AERONAUTICAL INFORMATION CIRCULAR 20/14

FLIGHT PLANNING RULES FOR OCEANIC TRAFFIC TO OPERATE THROUGH THE GANDER OCEANIC TRANSITION AREA AND GANDER DOMESTIC CONTROL TERMINAL AREA

(Replaces AIC 14/14)

Introduction

The installation of air traffic service (ATS) surveillance systems combined with advancements in flight data processing systems and data link capabilities have provided opportunity for significant ATS improvements in the northwest portion of the Gander oceanic control area (OCA). To further avail of potential benefits associated with use of this technology, effective 29 May 2014; Gander Area Control Centre (ACC) will establish the Gander Oceanic Transition Area (GOTA), as depicted below (see Figure 1) and as previously announced by Aeronautical Information Circular (AIC) 31/13.

In conjunction with formation of the GOTA, additional fixes will be incrementally added near the Gander flight information region (FIR) domestic/oceanic boundary over the next two years. These fixes will be aligned to accommodate half degree track spacing associated with the Reduced Lateral Separation Minimum (RLatSM) initiative scheduled to begin within the North Atlantic (NAT) Region in 2015. The first group of new fixes will be incorporated on 29 May 2014 (see Figures 1 through 5).

Looking to the future, the provision of ATS surveillance service within the GOTA will assist the development of appropriate procedures to support the provision of ATS surveillance services in oceanic and remote airspace using space-based Automatic Dependent Surveillance–Broadcast (ADS-B).

Purpose of Circular

This AIC outlines the geographic area of the GOTA and details services that will be provided therein. It also describes the first group of new fixes for use within the Gander FIR. This AIC describes general flight planning rules associated with the publication of these new Oceanic Entry/Exit Points.

The information provided is intended for publication in the Autumn 2014 *Transport Canada Aeronautical information Manual* (TC AIM).

Background

With the implementation of additional ADS-B and radar facilities along the east coast of Canada, Gander ACC has offered ATS surveillance service and very high frequency (VHF) communications at flight level (FL) 290 and above within this area since October 2010. As of November 2012, seamless controller pilot data link communications (CPDLC) service has been provided to flights transiting Gander domestic (CDQX) and Gander oceanic (CZQX) airspace.

Description of Airspace

The GOTA will consist of airspace from 65° 30’ N 060° W, east to the Reykjavik ACC boundary, south to 63° 30’ N 055° W, south to OYSTR, north to PRAWN and then MOATT, then north to 61° N 063° W along the Montreal ACC boundary, north to the Edmonton ACC boundary.

