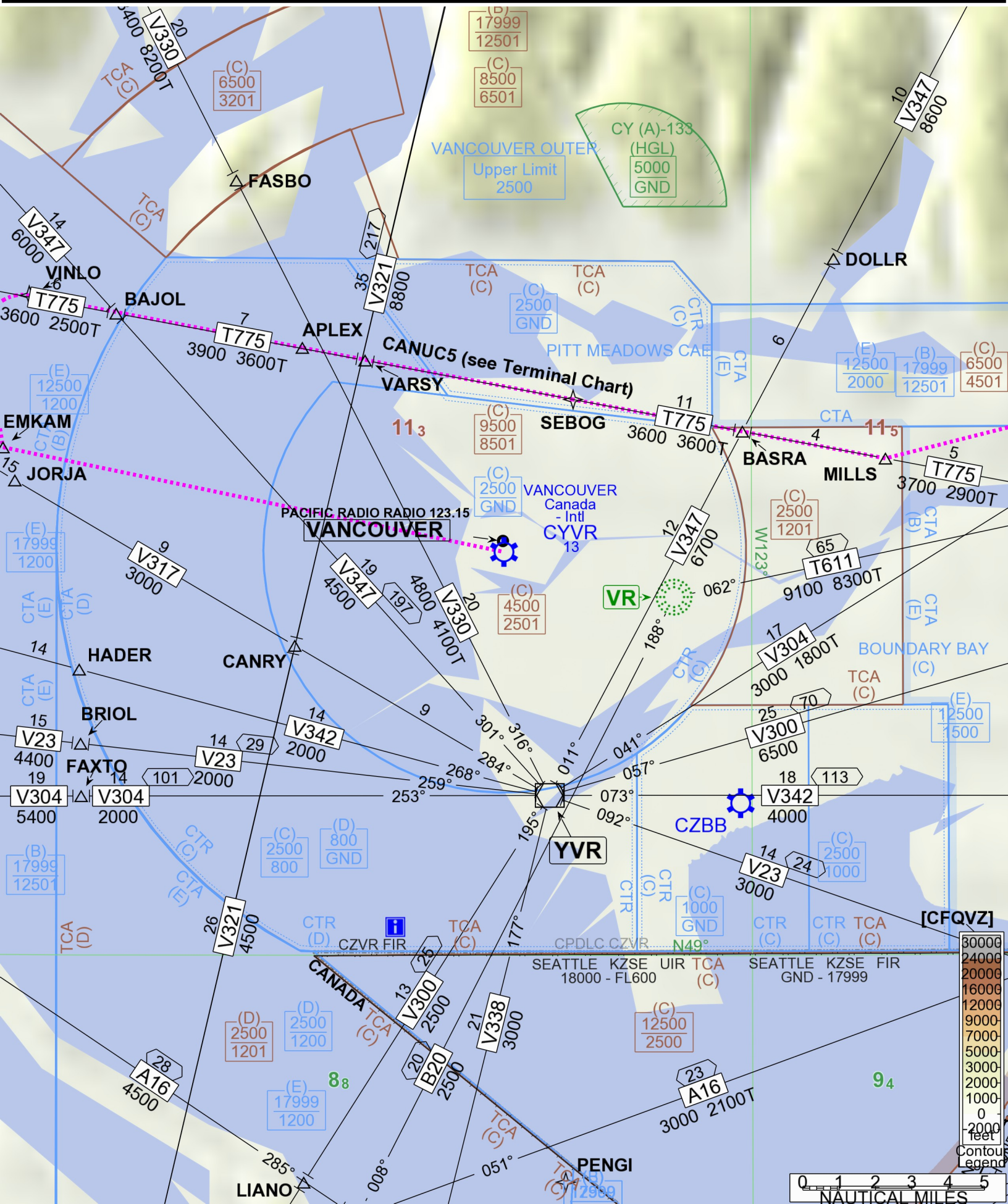
List of pages in this Trip Kit

Enroute Chart - ACA127 Departure
NavData cycle 2023-04 Expired: 10 May 2023
Scale: 1:250000 (1 inch = 3.43 naut mi). Printed on 10 Apr 2025

JEPPESEN
JeppView for Windows

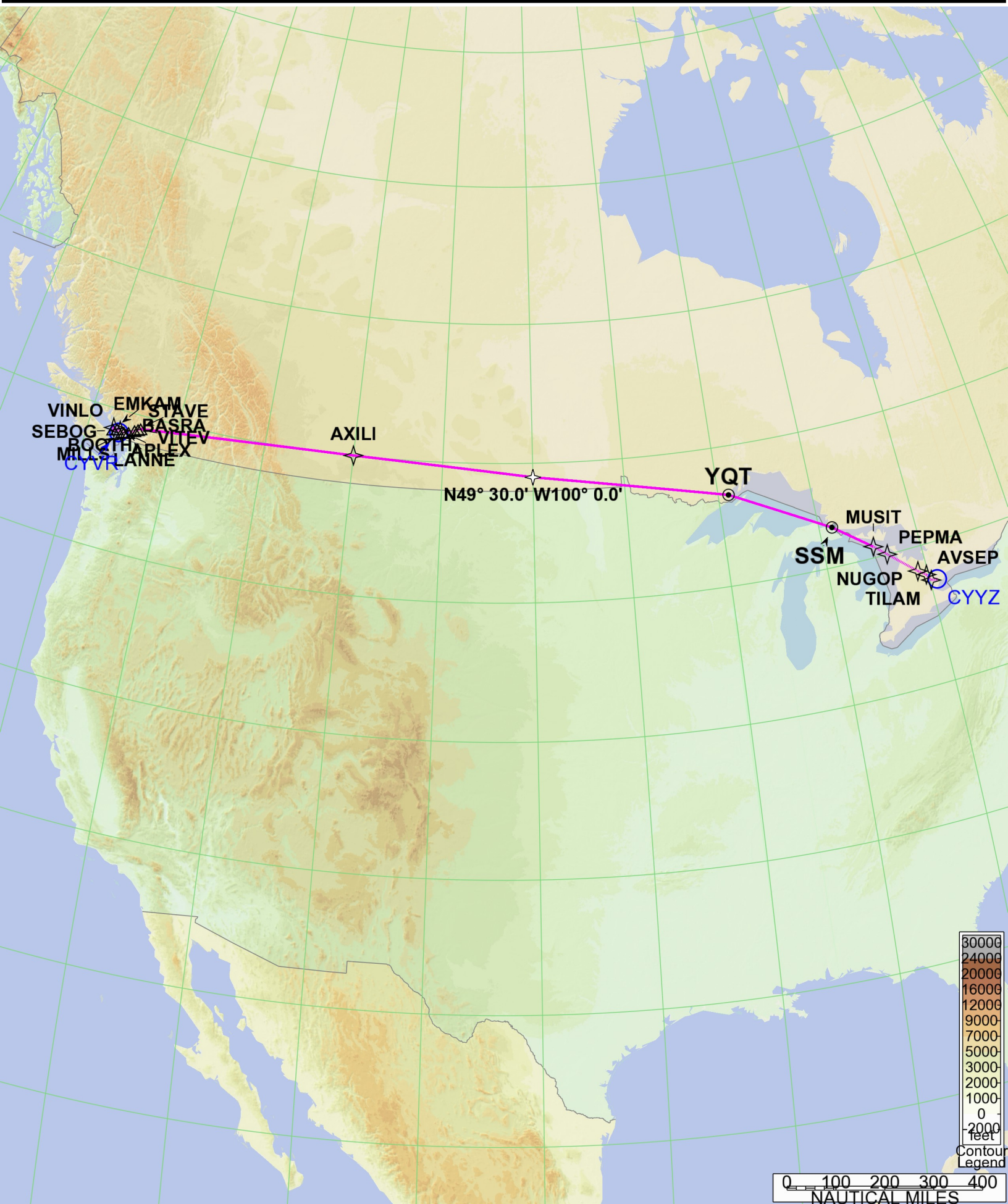
Enroute Chart - ACA127 Destination
NavData cycle 2023-04 Expired: 10 May 2023
Scale: 1:250000 (1 inch = 3.43 naut mi). Printed on 10 Apr 2025

JEPPESEN
JeppView for Windows



Enroute Chart - ACA127 Full Route
NavData cycle 2023-04 Expired: 10 May 2023
Scale: 1:18557908 (1 inch = 254.52 naut mi). Printed on 10 Apr 2025

JEPPESEN
JeppView for Windows



Enroute Chart - ACA127 Strip Chart Page 1
NavData cycle 2023-04 Expired: 10 May 2023
Scale: 1:4374806 (1 inch = 60.00 naut mi). Printed on 10 Apr 2025

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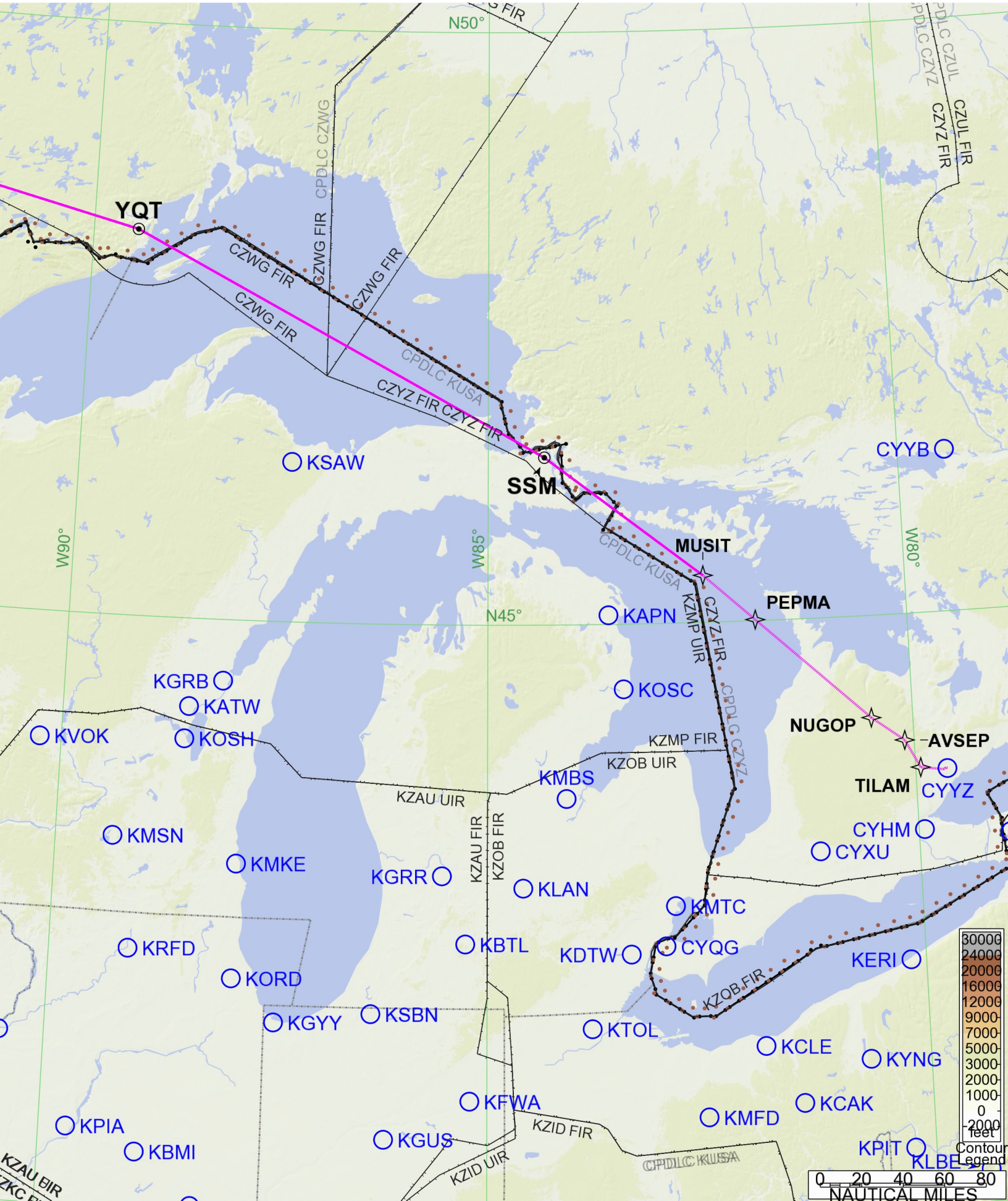
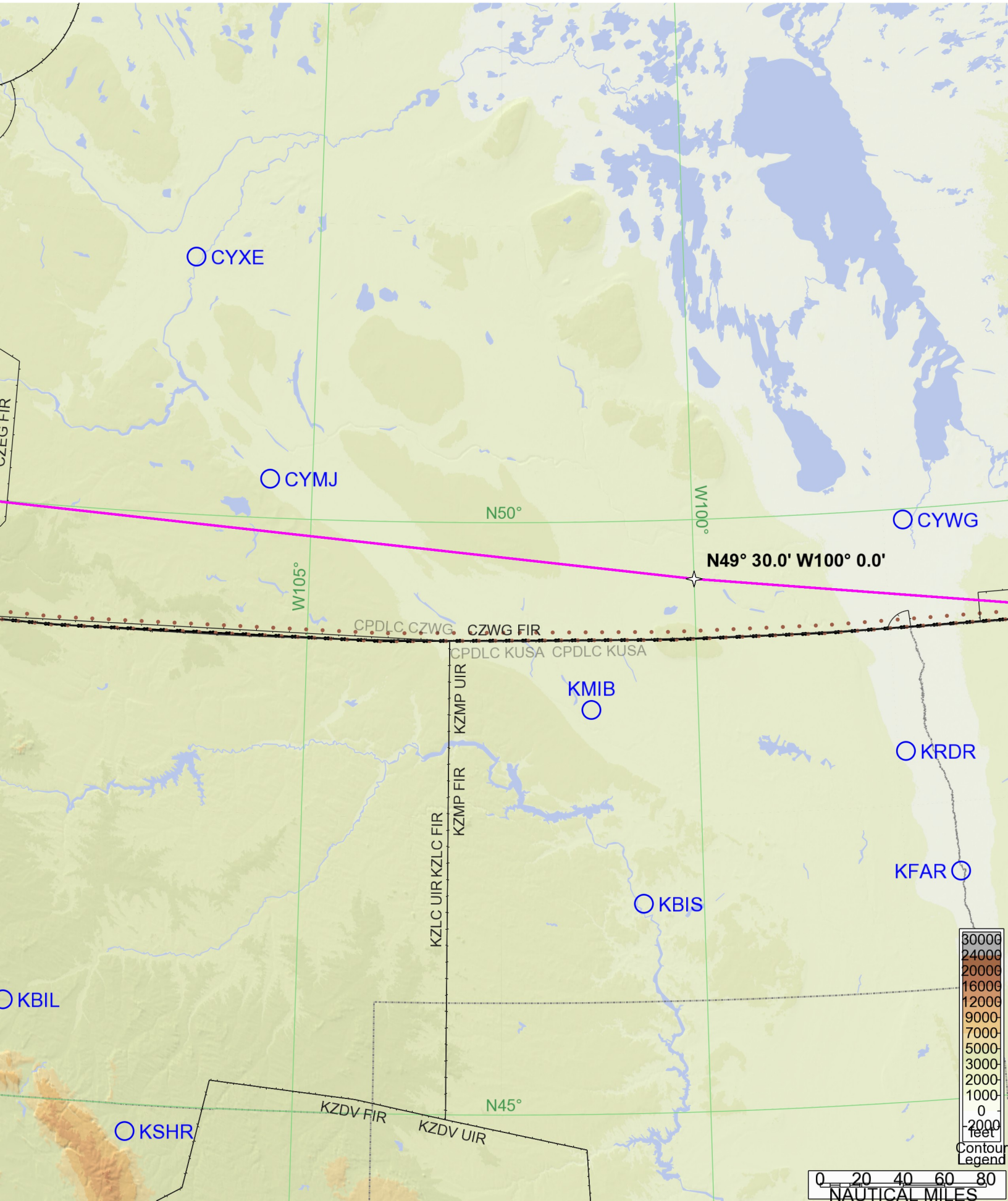
JeppView for Windows



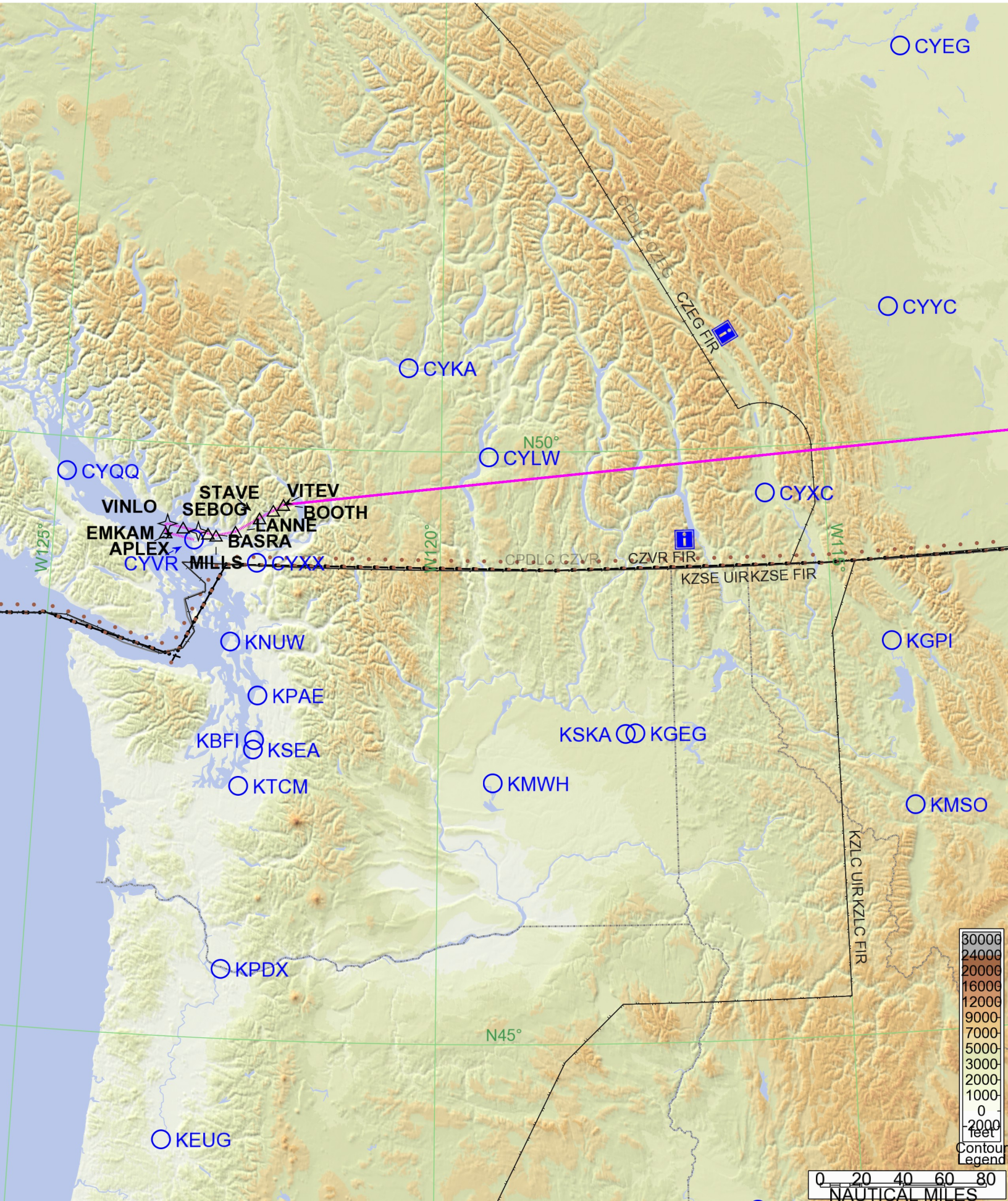
Enroute Chart - ACA127 Strip Chart Page 2
NavData cycle 2023-04 Expired: 10 May 2023
Scale: 1:4374806 (1 inch = 60.00 naut mi). Printed on 10 Apr 2025

JEPPESEN
JeppView for Windows



Enroute Chart - ACA127 Strip Chart Page 3
NavData cycle 2023-04 Expired: 10 May 2023
Scale: 1:4374806 (1 inch = 60.00 naut mi). Printed on 10 Apr 2025

JEPPESEN
JeppView for Windows



General Information

Location: TORONTO ON CAN
ICAO/IATA: CYYZ / YYZ
Lat/Long: N43° 40.6', W079° 37.8'
Elevation: 569 ft

Airport Use: Public
Daylight Savings: Observed
UTC Conversion: +5:00 = UTC
Magnetic Variation: 10.0° W
Sectional Chart: Detroit

Fuel Types: Jet A, Jet A-1, Jet B
Oxygen Types: High Pressure, Low Pressure
Repair Types: Minor Airframe, Minor Engine, Major Airframe, Major Engine
Customs: Yes
Airport Type: IFR
Landing Fee: Yes
Control Tower: Yes
Jet Start Unit: Yes
LLWS Alert: No
Beacon: No

Sunrise: 1045 Z
Sunset: 2355 Z

Runway Information

Runway: 05
Length x Width: 11120 ft x 200 ft
Surface Type: asphalt
TDZ-Elev: 564 ft
Lighting: Edge, ALS, Centerline, TDZ
Displaced Threshold: 135 ft

Runway: 06L
Length x Width: 9697 ft x 197 ft
Surface Type: asphalt
TDZ-Elev: 535 ft
Lighting: Edge, ALS, Centerline, TDZ

Runway: 06R
Length x Width: 9000 ft x 197 ft
Surface Type: asphalt
TDZ-Elev: 538 ft
Lighting: Edge, ALS, Centerline

Runway: 15L
Length x Width: 11050 ft x 200 ft
Surface Type: asphalt
TDZ-Elev: 557 ft
Lighting: Edge, ALS, Centerline

Runway: 15R
Length x Width: 9088 ft x 197 ft
Surface Type: asphalt
TDZ-Elev: 552 ft
Lighting: Edge, ALS
Displaced Threshold: 588 ft

Runway: 23
Length x Width: 11120 ft x 200 ft
Surface Type: asphalt
TDZ-Elev: 558 ft
Lighting: Edge, ALS, Centerline
Displaced Threshold: 686 ft

Runway: 24L
Length x Width: 9000 ft x 197 ft
Surface Type: asphalt
TDZ-Elev: 547 ft
Lighting: Edge, ALS, Centerline

Runway: 24R
Length x Width: 9697 ft x 197 ft
Surface Type: asphalt
TDZ-Elev: 546 ft
Lighting: Edge, ALS, Centerline, REIL, TDZ
Displaced Threshold: 197 ft

Runway: 33L
Length x Width: 9088 ft x 197 ft
Surface Type: asphalt
TDZ-Elev: 548 ft
Lighting: Edge, ALS
Displaced Threshold: 588 ft

Runway: 33R
Length x Width: 11050 ft x 200 ft
Surface Type: asphalt
TDZ-Elev: 564 ft
Lighting: Edge, ALS, Centerline

Communication Information

ATIS: 133.100
ATIS: 120.825
Toronto Tower: 118.700
Toronto Tower: 118.350
Toronto Ground: 121.900
Toronto Ground: 119.100
Toronto Ground: 121.650
Toronto Apron Ramp/Taxi: 122.075
Toronto Apron Ramp/Taxi: 122.275
Toronto Apron Ramp/Taxi: 122.825 Secondary
Toronto Clearance Delivery: 121.300
Toronto Arrival: 132.800
Toronto Arrival: 125.400
Toronto Arrival: 124.475
Toronto Departure: 127.575
Toronto Departure: 128.800
Toronto Terminal Area: 119.300
Toronto Terminal Area: 133.400
Tow Coordinator Operations: 136.525
Pad Control Operations: 131.950
A-Cdm Coordinator Operations: 122.875
Pad Control Operations: 131.175
Iceman Operations: 129.625
Iceman Operations: 131.375
A-Cdm Coordinator Operations: 122.825 Secondary
London Radio Radio: 123.275 Flight Info Service RCO

AIRPORT COLLABORATIVE DECISION MAKING (A-CDM) PROCEDURES

1.0. DATE OF APPLICABILITY

- A-CDM live operations will be effective as of 05 April 2021

2.0. PURPOSE OF THE PUBLICATION

This information outlines the A-CDM procedures to be followed by operators at CYYZ. Additional information on the details of the A-CDM Project at CYYZ can be found at: http://torontopearson.com/acdm/.
For anything not covered in this circular, detailed explanation can be found in the Transport Canada Aeronautical Information Manual (TC AIM), Aerodromes chapter, section 10: https://www.tc.gc.ca/ca-publications/AIM _2020-1_E_AGA.pdf.
The A-CDM web portal for operational purposes can be found at: https://acdm.gtaa.com/.

3.0. A-CDM SINGLE POINT OF CONTACT

The 24/7 dedicated single point of contact for A-CDM is the Manager Operations - Airport Flow (MO-AF):

Tel.: 416-776-ACDM (2236)
E-mail: manageroperationsairportflow@gtaa.com

4.0. EXEMPTIONS FROM A-CDM PROCEDURES

Helicopters and flights identified by any one of the following designators in Item 18 of their flight plan, or by any other agreed means that may be applicable, are exempt from adhering to the A-CDM procedures:

STS/FFR	Fire fighting
STS/HEAD	Flight with Head of State status
STS/HOSP	Flight on an actual medical mission
STS/MEDEVAC	Flight operated for life critical medical emergency evacuation
STS/SAR	Flight engaged in a search and rescue mission
STS/STATE	Flight engaged in military, customs or police services
STS/FLTCK	Aircraft performing NAVAID flight check

5.0. FLIGHT CREW PROCEDURES

5.1. ADHERENCE TO TOBT/TSAT

To prevent unnecessary, and potentially significant delays, flight crews are reminded of the importance of keeping their Target Off Blocks Time (TOBT) accurate. Failure to comply with the actions associated with TOBT/Target Start-up Approval Time (TSAT) will result in new times being allocated.

5.2. TOBT/TSAT VISIBILITY

- Where Advanced Visual Docking Guidance System (AVDGS) is available TSAT times will be displayed at TOBT - 10 minutes, or TOBT - 20 minutes if TSAT time is greater than or equal to TOBT + 20 minutes.
- A-CDM web portal: https://acdm.gtaa.com/.
- Through communication with the operator and their designated representative(s).

5.3. CALL READY PROCEDURE

- TOBT +/- 5 minutes contact Apron Coordinator to confirm that the flight is ready with aircraft location.
- Monitor appropriate Apron frequency to await push-back and start-up approval.

5.4. PUSH-BACK/START-UP APPROVAL

- TSAT +/- 5 minutes Apron will provide push-back and start-up approval without a call from the flight crew.
- Sky Service midfield/3 Bay Hangar Apron aircraft shall start-up without requring an instruction to do so from Apron in the TSAT +/- 5 minute window.
- Aircraft located at uncontrolled areas (Taxiway K, South FBO, Vista Cargo, Air Canada Hangar) shall contact North or South Ground as appropriate in the TSAT +/- 5 minute window for taxi clearance.
- Failure to commence the push-back/start-up process within 2 minutes must be reported to the appropriate Apron or Ground frequency. Failure to report will be assumed that the TSAT is no longer valid and the operator needs to provide a new TOBT from which a new TSAT will be generated.
- If there is an issue after the aircraft has cleared the gate area that would mean a longer than normal start-up procedure, flight crew must request guidance from Apron frequency or Apron Coordinator if located at uncontrolled areas.

5.5. DE-ICING OPERATIONS

De-icing procedures will have a significant impact on taxi times, airport throughput and A-CDM planning.

- De-icing requirements must be communicated to Clearance Delivery.
- Requests for a change in de-icing requirements (including no longer requiring de-icing) later in the process must be communicated to Apron Coordinator as soon as practicable.

5.6. MANAGING TSAT DELAYS

Delays can occur for many different reasons so there will be occasion when there is a significant time difference between TOBT and TSAT.

Flight crews at CYYZ can normally expect to remain at the gate whilst waiting for their TSAT. Should the gate be required for another purpose, flight crews can expect to remote hold on the airfield to await their TSAT.

Flow restrictions enroute, or at destination airports, are calculated into a flight's TSAT.

6.0. CONTINGENCY OPERATIONS

If the A-CDM system fails or becomes unreliable, the A-CDM procedures will be suspended. The suspension and eventual restarting of the procedures will be announced via the automatic terminal information service (ATIS) broadcast and a NOTAM.

During suspension of the A-CDM procedures, no TOBT and TSAT will be provided.

All aircraft are to report ready with Apron Coordinator when they are ready to commence push-back/start-up procedures.

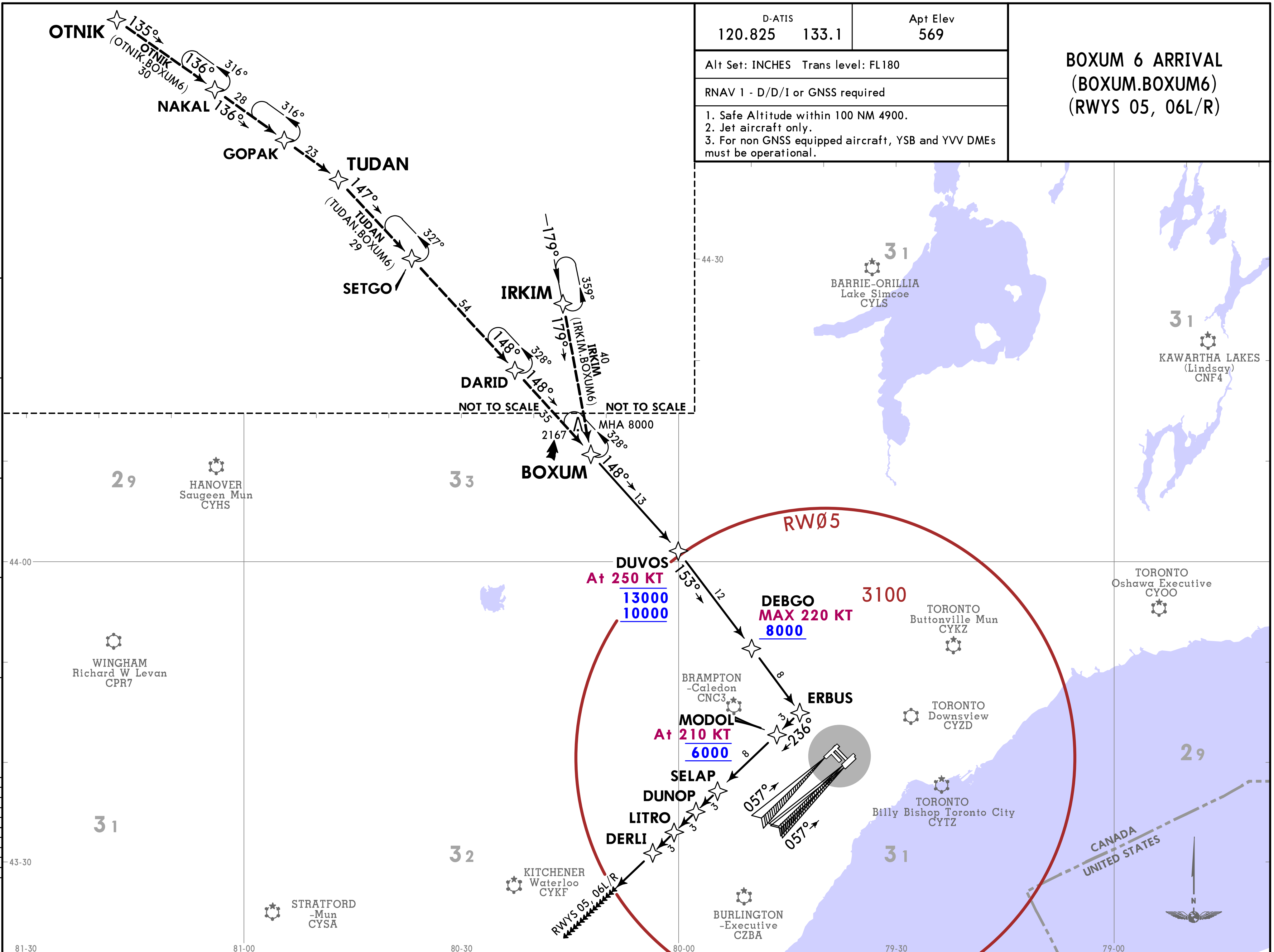
D-ATIS	Apt Elev
120.825 133.1	569

Alt Set: INCHES Trans level: FL180

RNAV 1 - D/D/I or GNSS required

1. Safe Altitude within 100 NM 4900.
2. Jet aircraft only.
3. For non GNSS equipped aircraft, YSB and YVV DMEs must be operational.

BOXUM 6 ARRIVAL (BOXUM.BOXUM6) (RWYS 05, 06L/R)


OTNIK
135°
136°
316°
(OTNIK.BOXUM6)
30
NAKAL
28
GOPAK
23
TUDAN
147°
(TUDAN.BOXUM6)
29
327°
SETGO
54
IRKIM
179°
359°
(IRKIM.BOXUM6)
40
DARID
148°
328°
NOT TO SCALE
35
MHA 8000
2167
BOXUM
13
DUVOS
At 250 KT
13000
10000
153°
12
RWØ5
3100
DEBGO
MAX 220 KT
8000
8
ERBUS
236°
MODOL
At 210 KT
6000
SELAP
DUNOP
LITRO
DERLI
057°
RWYS 05, 06L/R
HANOVER
Saugeen Mun
CYHS
WINGHAM
Richard W Levan
CPR7
STRATFORD
-Mun
CYSA
KITCHENER
Waterloo
CYKF
BRAMPTON
-Caledon
CNC3
TORONTO
Buttonville Mun
CYKZ
TORONTO
Downsview
CYZD
TORONTO
Billy Bishop Toronto City
CYTZ
BURLINGTON
-Executive
CZBA
TORONTO
Oshawa Executive
CYOO
BARRIE-ORILLIA
Lake Simcoe
CYLS
KAWARTHA LAKES
(Lindsay)
CNF4
CANADA
UNITED STATES
44-30
44-00
43-30
81-30
81-00
80-30
80-00
79-30
79-00

CHANGES: Airport name.

D-ATIS		Apt Elev
120.825	133.1	569

Alt Set: INCHES Trans level: FL180

RNAV 1 - D/D/I or GNSS required

1. Safe Altitude within 100 NM 4900.
2. Jet aircraft only.
3. For non GNSS equipped aircraft, YSB and YVV DMEs must be operational.

BOXUM 6 ARRIVAL
(BOXUM.BOXUM6)
(RWYS 15L/R)

OTNIK
135°
OTNIK
(OTNIK.BOXUM6)
30
136°
316°
28
NAKAL
136°
316°
GOPAK
23
TUDAN
147°
TUDAN
(TUDAN.BOXUM6)
29
327°
SETGO
54
148°
328°
DARID
148°
35
NOT TO SCALE
NOT TO SCALE
-179°
359°
IRKIM
179°
IRKIM
(IRKIM.BOXUM6)
40
MHA 8000
2167
328°
BOXUM
148°
13
DUVOS
At 220 KT
7000
158°
160°
11
11
ONGOX
BLOOS
146°
146°
(FACF)
BEFNI
146°
(FACF)
PILKI
147°
147°
RW15L
3100

EDENVALE
CNV8
BARRIE-ORILLIA
Lake Simcoe
CYLS
HANOVER
Saugeen Mun
CYHS
WINGHAM
Richard W Levan
CPR7
BRAMPTON
-Caledon
CNC3
TORONTO
Buttonville Mun
CYKZ
TORONTO
Downsview
CYZD
TORONTO
Billy Bishop Toronto City
CYTZ

44-30
44-00
81-00
80-30
80-00
79-30

CHANGES: Airport name.

D-ATIS		Apt Elev
120.825	133.1	569

Alt Set: INCHES Trans level: FL180

RNAV 1 - D/D/I or GNSS required

1. Safe Altitude within 100 NM 4900.
2. Jet aircraft only.
3. For non GNSS equipped aircraft, YSB and YVV DMEs must be operational.

BOXUM 6 ARRIVAL
(BOXUM.BOXUM6)
(RWYS 23, 24L/R)

OTNIK
135°
OTNIK
(OTNIK.BOXUM6)
30
136°
316°
NAKAL
28
136°
316°
GOPAK
23
TUDAN
147°
TUDAN
(TUDAN.BOXUM6)
29
327°
SETGO
54
148°
328°
DARID
148°
35
2167
MHA 8000
BOXUM
148°
13
179°
359°
IRKIM
179°
IRKIM
(IRKIM.BOXUM6)
40
NOT TO SCALE
NOT TO SCALE
RW23
DUVOS
At 250 KT
13000
10000
157°
12
TASKU
At 210 KT
6000
ADSED
MAX 220 KT
8000
146°
8
ERBUS
3
056°
8
DAVIK
3
057°
LEVIG
3
MIPED
3
SATUR
RWYS 23, 24L/R
237°
237°
3100

KINCARDINE
CYKM
HANOVER
Saugeen Mun
CYHS
WINGHAM
Richard W Levan
CPR7
GODERICH
CYGD
EDENVALE
CNV8
BARRIE-ORILLIA
Lake Simcoe
CYLS
BRAMPTON
-Caledon
CNC3
TORONTO
Buttonville Mun
CYKZ
TORONTO
Downsview
CYZD
TORONTO
Oshawa Executive
CYOO
TORONTO
Billy Bishop Toronto City
CYTZ
KITCHENER
Waterloo
CYKF
BURLINGTON
-Executive
CZBA
CANADA
UNITED STATES

D-ATIS		Apt Elev
120.825	133.1	569

Alt Set: INCHES Trans level: FL180

RNAV 1 - D/D/I or GNSS required

1. Safe Altitude within 100 NM 4900.
2. Jet aircraft only.
3. For non GNSS equipped aircraft, YSB and YVV DMEs must be operational.

BOXUM 6 ARRIVAL (BOXUM.BOXUM6) (RWYS 33L/R)

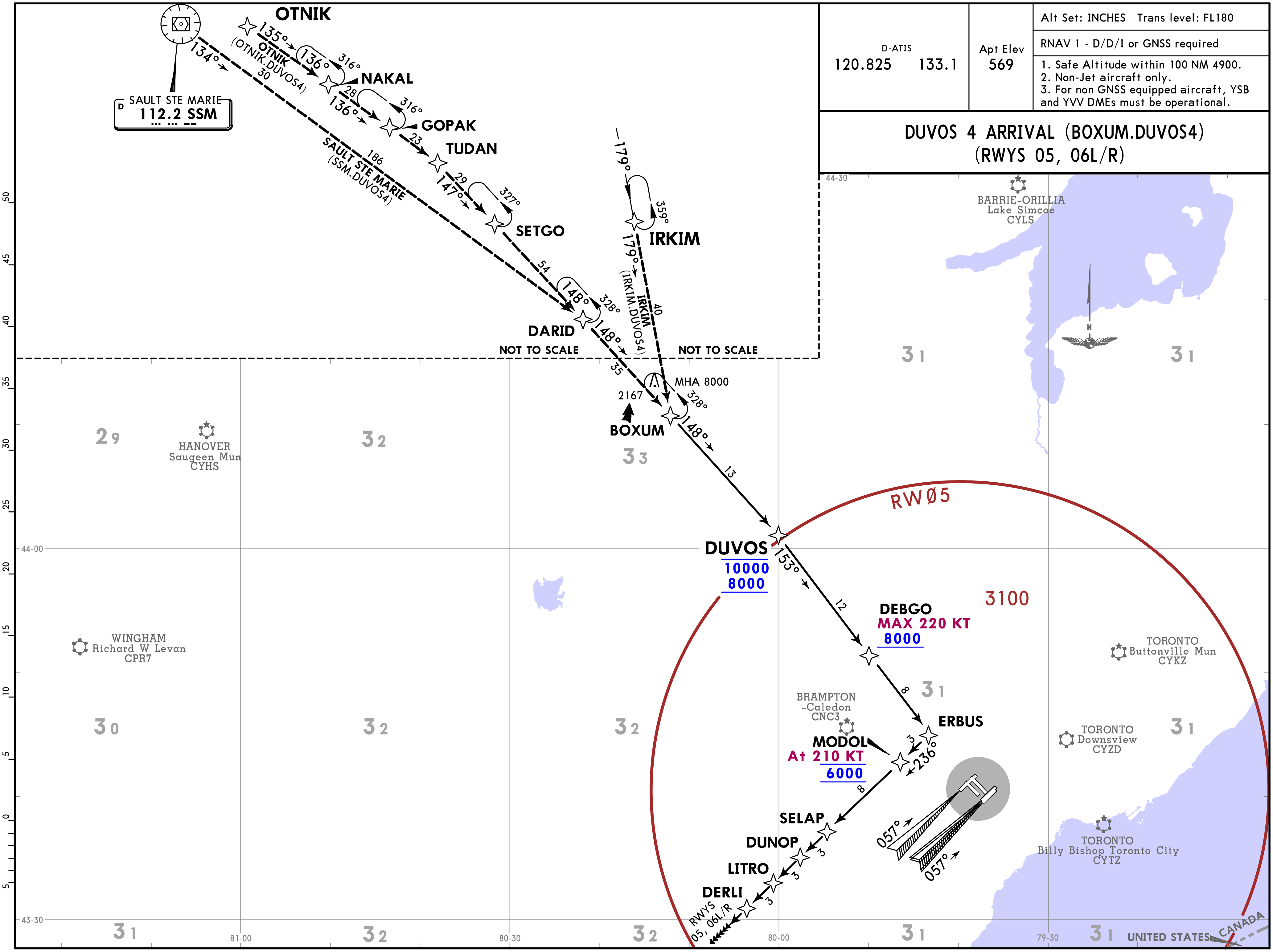
OTNIK
135°
OTNIK
(OTNIK.BOXUM6)
30
136°
316°
NAKAL
28
136°
316°
GOPAK
23
TUDAN
147°
TUDAN
(TUDAN.BOXUM6)
29
327°
SETGO
54
148°
328°
DARID
NOT TO SCALE
35
148°
NOT TO SCALE
IRKIM
179°
359°
(IRKIM.BOXUM6)
179°
IRKIM
40
MHA 8000
2167
328°
BOXUM
148°
13
DUVOS
At 250 KT
13000
11000
153°
20
ERBUS
At 210 KT
8000
8
106°
190°
8
MIRUG
8
147°
11
GUBOV
3
149°
OKOKU
3
MAVID
3
KEDSU
RWY 33R
REVOV
146°
12
NOXER
147°
3
ALORU
3
DANAV
3
ALMAX
RWY 33L
327°
327°
RW33L
3100

BARRIE-ORILLIA
Lake Simcoe
CYLS
EDENVALE
CNV8
KAWARTHA LAKES
(Lindsay)
CNF4
HANOVER
Saugeen Mun
CYHS
WINGHAM
Richard W Levan
CPR7
STRATFORD
-Mun
CYSA
KITCHENER
Waterloo
CYKF
BURLINGTON
-Executive
CZBA
BRAMPTON
-Caledon
CNC3
TORONTO
Buttonville Mun
CYKZ
TORONTO
Downsview
CYZD
TORONTO
Billy Bishop
Toronto City
CYTZ
TORONTO
Oshawa Executive
CYOO
CANADA
UNITED STATES
44-30
44-00
43-30
81-30
81-00
80-30
80-00
79-30
79-00

CHANGES: Airport name.

D-ATIS	Apt Elev	Alt Set: INCHES Trans level: FL180
120.825 133.1	569	RNAV 1 - D/D/I or GNSS required
		1. Safe Altitude within 100 NM 4900. 2. Non-Jet aircraft only. 3. For non GNSS equipped aircraft, YSB and YVV DMEs must be operational.

DUVOS 4 ARRIVAL (BOXUM.DUVOS4)
(RWYS 05, 06L/R)


SAULT STE MARIE
D 112.2 SSM
OTNIK
135°
136°
OTNIK (OTNIK.DUVOS4)
30
134°
316°
NAKAL
28
136°
316°
GOPAK
23
TUDAN
29
147°
327°
SETGO
186
SAULT STE MARIE (SSM.DUVOS4)
54
148°
328°
DARID
148°
35
NOT TO SCALE
NOT TO SCALE
179°
359°
IRKIM
179°
IRKIM (IRKIM.DUVOS4)
40
MHA 8000
328°
2167
BOXUM
148°
13
DUVOS
10000
8000
153°
12
DEBGO
MAX 220 KT
8000
8
ERBUS
3
236°
MODOL
At 210 KT
6000
8
SELAP
3
DUNOP
3
LITRO
3
DERLI
RWYS 05, 06L/R
RWØ5
3100
057°
057°
BARRIE-ORILLIA Lake Simcoe CYLS
HANOVER Saugeen Mun CYHS
WINGHAM Richard W Levan CPR7
BRAMPTON -Caledon CNC3
TORONTO Buttonville Mun CYKZ
TORONTO Downsview CYZD
TORONTO Billy Bishop Toronto City CYTZ
UNITED STATES
CANADA
44-30
44-00
43-30
81-00
80-30
80-00
79-30
29
32
33
31
30
32
32
31
31
31
31
31
32
32
31

CHANGES: Airport name.

D-ATIS		Apt Elev	Alt Set: INCHES Trans level: FL180
120.825	133.1	569	RNAV 1 - D/D/I or GNSS required
			1. Safe Altitude within 100 NM 4900. 2. Non-Jet aircraft only. 3. For non GNSS equipped aircraft, YSB and YVV DMEs must be operational.

DUVOS 4 ARRIVAL (BOXUM.DUVOS4)
(RWYS 15L/R)

SAULT STE MARIE
D 112.2 SSM

OTNIK
135° 30 OTNIK (OTNIK.DUVOS4)
136° 316°
NAKAL
136° 28 316°
GOPAK
147° 23
TUDAN
147° 29 327°
SETGO
54
DARID
148° 328°
148° 35
BOXUM
148° 13
DUVOS
At 220 KT
7000
158° 11
160° 11
ONGOX
146° 4
BLOOS
146° 4
(FACF)
BEFNI
147°
(FACF)
PILKI
147°

134° SAULT STE MARIE (SSM.DUVOS4) 186

179° 359°
IRKIM
179° (IRKIM.DUVOS4) IRKIM 40

NOT TO SCALE NOT TO SCALE

2167 MHA 8000 328°

RW15L

3100

EDENVALE CNV8
BARRIE-ORILLIA Lake Simcoe CYLS
HANOVER Saugeen Mun CYHS
WINGHAM Richard W Levan CPR7
BRAMPTON -Caledon CNC3
TORONTO Buttonville Mun CYKZ
TORONTO Downsview CYZD
TORONTO Billy Bishop Toronto City CYTZ

44-30
44-00
81-30
81-00
80-30
80-00
79-30

CHANGES: Airport name.

CYYZ/YYZ
LESTER B PEARSON INTL

JEPPESEN
28 APR 23 (10-2B2)

TORONTO, ONT
RNAV STAR

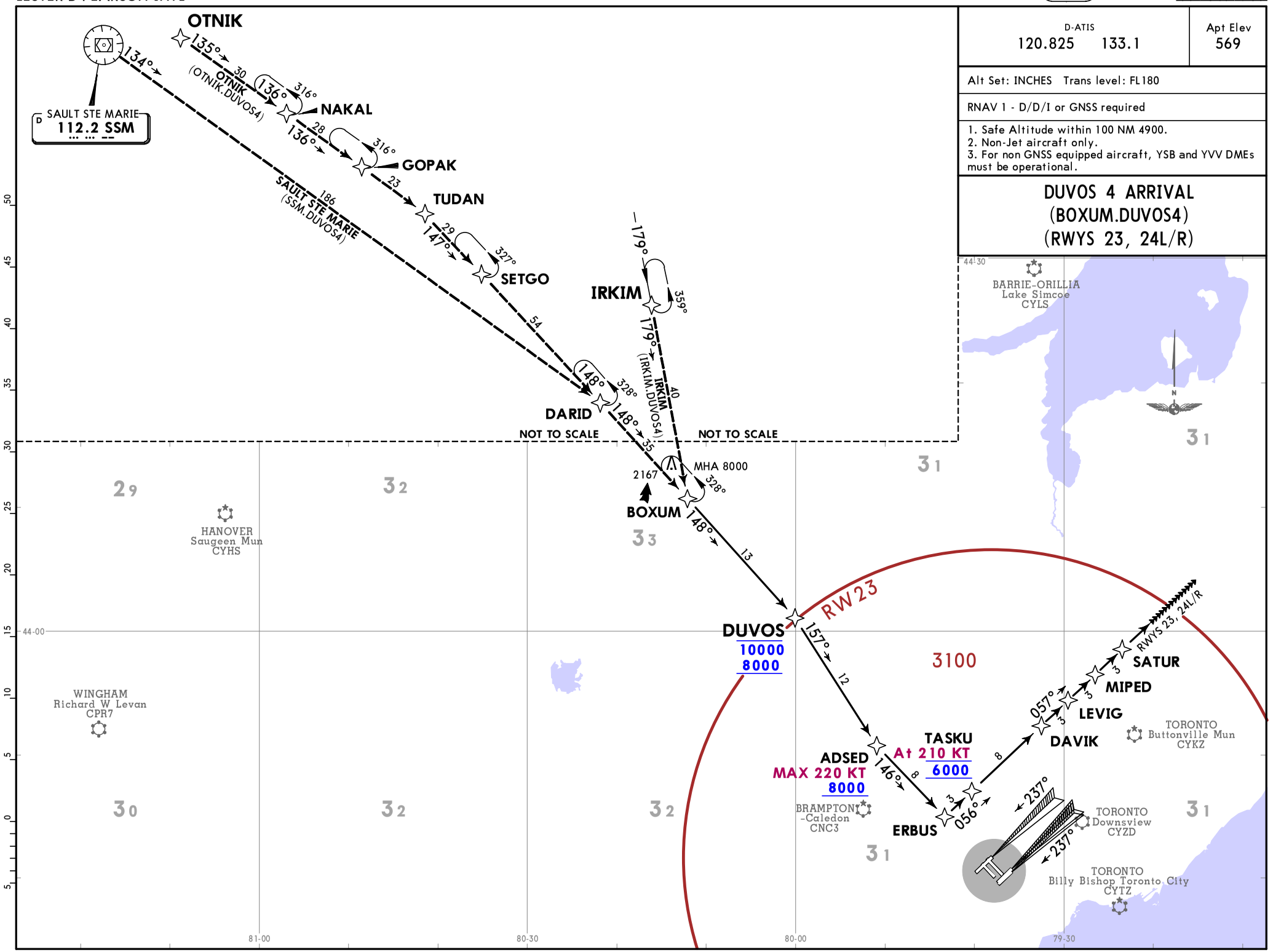
D-ATIS		Apt Elev
120.825	133.1	569

Alt Set: INCHES Trans level: FL180

RNAV 1 - D/D/I or GNSS required

1. Safe Altitude within 100 NM 4900.
2. Non-Jet aircraft only.
3. For non GNSS equipped aircraft, YSB and YVV DMEs must be operational.

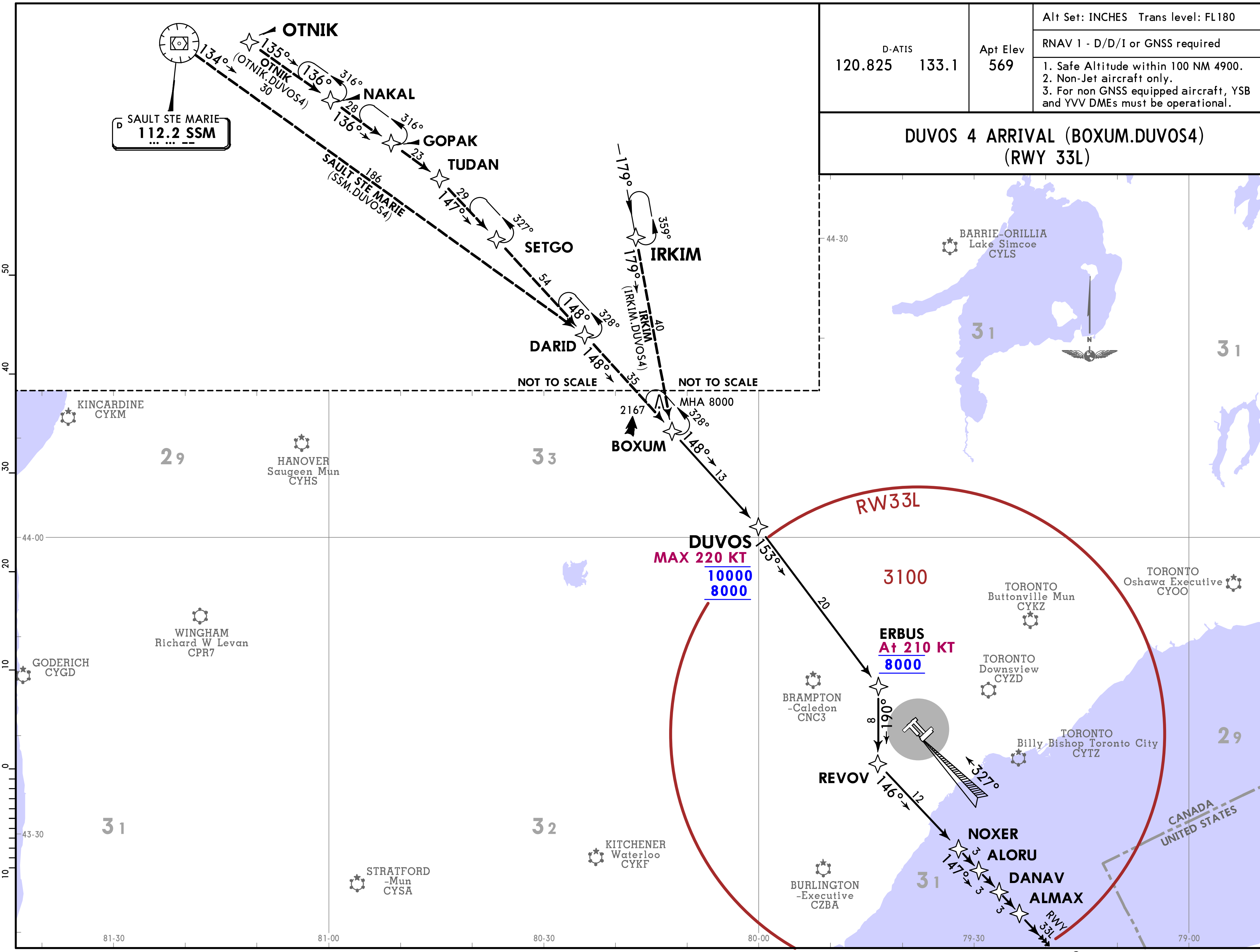
DUVOS 4 ARRIVAL
(BOXUM.DUVOS4)
(RWYS 23, 24L/R)



CHANGES: Airport name.

D-ATIS	Apt Elev	
120.825 133.1	569	Alt Set: INCHES Trans level: FL180 RNAV 1 - D/D/I or GNSS required 1. Safe Altitude within 100 NM 4900. 2. Non-Jet aircraft only. 3. For non GNSS equipped aircraft, YSB and YVV DMEs must be operational.

DUVOS 4 ARRIVAL (BOXUM.DUVOS4) (RWY 33L)


OTNIK
135°
136°
316°
OTNIK
(OTNIK.DUVOS4)
30
134°
SAULT STE MARIE
D 112.2 SSM
NAKAL
28
136°
316°
GOPAK
23
TUDAN
29
147°
327°
SETGO
SAULT STE MARIE
186
(SSM.DUVOS4)
54
148°
328°
DARID
148°
35
NOT TO SCALE
–179°
359°
IRKIM
179°
IRKIM
(IRKIM.DUVOS4)
40
NOT TO SCALE
MHA 8000
328°
2167
BOXUM
148°
13
DUVOS
MAX 220 KT
10000
8000
153°
20
RW33L
3100
ERBUS
At 210 KT
8000
190°
8
REVOV
146°
12
327°
NOXER
ALORU
DANAV
ALMAX
147°
3
RWY 33L
KINCARDINE
CYKM
HANOVER
Saugeen Mun
CYHS
WINGHAM
Richard W Levan
CPR7
GODERICH
CYGD
STRATFORD
-Mun
CYSA
KITCHENER
Waterloo
CYKF
BRAMPTON
-Caledon
CNC3
BURLINGTON
-Executive
CZBA
TORONTO
Buttonville Mun
CYKZ
TORONTO
Downsview
CYZD
TORONTO
Billy Bishop Toronto City
CYTZ
TORONTO
Oshawa Executive
CYOO
BARRIE-ORILLIA
Lake Simcoe
CYLS
CANADA
UNITED STATES
29
33
31
32
44-30
44-00
43-30
81-30
81-00
80-30
80-00
79-30
79-00
50
40
30
20
10
0
10

CHANGES: Airport name.

JEPPESEN
28 APR 23 (10-2B4)

TORONTO, ONT

RNAV STAR

D-ATIS		Apt Elev
120.825	133.1	569

Alt Set: INCHES Trans level: FL180

RNAV 1 - D/D/I or GNSS required

1. Safe Altitude within 100 NM 4900.
2. Non-Jet aircraft only.
3. For non GNSS equipped aircraft, YSB and YVV DMEs must be operational.

DUVOS 4 ARRIVAL
(BOXUM.DUVOS4)
(RWY 33R)

SAULT STE MARIE
112.2 SSM

OTNIK
NAKAL
GOPAK
TUDAN
SETGO
DARID
IRKIM
BOXUM
DUVOS
MAX 220 KT
10000
8000
ERBUS
At 210 KT
8000
MIRUG
GUBOV
OKOKU
MAVID
KEDSU
MHA 8000
NOT TO SCALE
NOT TO SCALE
RW33R
RWY 33R
CANADA
UNITED STATES
KINCARDINE CYKM
HANOVER Saugeen Mun CYHS
WINGHAM Richard W Levan CPR7
GODERICH CYGD
STRATFORD -Mun CYSA
KITCHENER Waterloo CYKF
BRAMPTON -Caledon CNC3
TORONTO Buttonville Mun CYKZ
TORONTO Oshawa Executive CYOO
TORONTO Downsview CYZD
TORONTO Billy Bishop Toronto City CYTZ
BURLINGTON -Executive CZBA

CHANGES: Airport name.

CYYZ/YYZ
LESTER B PEARSON INTL

JEPPESEN TORONTO, ONT
28 APR 23 (10-2C)
RNAV STAR

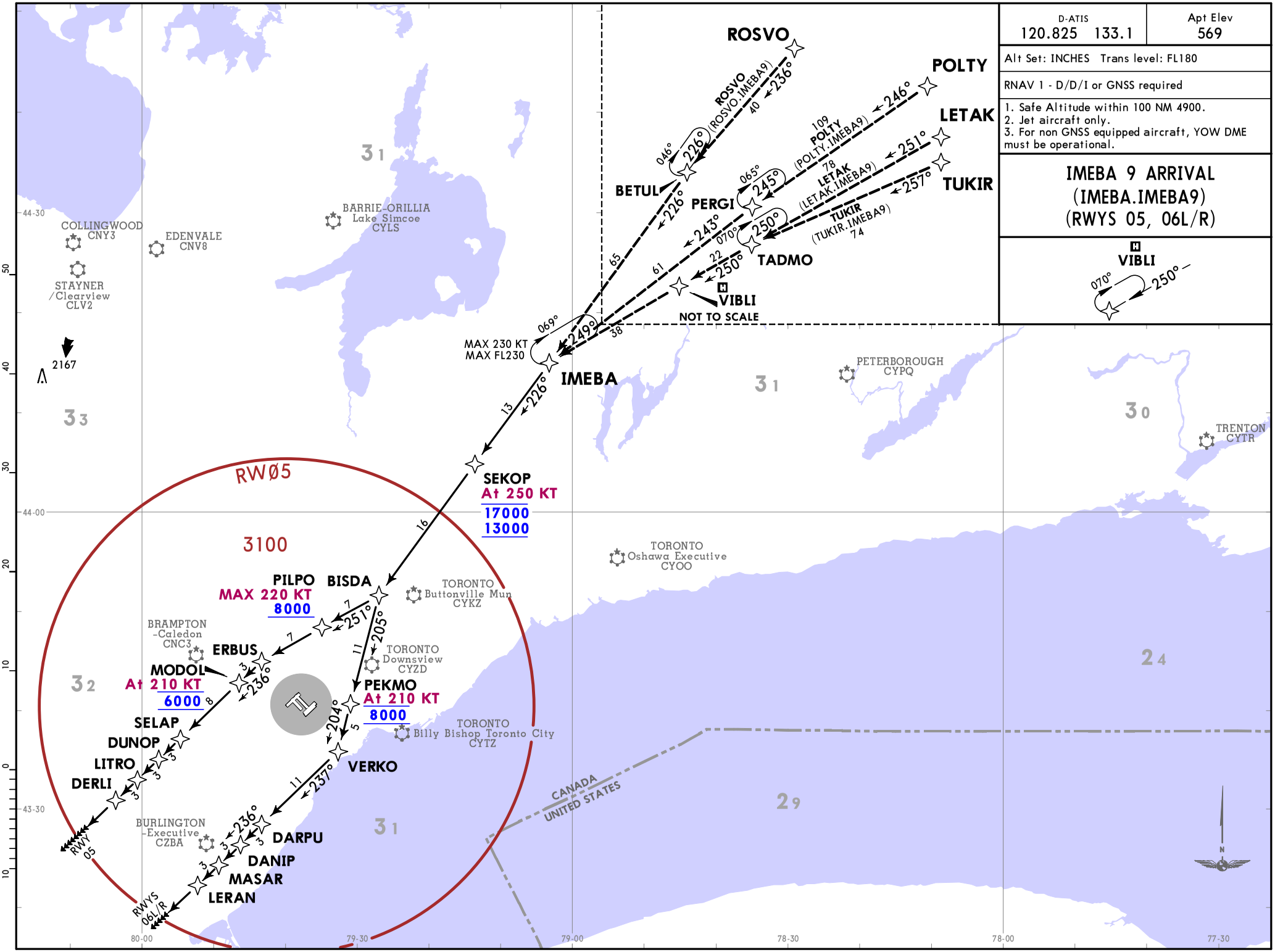
D-ATIS	Apt Elev
120.825 133.1	569

Alt Set: INCHES Trans level: FL180

RNAV 1 - D/D/I or GNSS required

1. Safe Altitude within 100 NM 4900.
2. Jet aircraft only.
3. For non GNSS equipped aircraft, YOW DME must be operational.

IMEBA 9 ARRIVAL
(IMEBA.IMEBA9)
(RWYS 05, 06L/R)



CHANGES: Airport name.

IMEBA 9 ARRIVAL
(IMEBA.IMEBA9)
(RWYS 15L/R)

D-ATIS	
120.825	Alt Set: INCHES Trans level: FL180
133.1	RNAV 1 - D/D/I or GNSS required
Apt Elev 569	1. Safe Altitude within 100 NM 4900. 2. Jet aircraft only. 3. For non GNSS equipped aircraft, YOW DME must be operational.

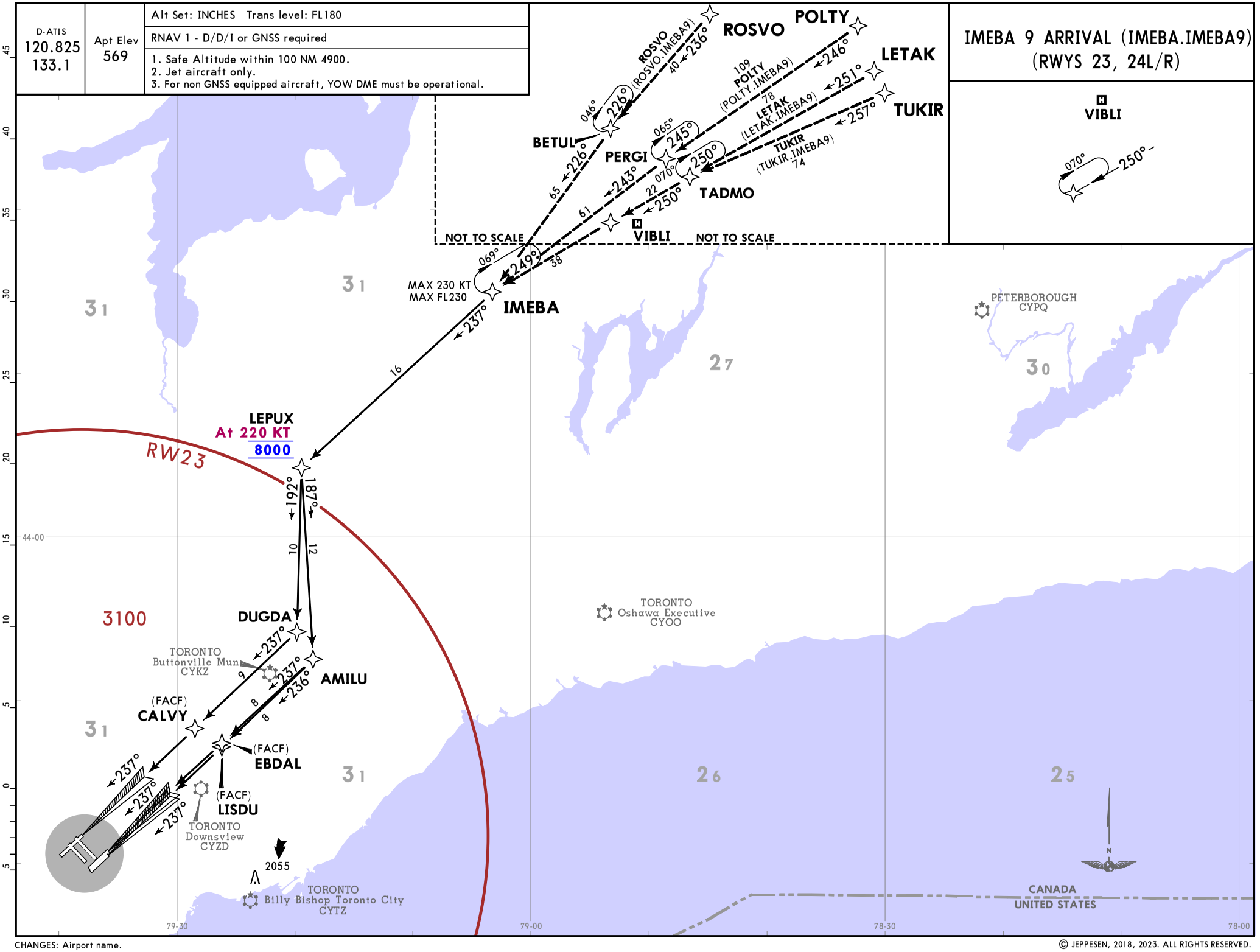
NOT TO SCALE

ROSVO
POLTY
LETAK
TUKIR
BETUL
PERGI
TADMO
VIBLI
IMEBA
MAX 230 KT
MAX FL230
VIDRO
At 250 KT
14000
12000
MEVPO
KASIT
OMTIP
MITUX
DENPI
At 210 KT
8000
MIRUG
TOVOP
RW15L
RWYS 15L/R
3100
2055
BARRIE-ORILLIA
Lake Simcoe
CYLS
EDENVALE
CNV8
PETERBOROUGH
CYPQ
TORONTO
Buttonville Mun
CYKZ
TORONTO
Oshawa Executive
CYOO
BRAMPTON
-Caledon
CNC3
TORONTO
Downsview
CYZD
TORONTO
Billy Bishop Toronto City
CYTZ
CANADA
UNITED STATES

CHANGES: Airport name.

D-ATIS	Apt Elev	
120.825 133.1	569	Alt Set: INCHES Trans level: FL180 RNAV 1 - D/D/I or GNSS required 1. Safe Altitude within 100 NM 4900. 2. Jet aircraft only. 3. For non GNSS equipped aircraft, YOW DME must be operational.

IMEBA 9 ARRIVAL (IMEBA.IMEBA9)
(RWYS 23, 24L/R)



CHANGES: Airport name.

CYYZ/YYZ
LESTER B PEARSON INTL

JEPPESEN
28 APR 23 (10-2C3)

TORONTO, ONT
RNAV STAR

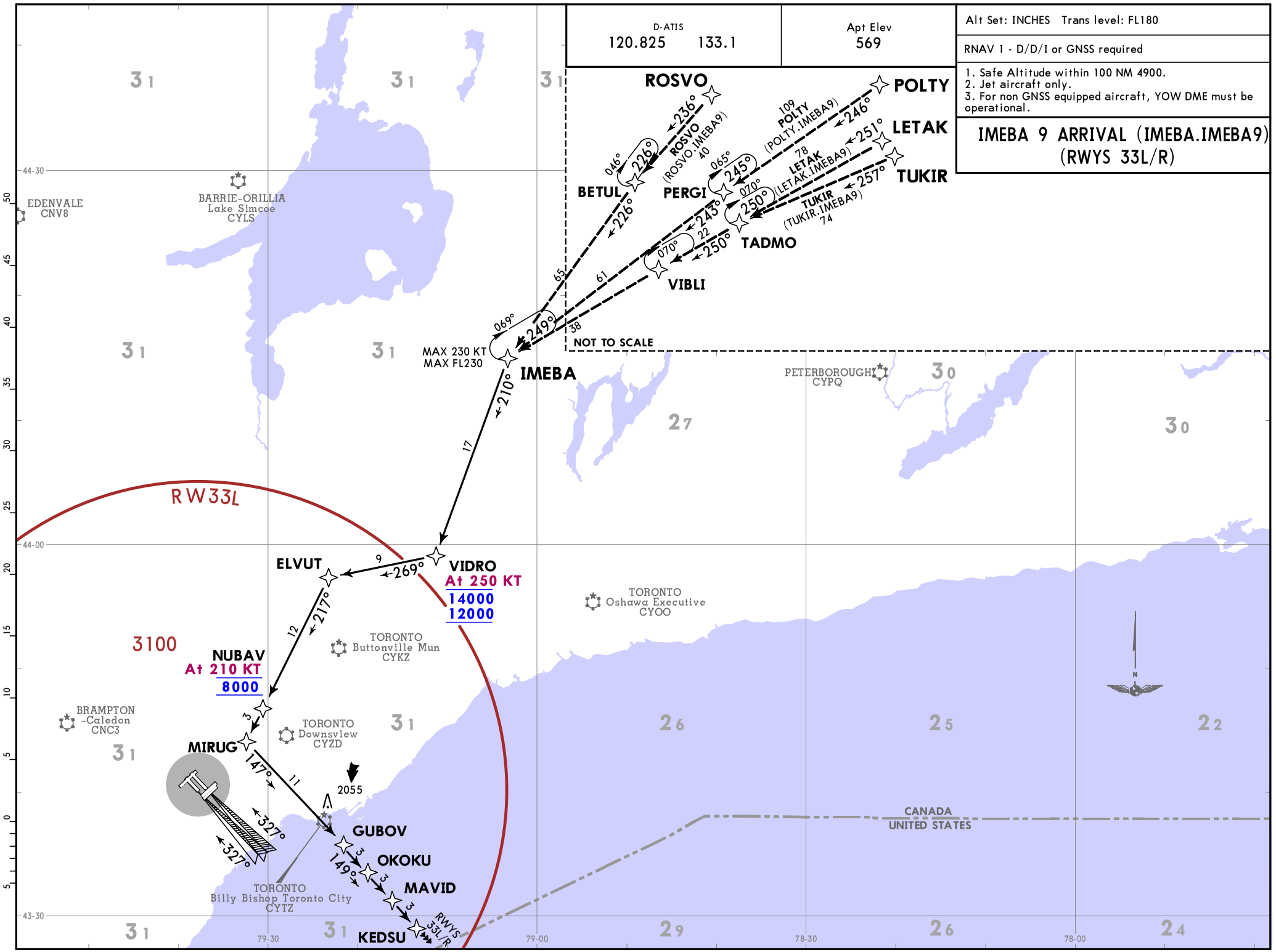
D-ATIS		Apt Elev
120.825	133.1	569

Alt Set: INCHES Trans level: FL180

RNAV 1 - D/D/I or GNSS required

1. Safe Altitude within 100 NM 4900.
2. Jet aircraft only.
3. For non GNSS equipped aircraft, YOW DME must be operational.

IMEBA 9 ARRIVAL (IMEBA.IMEBA9)
(RWYS 33L/R)



CHANGES: Airport name.

CHANGES: Airport name.

D-ATIS	Apt Elev	
120.825 133.1	569	Alt Set: INCHES Trans level: FL180
		RNAV 1 - D/D/I or GNSS required
		1. Safe Altitude within 100 NM 4900. 2. Jet aircraft only.

LINNG 3 ARRIVAL (LINNG.LINNG3)
(RWYS 05, 06L/R)

CYYZ/YYZ
LESTER B PEARSON INTL

TORONTO
Buttonville Mun
CYKZ

BRAMPTON
-Caledon
CNC3

TORONTO
Downsview
CYZD

TORONTO
Billy Bishop Toronto City
CYTZ

2055

057°
057°
057°

3100

VERKO

SEGOD
At 210 KT
8000

DEGRO

326°
327°
237°
11
3
2

CANADA
UNITED STATES

BURLINGTON
-Executive
CZBA

236°
DARPU
DANIP
MASAR
LERAN
237°
RWY 05
06L/R

SEDAB
At 250 KT
13000
11000

10
4
353°
LINNG

RWØ5

LOKPU
(LOKPU.LINNG3)
5
345°
LOKPU

16

HAMILTON
CYHM

ST CATHARINES
Niagara District
CYSN

NIAGARA FALLS
-Intl
KIAG

ISTON

LOCKPORT
North Buffalo Suburban
0G0

28

WOZEE
(WOZEE.LINNG3)
19

WELLAND
Niagara Central Dorothy Rungeling
CNQ3

BUFFALO
-Niagara Intl
KBUF

319°
WOZEE

BUFFALO
9G0

43-30
43-00
79-00
80-00
79-30

000°
MYPAL
12

NOT TO SCALE
CANADA
UNITED STATES
193°
TMILS
OXMAN
(OXMAN.LINNG3)
31
013°
OXMAN

WOZEE	LINNG	LINNG 3 ARRIVAL (LINNG.LINNG3) (RWYS 05, 06L/R)
010° 190° 15 NM MAX 265 KT MAX FL400	161° 341° 10 NM MAX 220 KT MAX FL220	

JEPPESEN TORONTO, ONT
28 APR 23 (10-2D)
RNAV STAR

D-ATIS	Apt Elev	Alt Set: INCHES Trans level: FL180
120.825 133.1	569	RNAV 1 - D/D/I or GNSS required
		1. Safe Altitude within 100 NM 4900. 2. Jet aircraft only.

LINNG 3 ARRIVAL (LINNG.LINNG3) (RWYS 15L/R)

MEVPO
KASIT
OMTIP
MITUX
LOBNU
TAGAT
GADOG
IGTIL
PILNI
MIRUG
VERKO
At 210 KT
8000
3100
YOUTH
At 250 KT
13000
11000
LINNG
LOKPU
(LOKPU.LINNG3)
LOKPU
ISTON
WOZEE
(WOZEE.LINNG3)
MYPAL
TMILS
OXMAN
(OXMAN.LINNG3)

RWY 15L
RWY 15R
RW 15L

TORONTO Buttonville Mun CYKZ
TORONTO Downsview CYZD
TORONTO Billy Bishop Toronto City CYTZ
BRAMPTON -Caledon CNC3
BURLINGTON -Executive CZBA
HAMILTON CYHM
ST CATHARINES Niagara District CYSN
NIAGARA FALLS -Intl KIAG

CANADA
UNITED STATES

2055

NOT TO SCALE

15 NM
MAX 265 KT
MAX FL400

LINNG
MAX 220 KT
MAX FL220
10 NM

CYYZ/YYZ
LESTER B PEARSON INTL

28 APR 23
10-2D1

JEPPESEN

TORONTO, ONT
RNAV STAR

LINNG 3 ARRIVAL
(LINNG.LINNG3)
(RWYS 15L/R)

D-ATIS	Apt Elev
120.825 133.1	569

Alt Set: INCHES Trans level: FL180

RNAV 1 - D/D/I or GNSS required

1. Safe Altitude within 100 NM 4900.
2. Jet aircraft only.

LINNG 3 ARRIVAL (LINNG.LINNG3)
(RWYS 23, 24L/R)

CYYZ/YYZ
LESTER B PEARSON INTL

CHANGES: Airport name.

TORONTO Buttonville Mun CYKZ
RWYS 23 24L/R
DUNOL
DAVNO
DEKNI
MAROD
BRAMPTON -Caledon CNC3
TORONTO Downsview CYZD
237°
TORONTO Billy Bishop Toronto City CYTZ
2055
3100
VERKO
057°
BIMPO
At 210 KT
8000
CANADA
UNITED STATES
BURLINGTON -Executive CZBA
YOUTH
At 250 KT
13000
11000
345°
LINNG
RW23
LOKPU (LOKPU.LINNG3)
LOKPU
HAMILTON CYHM
ST CATHARINES Niagara District CYSN
ISTON
NIAGARA FALLS -Intl KIAG
WOZEE (WOZEE.LINNG3)
319°
BUFFALO -Niagara Intl KBUF
WOZEE
WELLAND Niagara Central Dorothy Rungel CNQ3
090°
NOT TO SCALE
MYPAL
TMILS
193°
OXMAN (OXMAN.LINNG3)
013°
OXMAN

WOZEE
010°
190°
15 NM
MAX 265 KT
MAX FL400

LINNG
161°
341°
10 NM
MAX 220 KT
MAX FL220

LINNG 3 ARRIVAL (LINNG.LINNG3) (RWYS 23, 24L/R)

28 APR 23
JEPPESEN TORONTO, ONT
10-2D2
RNAV STAR

CYYZ/YYZ
LESTER B PEARSON INTL

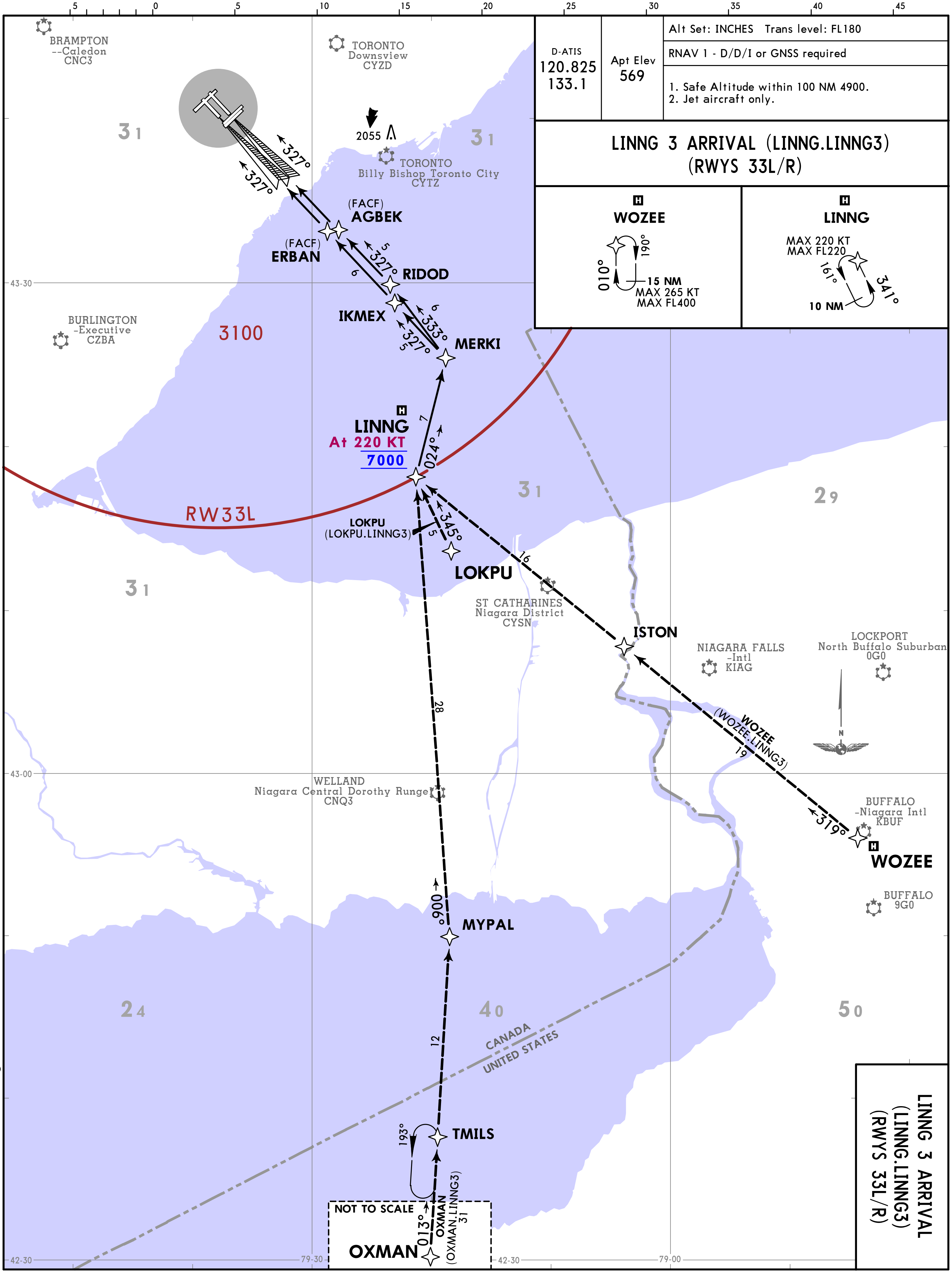
JEPPESEN
28 APR 23 (10-2D3)

TORONTO, ONT
RNAV STAR

CHANGES: Airport name.

D-ATIS	Apt Elev	Alt Set: INCHES Trans level: FL180
120.825 133.1	569	RNAV 1 - D/D/I or GNSS required 1. Safe Altitude within 100 NM 4900. 2. Jet aircraft only.

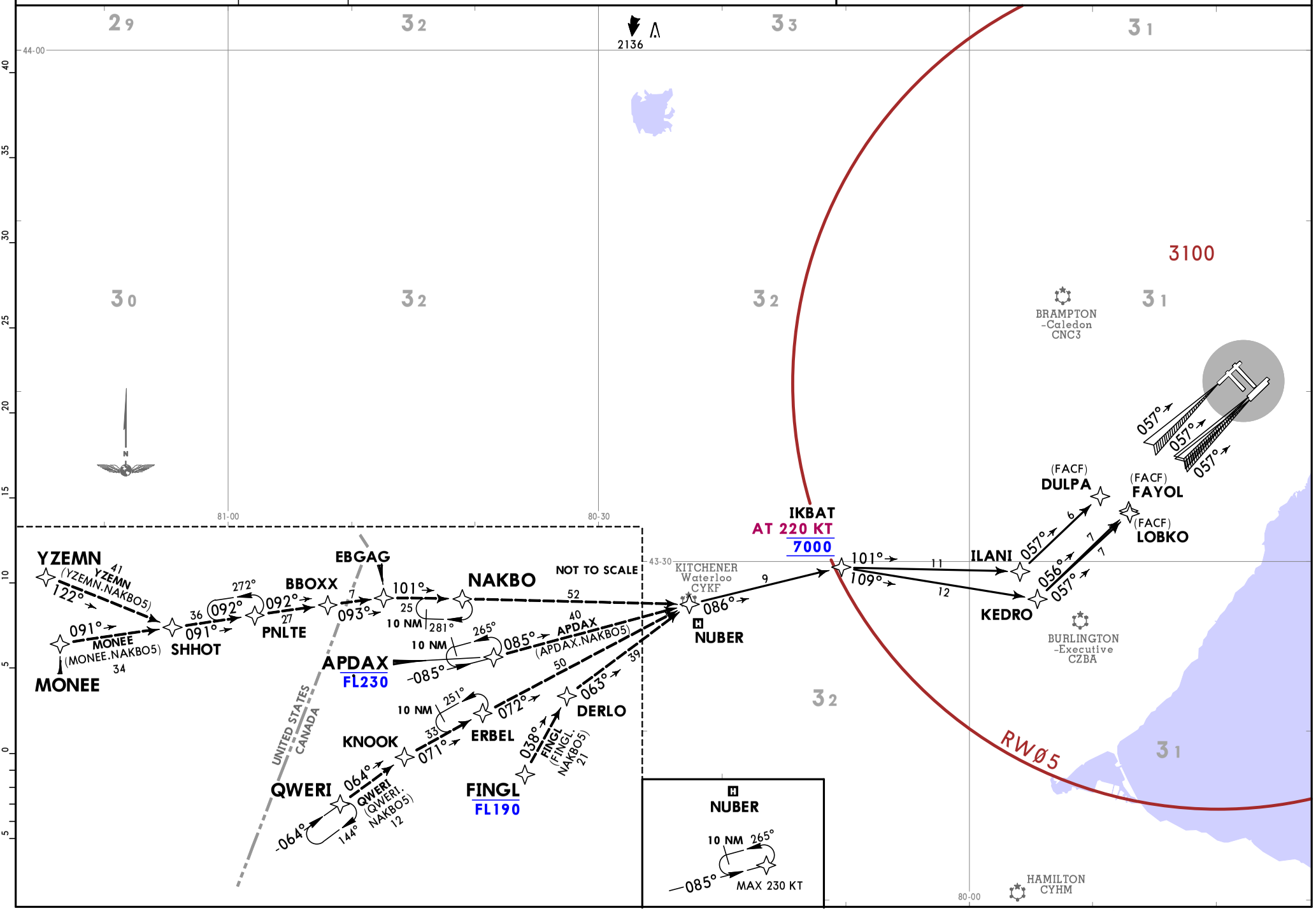
LINNG 3 ARRIVAL (LINNG.LINNG3) (RWYS 33L/R)


WOZEE
190°
010°
15 NM
MAX 265 KT
MAX FL400
LINNG
MAX 220 KT
MAX FL220
161°
341°
10 NM
BRAMPTON
-Caledon
CNC3
TORONTO
Downsview
CYZD
2055
TORONTO
Billy Bishop Toronto City
CYTZ
327°
(FACF)
AGBEK
(FACF)
ERBAN
RIDOD
IKMEX
333°
MERKI
BURLINGTON
-Executive
CZBA
3100
LINNG
At 220 KT
7000
024°
RW33L
LOKPU
(LOKPU.LINNG3)
345°
LOKPU
ST CATHARINES
Niagara District
CYSN
ISTON
NIAGARA FALLS
-Intl
KIAG
LOCKPORT
North Buffalo Suburban
0G0
WOZEE
(WOZEE.LINNG3)
319°
BUFFALO
-Niagara Intl
KBUF
WOZEE
BUFFALO
9G0
WELLAND
Niagara Central Dorothy Rungeling
CNQ3
006°
MYPAL
CANADA
UNITED STATES
TMILS
193°
NOT TO SCALE
013°
OXMAN
OXMAN
(OXMAN.LINNG3)

LINNG 3 ARRIVAL
(LINNG.LINNG3)
(RWYS 33L/R)

D-ATIS	Apt Elev	Alt Set: INCHES Trans level: FL180
120.825 133.1	569	RNAV 1 - D/D/I or GNSS required
		1. Safe Altitude within 100 NM 4900. 2. Non-Jet aircraft only.

NAKBO 5 ARRIVAL (NUBER.NAKBO5)
(RWYS 05, 06L/R)



CHANGES: Airport name.

