vessels to proceed to the area.
- Drift models and search patterns are generated.
- Various search assets are managed for their range, capability, endurance, personnel fatigue, etc.
- Assisting organizations are continuously engaged, next of kin (NOK) are briefed.

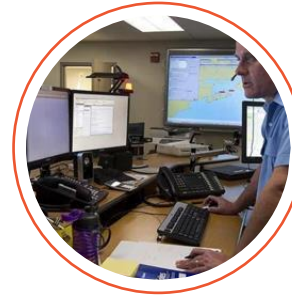


## Initial Response

Distress Broadcasts (MAYDAY Relays).

Vessels of Opportunity (VOOs).

Primary SAR - 30 minute station departure standard.



## Drift Modelling and Search Patterns

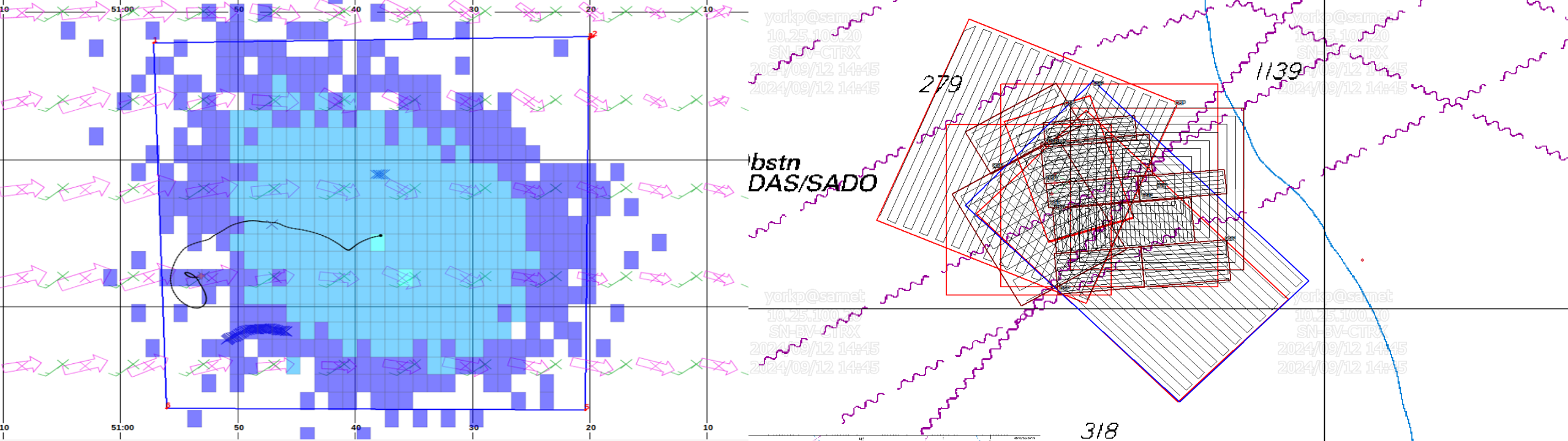
Canadian Search and Rescue Program

(CANSARP)/Search Mission Management Software (SMMS/SARMaster).



## Additional Resources

Resources from assisting organizations (CAF, police, fire, RCMP, etc.)



CH-149 Cormorant



CC-130H Hercules



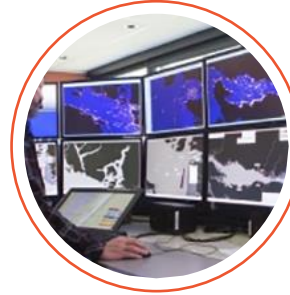
CCGS Teleost



# Resolution



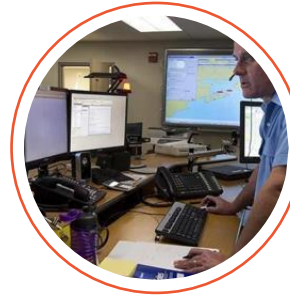
The resolution to a maritime SAR incident is dependent on the outcomes of the search itself. Depending on the case, the resolution could involve assisting the vessel to get itself to shore, on-scene medical assistance or a medical transfer by sea or air, provision of a tow or transfer of the persons onboard, or the cessation of a search based on the reasonable likelihood of survival.



