



National Transportation Safety Board

Last slide
with NTSB
50th
Anniversary
Commemor
ative
Emblem
Making
Transportat
ion Safer
Yesterday
Today
Tomorrow

Captain's Decision-making and Actions

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Overview

- Decisions and actions
 - Leaving port
 - Original route
 - Sufficiency of weather information
 - Reliance on outdated information
 - Storm avoidance
 - Late mustering and abandoning ship

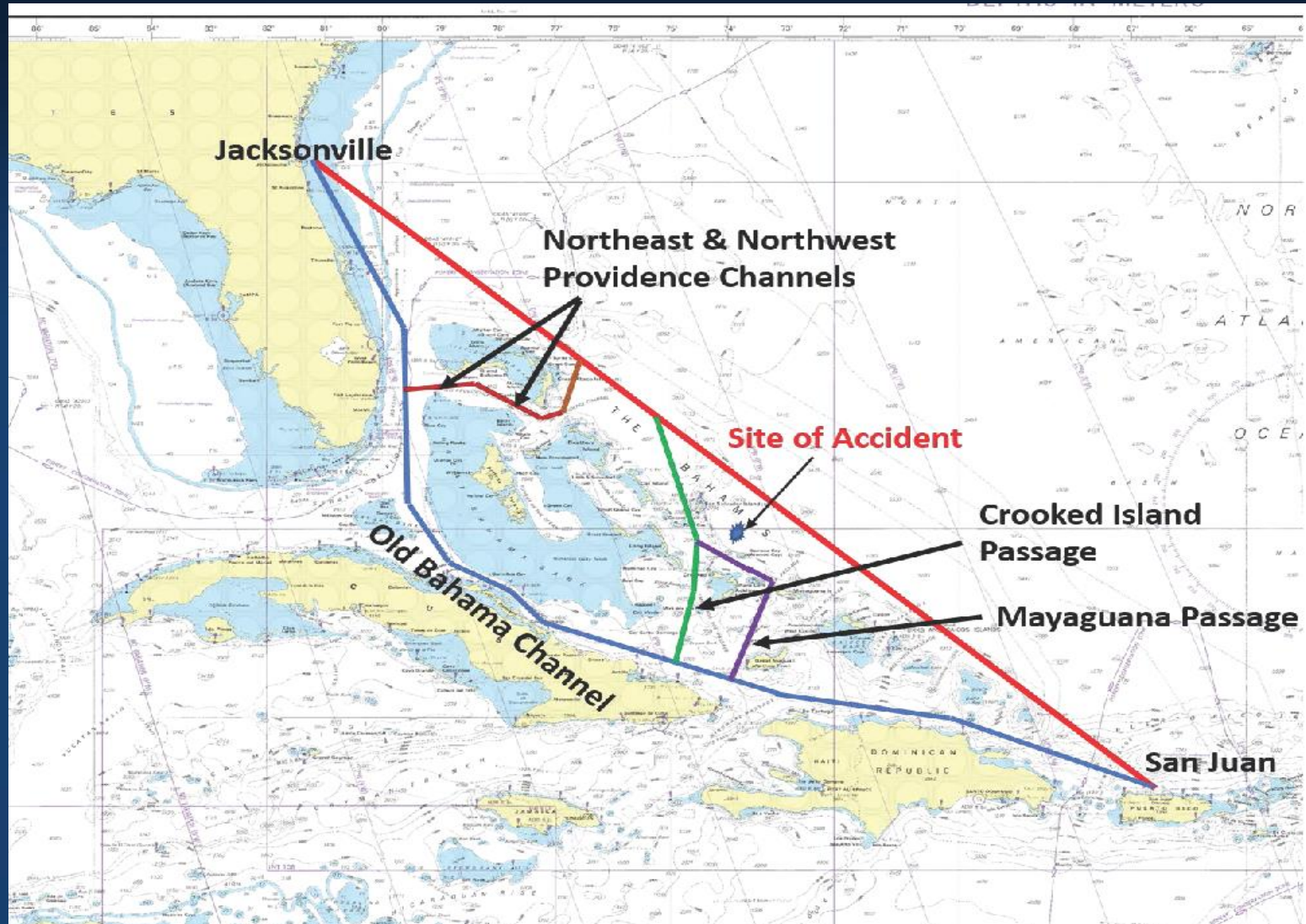
Overview

- Tools to assist in decision-making
 - Stability instrument training
 - Rapid Response Damage Assessment training
 - Anemometer
 - Company support for storm avoidance and preparation