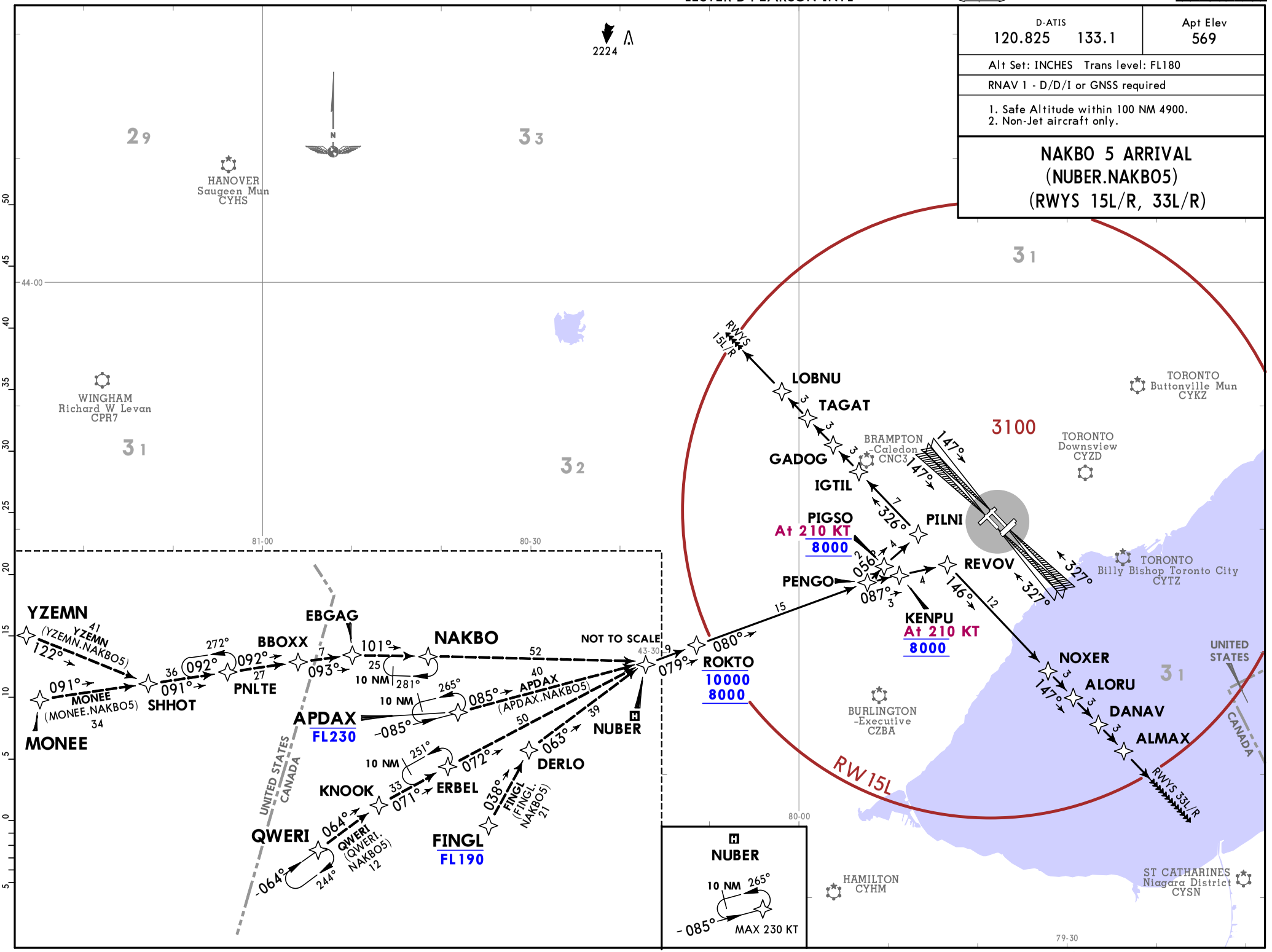
D-ATIS		Apt Elev
120.825	133.1	569

Alt Set: INCHES Trans level: FL180

RNAV 1 - D/D/I or GNSS required

1. Safe Altitude within 100 NM 4900.
2. Non-Jet aircraft only.

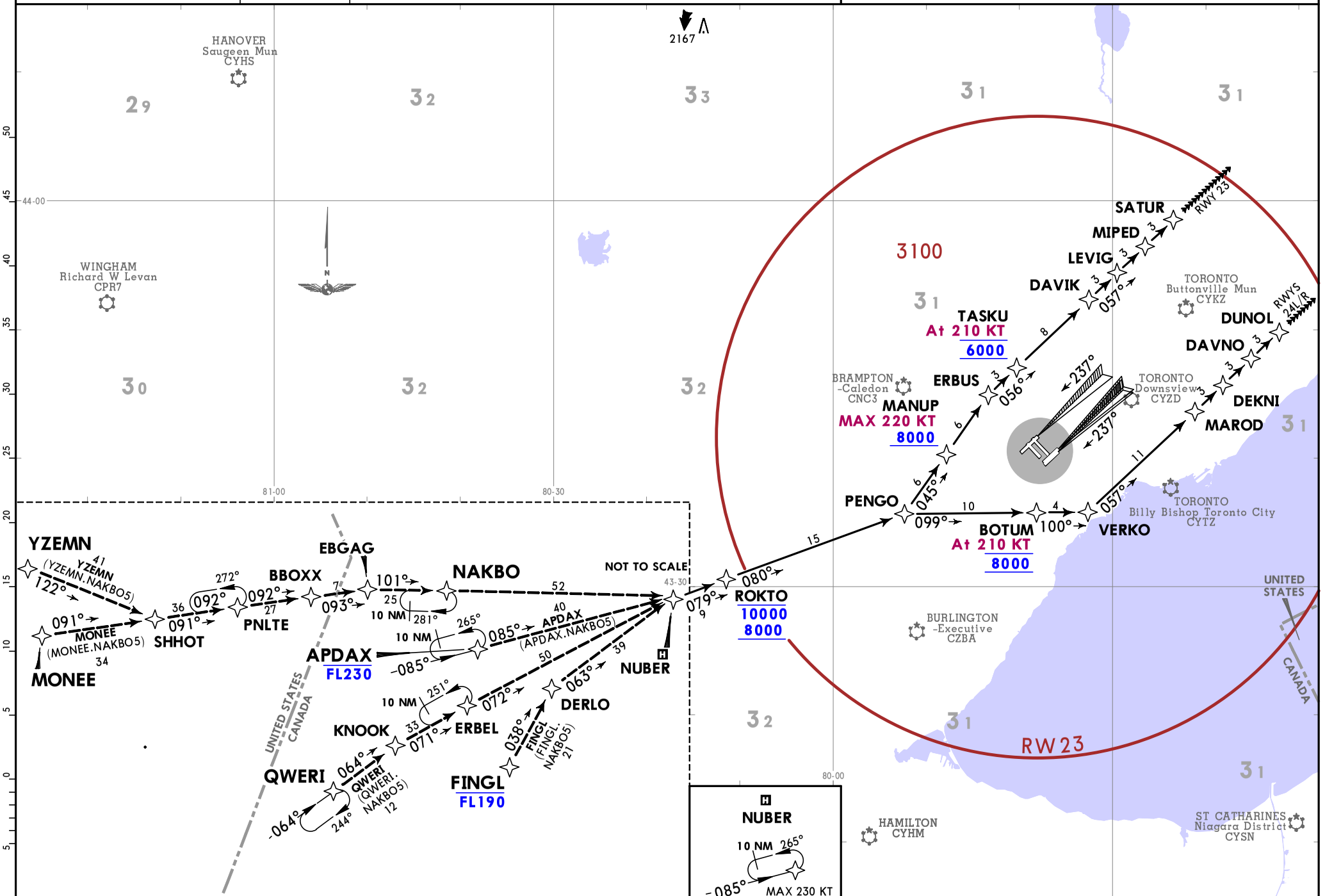
NAKBO 5 ARRIVAL
(NUBER.NAKBO5)
(RWYS 15L/R, 33L/R)



CHANGES: Airport name.

D-ATIS	Apt Elev	Alt Set: INCHES Trans level: FL180
120.825 133.1	569	RNAV 1 - D/D/I or GNSS required
		1. Safe Altitude within 100 NM 4900. 2. Non-Jet aircraft only.

NAKBO 5 ARRIVAL (NUBER.NAKBO5)
(RWYS 23, 24L/R)



CHANGES: Airport name.

D-ATIS		Apt Elev
120.825	133.1	569

Alt Set: INCHES Trans level: FL180

RNAV 1 - D/D/I or GNSS required

1. Safe Altitude within 100 NM 4900.
2. Jet aircraft only.

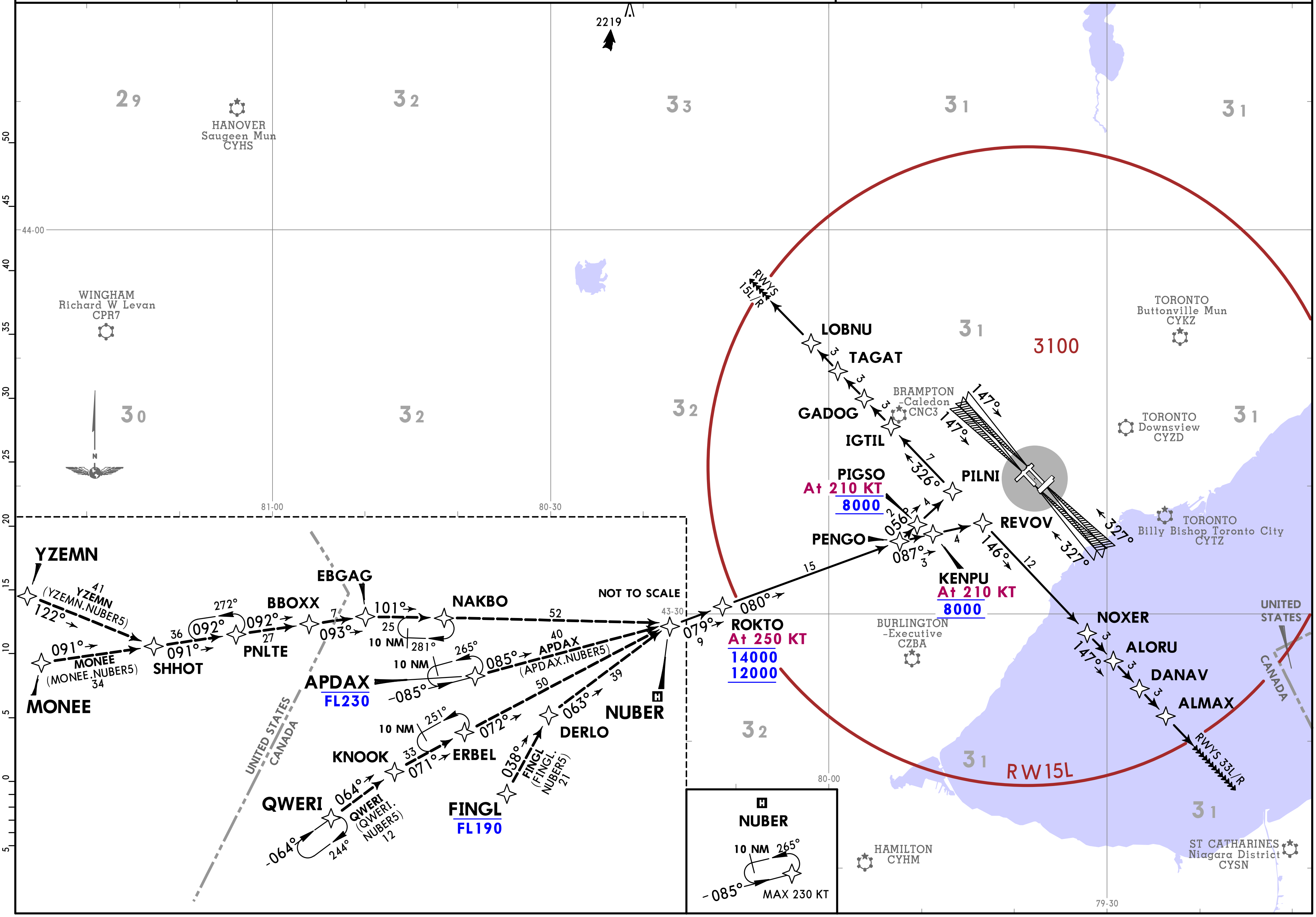
NUBER 5 ARRIVAL
(NUBER.NUBER5)
(RWYS 05, 06L/R)

NOT TO SCALE

YZEMN
41
(YZEMN.NUBER5)
122°
MONEE
091°
(MONEE.NUBER5)
34
MONEE
SHHOT
36
091°
092°
272°
092°
27
PNLTE
BBOXX
7
093°
EBGAG
101°
25
10 NM
281°
NAKBO
52
IKBAT
At 220 KT
7000
086°
9
NUBER
101°
109°
11
12
ILANI
057°
6
DULPA
(FACF)
056°
7
057°
7
FAYOL
(FACF)
LOBKO
(FACF)
KEDRO
APDAX
FL230
10 NM
265°
085°
APDAX
(APDAX.NUBER5)
40
085°
50
072°
10 NM
251°
KNOOK
33
071°
ERBEL
39
063°
DERLO
FINGL
FL190
038°
FINGL
(FINGL.NUBER5)
21
QWERI
064°
QWERI
(QWERI.NUBER5)
12
064°
244°
UNITED STATES
CANADA
NUBER
10 NM
265°
085°
MAX 230 KT
RWØ5
3100
057°
057°
057°
WINGHAM
Richard W Levan
CPR7
KITCHENER
Waterloo
CYKF
BRAMPTON
-Caledon
CNC3
BURLINGTON
-Executive
CZBA
HAMILTON
CYHM
2136
44-00
81-00
80-30
43-30
80-00

CHANGES: Airport name.

D-ATIS	Apt Elev		NUBER 5 ARRIVAL (NUBER.NUBER5) (RWYS 15L/R, 33L/R)
120.825 133.1	569	Alt Set: INCHES Trans level: FL180 RNAV 1 - D/D/I or GNSS required 1. Safe Altitude within 100 NM 4900. 2. Jet aircraft only.	


2219
HANOVER
Saugeen Mun
CYHS
WINGHAM
Richard W Levan
CPR7
TORONTO
Buttonville Mun
CYKZ
TORONTO
Downsview
CYZD
TORONTO
Billy Bishop Toronto City
CYTZ
BRAMPTON
-Caledon
CNC3
BURLINGTON
-Executive
CZBA
HAMILTON
CYHM
ST CATHARINES
Niagara District
CYSN
3100
RW15L
UNITED STATES
CANADA
NOT TO SCALE
YZEMN
41 YZEMN (YZEMN.NUBER5)
122°
MONEE
091°
MONEE (MONEE.NUBER5) 34
SHHOT
36 091°
092° 272°
PNLTE
27 092°
BBOXX
7 093°
EBGAG
101°
25
10 NM 281°
NAKBO
52
APDAX
FL230
-085°
10 NM 265°
085°
40 APDAX (APDAX.NUBER5)
QWERI
-064° 244°
064°
QWERI (QWERI.NUBER5) 12
KNOOK
33 071°
ERBEL
10 NM 251°
072°
50
FINGL
FL190
038°
FINGL (FINGL.NUBER5) 21
DERLO
063°
39
NUBER
079°
9
ROKTO
At 250 KT
14000
12000
080°
15
PENGO
087°
3
056°
2
PIGSO
At 210 KT
8000
4
KENPU
At 210 KT
8000
4
PILNI
326°
7
IGTIL
3
GADOG
3
TAGAT
3
LOBNU
RWYS 15L/R
147°
147°
327°
327°
REVOV
146°
12
NOXER
3
147°
ALORU
3
DANAV
3
ALMAX
RWYS 33L/R
NUBER
10 NM 265°
-085°
MAX 230 KT
44-00
43-30
81-00
80-30
80-00
79-30

CHANGES: Airport name.

D-ATIS		Apt Elev
120.825	133.1	569

Alt Set: INCHES Trans level: FL180

RNAV 1 - D/D/I or GNSS required

1. Safe Altitude within 100 NM 4900.
2. Jet aircraft only.

NUBER 5 ARRIVAL
(NUBER.NUBER5)
(RWYS 23, 24L/R)

NOT TO SCALE

YZEMN
YZEMN (YZEMN.NUBER5)
122°
41
091°
MONEE (MONEE.NUBER5)
34
MONEE
36
092°
091°
SHHOT
272°
BBOXX
092°
27
PNLTE
EBGAG
7
101°
093°
NAKBO
25
10 NM
281°
52
APDAX
FL230
10 NM
265°
085°
-085°
APDAX (APDAX.NUBER5)
40
NUBER
50
39
10 NM
251°
072°
063°
DERLO
KNOOK
33
071°
ERBEL
064°
QWERI
QWERI (QWERI.NUBER5)
12
-064°
244°
QWERI
038°
FINGL (FINGL.NUBER5)
21
FINGL
FL190
UNITED STATES
CANADA
15
080°
079°
9
ROKTO
At 250 KT
15000
11000
PENGO
6
045°
099°
10
BOTUM
At 210 KT
8000
4
100°
VERKO
057°
11
MAROD
DEKNI
3
DAVNO
DUNOL
RWYS 24L/R
TASKU
At 210 KT
6000
8
DAVIK
057°
LEVIG
MIPED
SATUR
RWY 23
ERBUS
056°
MANUP
MAX 220 KT
8000
237°
237°
RW 23
3100

NUBER
10 NM 265°
-085°
MAX 230 KT

HANOVER
Saugeen Mun
CYHS
WINGHAM
Richard W Levan
CPR7
BRAMPTON
-Caledon
CNC3
TORONTO
Buttonville Mun
CYKZ
TORONTO
Downsview
CYZD
TORONTO
Billy Bishop Toronto City
CYTZ
BURLINGTON
-Executive
CZBA
ST CATHARINES
Niagara District
CYSN
UNITED STATES
CANADA

CHANGES: Airport name.

D-ATIS	Apt Elev	
120.825 133.1	569	Alt Set: INCHES Trans level: FL180 RNAV 1 - D/D/I or GNSS required 1. Safe Altitude within 100 NM 4900. 2. Jet aircraft only. 3. TUKIR transition: For non GNSS equipped aircraft, YXI DME must be operational.

RAGID 5 ARRIVAL (RAGID.RAGID5)
(RWYS 05, 06L/R)

NOT TO SCALE

TUKIR
TORNI
LIBEM
IGSAP
UDNOX
RAGID
LERAT
At 250 KT
17000
15000
KEVNO
At 210 KT
8000
SEMTI
ERBUS
RESES
At 210 KT
8000
VERKO
SELAP
DUNOP
LITRO
DERLI
DARPU
DANIP
MASAR
LERAN

TUKIR 40 (TUKIR.RAGID5) 239° 250°
TORNI (TORNI.RAGID5) 36
LIBEM 070° 36 250° 19
UDNOX MAX 220 KT MAX FL230 069° 249°
UDNOX (UDNOX.RAGID5) 37
RAGID 248° 12
LERAT 247° 16
SEMTI 272° 12
SEMTI 225° 10
ERBUS 236° 11
RESES 237° 11
SELAP 3
DUNOP 3
LITRO 3
DERLI 3
RWY 05 237°
DARPU 236° 3
DANIP 3
MASAR 3
LERAN 3
RWYS 06L/R 237°

RW05
3100

COLLINGWOOD CNY3
EDENVALE CNV8
STAYNER /Clearview CLV2
2186
BARRIE-ORILLIA Lake Simcoe CYLS
TORONTO Buttonville Mun CYKZ
TORONTO Oshawa Executive CYOO
BRAMPTON -Caledon CNC3
TORONTO Downsview CYZD
TORONTO Billy Bishop Toronto City CYTZ
BURLINGTON -Executive CZBA
CANADA
UNITED STATES

CHANGES: Airport name.

D-ATIS	Apt Elev	
120.825 133.1	569	Alt Set: INCHES Trans level: FL180
		RNAV 1 - D/D/I or GNSS required
		1. Safe Altitude within 100 NM 4900. 2. Jet aircraft only. 3. TUKIR transition: For non GNSS equipped aircraft, YXI DME must be operational.

RAGID 5 ARRIVAL (RAGID.RAGID5)
(RWYS 15L/R)

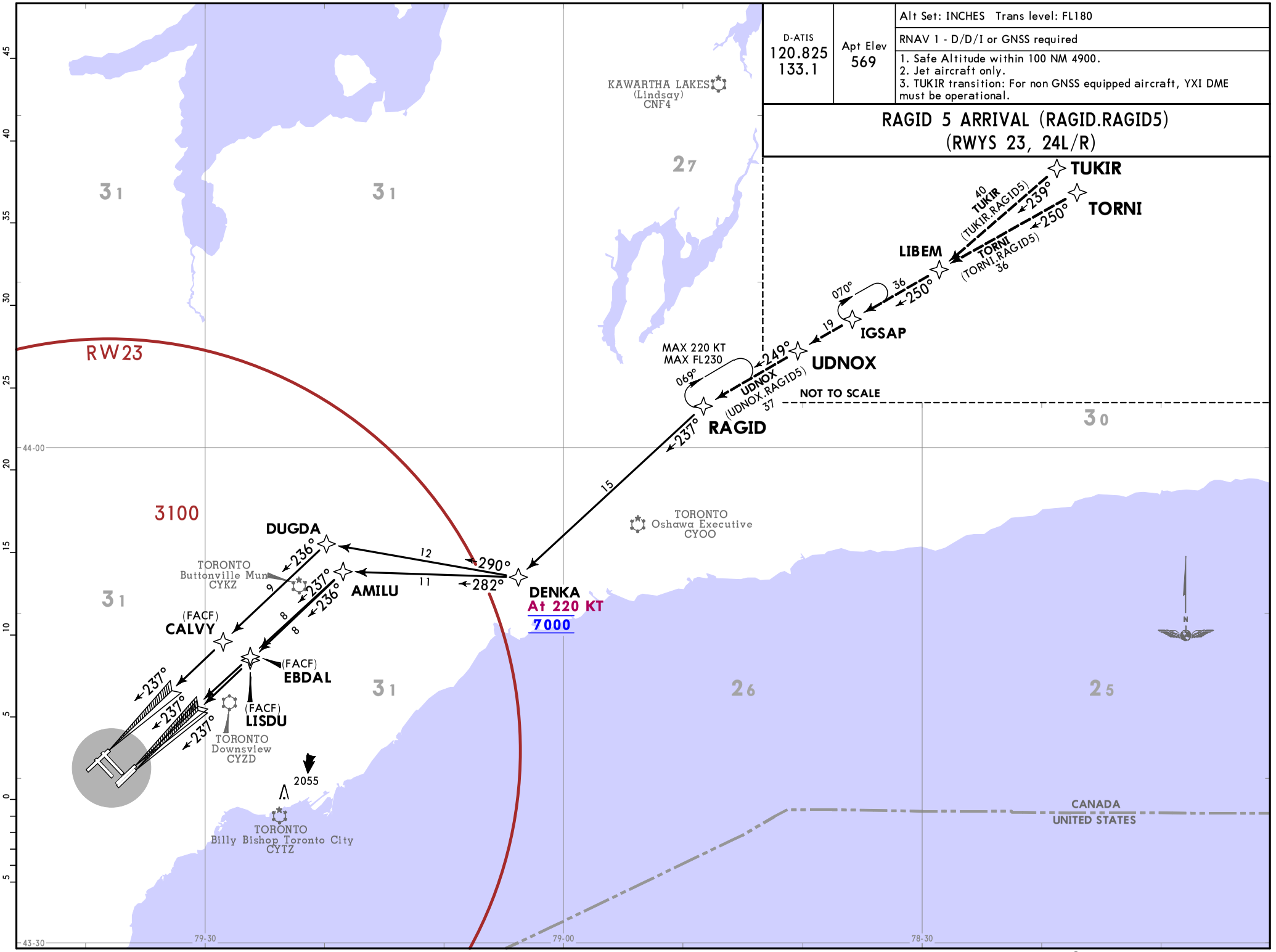
BARRIE-ORILLIA
Lake Simcoe
CYLS

TUKIR
40
TUKIR
(TUKIR.RAGID5)
239°
250°
TORNI
(TORNI.RAGID5)
36
TORNI
LIBEM
36
250°
070°
IGSAP
19
249°
UDNOX
MAX 220 KT
MAX FL230
069°
UDNOX
(UDNOX.RAGID5)
37.
NOT TO SCALE
RAGID
268°
17
VIDRO
At 250 KT
14000
12000
RW 15L
RWYS 15L/R
327°
MEVPO
3
KASIT
3
OMTIP
3
MITUX
11
326°
DENPI
At 210 KT
8000
3
MIRUG
147°
147°
9
215°
TOVOP
10
250°
3100
TORONTO
Buttonville Mun
CYKZ
TORONTO
Oshawa Executive
CYOO
BRAMPTON
Brampton-Caledon
CNC3
TORONTO
Downsview
CYZD
2055
TORONTO
Billy Bishop Toronto City
CYTZ
CANADA
UNITED STATES
44-00
79-30
79-00
78-30
3 1
2 7
3 0
2 6
2 5

CHANGES: Airport name.

D-ATIS	Apt Elev	
120.825 133.1	569	Alt Set: INCHES Trans level: FL180
		RNAV 1 - D/D/I or GNSS required
		1. Safe Altitude within 100 NM 4900. 2. Jet aircraft only. 3. TUKIR transition: For non GNSS equipped aircraft, YXI DME must be operational.

RAGID 5 ARRIVAL (RAGID.RAGID5)
(RWYS 23, 24L/R)



CHANGES: Airport name.

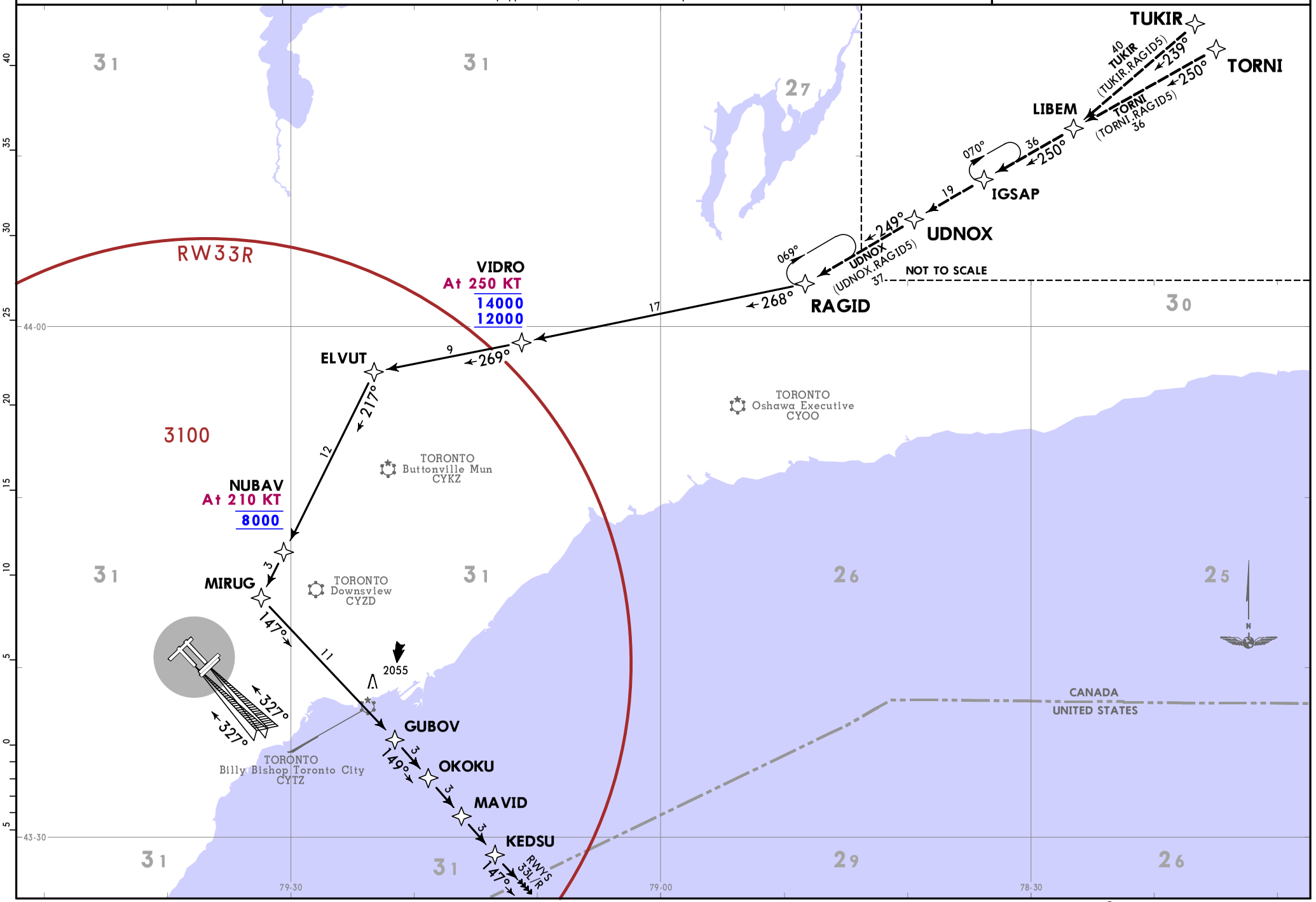
D-ATIS	Apt Elev
120.825 133.1	569

Alt Set: INCHES Trans level: FL180

RNAV 1 - D/D/I or GNSS required

1. Safe Altitude within 100 NM 4900.
2. Jet aircraft only.
3. TUKIR transition: For non GNSS equipped aircraft, YXI DME must be operational.

RAGID 5 ARRIVAL (RAGID.RAGID5) (RWYS 33L/R)



CHANGES: Airport name.

D-ATIS	Apt Elev	
120.825 133.1	569	Alt Set: INCHES Trans level: FL180 RNAV 1 - D/D/I or GNSS required 1. Safe Altitude within 100 NM 4900. 2. Non-Jet aircraft only. 3. TUKIR transition: For non GNSS equipped aircraft, YXI DME must be operational.

UDNOX 5 ARRIVAL
(RAGID.UDNOX5)
(RWYS 05, 06L/R)

TUKIR
40
TUKIR
(TUKIR.UDNOX5)
239°
250°
TORNI
TORNI
(TORNI.UDNOX5)
36
LIBEM
070°
36
250°
IGSAP
19
UDNOX
249°
UDNOX
(UDNOX.UDNOX5)
37
069°
RAGID
248°
12
NOT TO SCALE
LERAT
10000
8000
247°
16
KEVNO
At 210 KT
8000
SEMTI
272°
12
4
ERBUS
225°
10
236°
11
SELAP
DUNOP
3
LITRO
3
DERLI
3
RWY 05
237°
057°
057°
VERKO
RESES
At 210 KT
8000
4
11
237°
DARPU
236°
3
DANIP
3
MASAR
3
LERAN
3
RWYS
06L/R
237°
RW05
3100
COLLINGWOOD
CNY3
EDENVALE
CNV8
BARRIE-ORILLIA
Lake Simcoe
CYLS
STAYNER
/Clearview
CLV2
2186
TORONTO
Buttonville Mun
CYKZ
TORONTO
Oshawa Executive
CYOO
BRAMPTON
-Caledon
CNC3
TORONTO
Downsview
CYZD
TORONTO
Billy Bishop Toronto City
CYTZ
BURLINGTON
-Executive
CZBA
CANADA
UNITED STATES
44-30
44-00
43-30
80-00
79-30
79-00
78-30
78-00

CYYZ/YYZ
LESTER B PEARSON INTL

JEPPESEN
28 APR 23 (10-2G1)

TORONTO, ONT
RNAV STAR

D-ATIS	Apt Elev	
120.825 133.1	569	Alt Set: INCHES Trans level: FL180 RNAV 1 - D/D/I or GNSS required 1. Safe Altitude within 100 NM 4900. 2. Non-Jet aircraft only. 3. TUKIR transition: For non GNSS equipped aircraft, YXI DME must be operational.

UDNOX 5 ARRIVAL (RAGID.UDNOX5) (RWYS 15L/R)

BARRIE-ORILLIA
Lake Simcoe
CYLS

TUKIR
40
TUKIR
(TUKIR.UDNOX5)
239°
250°
TORNI
(TORNI.UDNOX5)
36
TORNI

LIBEM
070°
36
250°
IGSAP
19
249°
UDNOX
069°
UDNOX
(UDNOX.UDNOX5)
37
NOT TO SCALE
268°
RAGID
17

VIDRO
10000
8000

RW 15L
RWYS 15L/R
327°
MEVPO
3
KASIT
3
OMTIP
3
MITUX
11
326°
MIRUG
3
DENPI
At 210 KT
8000
10
250°
TOVOP
9
215°

3100

TORONTO
Buttonville Mun
CYKZ

TORONTO
Oshawa Executive
CYOO

BRAMPTON
Brampton-Caledon
CNC3

147°
147°

TORONTO
Downsview
CYZD

2055

TORONTO
Billy Bishop Toronto City
CYTZ

CANADA
UNITED STATES

31 31 27 30 31 26 25 31

44-00
79-30
79-00
78-30

CHANGES: Airport name.

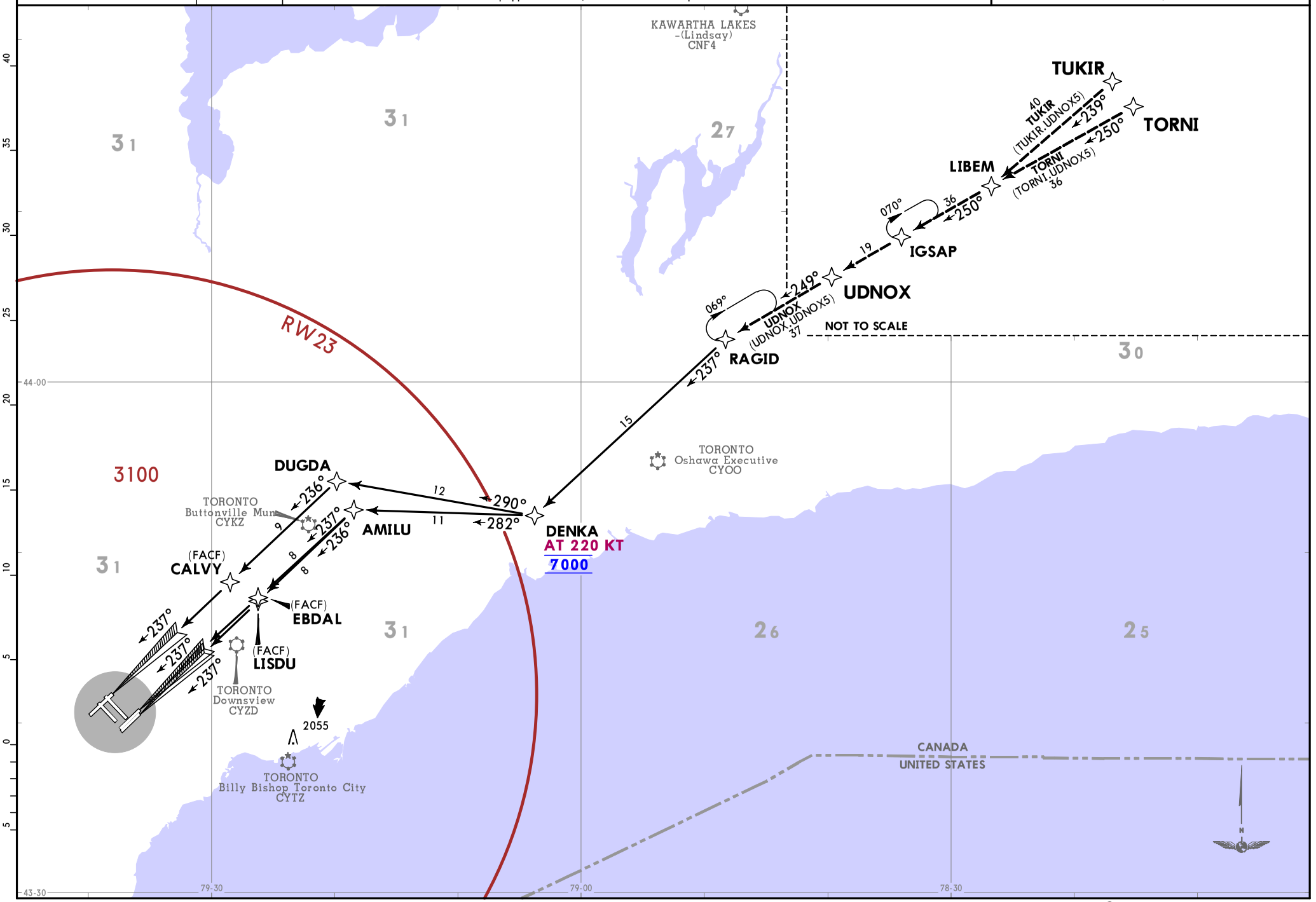
D-ATIS	Apt Elev
120.825 133.1	569

Alt Set: INCHES Trans level: FL180

RNAV 1 - D/D/I or GNSS required

1. Safe Altitude within 100 NM 4900.
2. Non-Jet aircraft only.
3. TUKIR transition: For non GNSS equipped aircraft, YXI DME must be operational.

UDNOX 5 ARRIVAL (RAGID.UDNOX5) (RWYS 23, 24L/R)



CHANGES: Airport name.

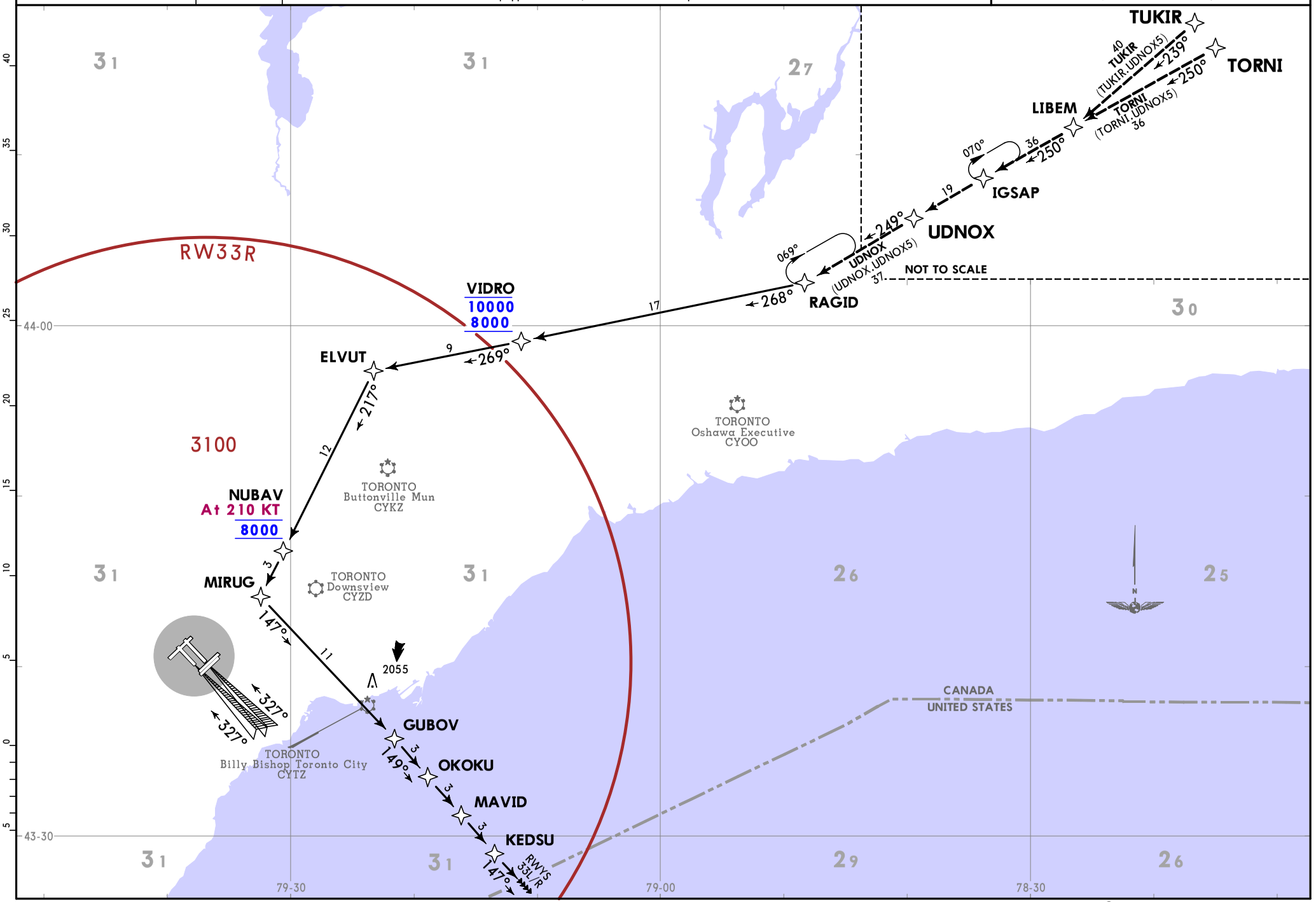
D-ATIS	Apt Elev
120.825 133.1	569

Alt Set: INCHES Trans level: FL180

RNAV 1 - D/D/I or GNSS required

1. Safe Altitude within 100 NM 4900.
2. Non-Jet aircraft only.
3. TUKIR transition: For non GNSS equipped aircraft, YXI DME must be operational.

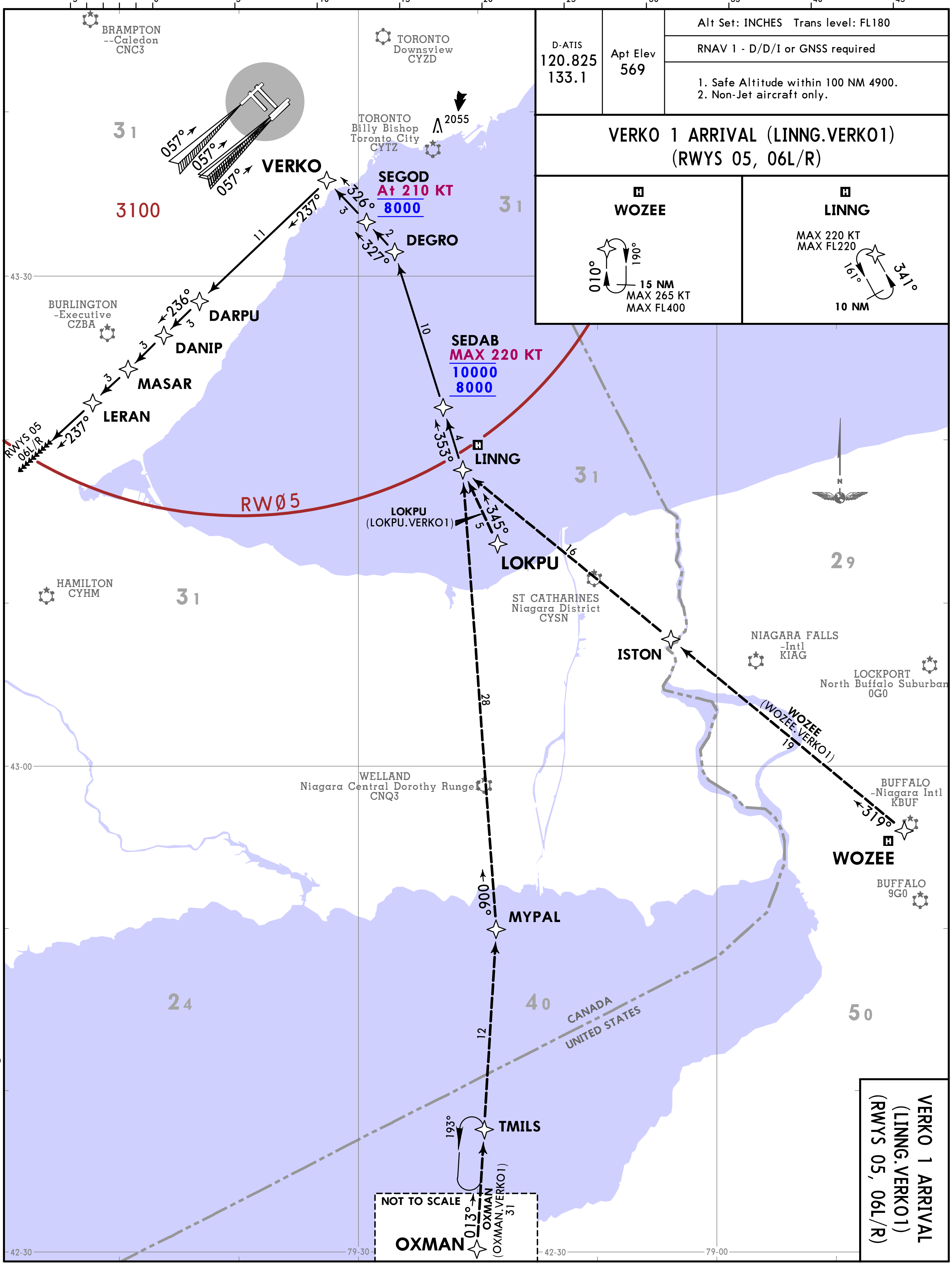
UDNOX 5 ARRIVAL (RAGID.UDNOX5) (RWYS 33L/R)



CHANGES: Airport name.

D-ATIS	Apt Elev	Alt Set: INCHES Trans level: FL180
120.825 133.1	569	RNAV 1 - D/D/I or GNSS required
		1. Safe Altitude within 100 NM 4900. 2. Non-Jet aircraft only.

VERKO 1 ARRIVAL (LINNG.VERKO1)
(RWYS 05, 06L/R)


WOZEE
010°
190°
15 NM
MAX 265 KT
MAX FL400
LINNG
MAX 220 KT
MAX FL220
161°
341°
10 NM
BRAMPTON
-Caledon
CNC3
TORONTO
Downsview
CYZD
TORONTO
Billy Bishop
Toronto City
CYTZ
2055
057°
057°
057°
VERKO
3100
SEGOD
At 210 KT
8000
326°
DEGRO
327°
237°
11
DARPU
236°
DANIP
MASAR
LERAN
RWYS 05
06L/R
237°
BURLINGTON
-Executive
CZBA
SEDAB
MAX 220 KT
10000
8000
10
LINNG
353°
RWØ5
LOKPU
(LOKPU.VERKO1)
345°
LOKPU
16
HAMILTON
CYHM
ST CATHARINES
Niagara District
CYSN
ISTON
NIAGARA FALLS
-Intl
KIAG
LOCKPORT
North Buffalo Suburban
0G0
WOZEE
(WOZEE.VERKO1)
19
28
WELLAND
Niagara Central Dorothy Rungeli
CNQ3
BUFFALO
-Niagara Intl
KBUF
319°
WOZEE
BUFFALO
9G0
006°
MYPAL
CANADA
UNITED STATES
12
TMILS
193°
NOT TO SCALE
OXMAN
013°
OXMAN
(OXMAN.VERKO1)
31
43-30
43-00
42-30
79-30
79-00

CHANGES: Airport name.

VERKO 1 ARRIVAL
(LINNG.VERKO1)
(RWYS 05, 06L/R)

D-ATIS	Apt Elev	
120.825 133.1	569	Alt Set: INCHES Trans level: FL180
		RNAV 1 - D/D/I or GNSS required
		1. Safe Altitude within 100 NM 4900. 2. Non-Jet aircraft only.

VERKO 1 ARRIVAL (LINNG.VERKO1) (RWYS 15L/R)

CHANGES: Airport name.

RWY 15L
327°
MEVPO
3
KASIT
3
OMTIP
3
MITUX
11
326°
MIRUG
RWY 15R
327°
LOBNU
3
TAGAT
3
GADOG
3
IGTIL
7
326°
PILNI
11
300°
8
110°
VERKO
At 210 KT
8000
3100
15
YOUTH
MAX 220 KT
10000
8000
345°
4
LINNG
345°
5
LOKPU
(LOKPU.VERKO1)
16
LOKPU
28
ISTON
319°
19
(WOZEE.VERKO1)
WOZEE
190°
010°
15 NM
MAX 265 KT
MAX FL400
NOT TO SCALE
NOT TO SCALE
006°
MYPAL
12
193°
TMILS
31
OXMAN
(OXMAN.VERKO1)
013°
OXMAN
RW 15L
CANADA
UNITED STATES
CANADA
UNITED STATES
TORONTO
Buttonville Mun
CYKZ
TORONTO
Downsview
CYZD
BRAMPTON
-Caledon
CNC3
147°
147°
2055
TORONTO
Billy Bishop Toronto City
CYTZ
BURLINGTON
-Executive
CZBA
HAMILTON
CYHM
ST CATHARINES
Niagara District
CYSN
NIAGARA FALLS
-Intl
KIAG
79-00
LINNG
MAX 220 KT
MAX FL220
161°
341°
10 NM
VERKO 1 ARRIVAL
(LINNG.VERKO1)
(RWYS 15L/R)
CYYZ/YYZ
LESTER B PEARSON INTL
28 APR 23
10-2H1
JEPPESEN
TORONTO, ONT
RNAV STAR
44-00
43-30
43-00
80-00
79-30

D-ATIS	Apt Elev	
120.825 133.1	569	Alt Set: INCHES Trans level: FL180 RNAV 1 - D/D/I or GNSS required 1. Safe Altitude within 100 NM 4900. 2. Non-Jet aircraft only.

VERKO 1 ARRIVAL (LINNG.VERKO1)
(RWYS 23, 24L/R)

CYYZ/YYZ
LESTER B PEARSON INTL

CHANGES: Airport name.

TORONTO Buttonville Mun CYKZ
BRAMPTON -Caledon CNC3
TORONTO Downsview CYZD
TORONTO Billy Bishop Toronto City CYTZ
BURLINGTON -Executive CZBA
HAMILTON CYHM
ST CATHARINES Niagara District CYSN
NIAGARA FALLS -Intl KIAG
BUFFALO -Niagara Intl KBUF
WELLAND Niagara Central Dorothy Rungeling CNQ3

RWYS 23, 24L/R
DUNOL
DAVNO
DEKNI
MAROD
2055
237°
VERKO
057°
BIMPO
At 210 KT
8000
YOUTH
MAX 220 KT
10000
8000
LINNG
345°
RW23
LOKPU
(LOKPU.VERKO1)
ISTON
WOZEE
(WOZEE.VERKO1)
319°
900°
CANADA
UNITED STATES
3100
31
32
26
29
40
50
24
43-30
43-00
79-00
80-00
79-30

NOT TO SCALE
MYPAL
TMILS
OXMAN
(OXMAN.VERKO1)
193°
013°
010°
190°
15 NM
MAX 265 KT
MAX FL400
MAX 220 KT
MAX FL220
161°
341°
10 NM

WOZEE
LINNG

VERKO 1 ARRIVAL
(LINNG.VERKO1)
(RWYS 23, 24L/R)

28 APR 23
10-2H2

JEPPESEN TORONTO, ONT
RNAV STAR

D-ATIS	Apt Elev	
120.825 133.1	569	Alt Set: INCHES Trans level: FL180 RNAV 1 - D/D/I or GNSS required 1. Safe Altitude within 100 NM 4900. 2. Non-Jet aircraft only.

VERKO 1 ARRIVAL (LINNG.VERKO1) (RWYS 33L/R)

WOZEE

010° 190°
15 NM
MAX 265 KT
MAX FL400

LINNG

MAX 220 KT
MAX FL220
161° 341°
10 NM

BRAMPTON --Caledon CNC3
TORONTO Downsview CYZD
TORONTO Billy Bishop Toronto City CYTZ
BURLINGTON -Executive CZBA
ST CATHARINES Niagara District CYSN
NIAGARA FALLS -Intl KIAG
LOCKPORT North Buffalo Suburban 0G0
WELLAND Niagara Central Dorothy Rungeling CNQ3
BUFFALO -Niagara Intl KBUF
BUFFALO 9G0
CANADA
UNITED STATES

2055

(FACF) AGBEK
(FACF) ERBAN
RIDOD
IKMEX
MERKI
LINNG
At 220 KT
7000
LOKPU
(LOKPU.VERKO1)
ISTON
WOZEE
(WOZEE.VERKO1)
MYPAL
TMILS
OXMAN
(OXMAN.VERKO1)

RW33L

3100

327° 327° 327° 333° 024° 345° 319° 006° 193° 013°

5 6 7 5 5 16 19 28 12 31

43-30 43-00 42-30 79-30 42-30 79-00

NOT TO SCALE

CHANGES: Airport name.

CYYZ/YYZ
LESTER B PEARSON INTL

JEPPESEN
28 APR 23
10-2H3

TORONTO, ONT
RNAV STAR

VERKO 1 ARRIVAL
(LINNG.VERKO1)
(RWYS 33L/R)

D-ATIS	Apt Elev
120.825 133.1	569

Alt Set: INCHES Trans level: FL180

RNAV 1 - D/D/I or GNSS required

1. Safe Altitude within 100 NM 4900.
2. Non-Jet aircraft only.
3. LETAK and TUKIR transitions: For non GNSS equipped aircraft, YOW DME must be operational.

VIBLI 6 ARRIVAL
(IMEBA.VIBLI6)
(RWYS 05, 06L/R)

NOT TO SCALE

LETAK
BETUL
TUKIR
TADMO
VIBLI
IMEBA
SEKOP
10000
8000
PILPO
MAX 220 KT
8000
BISDA
ERBUS
MODOL
At 210 KT
6000
PEKMO
At 210 KT
8000
SELAP
DUNOP
LITRO
DERLI
VERKO
DARPU
DANIP
MASAR
LERAN
RWY 05
RWYS 06L/R
RW05
3100
2167
COLLINGWOOD CNY3
EDENVALE CNV8
BARRIE-ORILLIA Lake Simcoe CYLS
STAYNER /Clearview CLV2
PETERBOROUGH CYPQ
TRENTON CYTR
TORONTO Oshawa Executive CYOO
TORONTO Buttonville Mun CYKZ
BRAMPTON -Caledon CNC3
TORONTO Downsview CYZD
TORONTO Billy Bishop Toronto City CYTZ
BURLINGTON -Executive CZBA
CANADA
UNITED STATES

CHANGES: Airport name.

D-ATIS	Alt Set: INCHES Trans level: FL180
120.825 133.1	RNAV 1 - D/D/I or GNSS required
Apt Elev 569	1. Safe Altitude within 100 NM 4900. 2. Non-Jet aircraft only. 3. LETAK and TUKIR transitions: For non GNSS equipped aircraft, YOW DME must be operational.

VIBLI 6 ARRIVAL
(IMEBA.VIBLI6)
(RWYS 15L/R)

BETUL
LETAK
TUKIR
TADMO
VIBLI
IMEBA
VIDRO
10000
8000
MEVPO
KASIT
OMTIP
MITUX
DENPI
At 210 KT
8000
TOVOP
MIRUG
NOT TO SCALE
RW15L
RWYS 15L/R
3100
2055
EDENVALE
CNV8
BARRIE-ORILLIA
Lake Simcoe
CYLS
PETERBOROUGH
CYPQ
TORONTO
Buttonville Mun
CYKZ
TORONTO
Oshawa Executive
CYOO
BRAMPTON
-Caledon
CNC3
TORONTO
Downsview
CYZD
TORONTO
Billy Bishop Toronto City
CYTZ
CANADA
UNITED STATES

CHANGES: Airport name.

D-ATIS	Apt Elev	
120.825 133.1	569	Alt Set: INCHES Trans level: FL180 RNAV 1 - D/D/I or GNSS required 1. Safe Altitude within 100 NM 4900. 2. Non-Jet aircraft only. 3. LETAK and TUKIR transitions: For non GNSS equipped aircraft, YOW DME must be operational.

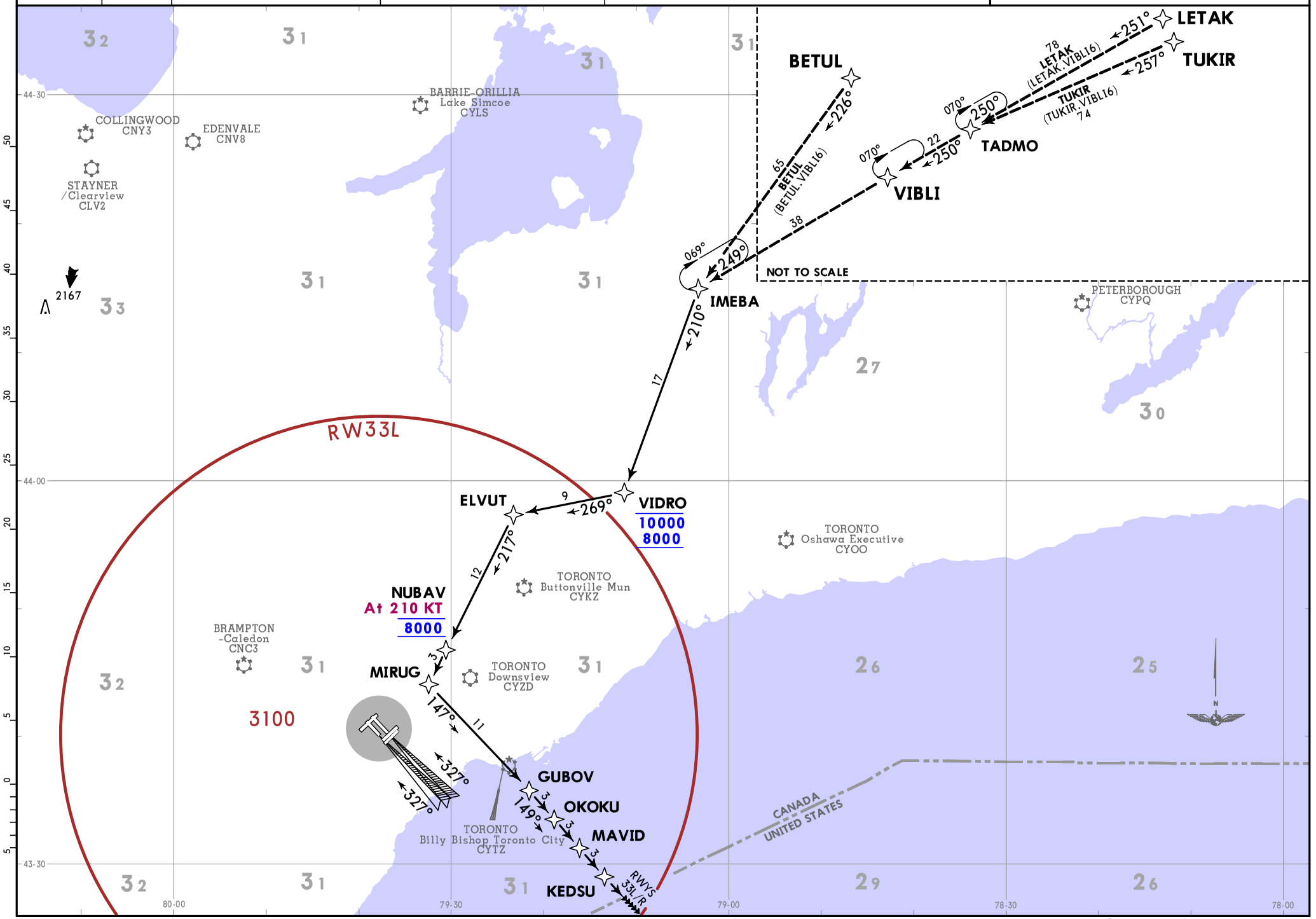
VIBLI 6 ARRIVAL (IMEBA.VIBLI6)
(RWYS 23, 24L/R)

BETUL
LETAK
TUKIR
TADMO
VIBLI
IMEBA
NOT TO SCALE
BETUL (BETUL.VIBLI6) 65
LETAK (LETAK.VIBLI6) 78
TUKIR (TUKIR.VIBLI6) 74
226°
251°
257°
250°
070°
22
38
069°
249°
237°
16
LEPUX
At 220 KT
8000
RW23
192°
187°
10
12
DUGDA
AMILU
237°
236°
9
8
8
(FACF) CALVY
(FACF) EBDAL
(FACF) LISDU
3100
TORONTO Buttonville Mun CYKZ
TORONTO Downsview CYZD
TORONTO Billy Bishop Toronto City CYTZ
2055
TORONTO Oshawa Executive CYOO
PETERBOROUGH CYPQ
CANADA
UNITED STATES
31
27
30
26
25
44-00
79-30
79-00
78-30
78-00

CHANGES: Airport name.

D-ATIS	Apt Elev			
120.825 133.1	569	RNAV 1 - D/D/I or GNSS required	Alt Set: INCHES Trans level: FL180	1. Safe Altitude within 100 NM 4900. 2. Non-Jet aircraft only. 3. LETAK and TUKIR transitions: For non GNSS equipped aircraft, YOW DME must be operational.

VIBLI 6 ARRIVAL (IMEBA.VIBLI6)
(RWYS 33L/R)

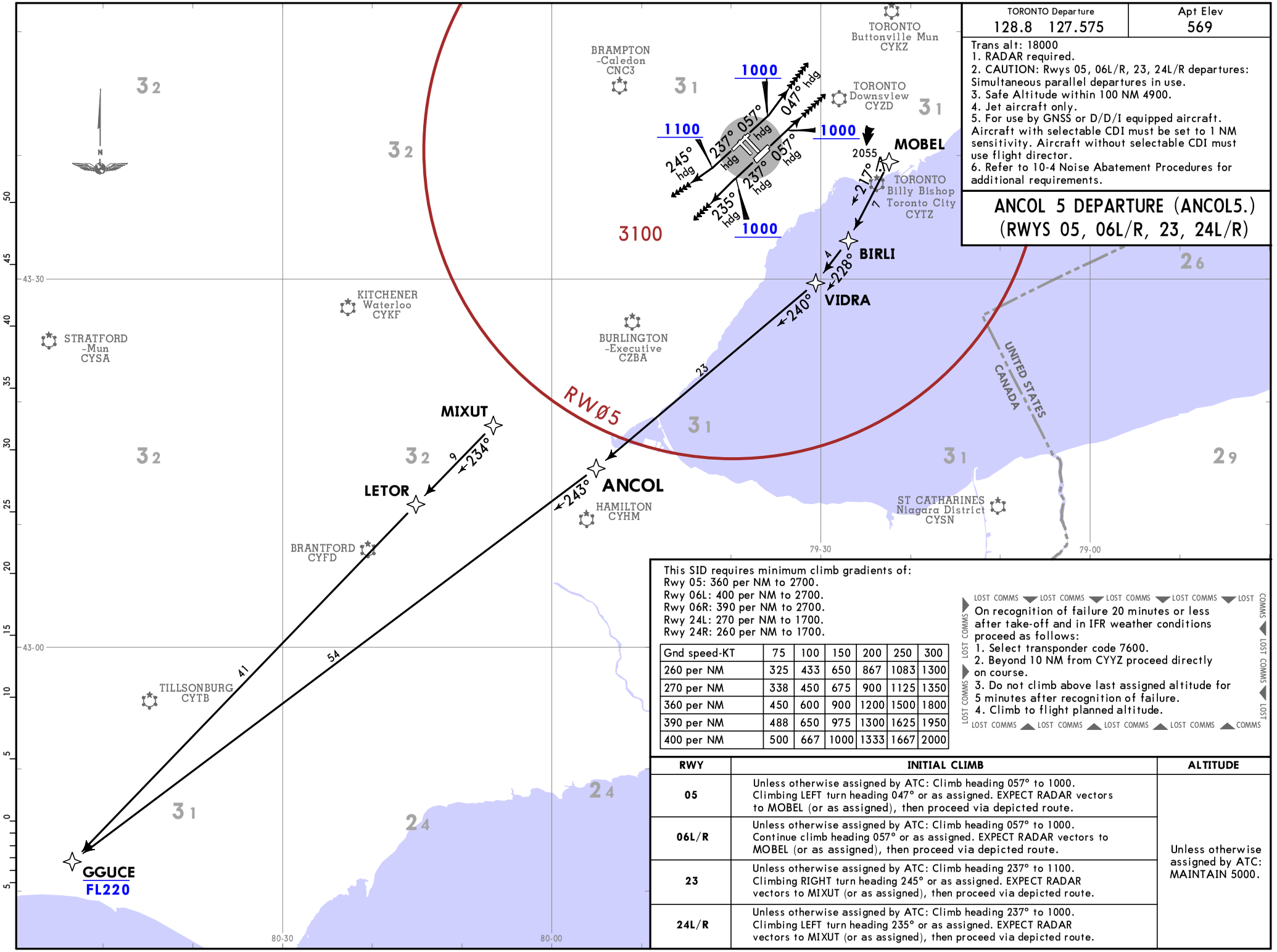


CHANGES: Airport name.

TORONTO Departure	Apt Elev
128.8 127.575	569

Trans alt: 18000
1. RADAR required.
2. CAUTION: Rwys 05, 06L/R, 23, 24L/R departures: Simultaneous parallel departures in use.
3. Safe Altitude within 100 NM 4900.
4. Jet aircraft only.
5. For use by GNSS or D/D/I equipped aircraft. Aircraft with selectable CDI must be set to 1 NM sensitivity. Aircraft without selectable CDI must use flight director.
6. Refer to 10-4 Noise Abatement Procedures for additional requirements.

ANCOL 5 DEPARTURE (ANCOL5.)
(RWYS 05, 06L/R, 23, 24L/R)



This SID requires minimum climb gradients of:
Rwy 05: 360 per NM to 2700.
Rwy 06L: 400 per NM to 2700.
Rwy 06R: 390 per NM to 2700.
Rwy 24L: 270 per NM to 1700.
Rwy 24R: 260 per NM to 1700.

Gnd speed-KT	75	100	150	200	250	300
260 per NM	325	433	650	867	1083	1300
270 per NM	338	450	675	900	1125	1350
360 per NM	450	600	900	1200	1500	1800
390 per NM	488	650	975	1300	1625	1950
400 per NM	500	667	1000	1333	1667	2000

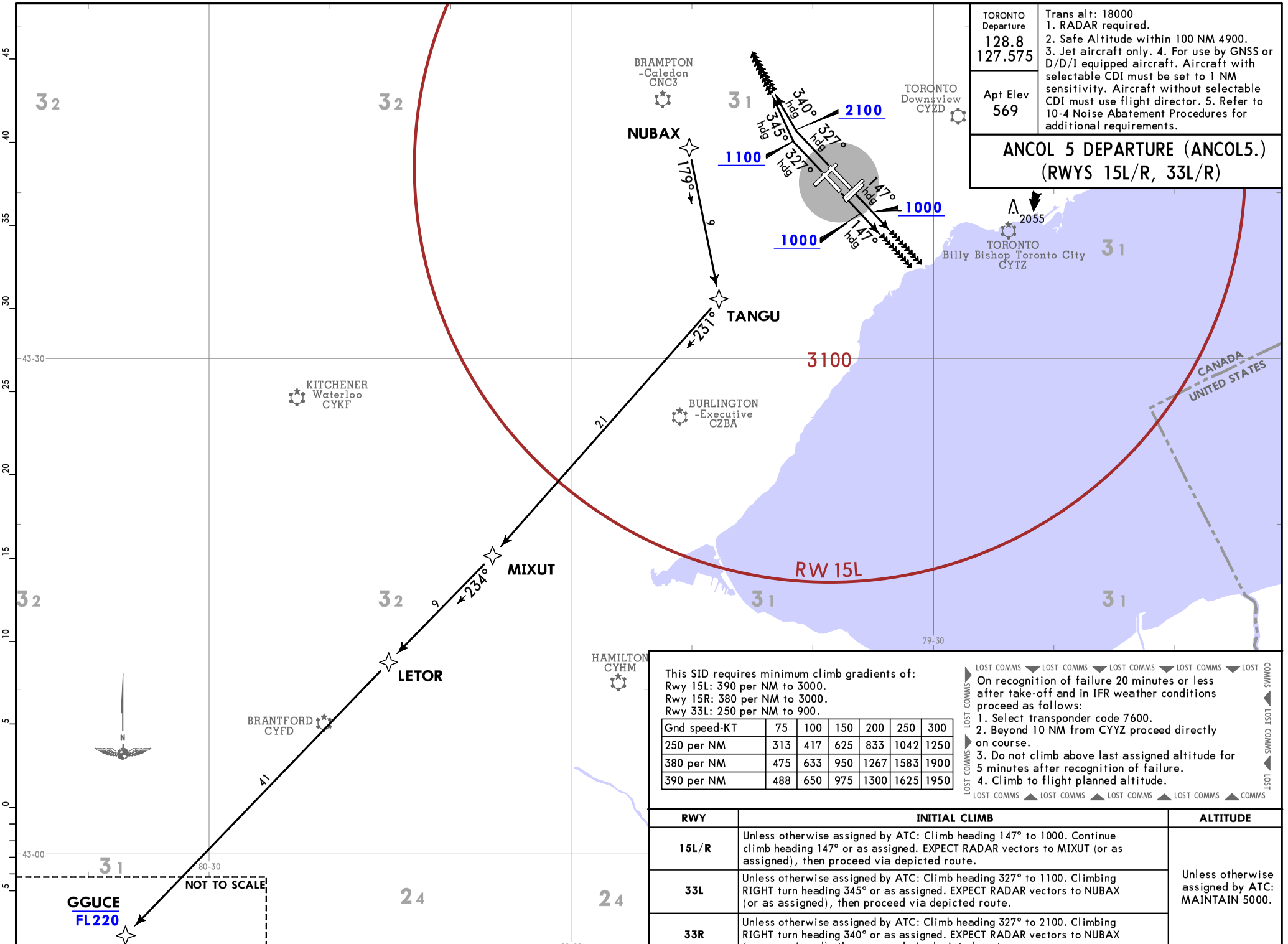
LOST COMMS
On recognition of failure 20 minutes or less after take-off and in IFR weather conditions proceed as follows:
1. Select transponder code 7600.
2. Beyond 10 NM from CYYZ proceed directly on course.
3. Do not climb above last assigned altitude for 5 minutes after recognition of failure.
4. Climb to flight planned altitude.

RWY	INITIAL CLIMB	ALTITUDE
05	Unless otherwise assigned by ATC: Climb heading 057° to 1000. Climbing LEFT turn heading 047° or as assigned. EXPECT RADAR vectors to MOBEL (or as assigned), then proceed via depicted route.	Unless otherwise assigned by ATC: MAINTAIN 5000.
06L/R	Unless otherwise assigned by ATC: Climb heading 057° to 1000. Continue climb heading 057° or as assigned. EXPECT RADAR vectors to MOBEL (or as assigned), then proceed via depicted route.	
23	Unless otherwise assigned by ATC: Climb heading 237° to 1100. Climbing RIGHT turn heading 245° or as assigned. EXPECT RADAR vectors to MIXUT (or as assigned), then proceed via depicted route.	
24L/R	Unless otherwise assigned by ATC: Climb heading 237° to 1000. Climbing LEFT turn heading 235° or as assigned. EXPECT RADAR vectors to MIXUT (or as assigned), then proceed via depicted route.	

CHANGES: Airport name.

TORONTO Departure	Trans alt: 18000
128.8 127.575	1. RADAR required. 2. Safe Altitude within 100 NM 4900. 3. Jet aircraft only. 4. For use by GNSS or D/D/I equipped aircraft. Aircraft with selectable CDI must be set to 1 NM sensitivity. Aircraft without selectable CDI must use flight director. 5. Refer to 10-4 Noise Abatement Procedures for additional requirements.
Apt Elev 569	

ANCOL 5 DEPARTURE (ANCOL5.)
(RWYS 15L/R, 33L/R)



This SID requires minimum climb gradients of:
Rwy 15L: 390 per NM to 3000.
Rwy 15R: 380 per NM to 3000.
Rwy 33L: 250 per NM to 900.

Gnd speed-KT	75	100	150	200	250	300
250 per NM	313	417	625	833	1042	1250
380 per NM	475	633	950	1267	1583	1900
390 per NM	488	650	975	1300	1625	1950

LOST COMMS
On recognition of failure 20 minutes or less after take-off and in IFR weather conditions proceed as follows:
1. Select transponder code 7600.
2. Beyond 10 NM from CYYZ proceed directly on course.
3. Do not climb above last assigned altitude for 5 minutes after recognition of failure.
4. Climb to flight planned altitude.

RWY	INITIAL CLIMB	ALTITUDE
15L/R	Unless otherwise assigned by ATC: Climb heading 147° to 1000. Continue climb heading 147° or as assigned. EXPECT RADAR vectors to MIXUT (or as assigned), then proceed via depicted route.	Unless otherwise assigned by ATC: MAINTAIN 5000.
33L	Unless otherwise assigned by ATC: Climb heading 327° to 1100. Climbing RIGHT turn heading 345° or as assigned. EXPECT RADAR vectors to NUBAX (or as assigned), then proceed via depicted route.	
33R	Unless otherwise assigned by ATC: Climb heading 327° to 2100. Climbing RIGHT turn heading 340° or as assigned. EXPECT RADAR vectors to NUBAX (or as assigned), then proceed via depicted route.	

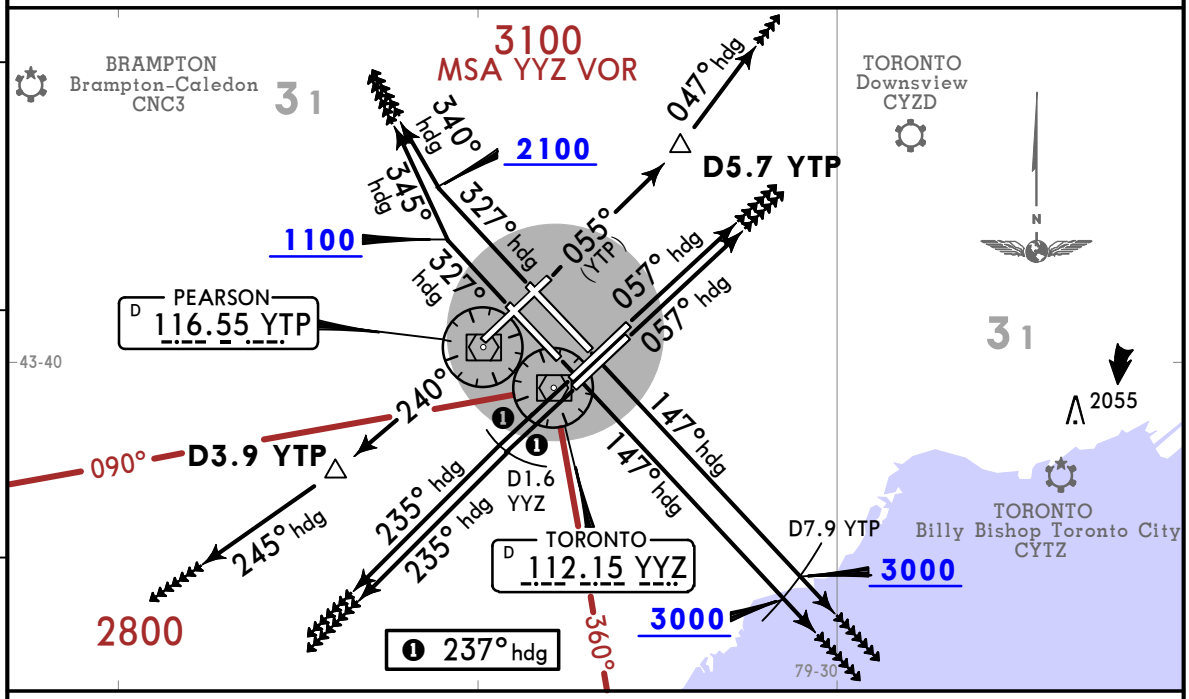
CHANGES: Airport name.

TORONTO Departure	Apt Elev	
128.8 127.575	569	Trans alt: 18000 1. Safe Altitude within 100 NM 4900. 2. CAUTION: Rwys 05, 06L/R, 23, 24L/R departures: Simultaneous parallel departures in use. 3. Refer to 10-4 Noise Abatement Procedures for additional requirements.

ARROW 4 DEPARTURE (ARROW4.) (VECTOR)

Quiet Hours Procedure. For use between 0000-0630 local.

SPEED: MAX 250 KT BELOW 10000



TURBOJET/FAN AIRCRAFT ONLY	
RWY	NOISE ABATEMENT DEPARTURE PROCEDURE
ALL RWYS	1 or 2

LOST COMMS

On recognition of a failure 20 minutes or less after take-off and in IFR weather conditions, proceed as follows:
1. Select transponder code 7600;
2. Beyond D10.0 YYZ proceed directly on course;
3. Do not climb above last assigned altitude for 5 minutes after recognition of failure, then;
4. Climb to flight plan altitude.

❶ Unless otherwise assigned by ATC.

This SID requires minimum climb gradients of:
Rwy 05: 360 per NM to 2700.
Rwy 06L: 400 per NM to 2700.
Rwy 06R: 390 per NM to 2700.
Rwy 15L: 390 per NM to 3000.
Rwy 15R: 380 per NM to 3000.
Rwy 24L: 270 per NM to 1700.
Rwy 24R: 260 per NM to 1700.
Rwy 33L: 250 per NM to 900.

Gnd speed-KT	75	100	150	200	250	300
250 per NM	313	417	625	833	1042	1250
260 per NM	325	433	650	867	1083	1300
270 per NM	338	450	675	900	1125	1350
360 per NM	450	600	900	1200	1500	1800
380 per NM	475	633	950	1267	1583	1900
390 per NM	488	650	975	1300	1625	1950
400 per NM	500	667	1000	1333	1667	2000

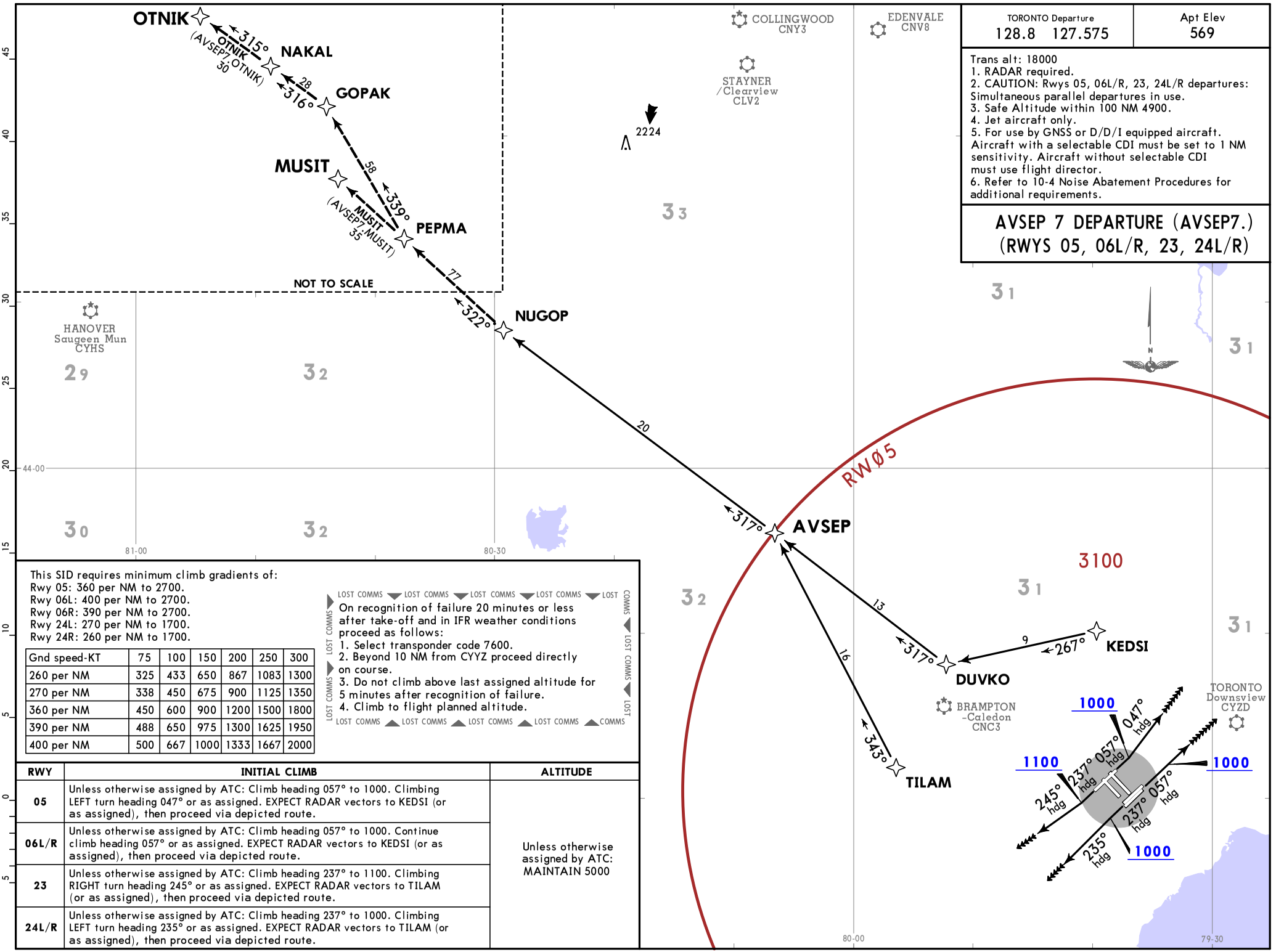
RWY	❶ INITIAL CLIMB	❶ ALTITUDE
05	Intercept and MAINTAIN YTP R055 outbound. At D5.7 YTP fly heading 047° or assigned heading for vectors to assigned route.	Jet aircraft MAINTAIN 5000. Non-jet aircraft MAINTAIN 3000. Aircraft assigned a turn at takeoff; commence turn at 1100
06L/R	Climb heading 057° or assigned heading for vectors to assigned route.	
15L/R	Climb heading 147° cross D7.9 YTP at or above 3000. MAINTAIN heading for vectors to assigned route.	
23	Climb heading 237° until passing YTP VOR. Then intercept and MAINTAIN YTP R240 outbound. At D3.9 YTP fly heading 245° or assigned heading for vectors to assigned route.	
24L/R	Climb heading 237°. At D1.6 YYZ, turn LEFT heading 235° or assigned heading for vectors to assigned route.	
33L	Climb heading 327° to 1100. Climbing RIGHT turn heading 345° or assigned heading for vectors to assigned route.	
33R	Climb heading 327° to 2100. Climbing RIGHT turn heading 340° or assigned heading for vectors to assigned route.	

CHANGES: Airport name.

TORONTO Departure	Apt Elev
128.8 127.575	569

Trans alt: 18000
1. RADAR required.
2. CAUTION: Rwys 05, 06L/R, 23, 24L/R departures: Simultaneous parallel departures in use.
3. Safe Altitude within 100 NM 4900.
4. Jet aircraft only.
5. For use by GNSS or D/D/I equipped aircraft. Aircraft with a selectable CDI must be set to 1 NM sensitivity. Aircraft without selectable CDI must use flight director.
6. Refer to 10-4 Noise Abatement Procedures for additional requirements.

AVSEP 7 DEPARTURE (AVSEP7.)
(RWYS 05, 06L/R, 23, 24L/R)



This SID requires minimum climb gradients of:
Rwy 05: 360 per NM to 2700.
Rwy 06L: 400 per NM to 2700.
Rwy 06R: 390 per NM to 2700.
Rwy 24L: 270 per NM to 1700.
Rwy 24R: 260 per NM to 1700.

Gnd speed-KT	75	100	150	200	250	300
260 per NM	325	433	650	867	1083	1300
270 per NM	338	450	675	900	1125	1350
360 per NM	450	600	900	1200	1500	1800
390 per NM	488	650	975	1300	1625	1950
400 per NM	500	667	1000	1333	1667	2000

LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST COMMS

On recognition of failure 20 minutes or less after take-off and in IFR weather conditions proceed as follows:
1. Select transponder code 7600.
2. Beyond 10 NM from CYYZ proceed directly on course.
3. Do not climb above last assigned altitude for 5 minutes after recognition of failure.
4. Climb to flight planned altitude.

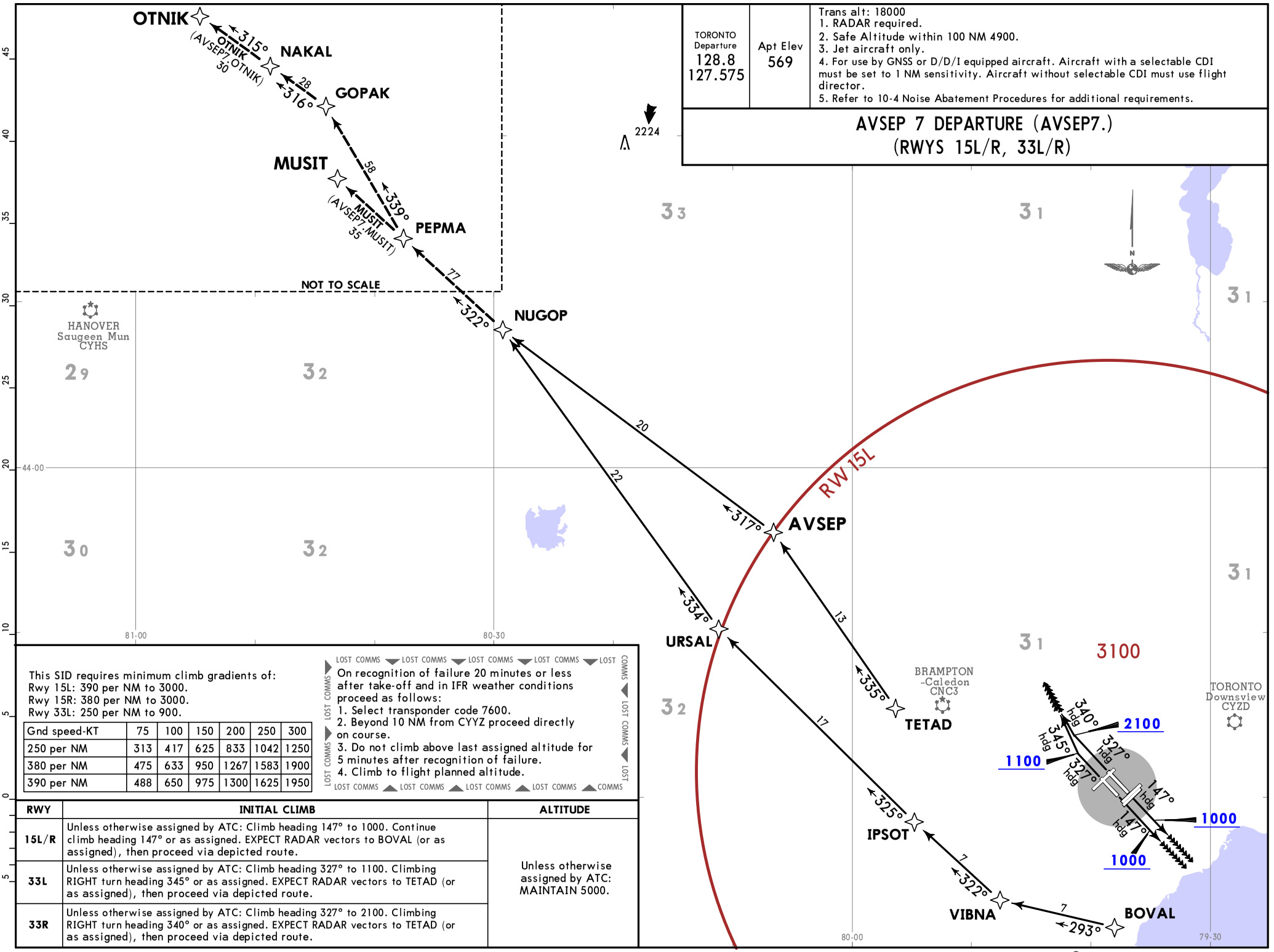
LOST COMMS ▲ LOST COMMS ▲ LOST COMMS ▲ LOST COMMS ▲ LOST COMMS ▲ LOST COMMS

RWY	INITIAL CLIMB	ALTITUDE
05	Unless otherwise assigned by ATC: Climb heading 057° to 1000. Climbing LEFT turn heading 047° or as assigned. EXPECT RADAR vectors to KEDSI (or as assigned), then proceed via depicted route.	Unless otherwise assigned by ATC: MAINTAIN 5000
06L/R	Unless otherwise assigned by ATC: Climb heading 057° to 1000. Continue climb heading 057° or as assigned. EXPECT RADAR vectors to KEDSI (or as assigned), then proceed via depicted route.	
23	Unless otherwise assigned by ATC: Climb heading 237° to 1100. Climbing RIGHT turn heading 245° or as assigned. EXPECT RADAR vectors to TILAM (or as assigned), then proceed via depicted route.	
24L/R	Unless otherwise assigned by ATC: Climb heading 237° to 1000. Climbing LEFT turn heading 235° or as assigned. EXPECT RADAR vectors to TILAM (or as assigned), then proceed via depicted route.	

CHANGES: Airport name.

TORONTO Departure	Apt Elev	
128.8 127.575	569	Trans alt: 18000 1. RADAR required. 2. Safe Altitude within 100 NM 4900. 3. Jet aircraft only. 4. For use by GNSS or D/D/I equipped aircraft. Aircraft with a selectable CDI must be set to 1 NM sensitivity. Aircraft without selectable CDI must use flight director. 5. Refer to 10-4 Noise Abatement Procedures for additional requirements.

AVSEP 7 DEPARTURE (AVSEP7.)
(RWYS 15L/R, 33L/R)



This SID requires minimum climb gradients of:
Rwy 15L: 390 per NM to 3000.
Rwy 15R: 380 per NM to 3000.
Rwy 33L: 250 per NM to 900.