## Scene Stabilization

Rescue Specialists.

Assistance to the vessel (dewatering, etc.).



## Transfer to Shore

Transfer to ambulance or MEDEVAC.

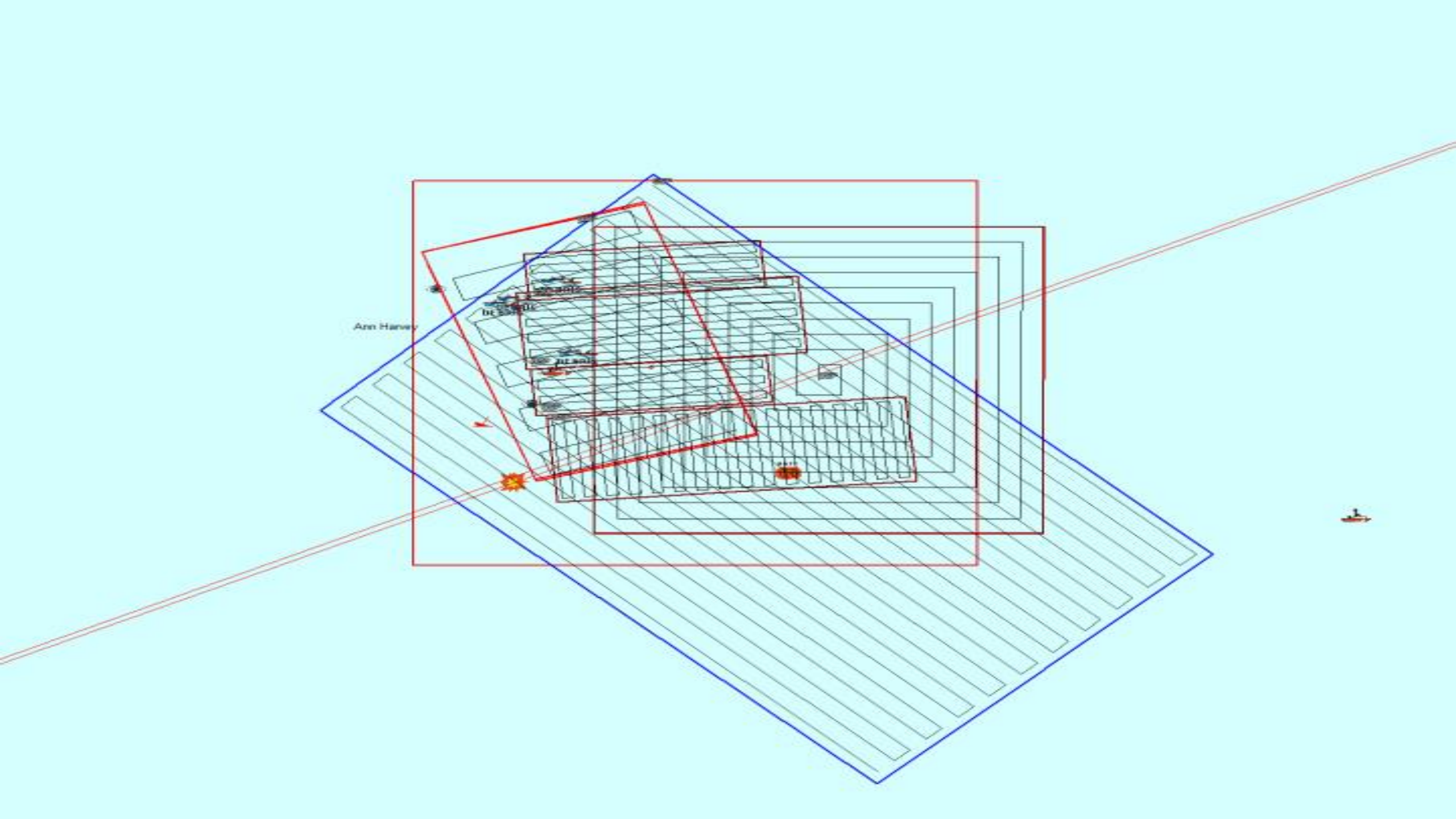
Transport to shore or towing.



## Search Target Not Found

Expected survival times.

Case transfer to police.



Ann Harvey

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# Thank You