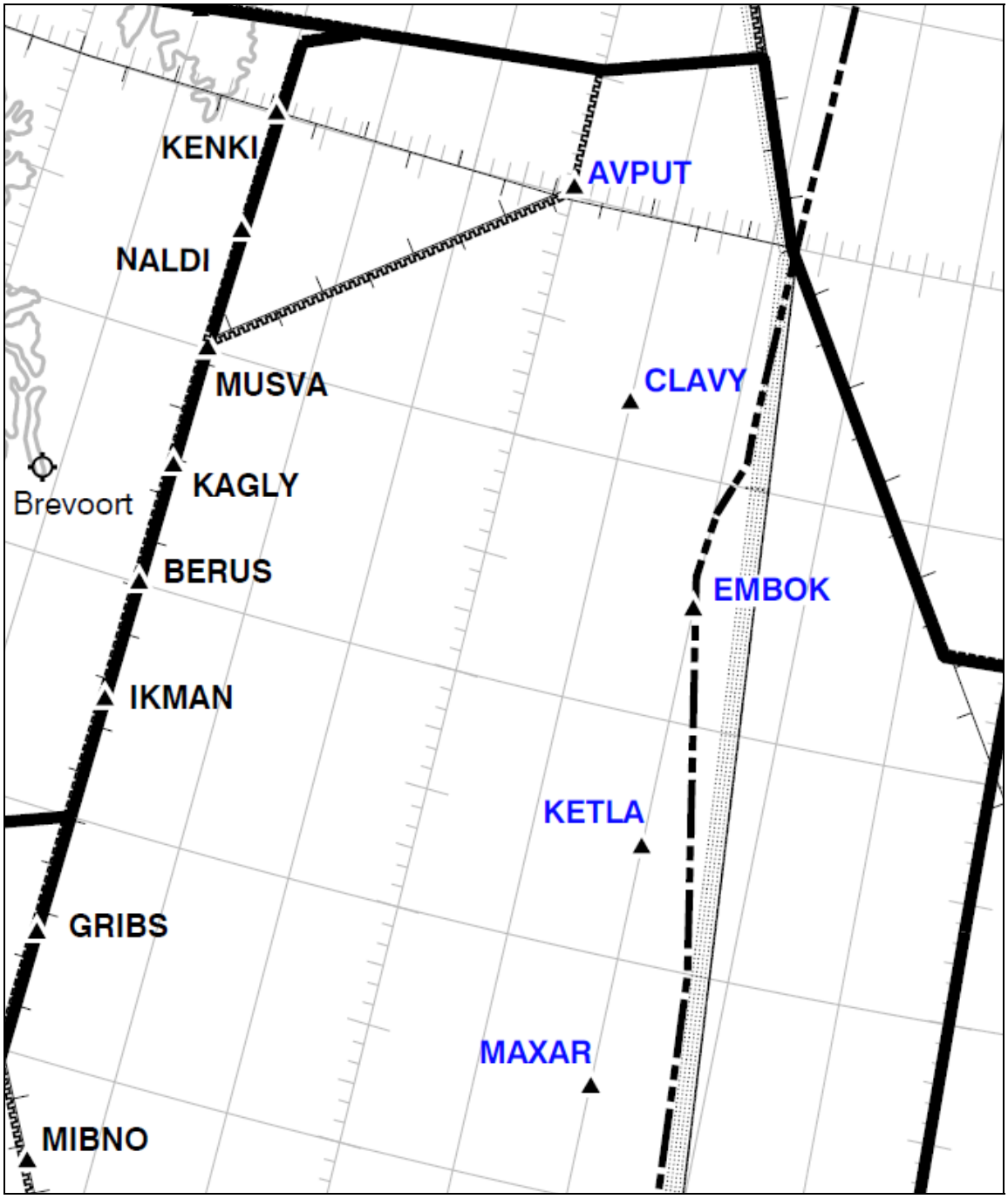
KENKI
AVPUT
NALDI
MUSVA
CLAVY
KAGLY
Brevoort
BERUS
EMBOK
IKMAN
KETLA
GRIBS
MAXAR
MIBNO

Figure 1

Additional Fixes Effective 29 May 2014			
AVPUT	65° 02’ N 060° W *	JANJO	54° 02’ N 057° W
CLAVY	64° 14’ N 059° W	LOMSI	53° 06’ N 056° 47’ W
EMBOK	63° 28’ N 058° W **	NEEKO	52° 24’ N 055° 50’ W
KETLA	62° 28’ N 058° W	RIKAL	51° 48’ N 054° 32’ W
MAXAR	61° 28’ N 058° W **	TUDEP	51° 10’ N 053° 14’ W
PIDSO	60° 28’ N 058° W	ALLRY	50° 30’ N 052° W
SAVRY	59° 28’ N 058° W	ELSIR	49° 30’ N 052° W
URSAP	58° 35’ N 057° 30’ W	JOOPY	48° 30’ N 052° W
ALTOD	57° 42’ N 057° W	NICSO	47° 30’ N 052° W
CUDDY	56° 42’ N 057° W	PORTI	46° 30’ N 052° W
DORYY	56° 02’ N 057° W	SUPRY	45° 30’ N 052° W
HOIST	55° 02’ N 057° W		

* Fix coordinates moved from those first announced by AIC 31/13.

** New names to de-conflict with other similar sounding fixes on the NAT.

Please review all fix names and coordinates to ensure all databases are up to date for 29 May 2014.

The following fixes will be deleted by Gander ACC:

URTAK, BANCS, RONPO, COLOR, NOVEP, VIXUN, LOGSU, KOBEV, CYMON, DENDU, DOTTY, CRONO, HECKK, REDBY, CARPE, STEAM, OYSTR, VALIE, SCROD, and LOACH.