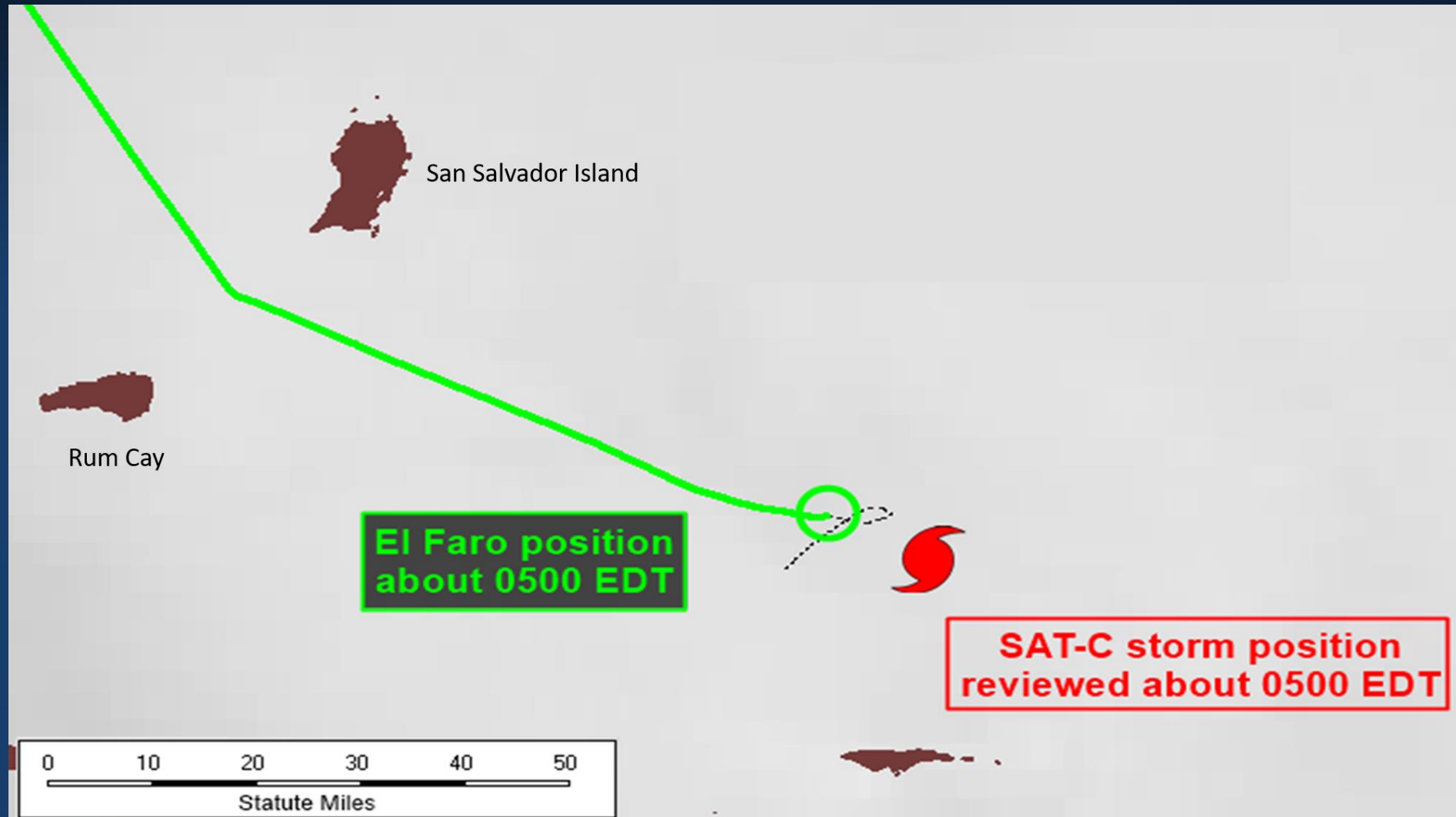
Captain's Decisions and Actions

- Leaving port was reasonable
 - Low risk
 - Options available
- Original passage plan brought vessel into storm's path
- Vessel received sufficient weather information
- The captain did not use up-to-date weather information

Routes from Jacksonville to San Juan



Actual Track of *El Faro*



Captain's Decisions and Actions

- Storm Avoidance
 - Brought vessel close to hurricane eye
 - Put crew in peril
- Late decision to muster and abandon ship
 - Events should have prompted mustering
 - Late mustering and abandoning reduced possible mitigation attempts and survival

Tools to Assist in Decision-making

- Training for onboard tools – stability instrument and Rapid Response Damage Assessment (RRDA)
- Properly working anemometer
- Weather routing service

