Vessel Tracking

Passage Guardian

Peter Mott - February 2025 v1.0

Vessel Tracking

Safety Reasons

- Provides starting point for search in event of mishap and EPIRB not activated
- Required for Passage Monitoring service from Passage Guardian

Other Reasons

- Keeps family and friends ashore informed of your progress
- AIS helps authorities conducting surveillance determine your intentions

Vessel Tracking

Technology Choices

- Class B+ AIS Transponder, masthead antenna shared with VHF
- Class B+ AIS Transponder, dedicated antenna on stern pole
- Satellite Communicator
- Satellite wifi hotspot with tracking feature
- Dedicated satellite tracking device

Vessel Tracking

Pros and Cons

Technology	Pros	Cons
AIS Transponder Masthead Antenna	High antenna provides maximum range	Lost if dismasted, at time when AIS is invaluable to approaching search and rescue asset Satellite reception may not be reliable
AIS Transponder Stern Pole Antenna	Unless antenna struck by rig, keeps working after dismasting	Reduced range due to lower height Satellite reception may not be reliable
Satellite Communicator	Reliable tracking as long as device is operating with clear view of sky Can be taken into liferaft	Prone to battery discharge
Satellite Wifi Hotspot with tracking feature	Single device for multiple tasks	Some devices cannot be used on steel or alloy vessels
Dedicated Tracking Device	Designed to be highly available, can run for days without external power	None

Vessel Tracking

Resources

- https://passageguardian.nz/learning/best-practice-ais-for-bluewater-sailing-yachts
- https://www.garmin.com/en-US/c/outdoor-recreation/satellite-communicators/
- Garmin Service Plans
  https://www.garmin.com/en-NZ/p/837461
- Garmin In-Reach Mini Marine Package
  https://www.garmin.com/en-NZ/p/888769
- YB3i dedicated tracker
  https://www.predictwind.com/yb3i
- Passage Monitoring
  https://passageguardian.nz/how-it-works/
- This presentation
  https://passageguardian.nz/resources/vessel-tracking.pdf

Vessel Tracking

Questions?

Peter Mott - February 2025 v1.0