North America & North Atlantic Review

Thursday March 24th, 10:30 am – 1050 am

PRESENTED BY:
Jeff Edison, Manager of Operations, Gander Area Control Centre
Mitch Launius, Air Training International
Kurt Stehling, United Technologies Corporation

MODERATOR:
Rick Ballew, Rockwell Collins Arinc Direct

International Operators Conference | San Diego, CA | March 21 – 24, 2016
Nav Canada, NAT Operations

March 24th, 10:30 am – 1050 am

PRESENTED BY:
Jeff Edison
Manager of Operations
Gander Area Control Centre

International Operators Conference | San Diego, CA | March 21 – 24, 2016
Gander Area Control Centre
North Atlantic FIRs
Gander Oceanic

120
FLIGHTS PER HOUR

407,322
Flights in 2015

1400
FLIGHTS PER DAY

90%
TRAFFIC BETWEEN EUROPE AND NORTH AMERICA
Standard longitudinal separation minima (10 minutes) limit the number of aircraft that can obtain an optimal flight level.
Since implementation in 2011, RLong has improved the opportunities for equipped aircraft opportunities to operate at more optimal flight levels.
NAT Initiatives - Ground based ADS-B

- ADS-B
  
  Southern Greenland (10 NM)
  Climb Through only - Implemented February 2012
  In-Trail – Implemented April 2013
NAT Initiatives - RLat

• Reduced Lateral Separation Minimum (RLat SM)
  • RLat SM has and will provide more fuel efficient profiles
  • Collision risk modelling supports 25NM (therefore ½°) lateral separation for RNP4 certified aircraft
  • RLat SM requires **FANS1/A + RNP4** equipage

• Introduced in 3 phases
  1. Dec. 2015 – ½° track between the **two core tracks** (FL350 – 390)
  2. Feb. 2017 – ½° spacing between all **NAT tracks** (FL350 – 390)
  3. Post 2017 – ½° lateral separation throughout the NAT region
RLAT will allow reduced lateral separation minima, allowing more aircraft to fly a greater portion on the better wind tracks.
NAT Initiatives - GO-FLI / Request Monitor

• GO-FLI – Gander Oceanic Flight Level Initiative
  – All flights FL290 – 410 are enabled automatically upon entering Gander Oceanic Airspace, unless manually disabled.
  – GO-FLI automatically checks for higher levels on all flights that are GO-FLI enabled.

• Request Monitor
  – GAATS+ automatically retains flight planned levels for flights entering the ocean at levels other than f/p and presents it if and when the level becomes available
Communications

CPDLC

- Implemented in Gander Oceanic Airspace 2002
- Implemented in Gander Domestic Airspace November 2012
- Supports
  - Frequency changes, Altitude/Speed Requests and Routing Requests
  - Automated transfer of Data Authority between Domestic and Oceanic
  - Welcome message to ensure connectivity
  - UM137 / DM40 Route confirmation upon entry into Oceanic
- Reduces Hear back / Read back errors
- CPDLC Route Clearances coming soon to Gander Oceanic
How many Oceanic flights traversed Gander Oceanic airspace in 2015?

437,202
407,322
427,302

407,322
Aireon LLC is a joint venture between Iridium Communications Inc., NAV CANADA, ENAV of Italy, the Irish Aviation Authority and Naviair of Denmark.

The goal of this initiative is to reduce aircraft separation minima through ADS-B (out) via Low Earth Orbiting (LEO) satellites.
Space Based ADS-B
Gander / Shanwick Oceanic Operations

- A fuel savings of 450 litres was estimated per NAT flight.
- Represents less than 2% of the ocean portion of fuel for a wide body transatlantic ADS-B flight (450/26,000 litres).
- Year one benefits estimated at $127 million.
Satellite Based ADS-B will reduce the separation even further allowing more aircraft to fly at optimal levels resulting in fuel burn savings.
Routing with ADS-B

ADS-B will allow reduced lateral separation minima, allowing more aircraft to fly a greater portion on the better wind tracks.
What year did Gander implement Rlong?

