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Subject: Group Trip Across the Atlantic  
Posted by [joncarlson](#) on Fri, 16 Jan 2015 22:36:50 GMT  
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Hi all,

When I did my Iceland trip, I did all planning myself, which is some amount of effort. Ultimately it is pretty do-able even for a first timer, but can require a lot of web searching. I think if one were to go to more exotic locales one may want a professional handler service in case of getting in trouble with local issues, but I figured I was going to be only traversing 1st world, English speaking countries, so I couldn't get myself into too much trouble. Not using a handler saved me something on the order of \$5K.

It is some work to really track down what you are required to have by all the parties involved, specifically FAA, ICAO, NavCanada, Greenland and Iceland (and eventually Great Britain and onward). For the most part ICAO covers most of it, or defers to country of registration (so FAA for most of us).

Answers to the specific questions:

- HF Radios?

There are two routes which are legal to fly across the North Atlantic VHF only. Roughly, CYFB-BGSF-BIRK, which can be done at a relatively low altitude (don't recall floor off the cuff), and CYYR-BGBW-BIRK which is allowed VHF at FL250 and above. Otherwise you are supposed to have HF. There was a white paper from ICAO floating around that talked about allowing SatPhones as substitute, and there were ATC phone#s in place, etc. But legally you had to have HF with Selcal I believe. In practice, cell phone worked well for position reports (better than HF in practice near as I could tell).

- ADS-B Out?

I don't think ADS-B out is required, at least for the North Atlantic. Europe's an issue I didn't tackle. They may require mode S, IIRC.

- DME?

I think in Europe DME is required. GPS works fine of course. But I don't think it's a legal substitute.

- ADF?

ADF is required for northernmost reaches of Canada, and I don't think GPS was a legal substitute, but I didn't get that far north in Canada. Crossing the Atlantic, Greenland has only NDBs, IIRC (I don't think they have any VORs). Significantly, Narsarsuaq (BGBW) only has an NDB-DME approach. FWIW, the approach is in the GNS4/530W database, and the GNS units fly it just fine (while you monitor the ADF of course! .

- Life rafts/survival equipment?

I rented a life raft from Far North Aviation (<http://www.scottishfbo.com/survival.htm>), based in Wick, but they allow pick up and drop off in Goose Bay (and Wick on the other end). They can also rent survival suits. That said, I wasn't certain they were strictly required for Part 91 flight in a twin turbine. NavCanada regs clearly require survival suits plus rafts for the Atlantic crossing in single engine aircraft, but their regulations are more lenient for twins that are able to maintain altitude. FAA regulation for oceanic overflight would apply for an N registered aircraft, and IIRC for part 91 it's not required.

An interesting additional PITA twist on the raft, which I only learned upon picking it up in Goose Bay, is that the raft requires being declared as an item of import for Canadian customs. This meant I was strictly required to have Canadian customs meet me at the aircraft to check in the raft at Goose Bay (I remember thinking I couldn't go into Iqaluit because of it also). Other than that, clearing Canadian customs would have been nothing more than calling the 800 number upon arrival. So the raft rental does impose an inconvenience penalty. I'm undecided whether I would do it again if I had it to do over. I also think it wouldn't do much pragmatic good without survival suits, and I was unwilling to make the whole family wear survival suits (I'd have had a rebellion on hand). So... to some degree having a twin turbine is probably the best option in the first place.

A couple web sites which were useful for pragmatic tips:

<http://xpda.com/flyingtoeurope/> (growing a little old, but still lots of useful links and pragmatic advice)

<http://220kts.com/ferry-flights/atlantic-ferry-flights/> (also useful pragmatic advice from a ferry pilot)

[http://www.faa.gov/about/office\\_org/headquarters\\_offices/avs/offices/afs/afs400/afs470/media/NAT.pdf](http://www.faa.gov/about/office_org/headquarters_offices/avs/offices/afs/afs400/afs470/media/NAT.pdf) (FAA North Atlantic resource guide)

[http://www.icao.int/EURNAT/EUR%20and%20NAT%20Documents/NAT%20Documents/NAT%20Doc%20007/\\_NAT%20Doc007\\_Edition%202013%20with%20%20bkmrks.pdf](http://www.icao.int/EURNAT/EUR%20and%20NAT%20Documents/NAT%20Documents/NAT%20Doc%20007/_NAT%20Doc007_Edition%202013%20with%20%20bkmrks.pdf) (ICAO NAT manual)

<http://www.tc.gc.ca/media/documents/ca-publications/3-AIM-COM-E.pdf> (NavCanada doc which contains lots of info on comm equipment required)

<http://www.tc.gc.ca/media/documents/ca-publications/5-AIM-RAC-E.pdf> (NavCanada ops regulations, see section 11.0 for North Atlantic regs)

That's off the top of my head, happy reading!

-Jon C.

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