Gnd speed-KT	75	100	150	200	250	300
250 per NM	313	417	625	833	1042	1250
380 per NM	475	633	950	1267	1583	1900
390 per NM	488	650	975	1300	1625	1950

LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼
On recognition of failure 20 minutes or less after take-off and in IFR weather conditions proceed as follows:
1. Select transponder code 7600.
2. Beyond 10 NM from CYYZ proceed directly on course.
3. Do not climb above last assigned altitude for 5 minutes after recognition of failure.
4. Climb to flight planned altitude.
▲ LOST COMMS ▲ LOST COMMS ▲ LOST COMMS ▲ LOST COMMS ▲ LOST COMMS

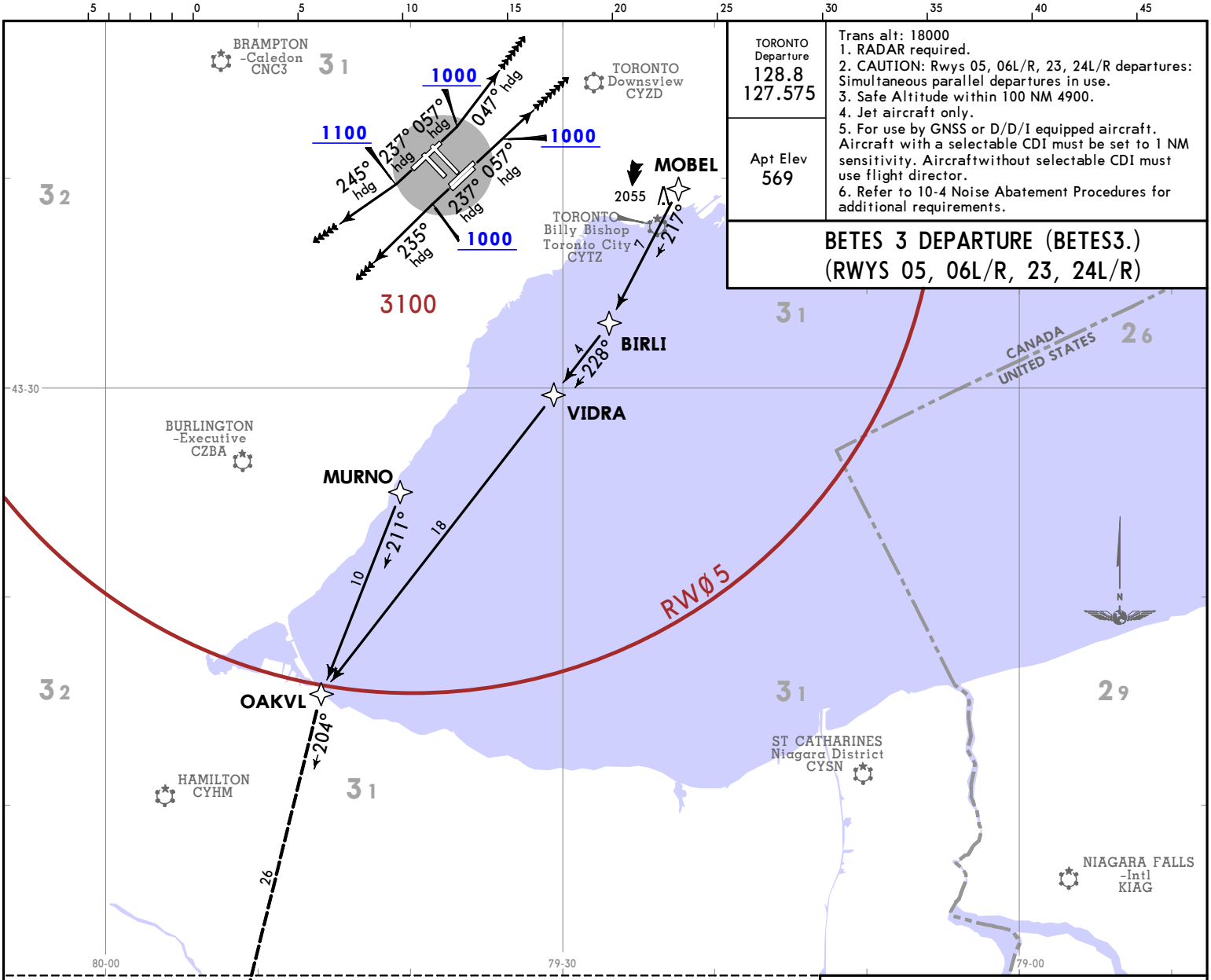
RWY	INITIAL CLIMB	ALTITUDE
15L/R	Unless otherwise assigned by ATC: Climb heading 147° to 1000. Continue climb heading 147° or as assigned. EXPECT RADAR vectors to BOVAL (or as assigned), then proceed via depicted route.	Unless otherwise assigned by ATC: MAINTAIN 5000.
33L	Unless otherwise assigned by ATC: Climb heading 327° to 1100. Climbing RIGHT turn heading 345° or as assigned. EXPECT RADAR vectors to TETAD (or as assigned), then proceed via depicted route.	
33R	Unless otherwise assigned by ATC: Climb heading 327° to 2100. Climbing RIGHT turn heading 340° or as assigned. EXPECT RADAR vectors to TETAD (or as assigned), then proceed via depicted route.	

CHANGES: Airport name.

TORONTO Departure	
128.8	
127.575	
Apt Elev	
569	

Trans alt: 18000
1. RADAR required.
2. CAUTION: Rwys 05, 06L/R, 23, 24L/R departures: Simultaneous parallel departures in use.
3. Safe Altitude within 100 NM 4900.
4. Jet aircraft only.
5. For use by GNSS or D/D/I equipped aircraft. Aircraft with a selectable CDI must be set to 1 NM sensitivity. Aircraftwithout selectable CDI must use flight director.
6. Refer to 10-4 Noise Abatement Procedures for additional requirements.

BETES 3 DEPARTURE (BETES3.)
(RWYS 05, 06L/R, 23, 24L/R)



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On recognition of failure 20 minutes or less after take-off and in IFR weather conditions proceed as follows:
1. Select transponder code 7600.
2. Beyond 10 NM from CYYZ proceed directly on course.
3. Do not climb above last assigned altitude for 5 minutes after recognition of failure.
4. Climb to flight planned altitude.

LOST COMMS ▲ LOST COMMS ▲ LOST COMMS ▲ LOST COMMS ▲ LOST COMMS

This SID requires minimum climb gradients of:
Rwy 05: 360 per NM to 2700.
Rwy 06L: 400 per NM to 2700.
Rwy 06R: 390 per NM to 2700.
Rwy 24L: 270 per NM to 1700.
Rwy 24R: 260 per NM to 1700.

Gnd speed-KT	75	100	150	200	250	300
260 per NM	325	433	650	867	1083	1300
270 per NM	338	450	675	900	1125	1350
360 per NM	450	600	900	1200	1500	1800
390 per NM	488	650	975	1300	1625	1950
400 per NM	500	667	1000	1333	1667	2000

RWY	INITIAL CLIMB	ALTITUDE
05	Unless otherwise assigned by ATC: Climb heading 057° to 1000. Climbing LEFT turn heading 047° or as assigned. EXPECT RADAR vectors to MOBEL (or as assigned), then proceed via depicted route.	Unless otherwise assigned by ATC: MAINTAIN 5000
06L/R	Unless otherwise assigned by ATC: Climb heading 057° to 1000. Continue climb heading 057° or as assigned. EXPECT RADAR vectors to MOBEL (or as assigned), then proceed via depicted route.	
23	Unless otherwise assigned by ATC: Climb heading 237° to 1100. Climbing RIGHT turn heading 245° or as assigned. EXPECT RADAR vectors to MURNO (or as assigned), then proceed via depicted route.	
24L/R	Unless otherwise assigned by ATC: Climb heading 237° to 1000. Climbing LEFT turn heading 235° or as assigned. EXPECT RADAR vectors to MURNO (or as assigned), then proceed via depicted route.	

BETES 3 DEPARTURE (BETES3.)
(RWYS 05, 06L/R, 23, 24L/R)

TORONTO Departure	Trans alt: 18000
128.8 127.575	1. RADAR required. 2. Safe Altitude within 100 NM 4900. 3. Jet aircraft only. 4. For use by GNSS or D/D/I equipped aircraft. Aircraft with a selectable CDI must be set to 1 NM sensitivity. Aircraft without selectable CDI must use flight director. 5. Refer to 10-4 Noise Abatement Procedures for additional requirements.
Apt Elev 569	

BETES 3 DEPARTURE (BETES3.)
(RWYS 15L/R, 33L/R)

BRAMPTON -Caledon CNC3
TORONTO Downsview CYZD
TORONTO Billy Bishop Toronto City CYTZ
BURLINGTON -Executive CZBA
HAMILTON CYHM
ST CATHARINES Niagara District CYSN
NIAGARA FALLS -Intl KIAG
WELLAND Niagara Central Dorothy Rungel CNQ3

NUBAX
TANGU
OAKVL
BETES
ERI
SAMYL
FOXEE
AIRRA

179°
186°
204°
209°
201°
190°
207°
340° hdg
345° hdg
327° hdg
147° hdg
2100
1100
1000
1000
2055
3100
RW 15L
CANADA
UNITED STATES
NOT TO SCALE

52 ERIE (BETES3.ERI)
36
66 FOXEE (BETES3.FOXEE)
69 AIRRA (BETES3.AIRRA)

LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST COMMS
For LOST COMMS refer to 10-3.

This SID requires minimum climb gradients of:
Rwy 15L: 390 per NM to 3000.
Rwy 15R: 380 per NM to 3000.
Rwy 33L: 250 per NM to 900.

Gnd speed-KT	75	100	150	200	250	300
250 per NM	313	417	625	833	1042	1250
380 per NM	475	633	950	1267	1583	1900
390 per NM	488	650	975	1300	1625	1950

RWY	INITIAL CLIMB	ALTITUDE
15L/R	Unless otherwise assigned by ATC: Climb heading 147° to 1000. Continue climb heading 147° or as assigned. EXPECT RADAR vectors to OAKVL (or as assigned), then proceed via depicted route.	Unless otherwise assigned by ATC MAINTAIN 5000.
33L	Unless otherwise assigned by ATC: Climb heading 327° to 1100. Climbing RIGHT turn heading 345° or as assigned. EXPECT RADAR vectors to NUBAX (or as assigned), then proceed via depicted route.	
33R	Unless otherwise assigned by ATC: Climb heading 327° to 2100. Climbing RIGHT turn heading 340° or as assigned. EXPECT RADAR vectors to NUBAX (or as assigned), then proceed via depicted route.	

CYYZ/YYZ
LESTER B PEARSON INTL
28 APR 23
JEPPESEN (10-3B1)
BETES 3 DEPARTURE (BETES3.)
(RWYS 15L/R, 33L/R)
TORONTO, ONT
RNAV SID

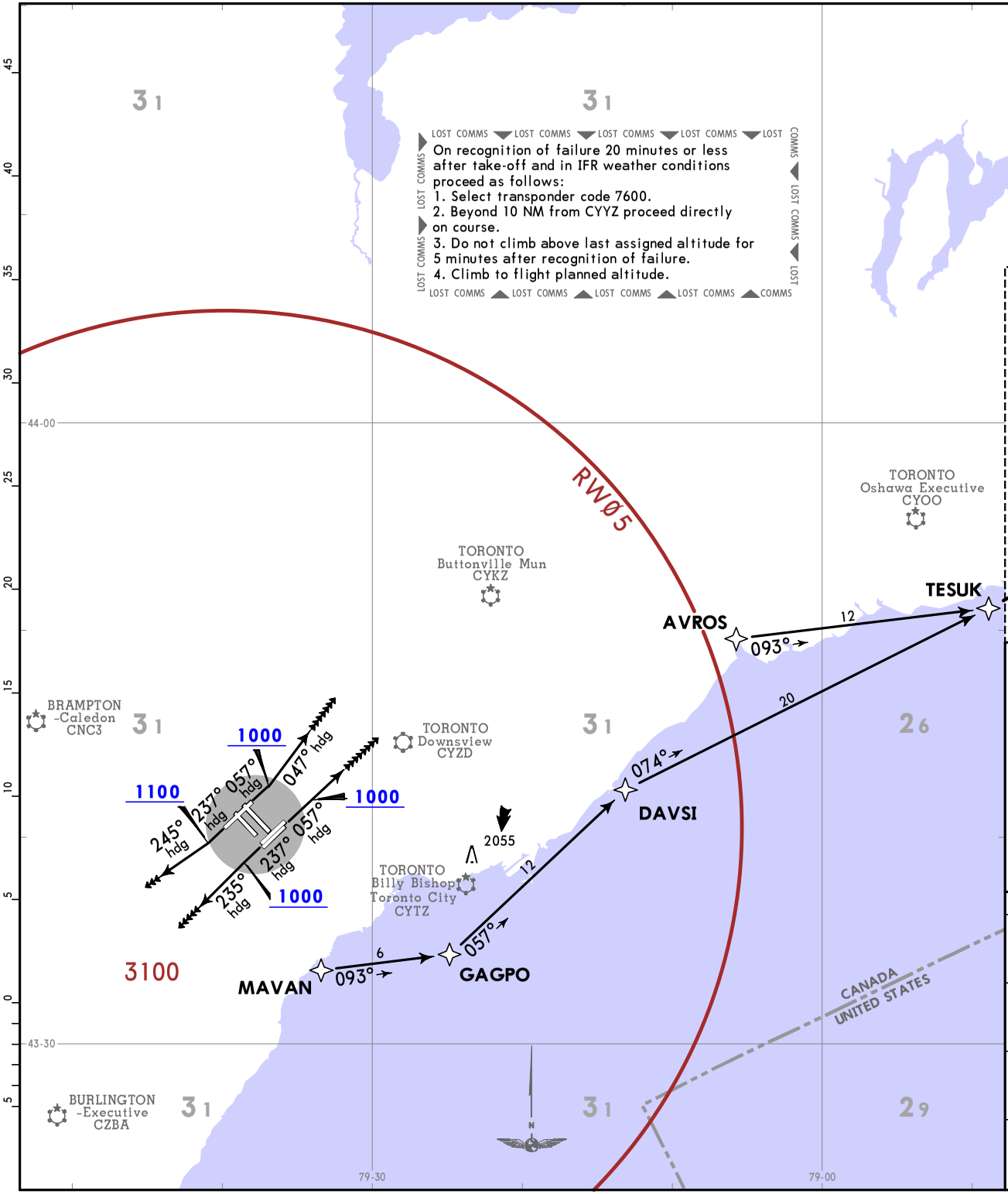
TORONTO Departure 128.8 127.575	Trans alt: 18000 1. RADAR required. 2. CAUTION: Rwys 05, 06L/R, 23, 24L/R departures: Simultaneous parallel departures in use. 3. Safe Altitude within 100 NM 4900. 4. Non-Jet aircraft only. 5. For use by GNSS equipped aircraft. GNSS aircraft with selectable CDI must be set to 1 NM sensitivity. Aircraft without selectable CDI must use flight director. 6. Refer to 10-4 Noise Abatement Procedures for additional requirements.
Apt Elev 569	

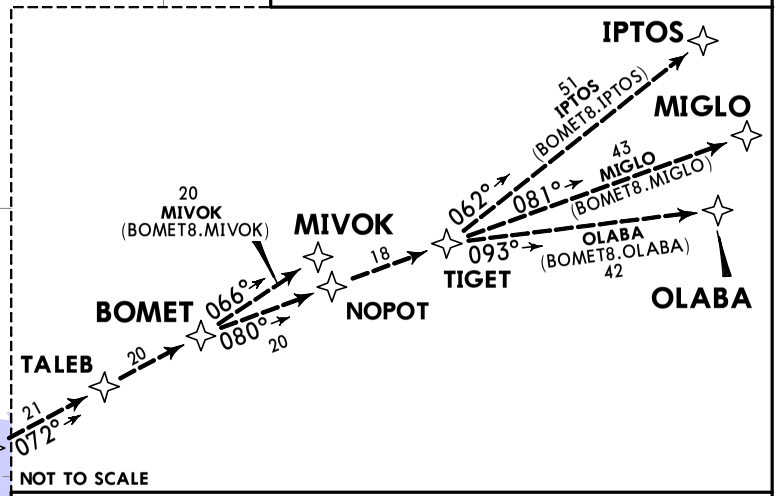
BOMET 8 DEPARTURE (BOMET8.)
(RWYS 05, 06L/R, 23, 24L/R)

LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST COMMS

On recognition of failure 20 minutes or less after take-off and in IFR weather conditions proceed as follows:
1. Select transponder code 7600.
2. Beyond 10 NM from CYYZ proceed directly on course.
3. Do not climb above last assigned altitude for 5 minutes after recognition of failure.
4. Climb to flight planned altitude.

LOST COMMS ▲ LOST COMMS ▲ LOST COMMS ▲ LOST COMMS ▲ LOST COMMS ▲ LOST COMMS ▲ LOST COMMS ▲ LOST COMMS





NOT TO SCALE

This SID requires minimum climb gradients of:
Rwy 05: 360 per NM to 2700.
Rwy 06L: 400 per NM to 2700.
Rwy 06R: 390 per NM to 2700.
Rwy 24L: 270 per NM to 1700.
Rwy 24R: 260 per NM to 1700.

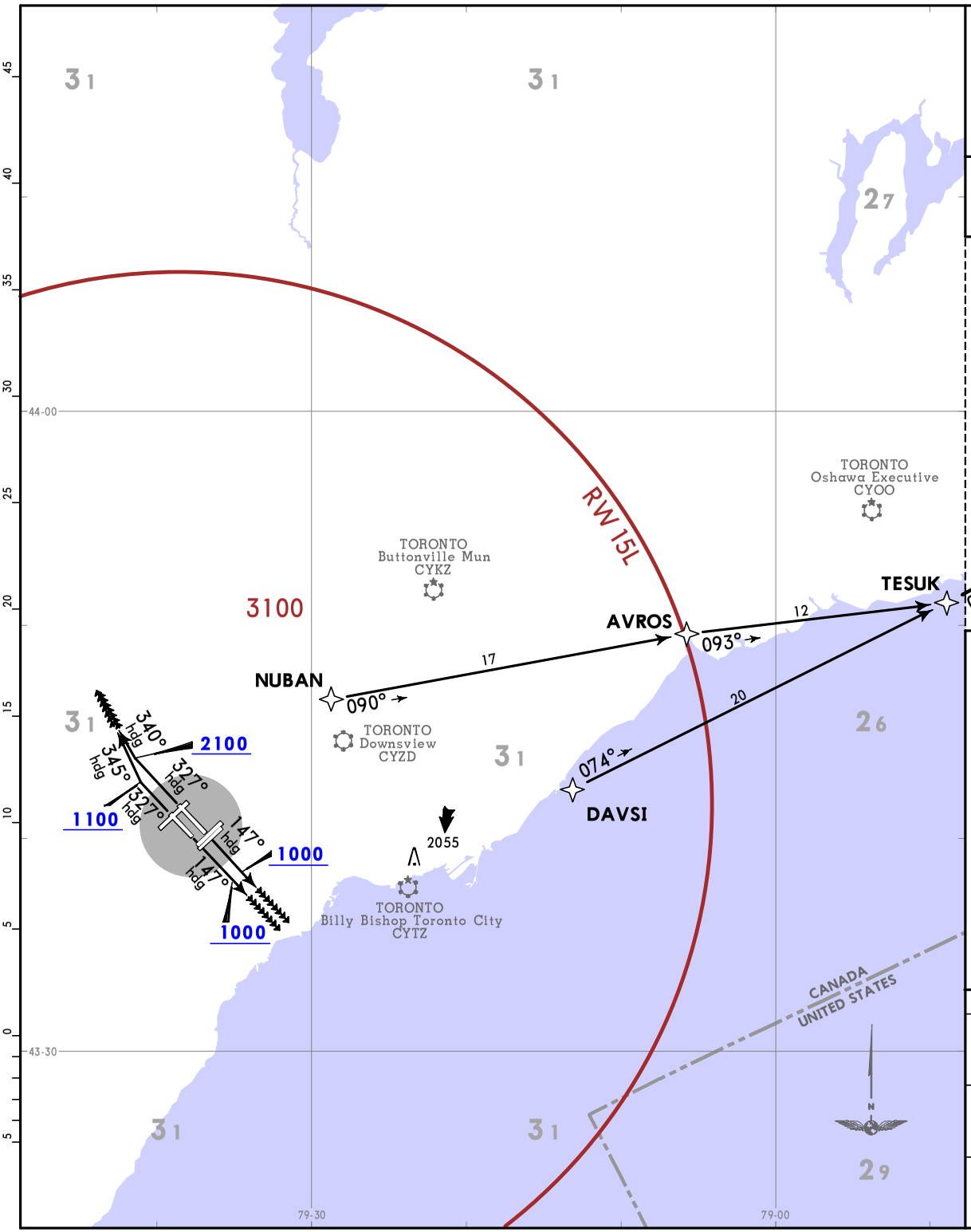
Gnd speed-KT	75	100	150	200	250	300
260 per NM	325	433	650	867	1083	1300
270 per NM	338	450	675	900	1125	1350
360 per NM	450	600	900	1200	1500	1800
390 per NM	488	650	975	1300	1625	1950
400 per NM	500	667	1000	1333	1667	2000

RWY	INITIAL CLIMB	ALTITUDE
05	Unless otherwise assigned by ATC: Climb heading 057° to 1000. Climbing LEFT turn heading 047° or as assigned. EXPECT RADAR vectors to AVROS (or as assigned), then proceed via depicted route.	Unless otherwise assigned by ATC: MAINTAIN 3000. Aircraft assigned a turn at takeoff; commence turn at 1100
06L/R	Unless otherwise assigned by ATC: Climb heading 057° to 1000. Continue climb heading 057° or as assigned. EXPECT RADAR vectors to AVROS (or as assigned), then proceed via depicted route.	
23	Unless otherwise assigned by ATC: Climb heading 237° to 1100. Climbing RIGHT turn heading 245° or as assigned. EXPECT RADAR vectors to MAVAN (or as assigned), then proceed via depicted route.	
24L/R	Unless otherwise assigned by ATC: Climb heading 237° to 1000. Climbing LEFT turn heading 235° or as assigned. EXPECT RADAR vectors to MAVAN (or as assigned), then proceed via depicted route.	

CHANGES: Airport name.

TORONTO Departure	Apt Elev	
128.8 127.575	569	Trans alt: 18000 1. RADAR required. 2. Safe Altitude within 100 NM 4900. 3. Non-Jet aircraft only. 4. For use by GNSS equipped aircraft. GNSS aircraft with selectable CDI must be set to 1 NM sensitivity. Aircraft without selectable CDI must use flight director. 5. Refer to 10-4 Noise Abatement Procedures for additional requirements.

BOMET 8 DEPARTURE (BOMET8.)
(RWYS 15L/R, 33L/R)



NOT TO SCALE

LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST COMMS

On recognition of failure 20 minutes or less after take-off and in IFR weather conditions proceed as follows:
1. Select transponder code 7600.
2. Beyond 10 NM from CYYZ proceed directly on course.
3. Do not climb above last assigned altitude for 5 minutes after recognition of failure.
4. Climb to flight planned altitude.

LOST COMMS ▲ LOST COMMS ▲ LOST COMMS ▲ LOST COMMS ▲ COMMS

This SID requires minimum climb gradients of:
Rwy 15L: 390 per NM to 3000.
Rwy 15R: 380 per NM to 3000.
Rwy 33L: 250 per NM to 900.

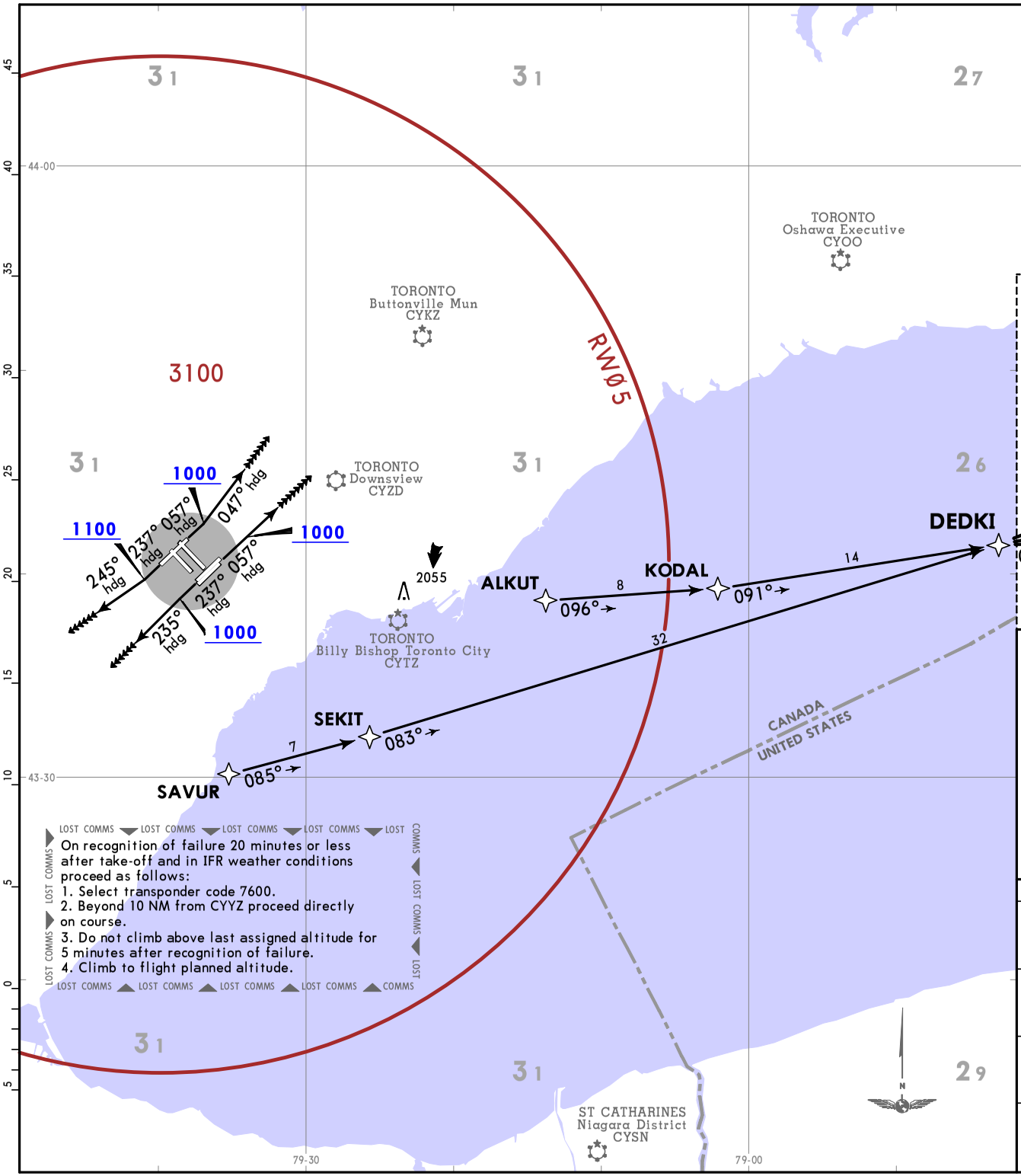
Gnd speed-KT	75	100	150	200	250	300
250 per NM	313	417	625	833	1042	1250
380 per NM	475	633	950	1267	1583	1900
390 per NM	488	650	975	1300	1625	1950

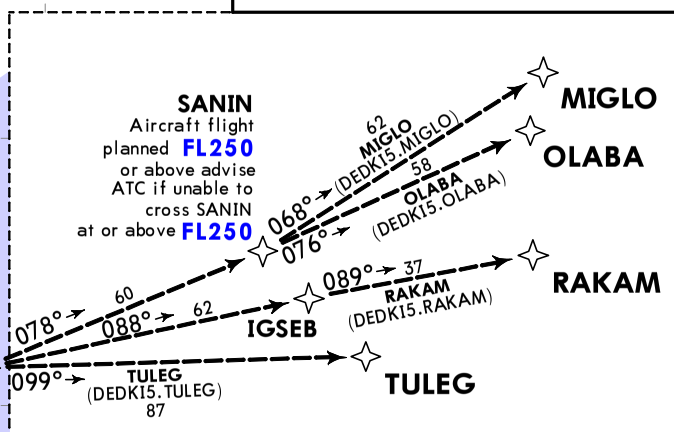
RWY	INITIAL CLIMB	ALTITUDE
15L/R	Unless otherwise assigned by ATC: Climb heading 147° to 1000. Continue climb heading 147° or as assigned. EXPECT RADAR vectors to DAVSI (or as assigned), then proceed via depicted route.	Unless otherwise assigned by ATC: MAINTAIN 3000. Aircraft assigned a turn at takeoff; commence turn at 1100
33L	Unless otherwise assigned by ATC: Climb heading 327° to 1100. Climbing RIGHT turn heading 345° or as assigned. EXPECT RADAR vectors to NUBAN (or as assigned), then proceed via depicted route.	
33R	Unless otherwise assigned by ATC: Climb heading 327° to 2100. Climbing RIGHT turn heading 340° or as assigned. EXPECT RADAR vectors to NUBAN (or as assigned), then proceed via depicted route.	

CHANGES: Airport name.

TORONTO Departure	Trans alt: 18000
128.8 127.575	1. RADAR required. 2. CAUTION: Rwys 05, 06L/R, 23, 24L/R departures: Simultaneous parallel departures in use. 3. Safe Altitude within 100 NM 4900. 4. Jet aircraft only. 5. For use by GNSS or D/D/I equipped aircraft. Aircraft with selectable CDI must be set to 1 NM sensitivity. Aircraft without selectable CDI must use flight director. 6. Refer to 10-4 Abatement Procedures for additional requirements.
Apt Elev 569	

DEDKI 5 DEPARTURE (DEDKI5.)
(RWYS 05, 06L/R, 23, 24L/R)





NOT TO SCALE

This SID requires minimum climb gradients of:
Rwy 05: 360 per NM to 2700.
Rwy 06L: 400 per NM to 2700.
Rwy 06R: 390 per NM to 2700.
Rwy 24L: 270 per NM to 1700.
Rwy 24R: 260 per NM to 1700.

Gnd speed-KT	75	100	150	200	250	300
260 per NM	325	433	650	867	1083	1300
270 per NM	338	450	675	900	1125	1350
360 per NM	450	600	900	1200	1500	1800
390 per NM	488	650	975	1300	1625	1950
400 per NM	500	667	1000	1333	1667	2000

RWY	INITIAL CLIMB	ALTITUDE
05	Unless otherwise assigned by ATC: Climb heading 057° to 1000. Climbing LEFT turn heading 047° or as assigned. EXPECT RADAR vectors to ALKUT (or as assigned), then proceed via depicted route.	Unless otherwise assigned by ATC: MAINTAIN 5000
06L/R	Unless otherwise assigned by ATC: Climb heading 057° to 1000. Continue climb heading 057° or as assigned. EXPECT RADAR vectors to ALKUT (or as assigned), then proceed via depicted route.	
23	Unless otherwise assigned by ATC: Climb heading 237° to 1100. Climbing RIGHT turn heading 245° or as assigned. EXPECT RADAR vectors to SAVUR (or as assigned), then proceed via depicted route.	
24L/R	Unless otherwise assigned by ATC: Climb heading 237° to 1000. Climbing LEFT turn heading 235° or as assigned. EXPECT RADAR vectors to SAVUR (or as assigned), then proceed via depicted route.	

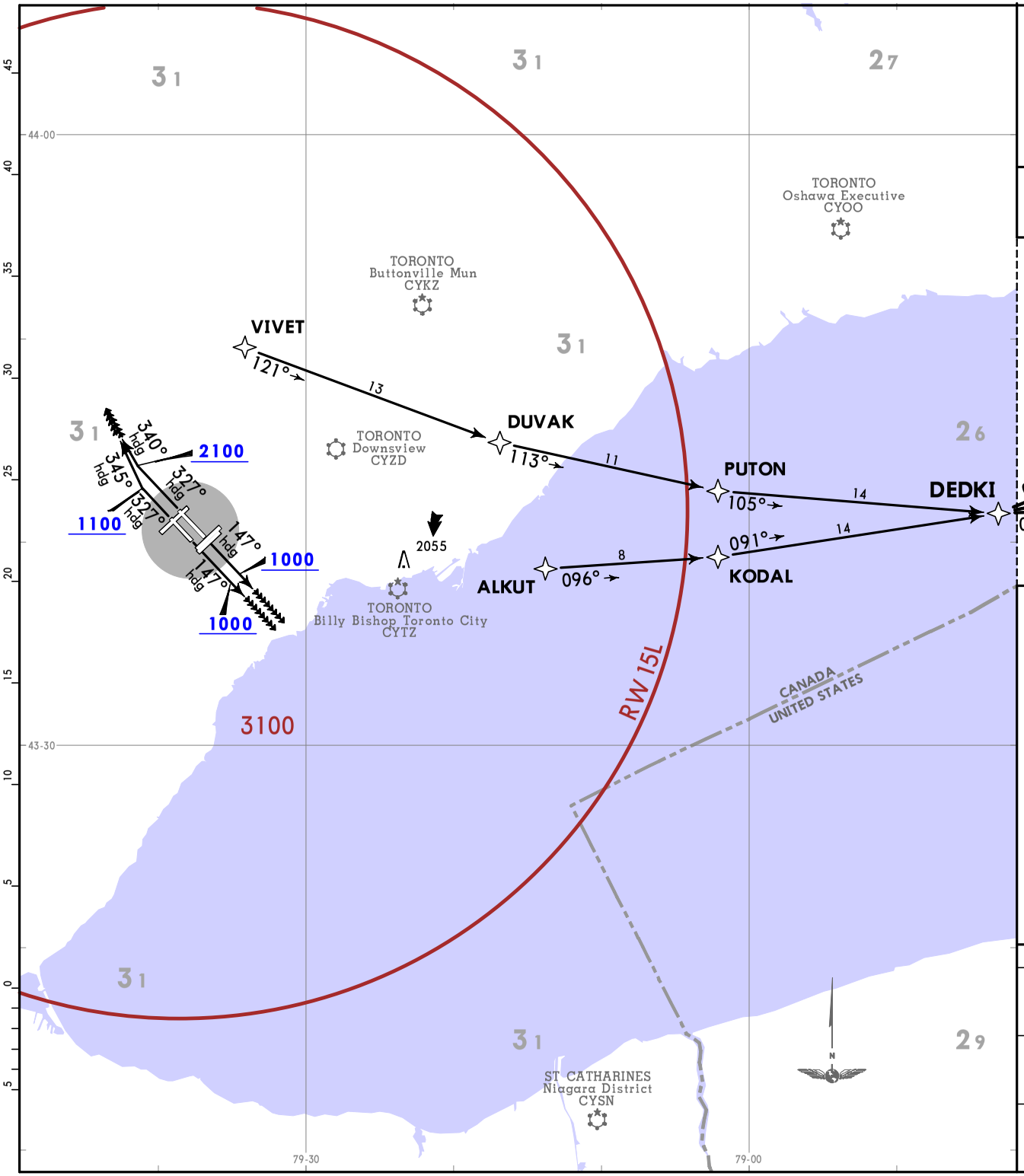
LOST COMMS
On recognition of failure 20 minutes or less after take-off and in IFR weather conditions proceed as follows:
1. Select transponder code 7600.
2. Beyond 10 NM from CYYZ proceed directly on course.
3. Do not climb above last assigned altitude for 5 minutes after recognition of failure.
4. Climb to flight planned altitude.

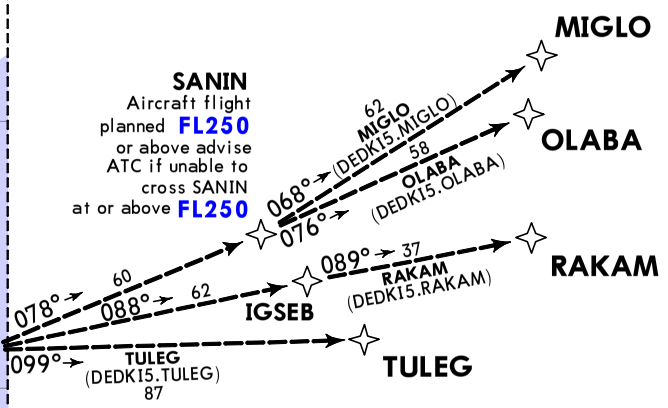
CHANGES: Airport name.

TORONTO Departure	Apt Elev
128.8 127.575	569

Trans alt: 18000
1. RADAR required.
2. Safe Altitude within 100 NM 4900.
3. Jet aircraft only.
4. For use by GNSS or D/D/I equipped aircraft. Aircraft with selectable CDI must be set to 1 NM sensitivity. Aircraft without selectable CDI must use flight director.
5. Refer to 10-4 Noise Abatement Procedures for additional requirements.

DEDKI 5 DEPARTURE (DEDKI5.)
(RWYS 15L/R, 33L/R)





NOT TO SCALE

LOST COMMS
On recognition of failure 20 minutes or less after take-off and in IFR weather conditions proceed as follows:
1. Select transponder code 7600.
2. Beyond 10 NM from CYYZ proceed directly on course.
3. Do not climb above last assigned altitude for 5 minutes after recognition of failure.
4. Climb to flight planned altitude.

This SID requires minimum climb gradients of:
Rwy 15L: 390 per NM to 3000.
Rwy 15R: 380 per NM to 3000.
Rwy 33L: 250 per NM to 900.

Gnd speed-KT	75	100	150	200	250	300
250 per NM	313	417	625	833	1042	1250
380 per NM	475	633	950	1267	1583	1900
390 per NM	488	650	975	1300	1625	1950

RWY	INITIAL CLIMB	ALTITUDE
15L/R	Unless otherwise assigned by ATC: Climb heading 147° to 1000. Continue climb heading 147° or as assigned. EXPECT RADAR vectors to ALKUT (or as assigned), then proceed via depicted route.	Unless otherwise assigned by ATC MAINTAIN 5000
33L	Unless otherwise assigned by ATC: Climb heading 327° to 1100. Climbing RIGHT turn heading 345° or as assigned. EXPECT RADAR vectors to VIVET (or as assigned), then proceed via depicted route.	
33R	Unless otherwise assigned by ATC: Climb heading 327° to 2100. Climbing RIGHT turn heading 340° or as assigned. EXPECT RADAR vectors to VIVET (or as assigned), then proceed via depicted route.	

CHANGES: Airport name.

TORONTO Departure	Apt Elev	
128.8 127.575	569	Trans alt: 18000 1. RADAR required. 2. CAUTION: Rwys 05, 06L/R, 23, 24L/R departures: Simultaneous parallel departures in use. 3. Safe Altitude within 100 NM 4900. 4. Non-Jet aircraft only. 5. For use by GNSS equipped aircraft. GNSS aircraft with selectable CDI must be set to 1 NM sensitivity. Aircraft without selectable CDI must use flight director. 6. Refer to 10-4 Noise Abatement Procedures for additional requirements.

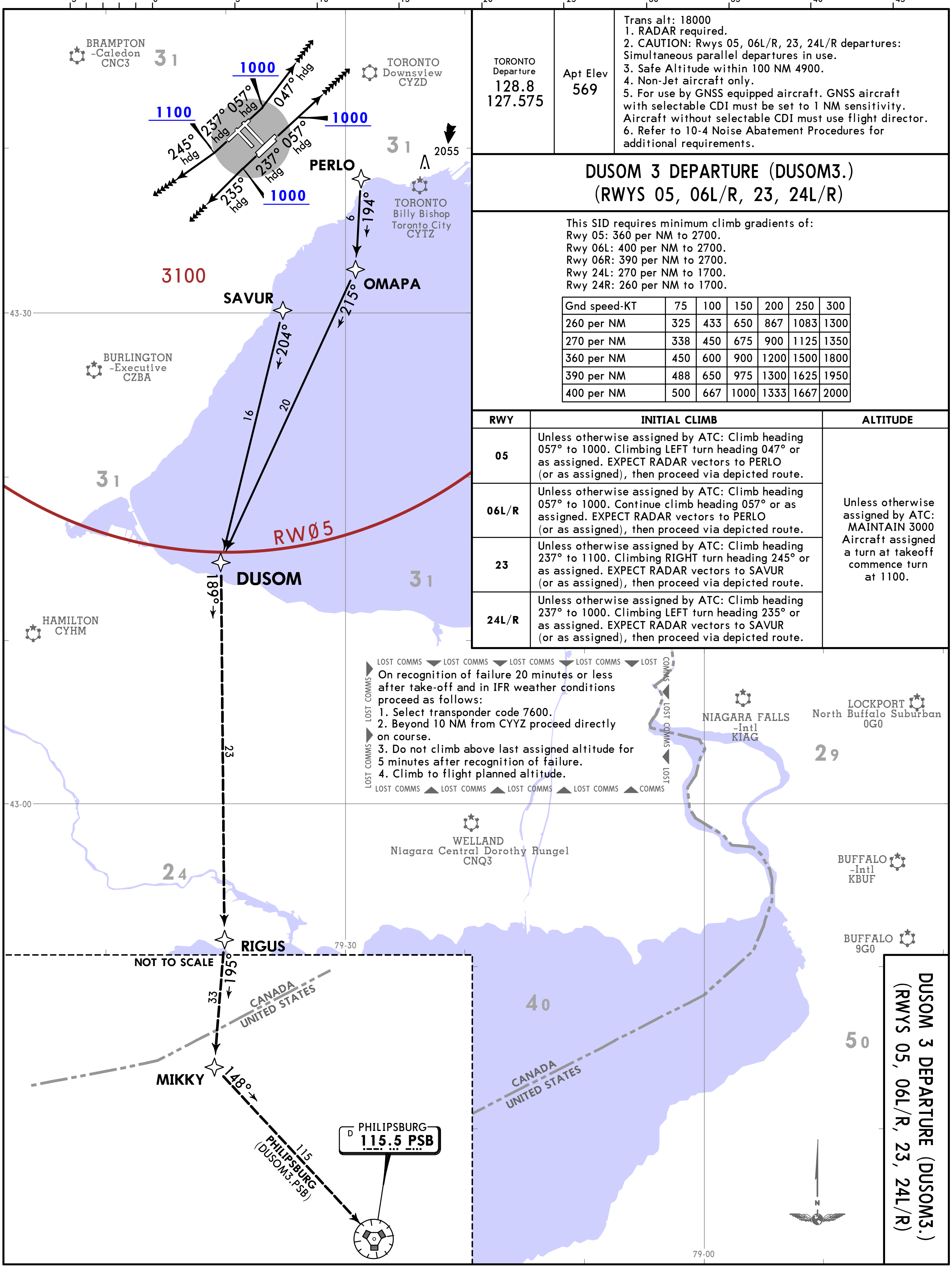
DUSOM 3 DEPARTURE (DUSOM3.)
(RWYS 05, 06L/R, 23, 24L/R)

This SID requires minimum climb gradients of:
Rwy 05: 360 per NM to 2700.
Rwy 06L: 400 per NM to 2700.
Rwy 06R: 390 per NM to 2700.
Rwy 24L: 270 per NM to 1700.
Rwy 24R: 260 per NM to 1700.

Gnd speed-KT	75	100	150	200	250	300
260 per NM	325	433	650	867	1083	1300
270 per NM	338	450	675	900	1125	1350
360 per NM	450	600	900	1200	1500	1800
390 per NM	488	650	975	1300	1625	1950
400 per NM	500	667	1000	1333	1667	2000

RWY	INITIAL CLIMB	ALTITUDE
05	Unless otherwise assigned by ATC: Climb heading 057° to 1000. Climbing LEFT turn heading 047° or as assigned. EXPECT RADAR vectors to PERLO (or as assigned), then proceed via depicted route.	Unless otherwise assigned by ATC: MAINTAIN 3000 Aircraft assigned a turn at takeoff commence turn at 1100.
06L/R	Unless otherwise assigned by ATC: Climb heading 057° to 1000. Continue climb heading 057° or as assigned. EXPECT RADAR vectors to PERLO (or as assigned), then proceed via depicted route.	
23	Unless otherwise assigned by ATC: Climb heading 237° to 1100. Climbing RIGHT turn heading 245° or as assigned. EXPECT RADAR vectors to SAVUR (or as assigned), then proceed via depicted route.	
24L/R	Unless otherwise assigned by ATC: Climb heading 237° to 1000. Climbing LEFT turn heading 235° or as assigned. EXPECT RADAR vectors to SAVUR (or as assigned), then proceed via depicted route.	

LOST COMMS
On recognition of failure 20 minutes or less after take-off and in IFR weather conditions proceed as follows:
1. Select transponder code 7600.
2. Beyond 10 NM from CYYZ proceed directly on course.
3. Do not climb above last assigned altitude for 5 minutes after recognition of failure.
4. Climb to flight planned altitude.



DUSOM 3 DEPARTURE (DUSOM3.)
(RWYS 05, 06L/R, 23, 24L/R)

TORONTO Departure 128.8 127.575	Apt Elev 569	Trans alt: 18000 1. RADAR required. 2. Safe Altitude within 100 NM 4900. 3. Non-Jet aircraft only. 4. For use by GNSS equipped aircraft. GNSS aircraft with selectable CDI must be set to 1 NM sensitivity. Aircraft without selectable CDI must use flight director. 5. Refer to 10-4 Noise Abatement Procedures for additional requirements.

DUSOM 3 DEPARTURE (DUSOM3.)
(RWYS 15L/R, 33L/R)

LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST COMMS

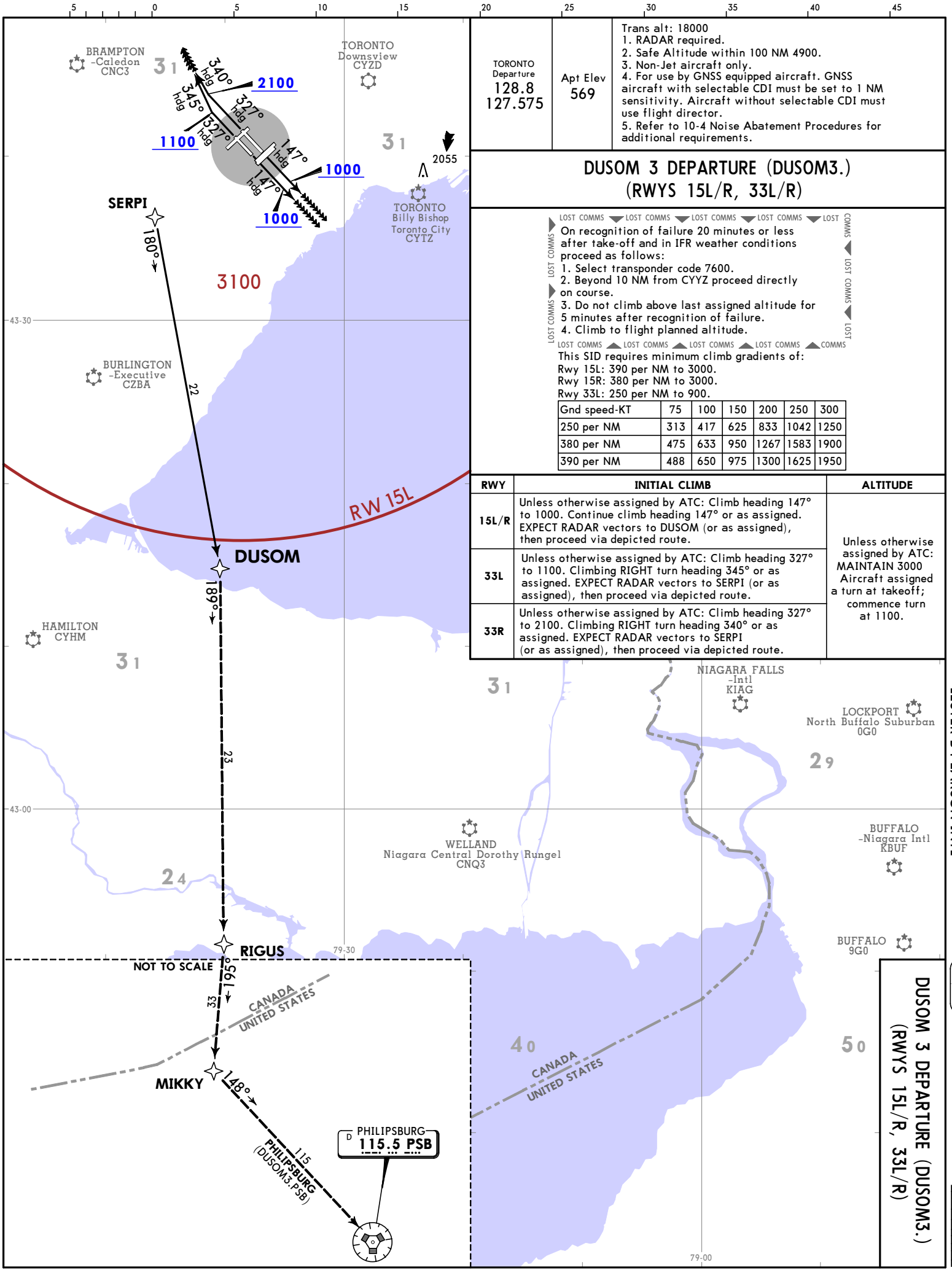
On recognition of failure 20 minutes or less after take-off and in IFR weather conditions proceed as follows:
1. Select transponder code 7600.
2. Beyond 10 NM from CYYZ proceed directly on course.
3. Do not climb above last assigned altitude for 5 minutes after recognition of failure.
4. Climb to flight planned altitude.

LOST COMMS ▲ LOST COMMS ▲ LOST COMMS ▲ LOST COMMS ▲ COMMS

This SID requires minimum climb gradients of:
Rwy 15L: 390 per NM to 3000.
Rwy 15R: 380 per NM to 3000.
Rwy 33L: 250 per NM to 900.

Gnd speed-KT	75	100	150	200	250	300
250 per NM	313	417	625	833	1042	1250
380 per NM	475	633	950	1267	1583	1900
390 per NM	488	650	975	1300	1625	1950

RWY	INITIAL CLIMB	ALTITUDE
15L/R	Unless otherwise assigned by ATC: Climb heading 147° to 1000. Continue climb heading 147° or as assigned. EXPECT RADAR vectors to DUSOM (or as assigned), then proceed via depicted route.	Unless otherwise assigned by ATC: MAINTAIN 3000 Aircraft assigned a turn at takeoff; commence turn at 1100.
33L	Unless otherwise assigned by ATC: Climb heading 327° to 1100. Climbing RIGHT turn heading 345° or as assigned. EXPECT RADAR vectors to SERPI (or as assigned), then proceed via depicted route.	
33R	Unless otherwise assigned by ATC: Climb heading 327° to 2100. Climbing RIGHT turn heading 340° or as assigned. EXPECT RADAR vectors to SERPI (or as assigned), then proceed via depicted route.	



CYYZ/YYZ
LESTER B PEARSON INTL

28 APR 23

JEPPESEN
10-3C3

TORONTO, ONT
RNAV SID

DUSOM 3 DEPARTURE (DUSOM3.)
(RWYS 15L/R, 33L/R)

TORONTO Departure
128.8 127.575

Apt Elev
569

Trans alt: 18000
1. RADAR required.
2. CAUTION: Rwys 05, 06L/R, 23, 24L/R departures: Simultaneous parallel departures in use.
3. Safe Altitude within 100 NM 4900.
4. Non-Jet aircraft only.
5. For use by GNSS equipped aircraft. GNSS aircraft with selectable CDI must be set to 1 NM sensitivity. Aircraft without selectable CDI must use flight director.
6. Refer to 10-4 Noise Abatement Procedures for additional requirements.

EBKIN 4 DEPARTURE (EBKIN4.)
(RWYS 05, 06L/R, 23, 24L/R)

NOT TO SCALE

SILVU

120 SILVU (EBKIN4.SILVU)

325°

KISEP

15

348°

EBKIN

RWØ5

17

005°

MATES

2167

3100

TORONTO Buttonville Mun CYKZ

BRAMPTON -Caledon CNC3

TORONTO Downsview CYZD

TORONTO Billy Bishop Toronto City CYTZ

1000

1100

237° hdg

057° hdg

047° hdg

245° hdg

235° hdg

LOST COMMS

On recognition of failure 20 minutes or less after take-off and in IFR weather conditions proceed as follows:
1. Select transponder code 7600.
2. Beyond 10 NM from CYYZ proceed directly on course.
3. Do not climb above last assigned altitude for 5 minutes after recognition of failure.
4. Climb to flight planned altitude.

This SID requires minimum climb gradients of:
Rwy 05: 360 per NM to 2700.
Rwy 06L: 400 per NM to 2700.
Rwy 06R: 390 per NM to 2700.
Rwy 24L: 270 per NM to 1700.
Rwy 24R: 260 per NM to 1700.

Gnd speed-KT	75	100	150	200	250	300
260 per NM	325	433	650	867	1083	1300
270 per NM	338	450	675	900	1125	1350
360 per NM	450	600	900	1200	1500	1800
390 per NM	488	650	975	1300	1625	1950
400 per NM	500	667	1000	1333	1667	2000

RWY	INITIAL CLIMB	ALTITUDE
05	Unless otherwise assigned by ATC: Climb heading 057° to 1000. Climbing LEFT turn heading 047° or as assigned. EXPECT RADAR vectors to EBKIN (or as assigned), then proceed via depicted route.	Unless otherwise assigned by ATC: MAINTAIN 3000. Aircraft assigned a turn at takeoff; commence turn at 1100
06L/R	Unless otherwise assigned by ATC: Climb heading 057° to 1000. Continue climb heading 057° or as assigned. EXPECT RADAR vectors to EBKIN (or as assigned), then proceed via depicted route.	
23	Unless otherwise assigned by ATC: Climb heading 237° to 1100. Climbing RIGHT turn heading 245° or as assigned. EXPECT RADAR vectors to MATES (or as assigned), then proceed via depicted route.	
24L/R	Unless otherwise assigned by ATC: Climb heading 237° to 1000. Climbing LEFT turn heading 235° or as assigned. EXPECT RADAR vectors to MATES (or as assigned), then proceed via depicted route.	

CHANGES: Airport name.

TORONTO Departure	Apt Elev	
128.8 127.575	569	Trans alt: 18000 1. RADAR required. 2. Safe Altitude within 100 NM 4900. 3. Non-Jet aircraft only. 4. For use by GNSS equipped aircraft. GNSS aircraft with selectable CDI must be set to 1 NM sensitivity. Aircraft without selectable CDI must use flight director. 5. Refer to 10-4 Noise Abatement Procedures for additional requirements.

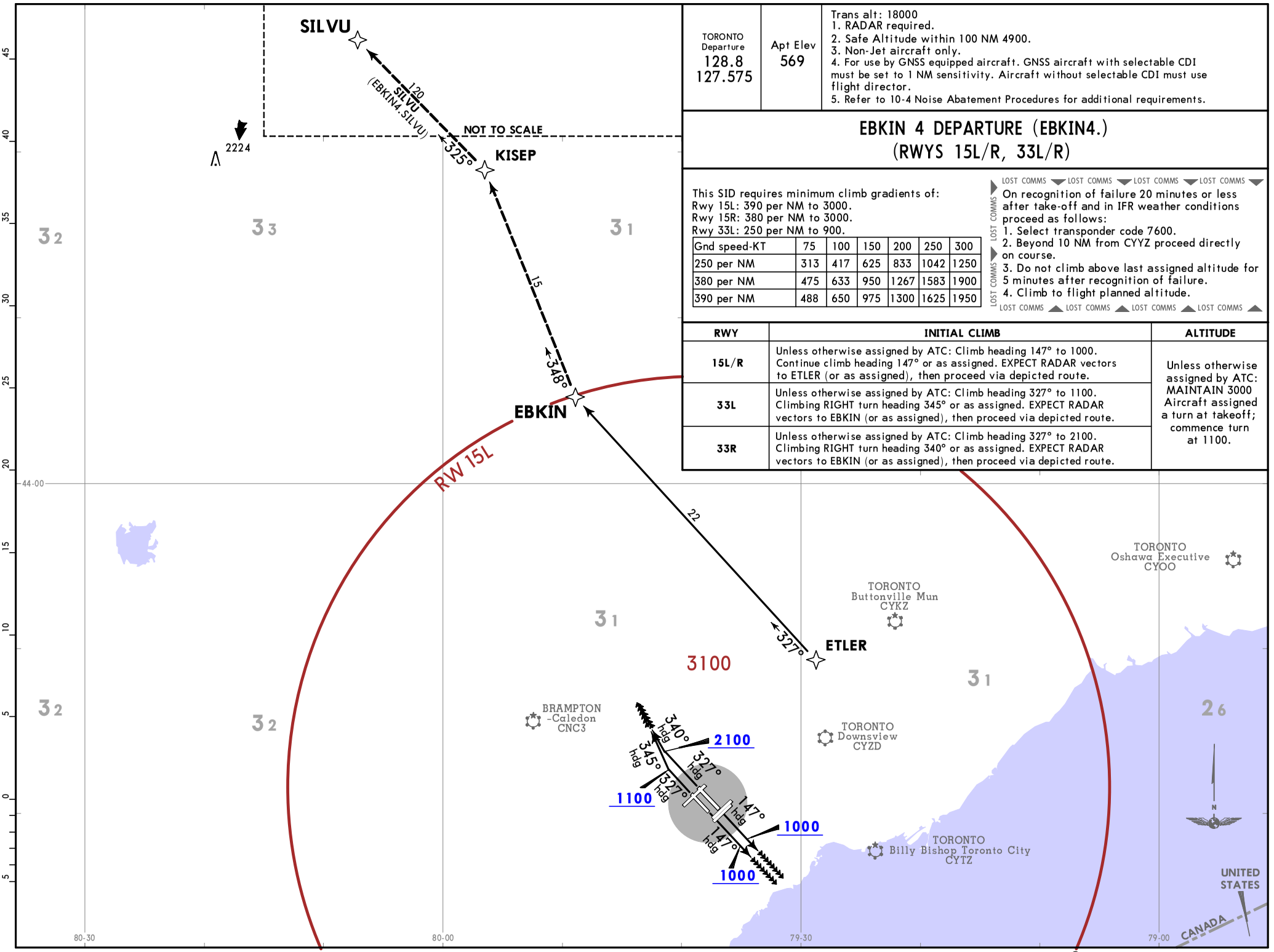
EBKIN 4 DEPARTURE (EBKIN4.)
(RWYS 15L/R, 33L/R)

This SID requires minimum climb gradients of:
Rwy 15L: 390 per NM to 3000.
Rwy 15R: 380 per NM to 3000.
Rwy 33L: 250 per NM to 900.

Gnd speed-KT	75	100	150	200	250	300
250 per NM	313	417	625	833	1042	1250
380 per NM	475	633	950	1267	1583	1900
390 per NM	488	650	975	1300	1625	1950

LOST COMMS
On recognition of failure 20 minutes or less after take-off and in IFR weather conditions proceed as follows:
1. Select transponder code 7600.
2. Beyond 10 NM from CYYZ proceed directly on course.
3. Do not climb above last assigned altitude for 5 minutes after recognition of failure.
4. Climb to flight planned altitude.

RWY	INITIAL CLIMB	ALTITUDE
15L/R	Unless otherwise assigned by ATC: Climb heading 147° to 1000. Continue climb heading 147° or as assigned. EXPECT RADAR vectors to ETLER (or as assigned), then proceed via depicted route.	Unless otherwise assigned by ATC: MAINTAIN 3000 Aircraft assigned a turn at takeoff; commence turn at 1100.
33L	Unless otherwise assigned by ATC: Climb heading 327° to 1100. Climbing RIGHT turn heading 345° or as assigned. EXPECT RADAR vectors to EBKIN (or as assigned), then proceed via depicted route.	
33R	Unless otherwise assigned by ATC: Climb heading 327° to 2100. Climbing RIGHT turn heading 340° or as assigned. EXPECT RADAR vectors to EBKIN (or as assigned), then proceed via depicted route.	

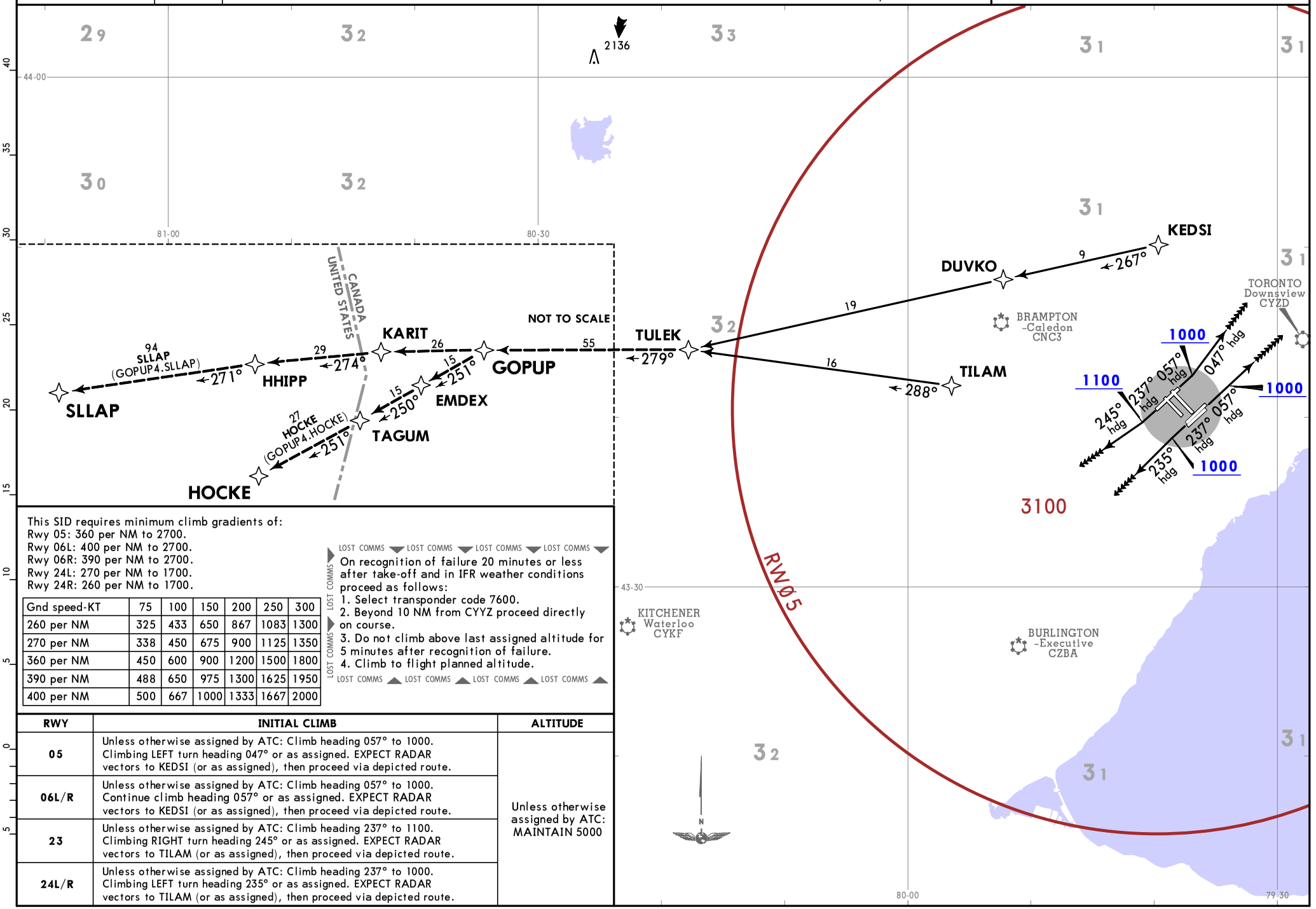


CHANGES: Airport name.

TORONTO Departure	Apt Elev
128.8 127.575	569

Trans alt: 18000
1. RADAR required.
2. CAUTION: Rwys 05, 06L/R, 23, 24L/R departures: Simultaneous parallel departures in use.
3. Safe Altitude within 100 NM 4900.
4. Jet aircraft only.
5. For use by GNSS or D/D/I equippedaircraft. Aircraft with selectable CDI must be set to 1 NM sensitivity. Aircraft without selectable CDI must use flight director.
6. Refer to 10-4 Noise Abatement Procedures for additional requirements.

GOPUP 4 DEPARTURE (GOPUP4.)
(RWYS 05, 06L/R, 23, 24L/R)



This SID requires minimum climb gradients of:
Rwy 05: 360 per NM to 2700.
Rwy 06L: 400 per NM to 2700.
Rwy 06R: 390 per NM to 2700.
Rwy 24L: 270 per NM to 1700.
Rwy 24R: 260 per NM to 1700.

Gnd speed-KT	75	100	150	200	250	300
260 per NM	325	433	650	867	1083	1300
270 per NM	338	450	675	900	1125	1350
360 per NM	450	600	900	1200	1500	1800
390 per NM	488	650	975	1300	1625	1950
400 per NM	500	667	1000	1333	1667	2000

LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼
LOST COMMS
On recognition of failure 20 minutes or less after take-off and in IFR weather conditions proceed as follows:
1. Select transponder code 7600.
2. Beyond 10 NM from CYYZ proceed directly on course.
3. Do not climb above last assigned altitude for 5 minutes after recognition of failure.
4. Climb to flight planned altitude.
LOST COMMS
LOST COMMS ▲ LOST COMMS ▲ LOST COMMS ▲ LOST COMMS ▲

RWY	INITIAL CLIMB	ALTITUDE
05	Unless otherwise assigned by ATC: Climb heading 057° to 1000. Climbing LEFT turn heading 047° or as assigned. EXPECT RADAR vectors to KEDSI (or as assigned), then proceed via depicted route.	Unless otherwise assigned by ATC: MAINTAIN 5000
06L/R	Unless otherwise assigned by ATC: Climb heading 057° to 1000. Continue climb heading 057° or as assigned. EXPECT RADAR vectors to KEDSI (or as assigned), then proceed via depicted route.	
23	Unless otherwise assigned by ATC: Climb heading 237° to 1100. Climbing RIGHT turn heading 245° or as assigned. EXPECT RADAR vectors to TILAM (or as assigned), then proceed via depicted route.	
24L/R	Unless otherwise assigned by ATC: Climb heading 237° to 1000. Climbing LEFT turn heading 235° or as assigned. EXPECT RADAR vectors to TILAM (or as assigned), then proceed via depicted route.	

CHANGES: Airport name.

TORONTO Departure	Apt Elev
128.8 127.575	569

Trans alt: 18000
1. RADAR required.
2. Safe Altitude within 100 NM 4900.
3. Jet aircraft only.
4. For use by GNSS or D/D/I equipped aircraft. Aircraft with selectable CDI must be set to 1 NM sensitivity. Aircraft without selectable CDI must use flight director.
5. Refer to 10-4 Noise Abatement Procedures for additional requirements.

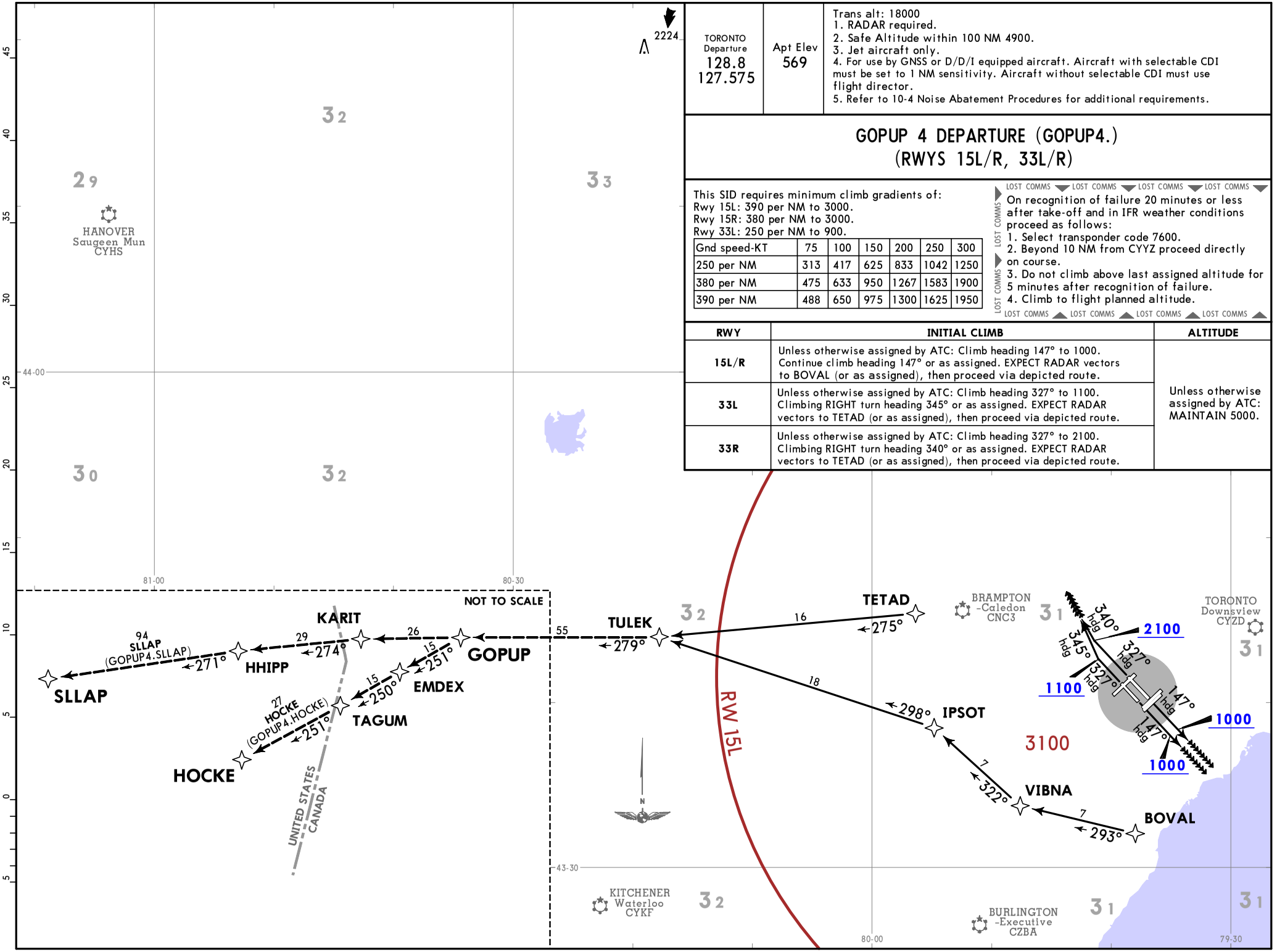
GOPUP 4 DEPARTURE (GOPUP4.)
(RWYS 15L/R, 33L/R)

This SID requires minimum climb gradients of:
Rwy 15L: 390 per NM to 3000.
Rwy 15R: 380 per NM to 3000.
Rwy 33L: 250 per NM to 900.

Gnd speed-KT	75	100	150	200	250	300
250 per NM	313	417	625	833	1042	1250
380 per NM	475	633	950	1267	1583	1900
390 per NM	488	650	975	1300	1625	1950

LOST COMMS
On recognition of failure 20 minutes or less after take-off and in IFR weather conditions proceed as follows:
1. Select transponder code 7600.
2. Beyond 10 NM from CYYZ proceed directly on course.
3. Do not climb above last assigned altitude for 5 minutes after recognition of failure.
4. Climb to flight planned altitude.

RWY	INITIAL CLIMB	ALTITUDE
15L/R	Unless otherwise assigned by ATC: Climb heading 147° to 1000. Continue climb heading 147° or as assigned. EXPECT RADAR vectors to BOVAL (or as assigned), then proceed via depicted route.	Unless otherwise assigned by ATC: MAINTAIN 5000.
33L	Unless otherwise assigned by ATC: Climb heading 327° to 1100. Climbing RIGHT turn heading 345° or as assigned. EXPECT RADAR vectors to TETAD (or as assigned), then proceed via depicted route.	
33R	Unless otherwise assigned by ATC: Climb heading 327° to 2100. Climbing RIGHT turn heading 340° or as assigned. EXPECT RADAR vectors to TETAD (or as assigned), then proceed via depicted route.	



CHANGES: Airport name.

TORONTO Departure	Apt Elev	Trans alt: 18000
128.8 127.575	569	1. RADAR required. 2. CAUTION: Rwys 05, 06L/R, 23, 24L/R departures: Simultaneous parallel departures in use. 3. Safe Altitude within 100 NM 4900. 4. Jet aircraft only. 5. For use by GNSS or D/D/I equipped aircraft. Aircraft with selectable CDI must be set to 1 NM sensitivity. Aircraft without selectable CDI must use flight director. 6. Refer to 10-4 Noise Abatement Procedures for additional requirements.

IKLEN 3 DEPARTURE (IKLEN3.)
(RWYS 05, 06L/R, 23, 24L/R)

LOST COMMS
On recognition of failure 20 minutes or less after take-off and in IFR weather conditions proceed as follows:
1. Select transponder code 7600.
2. Beyond 10 NM from CYYZ proceed directly on course.
3. Do not climb above last assigned altitude for 5 minutes after recognition of failure.
4. Climb to flight planned altitude.

TONNY
(IKLEN3.TONNY)
8
357°
IKLEN
RWØ5
13
024°
NAMGI
10
346°
GOTIM
8
047°
BISTI
3100
1000
1100
237° 057° hdg
047° hdg
245° hdg
235° hdg
BRAMPTON -Caledon CNC3
TORONTO Buttonville Mun CYKZ
TORONTO Downsview CYZD
TORONTO Billy Bishop Toronto City CYTZ
BURLINGTON -Executive CZBA
CANADA
UNITED STATES

This SID requires minimum climb gradients of:
Rwy 05: 360 per NM to 2700.
Rwy 06L: 400 per NM to 2700.
Rwy 06R: 390 per NM to 2700.
Rwy 24L: 270 per NM to 1700.
Rwy 24R: 260 per NM to 1700.

Gnd speed-KT	75	100	150	200	250	300
260 per NM	325	433	650	867	1083	1300
270 per NM	338	450	675	900	1125	1350
360 per NM	450	600	900	1200	1500	1800
390 per NM	488	650	975	1300	1625	1950
400 per NM	500	667	1000	1333	1667	2000

RWY	INITIAL CLIMB	ALTITUDE
05	Unless otherwise assigned by ATC: Climb heading 057° to 1000. Climbing LEFT turn heading 047° or as assigned. EXPECT RADAR vectors to GOTIM (or as assigned), then proceed via depicted route.	Unless otherwise assigned by ATC: MAINTAIN 5000
06L/R	Unless otherwise assigned by ATC: Climb heading 057° to 1000. Continue climb heading 057° or as assigned. EXPECT RADAR vectors to GOTIM (or as assigned), then proceed via depicted route.	
23	Unless otherwise assigned by ATC: Climb heading 237° to 1100. Climbing RIGHT turn heading 245° or as assigned. EXPECT RADAR vectors to BISTI (or as assigned), then proceed via depicted route.	
24L/R	Unless otherwise assigned by ATC: Climb heading 237° to 1000. Climbing LEFT turn heading 235° or as assigned. EXPECT RADAR vectors to BISTI (or as assigned), then proceed via depicted route.	

CHANGES: Airport name.

TORONTO Departure	Apt Elev	
128.8 127.575	569	Trans alt: 18000 1. RADAR required. 2. Safe Altitude within 100 NM 4900. 3. Jet aircraft only. 4. For use by GNSS or D/D/I equipped aircraft. Aircraft with selectable CDI must be set to 1 NM sensitivity. Aircraft without selectable CDI must use flight director. 5. Refer to 10-4 Noise Abatement Procedures for additional requirements.

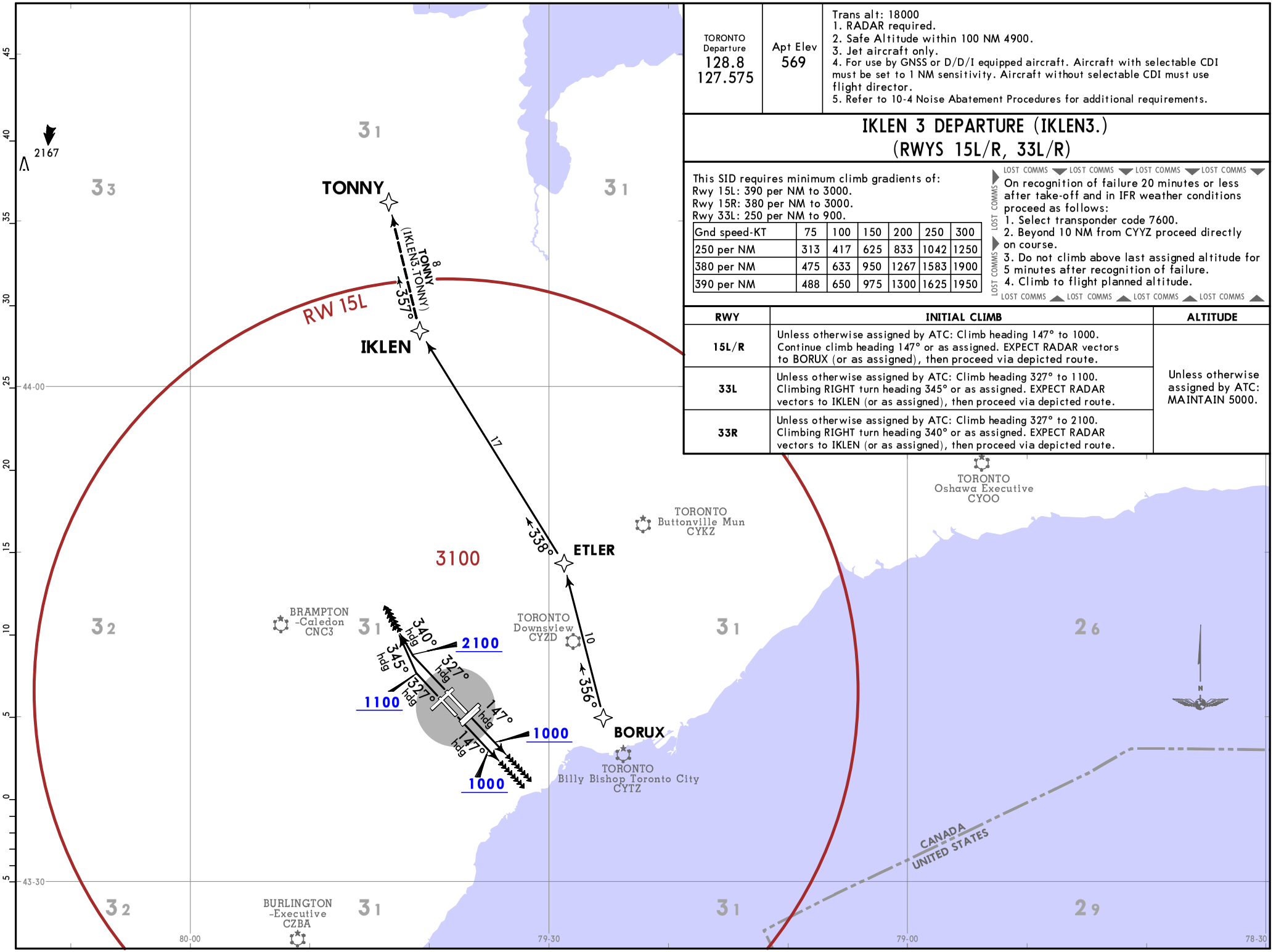
IKLEN 3 DEPARTURE (IKLEN3.)
(RWYS 15L/R, 33L/R)

This SID requires minimum climb gradients of:
Rwy 15L: 390 per NM to 3000.
Rwy 15R: 380 per NM to 3000.
Rwy 33L: 250 per NM to 900.

Gnd speed-KT	75	100	150	200	250	300
250 per NM	313	417	625	833	1042	1250
380 per NM	475	633	950	1267	1583	1900
390 per NM	488	650	975	1300	1625	1950

LOST COMMS
On recognition of failure 20 minutes or less after take-off and in IFR weather conditions proceed as follows:
1. Select transponder code 7600.
2. Beyond 10 NM from CYYZ proceed directly on course.
3. Do not climb above last assigned altitude for 5 minutes after recognition of failure.
4. Climb to flight planned altitude.

RWY	INITIAL CLIMB	ALTITUDE
15L/R	Unless otherwise assigned by ATC: Climb heading 147° to 1000. Continue climb heading 147° or as assigned. EXPECT RADAR vectors to BORUX (or as assigned), then proceed via depicted route.	Unless otherwise assigned by ATC: MAINTAIN 5000.
33L	Unless otherwise assigned by ATC: Climb heading 327° to 1100. Climbing RIGHT turn heading 345° or as assigned. EXPECT RADAR vectors to IKLEN (or as assigned), then proceed via depicted route.	
33R	Unless otherwise assigned by ATC: Climb heading 327° to 2100. Climbing RIGHT turn heading 340° or as assigned. EXPECT RADAR vectors to IKLEN (or as assigned), then proceed via depicted route.	



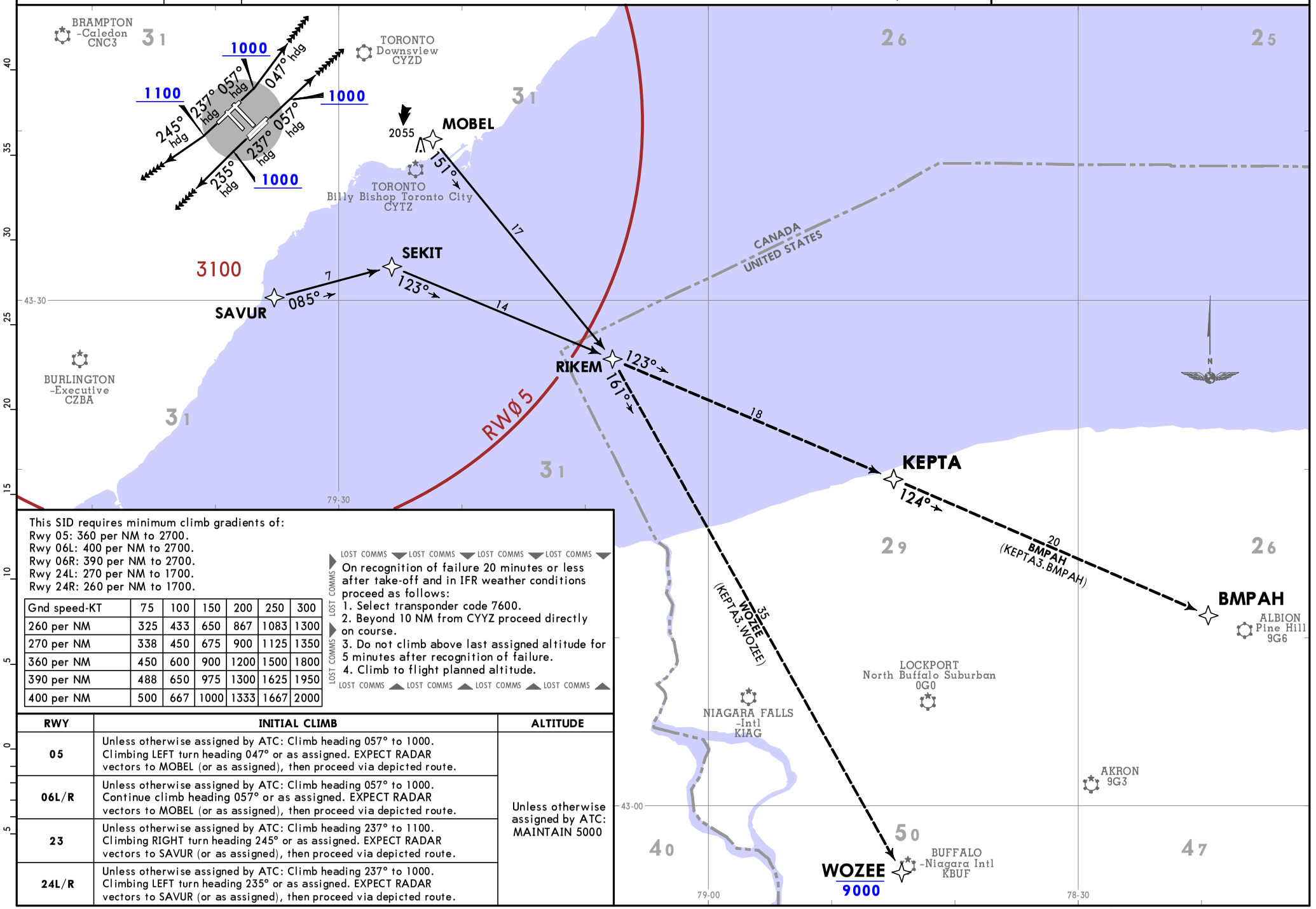
CHANGES: Airport name.

TORONTO Departure
128.8 127.575

Apt Elev
569

Trans alt: 18000
1. RADAR required.
2. CAUTION: Rwys 05, 06L/R, 23, 24L/R departures: Simultaneous parallel departures in use.
3. Safe Altitude within 100 NM 4900.
4. Jet aircraft only.
5. For use by GNSS or D/D/I equipped aircraft. Aircraft with selectable CDI must be set to 1 NM sensitivity. Aircraft without selectable CDI must use flight director.
6. Refer to 10-4 Noise Abatement Procedures for additional requirements.

KEPTA 3 DEPARTURE (KEPTA3.)
(RWYS 05, 06L/R, 23, 24L/R)



This SID requires minimum climb gradients of:
Rwy 05: 360 per NM to 2700.
Rwy 06L: 400 per NM to 2700.
Rwy 06R: 390 per NM to 2700.
Rwy 24L: 270 per NM to 1700.
Rwy 24R: 260 per NM to 1700.

Gnd speed-KT	75	100	150	200	250	300
260 per NM	325	433	650	867	1083	1300
270 per NM	338	450	675	900	1125	1350
360 per NM	450	600	900	1200	1500	1800
390 per NM	488	650	975	1300	1625	1950
400 per NM	500	667	1000	1333	1667	2000

LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼

LOST COMMS

On recognition of failure 20 minutes or less after take-off and in IFR weather conditions proceed as follows:
1. Select transponder code 7600.
2. Beyond 10 NM from CYYZ proceed directly on course.
3. Do not climb above last assigned altitude for 5 minutes after recognition of failure.
4. Climb to flight planned altitude.

LOST COMMS

LOST COMMS ▲ LOST COMMS ▲ LOST COMMS ▲ LOST COMMS ▲

RWY	INITIAL CLIMB	ALTITUDE
05	Unless otherwise assigned by ATC: Climb heading 057° to 1000. Climbing LEFT turn heading 047° or as assigned. EXPECT RADAR vectors to MOBEL (or as assigned), then proceed via depicted route.	Unless otherwise assigned by ATC: MAINTAIN 5000
06L/R	Unless otherwise assigned by ATC: Climb heading 057° to 1000. Continue climb heading 057° or as assigned. EXPECT RADAR vectors to MOBEL (or as assigned), then proceed via depicted route.	
23	Unless otherwise assigned by ATC: Climb heading 237° to 1100. Climbing RIGHT turn heading 245° or as assigned. EXPECT RADAR vectors to SAVUR (or as assigned), then proceed via depicted route.	
24L/R	Unless otherwise assigned by ATC: Climb heading 237° to 1000. Climbing LEFT turn heading 235° or as assigned. EXPECT RADAR vectors to SAVUR (or as assigned), then proceed via depicted route.	

CHANGES: Airport name.

TORONTO Departure	Apt Elev
128.8 127.575	569

Trans alt: 18000
1. RADAR required.
2. Safe Altitude within 100 NM 4900.
3. Jet aircraft only.
4. For use by GNSS or D/D/I equipped aircraft. Aircraft with selectable CDI must be set to 1 NM sensitivity. Aircraft without selectable CDI must use flight director.
5. Refer to 10-4 Noise Abatement Procedures for additional requirements.

KEPTA 3 DEPARTURE (KEPTA3.)
(RWYS 15L/R, 33L/R)

This SID requires minimum climb gradients of:
Rwy 15L: 390 per NM to 3000.
Rwy 15R: 380 per NM to 3000.
Rwy 33L: 250 per NM to 900.

Gnd speed-KT	75	100	150	200	250	300
250 per NM	313	417	625	833	1042	1250
380 per NM	475	633	950	1267	1583	1900
390 per NM	488	650	975	1300	1625	1950

LOST COMMS
On recognition of failure 20 minutes or less after take-off and in IFR weather conditions proceed as follows:
1. Select transponder code 7600.
2. Beyond 10 NM from CYYZ proceed directly on course.
3. Do not climb above last assigned altitude for 5 minutes after recognition of failure.
4. Climb to flight planned altitude.