2013
2012
2011

2011
Aircraft Locating and Emergency Response Tracking

• Service available Free-of-Charge

• Location and last flight track of missing ADS-B-equipped aircraft accessed by Rescue agencies and Air Navigation Service Providers
How many satellites are planned to be launched?

62  72  (66 + 6 spares)

66

72
Jeff Edison
Manager of Operations
Gander Area Control Centre
North Atlantic Update
Thursday, March 24th | 10:30 a.m. – 11:45 a.m.

PRESENTED BY:
Mitch Launius
Air Training International

International Operators Conference | San Diego, CA | March 21 – 24, 2016
North Atlantic Update

Reference Documents

- Guidance
  - NAT Operations and Airspace Manual Doc. 007
  - NAT Ops Bulletins
  - Global Operations Data Link Manual
- Regulatory
  - Individual State Aeronautical Information Publications (AIPs)
  - Individual State Aeronautical Information Circulars (AICs)
### ENROUTE DATA - ATLANTIC

**ATLANTIC**

**CPDLC COVERAGE**

#### Data Link Services (continued)

<table>
<thead>
<tr>
<th>Airspace</th>
<th>CPDLC</th>
<th>ADS-C</th>
<th>Logon Address</th>
<th>Remarks</th>
</tr>
</thead>
</table>
| (6) Gander Oceanic FIR | O     | O     | CZQX          | Report revised ETA: Next waypoint ETA error 3 minutes or more, use free text REVISED ETA [position] [time].  
In addition to Gander FIR (CZQX), Gander provides air traffic services at and above FL200 in that part of the Sondrestrom FIR (BGGL) which lies south of 6330N. CPDLC services are provided within Gander's service area. |
## Change in Time Estimate

### Data Link Services (continued)

<table>
<thead>
<tr>
<th>Airspace</th>
<th>CPDLC</th>
<th>ADS-C</th>
<th>Logon Address</th>
<th>Remarks</th>
</tr>
</thead>
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<tr>
<td>(18) Shanwick Oceanic FIR</td>
<td>O</td>
<td>O</td>
<td>EGGX</td>
<td>Report revised ETA: Next way-point ETA error 3 minutes or more, use free text REVISED ETA [position] [time].</td>
</tr>
<tr>
<td>(19) Toronto FIR</td>
<td>O</td>
<td>N</td>
<td>CZYZ</td>
<td></td>
</tr>
<tr>
<td>(20) Winnipeg FIR</td>
<td>O</td>
<td>N</td>
<td>CZWG</td>
<td></td>
</tr>
</tbody>
</table>

**NOTE:** O = Operational, T = Trial, N = Not available
<table>
<thead>
<tr>
<th>Control area (CTA)</th>
<th>CPDLC</th>
<th>ADS-C</th>
<th>FMC WPR</th>
<th>AFN address</th>
<th>ATSU/ACARS Address</th>
<th>Coord Group</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bodø</td>
<td>N</td>
<td>O</td>
<td>O</td>
<td>ENOB</td>
<td></td>
<td>NAT CNSG</td>
<td></td>
</tr>
<tr>
<td>Edmonton (Canada)</td>
<td>O</td>
<td>O</td>
<td>N</td>
<td>CZEG</td>
<td>YEGE2YA for CPDLC and YEGCDYA for ADS-C</td>
<td>NAT CNSG</td>
<td></td>
</tr>
<tr>
<td>Gander Oceanic</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>CZQX</td>
<td>YQXE2YA</td>
<td>NAT CNSG</td>
<td>Report revised ETA: Next waypoint ETA error 3 minutes or more, use free text <strong>DM 67k</strong> REVISED ETA [position] [time]. See paragraph E.7.1.4.</td>
</tr>
</tbody>
</table>

**Second Edition — 26 April 2013**
3.6.2.2 Inadvertent changes. In the event that a controlled flight inadvertently deviates from its current flight plan, the following action shall be taken:

a) Deviation from track: if the aircraft is off track, action shall be taken forthwith to adjust the heading of the aircraft to regain track as soon as practicable.

b) Variation in true airspeed: if the average true airspeed at cruising level between reporting points varies or is expected to vary by plus or minus 5 per cent of the true airspeed, from that given in the flight plan, the appropriate air traffic services unit shall be so informed.

c) Change in time estimate: if the time estimate for the next applicable reporting point, flight information region boundary or destination aerodrome, whichever comes first, is found to be in error in excess of 2 minutes from that notified to air traffic services, or such other period of time as is prescribed by the appropriate ATS authority or on the basis of air navigation regional agreements, a revised estimated time shall be notified as soon as possible to the appropriate air traffic services unit.