Tools to Assist in Decision-making

- Training in the use of onboard tools
 - Stability instrument training
 - Rapid Response Damage Assessment Service (RRDA) training

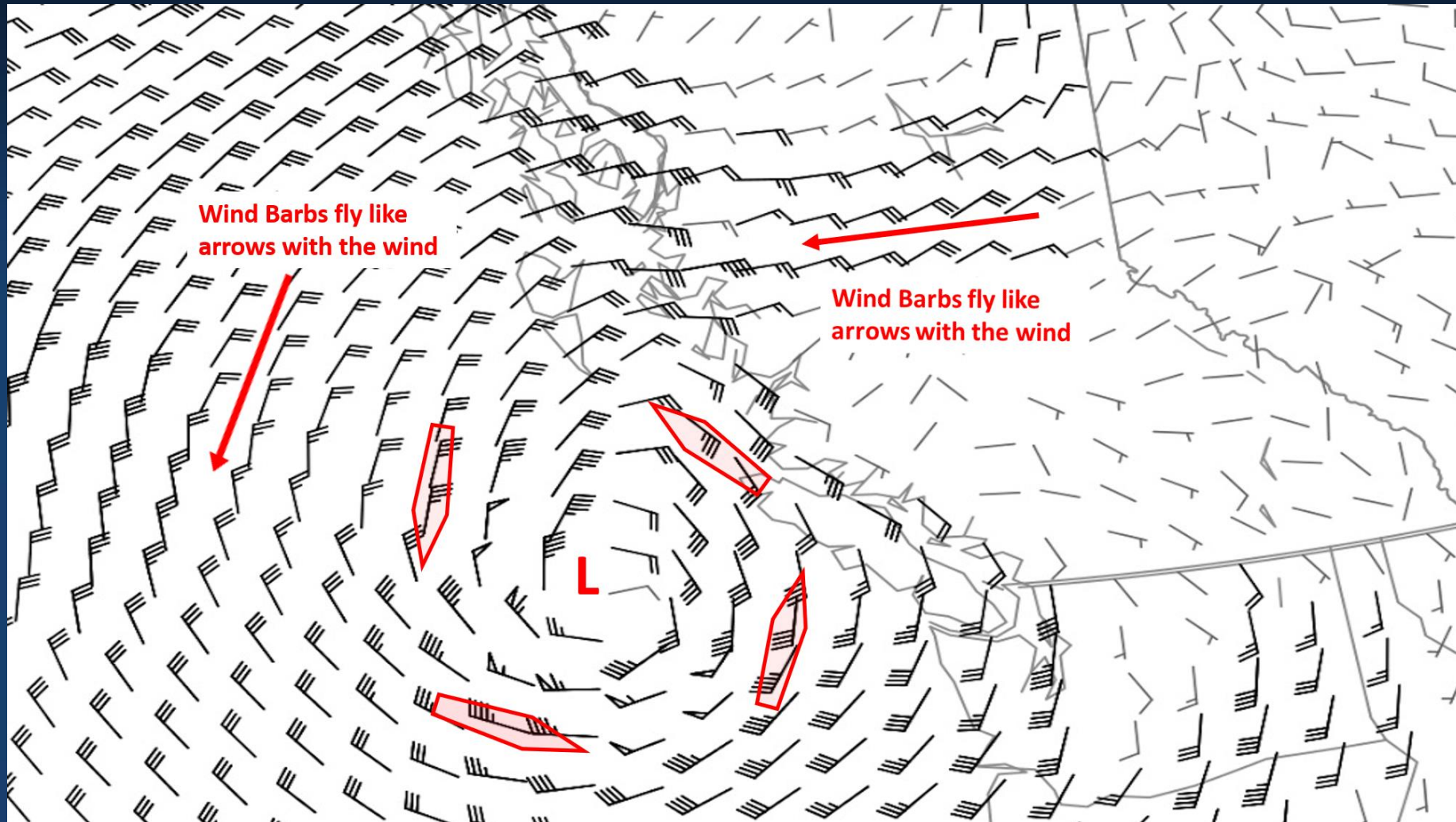
El Faro Anemometer Wind Sensors



Tools to Assist in Decision-making

- Anemometer
 - Wind direction and shift are best guides to a storm's position and movement
 - Crew statements about “white out” conditions
 - *El Faro* did not have a properly functioning anemometer

Locating the Low



Tools to Assist in Decision-making

- Storm avoidance and heavy-weather support
 - Monitoring and contacting vessel
 - Providing contracted weather routing service
 - Heavy-weather support through dialogue and policy

Summary – Captain's Decision-making and Actions

- Findings
- Recommendations

