Internet on Passage

Passage Guardian

Peter Mott - February 2025 v1.0

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Must be able to do

- Download GRIB files to manage passage in response to changing weather

- Communicate via email with customs and other govt authorities if a change of destination port is required, or with RCC after declaring distress / urgency using an approved technology

- Initiate and receive VOIP phone calls where a satphone or HF radiotelephone is not carried

Nice to be able to do

- Publish to social media

- Chat on messaging platforms such as WhatsApp, Messenger, Signal, Telegram

- Communicate with work, friends and family ashore

- Browse the world wide web and run your favourite smartphone apps

- Watch streaming video (YouTube, Netflix and others)

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Technology Choices

- HF / SSB Radiotelephone fitted with Pactor modem and a subscription to SailMail (or similar) service

- Iridium Go! satellite wifi hotspot

- Iridium Go! Exec satellite wifi hotspot

- SpaceX Starlink terminal wifi hotspot

- Commercial maritime satellite communication services (out of scope)

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Pros and Cons

Technology	Pros	Cons
HF Radio with Pactor/ Sailmail	Works most of the time low cost	Unfamiliar to most people, steep learning curve Low bandwidth, suitable for email and download GRIB files only
Iridium Go!	Reliable if installed and operated according to best practices	VOIP call quality fair to poor Low bandwidth, suitable for email and download GRIB files only
Iridium Go! Exec	VOIP call quality good Reliable if installed and operated according to best practices	Medium bandwidth, suitable for VOIP calls, email, GRIB downloads and messaging apps
SpaceX Starlink Terminal	High speed VOIP call quality excellent Most applications possible	Uses a lot of energy, most vessels unable to run 24/7 Can disconnect at sea (depending on terminal type) Can take a long time to reconnect Plans change often

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Resources

- Iridium Go!
  https://www.predictwind.com/iridium-go

- Iridium Go! Exec
  https://www.predictwind.com/iridium-go-exec

- Starlink
  https://www.predictwind.com/starlink

- Starlink Terminals
  https://www.starlink.com/specifications

- Starlink Plans
  https://www.starlink.com/nz/service-plans/business

- This presentation
  https://passageguardian.nz/resources/internet-on-passage.pdf

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Questions?

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