RWY	INITIAL CLIMB	ALTITUDE
15L/R	Unless otherwise assigned by ATC: Climb heading 147° to 1000. Continue climb heading 147° or as assigned. EXPECT RADAR vectors to RIKEM (or as assigned), then proceed via depicted route.	Unless otherwise assigned by ATC: MAINTAIN 5000
33L	Unless otherwise assigned by ATC: Climb heading 327° to 1100. Climbing RIGHT turn heading 345° or as assigned. EXPECT RADAR vectors to VIVET (or as assigned), then proceed via depicted route.	
33R	Unless otherwise assigned by ATC: Climb heading 327° to 2100. Climbing RIGHT turn heading 340° or as assigned. EXPECT RADAR vectors to VIVET (or as assigned), then proceed via depicted route.	

VIVET
140°
16
BOTIB
162°
14
RIKEM
123°
161°
18
KEPTA
124°
20
BMPAH
(KEPTA3.BMPAH)
BMPAH
35
WOZEE
(KEPTA3.WOZEE)
WOZEE
9000
RW 15L
340° hdg
2100
345° hdg
327° hdg
1100
327° hdg
147° hdg
1000
147° hdg
1000
3100
2055
TORONTO Buttonville Mun CYKZ
TORONTO Downsview CYZD
TORONTO Billy Bishop Toronto City CYTZ
BURLINGTON -Executive CZBA
CANADA
UNITED STATES
ST CATHARINES Niagara District CYSN
NIAGARA FALLS -Intl KIAG
WELLAND Niagara Central Dorothy Rungel CNQ3
LOCKPORT North Buffalo Suburban 0G0
ALBION Pine Hill 9G6
AKRON 9G3
BATAVIA Genesee Co KGVQ
BUFFALO -Niagara Intl KBUF
43-30
43-00
79-30
79-00
78-30

TORONTO Departure 128.8 127.575	Apt Elev 569	Trans alt: 18000 1. RADAR required. 2. CAUTION: Rwys 05, 06L/R, 23, 24L/R departures: Simultaneous parallel departures in use. 3. Safe Altitude within 100 NM 4900.	4. Jet aircraft only. 5. For use by GNSS or D/D/I equipped aircraft. Aircraft with selectable CDI must be set to 1 NM sensitivity. Aircraft without selectable CDI must use flight director. 6. Refer to 10-4 Noise Abatement Procedures for additional requirements.

KISEP 4 DEPARTURE (KISEP4.) (RWYS 05, 06L/R, 23, 24L/R)

SILVU
NOT TO SCALE
(KISEP4.SILVU)
120
SILVU
325°
KISEP
15
348°
EBKIN
RWØ5
15
328°
GOTIM
15
359°
NAMGI
8
047°
BISTI
2224

LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST COMMS
On recognition of failure 20 minutes or less after take-off and in IFR weather conditions proceed as follows:
1. Select transponder code 7600.
2. Beyond 10 NM from CYYZ proceed directly on course.
3. Do not climb above last assigned altitude for 5 minutes after recognition of failure.
4. Climb to flight planned altitude.
LOST COMMS ▲ LOST COMMS ▲ LOST COMMS ▲ LOST COMMS ▲ COMMS

This SID requires minimum climb gradients of:
Rwy 05: 360 per NM to 2700.
Rwy 06L: 400 per NM to 2700.
Rwy 06R: 390 per NM to 2700.
Rwy 24L: 270 per NM to 1700.
Rwy 24R: 260 per NM to 1700.

Gnd speed-KT	75	100	150	200	250	300
260 per NM	325	433	650	867	1083	1300
270 per NM	338	450	675	900	1125	1350
360 per NM	450	600	900	1200	1500	1800
390 per NM	488	650	975	1300	1625	1950
400 per NM	500	667	1000	1333	1667	2000

RWY	INITIAL CLIMB	ALTITUDE
05	Unless otherwise assigned by ATC: Climb heading 057° to 1000. Climbing LEFT turn heading 047° or as assigned. EXPECT RADAR vectors to GOTIM (or as assigned), then proceed via depicted route.	Unless otherwise assigned by ATC: MAINTAIN 5000
06L/R	Unless otherwise assigned by ATC: Climb heading 057° to 1000. Continue climb heading 057° or as assigned. EXPECT RADAR vectors to GOTIM (or as assigned), then proceed via depicted route.	
23	Unless otherwise assigned by ATC: Climb heading 237° to 1100. Climbing RIGHT turn heading 245° or as assigned. EXPECT RADAR vectors to BISTI (or as assigned), then proceed via depicted route.	
24L/R	Unless otherwise assigned by ATC: Climb heading 237° to 1000. Climbing LEFT turn heading 235° or as assigned. EXPECT RADAR vectors to BISTI (or as assigned), then proceed via depicted route.	

3100
1000
1100
1000
1000
047° hdg
057° hdg
237° hdg
245° hdg
237° hdg
057° hdg
235° hdg

TORONTO Buttonville Mun CYKZ
BRAMPTON -Caledon CNC3
TORONTO Downsview CYZD
TORONTO Billy Bishop Toronto City CYTZ

CHANGES: Airport name.

TORONTO Departure	Apt Elev	
128.8 127.575	569	Trans alt: 18000 1. RADAR required. 2. Safe Altitude within 100 NM 4900. 3. Jet aircraft only. 4. For use by GNSS or D/D/I equipped aircraft. Aircraft with selectable CDI must be set to 1 NM sensitivity. Aircraft without selectable CDI must use flight director. 5. Refer to 10-4 Noise Abatement Procedures for additional requirements.

KISEP 4 DEPARTURE (KISEP4.)
(RWYS 15L/R, 33L/R)

This SID requires minimum climb gradients of:
Rwy 15L: 390 per NM to 3000.
Rwy 15R: 380 per NM to 3000.
Rwy 33L: 250 per NM to 900.

Gnd speed-KT	75	100	150	200	250	300
250 per NM	313	417	625	833	1042	1250
380 per NM	475	633	950	1267	1583	1900
390 per NM	488	650	975	1300	1625	1950

LOST COMMS
On recognition of failure 20 minutes or less after take-off and in IFR weather conditions proceed as follows:
1. Select transponder code 7600.
2. Beyond 10 NM from CYYZ proceed directly on course.
3. Do not climb above last assigned altitude for 5 minutes after recognition of failure.
4. Climb to flight planned altitude.

RWY	INITIAL CLIMB	ALTITUDE
15L/R	Unless otherwise assigned by ATC: Climb heading 147° to 1000. Continue climb heading 147° or as assigned. EXPECT RADAR vectors to BORUX (or as assigned), then proceed via depicted route.	Unless otherwise assigned by ATC: MAINTAIN 5000
33L	Unless otherwise assigned by ATC: Climb heading 327° to 1100. Climbing RIGHT turn heading 345° or as assigned. EXPECT RADAR vectors to EBKIN (or as assigned), then proceed via depicted route.	
33R	Unless otherwise assigned by ATC: Climb heading 327° to 2100. Climbing RIGHT turn heading 340° or as assigned. EXPECT RADAR vectors to EBKIN (or as assigned), then proceed via depicted route.	

SILVU
NOT TO SCALE
EDENVALE CNV8
BARRIE-ORILLIA Lake Simcoe CYLS
STAYNER /Clearview CLV2
2186
120
SILVU
(KISEP4.SILVU)
325°
KISEP
15
348°
EBKIN
RW 15L
22
327°
ETLER
10
356°
BORUX
3100
2100
1100
1000
1000
340° hdg
345° hdg
327° hdg
327° hdg
147° hdg
147° hdg
TORONTO Oshawa Executive CYOO
TORONTO Buttonville Mun CYKZ
BRAMPTON -Caledon CNC3
TORONTO Downsview CYZD
TORONTO Billy Bishop Toronto City CYTZ
CANADA
UNITED STATES
33
31
31
27
26
32
31
44-00
80-00
79-30
79-00

CHANGES: Airport name.

LAKES 4 DEPARTURE (LAKES4.)
(RWYS 05, 06L/R, 23, 24L/R)

TORONTO Departure
128.8 127.575

Apt Elev
569

Trans alt: 18000
1. RADAR required.
2. CAUTION: Rwys 05, 06L/R, 23, 24L/R departures: Simultaneous parallel departures in use.
3. Safe Altitude within 100 NM 4900.
4. Non-Jet aircraft only.
5. For use by GNSS equipped aircraft. GNSS aircraft with selectable CDI must be set to 1 NM sensitivity. Aircraft without selectable CDI must use flight director.
6. Refer to 10-4 Noise Abatement Procedures for additional requirements.

STAYNER /Clearview CLV2

2224

TANGI

24 TANGI (LAKES4.TANGI)

029°

SEDOG

RWØ5

15

045°

MATES

3100

TORONTO Buttonville Mun CYKZ

BRAMPTON -Caledon CNC3

TORONTO Downsview CYZD

TORONTO Billy Bishop Toronto City CYTZ

LOST COMMS
On recognition of failure 20 minutes or less after take-off and in IFR weather conditions proceed as follows:
1. Select transponder code 7600.
2. Beyond 10 NM from CYYZ proceed directly on course.
3. Do not climb above last assigned altitude for 5 minutes after recognition of failure.
4. Climb to flight planned altitude.

This SID requires minimum climb gradients of:
Rwy 05: 360 per NM to 2700.
Rwy 06L: 400 per NM to 2700.
Rwy 06R: 390 per NM to 2700.
Rwy 24L: 270 per NM to 1700.
Rwy 24R: 260 per NM to 1700.

Gnd speed-KT	75	100	150	200	250	300
260 per NM	325	433	650	867	1083	1300
270 per NM	338	450	675	900	1125	1350
360 per NM	450	600	900	1200	1500	1800
390 per NM	488	650	975	1300	1625	1950
400 per NM	500	667	1000	1333	1667	2000

RWY	INITIAL CLIMB	ALTITUDE
05	Unless otherwise assigned by ATC: Climb heading 057° to 1000. Climbing LEFT turn heading 047° or as assigned. EXPECT RADAR vectors to SEDOG (or as assigned), then proceed via depicted route.	Unless otherwise assigned by ATC: MAINTAIN 3000. Aircraft assigned a turn at takeoff; commence turn at 1100
06L/R	Unless otherwise assigned by ATC: Climb heading 057° to 1000. Continue climb heading 057° or as assigned. EXPECT RADAR vectors to SEDOG (or as assigned), then proceed via depicted route.	
23	Unless otherwise assigned by ATC: Climb heading 237° to 1100. Climbing RIGHT turn heading 245° or as assigned. EXPECT RADAR vectors to MATES (or as assigned), then proceed via depicted route.	
24L/R	Unless otherwise assigned by ATC: Climb heading 237° to 1000. Climbing LEFT turn heading 235° or as assigned. EXPECT RADAR vectors to MATES (or as assigned), then proceed via depicted route.	

1000 047° hdg
1100 237° 057° hdg
245° hdg
1000
237° 057° hdg
235° hdg
1000

CHANGES: Airport name.

TORONTO Departure	Apt Elev	
128.8 127.575	569	Trans alt: 18000 1. RADAR required. 2. Safe Altitude within 100 NM 4900. 3. Non-Jet aircraft only. 4. For use by GNSS equipped aircraft. GNSS aircraft with selectable CDI must be set to 1 NM sensitivity. Aircraft without selectable CDI must use flight director. 5. Refer to 10-4 Noise Abatement Procedures for additional requirements.

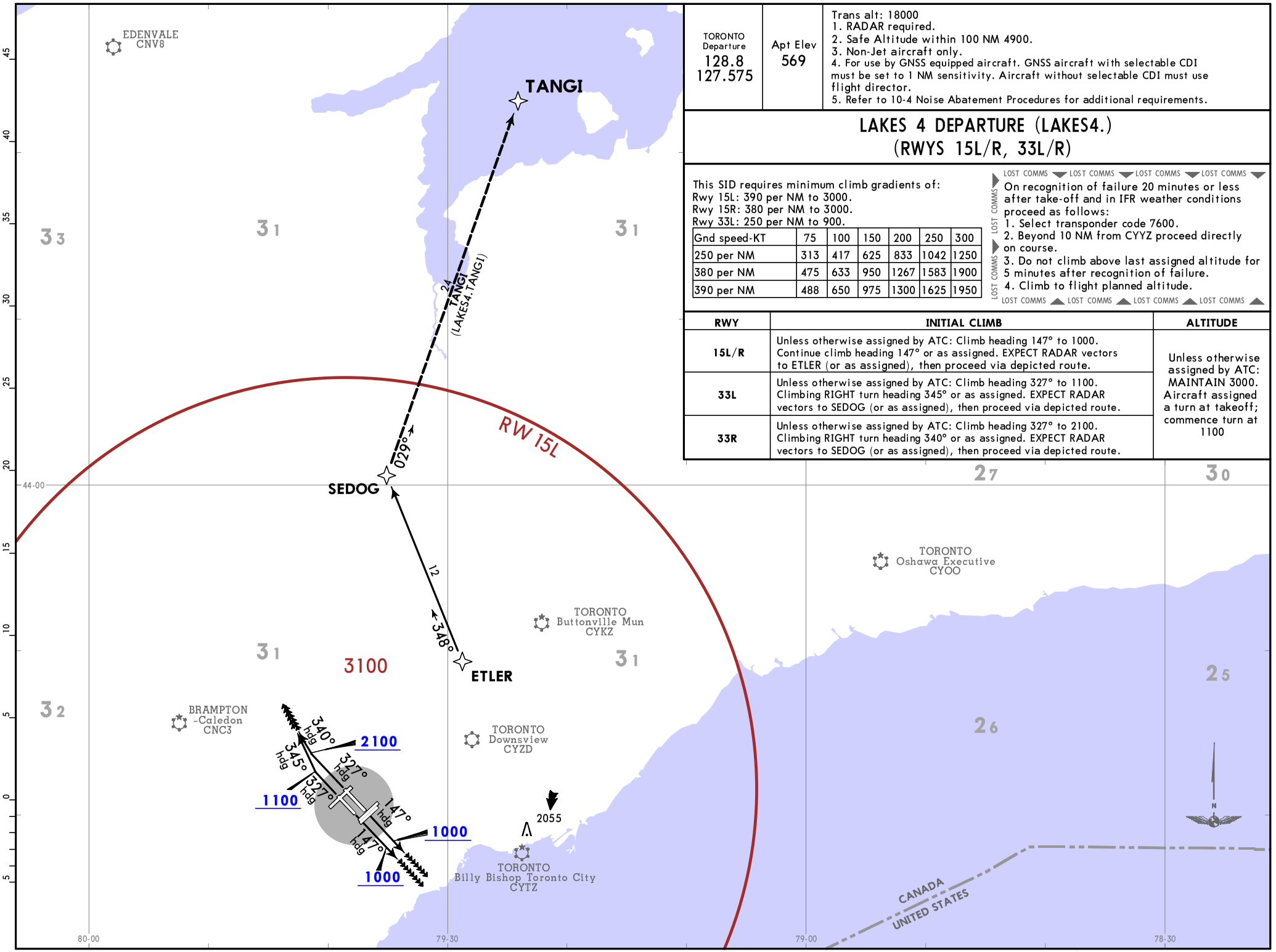
LAKES 4 DEPARTURE (LAKES4.)
(RWYS 15L/R, 33L/R)

This SID requires minimum climb gradients of:
Rwy 15L: 390 per NM to 3000.
Rwy 15R: 380 per NM to 3000.
Rwy 33L: 250 per NM to 900.

Gnd speed-KT	75	100	150	200	250	300
250 per NM	313	417	625	833	1042	1250
380 per NM	475	633	950	1267	1583	1900
390 per NM	488	650	975	1300	1625	1950

LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼
LOST COMMS ▶ On recognition of failure 20 minutes or less after take-off and in IFR weather conditions proceed as follows:
1. Select transponder code 7600.
LOST COMMS ▶ 2. Beyond 10 NM from CYYZ proceed directly on course.
3. Do not climb above last assigned altitude for 5 minutes after recognition of failure.
4. Climb to flight planned altitude.
LOST COMMS ▲ LOST COMMS ▲ LOST COMMS ▲ LOST COMMS ▲

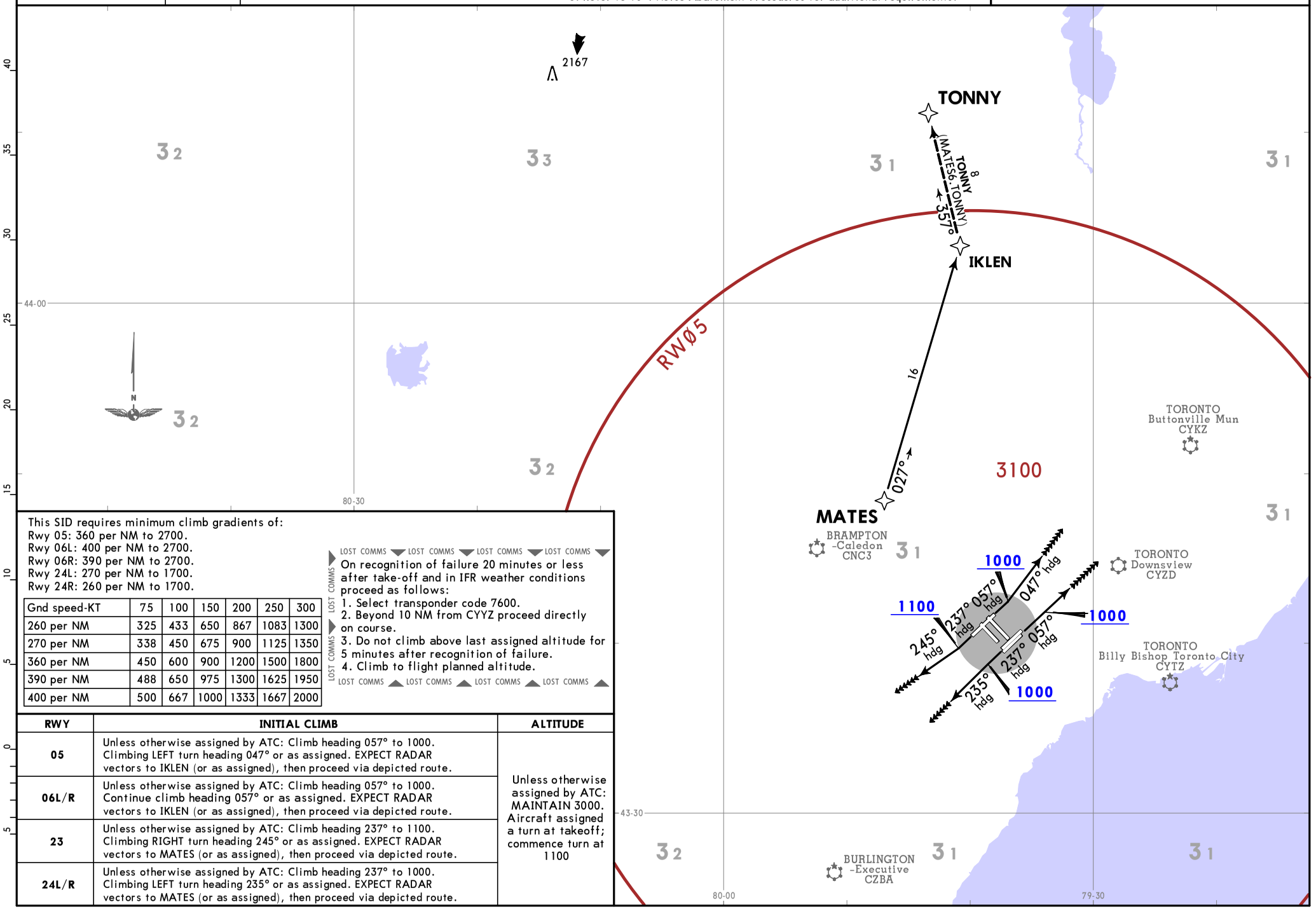
RWY	INITIAL CLIMB	ALTITUDE
15L/R	Unless otherwise assigned by ATC: Climb heading 147° to 1000. Continue climb heading 147° or as assigned. EXPECT RADAR vectors to ETLER (or as assigned), then proceed via depicted route.	Unless otherwise assigned by ATC: MAINTAIN 3000. Aircraft assigned a turn at takeoff; commence turn at 1100
33L	Unless otherwise assigned by ATC: Climb heading 327° to 1100. Climbing RIGHT turn heading 345° or as assigned. EXPECT RADAR vectors to SEDOG (or as assigned), then proceed via depicted route.	
33R	Unless otherwise assigned by ATC: Climb heading 327° to 2100. Climbing RIGHT turn heading 340° or as assigned. EXPECT RADAR vectors to SEDOG (or as assigned), then proceed via depicted route.	



CHANGES: Airport name.

TORONTO Departure	Apt Elev	Trans alt: 18000
128.8 127.575	569	1. RADAR required. 2. CAUTION: Rwys 05, 06L/R, 23, 24L/R departures: Simultaneous parallel departures in use. 3. Safe Altitude within 100 NM 4900. 4. Non-Jet aircraft only. 5. For use by GNSS equipped aircraft. GNSS aircraft with selectable CDI must be set to 1 NM sensitivity. Aircraft without selectable CDI must use flight director. 6. Refer to 10-4 Noise Abatement Procedures for additional requirements.

MATES 6 DEPARTURE (MATES6.)
(RWYS 05, 06L/R, 23, 24L/R)



This SID requires minimum climb gradients of:
Rwy 05: 360 per NM to 2700.
Rwy 06L: 400 per NM to 2700.
Rwy 06R: 390 per NM to 2700.
Rwy 24L: 270 per NM to 1700.
Rwy 24R: 260 per NM to 1700.

Gnd speed-KT	75	100	150	200	250	300
260 per NM	325	433	650	867	1083	1300
270 per NM	338	450	675	900	1125	1350
360 per NM	450	600	900	1200	1500	1800
390 per NM	488	650	975	1300	1625	1950
400 per NM	500	667	1000	1333	1667	2000

LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼

LOST COMMS On recognition of failure 20 minutes or less after take-off and in IFR weather conditions proceed as follows:
1. Select transponder code 7600.
2. Beyond 10 NM from CYYZ proceed directly on course.
3. Do not climb above last assigned altitude for 5 minutes after recognition of failure.
4. Climb to flight planned altitude.

LOST COMMS ▲ LOST COMMS ▲ LOST COMMS ▲ LOST COMMS ▲

RWY	INITIAL CLIMB	ALTITUDE
05	Unless otherwise assigned by ATC: Climb heading 057° to 1000. Climbing LEFT turn heading 047° or as assigned. EXPECT RADAR vectors to IKLEN (or as assigned), then proceed via depicted route.	Unless otherwise assigned by ATC: MAINTAIN 3000. Aircraft assigned a turn at takeoff; commence turn at 1100
06L/R	Unless otherwise assigned by ATC: Climb heading 057° to 1000. Continue climb heading 057° or as assigned. EXPECT RADAR vectors to IKLEN (or as assigned), then proceed via depicted route.	
23	Unless otherwise assigned by ATC: Climb heading 237° to 1100. Climbing RIGHT turn heading 245° or as assigned. EXPECT RADAR vectors to MATES (or as assigned), then proceed via depicted route.	
24L/R	Unless otherwise assigned by ATC: Climb heading 237° to 1000. Climbing LEFT turn heading 235° or as assigned. EXPECT RADAR vectors to MATES (or as assigned), then proceed via depicted route.	

CHANGES: Airport name.

TORONTO Departure	Apt Elev	
128.8 127.575	569	Trans alt: 18000 1. RADAR required. 2. Safe Altitude within 100 NM 4900. 3. Non-Jet aircraft only. 4. For use by GNSS equipped aircraft. GNSS aircraft with selectable CDI must be set to 1 NM sensitivity. Aircraft without selectable CDI must use flight director. 5. Refer to 10-4 Noise Abatement Procedures for additional requirements.

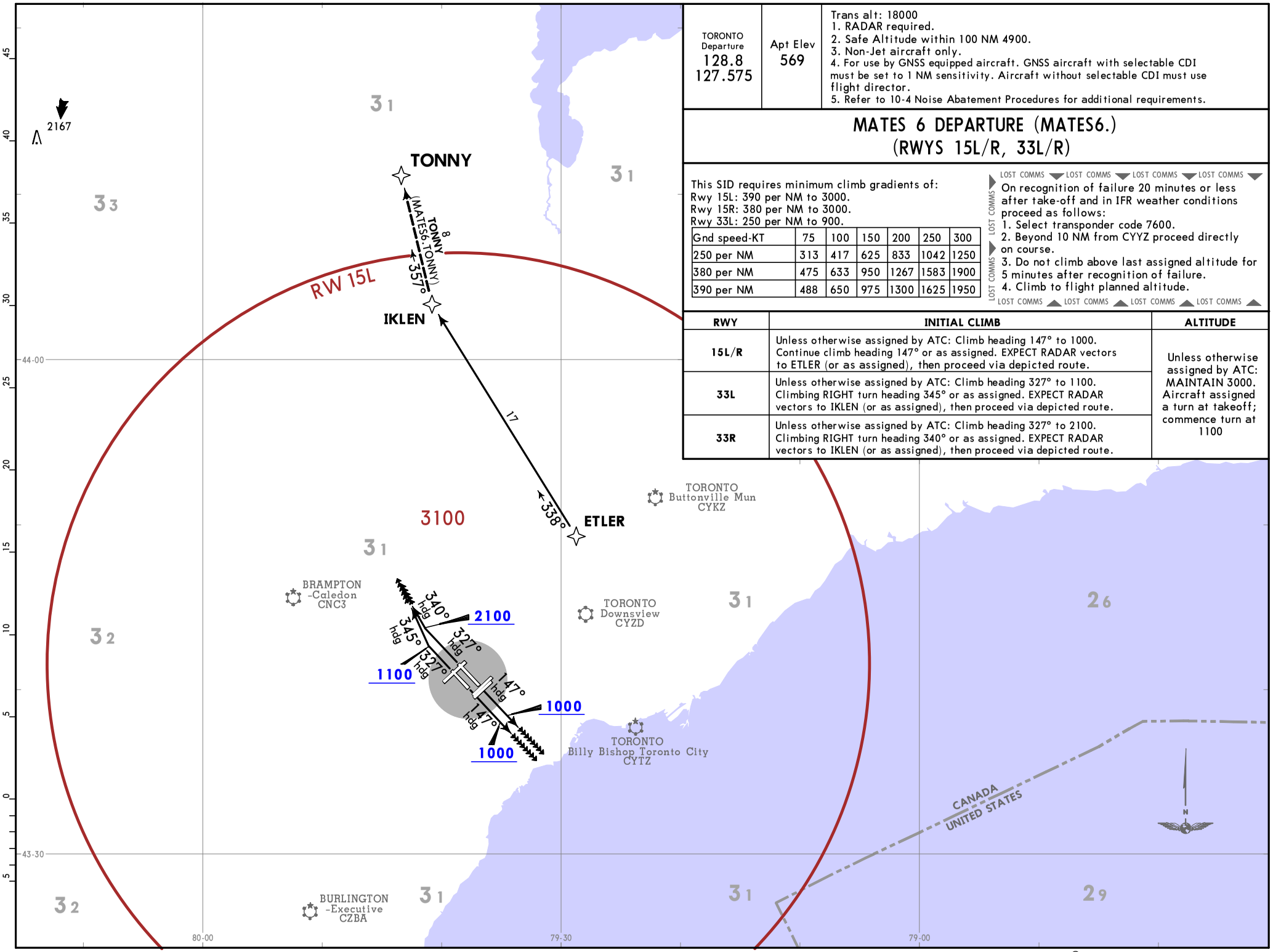
MATES 6 DEPARTURE (MATES6.)
(RWYS 15L/R, 33L/R)

This SID requires minimum climb gradients of:
Rwy 15L: 390 per NM to 3000.
Rwy 15R: 380 per NM to 3000.
Rwy 33L: 250 per NM to 900.

Gnd speed-KT	75	100	150	200	250	300
250 per NM	313	417	625	833	1042	1250
380 per NM	475	633	950	1267	1583	1900
390 per NM	488	650	975	1300	1625	1950

LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼
LOST COMMS
On recognition of failure 20 minutes or less after take-off and in IFR weather conditions proceed as follows:
1. Select transponder code 7600.
2. Beyond 10 NM from CYYZ proceed directly on course.
3. Do not climb above last assigned altitude for 5 minutes after recognition of failure.
4. Climb to flight planned altitude.
LOST COMMS
LOST COMMS ▲ LOST COMMS ▲ LOST COMMS ▲ LOST COMMS ▲

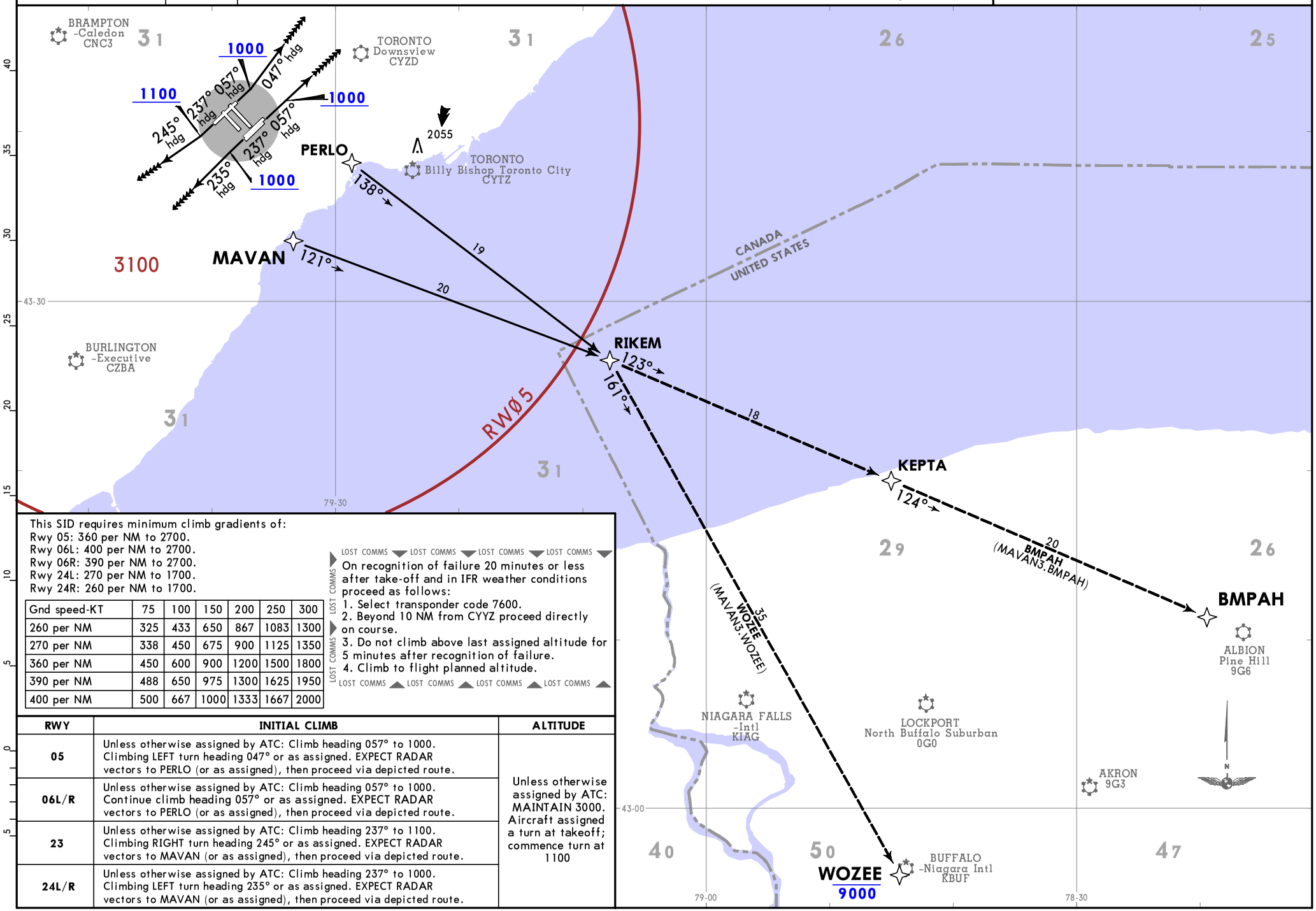
RWY	INITIAL CLIMB	ALTITUDE
15L/R	Unless otherwise assigned by ATC: Climb heading 147° to 1000. Continue climb heading 147° or as assigned. EXPECT RADAR vectors to ETLER (or as assigned), then proceed via depicted route.	Unless otherwise assigned by ATC: MAINTAIN 3000. Aircraft assigned a turn at takeoff; commence turn at 1100
33L	Unless otherwise assigned by ATC: Climb heading 327° to 1100. Climbing RIGHT turn heading 345° or as assigned. EXPECT RADAR vectors to IKLEN (or as assigned), then proceed via depicted route.	
33R	Unless otherwise assigned by ATC: Climb heading 327° to 2100. Climbing RIGHT turn heading 340° or as assigned. EXPECT RADAR vectors to IKLEN (or as assigned), then proceed via depicted route.	



CHANGES: Airport name.

TORONTO Departure	Apt Elev	Trans alt: 18000
128.8 127.575	569	1. RADAR required. 2. CAUTION: Rwys 05, 06L/R, 23, 24L/R departures: Simultaneous parallel departures in use. 3. Safe Altitude within 100 NM 4900. 4. Non-Jet aircraft only. 5. For use by GNSS equipped aircraft. GNSS aircraft with selectable CDI must be set to 1 NM sensitivity. Aircraft without selectable CDI must use flight director. 6. Refer to 10-4 Noise Abatement Procedures for additional requirements.

MAVAN 3 DEPARTURE (MAVAN3.)
(RWYS 05, 06L/R, 23, 24L/R)



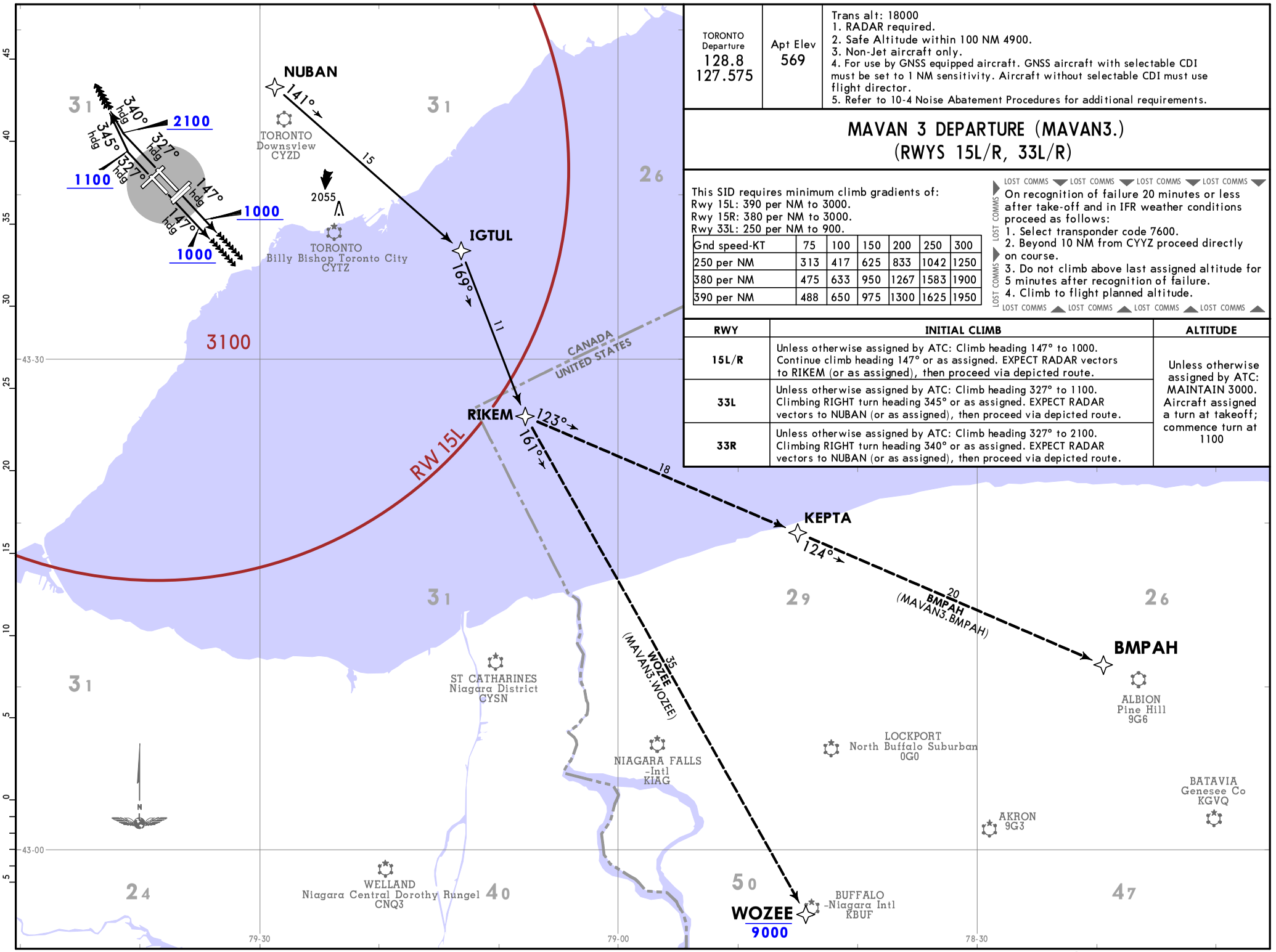
This SID requires minimum climb gradients of:
Rwy 05: 360 per NM to 2700.
Rwy 06L: 400 per NM to 2700.
Rwy 06R: 390 per NM to 2700.
Rwy 24L: 270 per NM to 1700.
Rwy 24R: 260 per NM to 1700.

Gnd speed-KT	75	100	150	200	250	300
260 per NM	325	433	650	867	1083	1300
270 per NM	338	450	675	900	1125	1350
360 per NM	450	600	900	1200	1500	1800
390 per NM	488	650	975	1300	1625	1950
400 per NM	500	667	1000	1333	1667	2000

LOST COMMS
On recognition of failure 20 minutes or less after take-off and in IFR weather conditions proceed as follows:
1. Select transponder code 7600.
2. Beyond 10 NM from CYYZ proceed directly on course.
3. Do not climb above last assigned altitude for 5 minutes after recognition of failure.
4. Climb to flight planned altitude.

RWY	INITIAL CLIMB	ALTITUDE
05	Unless otherwise assigned by ATC: Climb heading 057° to 1000. Climbing LEFT turn heading 047° or as assigned. EXPECT RADAR vectors to PERLO (or as assigned), then proceed via depicted route.	Unless otherwise assigned by ATC: MAINTAIN 3000. Aircraft assigned a turn at takeoff; commence turn at 1100
06L/R	Unless otherwise assigned by ATC: Climb heading 057° to 1000. Continue climb heading 057° or as assigned. EXPECT RADAR vectors to PERLO (or as assigned), then proceed via depicted route.	
23	Unless otherwise assigned by ATC: Climb heading 237° to 1100. Climbing RIGHT turn heading 245° or as assigned. EXPECT RADAR vectors to MAVAN (or as assigned), then proceed via depicted route.	
24L/R	Unless otherwise assigned by ATC: Climb heading 237° to 1000. Climbing LEFT turn heading 235° or as assigned. EXPECT RADAR vectors to MAVAN (or as assigned), then proceed via depicted route.	

CHANGES: Airport name.



TORONTO Departure	Apt Elev
128.8 127.575	569

Trans alt: 18000
1. RADAR required.
2. Safe Altitude within 100 NM 4900.
3. Non-Jet aircraft only.
4. For use by GNSS equipped aircraft. GNSS aircraft with selectable CDI must be set to 1 NM sensitivity. Aircraft without selectable CDI must use flight director.
5. Refer to 10-4 Noise Abatement Procedures for additional requirements.

MAVAN 3 DEPARTURE (MAVAN3.)
(RWYS 15L/R, 33L/R)

This SID requires minimum climb gradients of:
Rwy 15L: 390 per NM to 3000.
Rwy 15R: 380 per NM to 3000.
Rwy 33L: 250 per NM to 900.

Gnd speed-KT	75	100	150	200	250	300
250 per NM	313	417	625	833	1042	1250
380 per NM	475	633	950	1267	1583	1900
390 per NM	488	650	975	1300	1625	1950

LOST COMMS
On recognition of failure 20 minutes or less after take-off and in IFR weather conditions proceed as follows:
1. Select transponder code 7600.
2. Beyond 10 NM from CYYZ proceed directly on course.
3. Do not climb above last assigned altitude for 5 minutes after recognition of failure.
4. Climb to flight planned altitude.

RWY	INITIAL CLIMB	ALTITUDE
15L/R	Unless otherwise assigned by ATC: Climb heading 147° to 1000. Continue climb heading 147° or as assigned. EXPECT RADAR vectors to RIKEM (or as assigned), then proceed via depicted route.	Unless otherwise assigned by ATC: MAINTAIN 3000. Aircraft assigned a turn at takeoff; commence turn at 1100
33L	Unless otherwise assigned by ATC: Climb heading 327° to 1100. Climbing RIGHT turn heading 345° or as assigned. EXPECT RADAR vectors to NUBAN (or as assigned), then proceed via depicted route.	
33R	Unless otherwise assigned by ATC: Climb heading 327° to 2100. Climbing RIGHT turn heading 340° or as assigned. EXPECT RADAR vectors to NUBAN (or as assigned), then proceed via depicted route.	

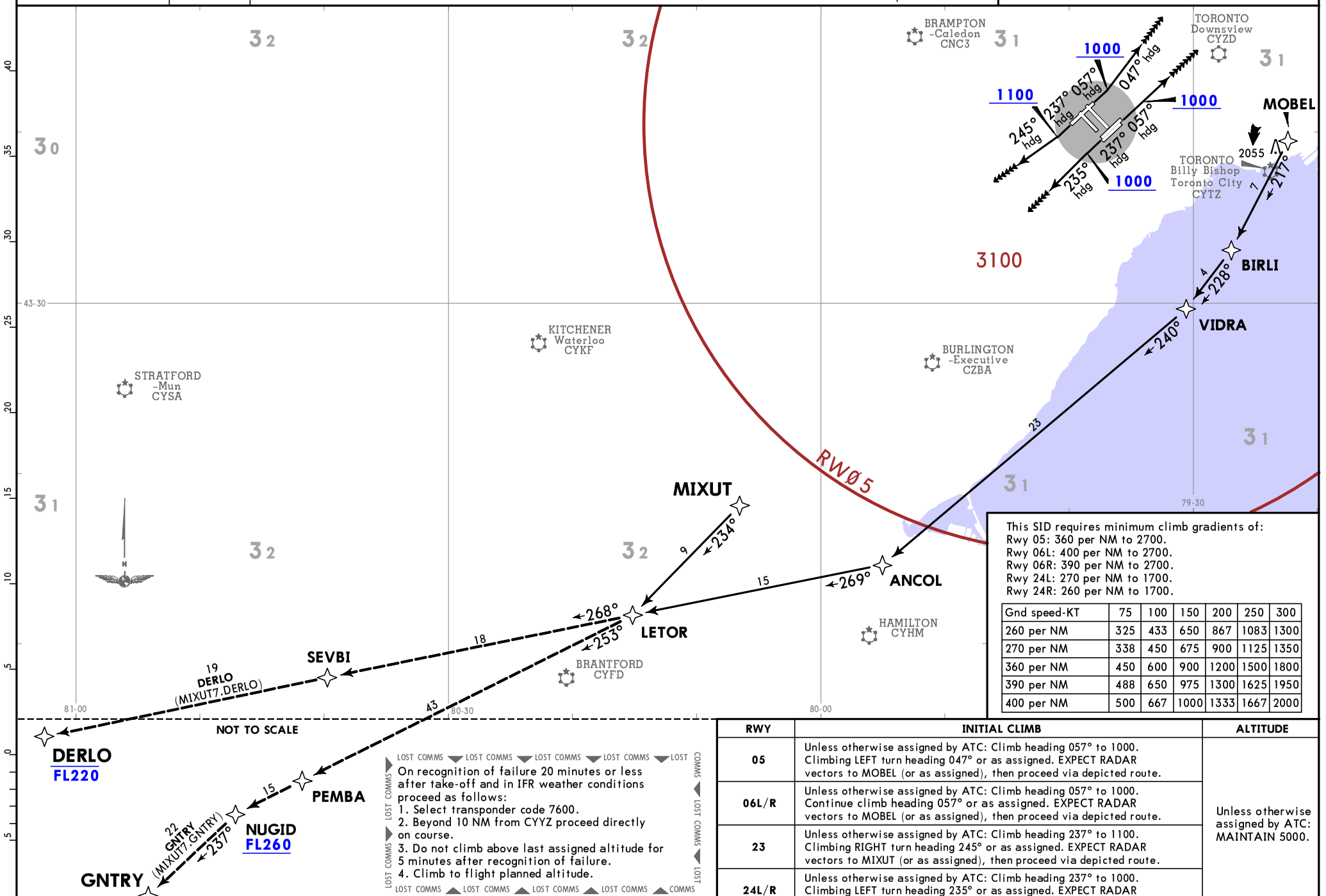
CHANGES: Airport name.

MIXUT 7 DEPARTURE (MIXUT7.)
(RWYS 05, 06L/R, 23, 24L/R)

TORONTO Departure
128.8 127.575

Apt Elev
569

Trans alt: 18000
1. RADAR required.
2. CAUTION: Rwys 05, 06L/R, 23, 24L/R departures: Simultaneous parallel departures in use.
3. Safe Altitude within 100 NM 4900.
4. Jet aircraft only.
5. For use by GNSS od D/D/I equipped aircraft. Aircraft with selectable CDI must be set to 1 NM sensitivity. Aircraft without selectable CDI must use flight director.
6. Refer to 10-4 Noise Abatement Procedures for additional requirements.



This SID requires minimum climb gradients of:
Rwy 05: 360 per NM to 2700.
Rwy 06L: 400 per NM to 2700.
Rwy 06R: 390 per NM to 2700.
Rwy 24L: 270 per NM to 1700.
Rwy 24R: 260 per NM to 1700.

Gnd speed-KT	75	100	150	200	250	300
260 per NM	325	433	650	867	1083	1300
270 per NM	338	450	675	900	1125	1350
360 per NM	450	600	900	1200	1500	1800
390 per NM	488	650	975	1300	1625	1950
400 per NM	500	667	1000	1333	1667	2000

LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST COMMS

On recognition of failure 20 minutes or less after take-off and in IFR weather conditions proceed as follows:
1. Select transponder code 7600.
2. Beyond 10 NM from CYYZ proceed directly on course.
3. Do not climb above last assigned altitude for 5 minutes after recognition of failure.
4. Climb to flight planned altitude.

LOST COMMS ▲ LOST COMMS ▲ LOST COMMS ▲ LOST COMMS ▲ LOST COMMS

RWY	INITIAL CLIMB	ALTITUDE
05	Unless otherwise assigned by ATC: Climb heading 057° to 1000. Climbing LEFT turn heading 047° or as assigned. EXPECT RADAR vectors to MOBEL (or as assigned), then proceed via depicted route.	Unless otherwise assigned by ATC: MAINTAIN 5000.
06L/R	Unless otherwise assigned by ATC: Climb heading 057° to 1000. Continue climb heading 057° or as assigned. EXPECT RADAR vectors to MOBEL (or as assigned), then proceed via depicted route.	
23	Unless otherwise assigned by ATC: Climb heading 237° to 1100. Climbing RIGHT turn heading 245° or as assigned. EXPECT RADAR vectors to MIXUT (or as assigned), then proceed via depicted route.	
24L/R	Unless otherwise assigned by ATC: Climb heading 237° to 1000. Climbing LEFT turn heading 235° or as assigned. EXPECT RADAR vectors to MIXUT (or as assigned), then proceed via depicted route.	

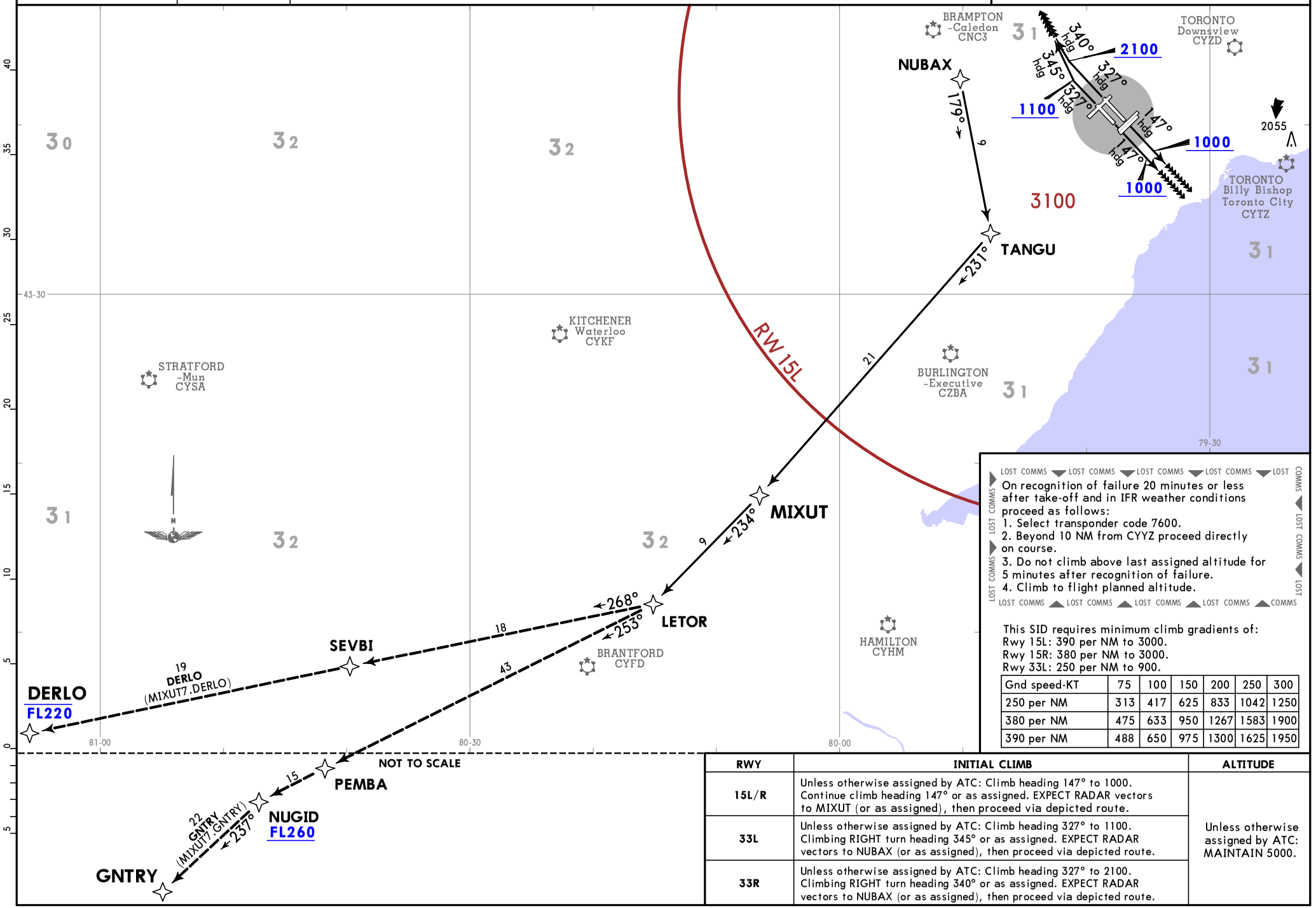
CHANGES: Airport name.

TORONTO Departure	Apt Elev
128.8 127.575	569

Trans alt: 18000
1. RADAR required.
2. Safe Altitude within 100 NM 4900.
3. Jet aircraft only.

4. For use by GNSS or D/D/I equipped aircraft. Aircraft with selectable CDI must be set to 1 NM sensitivity. Aircraft without selectable CDI must use flight director.
5. Refer to 10-4 Noise Abatement Procedures for additional requirements.

MIXUT 7 DEPARTURE (MIXUT7.)
(RWYS 15L/R, 33L/R)



LOST COMMS
On recognition of failure 20 minutes or less after take-off and in IFR weather conditions proceed as follows:
1. Select transponder code 7600.
2. Beyond 10 NM from CYYZ proceed directly on course.
3. Do not climb above last assigned altitude for 5 minutes after recognition of failure.
4. Climb to flight planned altitude.

This SID requires minimum climb gradients of:
Rwy 15L: 390 per NM to 3000.
Rwy 15R: 380 per NM to 3000.
Rwy 33L: 250 per NM to 900.

Gnd speed-KT	75	100	150	200	250	300
250 per NM	313	417	625	833	1042	1250
380 per NM	475	633	950	1267	1583	1900
390 per NM	488	650	975	1300	1625	1950

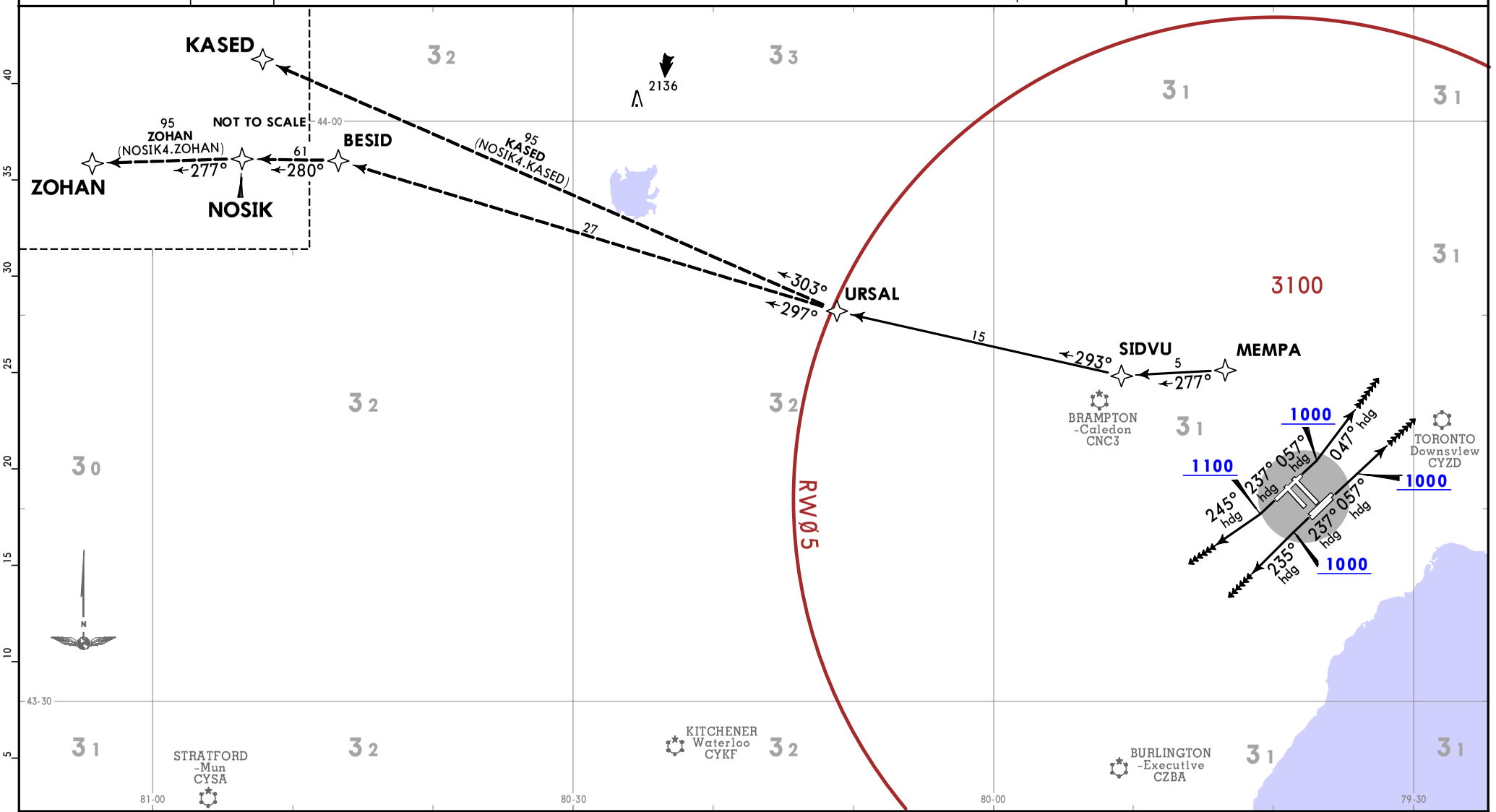
RWY	INITIAL CLIMB	ALTITUDE
15L/R	Unless otherwise assigned by ATC: Climb heading 147° to 1000. Continue climb heading 147° or as assigned. EXPECT RADAR vectors to MIXUT (or as assigned), then proceed via depicted route.	Unless otherwise assigned by ATC: MAINTAIN 5000.
33L	Unless otherwise assigned by ATC: Climb heading 327° to 1100. Climbing RIGHT turn heading 345° or as assigned. EXPECT RADAR vectors to NUBAX (or as assigned), then proceed via depicted route.	
33R	Unless otherwise assigned by ATC: Climb heading 327° to 2100. Climbing RIGHT turn heading 340° or as assigned. EXPECT RADAR vectors to NUBAX (or as assigned), then proceed via depicted route.	

CHANGES: Airport name.

TORONTO Departure	Apt Elev
128.8 127.575	569

Trans alt: 18000
1. RADAR required.
2. CAUTION: Rwys 05, 06L/R, 23, 24L/R departures: Simultaneous parallel departures in use.
3. Safe Altitude within 100 NM 4900.
4. Non-Jet aircraft only.
5. For use by GNSS equipped aircraft. GNSS aircraft with selectable CDI must be set to 1 NM sensitivity. Aircraft without selectable CDI must use flight director.
6. Refer to 10-4 Noise Abatement Procedures for additional requirements.

NOSIK 4 DEPARTURE (NOSIK4.)
(RWYS 05, 06L/R, 23, 24L/R)



This SID requires minimum climb gradients of:
Rwy 05: 360 per NM to 2700.
Rwy 06L: 400 per NM to 2700.
Rwy 06R: 390 per NM to 2700.
Rwy 24L: 270 per NM to 1700.
Rwy 24R: 260 per NM to 1700.

Gnd speed-KT	75	100	150	200	250	300
260 per NM	325	433	650	867	1083	1300
270 per NM	338	450	675	900	1125	1350
360 per NM	450	600	900	1200	1500	1800
390 per NM	488	650	975	1300	1625	1950
400 per NM	500	667	1000	1333	1667	2000

LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼

On recognition of failure 20 minutes or less after take-off and in IFR weather conditions proceed as follows:
1. Select transponder code 7600.
2. Beyond 10 NM from CYYZ proceed directly on course.
3. Do not climb above last assigned altitude for 5 minutes after recognition of failure.
4. Climb to flight planned altitude.

LOST COMMS ▲ LOST COMMS ▲ LOST COMMS ▲ LOST COMMS ▲ LOST COMMS ▲ LOST COMMS ▲

RWY	INITIAL CLIMB	ALTITUDE
05	Unless otherwise assigned by ATC: Climb heading 057° to 1000. Climbing LEFT turn heading 047° or as assigned. EXPECT RADAR vectors to MEMPA (or as assigned), then proceed via depicted route.	Unless otherwise assigned by ATC: MAINTAIN 3000. Aircraft assigned a turn at takeoff; commence turn at 1100
06L/R	Unless otherwise assigned by ATC: Climb heading 057° to 1000. Continue climb heading 057° or as assigned. EXPECT RADAR vectors to MEMPA (or as assigned), then proceed via depicted route.	
23	Unless otherwise assigned by ATC: Climb heading 237° to 1100. Climbing RIGHT turn heading 245° or as assigned. EXPECT RADAR vectors to URSAL (or as assigned), then proceed via depicted route.	
24L/R	Unless otherwise assigned by ATC: Climb heading 237° to 1000. Climbing LEFT turn heading 235° or as assigned. EXPECT RADAR vectors to URSAL (or as assigned), then proceed via depicted route.	

CHANGES: Airport name.

TORONTO Departure	Apt Elev	
128.8 127.575	569	Trans alt: 18000 1. RADAR required. 2. Safe Altitude within 100 NM 4900. 3. Non-Jet aircraft only. 4. For use by GNSS equipped aircraft. GNSS aircraft with selectable CDI must be set to 1 NM sensitivity. Aircraft without selectable CDI must use flight director. 5. Refer to 10-4 Noise Abatement Procedures for additional requirements.

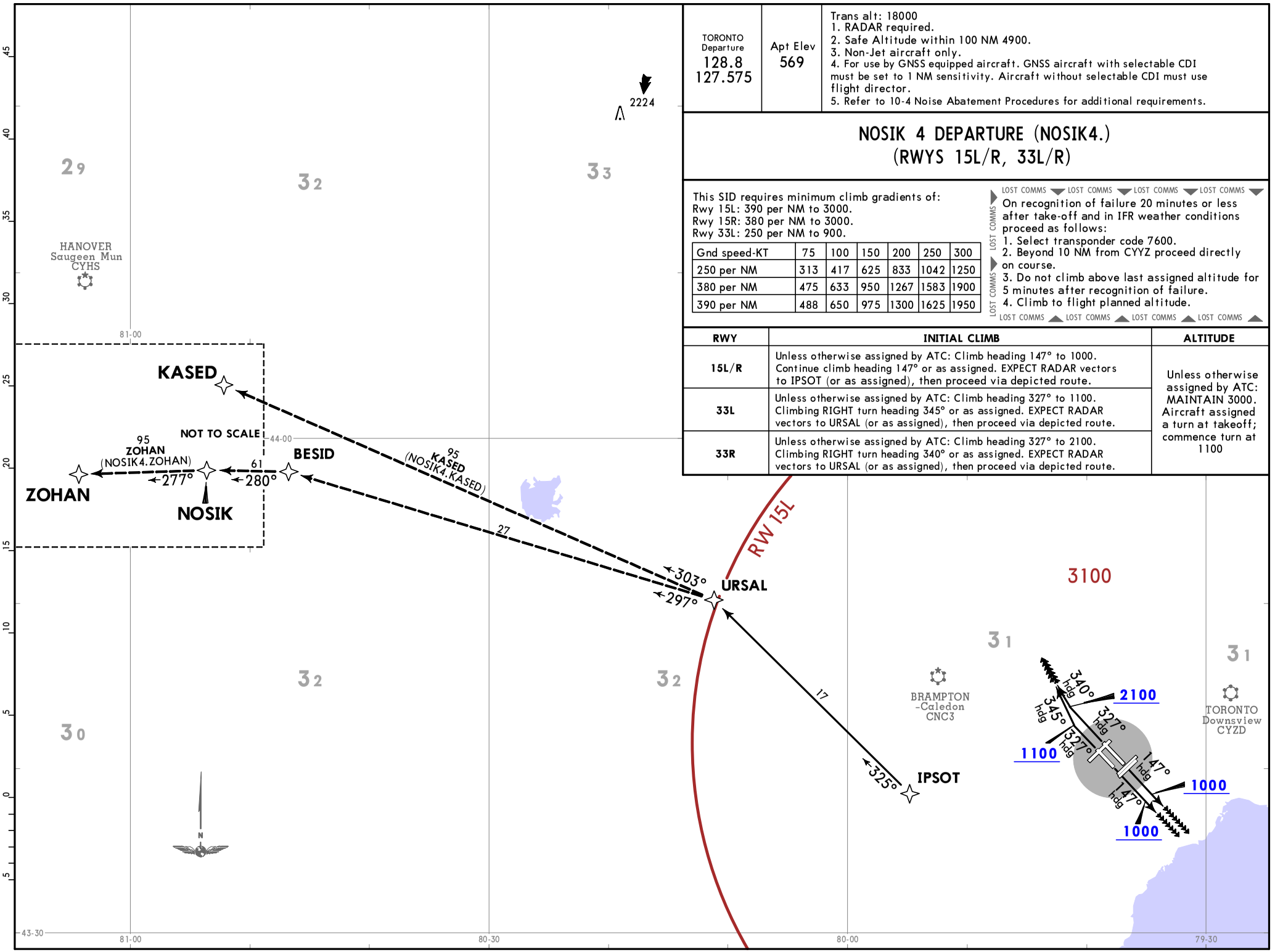
NOSIK 4 DEPARTURE (NOSIK4.)
(RWYS 15L/R, 33L/R)

This SID requires minimum climb gradients of:
Rwy 15L: 390 per NM to 3000.
Rwy 15R: 380 per NM to 3000.
Rwy 33L: 250 per NM to 900.

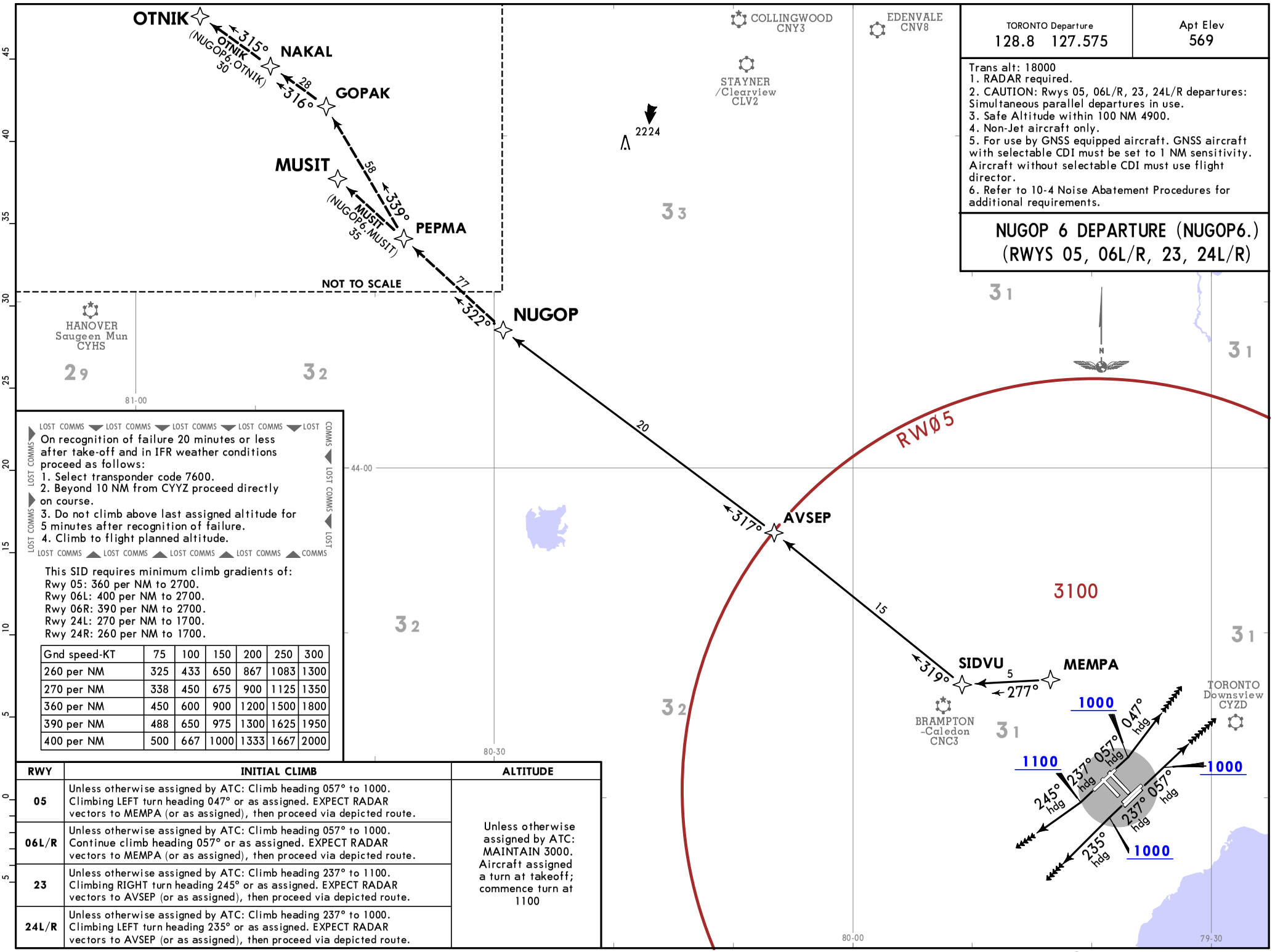
Gnd speed-KT	75	100	150	200	250	300
250 per NM	313	417	625	833	1042	1250
380 per NM	475	633	950	1267	1583	1900
390 per NM	488	650	975	1300	1625	1950

LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼
LOST COMMS ▶ On recognition of failure 20 minutes or less after take-off and in IFR weather conditions proceed as follows:
1. Select transponder code 7600.
2. Beyond 10 NM from CYYZ proceed directly on course.
3. Do not climb above last assigned altitude for 5 minutes after recognition of failure.
4. Climb to flight planned altitude.
LOST COMMS ▲ LOST COMMS ▲ LOST COMMS ▲ LOST COMMS ▲

RWY	INITIAL CLIMB	ALTITUDE
15L/R	Unless otherwise assigned by ATC: Climb heading 147° to 1000. Continue climb heading 147° or as assigned. EXPECT RADAR vectors to IPSOT (or as assigned), then proceed via depicted route.	Unless otherwise assigned by ATC: MAINTAIN 3000. Aircraft assigned a turn at takeoff; commence turn at 1100
33L	Unless otherwise assigned by ATC: Climb heading 327° to 1100. Climbing RIGHT turn heading 345° or as assigned. EXPECT RADAR vectors to URSAL (or as assigned), then proceed via depicted route.	
33R	Unless otherwise assigned by ATC: Climb heading 327° to 2100. Climbing RIGHT turn heading 340° or as assigned. EXPECT RADAR vectors to URSAL (or as assigned), then proceed via depicted route.	



CHANGES: Airport name.



TORONTO Departure	Apt Elev
128.8 127.575	569

Trans alt: 18000
1. RADAR required.
2. CAUTION: Rwys 05, 06L/R, 23, 24L/R departures: Simultaneous parallel departures in use.
3. Safe Altitude within 100 NM 4900.
4. Non-Jet aircraft only.
5. For use by GNSS equipped aircraft. GNSS aircraft with selectable CDI must be set to 1 NM sensitivity. Aircraft without selectable CDI must use flight director.
6. Refer to 10-4 Noise Abatement Procedures for additional requirements.

NUGOP 6 DEPARTURE (NUGOP6.)
(RWYS 05, 06L/R, 23, 24L/R)

LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST

On recognition of failure 20 minutes or less after take-off and in IFR weather conditions proceed as follows:
1. Select transponder code 7600.
2. Beyond 10 NM from CYYZ proceed directly on course.
3. Do not climb above last assigned altitude for 5 minutes after recognition of failure.
4. Climb to flight planned altitude.

LOST COMMS ▲ LOST COMMS ▲ LOST COMMS ▲ LOST COMMS ▲ COMMS

This SID requires minimum climb gradients of:
Rwy 05: 360 per NM to 2700.
Rwy 06L: 400 per NM to 2700.
Rwy 06R: 390 per NM to 2700.
Rwy 24L: 270 per NM to 1700.
Rwy 24R: 260 per NM to 1700.

Gnd speed-KT	75	100	150	200	250	300
260 per NM	325	433	650	867	1083	1300
270 per NM	338	450	675	900	1125	1350
360 per NM	450	600	900	1200	1500	1800
390 per NM	488	650	975	1300	1625	1950
400 per NM	500	667	1000	1333	1667	2000

RWY	INITIAL CLIMB	ALTITUDE
05	Unless otherwise assigned by ATC: Climb heading 057° to 1000. Climbing LEFT turn heading 047° or as assigned. EXPECT RADAR vectors to MEMPA (or as assigned), then proceed via depicted route.	Unless otherwise assigned by ATC: MAINTAIN 3000. Aircraft assigned a turn at takeoff; commence turn at 1100
06L/R	Unless otherwise assigned by ATC: Climb heading 057° to 1000. Continue climb heading 057° or as assigned. EXPECT RADAR vectors to MEMPA (or as assigned), then proceed via depicted route.	
23	Unless otherwise assigned by ATC: Climb heading 237° to 1100. Climbing RIGHT turn heading 245° or as assigned. EXPECT RADAR vectors to AVSEP (or as assigned), then proceed via depicted route.	
24L/R	Unless otherwise assigned by ATC: Climb heading 237° to 1000. Climbing LEFT turn heading 235° or as assigned. EXPECT RADAR vectors to AVSEP (or as assigned), then proceed via depicted route.	

CHANGES: Airport name.

TORONTO Departure	Apt Elev	
128.8 127.575	569	Trans alt: 18000 1. RADAR required. 2. Safe Altitude within 100 NM 4900. 3. Non-Jet aircraft only. 4. For use by GNSS equipped aircraft. GNSS aircraft with a selectable CDI must be set to 1 NM sensitivity. Aircraft without selectable CDI must use flight director. 5. Refer to 10-4 Noise Abatement Procedures for additional requirements.

NUGOP 6 DEPARTURE (NUGOP6.)
(RWYS 15L/R, 33L/R)

OTNIK
315°
(NUGOP6.MUSIT)
OTNIK
30
NAKAL
28
316°
GOPAK
58
339°
MUSIT
(NUGOP6.MUSIT)
MUSIT
35
PEPMA
77
322°
NUGOP
NOT TO SCALE
2224
HANOVER
Saugeen Mun
CYHS
20
317°
AVSEP
22
334°
URSAL
17
325°
IPSOT
RW 15L
BRAMPTON
-Caledon
CNC3
TORONTO
Downsview
CYZD
3100
340° hdg
2100
345° hdg
1100
327° hdg
327° hdg
147° hdg
147° hdg
1000
1000
44-00
81-00
80-30
80-00
79-30

This SID requires minimum climb gradients of:
Rwy 15L: 390 per NM to 3000.
Rwy 15R: 380 per NM to 3000.
Rwy 33L: 250 per NM to 900.

Gnd speed-KT	75	100	150	200	250	300
250 per NM	313	417	625	833	1042	1250
380 per NM	475	633	950	1267	1583	1900
390 per NM	488	650	975	1300	1625	1950

LOST COMMS
On recognition of failure 20 minutes or less after take-off and in IFR weather conditions proceed as follows:
1. Select transponder code 7600.
2. Beyond 10 NM from CYYZ proceed directly on course.
3. Do not climb above last assigned altitude for 5 minutes after recognition of failure.
4. Climb to flight planned altitude.

RWY	INITIAL CLIMB	ALTITUDE
15L/R	Unless otherwise assigned by ATC: Climb heading 147° to 1000. Continue climb heading 147° or as assigned. EXPECT RADAR vectors to IPSOT (or as assigned), then proceed via depicted route.	Unless otherwise assigned by ATC: MAINTAIN 3000. Aircraft assigned a turn at takeoff; commence turn at 1100
33L	Unless otherwise assigned by ATC: Climb heading 327° to 1100. Climbing RIGHT turn heading 345° or as assigned. EXPECT RADAR vectors to AVSEP (or as assigned), then proceed via depicted route.	
33R	Unless otherwise assigned by ATC: Climb heading 327° to 2100. Climbing RIGHT turn heading 340° or as assigned. EXPECT RADAR vectors to AVSEP (or as assigned), then proceed via depicted route.	

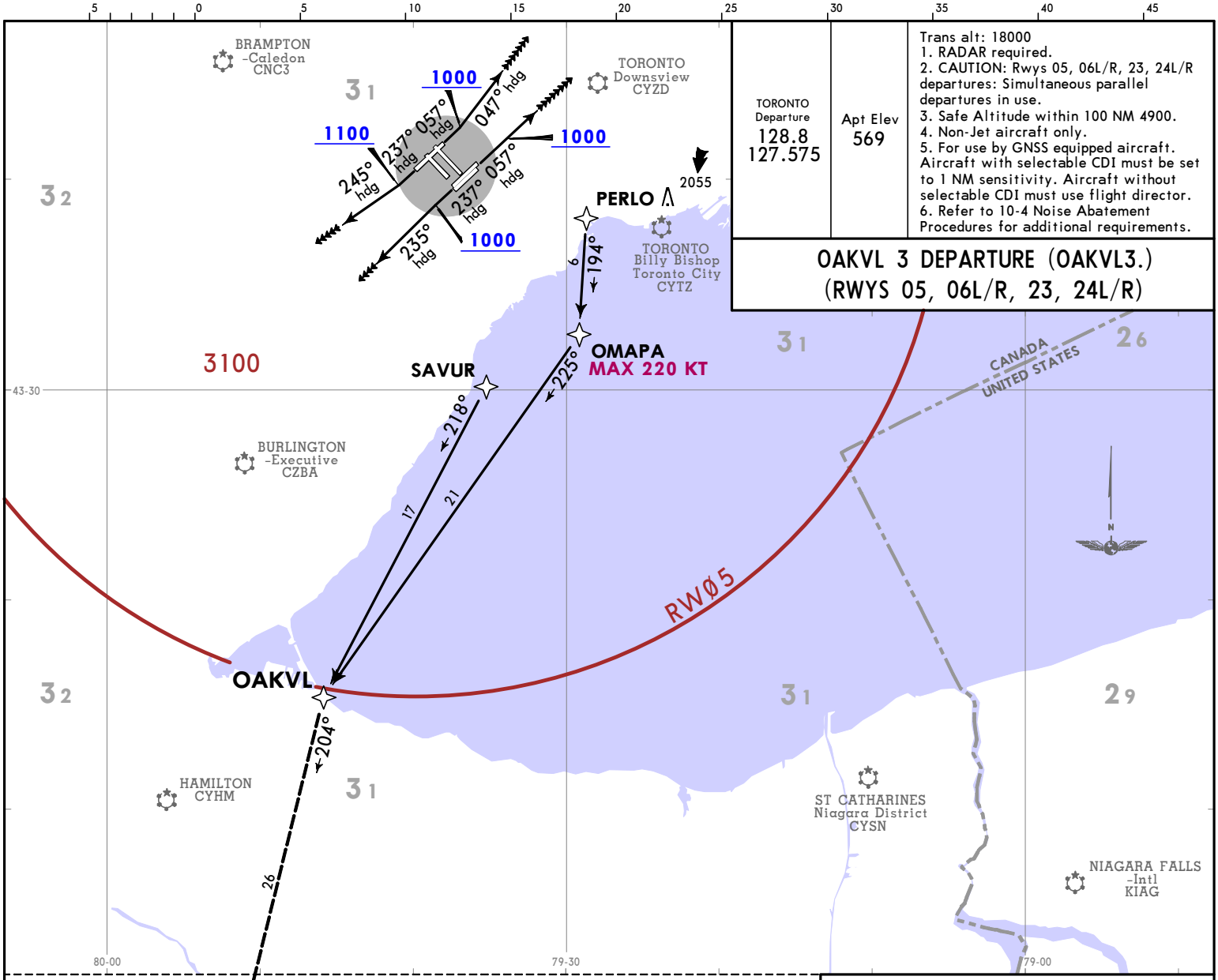
CHANGES: Airport name.

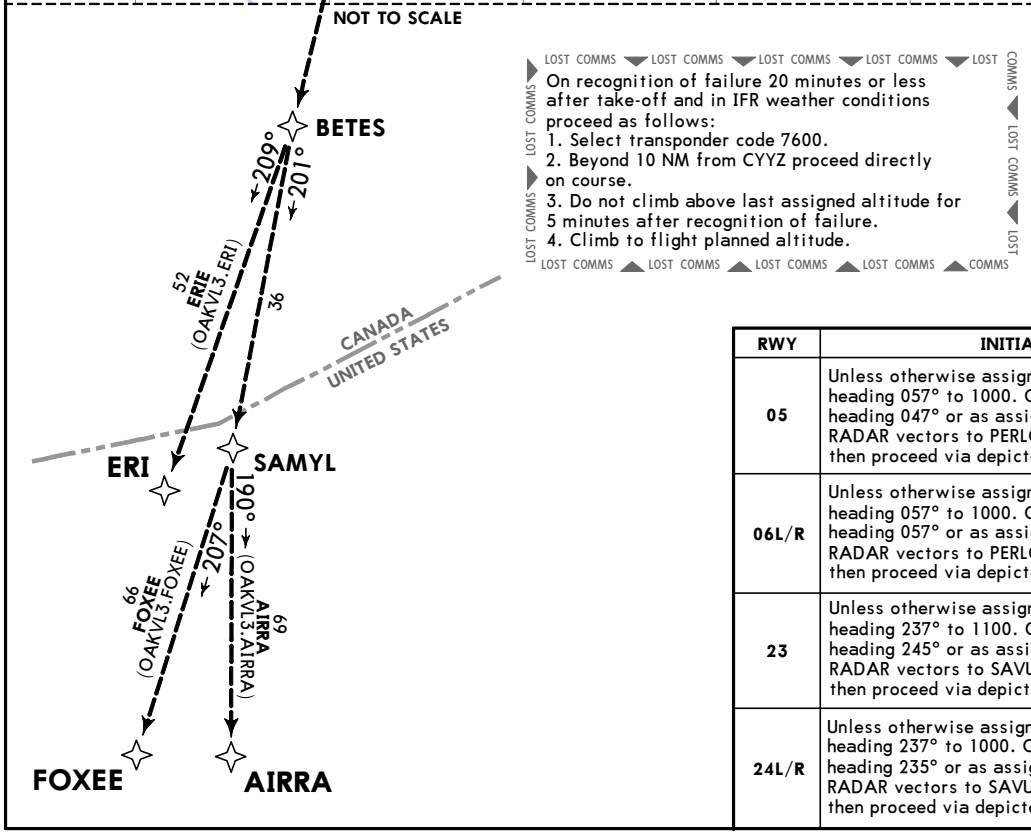
CYYZ/YYZ LESTER B PEARSON INTL

OAKVL 3 DEPARTURE (OAKVL3.) (RWYS 05, 06L/R, 23, 24L/R)

TORONTO Departure	Apt Elev
128.8 127.575	569

Trans alt: 18000
1. RADAR required.
2. CAUTION: Rwys 05, 06L/R, 23, 24L/R departures: Simultaneous parallel departures in use.
3. Safe Altitude within 100 NM 4900.
4. Non-Jet aircraft only.
5. For use by GNSS equipped aircraft. Aircraft with selectable CDI must be set to 1 NM sensitivity. Aircraft without selectable CDI must use flight director.
6. Refer to 10-4 Noise Abatement Procedures for additional requirements.





LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼

On recognition of failure 20 minutes or less after take-off and in IFR weather conditions proceed as follows:
1. Select transponder code 7600.
2. Beyond 10 NM from CYYZ proceed directly on course.
3. Do not climb above last assigned altitude for 5 minutes after recognition of failure.
4. Climb to flight planned altitude.

LOST COMMS ▲ LOST COMMS ▲ LOST COMMS ▲ LOST COMMS ▲ LOST COMMS

This SID requires minimum climb gradients of:
Rwy 05: 360 per NM to 2700.
Rwy 06L: 400 per NM to 2700.
Rwy 06R: 390 per NM to 2700.
Rwy 24L: 270 per NM to 1700.
Rwy 24R: 260 per NM to 1700.

Gnd speed-KT	75	100	150	200	250	300
260 per NM	325	433	650	867	1083	1300
270 per NM	338	450	675	900	1125	1350
360 per NM	450	600	900	1200	1500	1800
390 per NM	488	650	975	1300	1625	1950
400 per NM	500	667	1000	1333	1667	2000

RWY	INITIAL CLIMB	ALTITUDE
05	Unless otherwise assigned by ATC: Climb heading 057° to 1000. Climbing LEFT turn heading 047° or as assigned. EXPECT RADAR vectors to PERLO (or as assigned), then proceed via depicted route.	Unless otherwise assigned by ATC: MAINTAIN 3000. Aircraft assigned a turn at takeoff; commence turn at 1100.
06L/R	Unless otherwise assigned by ATC: Climb heading 057° to 1000. Continue climb heading 057° or as assigned. EXPECT RADAR vectors to PERLO (or as assigned), then proceed via depicted route.	
23	Unless otherwise assigned by ATC: Climb heading 237° to 1100. Climbing RIGHT turn heading 245° or as assigned. EXPECT RADAR vectors to SAVUR (or as assigned), then proceed via depicted route.	
24L/R	Unless otherwise assigned by ATC: Climb heading 237° to 1000. Climbing LEFT turn heading 235° or as assigned. EXPECT RADAR vectors to SAVUR (or as assigned), then proceed via depicted route.	

OAKVL 3 DEPARTURE (OAKVL3.)
(RWYS 05, 06L/R, 23, 24L/R)

28 APR 23 (10-3H4)

JEPPESEN TORONTO, ONT
RNAV SID

CHANGES: Airport name.

TORONTO Departure
128.8
127.575

Apt Elev
569

Trans alt: 18000
1. RADAR required.
2. Safe Altitude within 100 NM 4900.
3. Non-Jet aircraft only.
4. For use by GNSS equipped aircraft. GNSS aircraft with a selectable CDI must be set to 1 NM sensitivity. Aircraft without selectable CDI must use flight director.
5. Refer to 10-4 Noise Abatement Procedures for additional requirements.

OAKVL 3 DEPARTURE (OAKVL3.)
(RWYS 15L/R, 33L/R)

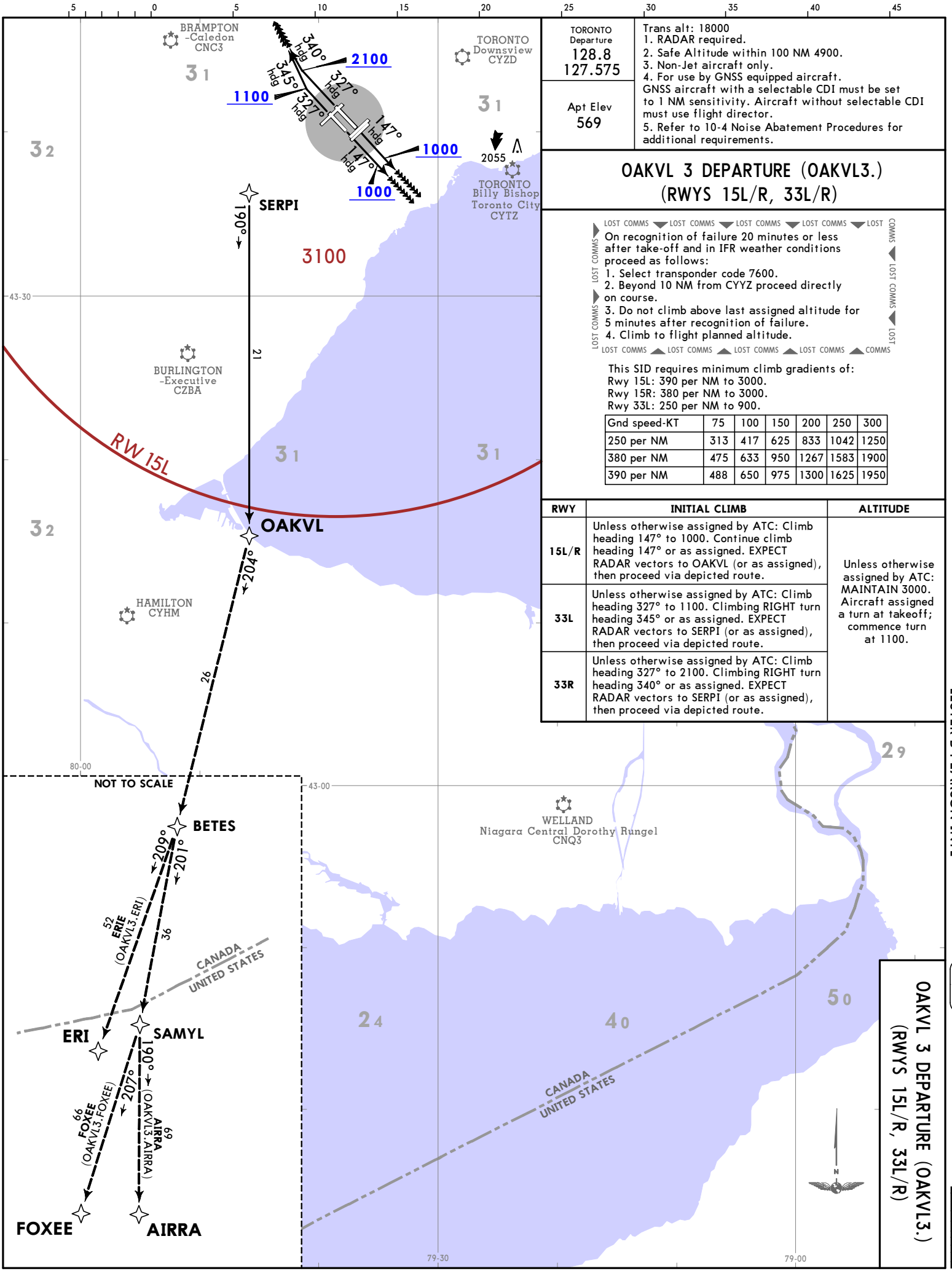
LOST COMMS

On recognition of failure 20 minutes or less after take-off and in IFR weather conditions proceed as follows:
1. Select transponder code 7600.
2. Beyond 10 NM from CYYZ proceed directly on course.
3. Do not climb above last assigned altitude for 5 minutes after recognition of failure.
4. Climb to flight planned altitude.