The following fixes will be added to GOTA and the Domestic Control Terminal Area (CTA) at a later date and will be the subject of an AIC this autumn:

BIPNI, DANIV, IPVOT, LOKBI, NIFTY, ROTVO, TOXIT, VESMI, BOKTO, ENNSO, IRLOK, KODIK, MAPIR, PELTU, SAXAN, VINSA, BUDAR, IBERG, MUSAK, OMSAT, RELIC, and TABOX.

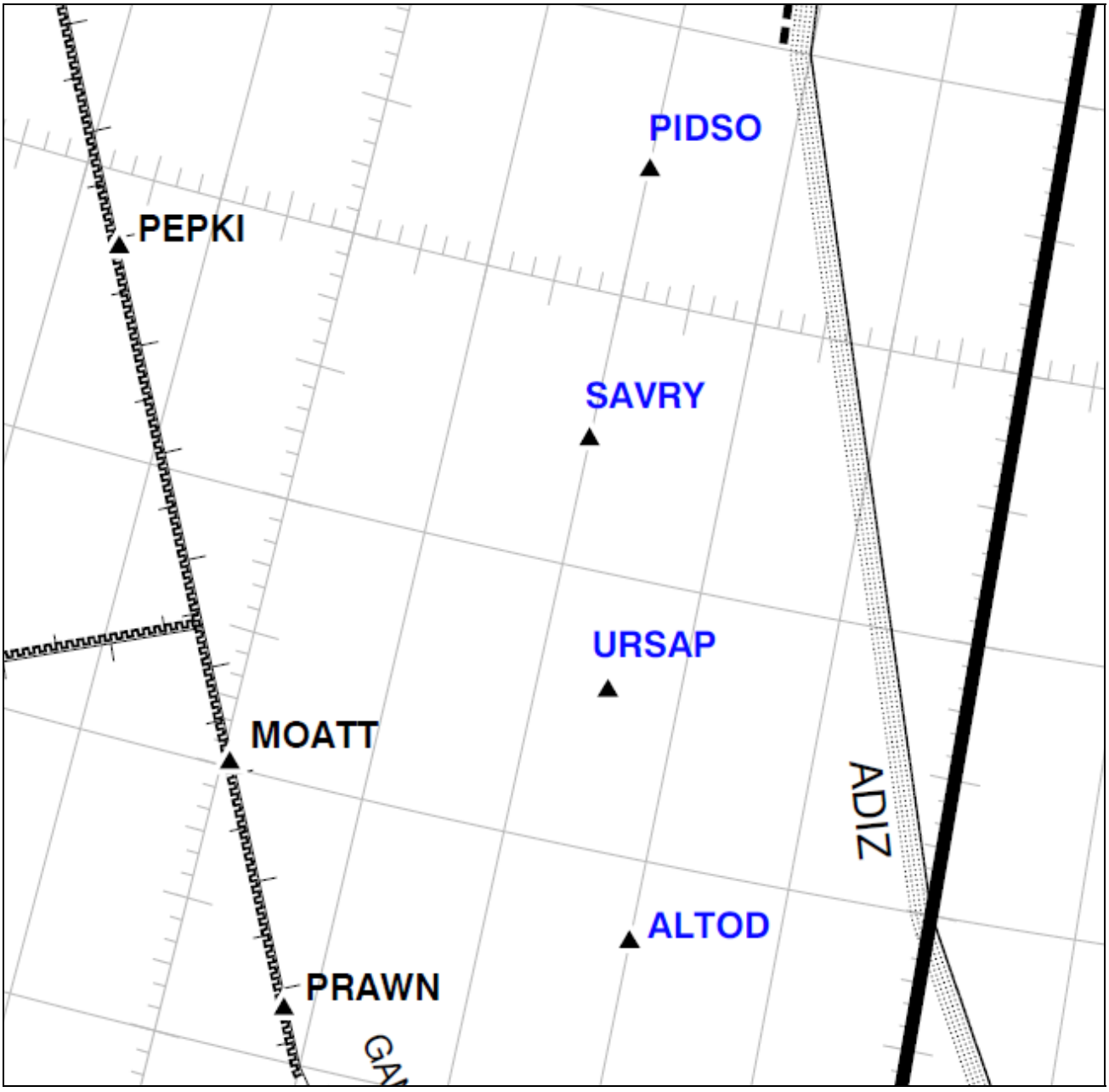

Figure 2

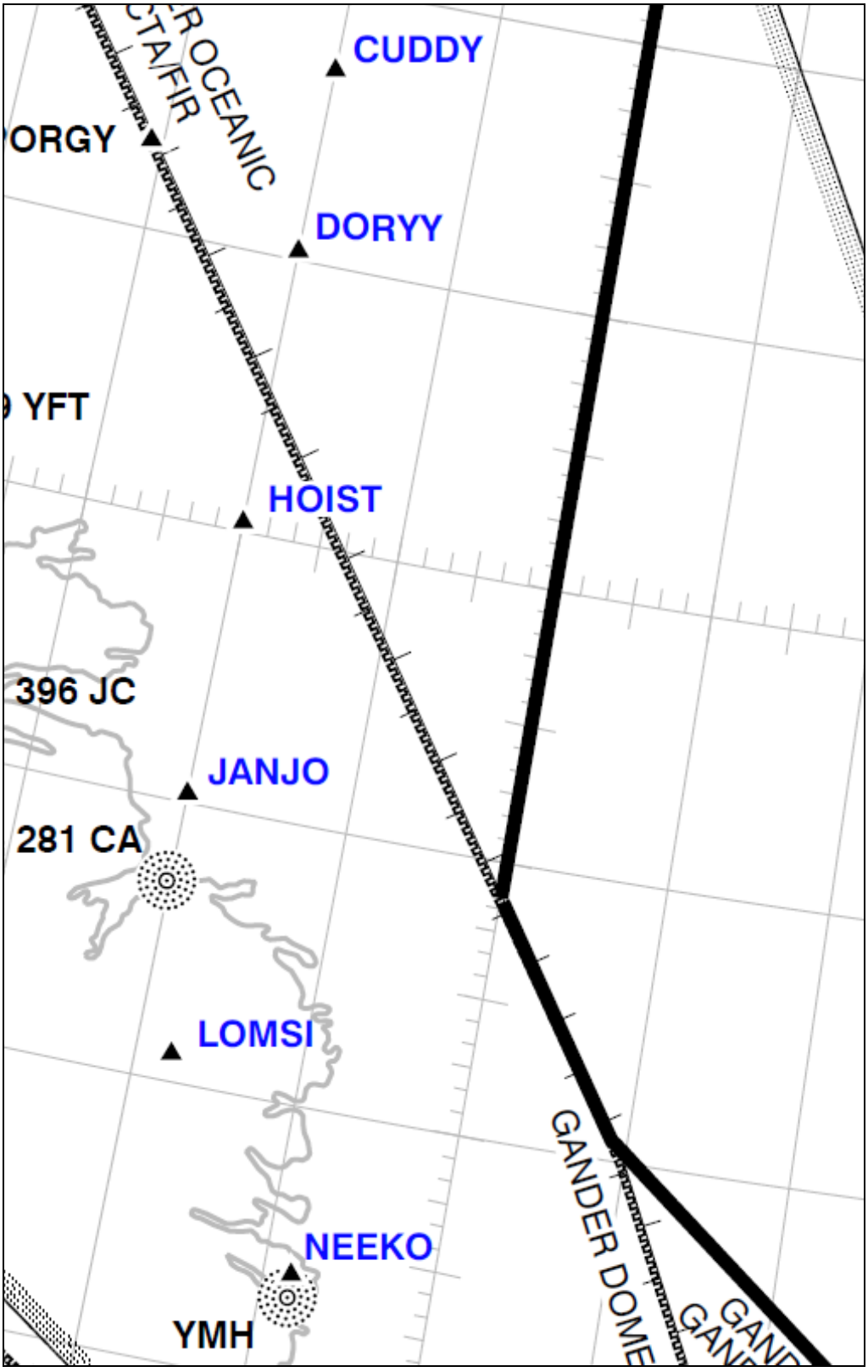
CUDDY
ORGY
DORYY
YFT
