

Our first client to transit the Northwest Passage completing a full test of the Starlink service.

In early August M/Y Shinkai headed to Illulissat in Greenland with the intention of crossing to the Canadian Arctic in mid-August.



We have been fortunate to follow the progress of our client M/Y Shinkai on their first transit of the Northwest Passage in August, and to monitor how their Starlink Maritime system worked in high latitudes. M/Y Shinkai is a 54.9m Vitruvius design, built by Feadship with a 5,500 NM range.

The transit of the Northwest Passage is only possible now because the region's climate is changing, and the sea ice is retreating each year, gradually opening the route from July to September.

e3 Systems installed a Starlink Maritime system with twin panels in June on a 5TB Plan before the yacht headed off to Greenland.

Prior to Starlink we had already supplied and installed the yacht with our HYBRID array of communication services, Inmarsat Fleet Broadband, satcom C, Iridium, VSAT and our Pay as you Go 4G/5G service. Unfortunately, the original array of satellite systems were all GEO which only work well in much lower latitudes whereas the Starlink LEO system extends the range north, is faster and less expensive.

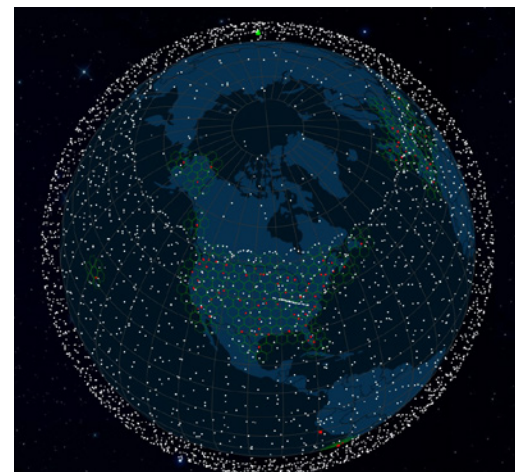
We had all been wondering how reliable the service would be in these high latitudes.

With the yacht heading north we could get first hand feedback on the performance of the LEO Starlink system.

We were concerned, to a degree, that there were fewer Starlink satellites in those Arctic latitudes as you can see from this image.

The coverage is there, but due to the reduced number of satellites, how would the service perform?

We were expecting to see greater latency.



Real-time performance monitoring using e3's client portal 'my.e3s.com'.

After crossing to the Canadian Arctic we monitored the connection and usage as the yacht progressed, using e3's client portal **my.e3s.com**.

Data usage was consistent throughout August.

For August 2023

▶ Current month



...latency increased, as we suspected it would, around 25th August when M/Y Shinkai was around 74°N.

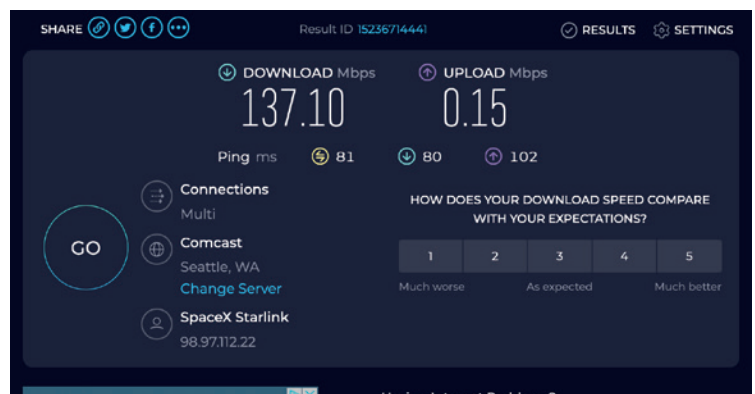
The temperature hovered around 1°C.



Captain Marcus Desaunois said,

"The service has been good, we did notice a drop when video calling at times. Whatsapp calls frequently dropped out but Zoom calls never. Uploading files and pictures was quite slow but downloading quick."

This screen shot of the performance shows this.



M/Y Shinkai met up with a fantastic rowing boat crewed by an international team of adventurers and ocean rowers attempting to row the Northwest Passage, considered the Last Great First.

The rowing expedition was following the 3,700km arctic route from Baffin Island, Canada, to Point Barrow, Alaska.

When M/Y Shinkai had reached Point Barrow I spoke with Captain Marcus on a Whatsapp video call via Starlink, the most northerly point of Alaska, heading into the Bering Sea, which is 71°N at the green circled position.

We had an uninterrupted call. He showed me the sea conditions and the video was totally acceptable. The latency of our speech was live and as good as a local call. We spoke for 30 minutes and did not experience any jitters or buffering.