This SID requires minimum climb gradients of:
Rwy 15L: 390 per NM to 3000.
Rwy 15R: 380 per NM to 3000.
Rwy 33L: 250 per NM to 900.

Gnd speed-KT	75	100	150	200	250	300
250 per NM	313	417	625	833	1042	1250
380 per NM	475	633	950	1267	1583	1900
390 per NM	488	650	975	1300	1625	1950

RWY	INITIAL CLIMB	ALTITUDE
15L/R	Unless otherwise assigned by ATC: Climb heading 147° to 1000. Continue climb heading 147° or as assigned. EXPECT RADAR vectors to OAKVL (or as assigned), then proceed via depicted route.	Unless otherwise assigned by ATC: MAINTAIN 3000. Aircraft assigned a turn at takeoff; commence turn at 1100.
33L	Unless otherwise assigned by ATC: Climb heading 327° to 1100. Climbing RIGHT turn heading 345° or as assigned. EXPECT RADAR vectors to SERPI (or as assigned), then proceed via depicted route.	
33R	Unless otherwise assigned by ATC: Climb heading 327° to 2100. Climbing RIGHT turn heading 340° or as assigned. EXPECT RADAR vectors to SERPI (or as assigned), then proceed via depicted route.	



CYYZ/YYZ
LESTER B PEARSON INTL

28 APR 23
JEPPESEN
10-3H5

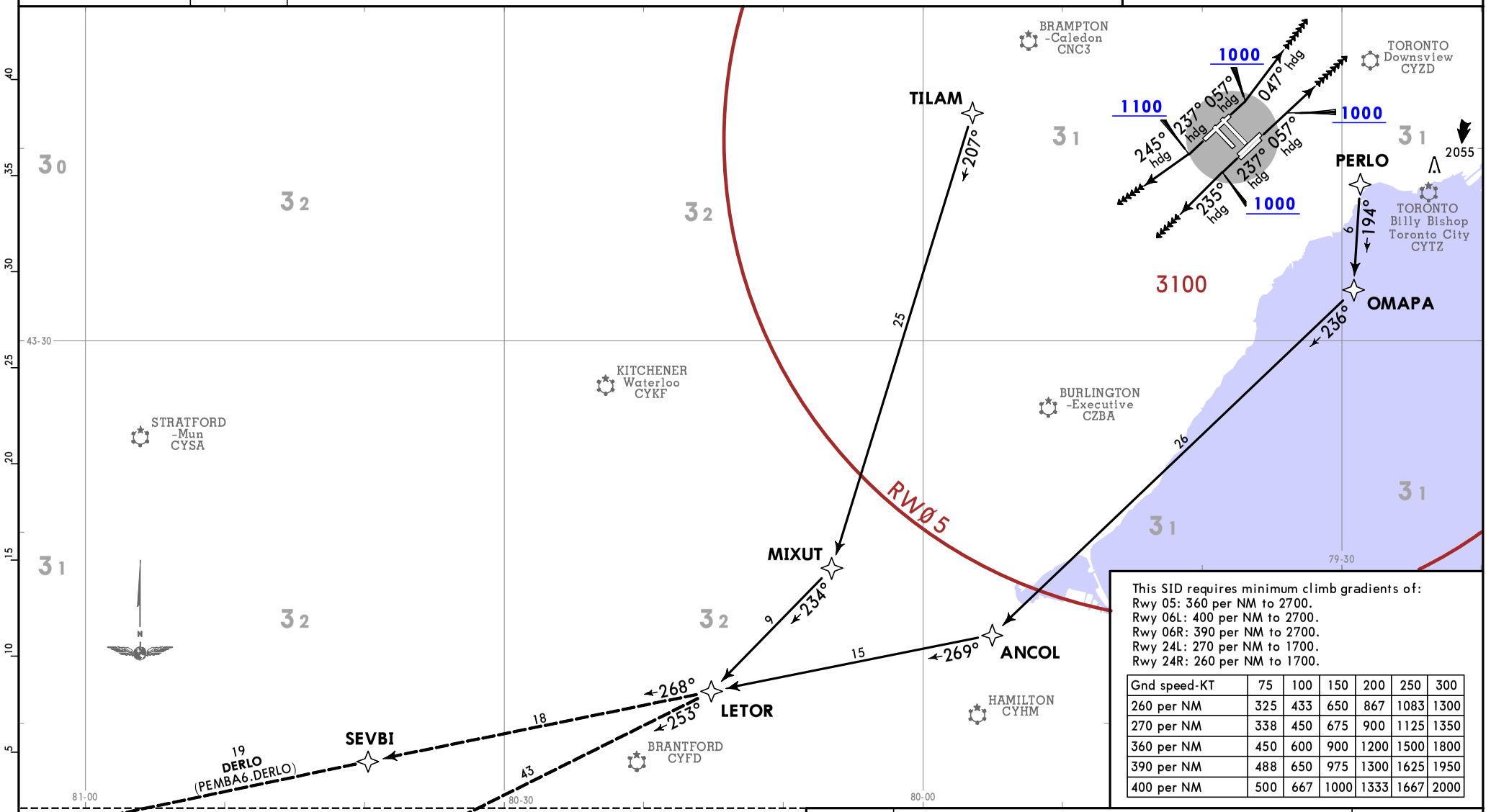
OAKVL 3 DEPARTURE (OAKVL3.)
(RWYS 15L/R, 33L/R)

TORONTO, ONT
RNAV SID

TORONTO Departure	Apt Elev
128.8 127.575	569

Trans alt: 18000
1. RADAR required.
2. CAUTION: Rwys 05, 06L/R, 23, 24L/R departures: Simultaneous parallel departures in use.
3. Safe Altitude within 100 NM 4900.
4. Non-Jet aircraft only.
5. For use by GNSS equipped aircraft. GNSS aircraft with selectable CDI must be set to 1 NM sensitivity. Aircraft without selectable CDI must use flight director.
6. Refer to 10-4 Noise Abatement Procedures for additional requirements.

PEMBA 6 DEPARTURE (PEMBA6.)
(RWYS 05, 06L/R, 23, 24L/R)



NOT TO SCALE

This SID requires minimum climb gradients of:
Rwy 05: 360 per NM to 2700.
Rwy 06L: 400 per NM to 2700.
Rwy 06R: 390 per NM to 2700.
Rwy 24L: 270 per NM to 1700.
Rwy 24R: 260 per NM to 1700.

Gnd speed-KT	75	100	150	200	250	300
260 per NM	325	433	650	867	1083	1300
270 per NM	338	450	675	900	1125	1350
360 per NM	450	600	900	1200	1500	1800
390 per NM	488	650	975	1300	1625	1950
400 per NM	500	667	1000	1333	1667	2000

RWY	INITIAL CLIMB	ALTITUDE
05	Unless otherwise assigned by ATC: Climb heading 057° to 1000. Climbing LEFT turn heading 047° or as assigned. EXPECT RADAR vectors to PERLO (or as assigned), then proceed via depicted route.	Unless otherwise assigned by ATC: MAINTAIN 3000. Aircraft assigned a turn at takeoff; commence turn at 1100
06L/R	Unless otherwise assigned by ATC: Climb heading 057° to 1000. Continue climb heading 057° or as assigned. EXPECT RADAR vectors to PERLO (or as assigned), then proceed via depicted route.	
23	Unless otherwise assigned by ATC: Climb heading 237° to 1100. Climbing RIGHT turn heading 245° or as assigned. EXPECT RADAR vectors to TILAM (or as assigned), then proceed via depicted route.	
24L/R	Unless otherwise assigned by ATC: Climb heading 237° to 1000. Climbing LEFT turn heading 235° or as assigned. EXPECT RADAR vectors to TILAM (or as assigned), then proceed via depicted route.	

LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼

On recognition of failure 20 minutes or less after take-off and in IFR weather conditions proceed as follows:
1. Select transponder code 7600.
2. Beyond 10 NM from CYYZ proceed directly on course.
3. Do not climb above last assigned altitude for 5 minutes after recognition of failure.
4. Climb to flight planned altitude.

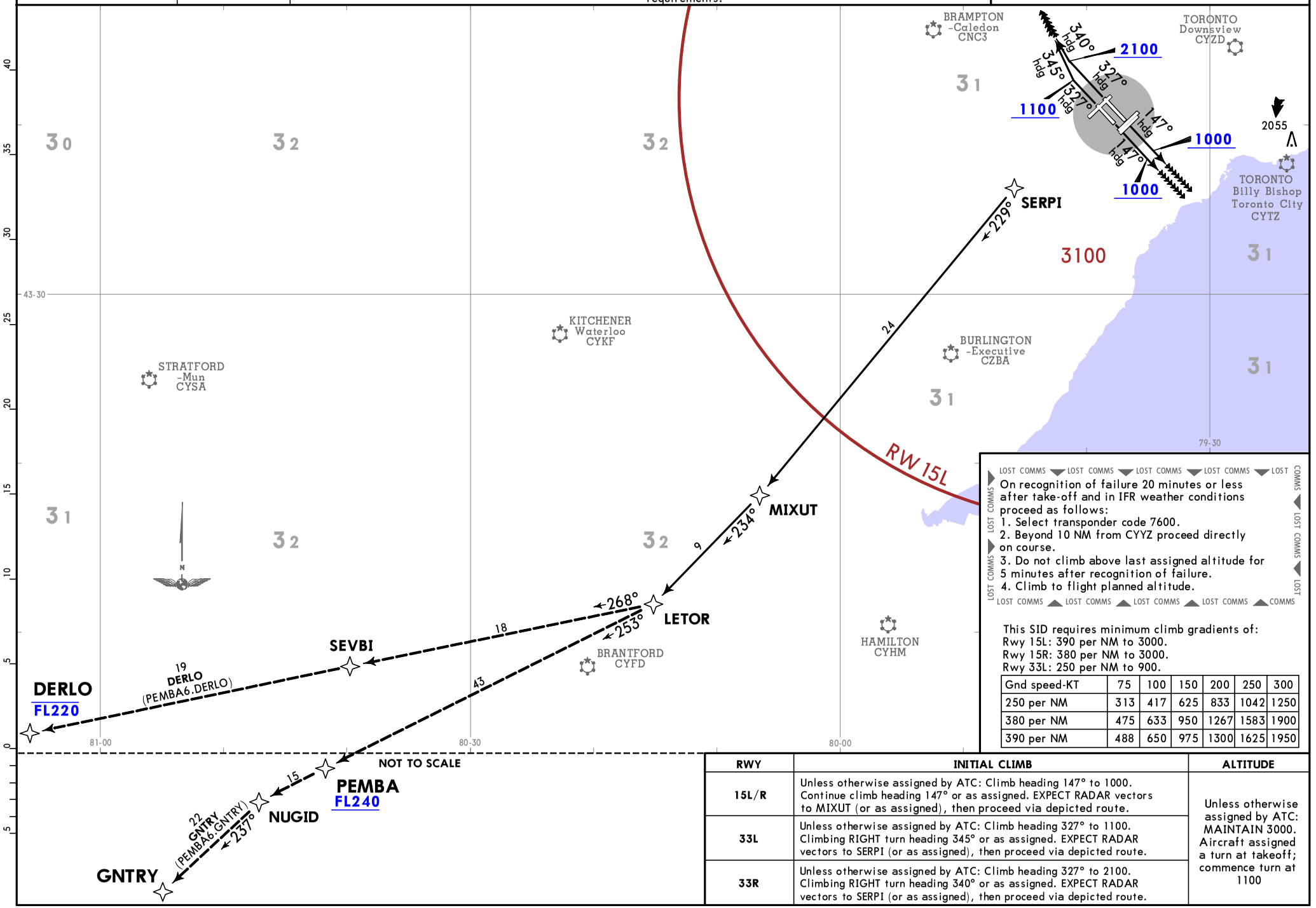
LOST COMMS ▲ LOST COMMS ▲ LOST COMMS ▲ LOST COMMS ▲ LOST COMMS ▲

CHANGES: Airport name.

PEMBA 6 DEPARTURE (PEMBA6.)
(RWYS 15L/R, 33L/R)

TORONTO Departure	Apt Elev
128.8 127.575	569

Trans alt: 18000
1. RADAR required.
2. Safe Altitude within 100 NM 4900.
3. Non-Jet aircraft only.
4. For use by GNSS equipped aircraft. GNSS aircraft with selectable CDI must be set to 1 NM sensitivity. Aircraft without selectable CDI must use flight director.
5. Refer to 10-4 Noise Abatement Procedures for additional requirements.



LOST COMMS
On recognition of failure 20 minutes or less after take-off and in IFR weather conditions proceed as follows:
1. Select transponder code 7600.
2. Beyond 10 NM from CYYZ proceed directly on course.
3. Do not climb above last assigned altitude for 5 minutes after recognition of failure.
4. Climb to flight planned altitude.

This SID requires minimum climb gradients of:
Rwy 15L: 390 per NM to 3000.
Rwy 15R: 380 per NM to 3000.
Rwy 33L: 250 per NM to 900.

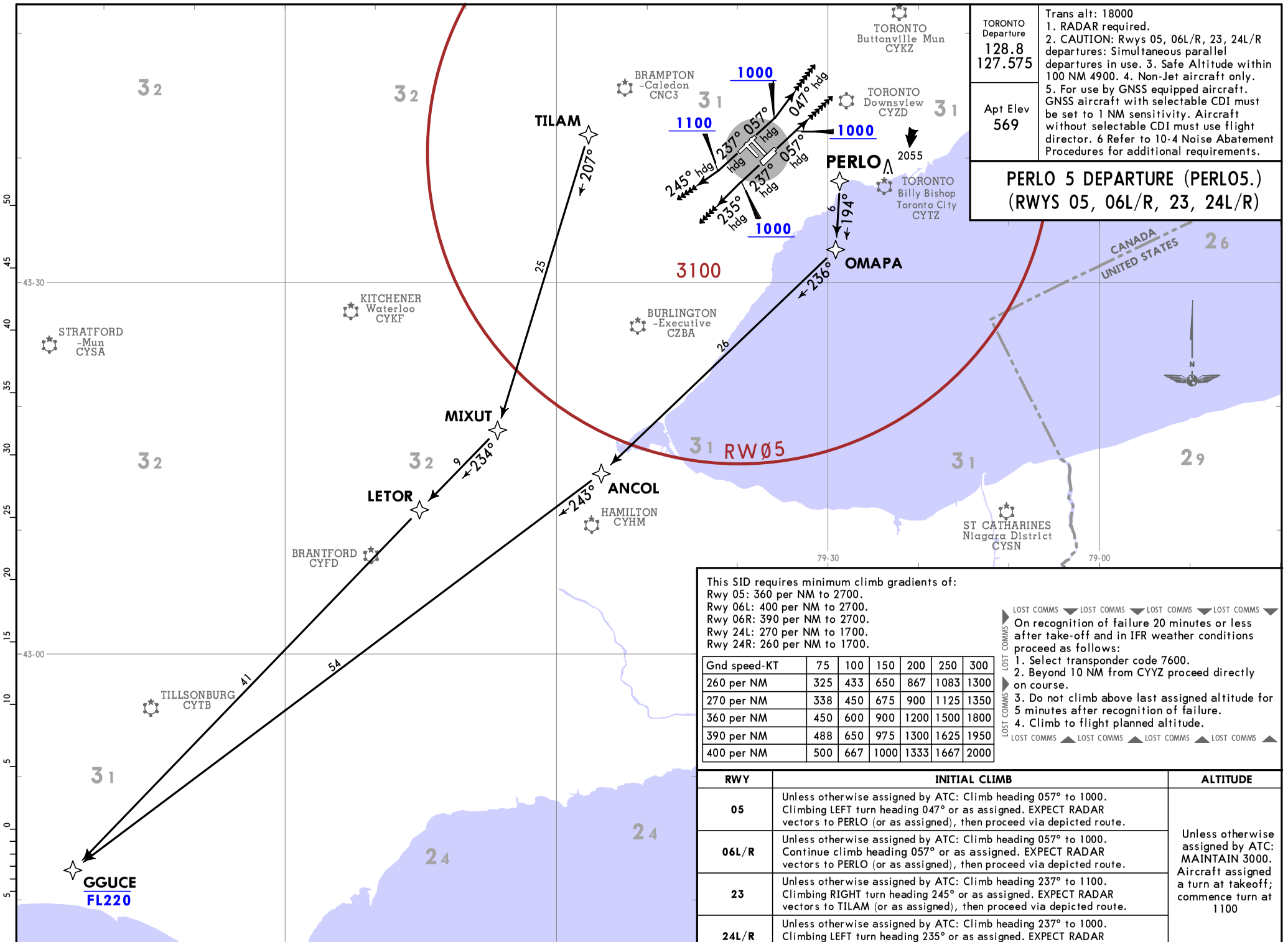
Gnd speed-KT	75	100	150	200	250	300
250 per NM	313	417	625	833	1042	1250
380 per NM	475	633	950	1267	1583	1900
390 per NM	488	650	975	1300	1625	1950

RWY	INITIAL CLIMB	ALTITUDE
15L/R	Unless otherwise assigned by ATC: Climb heading 147° to 1000. Continue climb heading 147° or as assigned. EXPECT RADAR vectors to MIXUT (or as assigned), then proceed via depicted route.	Unless otherwise assigned by ATC: MAINTAIN 3000. Aircraft assigned a turn at takeoff; commence turn at 1100
33L	Unless otherwise assigned by ATC: Climb heading 327° to 1100. Climbing RIGHT turn heading 345° or as assigned. EXPECT RADAR vectors to SERPI (or as assigned), then proceed via depicted route.	
33R	Unless otherwise assigned by ATC: Climb heading 327° to 2100. Climbing RIGHT turn heading 340° or as assigned. EXPECT RADAR vectors to SERPI (or as assigned), then proceed via depicted route.	

CHANGES: Airport name.

TORONTO Departure	Trans alt: 18000
128.8 127.575	1. RADAR required. 2. CAUTION: Rwys 05, 06L/R, 23, 24L/R departures: Simultaneous parallel departures in use. 3. Safe Altitude within 100 NM 4900. 4. Non-Jet aircraft only. 5. For use by GNSS equipped aircraft. GNSS aircraft with selectable CDI must be set to 1 NM sensitivity. Aircraft without selectable CDI must use flight director. 6 Refer to 10-4 Noise Abatement Procedures for additional requirements.
Apt Elev 569	

PERLO 5 DEPARTURE (PERLO5.)
(RWYS 05, 06L/R, 23, 24L/R)



This SID requires minimum climb gradients of:
Rwy 05: 360 per NM to 2700.
Rwy 06L: 400 per NM to 2700.
Rwy 06R: 390 per NM to 2700.
Rwy 24L: 270 per NM to 1700.
Rwy 24R: 260 per NM to 1700.

Gnd speed-KT	75	100	150	200	250	300
260 per NM	325	433	650	867	1083	1300
270 per NM	338	450	675	900	1125	1350
360 per NM	450	600	900	1200	1500	1800
390 per NM	488	650	975	1300	1625	1950
400 per NM	500	667	1000	1333	1667	2000

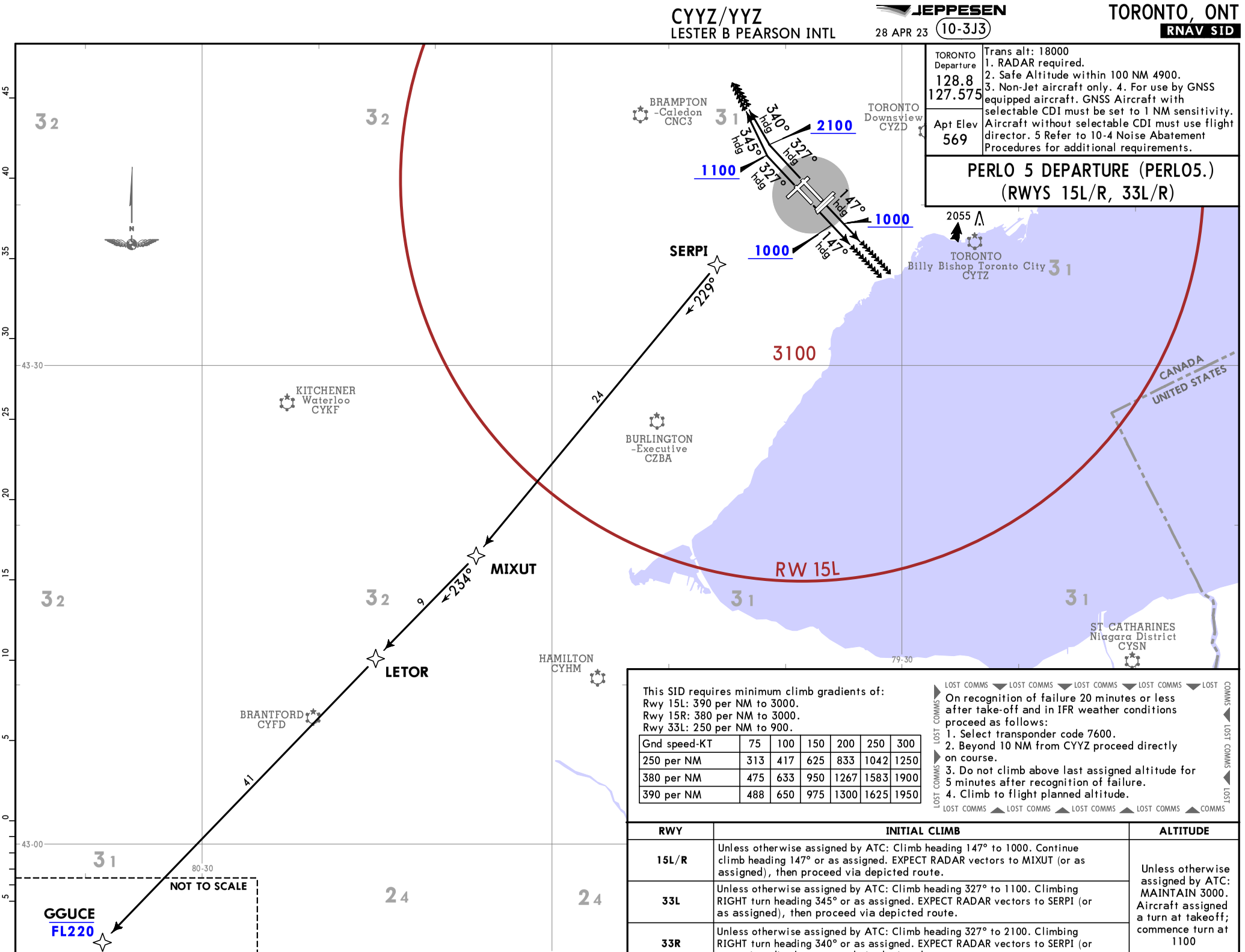
LOST COMMS
On recognition of failure 20 minutes or less after take-off and in IFR weather conditions proceed as follows:
1. Select transponder code 7600.
2. Beyond 10 NM from CYYZ proceed directly on course.
3. Do not climb above last assigned altitude for 5 minutes after recognition of failure.
4. Climb to flight planned altitude.

RWY	INITIAL CLIMB	ALTITUDE
05	Unless otherwise assigned by ATC: Climb heading 057° to 1000. Climbing LEFT turn heading 047° or as assigned. EXPECT RADAR vectors to PERLO (or as assigned), then proceed via depicted route.	Unless otherwise assigned by ATC: MAINTAIN 3000. Aircraft assigned a turn at takeoff; commence turn at 1100
06L/R	Unless otherwise assigned by ATC: Climb heading 057° to 1000. Continue climb heading 057° or as assigned. EXPECT RADAR vectors to PERLO (or as assigned), then proceed via depicted route.	
23	Unless otherwise assigned by ATC: Climb heading 237° to 1100. Climbing RIGHT turn heading 245° or as assigned. EXPECT RADAR vectors to TILAM (or as assigned), then proceed via depicted route.	
24L/R	Unless otherwise assigned by ATC: Climb heading 237° to 1000. Climbing LEFT turn heading 235° or as assigned. EXPECT RADAR vectors to TILAM (or as assigned), then proceed via depicted route.	

CHANGES: Airport name.

TORONTO Departure 128.8 127.575	Trans alt: 18000 1. RADAR required. 2. Safe Altitude within 100 NM 4900. 3. Non-Jet aircraft only. 4. For use by GNSS equipped aircraft. GNSS Aircraft with selectable CDI must be set to 1 NM sensitivity. Aircraft without selectable CDI must use flight director. 5 Refer to 10-4 Noise Abatement Procedures for additional requirements.
Apt Elev 569	

PERLO 5 DEPARTURE (PERLO5.)
(RWYS 15L/R, 33L/R)



This SID requires minimum climb gradients of:
Rwy 15L: 390 per NM to 3000.
Rwy 15R: 380 per NM to 3000.
Rwy 33L: 250 per NM to 900.

Gnd speed-KT	75	100	150	200	250	300
250 per NM	313	417	625	833	1042	1250
380 per NM	475	633	950	1267	1583	1900
390 per NM	488	650	975	1300	1625	1950

LOST COMMS ▶ LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST COMMS

On recognition of failure 20 minutes or less after take-off and in IFR weather conditions proceed as follows:
1. Select transponder code 7600.
2. Beyond 10 NM from CYYZ proceed directly on course.
3. Do not climb above last assigned altitude for 5 minutes after recognition of failure.
4. Climb to flight planned altitude.

LOST COMMS ▲ LOST COMMS ▲ LOST COMMS ▲ LOST COMMS ▲ LOST COMMS ▲ LOST COMMS

RWY	INITIAL CLIMB	ALTITUDE
15L/R	Unless otherwise assigned by ATC: Climb heading 147° to 1000. Continue climb heading 147° or as assigned. EXPECT RADAR vectors to MIXUT (or as assigned), then proceed via depicted route.	Unless otherwise assigned by ATC: MAINTAIN 3000. Aircraft assigned a turn at takeoff; commence turn at 1100
33L	Unless otherwise assigned by ATC: Climb heading 327° to 1100. Climbing RIGHT turn heading 345° or as assigned. EXPECT RADAR vectors to SERPI (or as assigned), then proceed via depicted route.	
33R	Unless otherwise assigned by ATC: Climb heading 327° to 2100. Climbing RIGHT turn heading 340° or as assigned. EXPECT RADAR vectors to SERPI (or as assigned), then proceed via depicted route.	

CHANGES: Airport name.

CHANGES: Airport name.

TORONTO Departure	Apt Elev	
128.8 127.575	569	Trans alt: 18000 1. RADAR required. 2. CAUTION: Rwys 05, 06L/R, 23, 24L/R departures: Simultaneous parallel departures in use. 3. Safe Altitude within 100 NM 4900. 4. Jet aircraft only. 5. For use by GNSS or D/D/I equipped aircraft. Aircraft with selectable CDI must be set to 1 NM sensitivity. Aircraft without selectable CDI must use flight director. 6. Refer to 10-4 Noise Abatement Procedures for additional requirements.

RIGUS 5 DEPARTURE (RIGUS5.) (RWYS 05, 06L/R, 23, 24L/R)

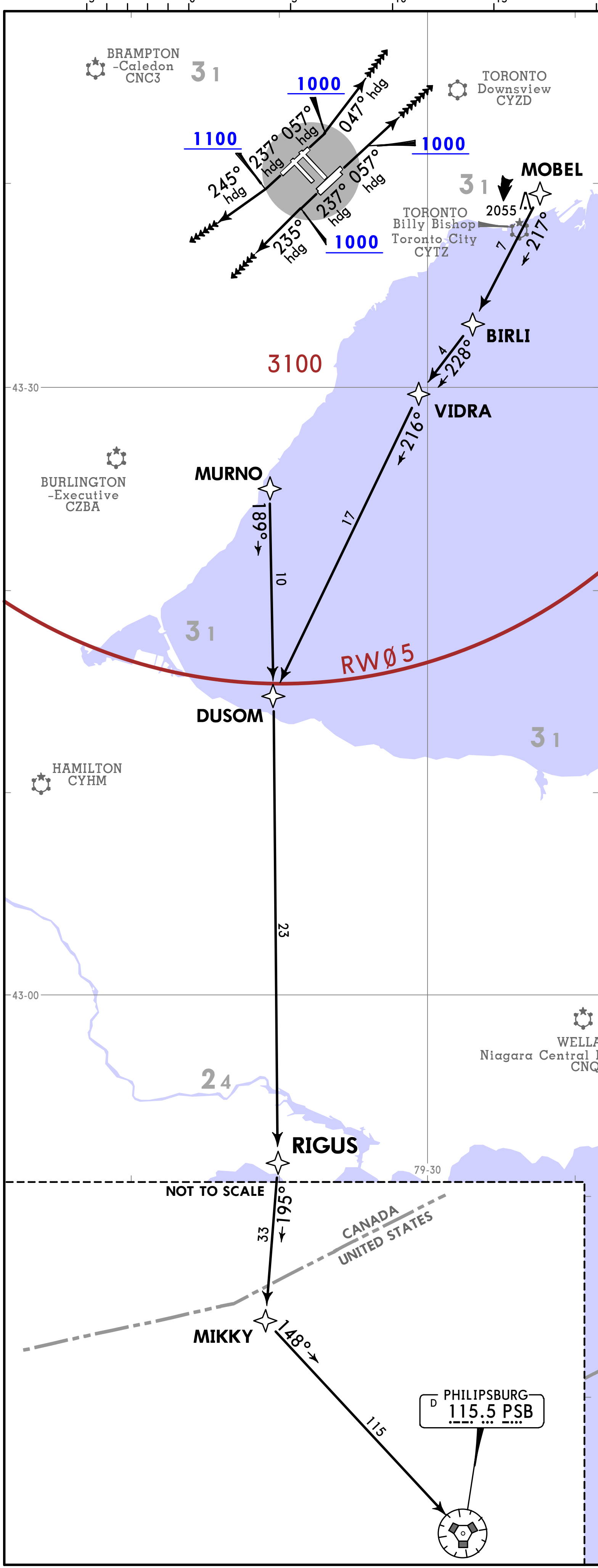
LOST COMMS

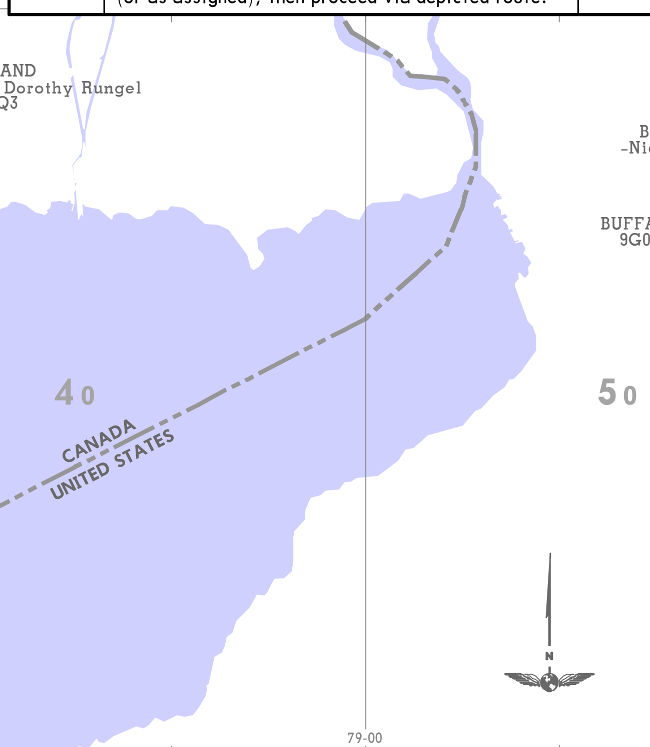
On recognition of failure 20 minutes or less after take-off and in IFR weather conditions proceed as follows:
1. Select transponder code 7600.
2. Beyond 10 NM from CYYZ proceed directly on course.
3. Do not climb above last assigned altitude for 5 minutes after recognition of failure.
4. Climb to flight planned altitude.

This SID requires minimum climb gradients of:
Rwy 05: 360 per NM to 2700.
Rwy 06L: 400 per NM to 2700.
Rwy 06R: 390 per NM to 2700.
Rwy 24L: 270 per NM to 1700.
Rwy 24R: 260 per NM to 1700.

Gnd speed-KT	75	100	150	200	250	300
260 per NM	325	433	650	867	1083	1300
270 per NM	338	450	675	900	1125	1350
360 per NM	450	600	900	1200	1500	1800
390 per NM	488	650	975	1300	1625	1950
400 per NM	500	667	1000	1333	1667	2000

RWY	INITIAL CLIMB	ALTITUDE
05	Unless otherwise assigned by ATC: Climb heading 057° to 1000. Climbing LEFT turn heading 047° or as assigned. EXPECT RADAR vectors to MOBEL (or as assigned), then proceed via depicted route.	Unless otherwise assigned by ATC: MAINTAIN 5000
06L/R	Unless otherwise assigned by ATC: Climb heading 057° to 1000. Continue climb heading 057° or as assigned. EXPECT RADAR vectors to MOBEL (or as assigned), then proceed via depicted route.	
23	Unless otherwise assigned by ATC: Climb heading 237° to 1100. Climbing RIGHT turn heading 245° or as assigned. EXPECT RADAR vectors to MURNO (or as assigned), then proceed via depicted route.	
24L/R	Unless otherwise assigned by ATC: Climb heading 237° to 1000. Climbing LEFT turn heading 235° or as assigned. EXPECT RADAR vectors to MURNO (or as assigned), then proceed via depicted route.	





TORONTO Departure	Apt Elev	
128.8 127.575	569	Trans alt: 18000 1. RADAR required. 2. Safe Altitude within 100 NM 4900. 3. Jet aircraft only. 4. For use by GNSS or D/D/I equipped aircraft. Aircraft with selectable CDI must be set to 1 NM sensitivity. Aircraft without selectable CDI must use flight director. 5. Refer to 10-4 Noise Abatement Procedures for additional requirements.

RIGUS 5 DEPARTURE (RIGUS5.)
(RWYS 15L/R, 33L/R)

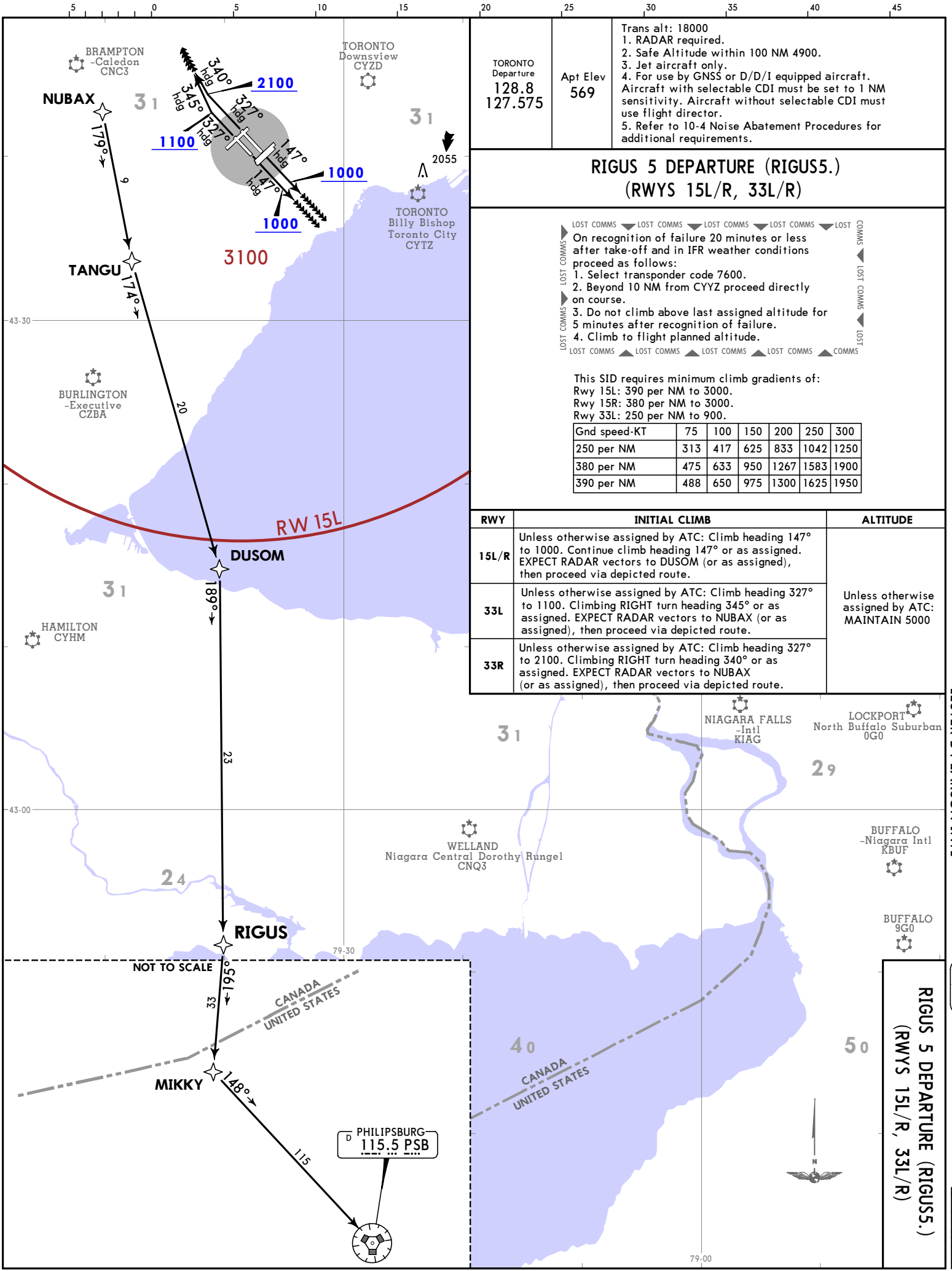
LOST COMMS

On recognition of failure 20 minutes or less after take-off and in IFR weather conditions proceed as follows:
1. Select transponder code 7600.
2. Beyond 10 NM from CYYZ proceed directly on course.
3. Do not climb above last assigned altitude for 5 minutes after recognition of failure.
4. Climb to flight planned altitude.

This SID requires minimum climb gradients of:
Rwy 15L: 390 per NM to 3000.
Rwy 15R: 380 per NM to 3000.
Rwy 33L: 250 per NM to 900.

Gnd speed-KT	75	100	150	200	250	300
250 per NM	313	417	625	833	1042	1250
380 per NM	475	633	950	1267	1583	1900
390 per NM	488	650	975	1300	1625	1950

RWY	INITIAL CLIMB	ALTITUDE
15L/R	Unless otherwise assigned by ATC: Climb heading 147° to 1000. Continue climb heading 147° or as assigned. EXPECT RADAR vectors to DUSOM (or as assigned), then proceed via depicted route.	Unless otherwise assigned by ATC: MAINTAIN 5000
33L	Unless otherwise assigned by ATC: Climb heading 327° to 1100. Climbing RIGHT turn heading 345° or as assigned. EXPECT RADAR vectors to NUBAX (or as assigned), then proceed via depicted route.	
33R	Unless otherwise assigned by ATC: Climb heading 327° to 2100. Climbing RIGHT turn heading 340° or as assigned. EXPECT RADAR vectors to NUBAX (or as assigned), then proceed via depicted route.	



CYYZ/YYZ
LESTER B PEARSON INTL

28 APR 23

JEPPESEN (10-3K1)

TORONTO, ONT
RNAV SID

RIGUS 5 DEPARTURE (RIGUS5.)
(RWYS 15L/R, 33L/R)

CHANGES: Airport name.

TORONTO Departure 128.8 127.575	Apt Elev 569	Trans alt: 18000 1. RADAR required. 2. CAUTION: Rwys 05, 06L/R, 23, 24L/R departures: Simultaneous parallel departures in use. 3. Safe Altitude within 100 NM 4900. 4. Jet aircraft only. 5. For use by GNSS or D/D/I equipped aircraft. Aircraft with selectable CDI must be set to 1 NM sensitivity. Aircraft without selectable CDI must use flight director. 6. Refer to 10-4 Noise Abatement Procedures for additional requirements.

SEDOG 6 DEPARTURE (SEDOG6.)
(RWYS 05, 06L/R, 23, 24L/R)

LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST COMMS

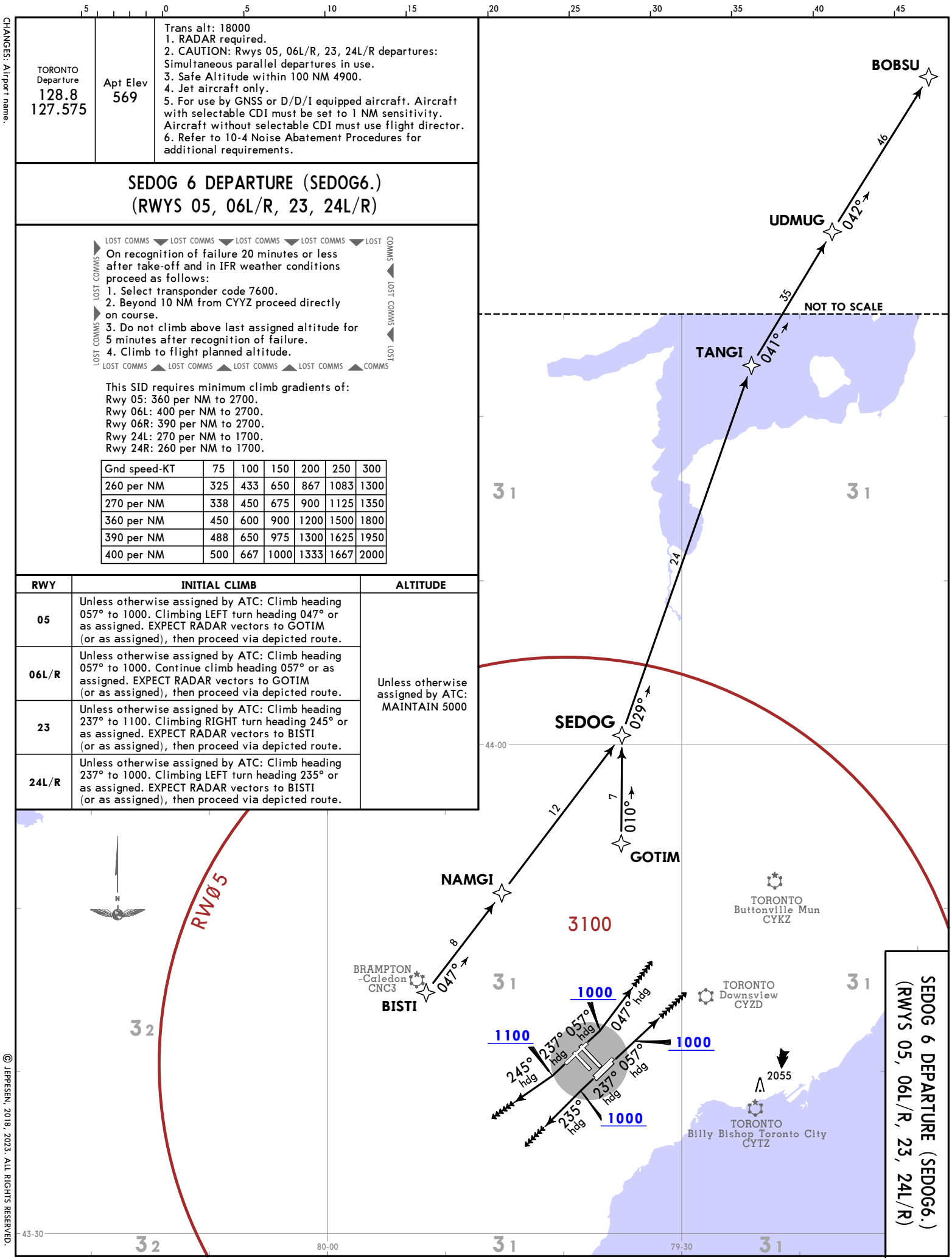
On recognition of failure 20 minutes or less after take-off and in IFR weather conditions proceed as follows:
1. Select transponder code 7600.
2. Beyond 10 NM from CYYZ proceed directly on course.
3. Do not climb above last assigned altitude for 5 minutes after recognition of failure.
4. Climb to flight planned altitude.

LOST COMMS ▲ LOST COMMS ▲ LOST COMMS ▲ LOST COMMS ▲ LOST COMMS

This SID requires minimum climb gradients of:
Rwy 05: 360 per NM to 2700.
Rwy 06L: 400 per NM to 2700.
Rwy 06R: 390 per NM to 2700.
Rwy 24L: 270 per NM to 1700.
Rwy 24R: 260 per NM to 1700.

Gnd speed-KT	75	100	150	200	250	300
260 per NM	325	433	650	867	1083	1300
270 per NM	338	450	675	900	1125	1350
360 per NM	450	600	900	1200	1500	1800
390 per NM	488	650	975	1300	1625	1950
400 per NM	500	667	1000	1333	1667	2000

RWY	INITIAL CLIMB	ALTITUDE
05	Unless otherwise assigned by ATC: Climb heading 057° to 1000. Climbing LEFT turn heading 047° or as assigned. EXPECT RADAR vectors to GOTIM (or as assigned), then proceed via depicted route.	Unless otherwise assigned by ATC: MAINTAIN 5000
06L/R	Unless otherwise assigned by ATC: Climb heading 057° to 1000. Continue climb heading 057° or as assigned. EXPECT RADAR vectors to GOTIM (or as assigned), then proceed via depicted route.	
23	Unless otherwise assigned by ATC: Climb heading 237° to 1100. Climbing RIGHT turn heading 245° or as assigned. EXPECT RADAR vectors to BISTI (or as assigned), then proceed via depicted route.	
24L/R	Unless otherwise assigned by ATC: Climb heading 237° to 1000. Climbing LEFT turn heading 235° or as assigned. EXPECT RADAR vectors to BISTI (or as assigned), then proceed via depicted route.	



CYYZ/YYZ
LESTER B PEARSON INTL

SEDOG 6 DEPARTURE (SEDOG6.)
(RWYS 05, 06L/R, 23, 24L/R)

28 APR 23 (10-3L)

JEPPESEN

TORONTO, ONT
RNAV SID

CHANGES: Airport name.

TORONTO Departure 128.8 127.575	Apt Elev 569	Trans alt: 18000 1. RADAR required. 2. Safe Altitude within 100 NM 4900. 3. Jet aircraft only. 4. For use by GNSS or D/D/I equipped aircraft. Aircraft with selectable CDI must be set to 1 NM sensitivity. Aircraft without selectable CDI must use flight director. 5. Refer to 10-4 Noise Abatement Procedures for additional requirements.

SEDOG 6 DEPARTURE (SEDOG6.)
(RWYS 15L/R, 33L/R)

LOST COMMS LOST COMMS LOST COMMS LOST COMMS LOST COMMS

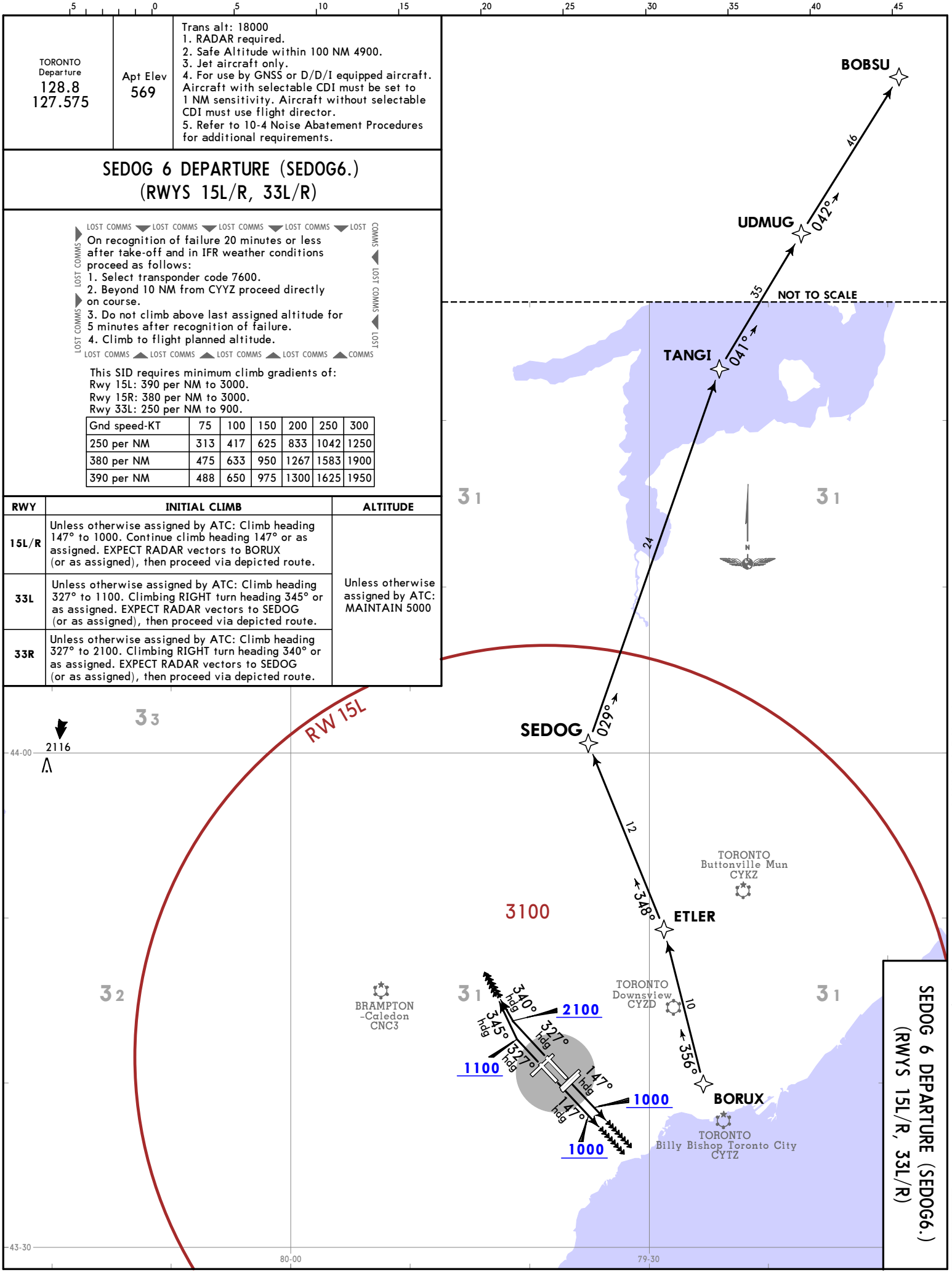
On recognition of failure 20 minutes or less after take-off and in IFR weather conditions proceed as follows:
1. Select transponder code 7600.
2. Beyond 10 NM from CYYZ proceed directly on course.
3. Do not climb above last assigned altitude for 5 minutes after recognition of failure.
4. Climb to flight planned altitude.

LOST COMMS LOST COMMS LOST COMMS LOST COMMS LOST COMMS

This SID requires minimum climb gradients of:
Rwy 15L: 390 per NM to 3000.
Rwy 15R: 380 per NM to 3000.
Rwy 33L: 250 per NM to 900.

Gnd speed-KT	75	100	150	200	250	300
250 per NM	313	417	625	833	1042	1250
380 per NM	475	633	950	1267	1583	1900
390 per NM	488	650	975	1300	1625	1950

RWY	INITIAL CLIMB	ALTITUDE
15L/R	Unless otherwise assigned by ATC: Climb heading 147° to 1000. Continue climb heading 147° or as assigned. EXPECT RADAR vectors to BORUX (or as assigned), then proceed via depicted route.	Unless otherwise assigned by ATC: MAINTAIN 5000
33L	Unless otherwise assigned by ATC: Climb heading 327° to 1100. Climbing RIGHT turn heading 345° or as assigned. EXPECT RADAR vectors to SEDOG (or as assigned), then proceed via depicted route.	
33R	Unless otherwise assigned by ATC: Climb heading 327° to 2100. Climbing RIGHT turn heading 340° or as assigned. EXPECT RADAR vectors to SEDOG (or as assigned), then proceed via depicted route.	



CYYZ/YYZ
LESTER B PEARSON INTL

JEPPESEN
28 APR 23 (10-3M)

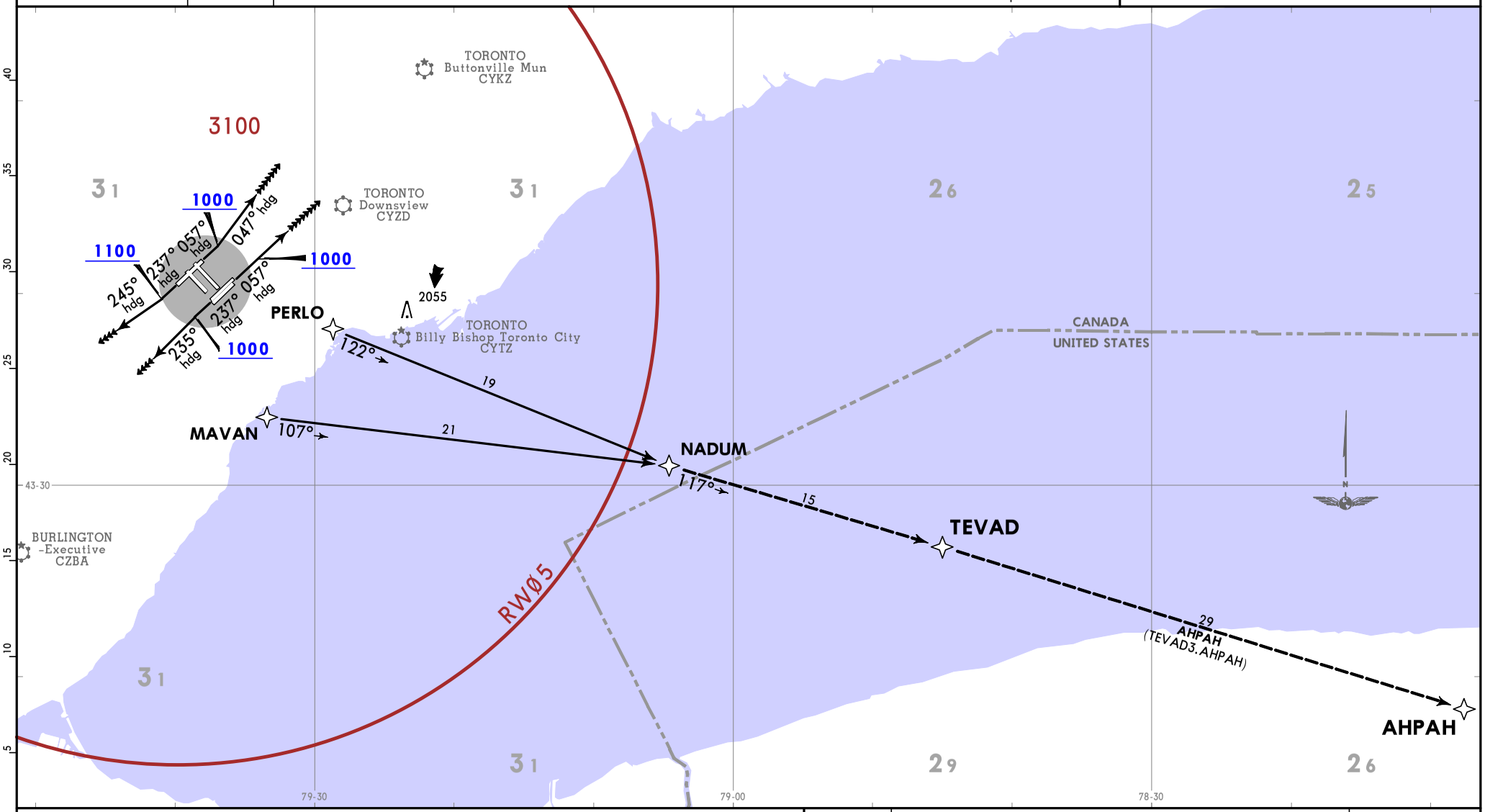
TORONTO, ONT
RNAV SID

SEDOG 6 DEPARTURE (SEDOG6.)
(RWYS 15L/R, 33L/R)

TORONTO Departure	Apt Elev
128.8 127.575	569

Trans alt: 18000
1. RADAR required.
2. CAUTION: Rwys 05, 06L/R, 23, 24L/R departures: Simultaneous parallel departures in use.
3. Safe Altitude within 100 NM 4900.
4. Non-Jet aircraft only.
5. For use by GNSS equipped aircraft. GNSS aircraft with selectable CDI must be set to 1 NM sensitivity. Aircraft without selectable CDI must use flight director.
6. Refer to 10-4 Noise Abatement Procedures for additional requirements.

TEVAD 3 DEPARTURE (TEVAD3.)
(RWYS 05, 06L/R, 23, 24L/R)



This SID requires minimum climb gradients of:
Rwy 05: 360 per NM to 2700.
Rwy 06L: 400 per NM to 2700.
Rwy 06R: 390 per NM to 2700.
Rwy 24L: 270 per NM to 1700.
Rwy 24R: 260 per NM to 1700.

Gnd speed-KT	75	100	150	200	250	300
260 per NM	325	433	650	867	1083	1300
270 per NM	338	450	675	900	1125	1350
360 per NM	450	600	900	1200	1500	1800
390 per NM	488	650	975	1300	1625	1950
400 per NM	500	667	1000	1333	1667	2000

LOST COMMS
On recognition of failure 20 minutes or less after take-off and in IFR weather conditions proceed as follows:
1. Select transponder code 7600.
2. Beyond 10 NM from CYYZ proceed directly on course.
3. Do not climb above last assigned altitude for 5 minutes after recognition of failure.
4. Climb to flight planned altitude.

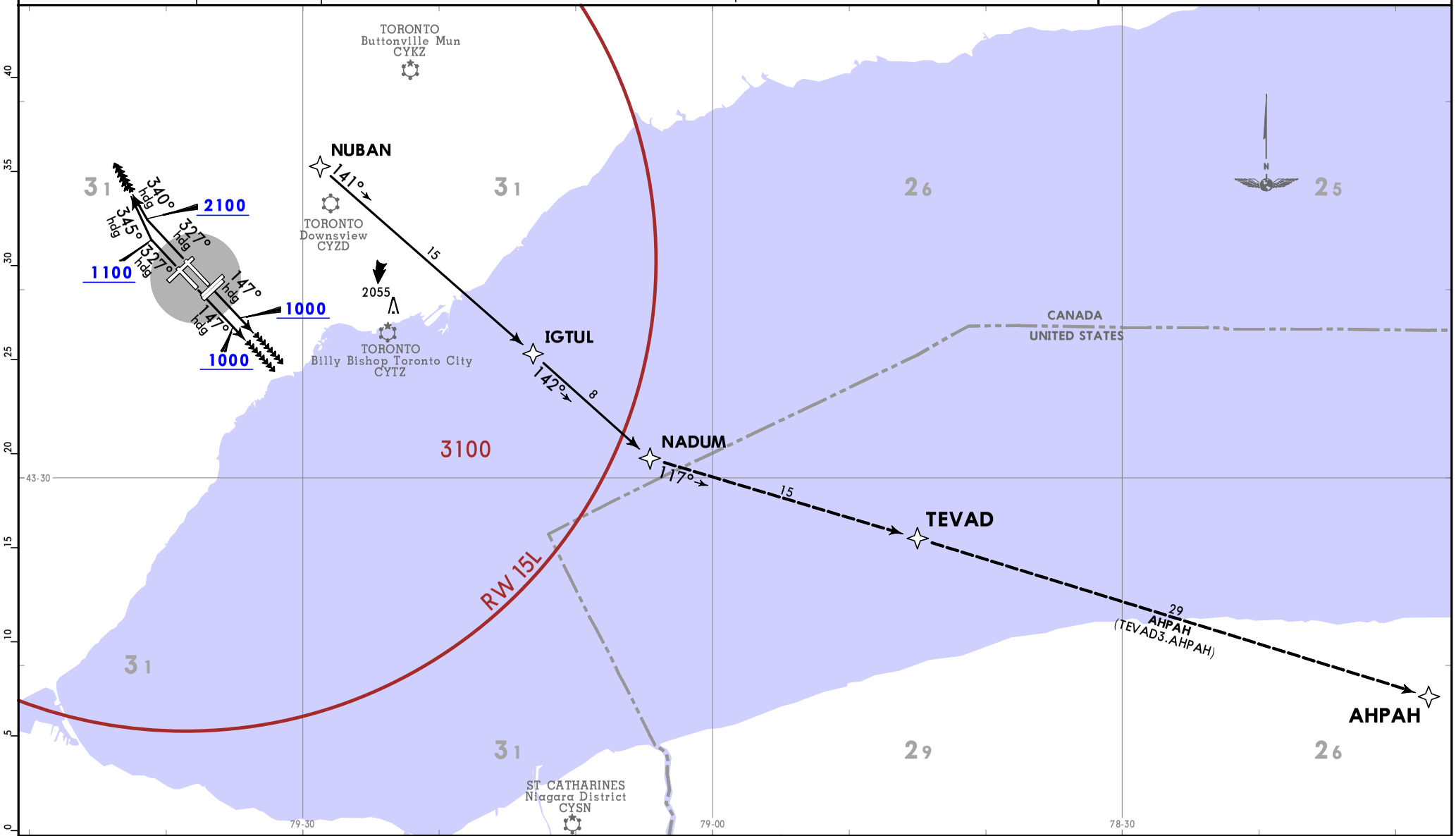
RWY	INITIAL CLIMB	ALTITUDE
05	Unless otherwise assigned by ATC: Climb heading 057° to 1000. Climbing LEFT turn heading 047° or as assigned. EXPECT RADAR vectors to PERLO (or as assigned), then proceed via depicted route.	Unless otherwise assigned by ATC: MAINTAIN 3000. Aircraft assigned a turn at takeoff; commence turn at 1100
06L/R	Unless otherwise assigned by ATC: Climb heading 057° to 1000. Continue climb heading 057° or as assigned. EXPECT RADAR vectors to PERLO (or as assigned), then proceed via depicted route.	
23	Unless otherwise assigned by ATC: Climb heading 237° to 1100. Climbing RIGHT turn heading 245° or as assigned. EXPECT RADAR vectors to MAVAN (or as assigned), then proceed via depicted route.	
24L/R	Unless otherwise assigned by ATC: Climb heading 237° to 1000. Climbing LEFT turn heading 235° or as assigned. EXPECT RADAR vectors to MAVAN (or as assigned), then proceed via depicted route.	

CHANGES: Airport name.

TEVAD 3 DEPARTURE (TEVAD3.)
(RWYS 15L/R, 33L/R)

TORONTO Departure	Apt Elev
128.8 127.575	569

Trans alt: 18000
1. RADAR required.
2. Safe Altitude within 100 NM 4900.
3. Non-Jet aircraft only.
4. For use by GNSS equipped aircraft. GNSS aircraft with selectable CDI must be set to 1 NM sensitivity. Aircraft without selectable CDI must use flight director.
5. Refer to 10-4 Noise Abatement Procedures for additional requirements.



This SID requires minimum climb gradients of:
Rwy 15L: 390 per NM to 3000.
Rwy 15R: 380 per NM to 3000.
Rwy 33L: 250 per NM to 900.

Gnd speed-KT	75	100	150	200	250	300
250 per NM	313	417	625	833	1042	1250
380 per NM	475	633	950	1267	1583	1900
390 per NM	488	650	975	1300	1625	1950

LOST COMMS
On recognition of failure 20 minutes or less after take-off and in IFR weather conditions proceed as follows:
1. Select transponder code 7600.
2. Beyond 10 NM from CYYZ proceed directly on course.
3. Do not climb above last assigned altitude for 5 minutes after recognition of failure.
4. Climb to flight planned altitude.

RWY	INITIAL CLIMB	ALTITUDE
15L/R	Unless otherwise assigned by ATC: Climb heading 147° to 1000. Continue climb heading 147° or as assigned. EXPECT RADAR vectors to NADUM (or as assigned), then proceed via depicted route.	Unless otherwise assigned by ATC: MAINTAIN 3000. Aircraft assigned a turn at takeoff; commence turn at 1100
33L	Unless otherwise assigned by ATC: Climb heading 327° to 1100. Climbing RIGHT turn heading 345° or as assigned. EXPECT RADAR vectors to NUBAN (or as assigned), then proceed via depicted route.	
33R	Unless otherwise assigned by ATC: Climb heading 327° to 2100. Climbing RIGHT turn heading 340° or as assigned. EXPECT RADAR vectors to NUBAN (or as assigned), then proceed via depicted route.	

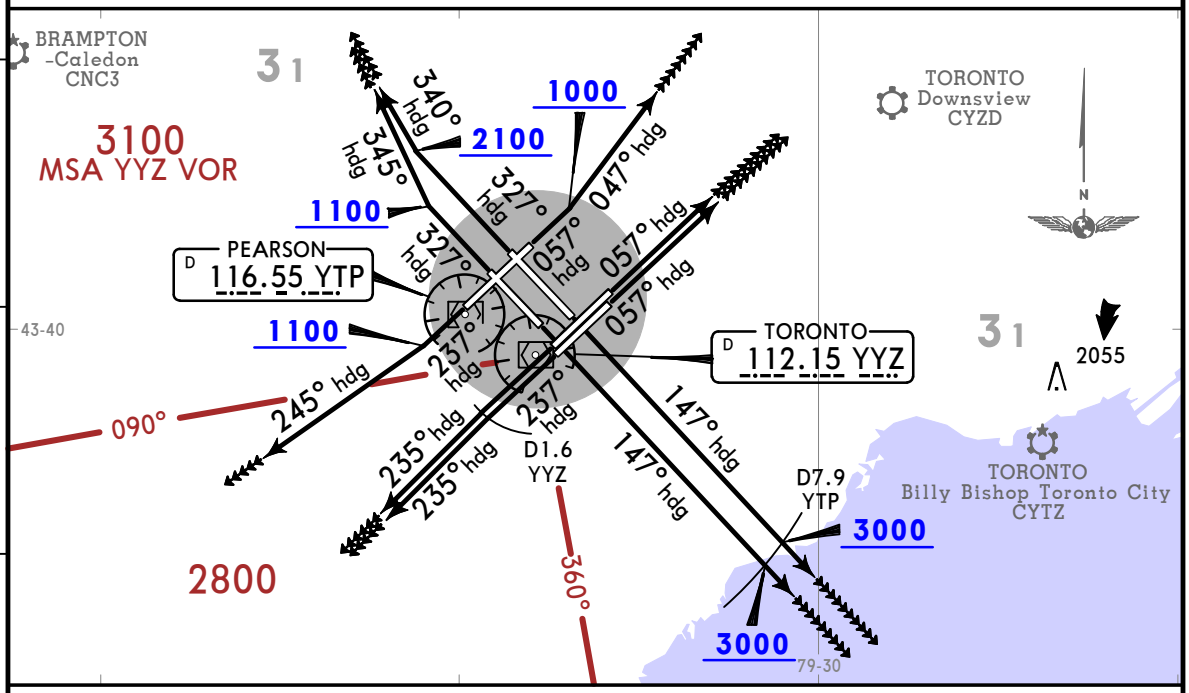
CHANGES: Airport name.

TORONTO Departure	Apt Elev	
128.8 127.575	569	Trans alt: 18000 1. CAUTION: Rwys 05, 06L/R, 23, 24L/R departures: Simultaneous parallel departures in use. 2. Safe Altitude within 100 NM 4900. 3. Refer to 10-4 Noise Abatement Procedures for additional requirements.

TORONTO 4 DEPARTURE (TRNTO4.) (VECTOR)

Day Procedure. For use between 0630-0000 local.

SPEED: MAX 250 KT BELOW 10000



TURBOJET/FAN AIRCRAFT ONLY	
RWY	NOISE ABATEMENT DEPARTURE PROCEDURE
ALL RWYS	1 or 2

LOST COMMS

On recognition of a failure 20 minutes or less after take-off and in IFR weather conditions, proceed as follows:

1. Select transponder code 7600;
2. Beyond D10.0 YYZ proceed directly on course;
3. Do not climb above last assigned altitude for 5 minutes after recognition of failure, then;
4. Climb to flight plan altitude.

❶ Unless otherwise assigned by ATC.

This SID requires minimum climb gradients of:
Rwy 05: 360 per NM to 2700.
Rwy 06L: 400 per NM to 2700.
Rwy 06R: 390 per NM to 2700.
Rwy 15L: 390 per NM to 3000.
Rwy 15R: 380 per NM to 3000.
Rwy 24L: 270 per NM to 1700.
Rwy 24R: 260 per NM to 1700.
Rwy 33L: 250 per NM to 900.

Gnd speed-KT	75	100	150	200	250	300
250 per NM	313	417	625	833	1042	1250
260 per NM	325	433	650	867	1083	1300
270 per NM	338	450	675	900	1125	1350
360 per NM	450	600	900	1200	1500	1800
380 per NM	475	633	950	1267	1583	1900
390 per NM	488	650	975	1300	1625	1950
400 per NM	500	667	1000	1333	1667	2000

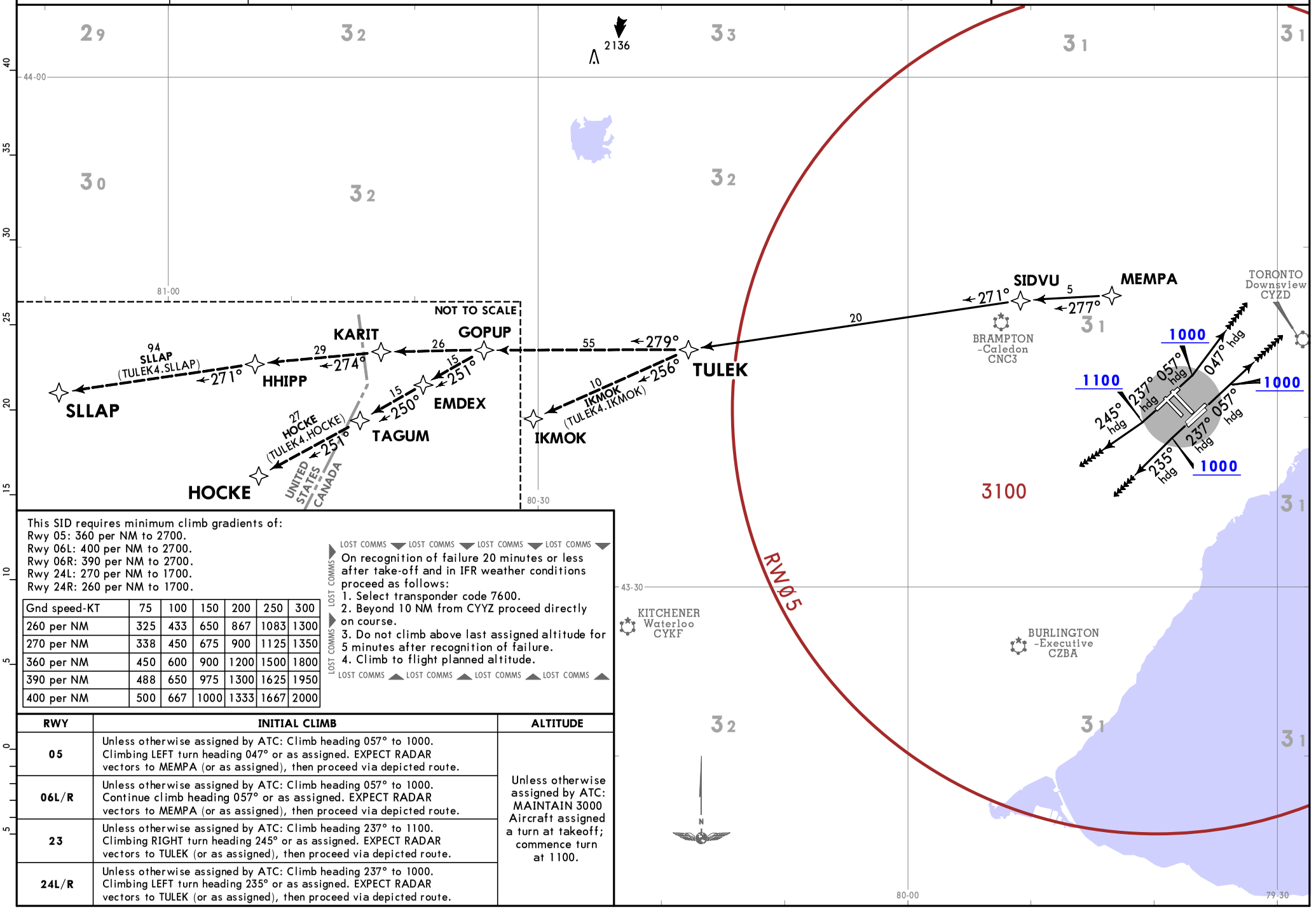
RWY	❶ INITIAL CLIMB	❶ ALTITUDE
05	Climb heading 057° to 1000. Climbing LEFT turn heading 047° or assigned heading for vectors to assigned route.	Jet aircraft MAINTAIN 5000. Non-jet aircraft MAINTAIN 3000. Aircraft assigned a turn at takeoff; commence turn at 1100
06L/R	Climb heading 057° or assigned heading for vectors to assigned route.	
15L/R	Climb heading 147° cross D7.9 YTP at or above 3000. MAINTAIN heading for vectors to assigned route.	
23	Climb heading 237° to 1100. Climbing RIGHT turn heading 245° or assigned heading for vectors to assigned route.	
24L/R	Climb heading 237°. At D1.6 YYZ, turn LEFT heading 235° or assigned heading for vectors to assigned route.	
33L	Climb heading 327° to 1100. Climbing RIGHT turn heading 345° or assigned heading for vectors to assigned route.	
33R	Climb heading 327° to 2100. Climbing RIGHT turn heading 340° or assigned heading for vectors to assigned route.	

CHANGES: Airport name.

TORONTO Departure	Apt Elev	
128.8 127.575	569	

Trans alt: 18000
1. RADAR required.
2. CAUTION: Rwys 05, 06L/R, 23, 24L/R departures: Simultaneous parallel departures in use.
3. Safe Altitude within 100 NM 4900.
4. Non-Jet aircraft only.
5. For use by GNSS equipped aircraft. GNSS aircraft with selectable CDI must be set to 1 NM sensitivity. Aircraft without selectable CDI must use flight director.
6. Refer to 10-4 Noise Abatement Procedures for additional requirements.

TULEK 4 DEPARTURE (TULEK4.)
(RWYS 05, 06L/R, 23, 24L/R)



This SID requires minimum climb gradients of:
Rwy 05: 360 per NM to 2700.
Rwy 06L: 400 per NM to 2700.
Rwy 06R: 390 per NM to 2700.
Rwy 24L: 270 per NM to 1700.
Rwy 24R: 260 per NM to 1700.

Gnd speed-KT	75	100	150	200	250	300
260 per NM	325	433	650	867	1083	1300
270 per NM	338	450	675	900	1125	1350
360 per NM	450	600	900	1200	1500	1800
390 per NM	488	650	975	1300	1625	1950
400 per NM	500	667	1000	1333	1667	2000

LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼
LOST COMMS
On recognition of failure 20 minutes or less after take-off and in IFR weather conditions proceed as follows:
1. Select transponder code 7600.
2. Beyond 10 NM from CYYZ proceed directly on course.
3. Do not climb above last assigned altitude for 5 minutes after recognition of failure.
4. Climb to flight planned altitude.
LOST COMMS
LOST COMMS ▲ LOST COMMS ▲ LOST COMMS ▲ LOST COMMS ▲

RWY	INITIAL CLIMB	ALTITUDE
05	Unless otherwise assigned by ATC: Climb heading 057° to 1000. Climbing LEFT turn heading 047° or as assigned. EXPECT RADAR vectors to MEMPA (or as assigned), then proceed via depicted route.	Unless otherwise assigned by ATC: MAINTAIN 3000 Aircraft assigned a turn at takeoff; commence turn at 1100.
06L/R	Unless otherwise assigned by ATC: Climb heading 057° to 1000. Continue climb heading 057° or as assigned. EXPECT RADAR vectors to MEMPA (or as assigned), then proceed via depicted route.	
23	Unless otherwise assigned by ATC: Climb heading 237° to 1100. Climbing RIGHT turn heading 245° or as assigned. EXPECT RADAR vectors to TULEK (or as assigned), then proceed via depicted route.	
24L/R	Unless otherwise assigned by ATC: Climb heading 237° to 1000. Climbing LEFT turn heading 235° or as assigned. EXPECT RADAR vectors to TULEK (or as assigned), then proceed via depicted route.	

CHANGES: Airport name.

TORONTO Departure	Apt Elev
128.8 127.575	569

Trans alt: 18000
1. RADAR required.
2. Safe Altitude within 100 NM 4900.
3. Non-Jet aircraft only.
4. For use by GNSS equipped aircraft. GNSS aircraft with selectable CDI must be set to 1 NM sensitivity. Aircraft without selectable CDI must use flight director.
5. Refer to 10-4 Noise Abatement Procedures for additional requirements.

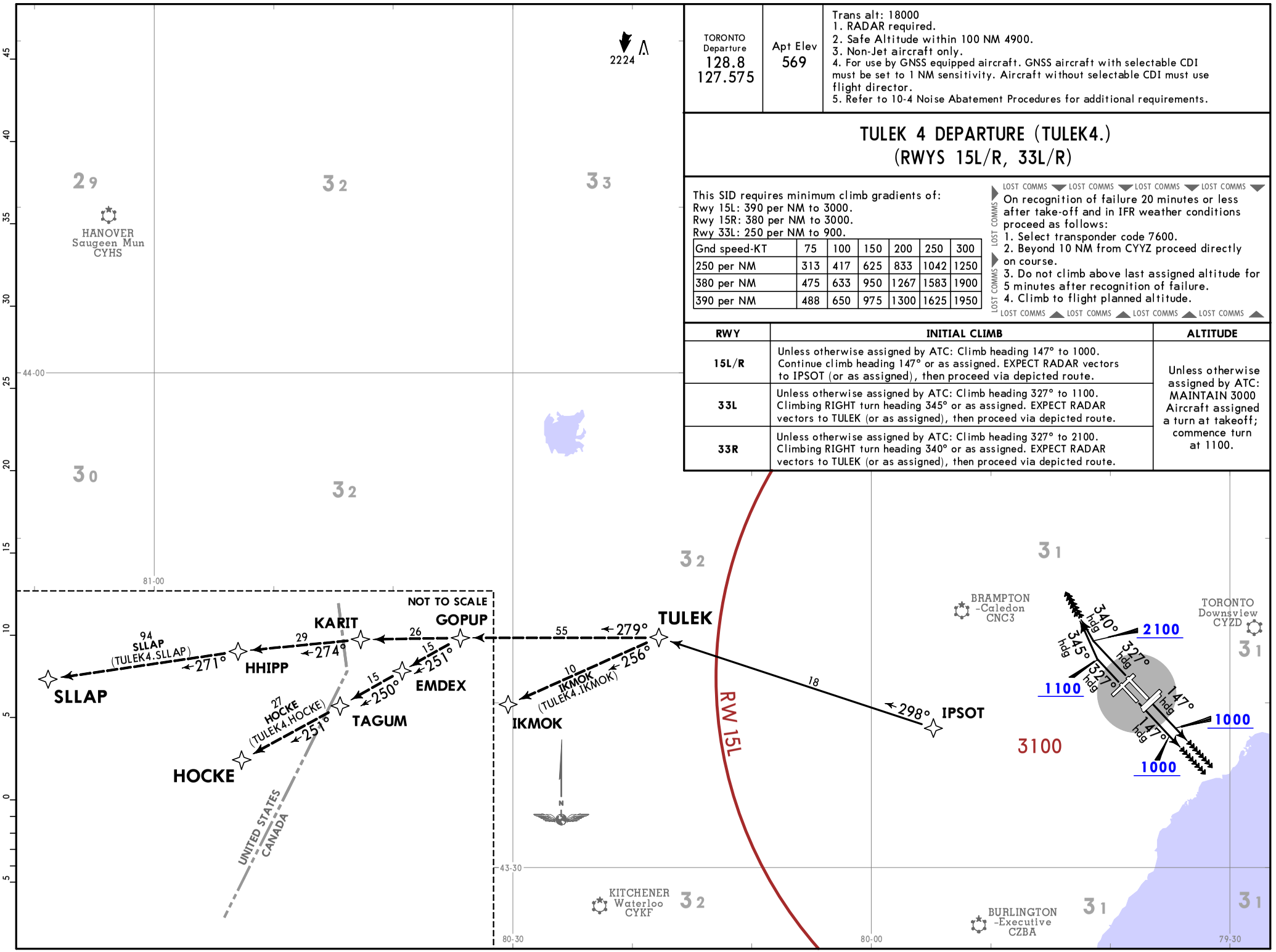
TULEK 4 DEPARTURE (TULEK4.)
(RWYS 15L/R, 33L/R)

This SID requires minimum climb gradients of:
Rwy 15L: 390 per NM to 3000.
Rwy 15R: 380 per NM to 3000.
Rwy 33L: 250 per NM to 900.

Gnd speed-KT	75	100	150	200	250	300
250 per NM	313	417	625	833	1042	1250
380 per NM	475	633	950	1267	1583	1900
390 per NM	488	650	975	1300	1625	1950

LOST COMMS
On recognition of failure 20 minutes or less after take-off and in IFR weather conditions proceed as follows:
1. Select transponder code 7600.
2. Beyond 10 NM from CYYZ proceed directly on course.
3. Do not climb above last assigned altitude for 5 minutes after recognition of failure.
4. Climb to flight planned altitude.

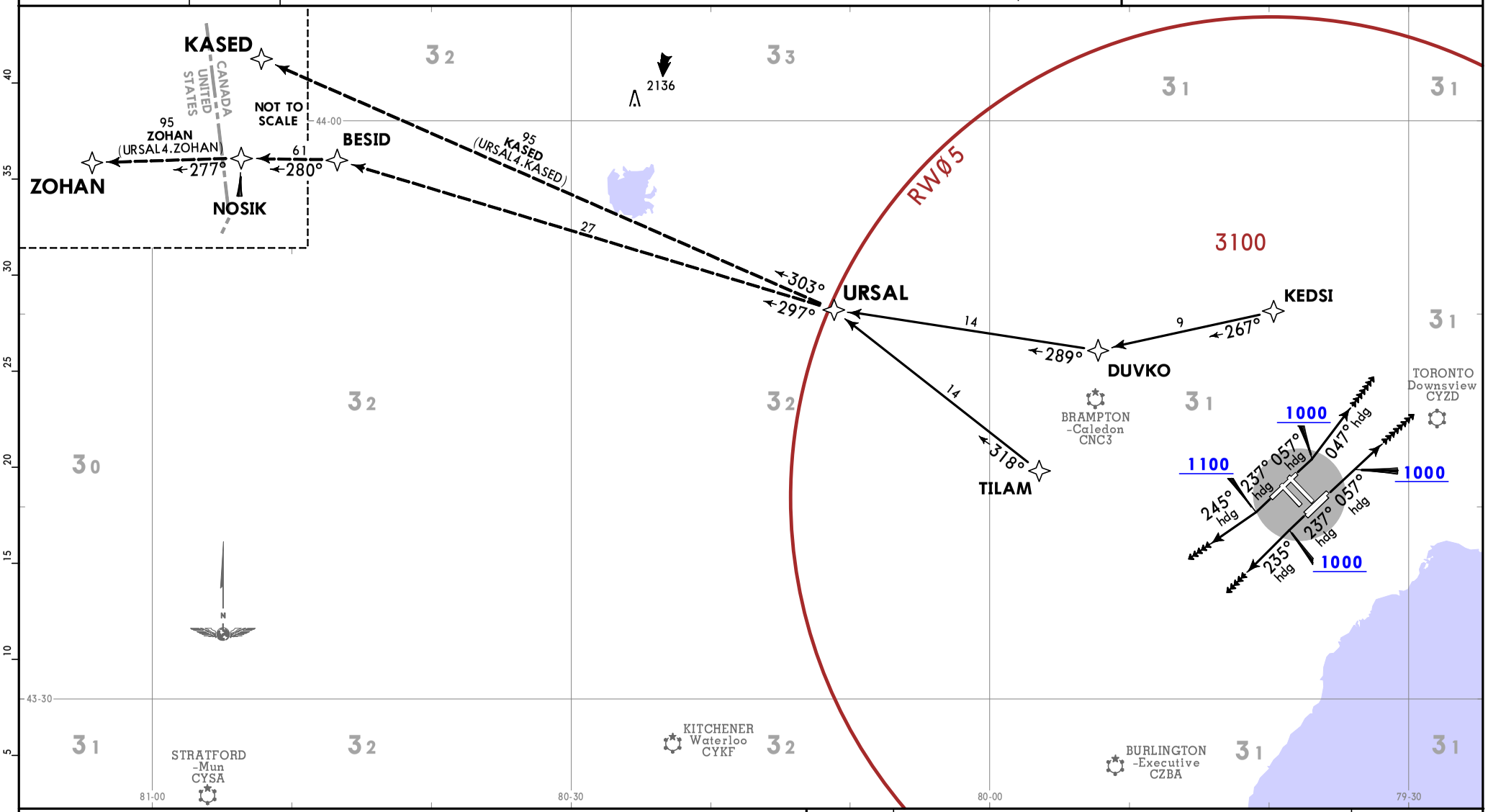
RWY	INITIAL CLIMB	ALTITUDE
15L/R	Unless otherwise assigned by ATC: Climb heading 147° to 1000. Continue climb heading 147° or as assigned. EXPECT RADAR vectors to IPSOT (or as assigned), then proceed via depicted route.	Unless otherwise assigned by ATC: MAINTAIN 3000 Aircraft assigned a turn at takeoff; commence turn at 1100.
33L	Unless otherwise assigned by ATC: Climb heading 327° to 1100. Climbing RIGHT turn heading 345° or as assigned. EXPECT RADAR vectors to TULEK (or as assigned), then proceed via depicted route.	
33R	Unless otherwise assigned by ATC: Climb heading 327° to 2100. Climbing RIGHT turn heading 340° or as assigned. EXPECT RADAR vectors to TULEK (or as assigned), then proceed via depicted route.	



CHANGES: Airport name.

TORONTO Departure	Apt Elev	Trans alt: 18000
128.8 127.575	569	1. RADAR required. 2. CAUTION: Rwys 05, 06L/R, 23, 24L/R departures: Simultaneous parallel departures in use. 3. Safe Altitude within 100 NM 4900. 4. Jet aircraft only. 5. For use by GNSS or D/D/I equipped aircraft. Aircraft with selectable CDI must be set to 1 NM sensitivity. Aircraft without selectable CDI must use flight director. 6. Refer to 10-4 Noise Abatement Procedures for additional requirements.

URSAL 4 DEPARTURE (URSAL4.)
(RWYS 05, 06L/R, 23, 24L/R)



This SID requires minimum climb gradients of:
Rwy 05: 360 per NM to 2700.
Rwy 06L: 400 per NM to 2700.
Rwy 06R: 390 per NM to 2700.
Rwy 24L: 270 per NM to 1700.
Rwy 24R: 260 per NM to 1700.

Gnd speed-KT	75	100	150	200	250	300
260 per NM	325	433	650	867	1083	1300
270 per NM	338	450	675	900	1125	1350
360 per NM	450	600	900	1200	1500	1800
390 per NM	488	650	975	1300	1625	1950
400 per NM	500	667	1000	1333	1667	2000

LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST COMMS

On recognition of failure 20 minutes or less after take-off and in IFR weather conditions proceed as follows:
1. Select transponder code 7600.
2. Beyond 10 NM from CYYZ proceed directly on course.
3. Do not climb above last assigned altitude for 5 minutes after recognition of failure.
4. Climb to flight planned altitude.

LOST COMMS ▲ LOST COMMS ▲ LOST COMMS ▲ LOST COMMS ▲ LOST COMMS

RWY	INITIAL CLIMB	ALTITUDE
05	Unless otherwise assigned by ATC: Climb heading 057° to 1000. Climbing LEFT turn heading 047° or as assigned. EXPECT RADAR vectors to KEDSI (or as assigned), then proceed via depicted route.	Unless otherwise assigned by ATC: MAINTAIN 5000
06L/R	Unless otherwise assigned by ATC: Climb heading 057° to 1000. Continue climb heading 057° or as assigned. EXPECT RADAR vectors to KEDSI (or as assigned), then proceed via depicted route.	
23	Unless otherwise assigned by ATC: Climb heading 237° to 1100. Climbing RIGHT turn heading 245° or as assigned. EXPECT RADAR vectors to TILAM (or as assigned), then proceed via depicted route.	
24L/R	Unless otherwise assigned by ATC: Climb heading 237° to 1000. Climbing LEFT turn heading 235° or as assigned. EXPECT RADAR vectors to TILAM (or as assigned), then proceed via depicted route.	