3.6.2.2.1 Additionally, when an ADS agreement is in place, the air traffic services unit shall be informed automatically via data link whenever changes occur beyond the threshold values stipulated by the ADS event contract.
### ICAO Annex 2 Chapter 3 Para 3.6.2.2.1

<table>
<thead>
<tr>
<th>Reference</th>
<th>S-Standard Recommended Practice</th>
<th>Difference</th>
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</thead>
<tbody>
<tr>
<td>Chapter 3</td>
<td>General Rules</td>
<td>Class C, D and E Airspace: In addition to the minima specified in Table 3-1, the VFR flight is allowed by aircraft, other than helicopters, at or below 3000 ft amsl at a speed of 140 kt or less, which remain clear of cloud and in sight of the surface and in a flight visibility of at least 5 km. Helicopters may fly under VFR in Class C, D or E Airspace at or below 3000 ft amsl provided that they remain clear of cloud and in sight of the surface.</td>
</tr>
<tr>
<td>3.9</td>
<td>S</td>
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<tr>
<td>Chapter 4</td>
<td>Visual Flight Rules</td>
<td></td>
</tr>
<tr>
<td>4.2</td>
<td>S</td>
<td>In Control Zones which are notified as Class C, D or E Airspace:</td>
</tr>
<tr>
<td></td>
<td>(a) the cloud base minima does not apply to fixed wing aircraft at or below 3000 ft amsl at a speed of 140 kt or less provided that they remain clear of cloud and in sight of the surface (the visibility minima applies);</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(b) neither the cloud ceiling nor visibility minima apply to a helicopter operating below 3000 ft amsl provided that it remains clear of cloud, with the surface in sight and in a flight visibility of at least 1500 m.</td>
<td></td>
</tr>
<tr>
<td>Chapter 3</td>
<td>General Rules</td>
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<tr>
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<tr>
<td>3.1.8 c)</td>
<td>A distance of 1 nautical mile (NM) laterally and longitudinally shall be maintained from the flight leader.</td>
<td></td>
</tr>
<tr>
<td>3.9</td>
<td>Visual meteorological conditions (VMC) minima in Class A airspace are not recognized.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Chapter 4</th>
<th>Visual Flight rules</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.1</td>
<td>Class B, C, D, and E controlled airspaces require a flight visibility of 3 statute miles (SM) with a distance from cloud of 1 SM horizontal and 500 ft vertical.</td>
</tr>
</tbody>
</table>

Table 3-1

| Special VFR authorization in a control zone requires a flight visibility or, where reported, a ground visibility of 1 SM and operation clear of cloud. A rotorcraft requires a visibility of 0.5 SM and operation clear of cloud when operating at such a reduced air speed so as to give the pilot-in-command adequate opportunity to see other aircraft or obstructions in time to avoid a collision. |
6.3 POSITION REPORTING

Time and Place of Position Reports

6.3.1 Unless otherwise requested by Air Traffic Control, position reports from flights on routes which are not defined by designated reporting points should be made at the significant points listed in the flight plan.

6.3.2 Air Traffic Control may require any flight operating in a North/South direction to report its position at any intermediate parallel of latitude when deemed necessary.

6.3.3 In requiring aircraft to report their position at intermediate points, ATC is guided by the requirement to have positional information at approximately hourly intervals and also by the need to accommodate varying types of aircraft and varying traffic and MET conditions.

6.3.4 Unless providing position reports via ADS-C, if the estimated time for the ‘next position’, as last reported to ATC, has changed by three minutes or more, a revised estimate must be transmitted to the ATS unit concerned as soon as possible.

6.3.5 Pilots must always report to ATC as soon as possible on reaching any new cruising level.

____________________

Communications and Position Reporting Procedures

NAT Doc 007

V.2016-1
Summer traffic can peak at 1,500 flights a day
Question?