HOIST
396 JC
JANJO
281 CA
LOMSI
NEEKO
YMH
GANDER DOME

Figure 3

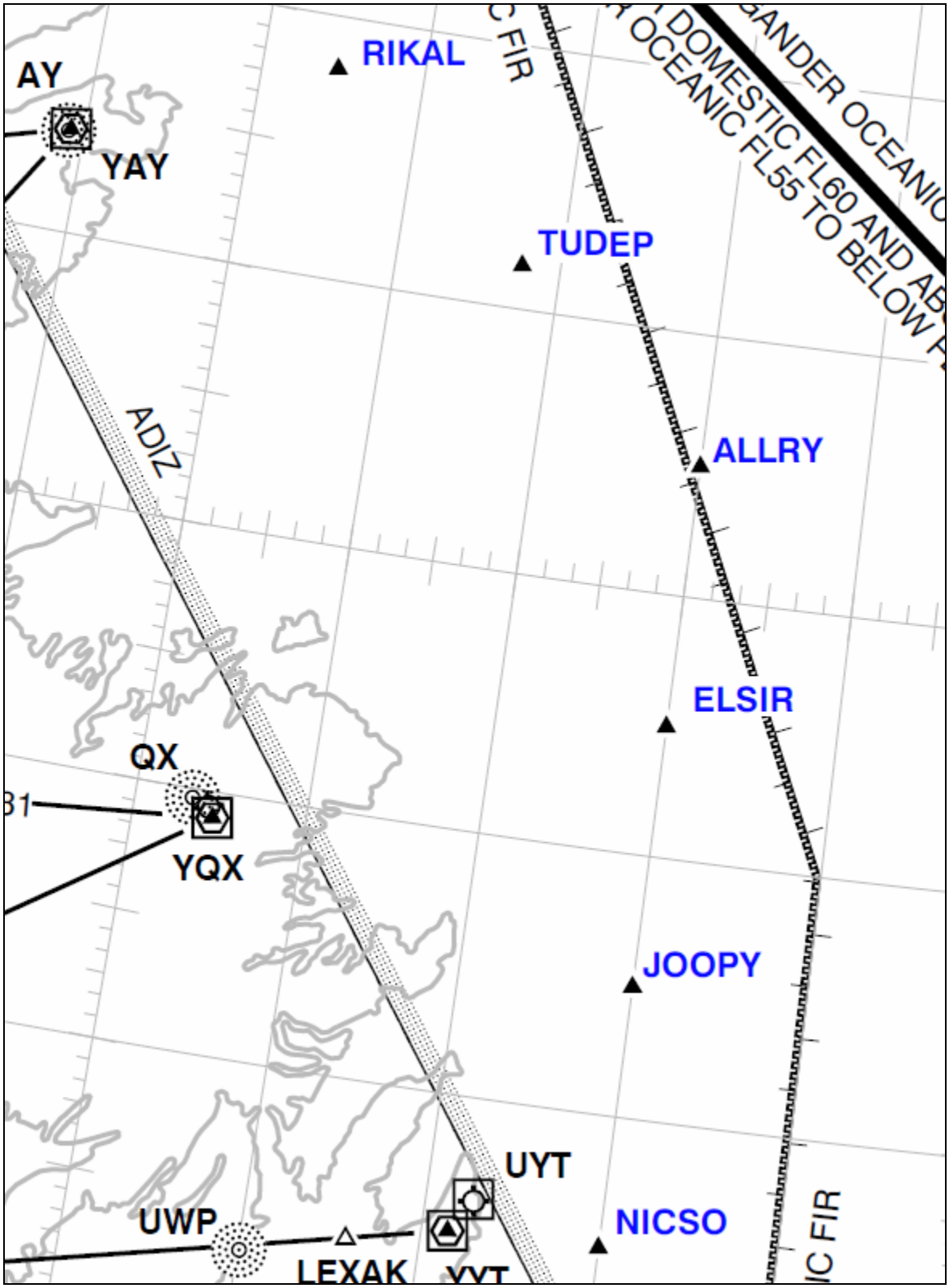
RIKAL
AY
YAY
TUDEP
ADIZ
ALLRY
ELSIR
QX
YQX
JOOPY
UYT
UWP
NICSO
LEXAK
DOMESTIC FL60 AND
OCEANIC FL55 TO BELOW