CHANGES: Airport name.

TORONTO Departure	Apt Elev	
128.8 127.575	569	Trans alt: 18000 1. RADAR required. 2. Safe Altitude within 100 NM 4900. 3. Jet aircraft only. 4. For use by GNSS or D/D/I equipped aircraft. Aircraft with selectable CDI must be set to 1 NM sensitivity. Aircraft without selectable CDI must use flight director. 5. Refer to 10-4 Noise Abatement Procedures for additional requirements.

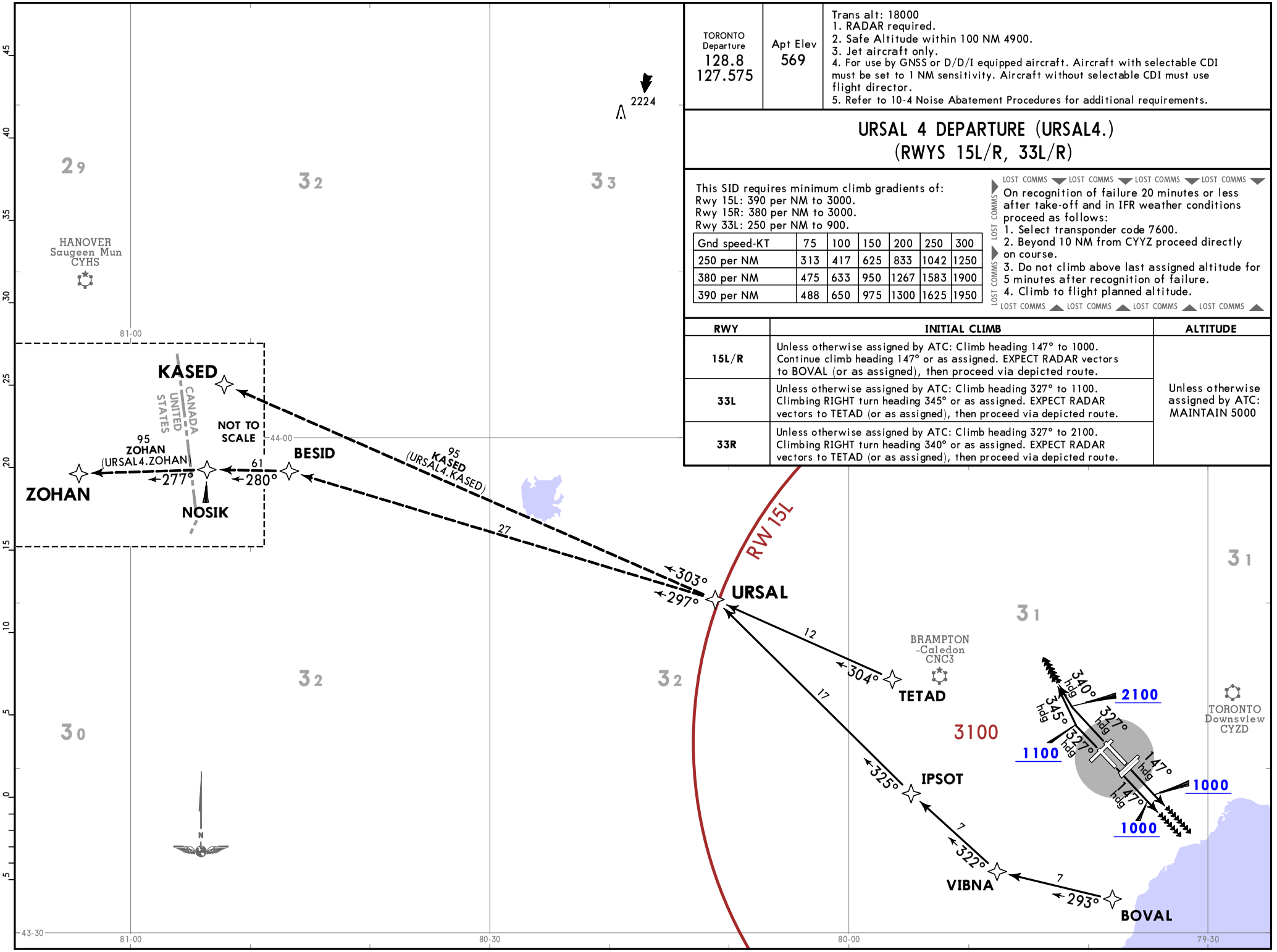
URSAL 4 DEPARTURE (URSAL4.)
(RWYS 15L/R, 33L/R)

This SID requires minimum climb gradients of:
Rwy 15L: 390 per NM to 3000.
Rwy 15R: 380 per NM to 3000.
Rwy 33L: 250 per NM to 900.

Gnd speed-KT	75	100	150	200	250	300
250 per NM	313	417	625	833	1042	1250
380 per NM	475	633	950	1267	1583	1900
390 per NM	488	650	975	1300	1625	1950

LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼
LOST COMMS
On recognition of failure 20 minutes or less after take-off and in IFR weather conditions proceed as follows:
1. Select transponder code 7600.
2. Beyond 10 NM from CYYZ proceed directly on course.
3. Do not climb above last assigned altitude for 5 minutes after recognition of failure.
4. Climb to flight planned altitude.
LOST COMMS
LOST COMMS ▲ LOST COMMS ▲ LOST COMMS ▲ LOST COMMS ▲

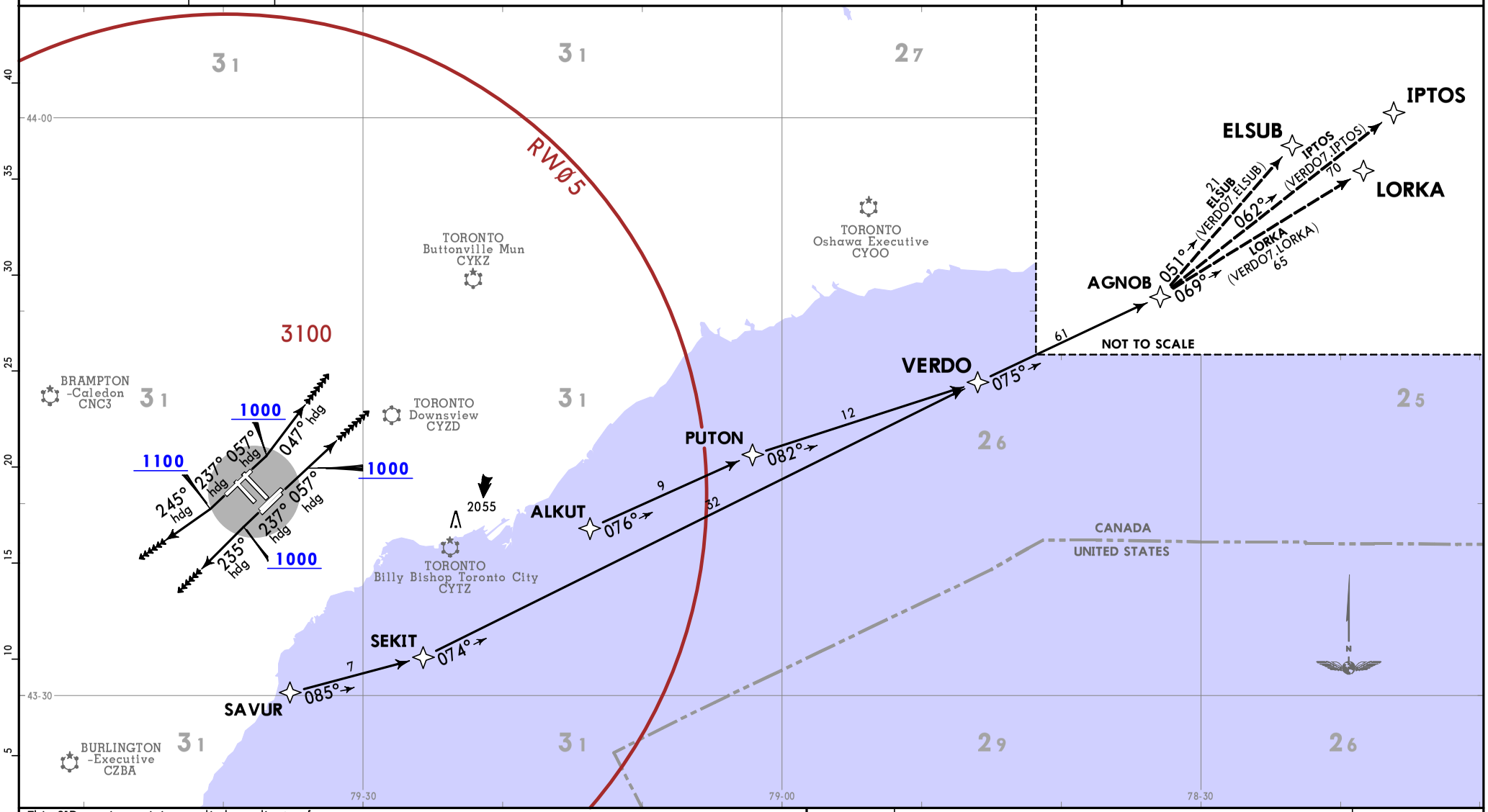
RWY	INITIAL CLIMB	ALTITUDE
15L/R	Unless otherwise assigned by ATC: Climb heading 147° to 1000. Continue climb heading 147° or as assigned. EXPECT RADAR vectors to BOVAL (or as assigned), then proceed via depicted route.	Unless otherwise assigned by ATC: MAINTAIN 5000
33L	Unless otherwise assigned by ATC: Climb heading 327° to 1100. Climbing RIGHT turn heading 345° or as assigned. EXPECT RADAR vectors to TETAD (or as assigned), then proceed via depicted route.	
33R	Unless otherwise assigned by ATC: Climb heading 327° to 2100. Climbing RIGHT turn heading 340° or as assigned. EXPECT RADAR vectors to TETAD (or as assigned), then proceed via depicted route.	



TORONTO Departure	Apt Elev
128.8 127.575	569

Trans alt: 18000
1. RADAR required.
2. CAUTION: Rwys 05, 06L/R, 23, 24L/R departures: Simultaneous parallel departures in use.
3. Safe Altitude within 100 NM 4900.
4. Jet aircraft only.
5. For use by GNSS or D/D/I equipped aircraft. Aircraft with selectable CDI must be set to 1 NM sensitivity. Aircraft without selectable CDI must use flight director.
6. Refer to 10-4 Noise Abatement Procedures for additional requirements.

VERDO 7 DEPARTURE (VERDO7.)
(RWYS 05, 06L/R, 23, 24L/R)



This SID requires minimum climb gradients of:
Rwy 05: 360 per NM to 2700.
Rwy 06L: 400 per NM to 2700.
Rwy 06R: 390 per NM to 2700.
Rwy 24L: 270 per NM to 1700.
Rwy 24R: 260 per NM to 1700.

Gnd speed-KT	75	100	150	200	250	300
260 per NM	325	433	650	867	1083	1300
270 per NM	338	450	675	900	1125	1350
360 per NM	450	600	900	1200	1500	1800
390 per NM	488	650	975	1300	1625	1950
400 per NM	500	667	1000	1333	1667	2000

LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST COMMS
On recognition of failure 20 minutes or less after take-off and in IFR weather conditions proceed as follows:
1. Select transponder code 7600.
2. Beyond 10 NM from CYYZ proceed directly on course.
3. Do not climb above last assigned altitude for 5 minutes after recognition of failure.
4. Climb to flight planned altitude.
LOST COMMS ▲ LOST COMMS ▲ LOST COMMS ▲ LOST COMMS ▲ COMMS

RWY	INITIAL CLIMB	ALTITUDE
05	Unless otherwise assigned by ATC: Climb heading 057° to 1000. Climbing LEFT turn heading 047° or as assigned. EXPECT RADAR vectors to ALKUT (or as assigned), then proceed via depicted route.	Unless otherwise assigned by ATC: MAINTAIN 5000
06L/R	Unless otherwise assigned by ATC: Climb heading 057° to 1000. Continue climb heading 057° or as assigned. EXPECT RADAR vectors to ALKUT (or as assigned), then proceed via depicted route.	
23	Unless otherwise assigned by ATC: Climb heading 237° to 1100. Climbing RIGHT turn heading 245° or as assigned. EXPECT RADAR vectors to SAVUR (or as assigned), then proceed via depicted route.	
24L/R	Unless otherwise assigned by ATC: Climb heading 237° to 1000. Climbing LEFT turn heading 235° or as assigned. EXPECT RADAR vectors to SAVUR (or as assigned), then proceed via depicted route.	

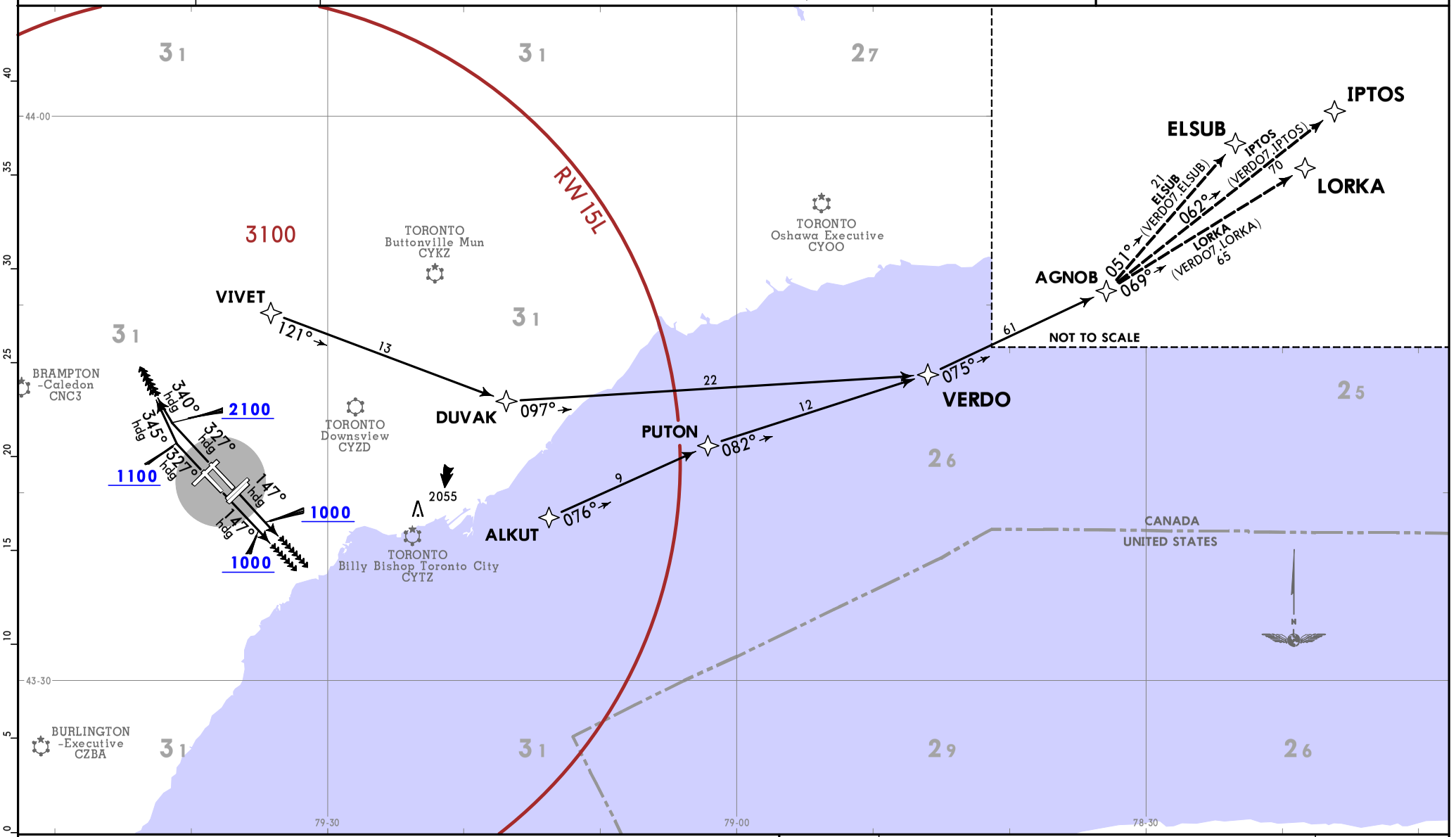
CHANGES: Airport name.

VERDO 7 DEPARTURE (VERDO7.)
(RWYS 15L/R, 33L/R)

TORONTO Departure	Apt Elev
128.8 127.575	569

Trans alt: 18000
1. RADAR required.
2. Safe Altitude within 100 NM 4900.
3. Jet aircraft only.

4. For use by GNSS or D/D/I equipped aircraft. Aircraft with selectable CDI must be set to 1 NM sensitivity. Aircraft without selectable CDI must use flight director.
5. Refer to 10-4 Noise Abatement Procedures for additional requirements.



This SID requires minimum climb gradients of:
Rwy 15L: 390 per NM to 3000.
Rwy 15R: 380 per NM to 3000.
Rwy 33L: 250 per NM to 900.

Gnd speed-KT	75	100	150	200	250	300
250 per NM	313	417	625	833	1042	1250
380 per NM	475	633	950	1267	1583	1900
390 per NM	488	650	975	1300	1625	1950

LOST COMMS
On recognition of failure 20 minutes or less after take-off and in IFR weather conditions proceed as follows:
1. Select transponder code 7600.
2. Beyond 10 NM from CYYZ proceed directly on course.
3. Do not climb above last assigned altitude for 5 minutes after recognition of failure.
4. Climb to flight planned altitude.

RWY	INITIAL CLIMB	ALTITUDE
15L/R	Unless otherwise assigned by ATC: Climb heading 147° to 1000. Continue climb heading 147° or as assigned. EXPECT RADAR vectors to ALKUT (or as assigned), then proceed via depicted route.	Unless otherwise assigned by ATC: MAINTAIN 5000
33L	Unless otherwise assigned by ATC: Climb heading 327° to 1100. Climbing RIGHT turn heading 345° or as assigned. EXPECT RADAR vectors to VIVET (or as assigned), then proceed via depicted route.	
33R	Unless otherwise assigned by ATC: Climb heading 327° to 2100. Climbing RIGHT turn heading 340° or as assigned. EXPECT RADAR vectors to VIVET (or as assigned), then proceed via depicted route.	

CHANGES: Airport name.

NOISE ABATEMENT PROCEDURES

DAYLIGHT : LT plus 4 HOURS= UTC(Z)
STANDARD : LT plus 5 HOURS= UTC(Z)

GENERAL

Noise Operating Restrictions and Noise Abatement Procedures apply, at Toronto/Lester B. Pearson Intl Airport, to all IFR and VFR Aircraft, unless otherwise specified.

NOISE OPERATING RESTRICTIONS

A. Restrictions:

1. Arrivals and departures of all aircraft are restricted as per the table below:

AIRCRAFT	RESTRICTED HOURS - LOCAL TIME
Noise Certification or Type	Arrivals & Departures
All Non-noise Certificated Jet Aircraft	2000 - 0800
All ICAO Annex 16, Vol 1 Chapter 2 & equivalent Aircraft	0000 - 0700
All ICAO Annex 16, Vol 1 Chapter 3 & equivalent Aircraft (subject to paragraph 4 or 5)	0030 - 0630
All other Aircraft (subject to paragraph 4 or 5)	0030 - 0630

2. Non-noise certificated jet powered aircraft are prohibited from departing on runways 05, 06L, 06R, 15L, 15R and 33L.
3. Between 0000 and 0630 local time, departures are prohibited on runways 05, 06L, 06R, 15L and 15R and arrivals are prohibited on runways 24R, 24L, 23, 33R, 33L and 15R unless assigned by ATC.
4. All aircraft operating on a scheduled and repetitive basis are required to obtain an extension or an exemption to operate during the restricted hours. Submit requests for operating extensions on the day of operation to the Greater Toronto Airports Authority with justification at 416-776-3480, or 1-800-267-SLOT (7568), (Fax 416-776-5552). For advance exemption requests or information, make submission in writing to the

Manager
Slots Coordination
Greater Toronto Airports Authority
Toronto Pearson International Airport
P.O. Box 6031 Toronto AMF, Ontario
L5P 1B2
(Fax 416-776-3483)

5. **ALL OTHER OPERATORS ARE REQUIRED TO OBTAIN PERMISSION TO OPERATE DURING THE RESTRICTED HOURS** by contacting the Greater Toronto Airports Authority on the day of operation at 416-776-3480 or 1-800-267-SLOT (7568), (Fax 416-776-5552).

CHANGES: Airport name.

NOISE ABATEMENT PROCEDURES

B. Preferential runway assignment (0000 - 0629 local time).

Consistent with operational safety (i.e., wind, weather, runway conditions, approach aid availability etc.), ATC will assign runways in the following order of priority.

AMENDED PREFERENTIAL RUNWAY SYSTEM			
PREFERENCE	**ARRIVALS**	**DEPARTURES**	**NOTES**
1	05 (06L/R)	33R (33L)	Use as a Pair
2	15L (15R)	23 (24L/R)	Use as a Pair
Note: Runways in brackets are available when the corresponding preferential runwy is not available.			

PROVISION FOR WEATHER AND INFRASTRUCTURE AVAILABILITY			
OPTION	**ARRIVALS**	**DEPARTURES**	**NOTES**
Northerly	33R (33L)	33R (33L)	Single Runway Operation
Southerly	15L (15R)	15L (15R)	Single Runway Operation
Westerly	23 (24R/L)	23 (24R/L)	Single Runway Operation
Easterly	05 (06L/R)	05 (06L/R)	Single Runway Operation
Note: NAV CANADA may use any of these runways, as required, when the first and second preference pairs are unavailable or not an appropriate choice.			

Operators shall comply with the amended nighttime preferential runway system, which is in effect every day from 00:00 to 06:29 local time. Approval during this time is required for any requests for non-preferential runway departures, arrivals, or both. These requests are to be directed to GTAA Airport Duty Manager (416-776-3030).

C. Engine Run-ups

Between 0000 - 0700 local time, maintenance run-ups are prohibited unless authorized by the Greater Toronto Airports Authority (416-776-3056).

D. Training Flights

Training flights are not permitted in the Toronto Control Zone from 0000 - 0700 local time. For other times, prior permission is required from National Traffic Management Unit (FLOW CTL) 800-268-4831 or 905-676-3528.

NOISE ABATEMENT PROCEDURES (GENERAL)

A. Reverse Thrust

Consistent with safe operating procedures, plan landing using idle reverse thrust.

NOISE ABATEMENT PROCEDURES

B. 0700 - 2300 local time

Except in emergencies, Noise Abatement Procedures as outlined in 1. and 2. below apply to all turbo-jet and turbo-fan powered aircraft.

1. Departure Procedure:

(a) NADP 1 or 2 is required for all runways. See Jeppesen Canada ATC para 7.6. or Canada Rules and Procedures Noise Abatement, if held.

(b) SID routing shall be followed to 3600′ AMSL. For Rwys 33L and 33R, no unauthorized turns until abeam YYZ R-343/4.0 DME.

NOTE: SID cancellation does not terminate Noise Abatement Procedure.

(c) Early Turn-Rwys 05, 06L, 06R, 23, 24L 24R, departures: Applies only to the following jet aircraft types - CRJ1, CRJ2, E135, E145, E45X, J328, CL60, C750, GLEX, GLF4, and GLF5. Commence turn assigned at take-off at 1100′ AMSL.

2. Arrival Procedures:

Consistent with safety, crews shall minimize approach noise. For all approaches including visual approaches:

(a) Maintain 3000′ AMSL or above until intercepting extended runway centerline, and;

(b) Intercept extended runway centerline at or outside Final Approach Fix, then;

(c) Remain on or above glide slope or assumed 3.0° glide slope.

C. 2301 - 0659 local time

1. Procedures:

Departure Procedures 1. (b) above, and Arrival Procedures 2. above apply to all aircraft. Departure Procedure 1. (a) above applies to Turbo-jet and Turbo-fan powered aircraft only.

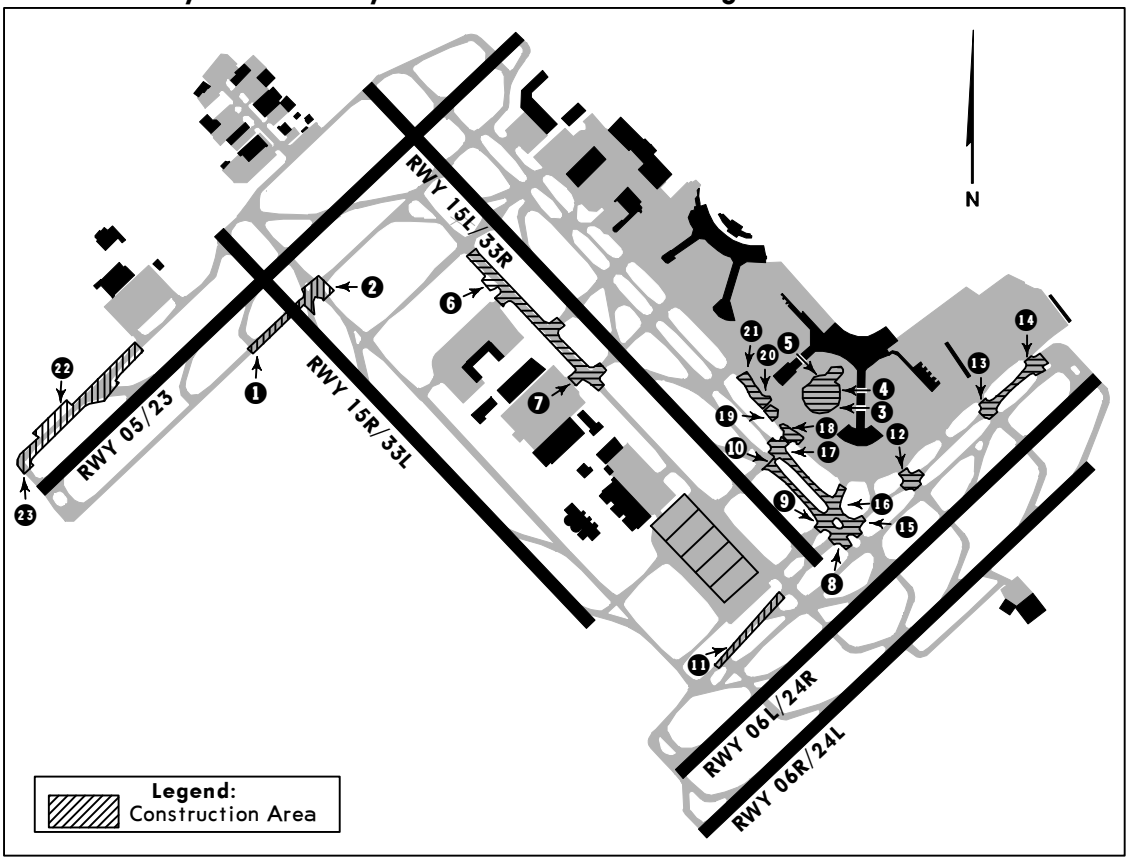
TORONTO/LESTER B. PEARSON INTERNATIONAL AIRPORT, ON (CYYZ)
CONSTRUCTION ACTIVITIES SPRING/SUMMER 2023 (SUP 16/23)

Introduction

The scope and potential impacts from **mid-April to mid-October 2023** construction projects at Toronto/Lester B. Pearson International Airport are outlined herein.

Since all activities are subject to operational requirements and construction schedules, actual dates and times of construction activities will be promogulated through briefing documents and NOTAM.

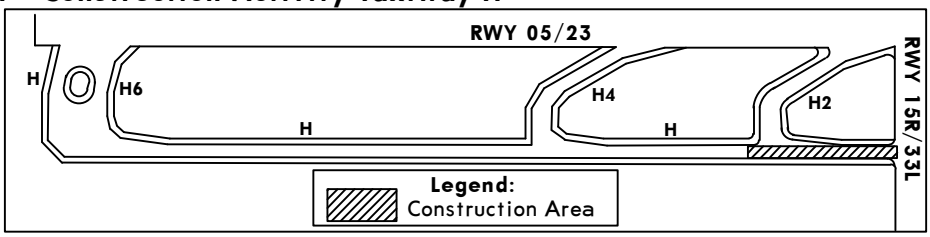
CYYZ Runway and Taxiway Area identification diagram



1. Construction Activity Taxiway H
2. Construction Activity Taxiway H and Taxiway F
3. Rehabilitation Activity Old T1 Footprint - Phase 1
4. Rehabilitation Activity Old T1 Footprint - Phases 1 and 1A Combined
5. Rehabilitation Activity Old T1 Footprint - Phase 2
6. Construction Activity Taxiway E - Phase 1 and 1A
7. Construction Activity Taxiway E - Phase 2 and 2A
8. Construction Activity Taxiway B - Phase 1 and 1A
9. Construction Activity Taxiway B - Phase 2 and 2A
10. Construction Activity Taxiway B - Phase 3
11. Construction Activity Taxiway D - Phase 1
12. Construction Activity Taxiway D and Taxiway DQ
13. Construction Activity Taxiway D and Taxiway DT
14. Construction Activity Taxiway D and Taxiway DV
15. Construction Activity Taxiway A - Phase 1 and 1A
16. Construction Activity Taxiway A - Phase 2 and 2A
17. Construction Activity Taxiway A - Phase 3 and 3A
18. Construction Activity T1 Apron - Phase 1
19. Construction Activity T1 Apron - Phase 2
20. Construction Activity T1 Apron - Phase 3
21. Construction Activity T1 Apron - Phase 4
22. Construction Activity Taxiway JC
23. Construction Activity Taxiway J

TORONTO/LESTER B. PEARSON INTERNATIONAL AIRPORT, ON (CYYZ)
CONSTRUCTION ACTIVITIES SPRING/SUMMER 2023 (CONTD 1) (SUP 16/23)

Area 1 - Construction Activity Taxiway H



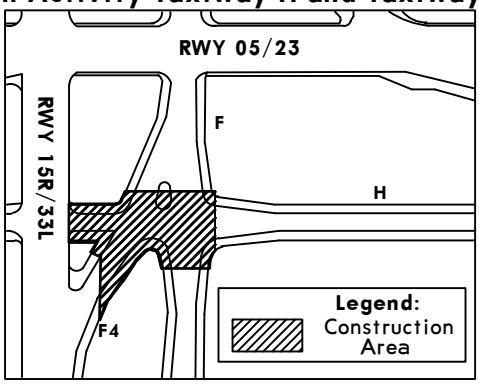
Dates: Mid-September 2023

Scope: Taxiway surface and base rehabilitation

Impacts:

- Runway 15R/33L **closed**
- Taxiway H **closed** between Runway 05 and Runway 15R
- Taxiway H2 **closed**
- Taxiway H4 **restricted** to Code C aircraft
- Taxiway H6 **restricted** to Code C aircraft
- Taxiway H between Taxiway H4 and Runway 05 **restricted** to Code C aircraft

Area 2 - Construction Activity Taxiway H and Taxiway F



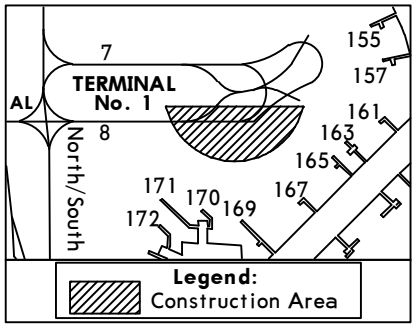
Dates: Early September 2023 to late September 2023

Scope: Taxiway surface and base rehabilitation

Impacts:

- Runway 15R/33L **closed**, available as a taxiway
- Taxiway F **closed** between Taxiway F2 and Runway 05/23
- Taxiway H **closed** between Runway 15R/33L and Taxiway G
- Taxiway F4 **closed**

Area 3 - Rehabilitation Activity Old T1 Footprint - Phase 1



Dates: Late April 2023 to early May 2023

Scope: Apron concrete surface rehabilitation

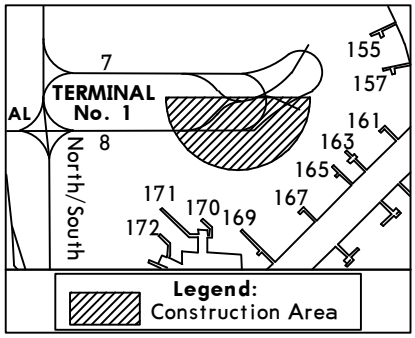
Impacts:

- Taxilane 8 **closed** east of Startbox 8B
- Stands 170, 169, 167, 165, 163, and 161A **closed**
- Green centerline lighting **unavailable** on Taxilanes 7 and 8

CHANGES: Airport name.

TORONTO/LESTER B. PEARSON INTERNATIONAL AIRPORT, ON (CYYZ)
CONSTRUCTION ACTIVITIES SPRING/SUMMER 2023 (CONTD 2) (SUP 16/23)

Area 4 - Rehabilitation Activity Old T1 Footprint - Phases 1 and 1A Combined



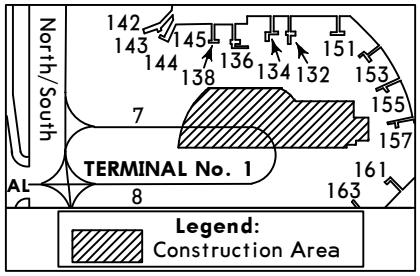
Dates: Late April 2023 to early May 2023

Scope: Apron concrete surface rehabilitation

Impacts:

- Taxilane 8 **closed** east of Startbox 8B
- Taxilane 7 **restricted** to Code C aircraft and smaller east of Stand 145
- Stands 170, 169, 167, 165, 163, and 157 **closed**
- Green centerline lighting **unavailable** on Taxilanes 7 and 8

Area 5 - Rehabilitation Activity Old T1 Footprint - Phase 2



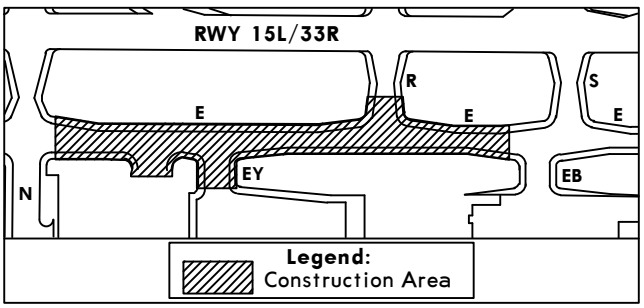
Dates: Early May 2023 to mid May 2023

Scope: Apron surface and base rehabilitation

Impacts:

- Taxilane 7 **closed** east of Startbox 7B
- Stands 145, 138, 136, 134, 132, 151, 153, 155, 157, 161A, and 163 **closed**
- Green centerline lighting unavailable on Taxilanes 7 and 8

Area 6 - Construction Activity Taxiway E - Phase 1 and 1A



Dates: Mid May 2023 to Late May 2023

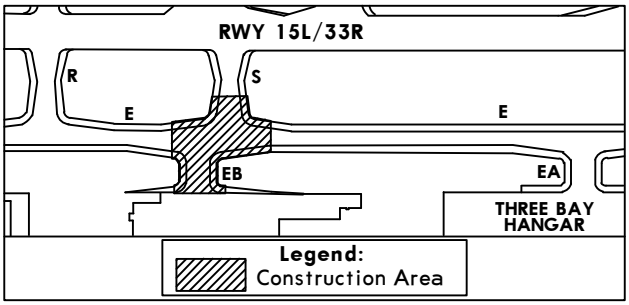
Scope: Taxiway surface rehabilitation

Impacts:

- Runway 15L/33R certification changed to **non-instrument**
- Taxiway E **closed** between Taxiway N and Taxiway EB
- Taxiway R **closed** between Taxiway E and Runway 15L/33R
- Taxiway EY **closed**
- Phase 1A Runway **15L/33R closed** nightly

TORONTO/LESTER B. PEARSON INTERNATIONAL AIRPORT, ON (CYYZ)
CONSTRUCTION ACTIVITIES SPRING/SUMMER 2023 (CONTD 3) (SUP 16/23)

Area 7 - Construction Activity Taxiway E - Phase 2 and 2A



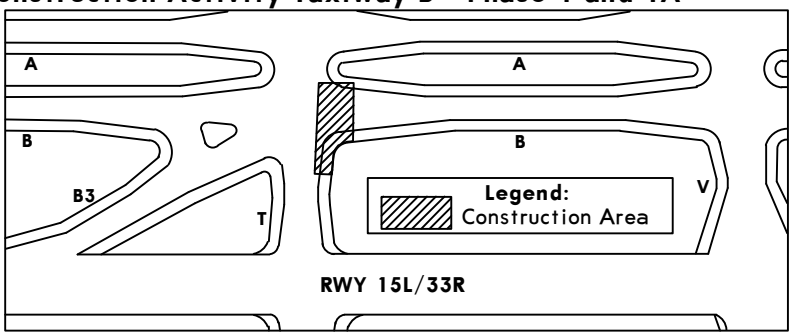
Dates: Late May 2023

Scope: Taxiway surface rehabilitation

Impacts:

- Runway 15L/33R certification changed to **non-instrument**
- Taxiway E **closed** between Taxiway R and Taxiway EA
- Taxiway S **closed** between Taxiway E and Runway 15L/33R
- Taxiway EB **closed**
- Phase 2A Runway 15L/33R **closed** nightly

Area 8 - Construction Activity Taxiway B - Phase 1 and 1A



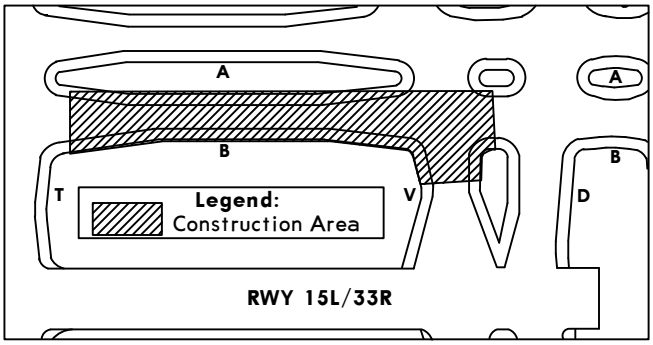
Dates: Late June 2023

Scope: Taxiway surface rehabilitation

Impacts:

- Runway 15L/33R certification changed to **non-instrument**
- Taxiway B **closed** between Taxiway B3 and Taxiway V
- Taxiway T **closed** between Taxiway A and Runway 15L/33R
- Taxiway B3 **restricted** to northbound turns onto Taxiway B only
- Phase 1A Runway 15L/33R **closed** nightly

Area 9 - Construction Activity Taxiway B - Phase 2 and 2A



Dates: Late June 2023 to mid-July 2023

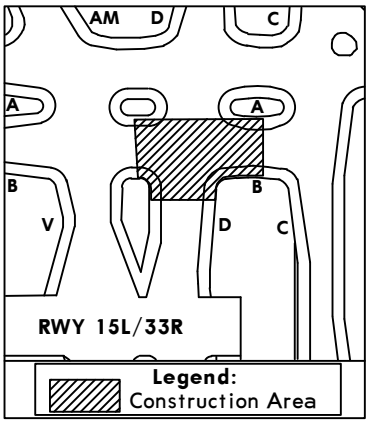
Scope: Taxiway surface rehabilitation

Impacts:

- Runway 15L/33R certification changed to **non-instrument**
- Taxiway B **closed** between Taxiway T and Taxiway D
- Taxiway V **closed** between Taxiway A and Runway 15L/33R
- Taxiway D between Taxiway A and Runway 15L/33R **restricted** to Code E aircraft
- Phase 2A Runway 15L/33R **closed** nightly

TORONTO/LESTER B. PEARSON INTERNATIONAL AIRPORT, ON (CYYZ)
CONSTRUCTION ACTIVITIES SPRING/SUMMER 2023 (CONTD 4) (SUP 16/23)

Area 10 - Construction Activity Taxiway B - Phase 3



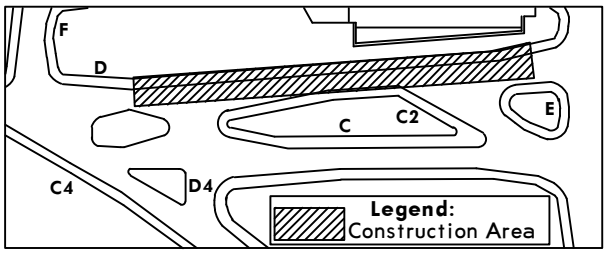
Dates: Mid July 2023 to late July 2023

Scope: Taxiway surface rehabilitation

Impacts:

- Runway 15L/33R certification changed to **non-instrument**
- Taxiway B **closed** between Taxiway V and Taxiway C
- Taxiway D **closed** between Taxiway A and Runway 15L/33R
- Taxiway C between Taxiway A and Runway 15L/33R **restricted** to Code E aircraft

Area 11 - Construction Activity Taxiway D - Phase 1



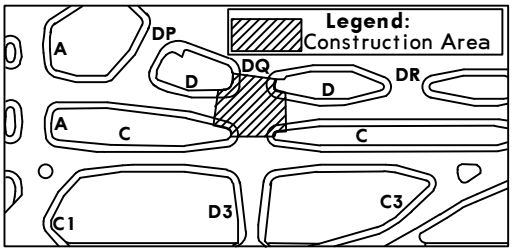
Dates: Mid-July 2023 to Late August 2023

Scope: Taxiway surface and base rehabilitation

Impacts:

- Taxiway D **closed** between Taxiway C4 and Taxiway E
- Taxiway D4 **closed** between Taxiway C and Taxiway D
- Taxiway C2 **closed** between Taxiway C and Taxiway D

Area 12 - Construction Activity Taxiway D and Taxiway DQ



Dates: Early June 2023 to mid-June 2023

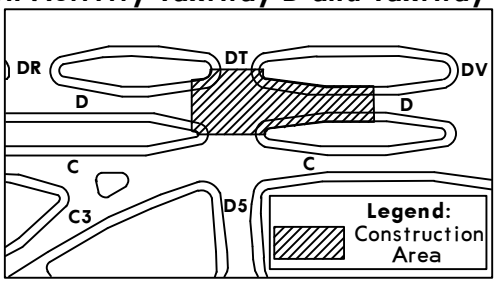
Scope: Taxiway surface rehabilitation

Impacts:

- Taxiway DQ **closed**
- Taxiway D **closed** between Taxiway DP and Taxiway DR
- Taxiway D3 North of Taxiway C **closed**
- Taxiway **C** between Taxiway C1 and Taxiway C3 **restricted** to Code C aircraft nightly

TORONTO/LESTER B. PEARSON INTERNATIONAL AIRPORT, ON (CYYZ)
CONSTRUCTION ACTIVITIES SPRING/SUMMER 2023 (CONTD 5) (SUP 16/23)

Area 13 - Construction Activity Taxiway D and Taxiway DT



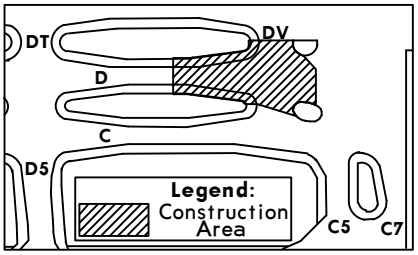
Dates: Early August 2023

Scope: Taxiway surface rehabilitation

Impacts:

- Taxiway DT **closed**
- Taxiway D **closed** between Taxiway DR and Taxiway DV
- Taxiway D5 north of Taxiway **C closed**
- Taxiway **C** between Taxiway DV and Taxiway C3 **restricted** to Code C aircraft nightly

Area 14 - Construction Activity Taxiway D and Taxiway DV



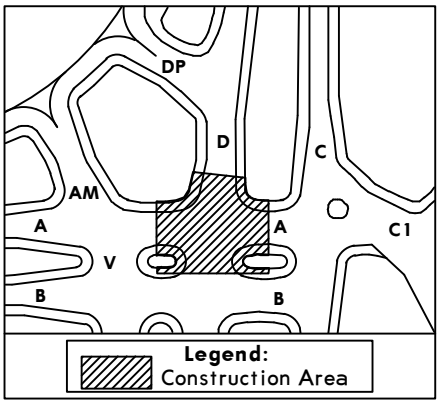
Dates: Mid-August 2023

Scope: Taxiway surface rehabilitation

Impacts:

- Taxiway DV **closed**
- Taxiway D **closed** between Taxiway DT and Taxiway C7
- Taxiway C5 **closed** between Taxiway D and Taxiway C
- Taxiway C7 **closed** between Taxiway D and Taxiway C
- Taxiway **C** between Taxiway D5 and Taxiway C7 **restricted** to Code C aircraft nightly

Area 15 - Construction Activity Taxiway A - Phase 1 and 1A



Dates: Late August 2023

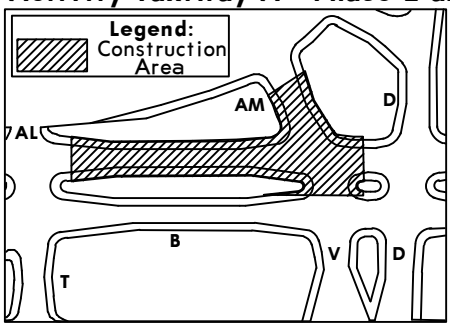
Scope: Taxiway surface rehabilitation

Impacts:

- Taxiway D **closed** between Taxiway DP and Taxiway B
- Taxiway A **closed** between Taxiway V and Taxiway C
- Taxiway AM **restricted** to Code E aircraft
- Phase 1A Taxiway B between Taxiway D and Taxiway V **restricted** to Code C aircraft nightly

TORONTO/LESTER B. PEARSON INTERNATIONAL AIRPORT, ON (CYYZ)
CONSTRUCTION ACTIVITIES SPRING/SUMMER 2023 (CONTD 6) (SUP 16/23)

Area 16 - Construction Activity Taxiway A - Phase 2 and 2A



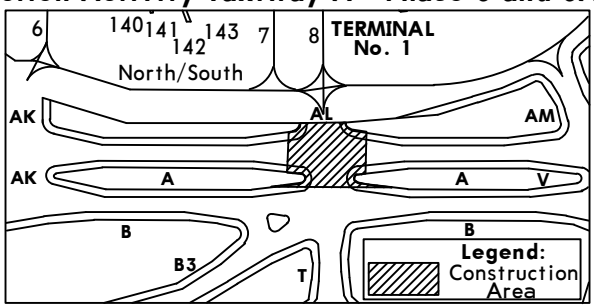
Dates: Late August 2023 to mid-September 2023

Scope: Taxiway surface rehabilitation

Impacts:

- Taxiway A **closed** between Taxiway D and Taxiway T
- Taxiway AM **closed**
- Phase 2A Taxiway B between Taxiway D and Taxiway T **restricted** to Code C aircraft nightly

Area 17 - Construction Activity Taxiway A - Phase 3 and 3A



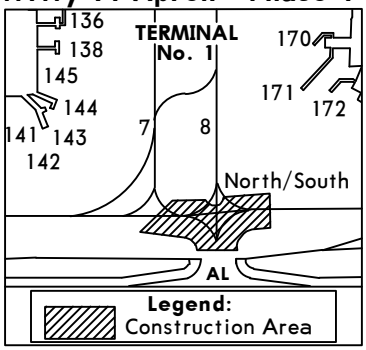
Dates: Mid-September 2023

Scope: Taxiway surface rehabilitation

Impacts:

- Taxiway A **closed** between Taxiway AK and Taxiway V
- Taxiway AL **closed**
- Taxiway T **closed** between Taxiway B and Taxiway AL
- Phase 3A Taxiway B between Taxiway B3 and Taxiway V **restricted** to Code C aircraft nightly

Area 18 - Construction Activity T1 Apron - Phase 1



Dates: Mid-May 2023 to mid-June 2023

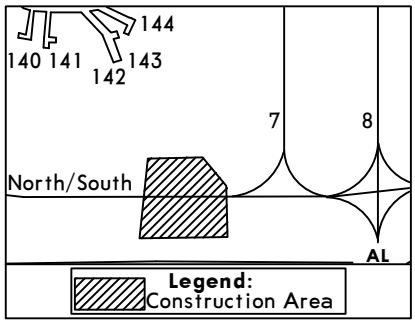
Scope: Apron Concrete Surface Rehabilitation

Impacts:

- Taxiway AL **closed**
- Taxilane **7** between Startbox 7B and the North/South Taxilane **relocated**
- Taxilane **8** between the North/South Taxilane and Stand 171 **closed**
- North/South Taxilane between Taxilane 7 and Stand 172 **closed**
- Green centerline lighting **unavailable** on Terminal Perimeter Taxilane
- Green centerline lighting **unavailable** on Taxilanes 7 and 8

TORONTO/LESTER B. PEARSON INTERNATIONAL AIRPORT, ON (CYYZ)
CONSTRUCTION ACTIVITIES SPRING/SUMMER 2023 (CONTD 7) (SUP 16/23)

Area 19 - Construction Activity T1 Apron - Phase 2



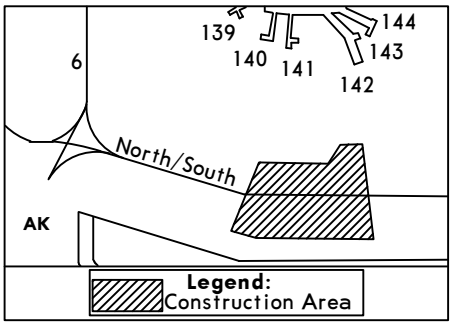
Dates: Mid-June 2023 to mid-July 2023

Scope: Apron Concrete Surface Rehabilitation

Impacts:

- North/South Taxilane between Taxilane 7 and Stand 141 **closed**
- Stand 142 **closed**
- Green centerline lighting **unavailable** on Terminal Perimeter Taxilane

Area 20 - Construction Activity T1 Apron - Phase 3



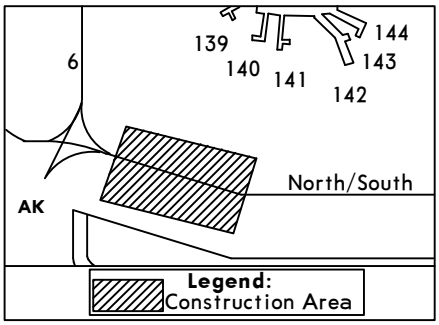
Dates: Mid July 2023 to late July 2023

Scope: Apron Concrete Surface Rehabilitation

Impacts:

- North/South Taxilane between Stand 142 and Stand 140 **closed**
- Stand 141 **closed**
- Green centerline lighting **unavailable** on Terminal Perimeter Taxilane

Area 21 - Construction Activity T1 Apron - Phase 4



Dates: Mid-September 2023 to mid-October 2023

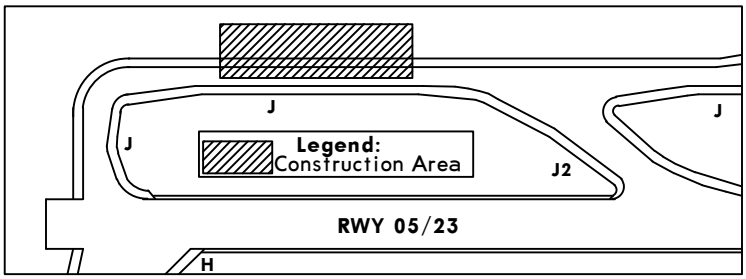
Scope: Apron Concrete Surface Rehabilitation

Impacts:

- North/South Taxilane between Taxilane 6 and Stand 141 **closed**
- Stand 140 **closed**
- Green centerline lighting **unavailable** on Terminal Perimeter Taxilane

TORONTO/LESTER B. PEARSON INTERNATIONAL AIRPORT, ON (CYYZ)
CONSTRUCTION ACTIVITIES SPRING/SUMMER 2023 (CONTD 8) (SUP 16/23)

Area 22 - Construction Activity Taxiway JC



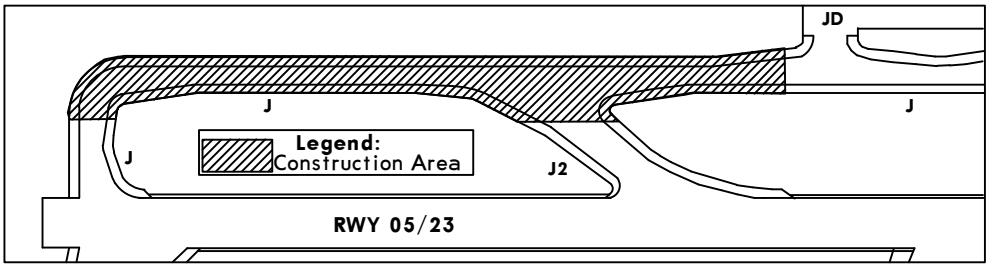
Dates: Early April 2023 to late July 2023

Scope: Taxiway surface and base construction

Impacts:

- Taxiway J between Runway 05 and Taxiway J2 **restricted** to Code C aircraft
- Taxiway J between Runway 05 and Taxiway J2 **closed**

Area 23 - Construction Activity Taxiway J



Dates: Mid-July 2023 to mid-August 2023

Scope: Taxiway surface rehabilitation

Impacts:

- Taxiway J between Runway 05 and Taxiway JD **closed**
- Taxiway J2 **closed**
- Runway 05/23 certification changed to non-instrument

CHANGES: Airport name.

CYYZ/YYZ

Apt Elev **569′**
N43 40.6 W079 37.8

JEPPESEN
28 APR 23 (10-9)

TORONTO, ONT
LESTER B PEARSON INTL

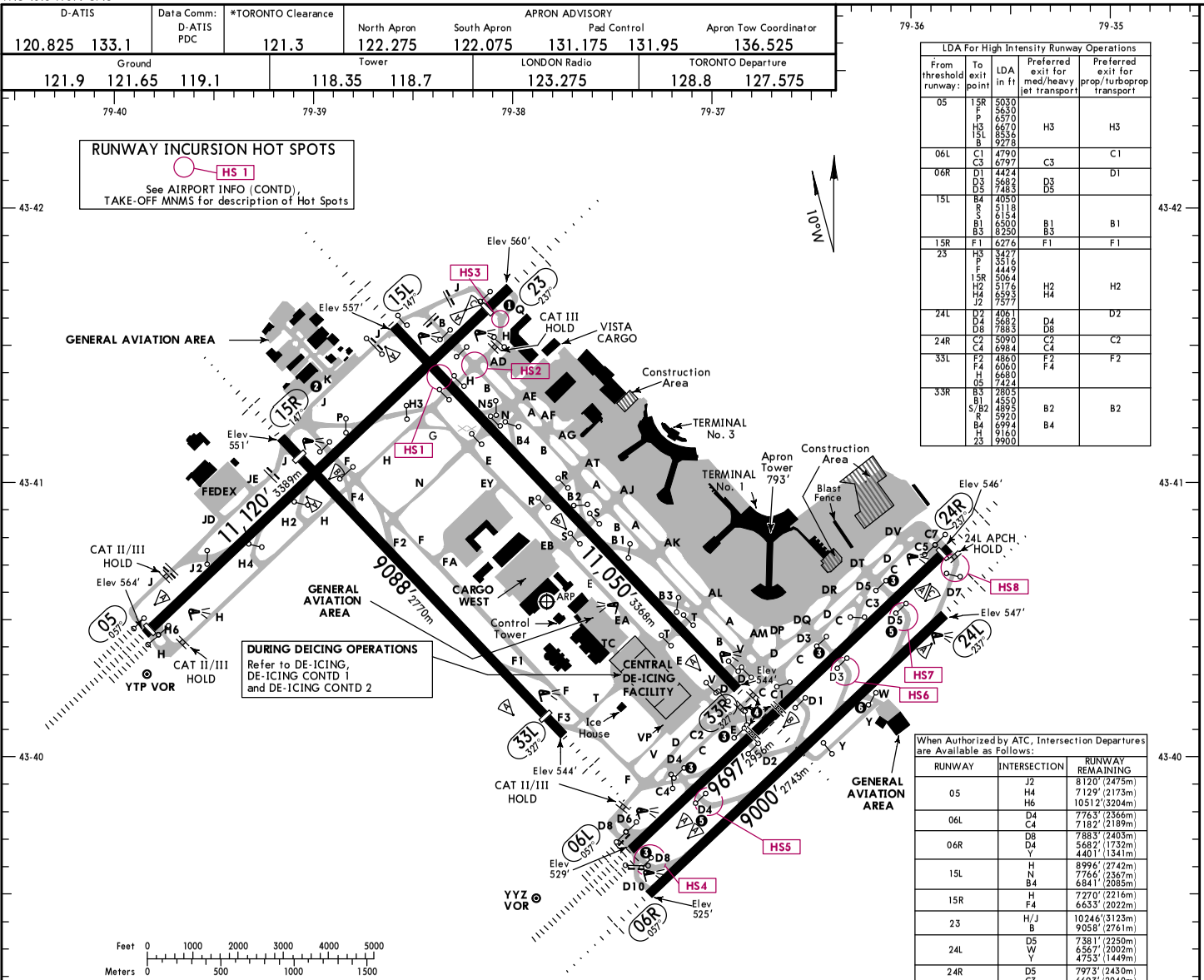
D-ATIS	Data Comm: D-ATIS PDC	*TORONTO Clearance	APRON ADVISORY			
			North Apron	South Apron	Pad Control	Apron Tow Coordinator
120.825 133.1		121.3	122.275	122.075	131.175 131.95	136.525

Ground	Tower	LONDON Radio	TORONTO Departure
121.9 121.65 119.1	118.35 118.7	123.275	128.8 127.575

79-40 79-39 79-38 79-37 79-36 79-35

43-42 43-41 43-40 43-39

RUNWAY INCURSION HOT SPOTS
HS 1
See AIRPORT INFO (CONTD), TAKE-OFF MNMS for description of Hot Spots



LDA For High Intensity Runway Operations

From threshold runway:	To exit point	LDA in ft	Preferred exit for med/heavy jet transport	Preferred exit for prop/turboprop transport
05	15R	5030		
	F	5630		
	P	6570		
	H3	6670	H3	H3
	15L	8536		
	B	9278		
06L	C1	4790		C1
	C3	6797	C3	
06R	D1	4424		D1
	D3	5682	D3	
	D5	7483	D5	
15L	B4	4050		
	R	5118		
	S	6154		
	B1	6500	B1	B1
	B3	8250	B3	
15R	F1	6276	F1	F1
23	H3	3427		
	P	3516		
	F	4449		
	15R	5064		
	H2	5176	H2	H2
	H4	6693	H4	
	J2	7577		
24L	D2	4061		D2
	D4	5682	D4	
	D8	7883	D8	
24R	C2	5090	C2	C2
	C4	6984	C4	
33L	F2	4860	F2	F2
	F4	6060	F4	
	H	6680		
	05	7424		
33R	B3	2805		
	B1	4550		
	S/B2	4895	B2	B2
	R	5920		
	B4	6994	B4	
	H	9160		
	23	9900		

When Authorized by ATC, Intersection Departures are Available as Follows:

RUNWAY	INTERSECTION	RUNWAY REMAINING
05	J2	8120′ (2475m)
	H4	7129′ (2173m)
	H6	10512′ (3204m)
06L	D4	7763′ (2366m)
	C4	7182′ (2189m)
06R	D8	7883′ (2403m)
	D4	5682′ (1732m)
	Y	4401′ (1341m)
15L	H	8996′ (2742m)
	N	7766′ (2367m)
	B4	6841′ (2085m)
15R	H	7270′ (2216m)
	F4	6633′ (2022m)
23	H/J	10246′(3123m)
	B	9058′ (2761m)
24L	D5	7381′ (2250m)
	W	6567′ (2002m)
	Y	4753′ (1449m)
24R	D5	7973′ (2430m)
	C3	6693′ (2040m)
33L	F1	6854′ (2089m)
33R	V	10669′(3252m)
	T	9219′ (2810m)
	B3	8251′ (2515m)

OPERATIONAL NOTES

CAUTION: Be alert to Rwy 06L/24R crossing clearances. Be prepared to stop short of Rwy 06L/24R. **Readback of all runway holding instructions is required.**

A340-500/600, A350-900/1000, B777-300, and A380 discretionary oversteering required at all intersections.

Design speed for Twys C2, B2, H3, D8, D4, D2, D1, D3, D5, and D7 is 50 kt (93 Kph). Design speed for Twys J2, F1, F2, F3 & F4 is 45 Kt (83 Kph). All other rapid exits designed for an exit speed of 35 Kt (65 Kph).

Departures from holding bay inner centerlines Rwy 06L/D6, 24R/C5 and 05/H6 subtract 263′(80m) from declared distances.

See APRON PROCS, PARKING GATES and TAXILANE LIMITATIONS for additional taxiway data and notes.

While taxiing on Twy V (Pad 1) and Twy T (Pad 5) through the Central De-icing Facility strict adherence to the centerline is required. When in contact with ATC use Center Lane. When in contact with Pad Control or Iceman, use assigned Lane. Pad 1 (Twy V) and Pad 5 (Twy T) Center Lane will accommodate aircraft with wingspans 261′(79.9m) and smaller. Aircraft with wingspans less than 118′(36m) may use North/South Lanes.

❶ Normal Rwy 23 departures are from Twy H.
- Rwy 23 departures **do not enter Twy Q** without specific clearance from ATC.
- Aircraft requiring full length must notify Ground Control on initial contact.

❷ Twy K is uncontrolled and is restricted to acft with a wingspan of 135′ (41.15m) (B757W) or less and an Aircraft Load Rating of 9.0 or less. Other aircraft may be authorized with prior approval from Ops.

❸ Discretionary oversteering required for aircraft with a wingspan of 124′ (B757) or greater:
- Rwy 06L onto Twys E, D3 and D5.
- Rwy 24R onto Twys D3, E, D4, and D10/D8 southbound.

❹ Rwy 33 approach hold positions

❺ Twys D4, D5 south of Rwy 06L/24R: Angled runway hold positions in effect.

❻ Twys W & Y restricted to aircraft with wingspans less than 118′ (36m).

WINGSPAN RESTRICTIONS

Specific aircraft operations plan in effect **for aircraft with wingspans 214′ (65m) up to 262′(79.9m).** Restrictions in place include:

1. No holding short of Rwy 06L/24R after exit from Rwy 06R/24L.
2. Aircraft (as defined above) operations on any parallel taxiway system, such as Alpha-Bravo or Charlie-Delta or Delta-Victor (Alpha to Echo), restrict operations on adjacent taxiway to aircraft with wingspans less than 118′(36m).
3. Strict adherence to taxiway centerline is required all times.
4. Discretionary over steering is required at all intersections.
5. No taxiing on apron taxi lane between AJ and AK (between gates C31-C34).
6. No taxiing on apron taxi lane between AJ and AT (between gates B15-B18).
7. No turns from Twy E on Central De-icing Facility Pads 1 through 6.
8. When aircraft on Central De-icing Facility taxilane 5, Central De-icing Facility taxilane 6 restricted to A320 or smaller (wingspan of 112′(34.1m)) and vice versa. The same applies to taxilanes 7 and 8, and vice versa.
9. No taxiing on Twy D between Twy D4 and Twy E.
10. No taxiing on Twy B between Rwy 05/23 and Twy J.
11. When aircraft taxiing within Holding Bays Rwys 06L/24R/05, adjacent parallel taxilane restricted to aircraft with wingspans less than 118′(36m).
12. Tow only authorized onto parking stands H1 and H6.

CHANGES: Airport name, chart format.

GENERAL

Multilateration: Pilots must keep their transponder on at all times when maneuvering on the airport, turned on prior to brake release and on arrival, on until final engine shutdown. Pilots that do not have a transponder code issued by ATC must squawk 1000 when taxiing.

ADDITIONAL RUNWAY INFORMATION

RWY		USABLE LENGTHS — LANDING BEYOND: Threshold	LANDING BEYOND: Glide Slope	TAKE-OFF	LAHSO Distance	WIDTH
05	HIRL CL ALSF-II TDZ ❶ PAPI-L RVR	❷ 10,985′ 3348m	9871′ 3009m	10,775′ 3284m		200′ 61m
23	HIRL CL SSALR ❶ PAPI-L RVR	❸ 10,434′ 3180m	9257′ 2822m			

❶ Angle 3.0°. For aircraft with eye-to-wheel height up to 45′.
❷ LDA: 10,640′ 3243m
❸ LDA: 10,089′ 3075m

06R	HIRL CL SSALR ❹ PAPI-L RVR		7853′ 2394m			197′ 60m
24L		❺	7819′ 2383m	8898′ 2712m		

❹ Angle 3.0°. For aircraft with eye-to-wheel height up to 45′.
❺ LDA: 8898′ 2712m

06L	HIRL CL ALSF-II TDZ ❻ PAPI-L RVR		8690′ 2649m			197′ 60m
24R	HIRL CL SSALS REIL TDZ ❻ PAPI-L RVR	❼ 9500′ 2896m	8320′ 2536m	9589′ 2923m		

❻ Angle 3.0°. For aircraft with eye-to-wheel height up to 45′.
❼ LDA 9392′ 2863m

15R	HIRL SSALR ❽ PAPI-R RVR	8500′ 2591m	7449′ 2270m			197′ 60m
33L	HIRL SSALR ❽ PAPI-L RVR	❾ 8500′ 2591m	7490′ 2283m	9078′ 2767m		

❽ Angle 3.0°. For aircraft with eye-to-wheel height up to 45′.
❾ LDA: 8490′ 2588m

15L	HIRL CL SSALR ❿ PAPI-L RVR	⓫	10,249′ 3124m	10,886′ 3318m		200′ 61m
33R			10,120′ 3085m			

❿ Angle 3.0°. For aircraft with eye-to-wheel height up to 45′.
⓫ LDA: 10,886′ 3318m

RUNWAY INCURSION HOT SPOTS HS 1

For information only, not to be construed as ATC instuctions.

HS4 to HS8 - Short distance between parallel runways. Manage your taxi speed. Expect to hold short of parallel runway.

HS1 Taxiing northbound on Rwy 33R aircraft fail to hold short of and incur on Rwy 05/23.

HS2 Taxiing northbound on Twy B aircraft miss turn onto Twy H and incur on Rwy 05/23.

HS3 Taxiing eastbound on Twy H aircraft continue onto Twy Q and incur on Rwy 23.

HS4 Exiting Rwy 24L onto Twy D8 aircraft fail to hold short of and incur on Rwy 06L/24R.

HS5 Exiting Rwy 24L onto Twy D4 aircraft fail to hold short of and incur on Rwy 06L/24R.

Note: Angled runway hold position in effect on Twy D4 south of Rwy 06L/24R.

HS6 Exiting Rwy 06R onto Twy D3 aircraft fail to hold short of and incur on Rwy 06L/24R.

HS7 Exiting Rwy 06R onto Twy D5 aircraft fail to hold short of and incur on Rwy 06L/24R.

Note: Angled runway hold position in effect on Twy D5 south of Rwy 06L/24R.

HS8 Taxiing southbound on Twy D7 aircraft fail to hold short of the 24L approach hold line and incur on Rwy 06R/24L.

State — ❶ TAKE-OFF & DEPARTURE PROCEDURE

Rwy 05

Requires a minimum climb gradient of 360′/NM to 2700′. Fence to 575′ MSL approximately 300′ past departure end of runway, 550′ right of runway centerline.

	Authorized Air Carriers: HIRL & CL & RCLM	Authorized Air Carriers: HIRL or CL or RCLM	All Other Aircraft
A	TDZ RVR R6	R12 or V1/4	R26 or V1/2
B	Rollout or Mid RVR R6		
C			
D			

Rwy 06L

Requires a minimum climb gradient of 400′/NM to 2700′. Building to 612′ MSL approximately 0.3 NM past departure end of runway, 1010′ left of runway centerline.

	Authorized Air Carriers: HIRL & CL & RCLM	Authorized Air Carriers: HIRL or CL or RCLM	All Other Aircraft
A	TDZ RVR R6	R12 or V1/4	R26 or V1/2
B	Rollout or Mid RVR R6		
C			
D			

Rwy 33R

Climb heading 327° to 2100′ before proceeding on course. Trees to 610′ MSL approximately 0.3 NM past departure end of runway, 1000′ right of runway centerline.

	Authorized Air Carriers: HIRL & CL & RCLM	Authorized Air Carriers: HIRL or CL or RCLM	All Other Aircraft
A	TDZ RVR R6	R12 or V1/4	R26 or V1/2
B	Rollout or Mid RVR R6		
C			
D			

Rwy 06R

Requires a minimum climb gradient of 390′/NM to 2700′.

	Authorized Air Carriers: HIRL or CL or RCLM	All Other Aircraft
A	R12 or V1/4	R26 or V1/2
B		
C		
D		

Rwy 15L

Requires a minimum climb gradient of 390′/NM to 3000′. Tower to 656′ MSL approximately 0.6 NM past departure end of runway, 1300′ left of runway centerline.

	Authorized Air Carriers: HIRL or CL or RCLM	All Other Aircraft
A	R12 or V1/4	R26 or V1/2
B		
C		
D		

Rwy 15R

Requires a minimum climb gradient of 380′/NM to 3000′.

	Authorized Air Carriers: HIRL or CL or RCLM	All Other Aircraft
A	R12 or V1/4	R26 or V1/2
B		
C		
D		

Rwy 23

Light poles to 609′ MSL approximately 0.3 NM past departure end of runway, 450′ right of runway centerline.

	Authorized Air Carriers: HIRL or CL or RCLM	All Other Aircraft
A	R12 or V1/4	R26 or V1/2
B		
C		
D		

Rwy 24L

Requires a minimum climb gradient of 270′/NM to 1700′.

	Authorized Air Carriers: HIRL or CL or RCLM	All Other Aircraft
A	R12 or V1/4	R26 or V1/2
B		
C		
D		

Rwy 24R

Requires a minimum climb gradient of 260′/NM to 1700′.

	Authorized Air Carriers: HIRL or CL or RCLM	All Other Aircraft
A	R12 or V1/4	R26 or V1/2
B		
C		
D		

Rwy 33L

Requires a minimum climb gradient of 250′/NM to 900′. Buildings to 607′ MSL approximately 0.3 NM past departure end of runway, 1000′ left of runway centerline.

	Authorized Air Carriers: HIRL or CL or RCLM	All Other Aircraft
A	R12 or V1/4	R26 or V1/2
B		
C		
D		

❶ DEPARTURE CLIMB RATE V/V (FPM)

GROUND SPEED	90	120	140	160	180	200	250	300
250′/NM	380	500	590	670	750	840	1050	1250
260′/NM	390	520	610	700	780	870	1090	1300
270′/NM	410	540	630	720	810	900	1130	1350
360′/NM	540	720	840	960	1080	1200	1500	1800
380′/NM	570	760	890	1020	1140	1270	1590	1900
390′/NM	590	780	910	1040	1170	1300	1630	1950
400′/NM	600	800	940	1070	1200	1340	1670	2000

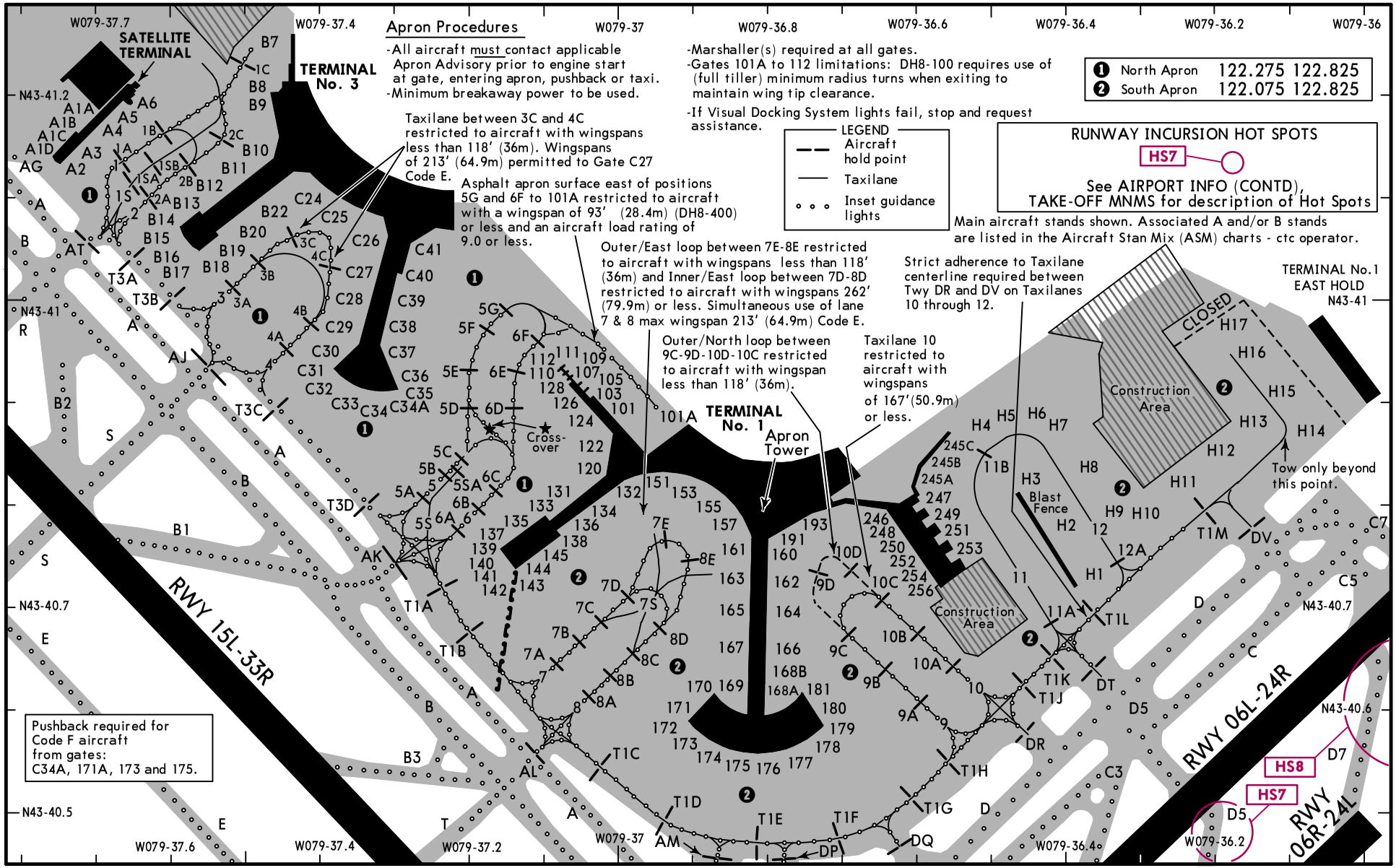
CHANGES: Airport name, new AOM concept.

CYYZ/YYZ TORONTO, ONT

JEPPESEN 28 APR 23 (10-9B)

LESTER B PEARSON INTL

CHANGES: Airport name.



TAXILANE LIMITATIONS

Taxilane	Taxilane Segment	Aircraft Code/ Limitation	Max Wingspan	Comments
Pier A North	Between AG and Gate A1A	DH8-400	93′ (28.4m)	
1	Between AT & Stand B8	C	118′ (36m)	
	Between Stand B8 & Stand B7D	DH8-400	93′ (28.4m)	
1S	Between AT and Hangar	E	213′ (65m)	
2	Between AT and Hangar	D	170′ (51.9m)	
	Between 2D & Stand B8	C	118′ (36m)	
1/2	1B/2B Radius	C	118′ (36m)	
3	Between AJ & 3B	C	118′ (36m)	Code E to Stand C29 & C27
	Between 3B & 3C	C	118′ (36m)	Code E to Stand C29 & C27
4	Between AJ & 4B	C	118′ (36m)	Code E to Stand C29 & C27
	Between 4B & 4C	C	118′ (36m)	Code E to Stand C29 & C27
3/4	3B/4B Radius	D	170′ (51.9m)	
	3C/4C Radius	C	118′ (36m)	
N/S	Between AT & AK	E	213′ (65m)	
5	Between AK & 5E	E	213′ (65m)	AK to 5D closed when Lane 5S in use
	Between 5E & 5G	D	170′ (51.9m)	AK to 5D closed when Lane 5S in use
5-6	Crossover	E	213′ (65m)	Closed when Lane 5S in use
6	Between AK & 6C	E	213′ (65m)	Code E allowed to Stand 124 AK to 6C closed when Lane 5S in use
	Between 6C & 6D	C	118′ (36m)	Code E allowed to Stand 124 No code E push tail East onto Lane 6 from Stand 124.
	Between 6D & 6F	C	118′ (36m)	
	Between 6F & Gate 101	DH8-400	93′ (28.4m)	
5/6	5C/6C Radius	E	213′ (65m)	No B777 due to Jet Blast Closed when Lane 5S in use
	5G/6F Radius	C	118′ (36m)	Closed when Lane 5S in use
5S	Between AK & Stand C35	F	262′ (79.9m)	A380 only. Strict Adherence to C/L. Closes Lane 5A-5D. Lane 6 between 6A and 6C closed, remainder of Lane 6 restricted to Code C or smaller.
7	Between AL & 7D	F	262′ (79.9m)	Simultaneous use of lane 7 & 8 max span 213′ (64.9m) Code E
	Between 7D & 7E	C	118′ (36m)	
8	Between AL & 8D	F	262′ (79.9m)	Simultaneous use of lane 7 & 8 max span 213′ (64.9m) Code E
	Between 8D & 8E	C	118′ (36m)	
7/8	7D/8D Radius	F	262′ (79.9m)	
	7E/8E Radius	C	118′ (36m)	

TAXILANE LIMITATIONS

Taxilane	Taxilane Segment	Aircraft Code/ Limitation	Max Wingspan	Comments
7S	Between 7C & 7S	E	213′ (65m)	
	Between 8C & 7S	E	213′ (65m)	
	Between 7S & 151	E	213′ (65m)	No 77W/773 Closes Taxilane 7 & 8 beyond 7C/8C
	Between 7S & 161A	E	213′ (65m)	Closes Taxilane 7 & 8 beyond 7C/8C
N/S	Between AK & AM	F	262′ (79.9m)	
9	Between DR & 9C	E	213′ (65m)	
	Between 9C & 9D	C	118′ (36m)	
10	Between DR & 10C	D	170′ (51.9m)	
	Between 10C & 10D	C	118′ (36m)	
9/10	9C/10C Radius	D	170′ (51.9m)	
	9D/10D Radius	C	118′ (36m)	
E/W	Between AM & DV	F	262′ (79.9m)	Strict adherence to C/L
11	Between DT & H4	E	213′ (65m)	Strict adherence to C/L
12	Between H1/H10 & H4	E	213′ (65m)	Strict adherence to C/L
E/W	Between DV & H12B	E	213′ (65m)	
E/W/N/S	Between H12B & H17	E	213′ (65m)	Tow Operations Only

CYYZ/YYZ

JEPPESEN

28 APR 23 (10-9C)

TORONTO, ONT
LESTER B PEARSON INTL

D-ATIS	*TORONTO Clearance
120.825	121.3

APRON ADVISORY

North Apron	South Apron	Apron Tow Coordinator
122.275 122.825	122.075 122.825	136.525

PARKING AREAS (INFIELD)

Taxilane abeam Gates 528, 527, 526, 525, 524 & 523 restricted to Code E aircraft (Maximum wingspans 213' (64.9 m) or smaller).

Taxilane abeam Gates 529, 530 and 531 restricted to Code D aircraft (Maximum wingspan of 170' (51.9 m) or smaller).

Infield Concourse

Cargo 3

Cargo 2

Cargo West

Air Canada Cargo Building

Air Canada Equipment Maintenance Building

North Apron

South Apron

Skyservice Midfield Hangar

Control Tower

ESSO Avitat

General Aviation Area

CARA Flight Kitchen

GTAA 3-Bay Hangar

Area Control Center

Central Deicing Facility

Infield Apron Procedures

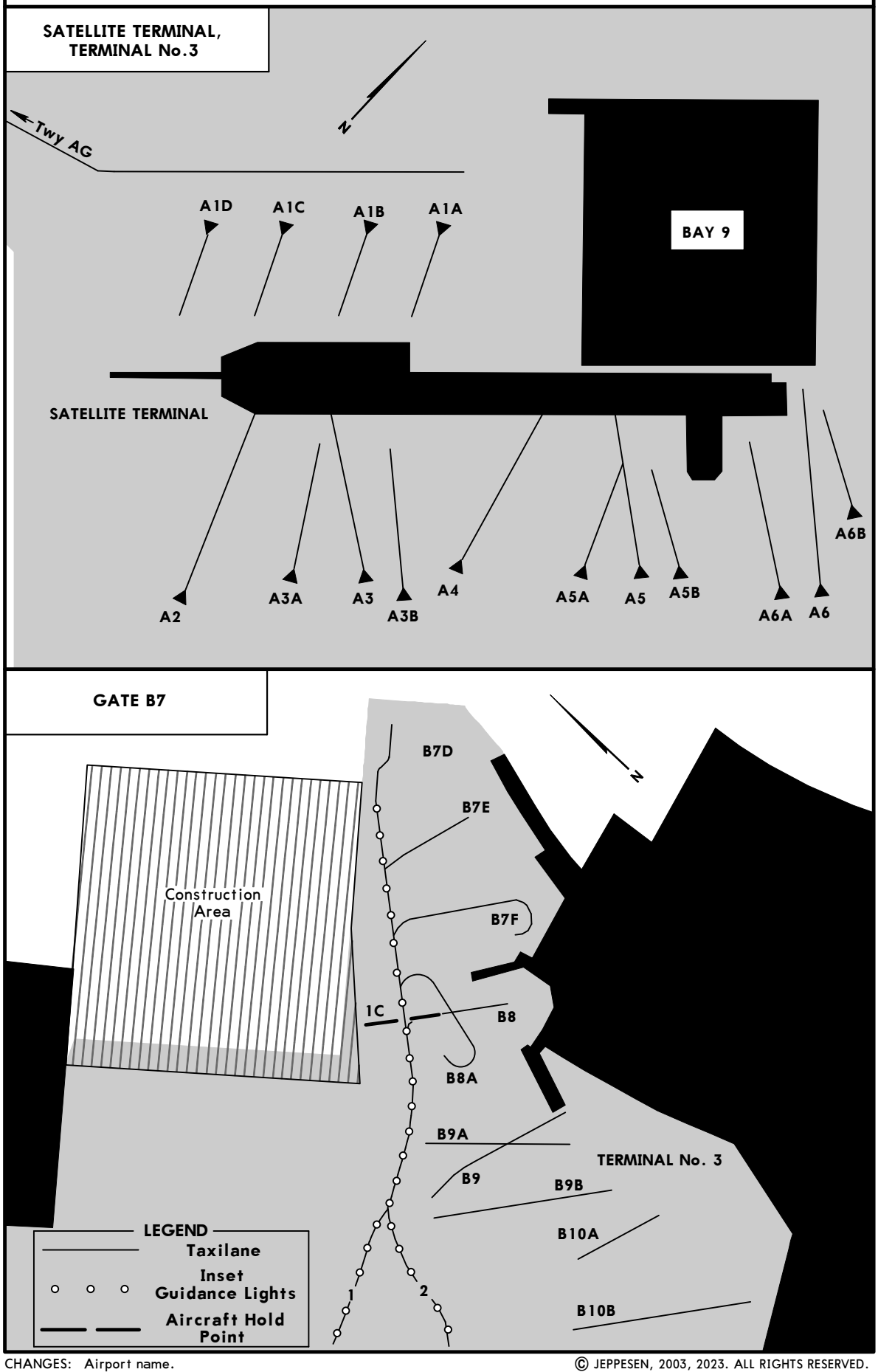
All aircraft must contact the applicable Apron Advisory prior to entering apron, pushback or taxi. Minimum breakaway power to be used. Marshaller(s) required at all gates. On the Infield Concourse apron, all tri-engine aircraft must be established at the start position as assigned by Apron Advisory prior to the starting of number two engine. Number two engine must not be advanced above idle power while on apron.

Legend

- (507) Parking Position
- EA Apron entry/exit points
- • • • Inset guidance lights
- —— Taxilane
- — — Aircraft Hold Point
- 2, 3 Start Positions

CHANGES: Airport name.

COMMUTER PARKING AREAS



CHANGES: Airport name.

PARKING POSITION COORDINATES

POSITION No.	COORDINATES	POSITION No.	COORDINATES
SATELLITE TERMINAL		250	N43 40.8 W079 36.6
A1A, A1B	N43 41.2 W079 37.6	251	N43 40.8 W079 36.4
A1C, A1D	N43 41.2 W079 37.7	252	N43 40.7 W079 36.6
A2	N43 41.1 W079 37.7	253	N43 40.8 W079 36.4
A3A thru A6B	N43 41.2 W079 37.7	254	N43 40.7 W079 36.6
TERMINAL No.1		256	N43 40.7 W079 36.6
101	N43 40.9 W079 37.0		
101A	N43 40.9 W079 36.9	**TERMINAL No.3**	
103, 105, 107, 109	N43 40.9 W079 37.0	B7, B8, B9	N43 41.2 W079 37.5
110 thru 112	N43 40.9 W079 37.1	B10A thru B12	N43 41.1 W079 37.5
120	N43 40.8 W079 37.0	B13 thru B15	N43 41.1 W079 37.6
		B16, B17	N43 41.0 W079 37.6
122, 124	N43 40.9 W079 37.0	B18, B19	N43 41.0 W079 37.5
126, 128	N43 40.9 W079 37.1		
131	N43 40.8 W079 37.1	B20, B22	N43 41.1 W079 37.5
132	N43 40.8 W079 37.0	C24, C25	N43 41.1 W079 37.4
133	N43 40.8 W079 37.1	C26	N43 41.1 W079 37.3
		C27	N43 41.0 W079 37.3
134	N43 40.8 W079 37.0	C28 thru C30	N43 41.0 W079 37.4
135	N43 40.8 W079 37.1		
136	N43 40.8 W079 37.0	C31 thru C33	N43 40.9 W079 37.4
137	N43 40.8 W079 37.2	C34	N43 40.9 W079 37.3
138	N43 40.8 W079 37.1	C34A	N43 40.9 W079 37.2
		C35, C36	N43 40.9 W079 37.3
139	N43 40.8 W079 37.2	C37 thru C40	N43 41.0 W079 37.3
140, 141	N43 40.7 W079 37.2		
142 thru 144	N43 40.7 W079 37.1	C41	N43 41.1 W079 37.3
145	N43 40.8 W079 37.1		
151, 153, 155	N43 40.8 W079 36.9	**OTHER**	
		H1 thru H3	N43 40.8 W079 36.3
157, 160, 161, 191	N43 40.8 W079 36.8	H4 thru H6	N43 40.9 W079 36.4
162 thru 167	N43 40.7 W079 36.8	H7 thru H8	N43 40.9 W079 36.3
168A	N43 40.7 W079 36.6	H9	N43 40.9 W079 36.2
168B	N43 40.7 W079 36.7	H10	N43 40.8 W079 36.2
169	N43 40.6 W079 36.8		
		H11 thru H13	N43 40.9 W079 36.1
170 thru 174	N43 40.6 W079 36.9	H14	N43 40.9 W079 36.0
175, 176	N43 40.5 W079 36.8	H15 thru H16	N43 41.0 W079 36.0
177	N43 40.6 W079 36.8	H17	N43 41.0 W079 36.1
178 thru 181	N43 40.6 W079 36.7		
193	N43 40.8 W079 36.7		
245A thru 245C	N43 40.9 W079 36.5		
246	N43 40.8 W079 36.6		
247	N43 40.8 W079 36.5		
248	N43 40.8 W079 36.6		
249	N43 40.8 W079 36.5		

(INFIELD) PARKING POSITION COORDINATES

POSITION No.	COORDINATES	POSITION No.	COORDINATES
PARKING AREAS (INFIELD)		510, 512	N43 40.6 W079 37.9
500A, 500B	N43 40.7 W079 37.8	521	N43 40.9 W079 38.0
501	N43 40.8 W079 37.8	522 thru 524	N43 40.9 W079 38.1
502	N43 40.7 W079 37.8	525	N43 40.9 W079 38.2
503	N43 40.7 W079 37.9	527 thru 529	N43 40.8 W079 38.3
504	N43 40.6 W079 37.8		
		530, 531	N43 40.8 W079 38.2
505	N43 40.7 W079 37.9	541	N43 40.4 W079 37.5
506	N43 40.6 W079 37.8	542	N43 40.5 W079 37.5
507	N43 40.7 W079 38.0	543	N43 40.4 W079 37.5
508	N43 40.6 W079 37.9	544	N43 40.5 W079 37.5
509	N43 40.7 W079 38.0		
		545, 547	N43 40.5 W079 37.6

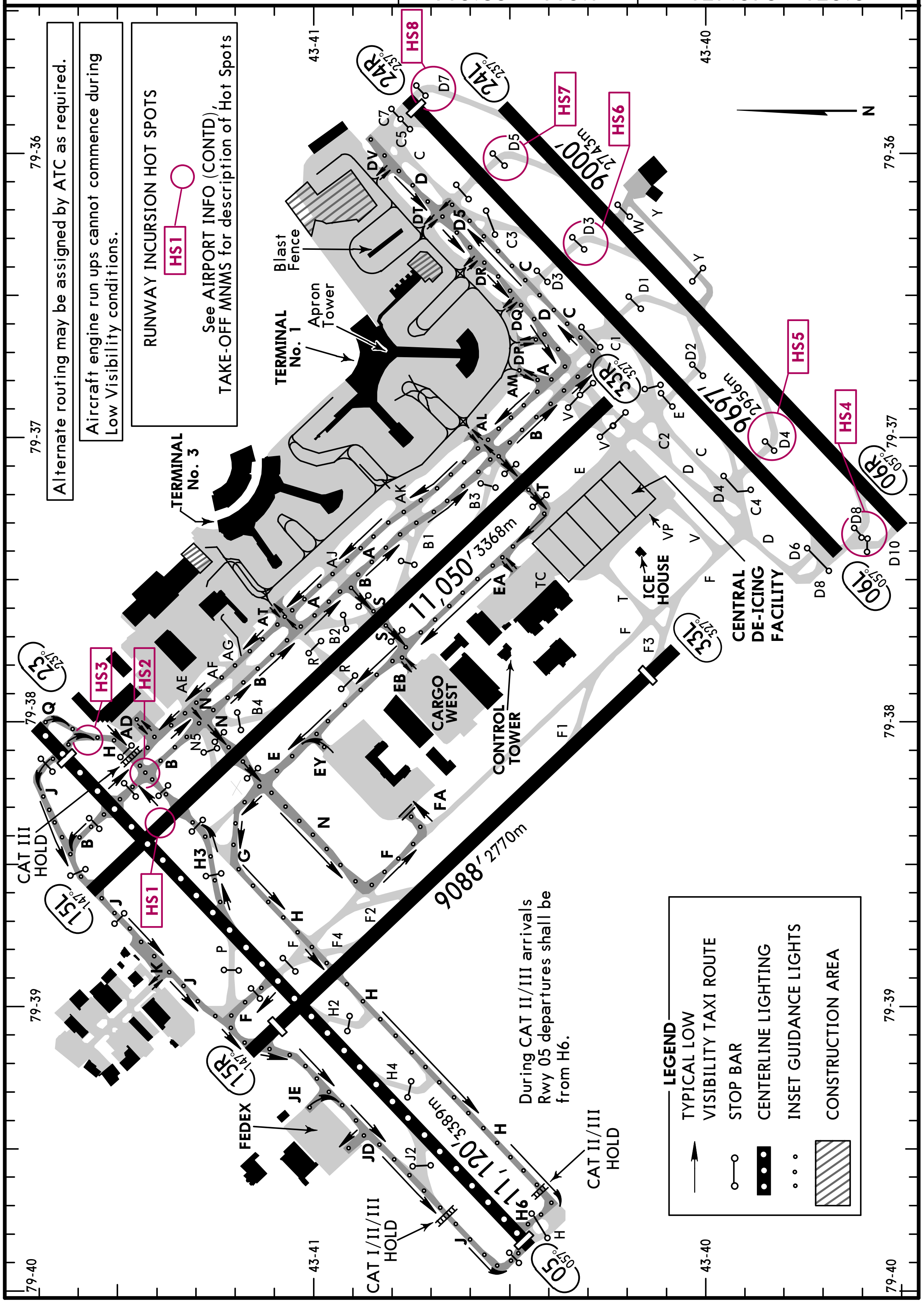
CHANGES: Airport name.