Have you experienced an increase in the occurrence of reroutes in the North Atlantic?
Question?

Yes
No
Only aircraft that are equipped, approved, and have properly filed for FANS 1/A (CPDLC and ADS-C) will be cleared onto the designated tracks FL350 to FL390 (inclusive)
North Atlantic Update

Data Link Mandate (DLM) CPDLC and ADS-C

• 7 Dec 2017 DLM will expand throughout the ICAO NAT Region FL350 to FL390 (inclusive) 21 Months

• 30 Jan 2020 DLM will expand FL290 and above throughout the ICAO NAT Region

• ATS Surveillance Airspace will be exempt from the DLM equipage but will require ADS-B

Sources: NAT SPG Meeting Minutes
5 Airspace Not Included in NAT Region DLM Airspace

- Airspace north of 80° North. (Airspace north of 80°N lies outside the reliable service area of geostationary satellites).
- New York Oceanic FIR.
- ATS surveillance airspace (i.e. airspace where surveillance is provided by radar and/or ADS-B, as depicted in State AIPs, provided:

AIC – ÍSLAND/ICELAND

Isavia ohf., Reykjavíkurflugvelli, 101 Reykjavík /
Isavia, Reykjavik Airport, IS-101 Reykjavík, Iceland
Simi/Telephone: + 354 424 4000 – Simbref/Telefax: + 354 424 4001
Netfang/E-mail: isavia@isavia.is – Veifang/Internet address: http://www.isavia.is
TRIAL IMPLEMENTATION OF 25 NAUTICAL MILE LATERAL SEPARATION MINIMUM IN THE
ICAO NORTH ATLANTIC REGION

1 Introduction

1.1 On or soon after 12 November 2015, Gander and Shanwick area control centers (ACCs) will commence participation in the trial of a 25 nm lateral separation minimum in portions of the Gander and Shanwick Oceanic Control Areas (OCA). This trial was notified by a State letter titled ‘Implementation planning for RLatSM in the ICAO NAT Region’, issued 30 January 2015 (EUR/NAT 15-0058.TEC) and Aeronautical Information Circular (AIC) 039/14, titled ‘Trial Implementation of reduced lateral separation minimum in the ICAO North Atlantic region’.
North Atlantic Update

Reduced Lateral Separation Minimums (RNP 4)

• Sep 2015 New half-degree waypoints added to Jeppesen FMS Databases
• Oct and Dec 2015 new Canadian oceanic entry points and NARs were created in support of RLatSM
• Nov 2015 new European oceanic entry points were created in support of RLatSM
• 16 Dec 2015 RLatSM operations began on designated center tracks

Sources: NAT SPG Meeting Minutes
**IFR Enroute Aeronautical Planning Charts** (An index graphic of the Atlantic and Pacific)

**North Pacific Route Charts** are designed for FAA Controllers to monitor transoceanic flights. The charts show established intercontinental air routes, including reporting points with geographic positions. Composite Chart 46x41 1/2 inches, Area Charts 52x40 1/2 inches. All charts are shipped unfolded. Revised every 56 days.

**North Atlantic Route Chart** and the **Western Atlantic Route System Chart** are designed for FAA Controllers to monitor transatlantic flights, this 5-color chart shows oceanic control areas, coastal navigation aids, oceanic reporting points, NAVAID coordinates and reporting points. Full Size Chart 29 3/4x20 1/2, shipped folded to 5 x 10 inches only. Revised every 56 days.

**North Pacific, North Atlantic, Western Atlantic Route Charts GEO-TIFF Files**

<table>
<thead>
<tr>
<th>Current Edition Date</th>
<th>Next Edition Date</th>
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<tr>
<td>NARC Feb 04 2016 (ZIP)</td>
<td>NARC Mar 31 2016 (ZIP)</td>
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<tr>
<td>IFR PLANNING Feb 04 2016 (ZIP)</td>
<td>IFR PLANNING Jan 05 2017</td>
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</table>
CHANGES TO NORTH ATLANTIC (NAT) REGIONAL RADIOTELEPHONY PROCEDURES FOR DATA LINK EQUIPPED AIRCRAFT

Introduction
This circular addresses a proposal for amendment (PfA) to the ICAO Gold Document, to optimise HF Radiotelephony use in the NAT Region. The change eliminates NAT specific RT phraseology that has been made redundant with the availability of flight data to radio operators and is effective from 1st January 2016.