As you can see from the chart they then headed south to Dutch Harbour the location for the Deadliest Catch documentary.



Notice Starlink on the rowing boat with Shinkai at anchor in the distance!

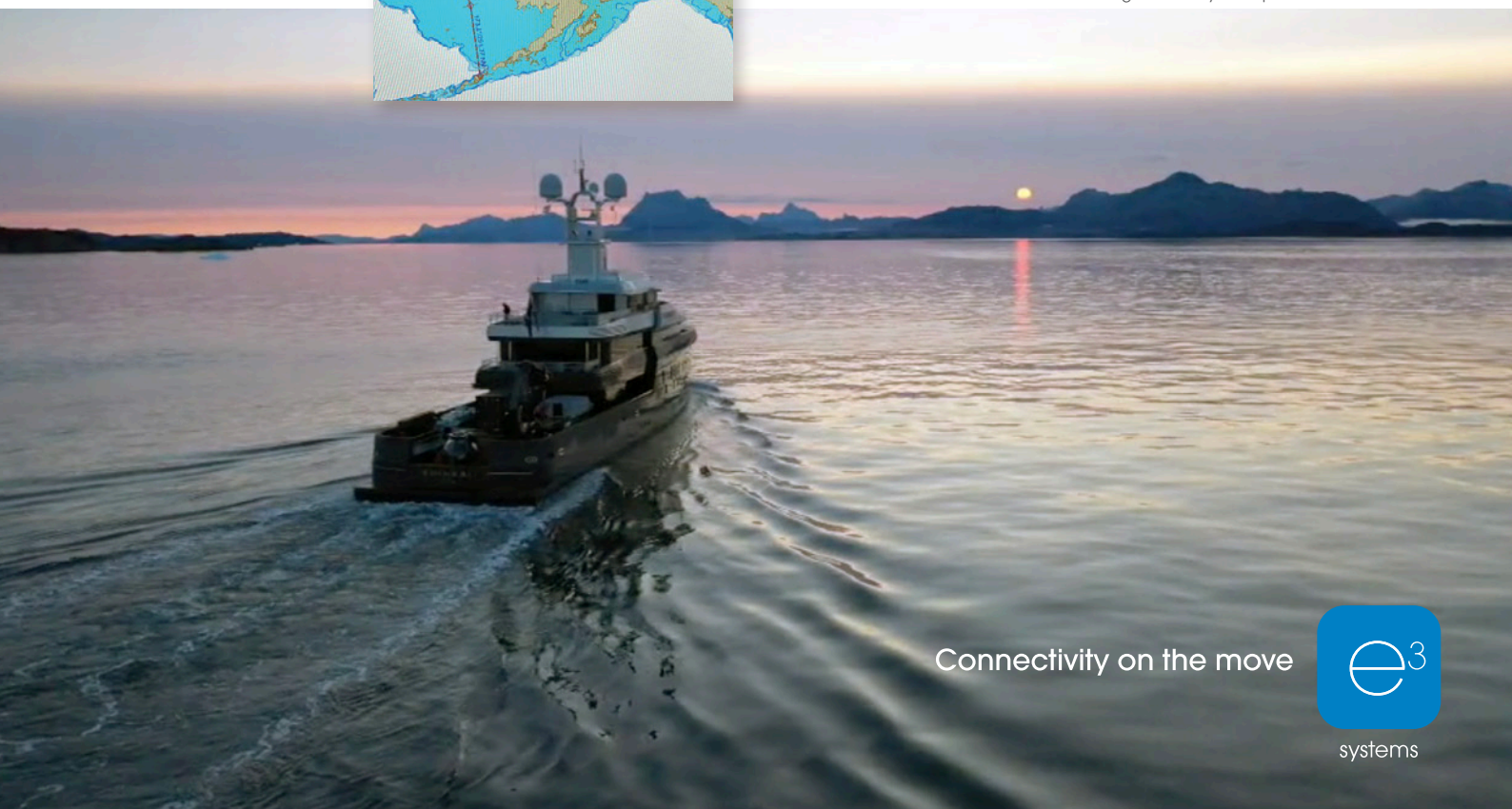
Conclusion

Even with the reduced number of satellites in the polar region the Starlink service was fantastic up to 74°N with very little increase in latency.

More satellites are being launched to populate these regions so that can only improve.

The only element the captain missed was not installing e3's Starlink VoIP system which would have enabled him to call the Canadian Border offices at these latitudes on their conventional telephone numbers as most government agencies don't use digital methods such as Whatsapp voice or Facetime voice.

All images courtesy of Captain Marcus Desaunais



Connectivity on the move