LOW VISIBILITY TAXI CHART
LAND RWY 05, DEPART RWY 05
For Low Visibility Procedures See LOW VIS PROCS

LESS THAN RVR 1200 TO 600

D-ATIS	Data comm:	*TORONTO Clearance	APRON ADVISORY North Apron	South Apron	Pad Control	Apron Tow Coordinator
120.825 133.1	D-ATIS PDC	121.3	122.275	122.075	131.175 131.95	136.525

Ground	Tower	TORONTO Departure
121.9 121.65 119.1	118.35 118.7	127.575 128.8


Alternate routing may be assigned by ATC as required.
Aircraft engine run ups cannot commence during Low Visibility conditions.
RUNWAY INCURSION HOT SPOTS
HS1
See AIRPORT INFO (CONTD), TAKE-OFF MNMS for description of Hot Spots
TERMINAL No. 1
TERMINAL No. 3
Apron Tower
Blast Fence
CARGO WEST
CONTROL TOWER
ICE HOUSE
CENTRAL DE-ICING FACILITY
FEDEX
9000' 2743m
9697' 2956m
11,050' 3368m
9088' 2770m
11,120' 3389m
CAT III HOLD
CAT I/II/III HOLD
CAT II/III HOLD
During CAT II/III arrivals Rwy 05 departures shall be from H6.
LEGEND
TYPICAL LOW VISIBILITY TAXI ROUTE
STOP BAR
CENTERLINE LIGHTING
INSET GUIDANCE LIGHTS
CONSTRUCTION AREA
43-41
43-40
79-36
79-37
79-38
79-39
79-40

CHANGES: Airport name, inset guidance lights added.

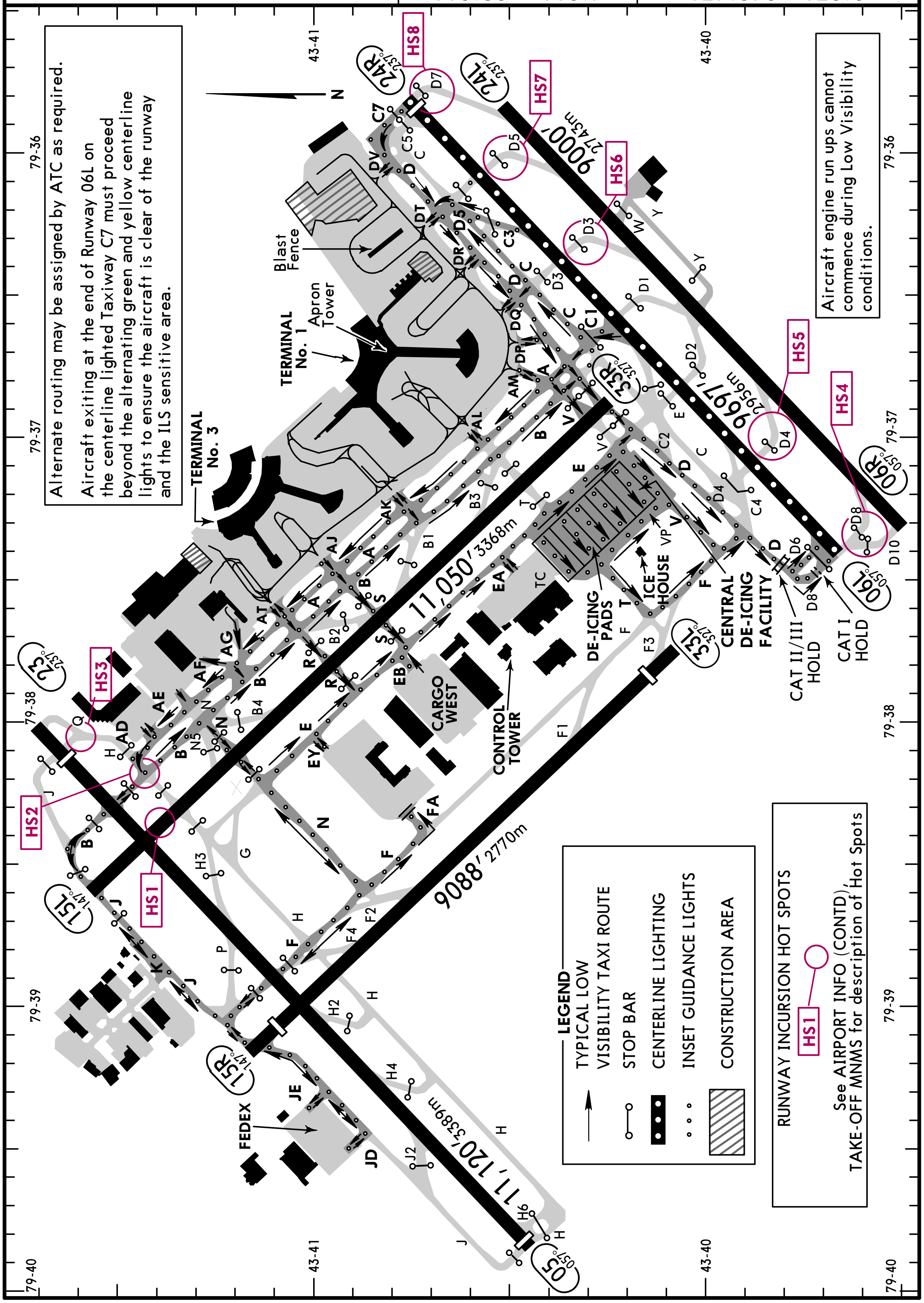
LOW VISIBILITY TAXI CHART
LAND RWY 06L, DEPART RWY 06L

LESS THAN RVR 1200 TO 600

For Low Visibility Procedures See LOW VIS PROCS

D-ATIS	Data comm:	*TORONTO Clearance	APRON ADVISORY North Apron	APRON ADVISORY South Apron	APRON ADVISORY Pad Control	APRON ADVISORY Apron Tow Coordinator
120.825 133.1	D-ATIS PDC	121.3	122.275	122.075	131.175 131.95	136.525

Ground	Tower	TORONTO Departure
121.9 121.65 119.1	118.35 118.7	127.575 128.8


Alternate routing may be assigned by ATC as required.
Aircraft exiting at the end of Runway 06L on the centerline lighted Taxiway C7 must proceed beyond the alternating green and yellow centerline lights to ensure the aircraft is clear of the runway and the ILS sensitive area.
Aircraft engine run ups cannot commence during Low Visibility conditions.
9000' 2743m
9697' 2956m
11,050' 3368m
9088' 2770m
11,120' 3389m
TERMINAL No. 1
TERMINAL No. 3
Apron Tower
Blast Fence
CARGO WEST
CONTROL TOWER
DE-ICING PADS
ICE HOUSE
CENTRAL DE-ICING FACILITY
FEDEX
CAT II/III HOLD
CAT I HOLD
HS1
HS2
HS3
HS4
HS5
HS6
HS7
HS8
LEGEND
TYPICAL LOW VISIBILITY TAXI ROUTE
STOP BAR
CENTERLINE LIGHTING
INSET GUIDANCE LIGHTS
CONSTRUCTION AREA
RUNWAY INCURSION HOT SPOTS
See AIRPORT INFO (CONTD) TAKE-OFF MNMS for description of Hot Spots

CHANGES: Airport name, inset guidance lights added.

CYYZ/YYZ
LESTER B PEARSON INTL

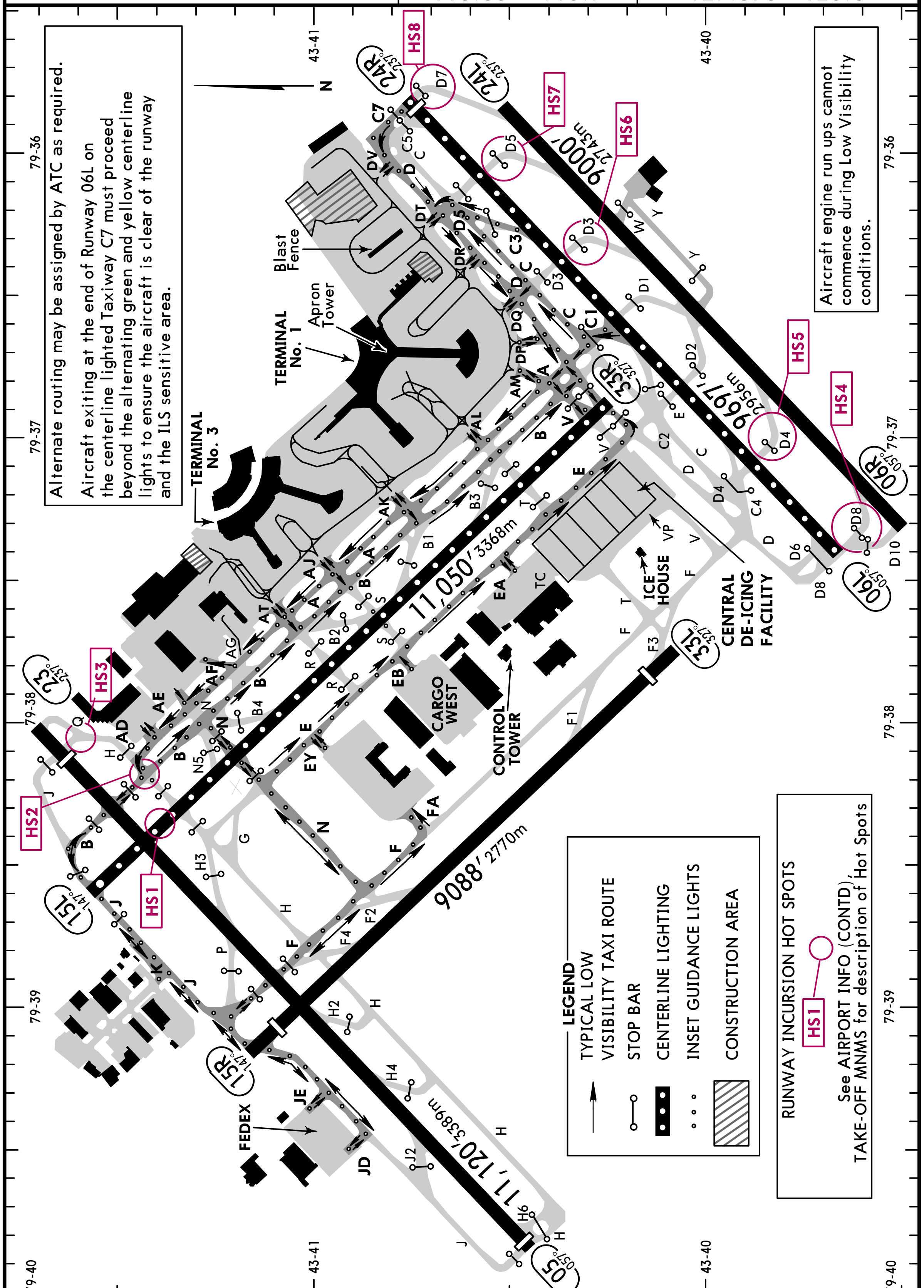
JEPPESEN
28 APR 23 (10-9F1)

TORONTO, ONT
LOW VISIBILITY TAXI CHART
LAND RWY 06L, DEPART RWY 33R
For Low Visibility Procedures See LOW VIS PROCS

LESS THAN RVR 1200 TO 600

D-ATIS	Data comm:	*TORONTO Clearance	APRON ADVISORY North Apron	South Apron	Pad Control	Apron Tow Coordinator
120.825 133.1	D-ATIS PDC	121.3	122.275	122.075	131.175 131.95	136.525

Ground	Tower	TORONTO Departure
121.9 121.65 119.1	118.35 118.7	127.575 128.8



Alternate routing may be assigned by ATC as required.
Aircraft exiting at the end of Runway 06L on the centerline lighted Taxiway C7 must proceed beyond the alternating green and yellow centerline lights to ensure the aircraft is clear of the runway and the ILS sensitive area.
Aircraft engine run ups cannot commence during Low Visibility conditions.
TERMINAL No. 1
TERMINAL No. 3
Apron Tower
Blast Fence
CARGO WEST
CONTROL TOWER
ICE HOUSE
CENTRAL DE-ICING FACILITY
FEDEX
9000' 2743m
9697' 2956m
11,050' 3368m
9088' 2770m
11,120' 3389m
24R 24L 06R 06L 33R 33L 23 15L 15R 05
HS1 HS2 HS3 HS4 HS5 HS6 HS7 HS8
43-41 43-40 79-36 79-37 79-38 79-39 79-40
LEGEND
TYPICAL LOW VISIBILITY TAXI ROUTE
STOP BAR
CENTERLINE LIGHTING
INSET GUIDANCE LIGHTS
CONSTRUCTION AREA
RUNWAY INCURSION HOT SPOTS
See AIRPORT INFO (CONTD), TAKE-OFF MNMS for description of Hot Spots

CHANGES: Airport name, inset guidance lights added.

LOW VISIBILITY PROCEDURES (RVR less than 1200 to 600 FT)

APPLICATION

These procedures apply to ground movements of aircraft arriving and departing under low visibility conditions. Arrivals and departures below RVR 600 are not authorized. When weather conditions indicate visibility below RVR 1200 is imminent, procedures will be implemented restricting aircraft and vehicle operations on the movement area. The following message will be added to the ATIS broadcast:

'LOW VISIBILITY PROCEDURES IN EFFECT'

GENERAL

Low Visibility Taxi Routes

Typical taxi routes are shown on the Low Visibility Taxi Charts. Taxiway surfaces are painted with enhanced yellow and black centerline markings. In addition, Taxiways A, C, F, H, J, M, N, T, P, R, S, V, E, D, B, T1, and T3 aprons are equipped with green centerline lights. Yellow in-set taxiway intersection lights that consist of three lights spaced 1.5m apart at 90 degrees to the direction of travel are located at taxiway/taxiway intersections and apron entry/exit points coincident with lighted location signs. Aircraft may be directed to hold or report by any of these positions.

Airport Surface Detection Equipment (ASDE)

Ground radar is used to monitor the position of aircraft operating on the maneuvering area. In the event of an ASDE failure, ATC may suspend, restrict or terminate low visibility operations.

DEPARTURES

When low visibility procedures are in effect the Departure runways are 05, 06L and 33R. Intersection take-offs from 06L are not authorized. Intersection take-offs on 33R from Victor Taxiway and on 05 from H6 may be assigned by ATC.

Sequencing of Aircraft Ground Movements for Take-off

Do not request start, push back or call for taxi clearance until the reported RVR is greater than:

Aircraft/Pilot Take-off Minima	Minimum RVR for Start
1200 RVR	1000 RVR
600 RVR	600 RVR

Stop Bar/Guard Light System

Each taxiway entrance onto Runways 05, 06L and 33R is equipped with a stop bar consisting of red in-set lights and red elevated lights located at the taxi holding position. Yellow flashing runway guard lights (wig-wags) are installed at each end of the stop bar. When the red stop bar lights are illuminated, green lead on lights beyond the stop bar are extinguished. When ATC issues a clearance to proceed onto the runway, the red stop bar lights will be extinguished and the green lead on lights beyond the stop bar will be illuminated. The stop bar is reset automatically as the aircraft moves onto the runway.

'AT NO TIME SHALL A PILOT CROSS AN ILLUMINATED RED STOP BAR'

ARRIVALS

When low visibility procedures are in effect the Arrival runways are 05 and 06L. For 05, approved exits are Taxiways F (northbound), H3, B, H/J and Q. For 06L approved exits are Taxiways C1, C3 and C7. Aircraft exiting either runway must proceed beyond the alternating green and yellow centerline lights to ensure the aircraft is clear of the runway and the ILS sensitive area.

DE-ICING PROCEDURE

CENTRAL DE-ICING FACILITY (CDF)

The CDF and associated taxiways from transfer points ICE 1 - ICE 6 are operated and controlled by the Greater Toronto Airports Authority (GTAA) Deicing Operations. For more information, contact (416) 776-3423.

All Air-to-Ground communication is via VHF radio (no interphone connection).

Upon entry to the Deicing Bay, Flight Crew must advise of any specific de/anti-icing check and/or treatment requirements, including the following:
Tactile check; under wing and/or undercarriage inspection or deicing; propeller deicing; engine inlet inspection; etc.

Flight Crew shall advise their de/anti-icing requirements.
Type I fluid available: Dow Chemical UCAR ADF Concentrate (dilute).
Type IV fluid available: Dow Chemical UCAR Endurance EG106 (100/0).

Flight Crew will be advised of the fluid type(s) in use ("mode").
When in "Type I mode", SAE AMS1424/1 Type I will be applied.
When in "Type IV mode", Type I followed by SAE AMS1428/1 Type IV fluid will be applied.
Flight Crew must request any deviation to the fluid "mode".

When in "Type I mode", should the Flight Crew determine holdover is required, Flight Crew shall advise "TYPE I HOLDOVER REQUIRED".
When Type IV anti-icing treatment is required/requested, by default fluid will be applied to the upper wing and horizontal stabilizer surfaces. Type IV fluid will only be applied to the vertical stabilizer, wing tip devices (where equipped) and/or fuselage when requested by the Flight Crew.

To expedite overall deicing process, if able, aircraft should be configured for deicing on approach to the Central De-Icing Facility. Flight Crew should configure aircraft for an engines-on deicing procedure, unless advised otherwise by PAD CONTROL or ICEMAN.

AUTOMATED PROCEDURES

ENTRY PROCEDURE - PAD CONTROL - 131.175

1. Prior to departing Parking Position, contact Clearance Delivery/Apron/Ground (as applicable) and advise, "AIRCRAFT DE-ICING REQUIRED".
2. Ground will provide taxi instructions to Central De-Icing Facility entry transfer point ICE (#).
3. When approaching the Central De-Icing Facility entry point, Ground will advise the Flight Crew to contact/monitor PAD CONTROL on 131.175.
4. PAD CONTROL will normally instruct the Flight Crew to:
   a. "HOLD POSITION AT (e.g. ICE 1)"; or
   b. "TAXI/PROCEED INTO STAGING BAY # (e.g. 3C) AND CONTACT ICEMAN ON 131.375 or 129.625 (as applicable) ENTERING THE BAY."
5. After receiving taxi clearance from PAD CONTROL, proceed into assigned Staging Bay following the appropriate inset lights/lead-in lines. An automated Visual Guidance Display System (VGDS) will provide correct flight number, rate of closure and stopping information.
6. Entering the Staging Bay, contact ICEMAN and proceed following the VGDS instructions.

CAUTION: AIRCRAFT SHALL NOT ENTER THE DEICING BAY UNTIL INSTRUCTED TO DO SO BY ICEMAN.

PROCEDURE - ICEMAN - 131.375 or 129.625

7. ICEMAN will provide:
   a) Taxi clearance into the Staging Bay only:
      ICEMAN will issue taxi instructions in the assigned Staging Bay to the specific stop point in the Bay.
   b) Taxi clearance directly into the Deicing Bay:
      ICEMAN will issue instructions for taxi to the assigned deicing position in the Deicing Bay, including the mode of guidance (VGDS) and the requirement to report "BRAKES SET, AIRCRAFT CONFIGURED AND DEICING REQUIREMENTS."

   Note: Deicing equipment may be positioned in a temporary Safe Zone on the Center lane within the Deicing Bay when aircraft are assigned to the North or South lanes.
8. Once aircraft is in the final stop position, brakes are set and aircraft configured for de/anti-icing, contact ICEMAN on the appropriate frequency e.g., "ICEMAN, ABC123 IN BAY 2 NORTH, BRAKES SET, AIRCRAFT CONFIGURED, READY TO DEICE".
9. ICEMAN will advise "HOLD POSITION, DEICING BEGINS NOW, CONTINUE TO MONITOR THE SIGNBOARD ON YOUR (LEFT/RIGHT)."

CAUTION: DURING THE DEICING PROCESS, THRUST SETTING MUST NOT EXCEED GROUND IDLE AND/OR PROPELLERS MUST REMAIN FEATHERED AT ALL TIMES.

10. On completion of the de/anti-icing operation, ICEMAN will contact Flight Crew to advise "DEICING COMPLETE, (DEICING/ANTI-ICING FLUID TYPE(S) APPLIED and MIXTURE RATIO (for Type IV fluid only)), ANTI-ICING BEGAN AT (local time) POSTDEICING/ANTI-ICING CHECK COMPLETE, EQUIPMENT SAFELY AWAY, HOLD POSITION AND CONTACT PAD CONTROL ON 131.175 FOR TAXI".

    Note: "POSTDEICING/ANTI-ICING CHECK COMPLETE" means as per Flight Crew's specific request for deicing services and that the post deicing/anti-icing check has been completed. Where Type IV fluid is applied, the fluid brand and mixture ratio is: Dow Chemical UCAR Endurance EG106 (100/0).

    Note: Where deicing only is performed, including symmetrical spot deicing and/or deicing of specific aircraft sections only, as no holdover applies in these circumstances, a holdover start time will not be provided. ICEMAN will advise "HOLDOVER TIMES DO NOT APPLY".

CAUTION: DO NOT MOVE AIRCRAFT UNTIL TAXI CLEARANCE HAS BEEN RECEIVED FROM PAD CONTROL.

CAUTION: ENGINE RUN-UPS WILL ONLY BE APPROVED BY PAD CONTROL OR ICEMAN WHEN OPERATIONS PERMIT AND WHEN SAFE TO DO SO. ENGINE RUN-UPS ARE PROHIBITED ON TAXILANE 1. ENGINE FAN BLADE ICE SHEDDING RUN-UPS ARE PROHIBITED AT THE CDF.

EXIT PROCEDURE - PAD CONTROL 131.175

11. When ready to taxi contact PAD CONTROL and advise "ABC123 READY TO TAXI".
12. PAD CONTROL will issue VISUAL (VGDS displaying "EXIT NOW"), and VERBAL exit instructions to the Central De-Icing Facility exit point.

CAUTION: DO NOT MOVE AIRCRAFT UNTIL PAD CONTROL GIVES BOTH VERBAL AND VISUAL TAXI CLEARANCE.

Note: In the event of a complete VGDS failure, only verbal instructions will be provided.

13. At exit point, hold short and contact Ground (on frequency as advised by PAD CONTROL) for further taxi clearance.

Note: All inset lights may be illuminated during times of darkness or lowered visibility, regardless of taxi instructions.

MANUAL PROCEDURES

In the event that the VGDS, Hold Lights, and/or Inset Lights are inoperative; and/or the Lead-In Line and/or Aircraft Stop Line are obscured and not visible to the Flight Crew, the Central De-Icing Facility may deploy a "Follow Me" Vehicle as a secondary guidance system.

MANUAL ENTRY PROCEDURE - PAD CONTROL - 131.175

Follow steps 1 through 4 in the Automated Procedures.

5. After receiving taxi clearance from PAD CONTROL, proceed into assigned Staging Bay following the appropriate inset lights/lead-in lines.

No exchange of deicing information is necessary at this stage KEEP RT BRIEF AND AVOID FREQUENCY CONGESTION.

6. Entering the Staging Bay, contact ICEMAN and proceed into the assigned Staging Bay following the appropriate inset guidance lights/lead-in line as assigned.

CAUTION: AIRCRAFT SHALL NOT ENTER THE DEICING BAY UNTIL INSTRUCTED TO DO SO BY ICEMAN.

7. ICEMAN will provide:
   a) Taxi clearance into the Staging Bay only:
      ICEMAN will issue taxi instructions in the assigned Staging Bay to the specific stop point, indicated by an Aircraft Stop Line; blue flashing Staging Beacon; and/or other visual reference point as specified by ICEMAN.
   b) Taxi clearance directly into the Deicing Bay:
      ICEMAN will issue instructions for taxi to the assigned deicing position in the Deicing Bay, including the mode of guidance (Aircraft Stop Line or "Follow Me" Vehicle) and the requirement to report "BRAKES SET, AIRCRAFT CONFIGURED AND DEICING REQUIREMENTS".

Note: In the event that the VGDS, Hold Lights, and/or Inset Lights are inoperative; and/or the Lead-In Line and/or Aircraft Stop Line are obscured and not visible to the Flight Crew, the Central De-Icing Facility may deploy a "Follow Me" Vehicle as a secondary guidance system.

Note: Deicing equipment may be positioned in a temporary Safe Zone on the Center lane within the Deicing Bay when aircraft are assigned to the North or South lanes.

8. Once aircraft is in the final stop position, brakes are set and aircraft configured for de/anti-icing, contact ICEMAN on the appropriate frequency e.g., "ICEMAN, ABC123 IN BAY 2 NORTH, BRAKES SET, AIRCRAFT CONFIGURED, READY TO DEICE". Aircraft will be held at the deicing position by a signboard displaying "STOP" and/or red hold lights until deicing is completed. Should a "Follow Me" Vehicle be used, the "Follow Me" Vehicle will turn off all lights and return to the Safe Zone.
9. ICEMAN will advise "HOLD POSITION, DEICING BEGINS NOW, CONTINUE TO MONITOR THE SIGNBOARD ON YOUR (LEFT/RIGHT)."

VGDS PARTIAL FAILURE

Once aircraft has been guided into and stopped in the appropriate Deicing Bay, the aircraft will be held by a signboard displaying "STOP" and/or red hold lights until deicing is completed.

VGDS COMPLETE FAILURE

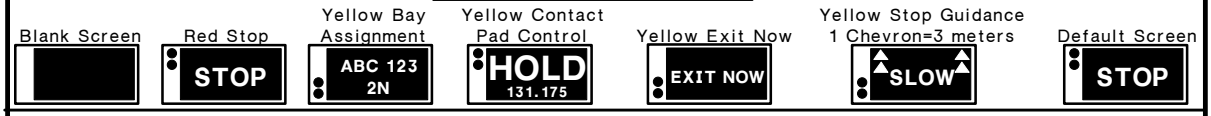
Once aircraft has been guided into and stopped in the appropriate Deicing Bay, a "Follow Me" Vehicle with the signaling system configured with RED signal lights ON, or a "Positive Hold Vehicle" without signboard/signaling system shall position on the lead-in-line in front of the aircraft and hold in line-of sight of the Flight Deck. CONTINUE TO HOLD POSITION AND DO NOT MOVE.

CAUTION: DURING THE DEICING PROCESS, THRUST SETTING MUST NOT EXCEED GROUND IDLE AND/OR PROPELLERS MUST REMAIN FEATHERED AT ALL TIMES.

Continue with steps 10 through 13 in the Automated Procedures.

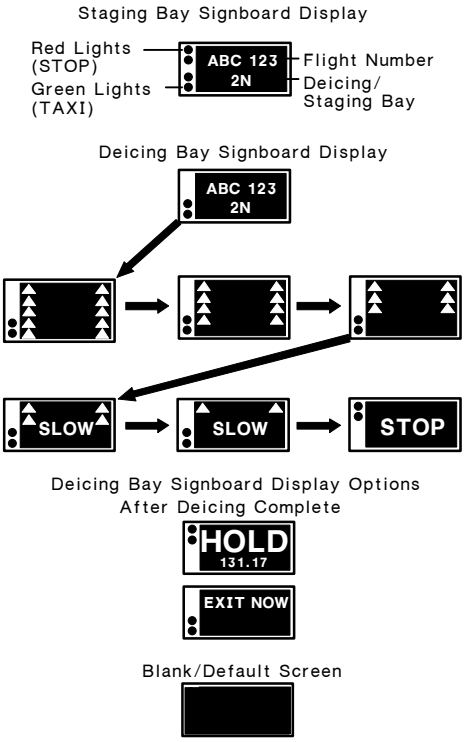
Should a "Follow Me" Vehicle and/or "Positive Hold" Vehicle be used, after the above occurs, the "Follow me" Vehicle shall extinguish all signal lights and return to the designated "Safe Zone" OR the "Positive Hold" Vehicle shall return to the designated "Safe Zone".

SIGNBOARD DISPLAYS

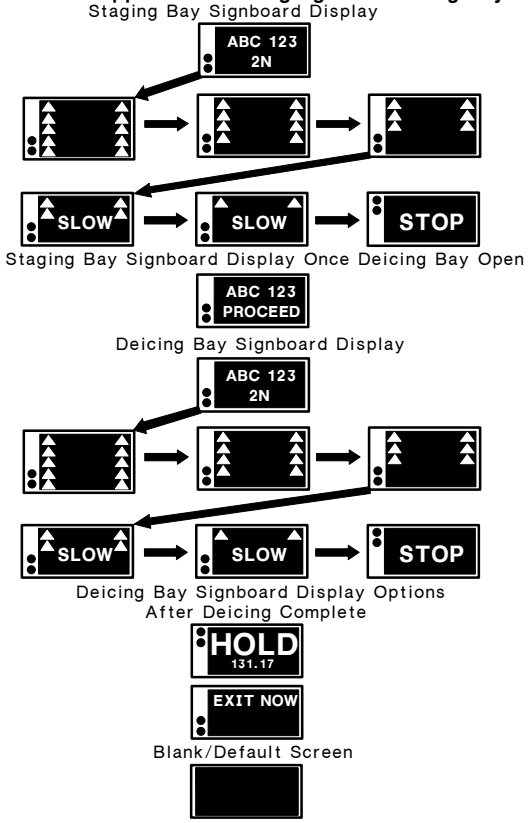


AUTOMATED VISUAL GUIDANCE & DISPLAY SYSTEM SEQUENCING

Aircraft Entering Directly into a Deicing Bay (No Staging)



Aircraft Stopped in the Staging and Deicing Bay



CENTRAL DE-ICING FACILITY (CDF)

Pad Control	Iceman	Ground
131.175 131.95	129.625 131.375	119.1 121.65 121.9

Specific aircraft operations plan in effect for aircraft with wingspans 214'(65m) up to 262'(79.9m).

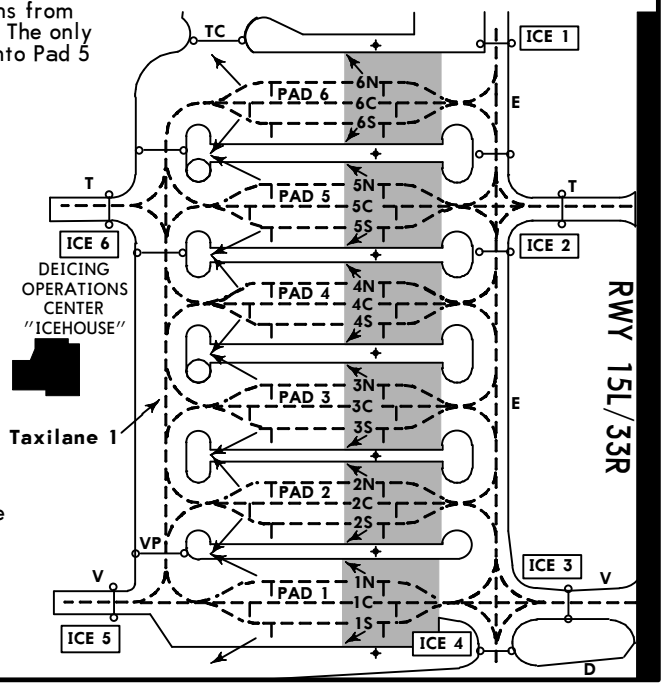
Restrictions in place include:

1. For Central De-Icing Facility operations, no turns from Twy E into any of the de-icing pads are permitted. The only taxi routes permitted for de-icing are via Twy T into Pad 5 and via Twy V into Pad 1.

Pads 1 & 5:
Center lane will accomodate all aircraft. Aircraft with wingspans less than 118'(36m) may use North/South Lanes.

Pads 2, 3, 4 & 6:
Center lanes will accomodate aircraft with wingspans 213' (64.9m) and smaller. Aircraft with wingspans less than 118' (36m) may use North/South Lanes.

Aircraft shall not manoeuver on equipment safe zone surfaces between Pads delineated by RED equipment restraint lines.



LEGEND

↖	Line of sight to controlling VGDS	⟜	HOLD LINE
N	North Lane	|	Aircraft Stop Line
C	Center Lane	✦	Staging Beacon
S	South Lane	ICE 1	SIGNBOARD

Central De-Icing Facility shown with aircraft entering from east to west, the staging bays are the gray areas.

CHANGES: Airport name.

ENGINE FAN BLADE ICE SHEDDING PROCEDURES

Single engine taxi operations should not be used during contaminated airfield conditions or when operations require the crossing of active runways. This will enhance safety and reduce the likelihood of engine inlet contamination during active precipitation, while eliminating any requirement to conduct engine-start activities on the airfield.

The completion of aircraft engine run-up for engine fan blade ice shedding must be conducted on taxiway areas outlined in the next chart diagrams. Strict adherence to the centerline is mandatory during engine fan blade ice shedding. Proper coordination with air traffic control (ATC) (Clearance, ground, or tower) is required.

On initial contact with Clearance (121.3 MHz), flight crews shall advise:

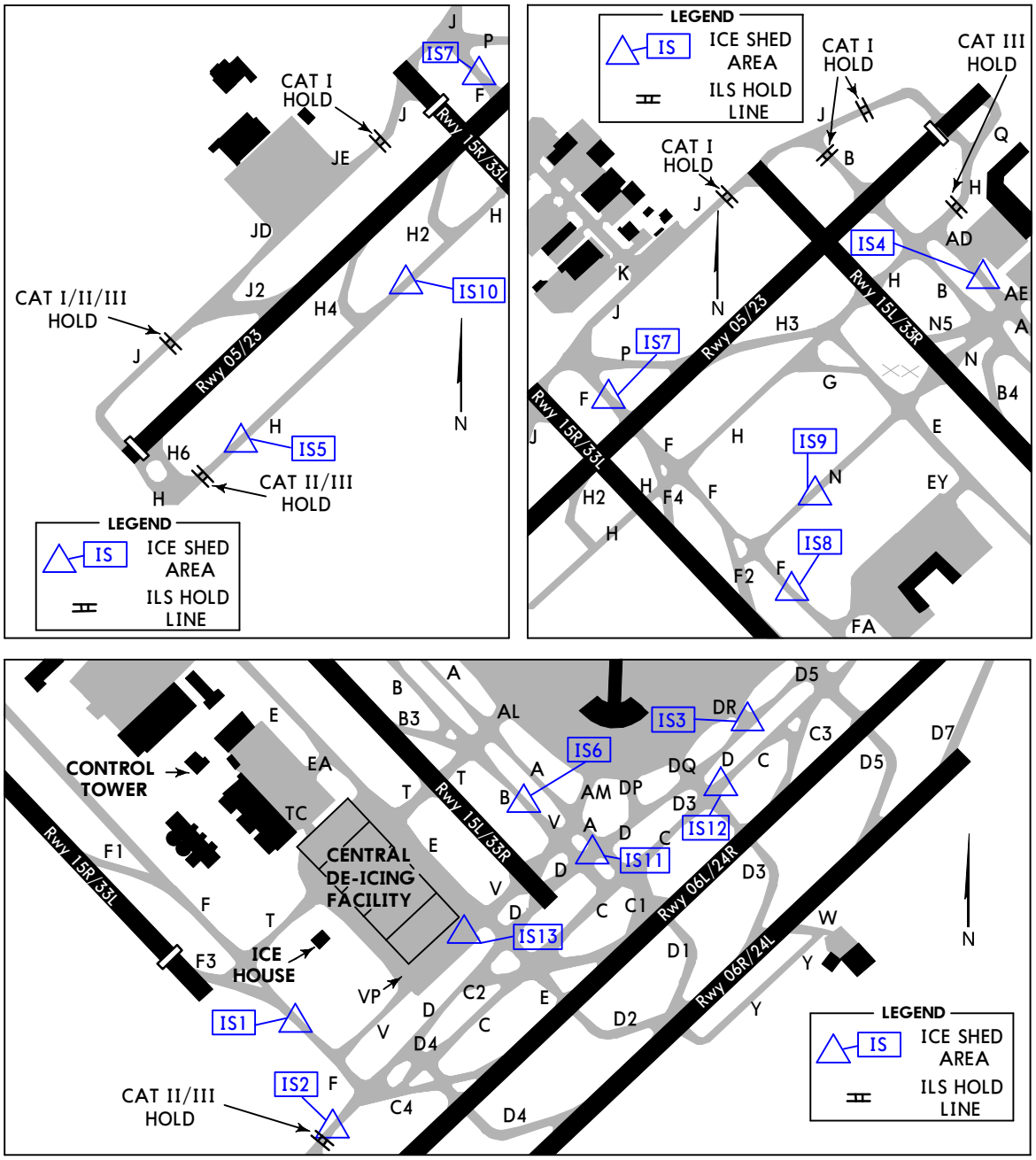
- Deicing requirements
- Run-up requirement prior to take-off
- Duration of run-up (if required)

Subsequently, if engine run-up requirements change, flight crews shall notify ATC as soon as practicable. The Airport Authority will ensure engine fan blade ice shedding areas in use are inspected and treated as required. Should taxiway surface conditions make engine run-up unsafe, flight crews shall coordinate with ATC to have the run-up conducted at the take-off position.

DEPARTING RUNWAY	ICE SHED AREA IS	ENGINE FAN BLADE ICE SHEDDING AREA
06L or 06R	IS1	Taxiway F between Taxiway T and Taxiway V
	IS2	Taxiway D at the Runway 06L CAT II/III hold line
	IS6	Taxiway B between Taxiway T and Taxiway V
	IS11	Taxiway D between Runway 33R approach hold line and Taxiway A
24R or 24L	IS3	Taxiway D between Taxiway D3 and Taxiway D5
	IS6	Taxiway B between Taxiway T and Taxiway V
	IS11	Taxiway D between Runway 33R approach hold line and Taxiway A
	IS12	Taxiway C between Taxiway D3 and Taxiway C3
23	IS4	Taxiway A between Taxiway AE and Taxiway H
	IS8	Taxiway F between Taxiway N and Taxiway FA
	IS9	Taxiway N between Taxiway F and Taxiway E
05	IS1	Taxiway F between Taxiway T and Taxiway V
	IS5	Taxiway H between Taxiway H4 and Runway 05 CAT III hold line
	IS8	Taxiway F between Taxiway N and Taxiway FA
	IS9	Taxiway N between Taxiway F and Taxiway E
	IS10	Taxiway H between Taxiway H2 and Taxiway H4
33R	IS1	Taxiway F between Taxiway T and Taxiway V
	IS6	Taxiway B between Taxiway T and Taxiway V
	IS11	Taxiway D between Runway 33R approach hold line and Taxiway A
	IS13	Taxiway V holding short of Taxiway E (west side)
33L	IS1	Taxiway F between Taxiway T and Taxiway V
15L	IS4	Taxiway A between Taxiway AE and Taxiway H
	IS7	Taxiway F between Runway 05/23 and Taxiway J
	IS9	Taxiway N between Taxiway F and Taxiway E
15R	IS7	Taxiway F between Runway 05/23 and Taxiway J
	IS8	Taxiway F between Taxiway N and Taxiway FA
	IS9	Taxiway N between Taxiway F and Taxiway E

CHANGES: Airport name.

ENGINE FAN BLADE ICE SHEDDING DIAGRAMS



CHANGES: Airport name.

CYYZ/YYZ
LESTER B PEARSON INTL

JEPPESEN
28 APR 23 (11-1)

TORONTO, ONT
ILS Rwy 05

D-ATIS	LONDON Radio	TORONTO Arrival	TORONTO Tower	Ground
120.825 133.1	123.275	132.8 124.475 125.4	118.35 118.7	121.9 121.65 119.1

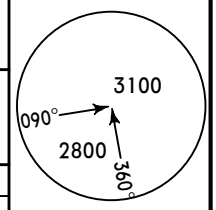
BRIEFING STRIP™

LOC ITX	Final Apch Crs	GS KERPU	ILS DME DA(H) Refer to Minimums	Apt Elev 569′ TDZE 564′
109.7	057°	2020′ (1456′)		

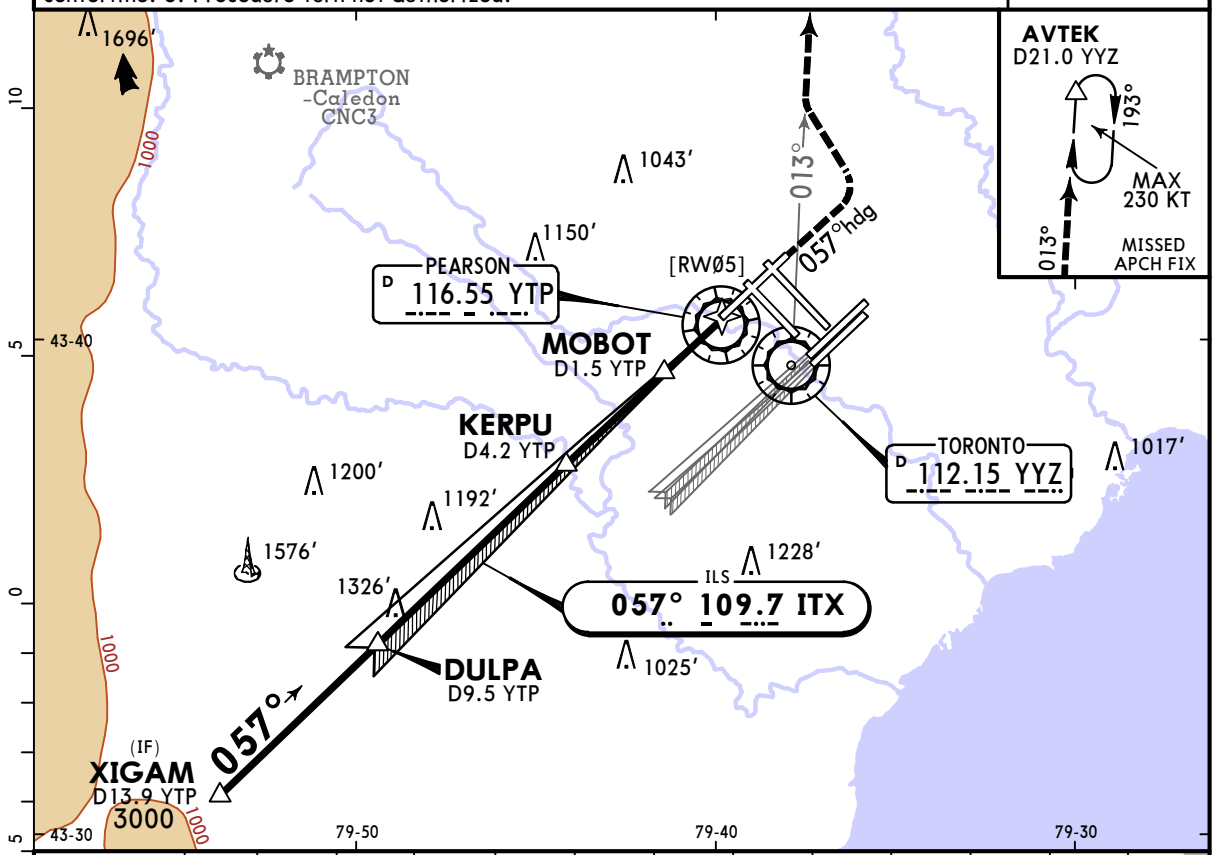
MISSED APCH: Climb to 1100′ heading 057°. Then climbing LEFT turn to 3000′ to intercept outbound YYZ VOR R-013 to AVTEK

Alt Set: INCHES | Trans level: FL180 | Trans alt: 18000′

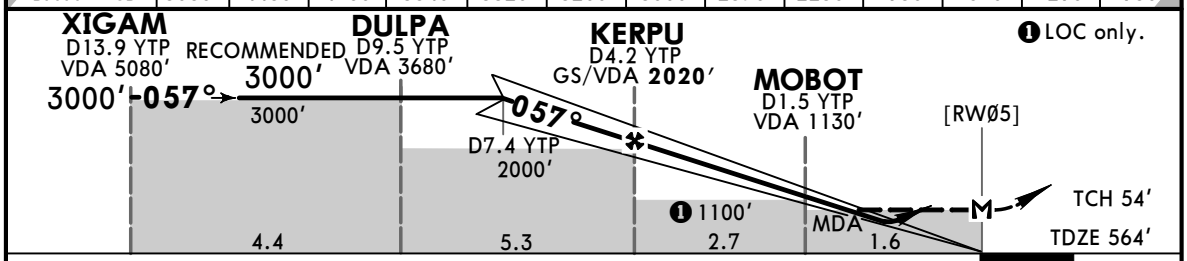
1. Radar required. 2. SAFE ALTITUDE WITHIN 100 NM 4900′. 3. Simultaneous approach authorized with Rwy 06L or 06R. 4. LOC reliable only within 10° either side of centerline. 5. Procedure turn not authorized.



MSA YYZ VOR



NM to YTP DME	13.9	12.0	11.0	10.0	9.0	8.0	7.4	6.0	5.0	4.0	3.0	2.0	1.0
VDA ALTITUDE	5080′	4480′	4160′	3840′	3520′	3200′	3000′	2570′	2250′	1930′	1610′	1290′	980′



Gnd speed-Kts		70	90	100	120	140	160
GS/VDA	3.00°	372	478	531	637	743	849
KERPU to MAP	4.3	3:41	2:52	2:35	2:09	1:51	1:37

ALSF-II
PAPI

1100′ | 057° hdg | 3000′ LT | YYZ 112.15 R-013

State STRAIGHT-IN LANDING

	ILS DME DA(H) 764′ (200′) FULL	ILS DME DA(H) 814′ (250′) HIALS out	LOC (GS out) DME MDA(H) 980′ (416′)	LOC (GS out) DME HIALS out
A	R26 or V1/2	R50 or V1	R50 or V1	V1 1/4
B				
C				
D				

CHANGES: Airport name, new AOM concept.

CYYZ/YYZ
LESTER B PEARSON INTL

JEPPESEN

28 APR 23 (11-1A)

TORONTO, ONT
ILS CAT II or III Rwy 05

D-ATIS	LONDON Radio	TORONTO Arrival	TORONTO Tower	Ground
120.825 133.1	123.275	132.8 124.475 125.4	118.35 118.7	121.9 121.65 119.1

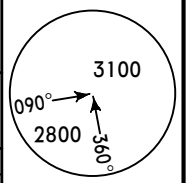
BRIEFING STRIP ™

LOC ITX 109.7	Final Apch Crs 057°	GS KERPU 2020′(1456′)	CAT IIIC / CAT IIIB: NA	CAT IIIA: Refer to Minimums	CAT II: RA 108′ DA(H) 664′ (101′)	Apt Elev 569′ TDZE 564′

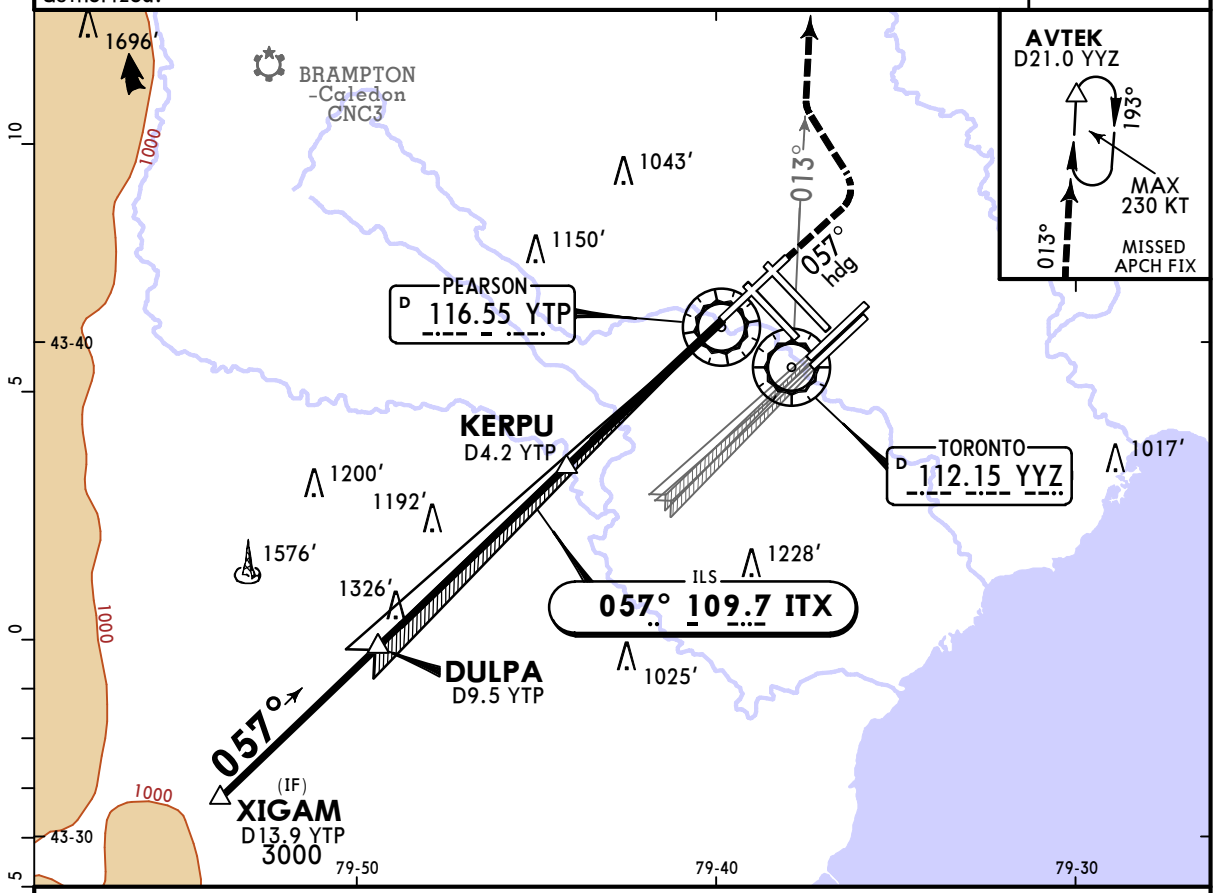
MISSED APCH: Climb to 1100′ heading 057°. Then climbing LEFT turn to 3000′ to intercept outbound YYZ VOR R-013 to AVTEK.

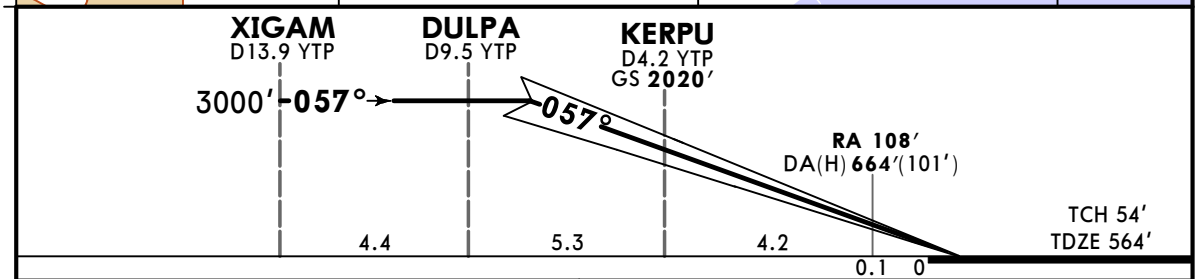
Alt Set: INCHES | Trans level: FL180 | Trans alt: 18000′

1. Radar required. 2. SAFE ALTITUDE WITHIN 100 NM 4900′. 3. PRIOR AUTHORIZATION REQUIRED FROM TRANSPORT CANADA. 4. Simultaneous approach authorized with Rwy 06L or 06R. 5. LOC reliable only within 10° either side of centerline. 6. Procedure turn not authorized.



MSA YYZ VOR





Gnd speed-Kts	70	90	100	120	140	160
GS 3.00°	372	478	531	637	743	849

ALSF-II / PAPI | 1100′ | 057° hdg | 3000′ LT | YYZ 112.15 R-013

State

STRAIGHT-IN LANDING

CAT IIIC ILS	CAT IIIB ILS	CAT IIIA ILS	CAT II ILS RA 108′ DA(H) 664′(101′)
NOT AUTHORIZED	NOT AUTHORIZED	R6	R12

CHANGES: Airport name, new AOM concept.

CYYZ/YYZ
LESTER B PEARSON INTL

JEPPESEN
28 APR 23 (11-2)

TORONTO, ONT
ILS Rwy 06L

D-ATIS	LONDON Radio	TORONTO Arrival	TORONTO Tower	Ground
120.825 133.1	123.275	132.8 124.475 125.4	118.35 118.7	121.9 121.65 119.1

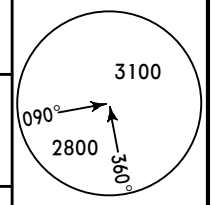
BRIEFING STRIP™

LOC IJS	Final Apch Crs	GS VEPNA	ILS DME DA(H) Refer to Minimums	Apt Elev 569′ TDZE 535′
109.1	057°	2010′ (1475′)		

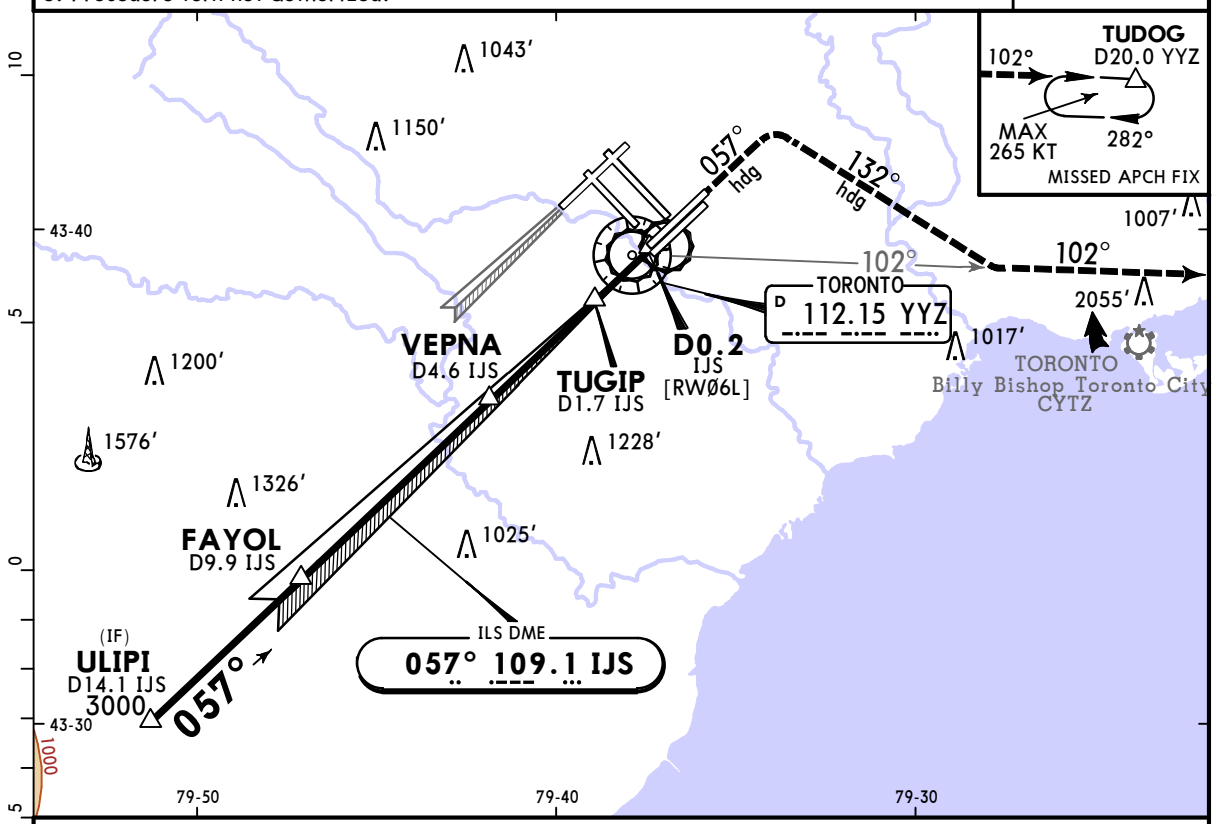
MISSED APCH: Climb to 1100′ heading 057°. Climbing RIGHT turn to 3100′ heading 132°. Then intercept outbound YYZ VOR R-102 to TUDOG.

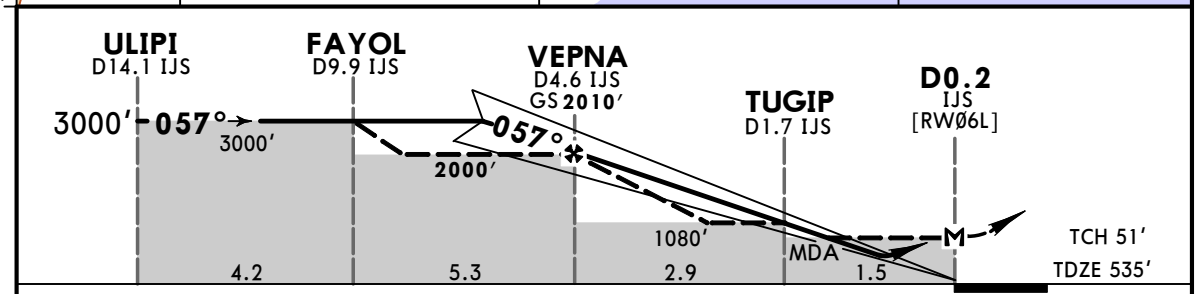
Alt Set: INCHES | Trans level: FL180 | Trans alt:18000′

1. Radar required. 2. SAFE ALTITUDE WITHIN 100 NM 4900′. 3. Simultaneous approach authorized with Rwy 05. 4. LOC reliable only within 10° either side of centerline. 5. Procedure turn not authorized.



MSA YYZ VOR





Gnd speed-Kts		70	90	100	120	140	160
ILS GS	3.00°	372	478	531	637	743	849
LOC Descent Angle	3.08°	381	490	545	654	763	872
MAP at D0.2 IJS							

ALSF-II
PAPI

1100′	057° hdg	3100′ RT	132° hdg

State STRAIGHT-IN LANDING

	ILS DME		LOC (GS out) DME	
	DA(H) 735′ (200′)	DA(H) 785′ (250′)	MDA(H) 960′ (425′)	
	FULL	HIALS out		HIALS out
A B C D	R26 or V1/2	R50 or V1	R50 or V1	V1 1/4

CHANGES: Airport name, new AOM concept.

CYYZ/YYZ
LESTER B PEARSON INTL

JEPPESEN
28 APR 23 (11-2A)

TORONTO, ONT
ILS CAT II or III Rwy 06L

D-ATIS	LONDON Radio	TORONTO Arrival	TORONTO Tower	Ground
120.825 133.1	123.275	132.8 124.475 125.4	118.35 118.7	121.9 121.65 119.1

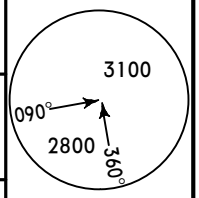
BRIEFING STRIP™

LOC IJS	Final Apch Crs	GS	CAT IIIC	CAT IIIB	CAT IIIA	CAT II	Apt Elev
109.1	057°	VEPNA 2010′(1481′)	NA		Refer to Minimums	RA 147′ DA(H) 630′ (101′)	569′ Rwy 529′

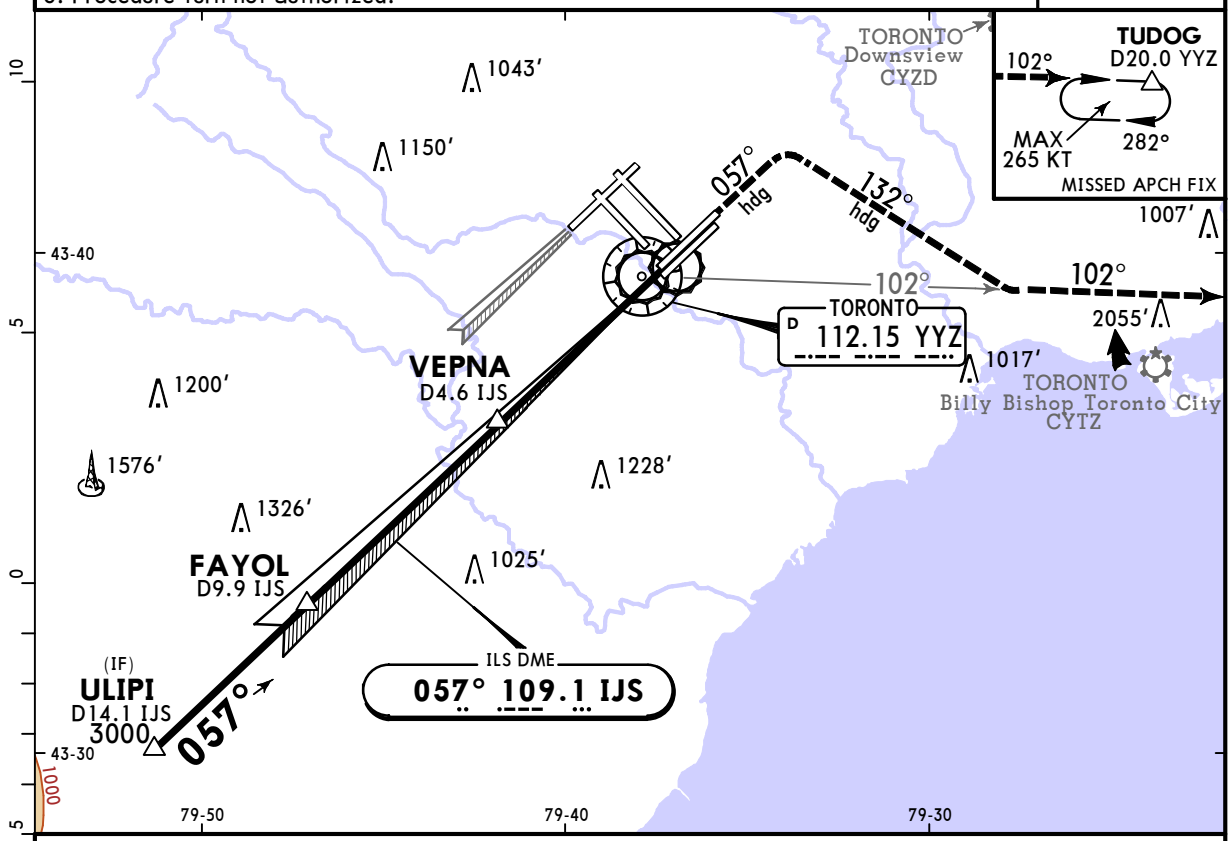
MISSED APCH: Climb to 1100′ heading 057°. Climbing RIGHT turn to 3100′ heading 132° to intercept outbound YYZ VOR R-102 to TUDOG.

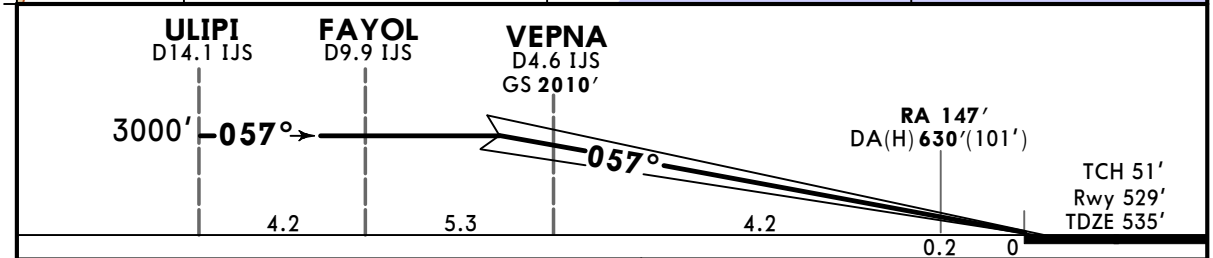
Alt Set: INCHES | Trans level: FL180 | Trans alt: 18000′

1. Radar or RNAV required. 2. SAFE ALTITUDE WITHIN 100 NM 4900′. 3. PRIOR AUTHORIZATION REQUIRED FROM TRANSPORT CANADA. 4. Simultaneous approach authorized with Rwy 05. 5. LOC reliable only within 10° either side of centerline. 6. Procedure turn not authorized.



MSA YYZ VOR





Gnd speed-Kts		70	90	100	120	140	160
GS	3.00°	372	478	531	637	743	849

ALSF-II
PAPI

1100′	057° hdg	3100′ RT	132° hdg

State STRAIGHT-IN LANDING

CAT IIIC ILS	CAT IIIB ILS	CAT IIIA ILS	CAT II ILS RA 147′ DA(H) 630′(101′)
NOT AUTHORIZED	NOT AUTHORIZED	R6	R12

CHANGES: Airport name, new AOM concept.

CYYZ/YYZ
LESTER B PEARSON INTL

JEPPESEN
28 APR 23 (11-3)

TORONTO, ONT
ILS Rwy 06R

BRIEFING STRIP™

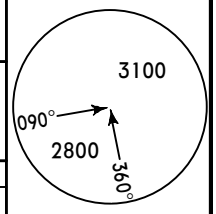
D-ATIS	LONDON Radio	TORONTO Arrival	TORONTO Tower	Ground
120.825 133.1	123.275	132.8 124.475 125.4	118.35 118.7	121.9 121.65 119.1

LOC ICV	Final Apch Crs	GS	ILS DME DA(H)	Apt Elev 569′
111.95	**057°**	**SAVOS 2010′** (1472′)	Refer to Minimums	TDZE 538′

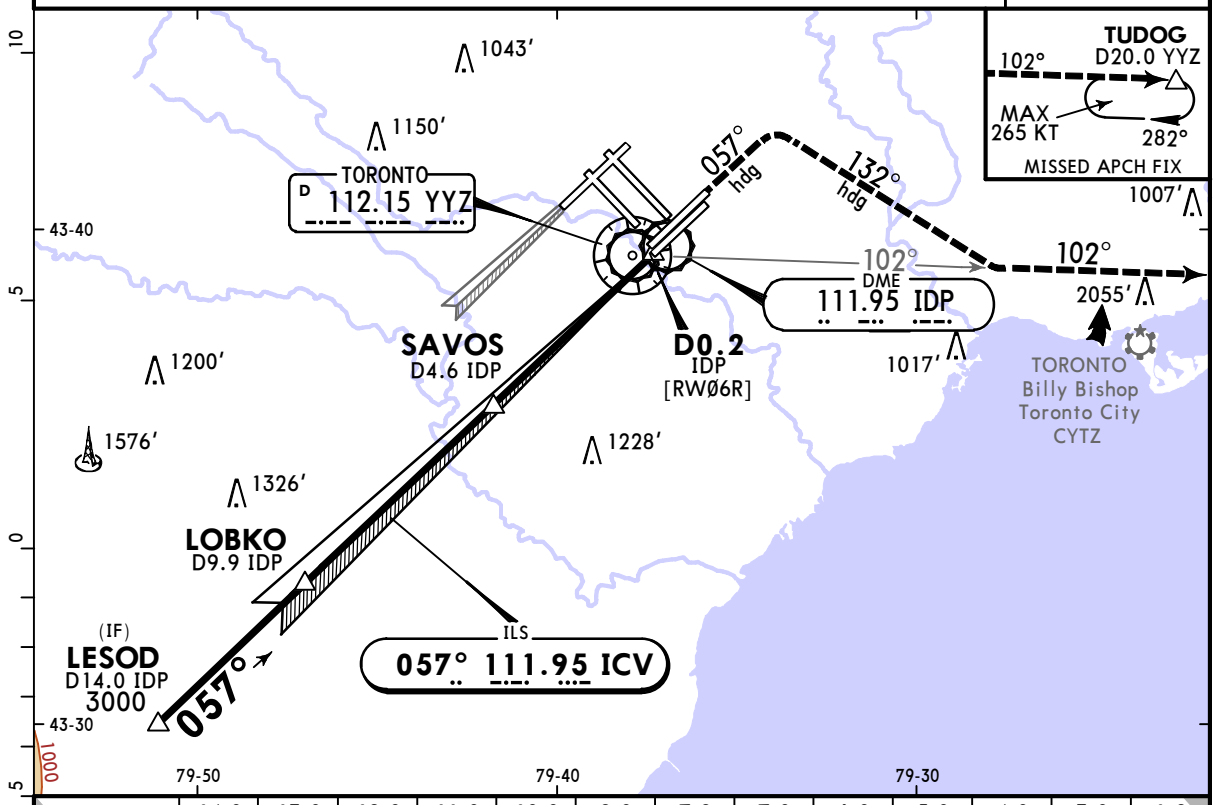
MISSED APCH: Climb to 1100′ heading 057°. Climbing RIGHT turn to 3100′ heading 132°. Then intercept outbound YYZ VOR R-102 to TUDOG.

Alt Set: INCHES | Trans level: FL180 | Trans alt: 18000′

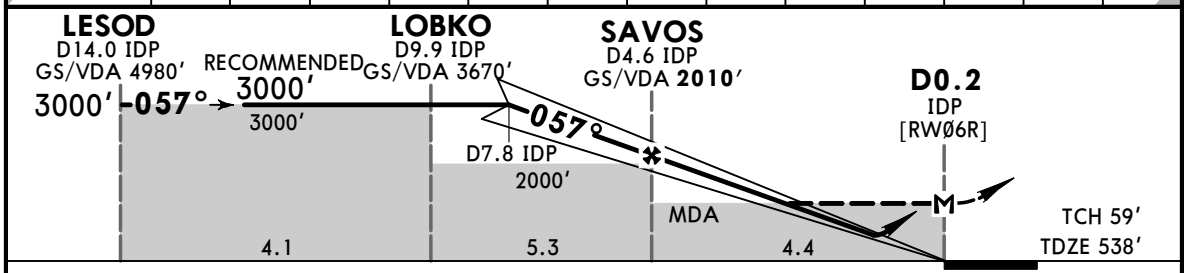
1. Radar required. 2. SAFE ALTITUDE WITHIN 100 NM 4900′. 3. Simultaneous approach authorized with Rwy 05. 4. Common ILS DME frequencies Rwys 06R & 24L. Verify idents are for this approach. 5. LOC reliable only within 10° either side of centerline. 6. Procedure turn not authorized.



MSA YYZ VOR



NM to IDP DME	14.0	13.0	12.0	11.0	10.0	9.0	7.8	7.0	6.0	5.0	4.0	3.0	1.8
VDA ALTITUDE	4980′	4660′	4340′	4020′	3700′	3390′	3000′	2750′	2430′	2110′	1790′	1480′	1080′



Gnd speed-Kts	70	90	100	120	140	160
GS/VDA 3.00°	372	478	531	637	743	849
MAP at D0.2 IDP						

SSALR
PAPI

1100′	057° hdg	3100′ RT	132° hdg

State

STRAIGHT-IN LANDING

	ILS DME		LOC (GS out) DME	
	DA(H) **738′** (200′)	DA(H) **788′** (250′)	MDA(H) **1080′** (542′)	
	FULL	HIALS out		HIALS out
A B C D	R26 or V1/2	R50 or V1	V1 1/4	V1 3/4

CHANGES: Airport name, new AOM concept.

CYYZ/YYZ
LESTER B PEARSON INTL

JEPPESEN

28 APR 23 (11-4)

TORONTO, ONT
ILS Rwy 15L

D-ATIS	LONDON Radio	TORONTO Arrival	TORONTO Tower	Ground
120.825 133.1	123.275	132.8 124.475 125.4	118.35 118.7	121.9 121.65 119.1

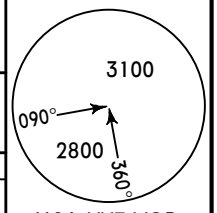
BRIEFING STRIP ™

LOC IRW	Final Apch Crs	GS WOHIL	ILS DME DA(H) Refer to Minimums	Apt Elev 569′ TDZE 557′
110.5	147°	1820′ (1263′)		

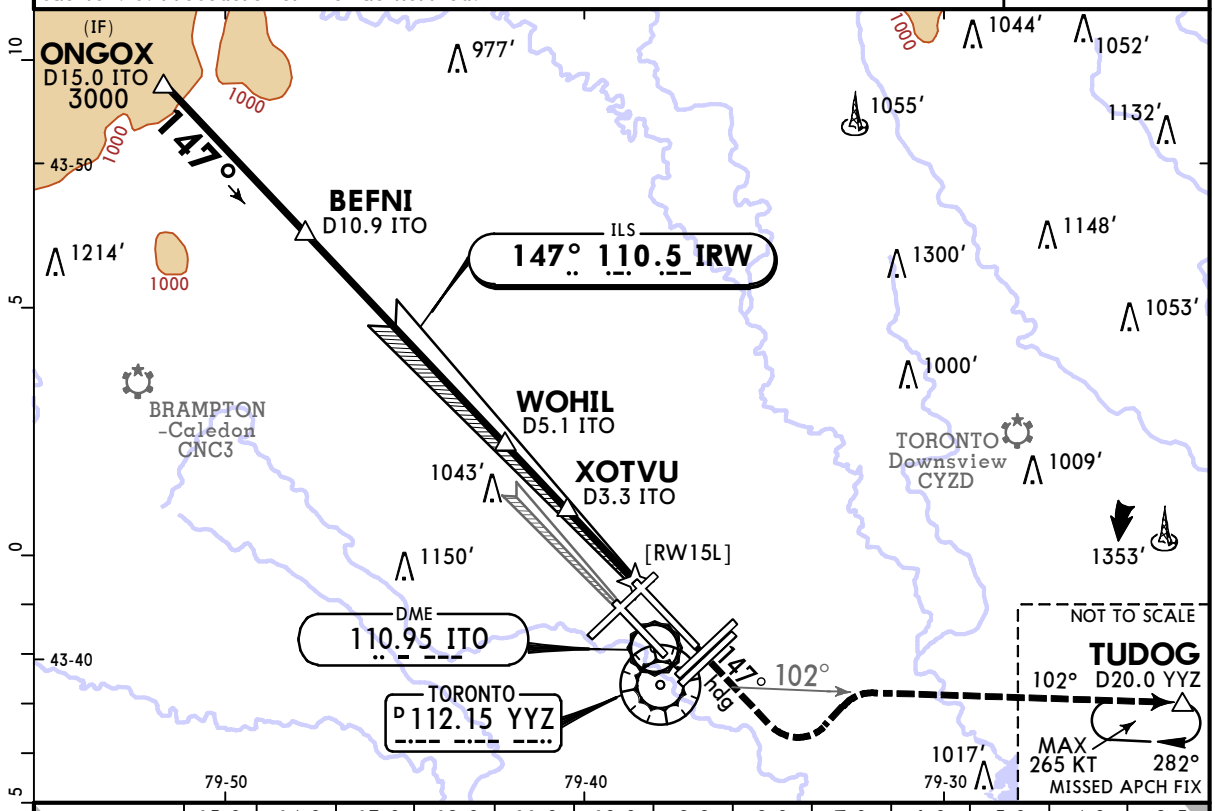
MISSED APCH: Climb to 1100′ heading 147°. Then climbing LEFT turn to 3100′ to intercept outbound YYZ VOR R-102 to TUDOG.

Alt Set: INCHES | Trans level: FL180 | Trans alt: 18000′

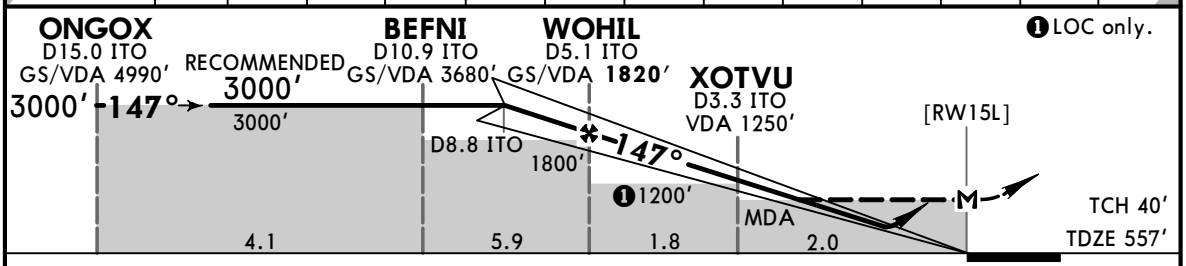
1. Radar required. 2. SAFE ALTITUDE WITHIN 100 NM 4900′. 3. Simultaneous approach authorized with Rwy 15R. 4. LOC reliable only within 10° either side of centerline. 5. Low TCH. Aircraft with eye to wheel height at or greater than 22′ need to exercise caution. 6. Procedure turn not authorized.



MSA YYZ VOR



NM to ITO DME	15.0	14.0	13.0	12.0	11.0	10.0	8.8	8.0	7.0	6.0	5.0	4.0	2.5
VDA ALTITUDE	4990′	4660′	4340′	4020′	3700′	3380′	3000′	2750′	2430′	2110′	1790′	1470′	1000′



Gnd speed-Kts		70	90	100	120	140	160
GS/VDA	3.00°	372	478	531	637	743	849
WOHIL to MAP	3.8	3:15	2:32	2:17	1:54	1:38	1:26

SSALR
PAPI

1100′	147° hdg	3100′ LT	YYZ 112.15 R-102

State STRAIGHT-IN LANDING

	ILS DME		LOC (GS out) DME	
	DA(H) 757′ (200′)	DA(H) 807′ (250′)	MDA(H) 1000′ (443′)	
	FULL	HIALS out		HIALS out
A	R26 or V1/2	R50 or V1	R50 or V1	V1 1/2
B				
C				
D				

CHANGES: Airport name, new AOM concept.

CYYZ/YYZ
LESTER B PEARSON INTL

JEPPESEN

28 APR 23 (11-5)

TORONTO, ONT
ILS Rwy 15R

D-ATIS	LONDON Radio	TORONTO Arrival	TORONTO Tower	Ground
120.825 133.1	123.275	132.8 124.475 125.4	118.35 118.7	121.9 121.65 119.1

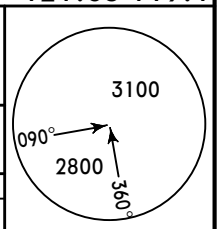
BRIEFING STRIP ™

LOC ILP	Final Apch Crs	GS	ILS DME DA(H) Refer to Minimums	Apt Elev 569' TDZE 552'
110.95	**147°**	**HOFFS 2010'**(1458')		

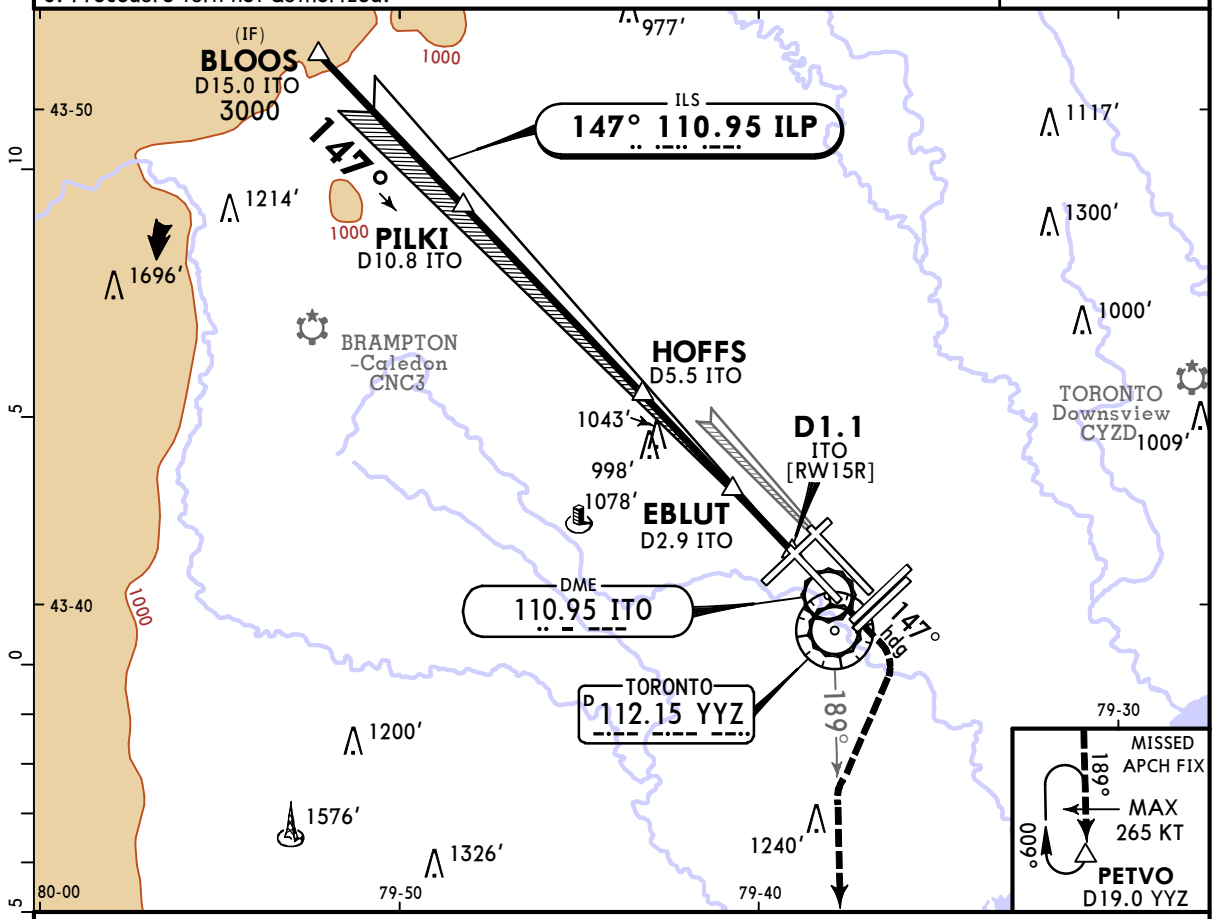
MISSED APCH: Climb to 1100' heading 147°. Then climbing RIGHT turn to 3000' to intercept outbound YYZ VOR R-189 to PETVO.

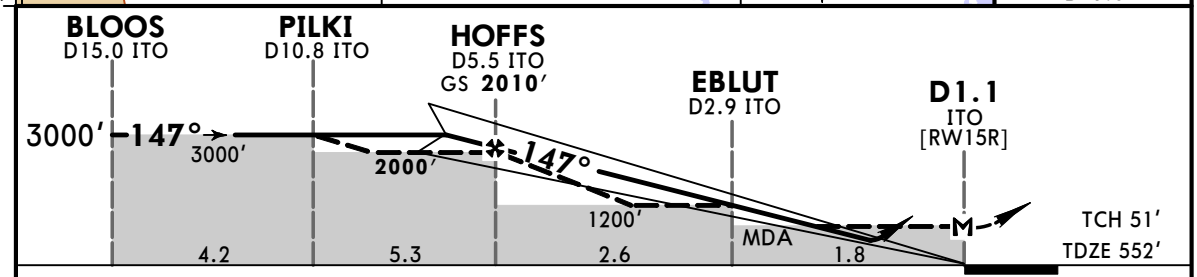
Alt Set: INCHES | Trans level: FL180 | Trans alt: 18000'

1. Radar required. 2. SAFE ALTITUDE WITHIN 100 NM 4900'. 3. Simultaneous approach authorized with Rwy 15L. 4. Common ILS DME frequencies Rwys 15R and 33L. Verify idents are for this approach. 5. LOC reliable only within 10° either side of centerline. 6. Procedure turn not authorized.



MSA YYZ VOR





Gnd speed-Kts		70	90	100	120	140	160
ILS GS	3.00°	372	478	531	637	743	849
LOC Descent Angle	3.20°	396	510	566	679	793	906
MAP at D1.1 ITO							

SSALR
PAPI

1100'	147° hdg	3000' RT	YYZ 112.15 R-189

State — STRAIGHT-IN LANDING

	ILS DME DA(H) 752'(200') FULL	ILS DME DA(H) 802'(250') HIALS out	LOC (GS out) DME MDA(H) 980'(428')	LOC (GS out) DME HIALS out
A	R26 or V1/2	R50 or V1	R50 or V1	V1 1/4
B				
C				
D				

CHANGES: Airport name, new AOM concept.