Background
NAT IMG/46 Endorsed the Proposal for Amendment (PfA) to the Global Operational Data Link Document (GOLD) Second Edition Appendix E.7 (North Atlantic (NAT) Region).
This eliminates the RT requirements for data link equipped aircraft to communicate “Controller Pilot Data Link Communications (CPDLC)”, next Control Area (CTA) / Flight Information Region (FIR), Track and “SELCAL code”.

This AIC will remain in effect until the publication of the ICAO GOLD Doc 10037.
• Shanwick Radio,
• N123
• SELCAL Check
• Gander next,
New York Oceanic Procedures remain unchanged

- Gander Radio
- N123
- SELCAL Check
1. **Introduction**

This circular informs about the re-naming of the NAT MNPS airspace as the NAT High Level Airspace (NAT HLA) from 4 February 2016 and the publication of the amended ICAO North Atlantic Operations and Airspace Manual (NAT Doc 007, v.2016-1) that reflects the changes.

**Re-naming of the NAT MNPSA to NAT HLA**
North Atlantic High Level Airspace

- Navigation Specification
  - RNAV 10
  - RNP 4

Effective 4 Feb 2016
Includes Bodo
Excludes SOTA & BOTA
Excludes New York West
North Atlantic Update

MNPS Transition to High Level Airspace (ICAO PBN)

• MNPS Approvals will continue to be grandfathered until January 2020

• New Ops Specs and LOAs will be identified as NAT HLA Approvals

• Jan 2020 NAT requirements are all based on ICAO Performance Based Communication, Navigation, and Surveillance (CNS) operations

Sources: NAT SPG Meeting Minutes
GOLD Manual (Doc 10037)
- Update to align the 2016 amendment to Annexes and PANS
- Incorporate Baseline 2 services and CPDLC message set

PBCS Manual (Doc 9869)
- Guidance on issues/resolution database
- RCP/RSP specifications and guidance material to support regional implementation and SASP work programme, as necessary

SVOM (Doc 10038)
- Guidance on assigning and managing SATVOICE numbers for aeronautical stations

Sources: ICAO Briefing 20 June 2015
Advisory Circular


Date: 3/7/16
AC No: 90-105A
Initiated by: AFS-400
Change:

FOREWORD

This advisory circular (AC) provides guidance for operators to conduct Required Navigation Performance (RNP) operations in the United States, in oceanic and remote continental airspace, and in foreign countries which adopt International Civil Aviation Organization (ICAO) standards for RNP operations. Guidance is provided for the following:

- Required Navigation Performance Approach (RNP APCH) procedures;
- Barometric vertical navigation (baro-VNAV);
- RNP 1 (terminal) operations;
- RNP 0.3 (rotorcraft) operations;
- RNP 2 domestic, offshore, oceanic, and remote continental operations;
- RNP 4 oceanic and remote continental operations;
- RNP 10 (Area Navigation (RNAV) 10) oceanic and remote continental operations;
- Advanced Required Navigation Performance (A-RNP), and
CHAPTER 7. OPERATIONAL APPROVAL PROCESS

7.1 Part 91 Operators. A letter of authorization (LOA) is not required for Title 14 of the Code of Federal Regulations (14 CFR) part 91 operators (other than part 91 subpart K (part 91K)) except for oceanic operations (see Appendices E, F, and G) or if required in foreign airspace. Part 91 operators (other than 91K) should comply with the aircraft eligibility and operational guidance in this advisory circular (AC).

7.2 Operational Authorization. To obtain operational authorization, aircraft eligibility must be determined in accordance with the applicable appendix of this AC. Operational authorizations issued under a previous version of this AC or other canceled ACs does not need to be reissued or reevaluated.