Figure 4

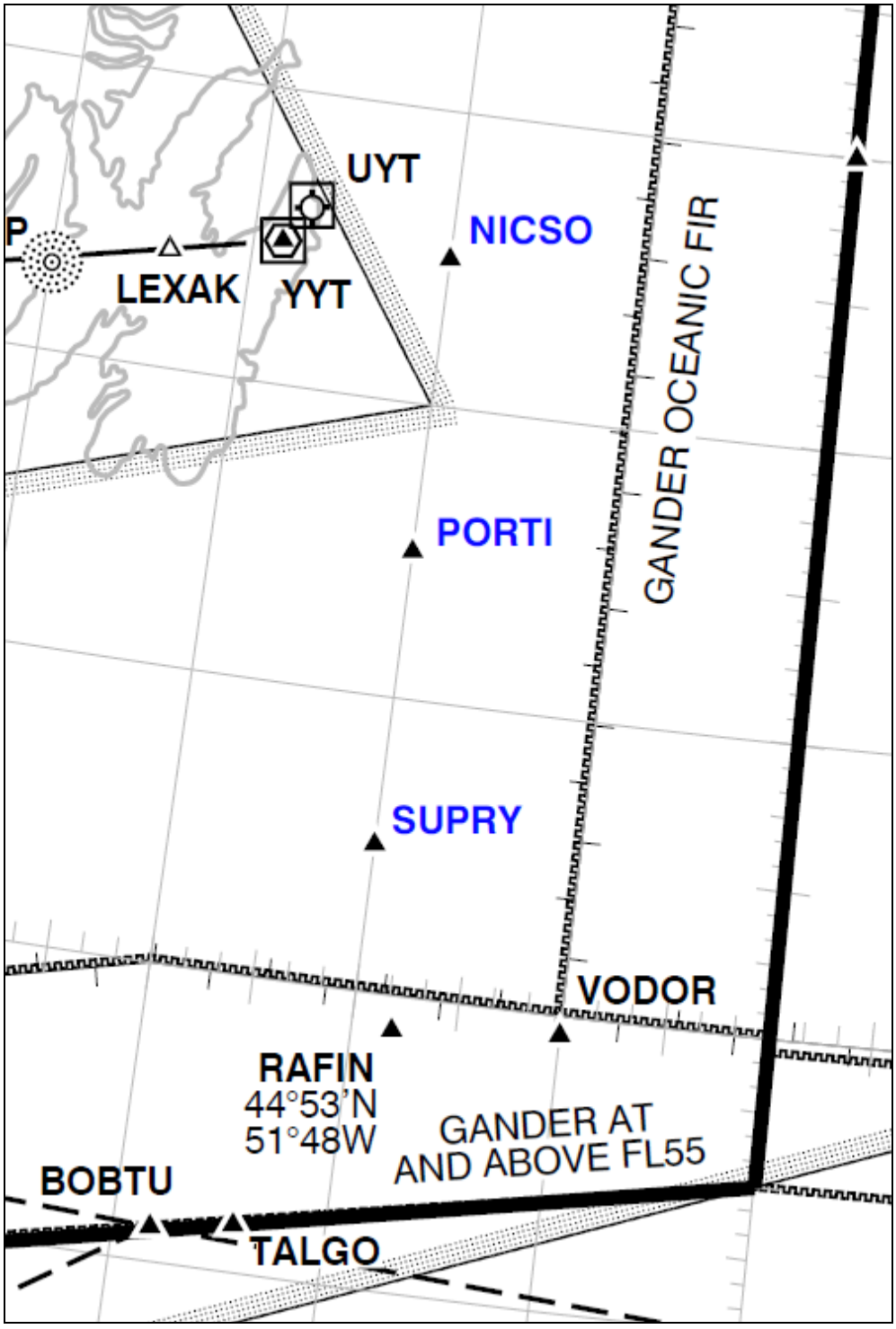
UYT
P
LEXAK
YYT
NICSO
GANDER OCEANIC FIR
PORTI
SUPRY
VODOR
RAFIN
44°53'N
51°48W
GANDER AT
AND ABOVE FL55
BOBTU
TALGO

Figure 5

Service and Safety Improvements

Along with the normal benefits associated with continual ATS surveillance service and VHF frequency coverage throughout the airspace, the GOTA is expected to provide flights with:

- optimum route choices and shortened oceanic tracks
- increased access to higher flight levels
- longer route segments at preferred airspeeds