Note: Previous approvals under FAA Order 8400.12C, Required Navigation Performance 10 (RNP 10) Operational Authorization, and FAA Order 8400.33, Procedures for Obtaining Authorization for Required Navigation Performance 4 (RNP-4) Oceanic and Remote Area Operations, are still valid for these operations. Operators must ensure their operations remain consistent with the performance and functional requirements of this AC.
FAA LOA Application
North Atlantic Update

PRESENTED BY:
Mitch Launius
mitch@trainati.com
Air Training International
An Operator’s View of the North Atlantic

Thursday, March 24th | 10:30 a.m. – 11:45 a.m.

PRESENTED BY:
Kurt Stehling, United Technologies Corporation
**Audience Question:**

What is your main consideration(s) and/or concern(s) when operating in the North Atlantic?

a) Obtaining and flying the proper Oceanic Clearance  
b) Emergency diversions and Equal Time Points  
c) Utilizing technology (i.e. Datalink) properly  
d) Weather along route and at destination  
e) Fatigue, passenger comfort and schedule, slot requirements  
f) All the above
Audience Response:

Main consideration(s) and/or concern(s) when operating in the North Atlantic:

a) Obtaining and flying the proper Oceanic Clearance
b) Emergency diversions and Equal Time Points
c) Utilizing technology (i.e. Datalink) properly
d) Weather along route and at destination
e) Fatigue, passenger comfort and schedule, slot requirements
f) All the above
Discussion Items

From the prospective of an Operator:

• Recent North Atlantic changes and their impacts on business aviation operators
• Developing and utilizing company SOP’s for North Atlantic operations
• Planning, preflight and flying the North Atlantic
  – Pick up the aircraft from the Europe presentation and continue on the following route:
    – LYTV – EINN – CYQX – GOHME (Going Home!)
• North Atlantic Oceanic Clearances
• Questions?
Recent North Atlantic Changes

Operational Consideration:

• Re-designation of (NAT MNPSA) as NAT High Level Airspace (NAT HLA)
  – New OpsSpec/Mspec/LOA B039 in development
  – Starting January 2015, operators applying for authorization (NAT MNPSA / NAT HLA) need RNP 10 or RNP 4 approval

• NAT DLM Phase 2A in effect between FL350 to FL390 on or any point along OTS
  – Network with other operators at IOC for advice on equipping, authorizing and using
  – Allow time for the process of analyzing cost, equipping, training and LOA
  – Next phase 2B commencing 7 December 2017

• Eliminating Oceanic Errors:
  – Gross Navigational Errors, Large Height Deviations and Erosion of Longitudinal Spacing

Sources: FAA, International Airspace Notices
On the upswing:

- No. of flights
- Datalink Utilization
- RNP-4

Sources: FAA – New York Center’s Oceanic Work Group
Strategic Lateral Offset Procedure:

- Overall observed in ZWY airspace Jan-May 2015

Sources: FAA – New York Center’s Oceanic Work Group
Standard Operating Procedures

Developing and Utilizing SOPs for the North Atlantic

- Specific manual/section dedicated to Oceanic Ops
- Oceanic checklists
  - Creating Company Specific Oceanic Checklists
  - Utilize resources: ICAO recommended, training, best practices
- Standardized plotting procedures
  - Have a minimum list of completed items
- Flight planning format dedicated to international ops
  - Create/utilize a specific oceanic/int’l flight plan format
  - Many service providers and planning services can customize
Flying the North Atlantic

Aircraft route for the day: LYTV – EINN – CYQX – Home

• EINN is our technical stop after about 3h 30min flight from LYTV
  – Popular choice as a tech stop, historic transatlantic airport
• CBP Preclearance available (certain hours); most GA aircraft don’t utilize
  – Must still land at US airport approved for garbage handling
• Quick turns can usually be expected, parking generally in front of terminal area
  – Oceanic Clearance received on the ground
  – Be able to give accurate estimated takeoff time and first waypoint ETA
• Weather: fairly consistent temps, wind, rain and overcast skies, especially during winter months. Plan for possible significant crosswinds
Route of Flight:

EINN LUPO2B LUPOR LIMRI 5120N 4930N 4840N 4850N MUSAK YQX DCT CYQX

FL 400

Sources: JeppView enroute map screenshot of planned route
Flight Planning

Suggested Items to Consider:

• Put in the necessary time to produce a good flight plan
  – Reduce the possibility of a reroute, safety items considered ahead of time
  – A good flight plan can take significant time and effort to produce
• Be very specific in requests for your flight plan
  – Fuel, payload, requested altitudes, climb restrictions, etc.
• Have company SOPs in your profile and discuss expectations
  – Fuel minimums at alternate, ETP requirements, mirroring tracks, etc.
• Keep an open dialog and strong relationship with flight planning
  – Work out any issues prior to filing flight plan
Be sure to look at all the details

What is worth consideration?
Be sure to look at all the details

What is worth consideration?

Training purposes only
Be sure to look at all the details

What is worth consideration?

<table>
<thead>
<tr>
<th>DEPRESS - FL PROFILE: OXYGEN ALTITUDE FOR None MIN THEN FL150</th>
</tr>
</thead>
<tbody>
<tr>
<td>LAT/LONG</td>
</tr>
<tr>
<td>TIME TO ETP DIVRSN PT</td>
</tr>
<tr>
<td>DIST TO ETP DIVRSN PT</td>
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<tr>
<td>FUEL TO ETP DIVRSN PT/RMNG</td>
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<td>FL/BURN/TIME TO ETP AP</td>
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<tr>
<td>TAS/ETA/DIST TO ETP AP</td>
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<td>MAG CRS/AVG WIND COMP TO ETP AP</td>
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<td>ISA TEMP DEV TO ETP AP</td>
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<tr>
<td>HOLD FUEL/TIME AT ETP AP</td>
</tr>
<tr>
<td>TOTAL FUEL TO ETP AP /RMNG</td>
</tr>
</tbody>
</table>

Training purposes only
Audience Question:
Can a private General Aviation aircraft operating under IFR in Canada complete an ILS CAT I past the FAF, with reported runway RVR below the published approach minimums?

a) Yes, it is permitted under all conditions
b) No, cannot complete the approach past the FAF with RVR below approach minimums
c) I’m not sure, let’s look it up
Answer:

c) I’m not sure, let’s look it up

Reference: Approach Ban – General (CAR 602.129)
Take-off and low visibility ops in Canada

Recent news passed along from US based operators

“A review was recently completed regarding the practice of issuing non-commercial foreign operators with an authorization to conduct low visibility operations in Canada. The review resulted in a decision to no longer issue these authorizations unless the foreign operator holds an Air Operator Certificate issued by their respective Civil Aviation Authority that includes a low visibility take off operations specification (or similar). As a result of this decision, any existing authorizations that have not yet expired will be cancelled.”

**Bottom line**: Do not assume you are approved for reduced or low visibility operations in Canada

_Sources: Forwarded email response, Transport Canada_
Canadian Customs - New eTA requirements

- Implemented March 15th, 2016
- Visa exempt nationals who fly to or transit through Canada expected to have an (eTA)
  - Exceptions include U.S. Citizens and those whom have a valid Canadian Visa
- For more information:
Flying the North Atlantic

CYQX – Home:

• CYQX is our technical stop after crossing the North Atlantic
  – Also a popular choice as a tech stop, historic transatlantic airport
• Don’t forget to arrange Customs in advance with CBP
  – Utilize their procedure, generally call in for clearance or greeted by CBP at ramp
• Quick turns can usually be expected with little delay, parking generally on ramp 3 or on ramp 2, by the Terminal
• Weather: Cold winters, wind with snow and overcast skies. Other options due weather: CYYR, CYJT, CYYT, etc.
• Hangar space can be difficult to obtain, especially in winter
North Atlantic Oceanic Clearances

- Be aware of the different ways clearances received
  - Voice
  - RCL 620
  - RCL 623
  - CPDLC
- Be very careful when reading/accepting/re-route
  - Utilize company SOPs
  - Understand and comply with the valid clearance
  - Be aware of re-routes - in message and/or additional received messages
- Comply and understand local procedures
  - NAT Ops Bulletins
  - Published regional procedures
Thank You for Your Time

Any Questions?