Establishment of the GOTA will enable Gander's Air Traffic Systems (GAATS+) and Canadian Automated Air Traffic System (CAATS) to enhance safety with the following capabilities:

- Medium-Term Conflict Detection (MTCD) – This technology can detect potential surveillance conflictions up to 20 minutes flying time ahead.
- Radar/ADS-B Conformance (RACON) – compares an ATS surveillance system target (radar or ADS-B) to the data in GAATS+. If the data differs in either the lateral or vertical plane, it is presented to the controller for investigation. If there is no matching record in GAATS+ database, the information is presented to the controller for investigation.

Flight Planning Rules (FL 290–FL 600)

All eastbound and westbound oceanic flights transitioning through GOTA or the Gander Domestic CTA shall flight plan a newly established Oceanic Entry/Exit Point (OEP), a 50° W coordinate and a 40° W coordinate.

All eastbound and westbound GOTA flights transitioning through the Montreal CTA at or north of LAKES shall flight plan a 40° W coordinate, a 50° W coordinate, an OEP, a Montreal boundary fix and an inland reporting point (LAKES, LOPVI, RODBO, JELCO, FEDDY, TEFFO, DUTUM, or BEZED).

Polar flights transitioning through GOTA shall flight plan a newly established OEP.

Limited navigation routes (Blue Spruce routes) will be amended for traffic operating from FL 290–FL 600 as follows:

Prins Christian Sund	59° N 50° W	ALTOD–PRAWN–YDP
Prins Christian Sund	59° N 50° W	CUDDY–PORGY–HO
Prins Christian Sund	58° N 50° W	HOIST–YYR (All FL's)
Note: Limited navigation routes are not subject to fix pairing rules listed below.		

Flight Planning Rules (FL 280–FL 055)

All eastbound and westbound oceanic flights transitioning through the Gander Domestic CTA shall flight plan an inland fix, a newly established OEP (HOIST and south) or PORGY, PRAWN, and MOATT, a 50° W coordinate and a 40° W coordinate.

All eastbound and westbound flights transitioning through the Montreal CTA at or north of LAKES shall flight plan a 40° W coordinate, a 50° W coordinate, a 60° W coordinate, a Montreal boundary fix, and an inland reporting point (LAKES, LOPVI, RODBO, JELCO, FEDDY, TEFFO, DUTUM, or BEZED).

Fix Pairings

The following fixes are associated with a specific 50° W coordinate and should be flight planned as a fix pairing from FL 290 to FL 600.

CUDDY	58° N 50° W (Midwest traffic)
DORYY	58° N 50° W (Eastern Seaboard traffic)
HOIST	57° N 50° W
JANJO	56° N 50° W
LOMSI	55° N 50° W
NEEKO	54° N 50° W
RIKAL	53° N 50° W
TUDEP	52° N 50° W
ALLRY	51° N 50° W
ELSIR	50° N 50° W
JOOPY	49° N 50° W
NICSO	48° N 50° W
PORTI	47° N 50° W
SUPRY	46° N 50° W
VODOR	45° N 50° W

North American Routes

Eastbound aircraft intending to operate on the North Atlantic organized track system (NAT OTS) and operating wholly on or south of a line between the intersections BAREE and TUDEP shall flight plan and operate using one of the North American Routes (NAR) published on the daily organized track system (OTS) message.

Westbound aircraft exiting the ocean via coastal fixes JEBBY CARAC, BOBTU JAROM or VODOR must file via one of the published NAR common portions as specified in the *Canada Flight Supplement* (CFS) unless re-entering New York Oceanic via M201/M202/M203.

All NARs have been revised to incorporate the new fix names effective 29 May 2014.

Operators transitioning through GOTA may be required to flight plan a NAR should a radar or ADS-B outage occur. Notification of radar or ADS-B outages will be publicized as soon as practicable via NOTAM and/or an Impact to Operations statement.

Future Developments

It is anticipated that, based primarily on the availability of ATS surveillance service, establishment of the GOTA will allow for the availability of more efficient flight profiles for aircraft operating in the area. This will facilitate further service improvement initiatives such as application of reduced lateral separation based on global navigation satellite system (GNSS) equipment.

Further Information

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