CYYZ/YYZ
LESTER B PEARSON INTL

JEPPESEN
28 APR 23 (11-6)

TORONTO, ONT
ILS Rwy 23

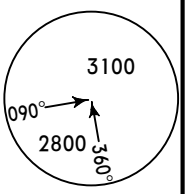
D-ATIS	LONDON Radio	TORONTO Arrival	TORONTO Tower	Ground
120.825 133.1	123.275	132.8 124.475 125.4	118.35 118.7	121.9 121.65 119.1

BRIEFING STRIP ™

LOC IYZ	Final Apch Crs	GS OMTOK	ILS DME DA(H)	Apt Elev 569′
111.5	237°	1970′ (1413′)	808′ (250′)	Rwy 557′

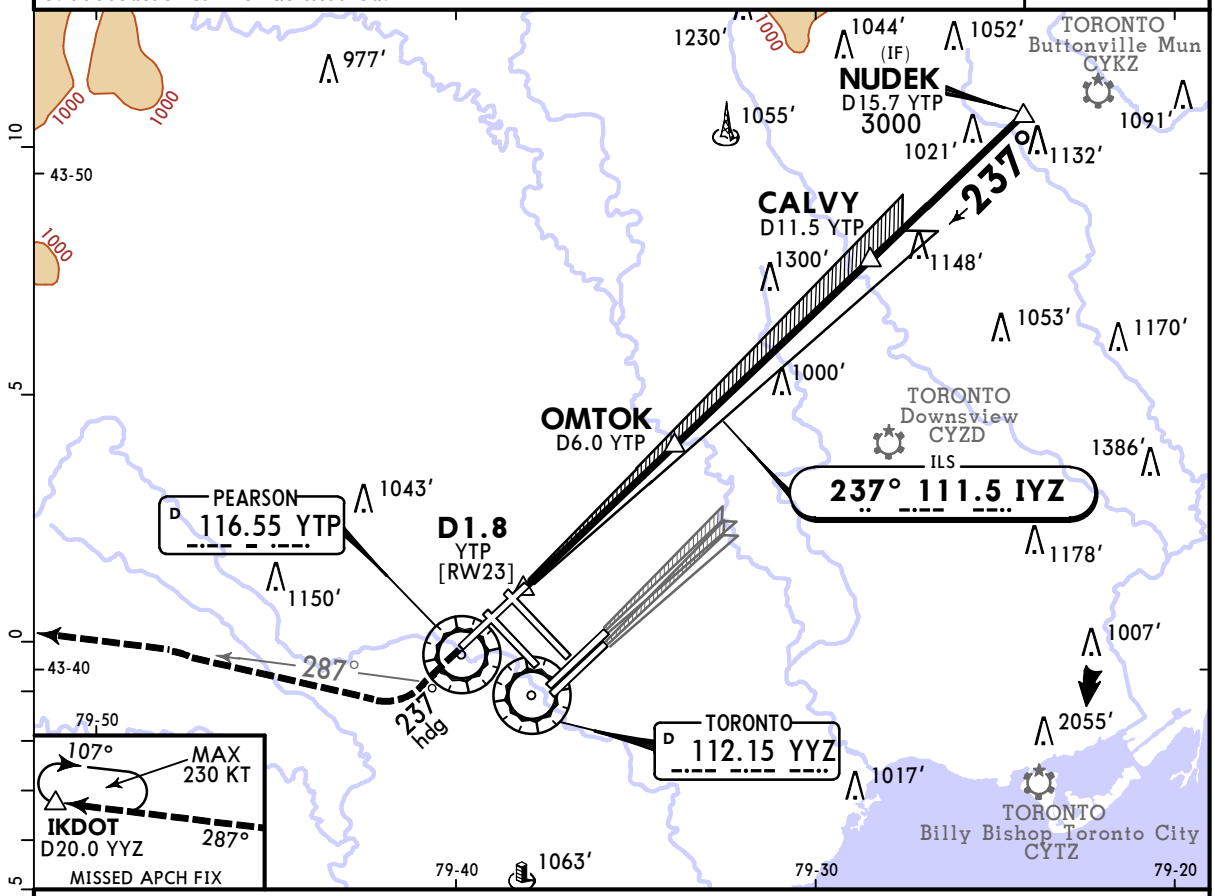
MISSED APCH: Climb to 1100′ heading 237°. Then climbing RIGHT turn to 3000′ to intercept outbound YYZ VOR R-287 to IKDOT.

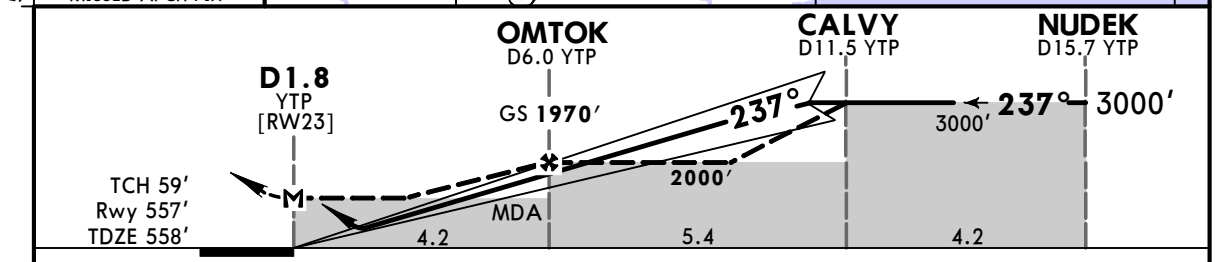
MSA YYZ VOR



Alt Set: INCHES | Trans level: FL180 | Trans alt: 18000′

1. Radar required. 2. SAFE ALTITUDE WITHIN 100 NM 4900′. 3. Simultaneous approach authorized with Rwy 24R or 24L. 4. LOC reliable only within 10° either side of centerline. 5. Procedure turn not authorized.





Gnd speed-Kts		70	90	100	120	140	160
ILS GS	3.00°	372	478	531	637	743	849
LOC Descent Angle	3.10°	384	494	548	658	768	878
MAP at D1.8 YTP							

SSALR
PAPI

1100′	237° hdg	3000′ RT	YYZ 112.15 R-287

State STRAIGHT-IN LANDING

	ILS DME DA(H) 808′ (250′)		LOC (GS out) DME MDA(H) 980′ (423′)	
	FULL	HIALS out		HIALS out
A	R50 or V1		R50 or V1	V1 1/4
B				
C				
D				

CHANGES: Airport name, new AOM concept.

CYYZ/YYZ
LESTER B PEARSON INTL

JEPPESEN
28 APR 23 (11-7)

TORONTO, ONT
ILS Rwy 24L

D-ATIS	LONDON Radio	TORONTO Arrival	TORONTO Tower	Ground
120.825 133.1	123.275	132.8 124.475 125.4	118.35 118.7	121.9 121.65 119.1

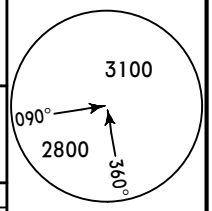
BRIEFING STRIP™

LOC IDP	Final Apch Crs	GS	ILS DME DA(H) Refer to Minimums	Apt Elev 569′
111.95	237°	KIREX 1970′ (1423′)		TDZE 547′

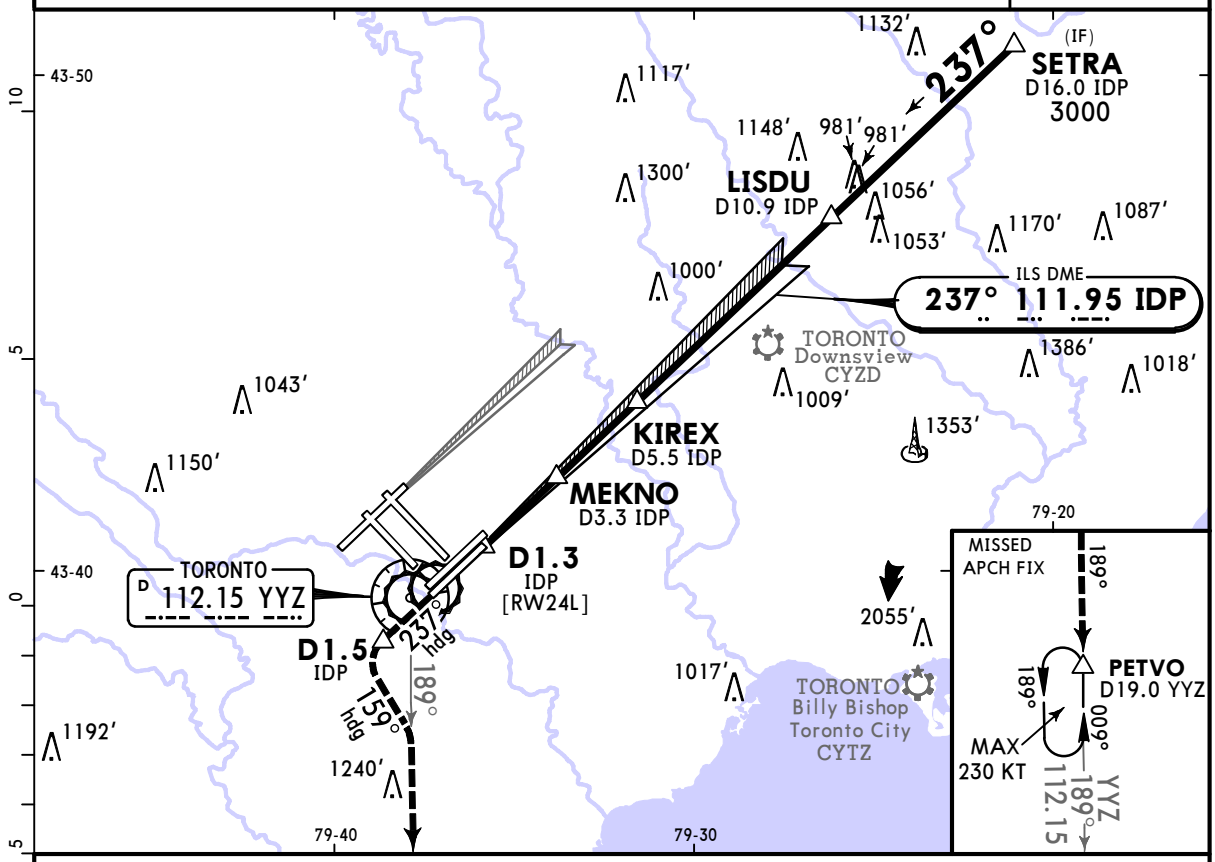
MISSED APCH: Climb heading 237° to D1.5 IDP. Climbing LEFT turn to 3000′ heading 159° to intercept outbound YYZ VOR R-189 to PETVO.

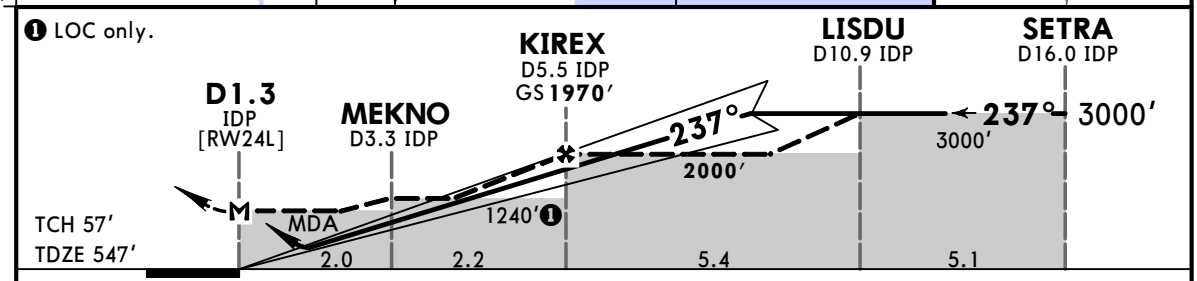
Alt Set: INCHES | Trans level: FL180 | Trans alt: 18000′

1. Radar or RNAV required. 2. SAFE ALTITUDE WITHIN 100 NM 4900′. 3. Simultaneous approach authorized with Rwy 23. 4. Common ILS/DME frequencies Rwys 06R and 24L. Verify idents are for this approach. 5. LOC reliable only within 10° either side of centerline. 6. Procedure turn not authorized.



MSA YYZ VOR





Gnd speed-Kts		70	90	100	120	140	160
ILS GS	3.00°	372	478	531	637	743	849
LOC Descent Angle	3.10°	384	494	548	658	768	878
MAP at D1.3 IDP							

SSALR
PAPI

237° hdg	D1.5 IDP	3000′ LT	159° hdg

State STRAIGHT-IN LANDING

	ILS DME DA(H) 747′ (200′) FULL	ILS DME DA(H) 797′ (250′) HIALS out	LOC (GS out) DME MDA(H) 980′ (433′)	LOC (GS out) DME HIALS out
A B C D	R26 or V1/2	R50 or V1	R50 or V1	V1 1/4

CHANGES: Airport name, new AOM concept.

CYYZ/YYZ
LESTER B PEARSON INTL

JEPPESEN

28 APR 23 (11-8)

TORONTO, ONT
ILS Rwy 24R

D-ATIS	LONDON Radio	TORONTO Arrival	TORONTO Tower	Ground
120.825 133.1	123.275	132.8 124.475 125.4	118.35 118.7	121.9 121.65 119.1

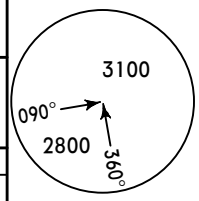
BRIEFING STRIP ™

LOC INV	Final Apch Crs	GS NOAHA	ILS DME DA(H)	Apt Elev 569′
109.3	237°	1970′ (1424′)	796′ (250′)	TDZE 546′

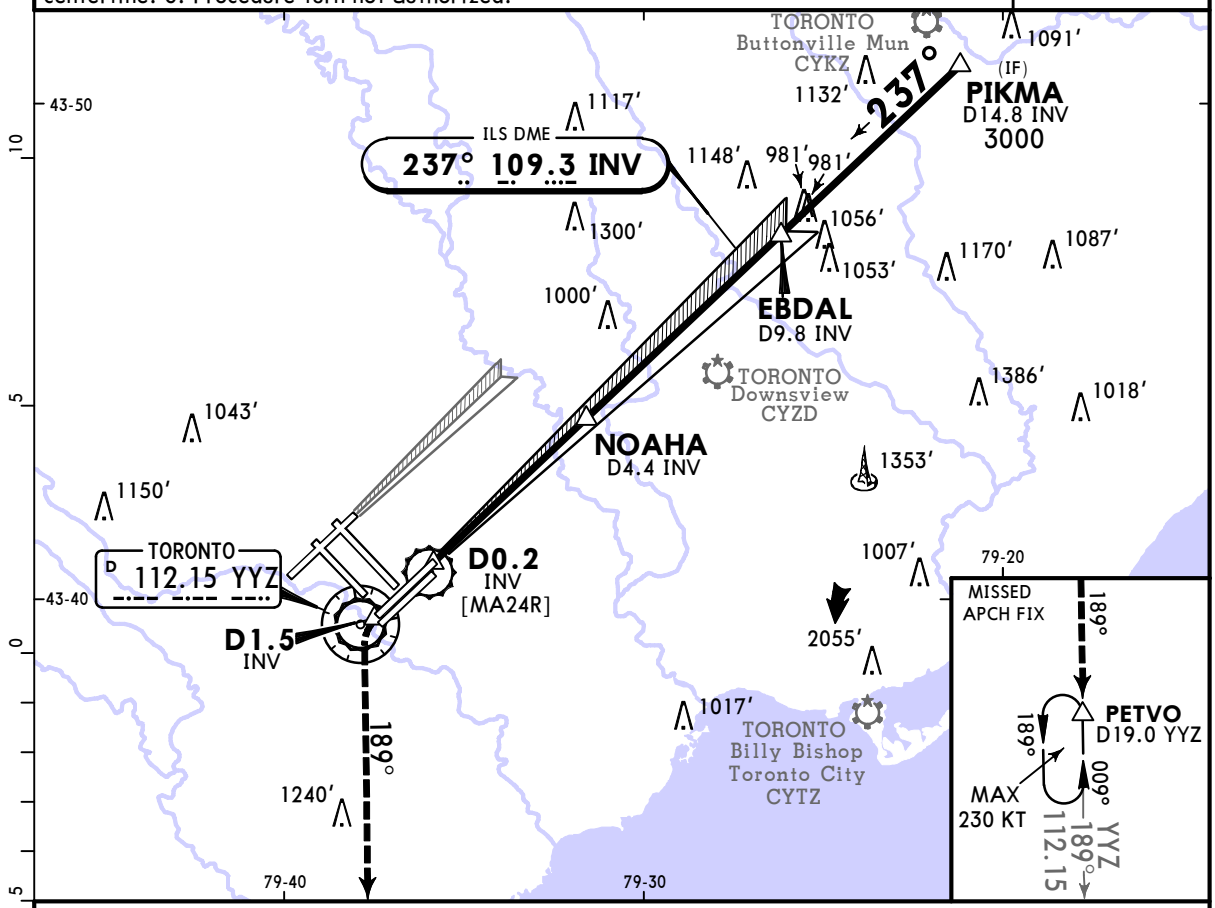
MISSED APCH: Climb heading 237° to D1.5 INV. Climbing LEFT turn to 3000′ heading 189° to intercept outbound YYZ VOR R-189 to PETVO.

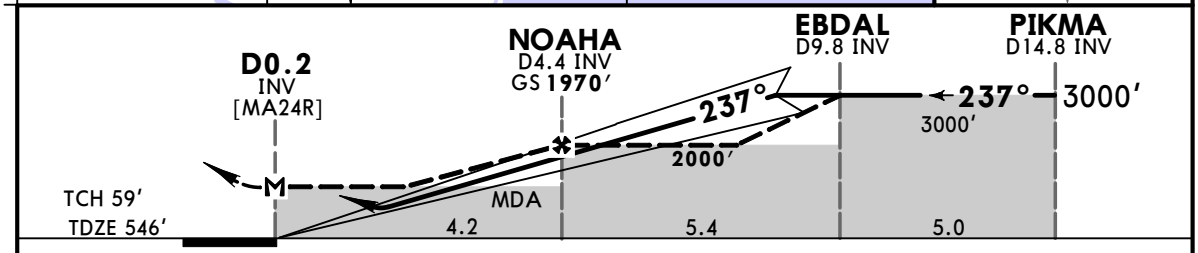
Alt Set: INCHES | Trans level: FL180 | Trans alt: 18000′

1. Radar or RNAV required. 2. CAUTION: Twy Charlie (600′ right of centerline) similar in appearance to Rwy. 3. SAFE ALTITUDE WITHIN 100 NM 4900′. 4. Simultaneous approach authorized with Rwy 23. 5. LOC reliable only within 10° either side of centerline. 6. Procedure turn not authorized.



MSA YYZ VOR





Gnd speed-Kts		70	90	100	120	140	160
ILS GS	3.00°	372	478	531	637	743	849
LOC Descent Angle	3.10°	384	494	548	658	768	878
MAP at D0.2 INV							

SSALS / REIL / PAPI

237° hdg	D1.5 INV	3000′ LT	189° hdg

State — STRAIGHT-IN LANDING

	ILS DME		LOC (GS out) DME	
	DA(H) 796′ (250′)		MDA(H) 980′ (434′)	
		ALS out		ALS out
A	R50 or V1		V1 1/4	
B				
C				
D				

CHANGES: Airport name, new AOM concept.

CYYZ/YYZ
LESTER B PEARSON INTL

JEPPESEN
28 APR 23 (11-9)

TORONTO, ONT
ILS Rwy 33L

D-ATIS	LONDON Radio	TORONTO Arrival	TORONTO Tower	Ground
120.825 133.1	123.275	132.8 124.475 125.4	118.35 118.7	121.9 121.65 119.1

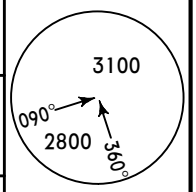
BRIEFING STRIP™

LOC ITO	Final Apch Crs	GS APMAM	ILS DME DA(H)	Apt Elev 569′ TDZE 548′
110.95	327°	2020′ (1472′)	838′ (290′)	

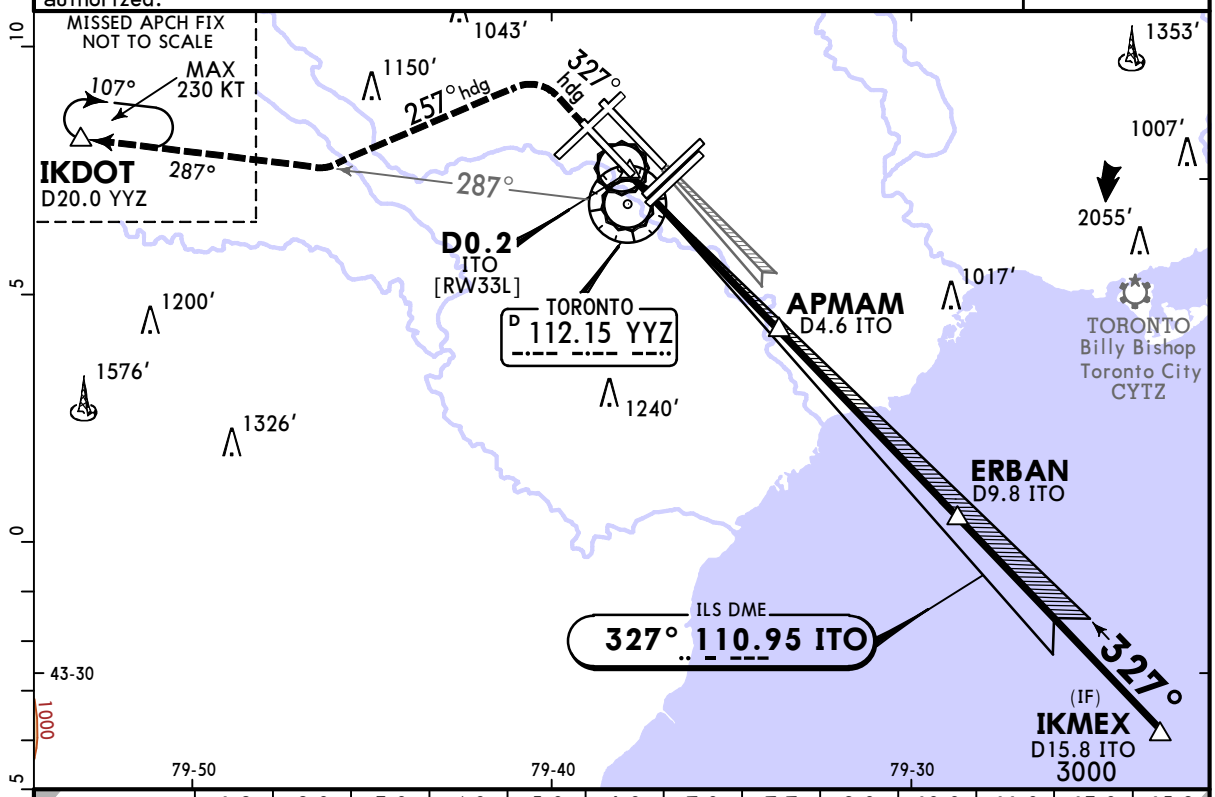
MISSED APCH: Climb to 1100′ heading 327°. Climbing LEFT turn to 3000′ heading 257°. Then intercept outbound YYZ VOR R-287 to IKDOT.

Alt Set: INCHES | Trans level: FL180 | Tran alt: 18000′

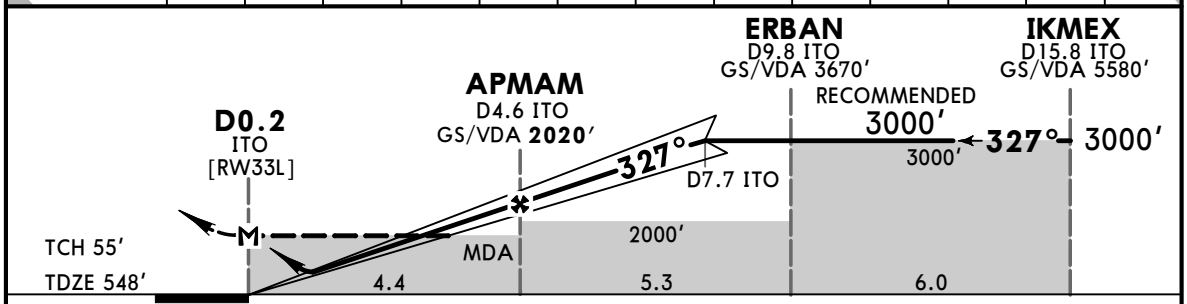
1. Radar required. 2. SAFE ALTITUDE WITHIN 100 NM 4900′. 3. Simultaneous approach authorized with Rwy 33R. 4. Common ILS DME frequencies Rwys 15R and 33L. Verify idents. 5. LOC reliable only within 10° either side of centerline. 6. Procedure turn not authorized.



MSA YYZ VOR



NM to ITO DME	1.2	2.0	3.0	4.0	5.0	6.0	7.0	7.7	9.0	10.0	11.0	13.0	15.8
VDA ALTITUDE	920′	1190′	1500′	1820′	2140′	2460′	2780′	3000′	3410′	3730′	4050′	4690′	5580′



Gnd speed-Kts		70	90	100	120	140	160
GS/VDA	3.00°	372	478	531	637	743	849
MAP at D0.2 ITO							

SSALR
PAPI

1100′	327° hdg	3000′ LT	257° hdg

State — STRAIGHT-IN LANDING

	ILS DME		LOC (GS out) DME	
	DA(H) 838′ (290′)		MDA(H) 920′ (372′)	
	FULL	HIALS out		HIALS out
A	R50 or V1		R50 or V1	V1 1/4
B				
C				
D				

CHANGES: Airport name, new AOM concept.

CYYZ/YYZ
LESTER B PEARSON INTL

JEPPESEN
28 APR 23 (11-10)

TORONTO, ONT
ILS Rwy 33R

D-ATIS	LONDON Radio	TORONTO Arrival	TORONTO Tower	Ground
120.825 133.1	123.275	132.8 124.475 125.4	118.35 118.7	121.9 121.65 119.1

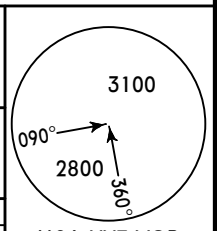
BRIEFING STRIP™

LOC ILE	Final Apch Crs	GS LETAG	ILS DME DA(H) Refer to Minimums	Apt Elev 569′ TDZE 564′
110.3	327°	2020′ (1456′)		

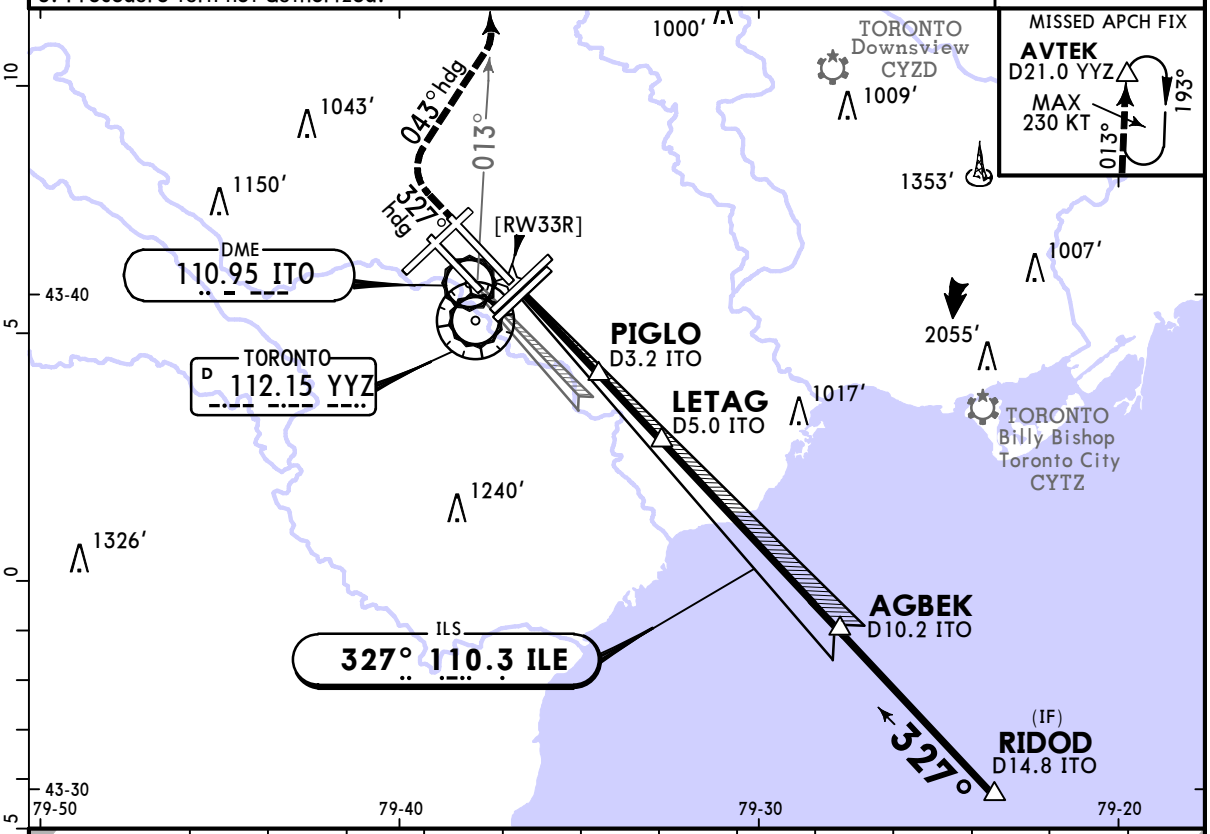
MISSED APCH: Climb to 1100′ heading 327°. Climbing RIGHT turn to 3000′ heading 043°. Then intercept outbound YYZ VOR R-013 to AVTEK.

Alt Set: INCHES | Trans level: FL180 | Trans alt: 18000′

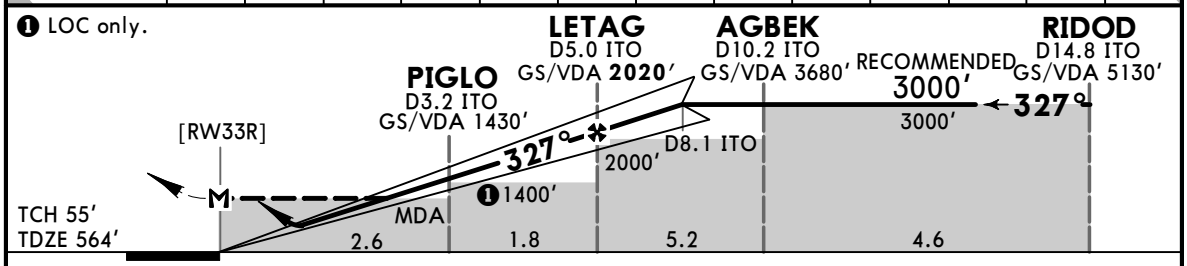
1. Radar required. 2. SAFE ALTITUDE WITHIN 100 NM 4900′. 3. Simultaneous approach authorized with Rwy 33L. 4. LOC reliable only within 10° either side of centerline. 5. Procedure turn not authorized.



MSA YYZ VOR



NM to ITO DME	1.7	3.0	4.0	5.0	6.0	7.0	8.1	9.0	10.0	11.0	12.0	13.0	14.8
VDA ALTITUDE	960′	1370′	1690′	2010′	2330′	2650′	3000′	3280′	3600′	3920′	4240′	4560′	5130′



Gnd speed-Kts		70	90	100	120	140	160
GS/VDA	3.00°	372	478	531	637	743	849
LETAG to MAP	4.4	3:46	2:56	2:38	2:12	1:53	1:39

SSALR
PAPI

1100′ | 327° hdg | 3000′ RT | 043° hdg

State STRAIGHT-IN LANDING

	ILS DME DA(H) 767′ (203′) FULL	ILS DME DA(H) 814′ (250′) HIALS out	LOC (GS out) DME MDA(H) 960′ (396′)	LOC (GS out) DME HIALS out
A B C D	R26 or V1/2	R50 or V1	R50 or V1	V1 1/4

CHANGES: Airport name, new AOM concept.

Established on RNP AR (EoR) User Instructions
ATTENTION ALL USERS OF EoR

EoR is a procedure applied by Toronto Terminal air traffic controllers to aircraft conducting RNP-AR approaches (RNAV Y). EoR safely permits reduced vertical and lateral separation between aircraft, during ATC-monitored simultaneous independent parallel approaches.

Operational Requirements

- EoR will be used during simultaneous parallel runway operations, and ATIS shall indicate when simultaneous parallel runway operations are in effect.
- RNP-AR (RNAV Y) approaches are **ONLY** available to Runway 05 via the BOXUM/DUVOS/IMEBA/VIBLI STARs.
- RNP-AR (RNAV Y) approaches to Runway 23 are **ONLY** available via BOXUM/DUVOS/NUBER/NAKBO STARs.
- When an EoR operation is in use, RNAV Y will be the only advertised approach to Runway 05/23. RNP-AR capable aircraft that are assigned Runway 05/23 are expected to plan and fly the RNAV Y approach.
- Non RNP-AR aircraft assigned Runway 05/23 should anticipate radar vectors to an ILS approach.
- Aircraft that are RNP-AR capable but cannot fly the RNAV Y RNP-AR approach must inform ATC and can expect an ILS or visual approach.
- RNP-AR capable aircraft that are unable to be cleared using the RF transition will be advised by ATC to expect vectors to final. Aircraft should plan radar vectors to the RNAV Y straight-in transition.
- When cleared for an RNAV Y RNP-AR approach, the aircraft is considered "established" on the approach procedure once it is on the defined lateral and vertical path and past the IWP (IF) for the procedure.
- The approach shall be flown using autopilot until the aircraft passes the final approach waypoint (FAF).
- If unable to comply with an ATC clearance or conduct the cleared approach, for any reason, immediately advise the controller. **DO NOT** attempt to self-navigate or manually correct an RNP-AR approach procedure deviation. Immediately advise the controller using the phraseology example below then comply with subsequent ATC instructions:

  Pilot: "UNABLE [IWP Transition] transition, REQUEST (proposed course of action)"

  Example: **Pilot:** "NAVCAN 123 UNABLE MODOL TRANSITION, REQUEST VECTORS TO FINAL"

Break-out Instructions

When issued break-out instructions, reaction time may be critical. If expeditious compliance is required, an ATC break-out instruction may include the word IMMEDIATELY.

- ATC shall issue any required break-out instruction by assigning a heading and/or altitude instruction:

  Example: **ATC:** "NAVCAN 123, turn left immediately heading 330 degrees, climb to 3000"

- Established on RNP AR break-out procedures may be conducted with the autopilot on

CYYZ/YYZ
LESTER B PEARSON INTL

JEPPESEN

28 APR 23 (12-1)

TORONTO, ONT
RNAV (GNSS) Z Rwy 05

D-ATIS	LONDON Radio	TORONTO Arrival	TORONTO Tower	Ground
120.825 133.1	123.275	132.8 124.475 125.4	118.35 118.7	121.9 121.65 119.1

BRIEFING STRIP™

WAAS	Final Apch Crs	GPA	LPV DA(H) Refer to Minimums	Apt Elev 569′
Ch 80629 W-05A	057°	KERPU 2000′ (1436′)		Rwy 564′

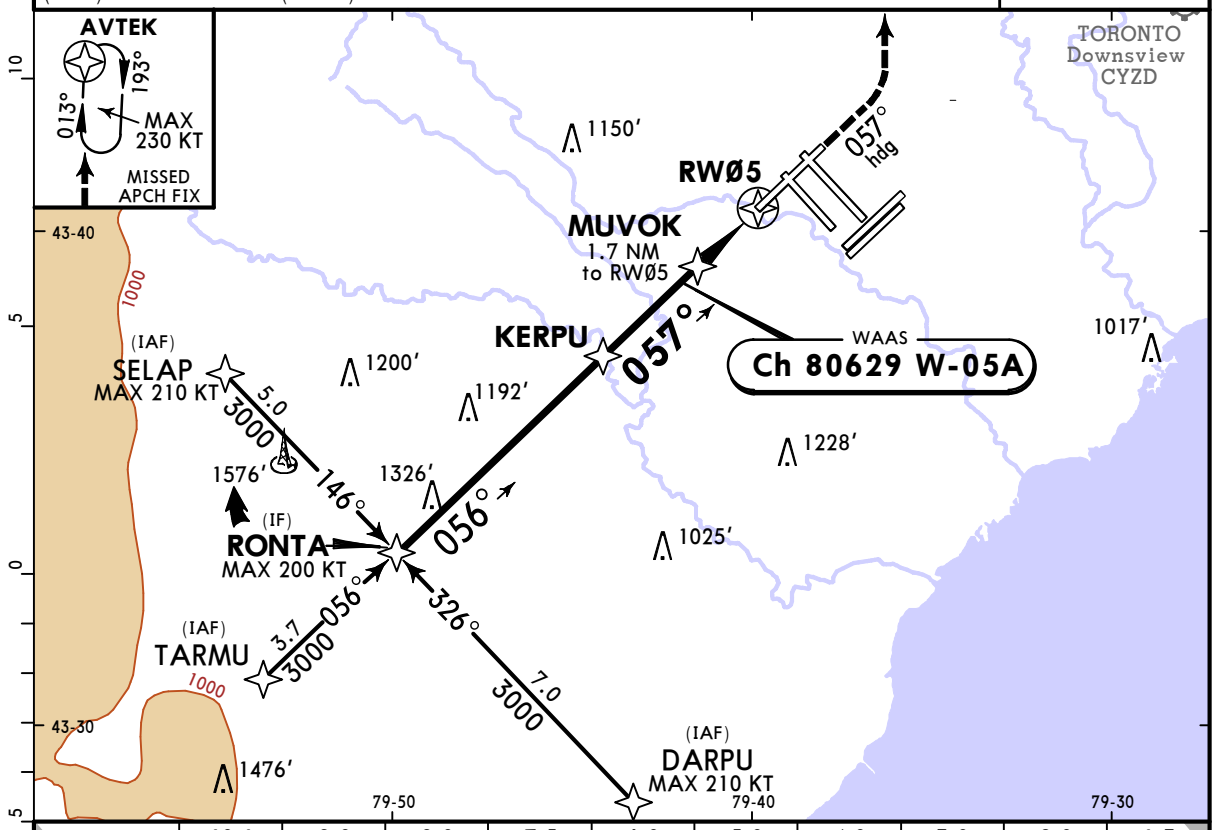
MISSED APCH: Climb to 1100′ heading 057°. Then climbing LEFT turn to 3000′ direct to AVTEK.

Alt Set: INCHES | Trans level: FL180 | Trans alt: 18000′

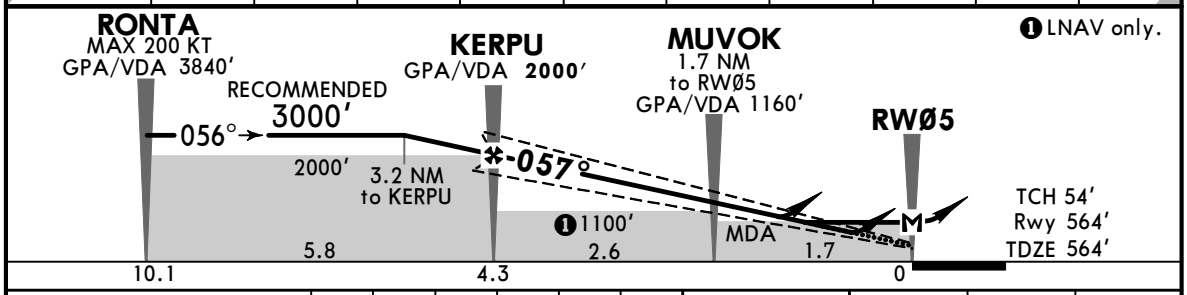
1. SAFE ALTITUDE WITHIN 100 NM 4900′. 2. Simultaneous approach authorized with Rwy 06L or 06R. 3. LNAV procedure not authorized during simultaneous operations. 4. For uncompensated Baro-VNAV systems, LNAV/VNAV not authorized below -19°C (-2°F) and above 54°C (129°F).

3100

MSA RWØ5



NM to RWØ5	10.1	9.0	8.0	7.5	6.0	5.0	4.0	3.0	2.0	1.3
VDA ALTITUDE	3840′	3480′	3170′	3000′	2530′	2210′	1890′	1570′	1260′	1040′



Gnd speed-Kts		70	90	100	120	140	160
GPA/VDA	3.00°	372	478	531	637	743	849
MAP at RWØ5							

ALSF-II
PAPI

1100′

057° hdg

State

STRAIGHT-IN LANDING

	LPV		LNAV/VNAV		LNAV	
	DA(H) 764′ (201′)	DA(H) 813′ (250′)	DA(H) 1054′ (491′)		MDA(H) 1040′ (477′)	
		HIALS out		HIALS out		HIALS out
A	R26 or V1/2	R50 or V1	V1 1/4	V1 1/2	R50 or V1	V1 1/2
B						
C						
D						

CHANGES: Airport name, new AOM concept.

CYYZ/YYZ
LESTER B PEARSON INTL

JEPPESEN
28 APR 23 (12-2)

TORONTO, ONT
RNAV (GNSS) X Rwy 05

D-ATIS	LONDON Radio	TORONTO Arrival	TORONTO Tower	Ground
120.825 133.1	123.275	132.8 124.475 125.4	118.35 118.7	121.9 121.65 119.1

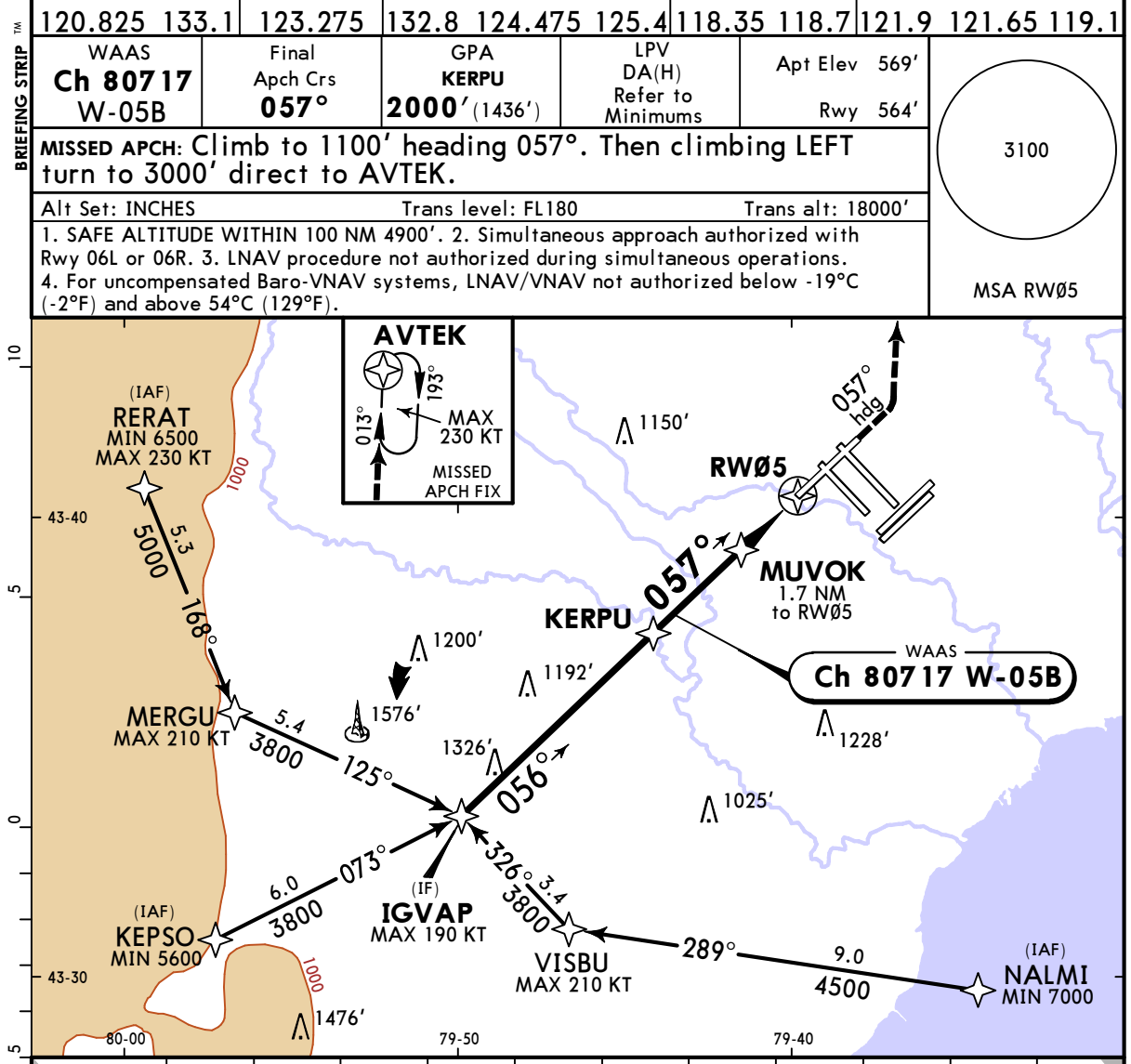
BRIEFING STRIP ™

WAAS	Final Apch Crs	GPA	LPV DA(H) Refer to Minimums	Apt Elev 569′ Rwy 564′
Ch 80717 W-05B	057°	KERPU 2000′ (1436′)		

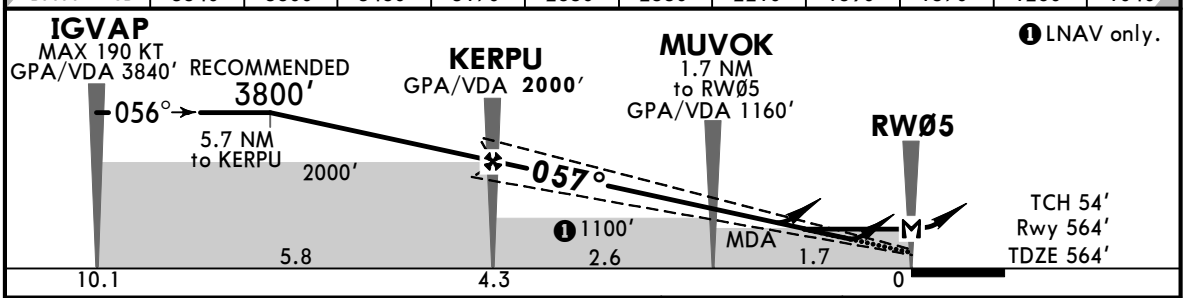
MISSED APCH: Climb to 1100′ heading 057°. Then climbing LEFT turn to 3000′ direct to AVTEK.

Alt Set: INCHES | Trans level: FL180 | Trans alt: 18000′

1. SAFE ALTITUDE WITHIN 100 NM 4900′. 2. Simultaneous approach authorized with Rwy 06L or 06R. 3. LNAV procedure not authorized during simultaneous operations. 4. For uncompensated Baro-VNAV systems, LNAV/VNAV not authorized below -19°C (-2°F) and above 54°C (129°F).



NM to RWØ5	10.1	10.0	9.0	8.0	7.0	6.0	5.0	4.0	3.0	2.0	1.3
VDA ALTITUDE	3840′	3800′	3480′	3170′	2850′	2530′	2210′	1890′	1570′	1260′	1040′



Gnd speed-Kts		70	90	100	120	140	160
GPA/VDA	3.00°	372	478	531	637	743	849
MAP at RWØ5							

ALSF-II
PAPI
1100′
057° hdg

State

STRAIGHT-IN LANDING

	LPV		LNAV/VNAV		LNAV	
	DA(H) 764′ (201′)	DA(H) 813′ (250′)	DA(H) 1054′ (491′)		MDA(H) 1040′ (477′)	
		HIALS out		HIALS out		HIALS out
A B C D	R26 or V1/2	R50 or V1	V1 1/4	V1 1/2	R50 or V1	V1 1/2

CHANGES: Airport name, new AOM concept.

CYYZ/YYZ
LESTER B PEARSON INTL

JEPPESEN
28 APR 23 (12-3)

TORONTO, ONT
RNAV (GNSS) Z Rwy 06L

D-ATIS	LONDON Radio	TORONTO Arrival	TORONTO Tower	Ground
120.825 133.1	123.275	132.8 124.475 125.4	118.35 118.7	121.9 121.65 119.1

BRIEFING STRIP ™

WAAS	Final Apch Crs	GPA	LPV DA(H)	Apt Elev 569′
Ch 80630 W-06A	**057°**	**VEPNA** **2000′** (1471′)	Refer to Minimums	Rwy 529′

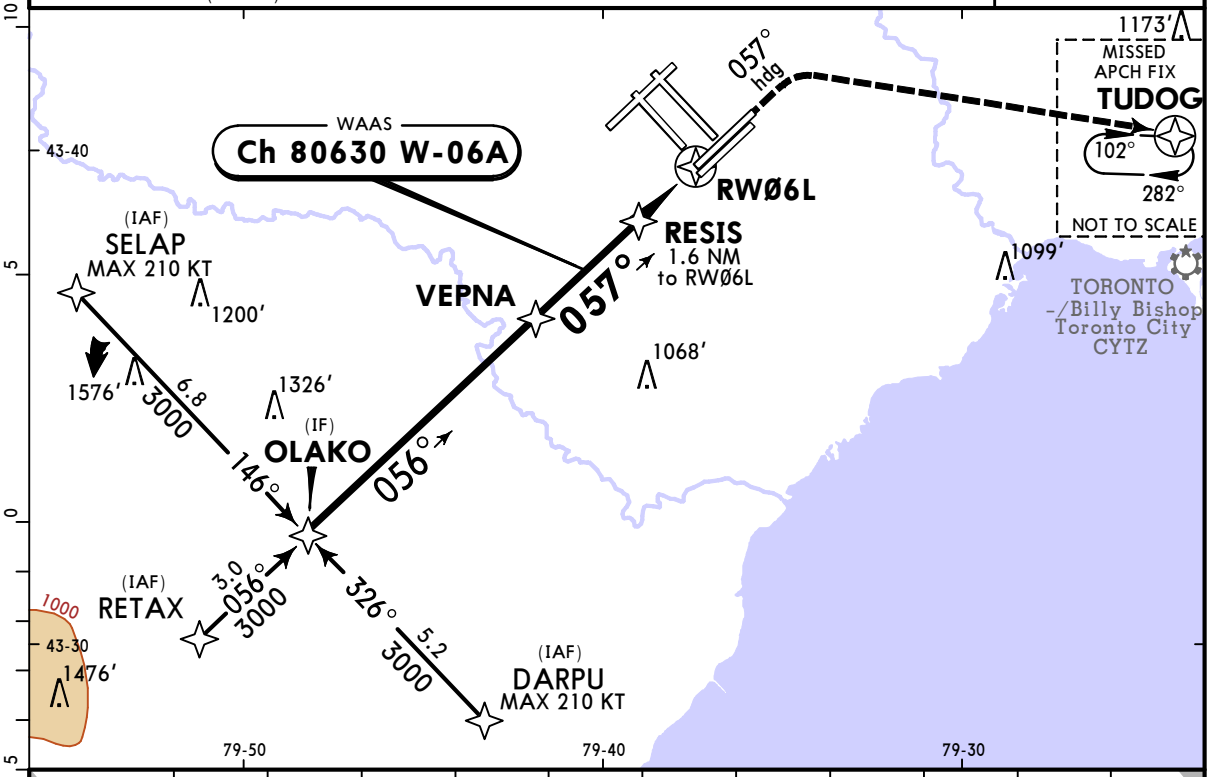
MISSED APCH: Climb to 1100′ heading 057°. Then climbing RIGHT turn to 3100′ direct to TUDOG.

Alt Set: INCHES | Trans level: FL180 | Trans alt: 18000′

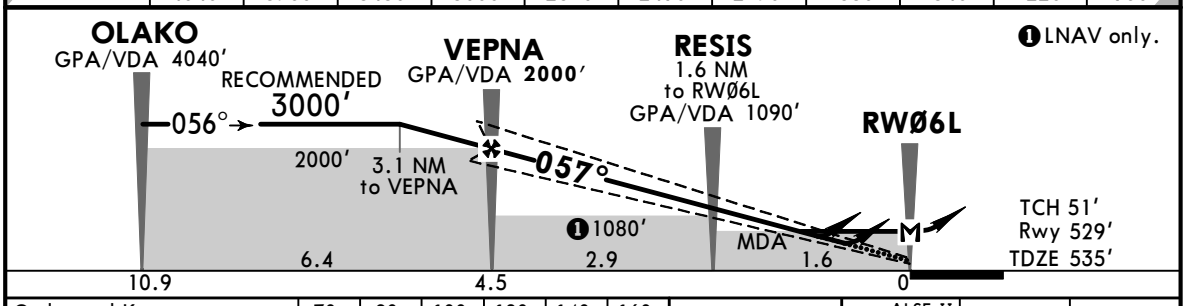
1. SAFE ALTITUDE WITHIN 100 NM 4900′. 2. Simultaneous approach authorized with Rwy 05. 3. LNAV procedure not authorized during simultaneous operations. 4. For uncompensated Baro-VNAV systems, LNAV/VNAV not authorized below -19°C (-2°F) and above 54°C (129°F).

3100

MSA RWØ6L



NM to RWØ6L	10.9	10.0	9.0	7.6	7.0	6.0	5.0	4.0	3.0	2.0	1.2
VDA ALTITUDE	4040′	3760′	3450′	3000′	2810′	2490′	2170′	1850′	1540′	1220′	960′



Gnd speed-Kts		70	90	100	120	140	160
GPA/VDA	3.00°	372	478	531	637	743	849
MAP at RWØ6L							

ALSF-II
PAPI
1100′
057° hdg

State STRAIGHT-IN LANDING

	LPV		LNAV/VNAV		LNAV	
	DA(H) **730′** (201′)	DA(H) **779′** (250′)	DA(H) **877′** (348′)		MDA(H) **960′** (431′)	
		HIALS out		HIALS out		HIALS out
A	R26 or V1/2	R50 or V1	R50 or V1	V1 1/4	R50 or V1	V1 1/4
B						
C						
D						

CHANGES: Airport name, new AOM concept.

CYYZ/YYZ
LESTER B PEARSON INTL

JEPPESEN

28 APR 23 (12-4)

TORONTO, ONT
RNAV (GNSS) X Rwy 06L

D-ATIS	LONDON Radio	TORONTO Arrival	TORONTO Tower	Ground
120.825 133.1	123.275	132.8 124.475 125.4	118.35 118.7	121.9 121.65 119.1

BRIEFING STRIP™

WAAS	Final Apch Crs	GPA	LPV DA(H)	Apt Elev 569′
Ch 80718 W-06E	**057°**	**VEPNA** **2000′** (1471′)	Refer to Minimums	Rwy 529′

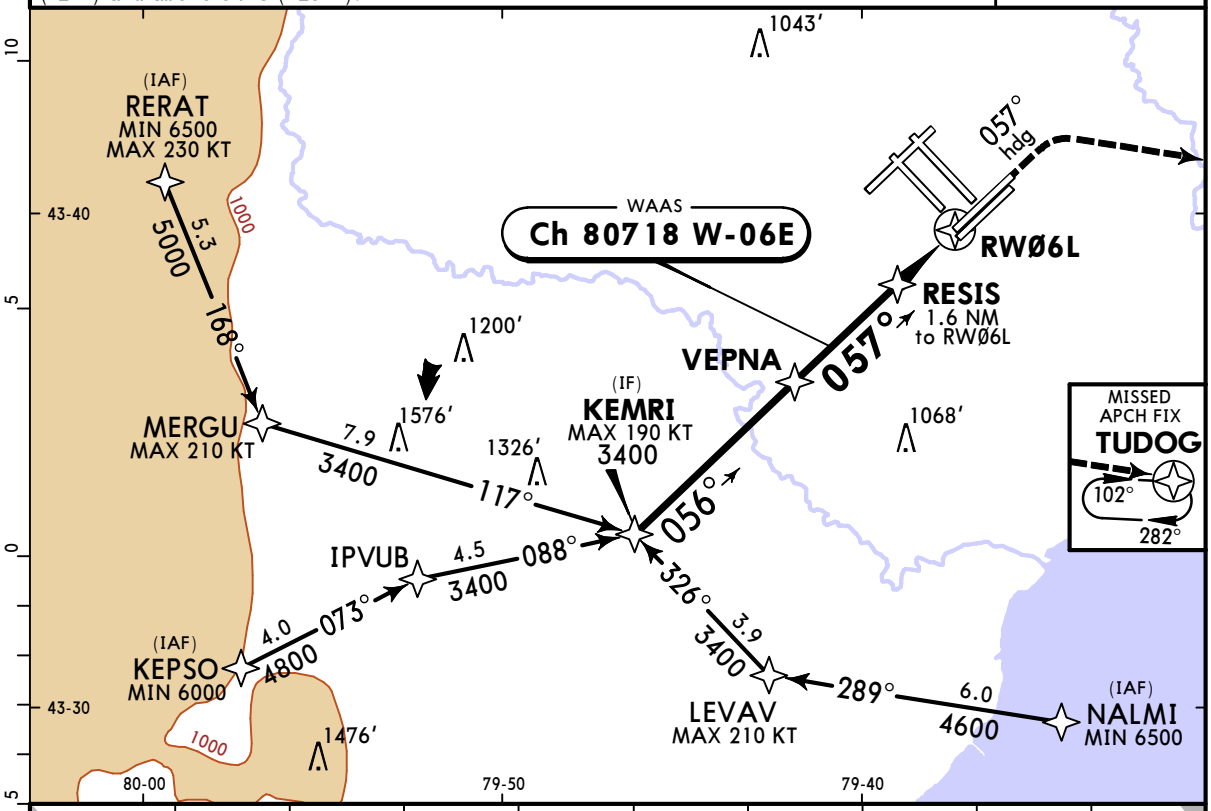
MISSED APCH: Climb to 1100′ heading 057°. Then climbing RIGHT turn to 3100′ direct to TUDOG.

Alt Set: INCHES | Trans level: FL180 | Trans alt: 18000′

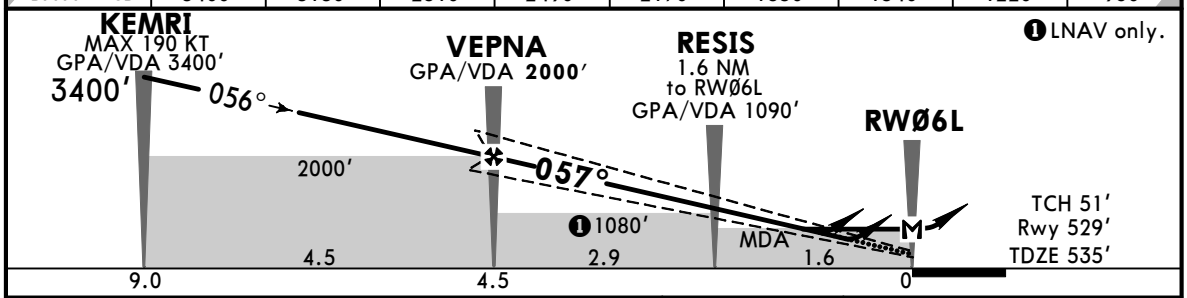
1. SAFE ALTITUDE WITHIN 100 NM 4900′. 2. Simultaneous approach authorized with Rwy 05. 3. LNAV procedure not authorized during simultaneous operations. 4. For uncompensated Baro-VNAV systems, LNAV/VNAV not authorized below -19°C (-2°F) and above 54°C (129°F).

3100

MSA RWØ6L



NM to RWØ6L	9.0	8.0	7.0	6.0	5.0	4.0	3.0	2.0	1.2
VDA ALTITUDE	3400′	3130′	2810′	2490′	2170′	1850′	1540′	1220′	960′



Gnd speed-Kts		70	90	100	120	140	160
GPA/VDA	3.00°	372	478	531	637	743	849
MAP at RWØ6L							

ALSF-II
PAPI

1100′

057° hdg

State

STRAIGHT-IN LANDING

	LPV		LNAV/VNAV		LNAV	
	DA(H) **730′** (201′)	DA(H) **779′** (250′)	DA(H) **877′** (348′)		MDA(H) **960′** (431′)	
		HIALS out		HIALS out		HIALS out
A	R26 or V1/2	R50 or V1	R50 or V1	V1 1/4	R50 or V1	V1 1/4
B						
C						
D						

CHANGES: Airport name, new AOM concept.

CYYZ/YYZ
LESTER B PEARSON INTL

JEPPESEN
28 APR 23 (12-5)

TORONTO, ONT
RNAV (GNSS) Z Rwy 06R

D-ATIS	LONDON Radio	TORONTO Arrival	TORONTO Tower	Ground
120.825 133.1	123.275	132.8 124.475 125.4	118.35 118.7	121.9 121.65 119.1

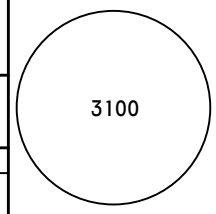
BRIEFING STRIP ™

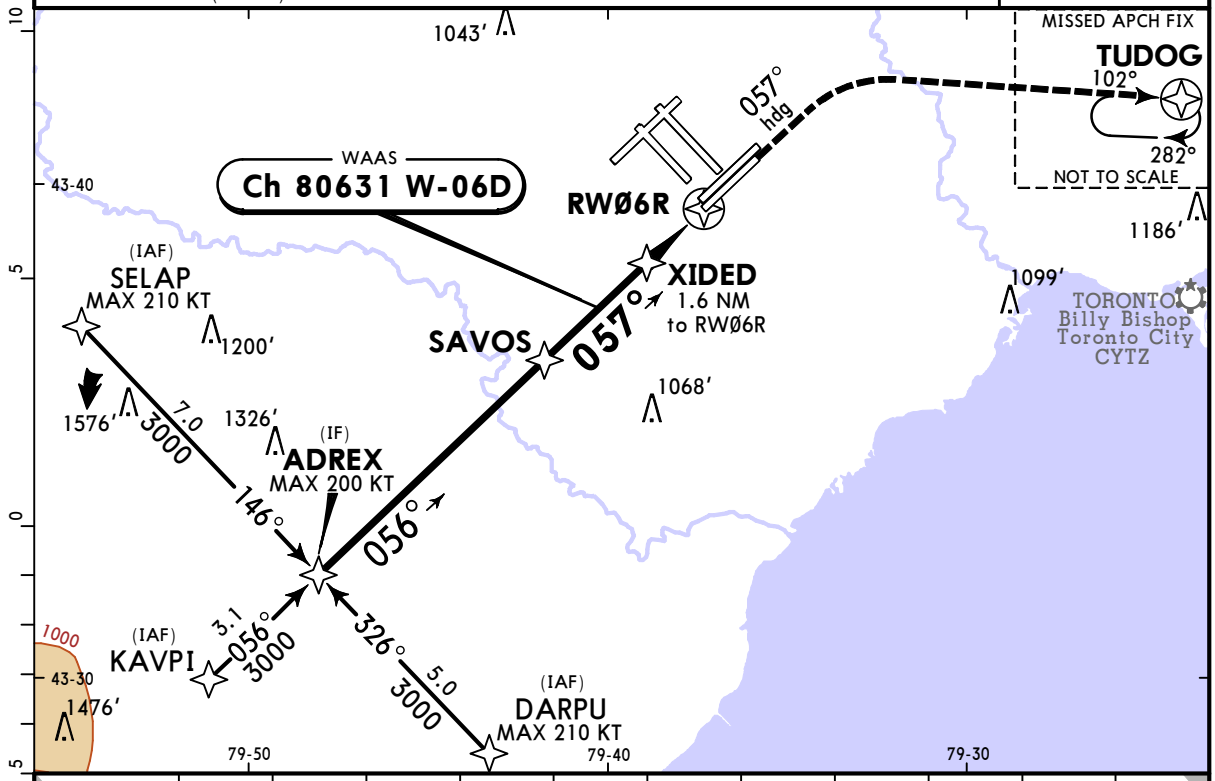
WAAS	Final Apch Crs	GPA	LPV DA(H)	Apt Elev 569′
Ch 80631 W-06D	057°	SAVOS 2000′ (1475′)	Refer to Minimums	Rwy 525′

MISSED APCH: Climb to 1100′ heading 057°. Then climbing RIGHT turn to 3100′ direct to TUDOG.

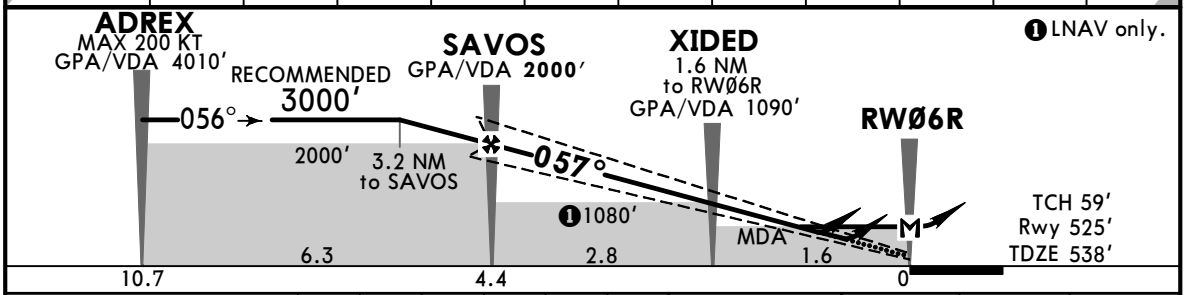
Alt Set: INCHES | Trans level: FL180 | Trans alt: 18000′

1. SAFE ALTITUDE WITHIN 100 NM 4900′. 2. Simultaneous approach authorized with Rwy 05. 3. LNAV procedure not authorized during simultaneous operations. 4. For uncompensated Baro-VNAV systems, LNAV/VNAV not authorized below -18°C (0°F) and above 54°C (129°F).





NM to RWØ6R	10.7	10.0	9.0	7.6	7.0	6.0	5.0	4.0	3.0	2.0	1.2
VDA ALTITUDE	4010′	3770′	3450′	3000′	2810′	2490′	2180′	1860′	1540′	1220′	960′



Gnd speed-Kts		70	90	100	120	140	160
GPA/VDA	3.00°	372	478	531	637	743	849
MAP at RWØ6R							

SSALR
PAPI
1100′
057° hdg

State — STRAIGHT-IN LANDING

	LPV		LNAV/VNAV	LNAV	
	DA(H) 725′ (201′)	DA(H) 774′ (250′)	DA(H) 827′ (303′)	MDA(H) 960′ (436′)	
		HIALS out	HIALS out		HIALS out
A	R26 or V1/2	R50 or V1	R50 or V1	R50 or V1	V1 1/2
B					
C					
D					

CHANGES: Airport name, new AOM concept.

CYYZ/YYZ
LESTER B PEARSON INTL

JEPPESEN
28 APR 23 (12-6)

TORONTO, ONT
RNAV (GNSS) X Rwy 06R

D-ATIS	LONDON Radio	TORONTO Arrival	TORONTO Tower	Ground
120.825 133.1	123.275	132.8 124.475 125.4	118.35 118.7	121.9 121.65 119.1

BRIEFING STRIP ™

WAAS	Final Apch Crs	GPA	LPV DA(H) Refer to Minimums	Apt Elev 569′ Rwy 525′
Ch 80719 W-06B	057°	SAVOS 2000′ (1475′)		

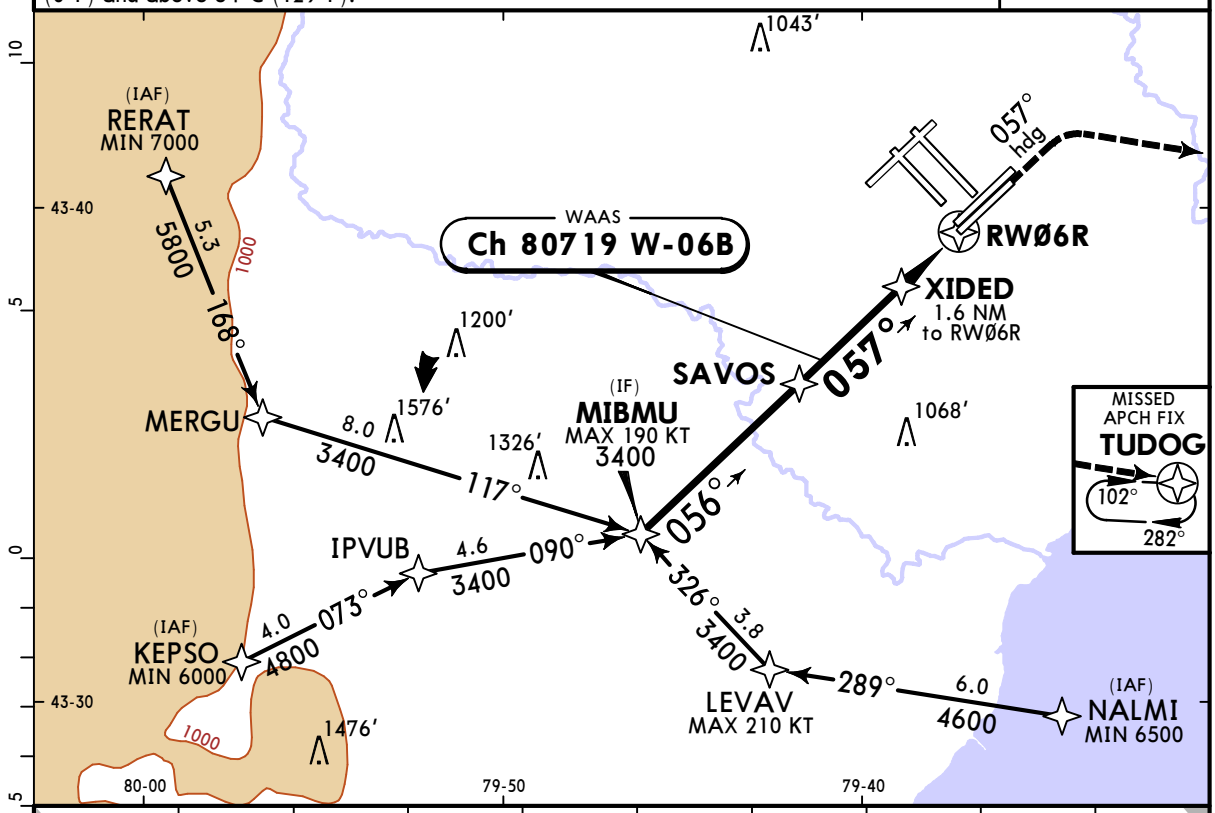
MISSED APCH: Climb to 1100′ heading 057°. Then climbing RIGHT turn to 3100′ direct to TUDOG.

Alt Set: INCHES | Trans level: FL180 | Trans alt: 18000′

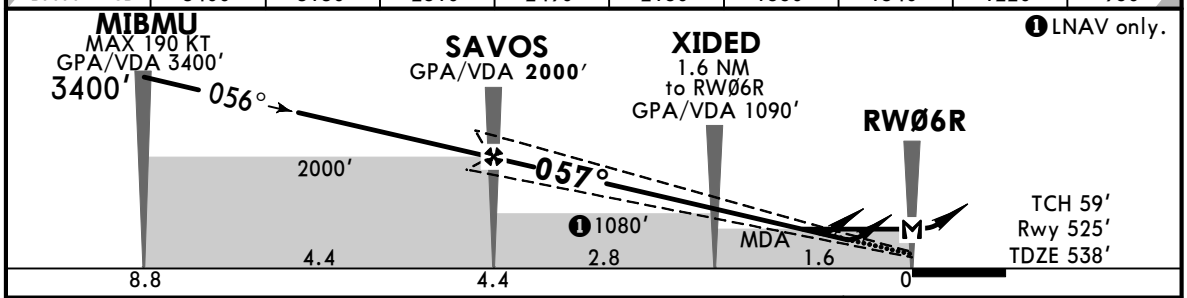
1. SAFE ALTITUDE WITHIN 100 NM 4900′. 2. Simultaneous approach authorized with Rwy 05. 3. LNAV procedure not authorized during simultaneous operations. 4. For uncompensated Baro-VNAV systems, LNAV/VNAV not authorized below -18°C (0°F) and above 54°C (129°F).

3100

MSA RWØ6R



NM to RWØ6R	8.8	8.0	7.0	6.0	5.0	4.0	3.0	2.0	1.2
VDA ALTITUDE	3400′	3130′	2810′	2490′	2180′	1860′	1540′	1220′	960′



Gnd speed-Kts		70	90	100	120	140	160
GPA/VDA	3.00°	372	478	531	637	743	849
MAP at RWØ6R							

SSALR
PAPI

1100′

057° hdg

State

STRAIGHT-IN LANDING

	LPV		LNAV/VNAV		LNAV	
	DA(H) 725′ (201′)	DA(H) 774′ (250′)	DA(H) 827′ (303′)		MDA(H) 960′ (436′)	
		HIALS out		HIALS out		HIALS out
A B C D	R26 or V1/2	R50 or V1	R50 or V1		R50 or V1	V1 1/2

CHANGES: Airport name, new AOM concept.

CYYZ/YYZ
LESTER B PEARSON INTL

JEPPESEN
28 APR 23 (12-7)

TORONTO, ONT
RNAV (GNSS) Z Rwy 15L

D-ATIS	LONDON Radio	TORONTO Arrival	TORONTO Tower	Ground
120.825 133.1	123.275	132.8 124.475 125.4	118.35 118.7	121.9 121.65 119.1

BRIEFING STRIP™

WAAS	Final Apch Crs	GPA	LPV DA(H)	Apt Elev 569′
Ch 80632 W-15A	**147°**	**SEKUR 2000′** (1443′)	Refer to Minimums	Rwy 557′

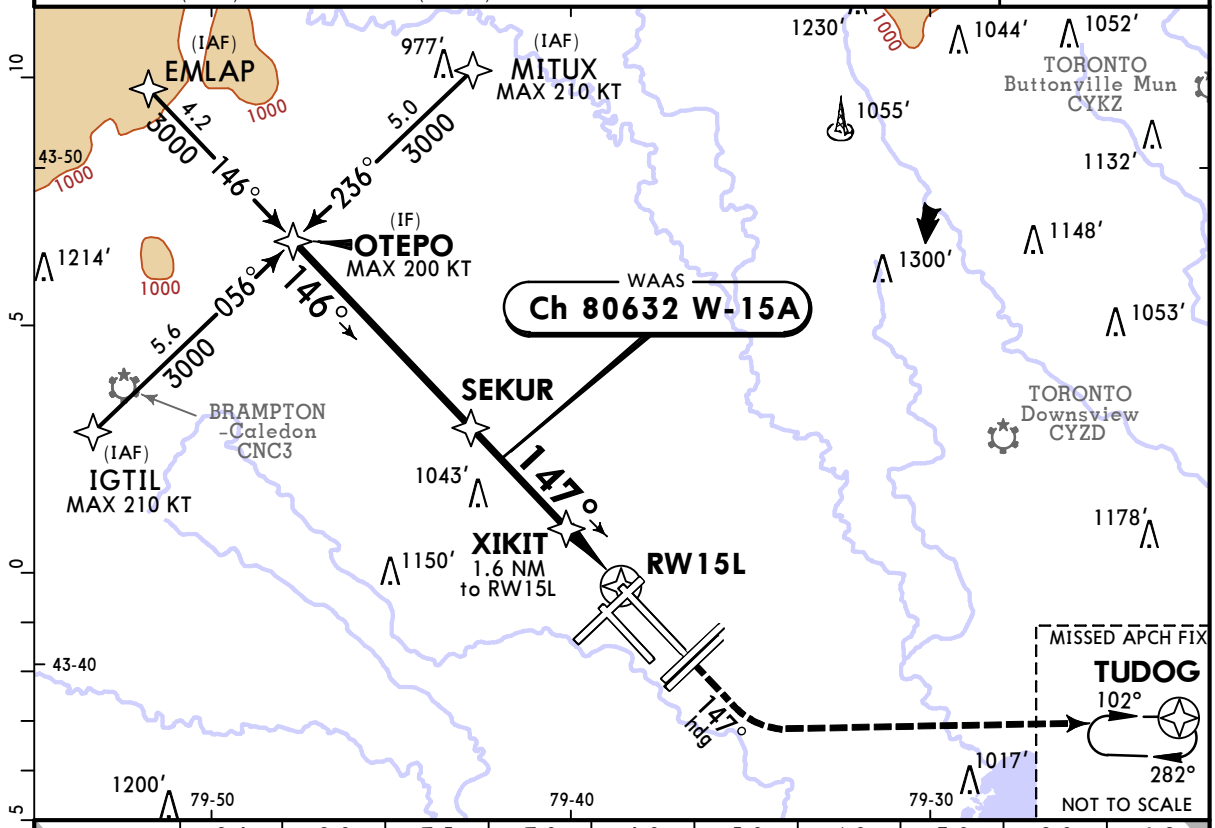
MISSED APCH: Climb to 1100′ heading 147°. Then climbing LEFT turn to 3100′ direct to TUDOG.

Alt Set: INCHES | Trans level: FL180 | Trans alt: 18000′

1. SAFE ALTITUDE WITHIN 100 NM 4900′. 2. Simultaneous approach authorized with Rwy 15R. 3. LNAV procedure not authorized during simultaneous operations. 4. Low TCH. Aircraft with eye-to-wheel height at or greater than 22′ need to exercise caution. 5. For uncompensated Baro- VNAV systems, LNAV/VNAV not authorized below -21°C (-6°F) and above 54°C (129°F).

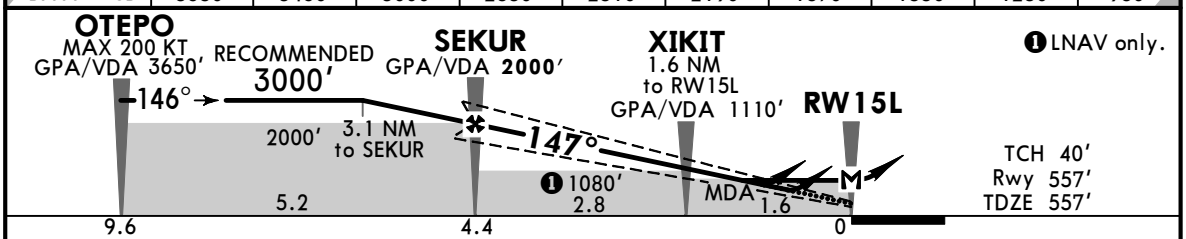
3100

MSA RW15L



NOT TO SCALE

NM to RW15L	9.6	9.0	7.5	7.0	6.0	5.0	4.0	3.0	2.0	1.2
VDA ALTITUDE	3650′	3460′	3000′	2830′	2510′	2190′	1870′	1550′	1230′	980′



Gnd speed-Kts		70	90	100	120	140	160
GPA/VDA	3.00°	372	478	531	637	743	849
MAP at RW15L							

SSALR
PAPI
1100′
147° hdg

State

STRAIGHT-IN LANDING

	LPV		LNAV/VNAV		LNAV	
	DA(H) **757′** (200′)	DA(H) **807′** (250′) HIALS out	DA(H) **977′** (420′)	HIALS out	MDA(H) **980′** (423′)	HIALS out
A						
B						
C	R26 or V1/2	R50 or V1	R50 or V1	V1 1/4	R50 or V1	V1 1/4
D						

CHANGES: Airport name, new AOM concept.

CYYZ/YYZ
LESTER B PEARSON INTL

JEPPESEN
28 APR 23 (12-8)

TORONTO, ONT
RNAV (GNSS) Z Rwy 15R

D-ATIS	LONDON Radio	TORONTO Arrival	TORONTO Tower	Ground
120.825 133.1	123.275	132.8 124.475 125.4	118.35 118.7	121.9 121.65 119.1

BRIEFING STRIP™

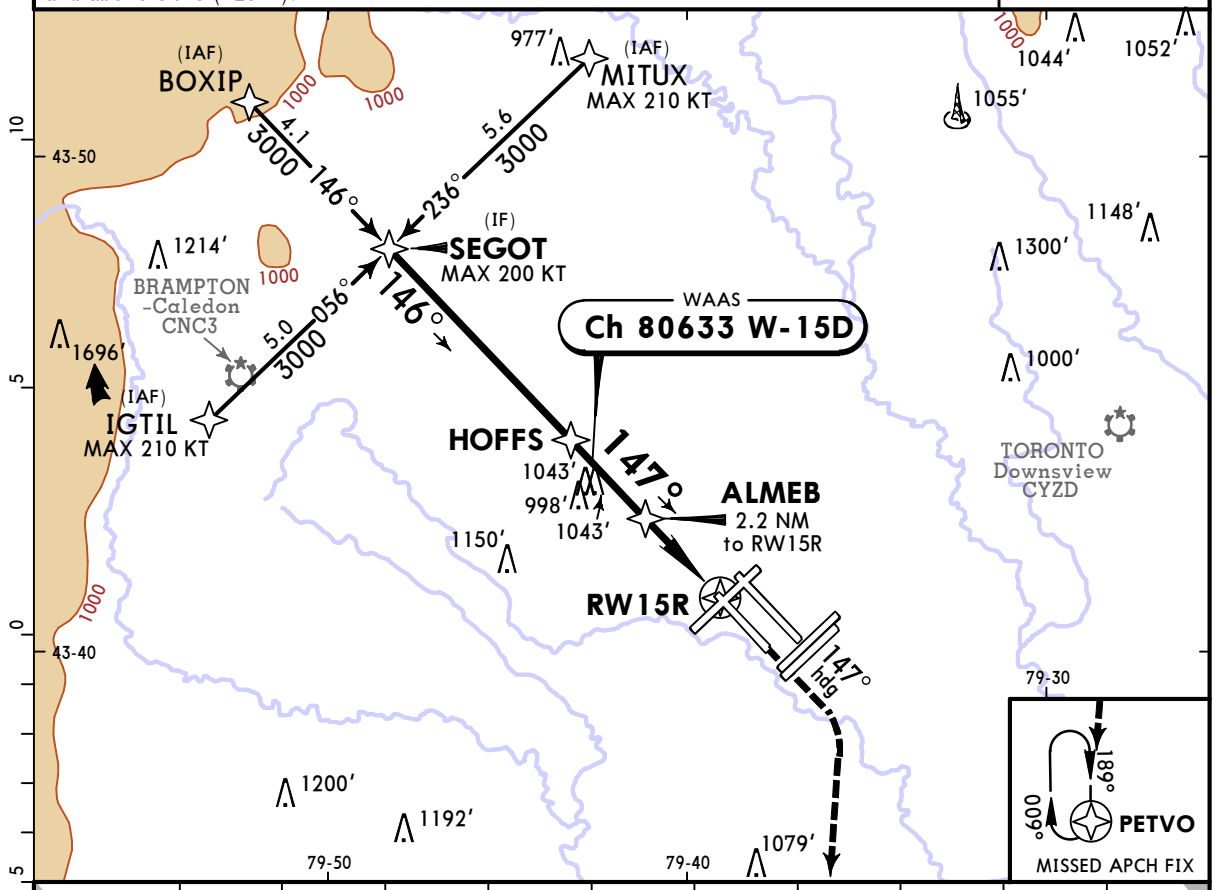
WAAS	Final	GPA	LPV	Apt Elev 569′
Ch 80633 W-15D	Apch Crs **147°**	**HOFFS** **2000′** (1448′)	DA(H) Refer to Minimums	Rwy 552′

MISSED APCH: Climb to 1100′ heading 147°. Then climbing RIGHT turn to 3000′ direct to PETVO.

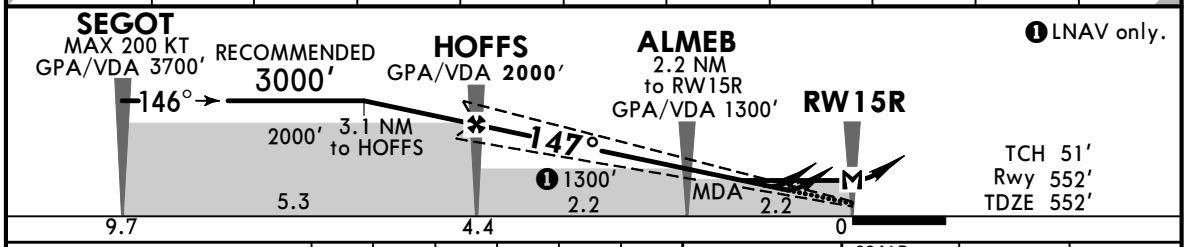
Alt Set: INCHES | Trans level: FL180 | Trans alt: 18000′

1. SAFE ALTITUDE WITHIN 100 NM 4900′. 2. Simultaneous approach authorized with Rwy 15L. 3. LNAV procedure not authorized during simultaneous operations. 4. For uncompensated Baro-VNAV systems, LNAV/VNAV not authorized below -19°C (-2°F) and above 54°C (129°F).

3100
MSA RW15R



NM to RW15R	9.7	9.0	7.5	7.0	6.0	5.0	4.0	3.0	2.0	1.2
VDA ALTITUDE	3700′	3470′	3000′	2830′	2510′	2200′	1880′	1560′	1240′	980′



Gnd speed-Kts		70	90	100	120	140	160
GPA/VDA	3.00°	372	478	531	637	743	849
MAP at RW15R							

SSALR PAPI

1100′

147° hdg

State STRAIGHT-IN LANDING

	LPV		LNAV/VNAV	LNAV	
	DA(H) **752′** (201′)	DA(H) **801′** (250′)	DA(H) **847′** (296′)	MDA(H) **980′** (429′)	
		HIALS out	HIALS out		HIALS out
A B C D	R26 or V1/2	R50 or V1	R50 or V1	R50 or V1	V1 1/4

CHANGES: Airport name, new AOM concept.

CYYZ/YYZ
LESTER B PEARSON INTL

JEPPESEN
28 APR 23 (12-9)

TORONTO, ONT
RNAV (GNSS) Z Rwy 23

D-ATIS	LONDON Radio	TORONTO Arrival	TORONTO Tower	Ground
120.825 133.1	123.275	132.8 124.475 125.4	118.35 118.7	121.9 121.65 119.1

BRIEFING STRIP ™

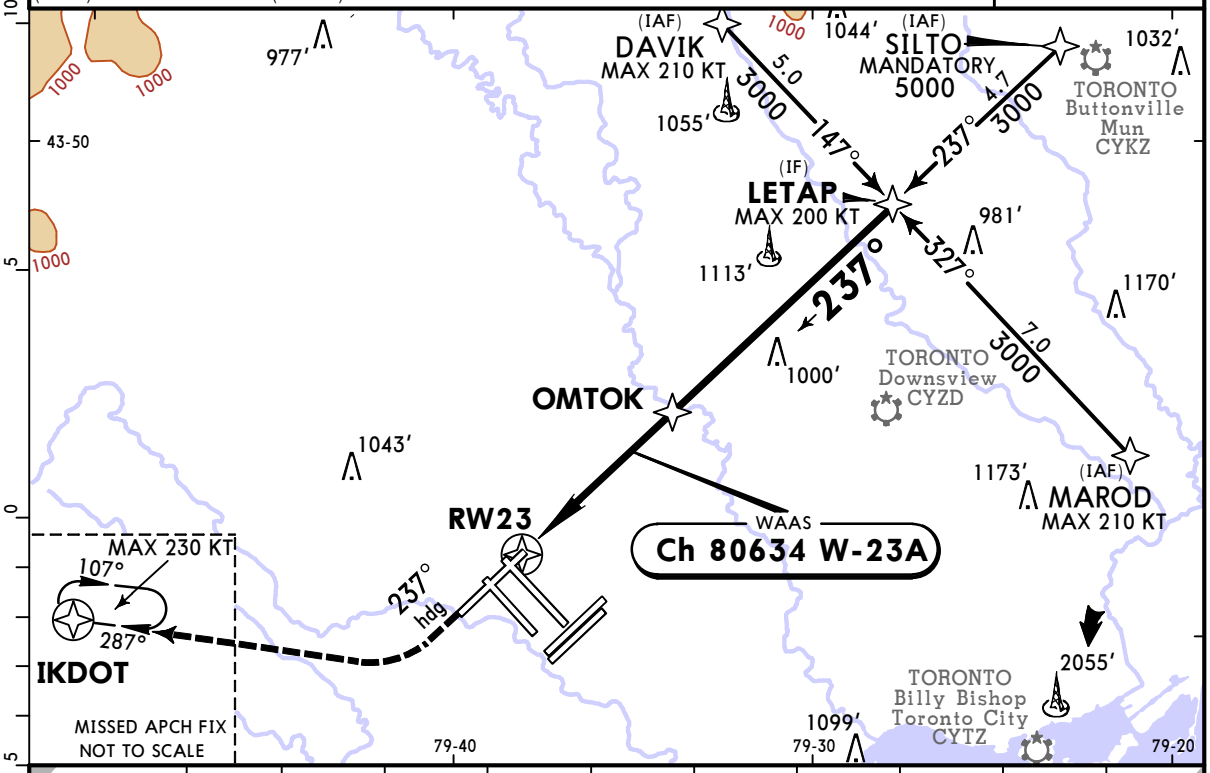
WAAS	Final Apch Crs	GPA	LPV DA(H)	Apt Elev 569′
Ch 80634 W-23A	**237°**	**OMTOK** **2000′**(1443′)	**808′**(250′)	Rwy 557′

MISSED APCH: Climb to 1100′ heading 237°. Then climbing RIGHT turn to 3000′ direct to IKDOT.

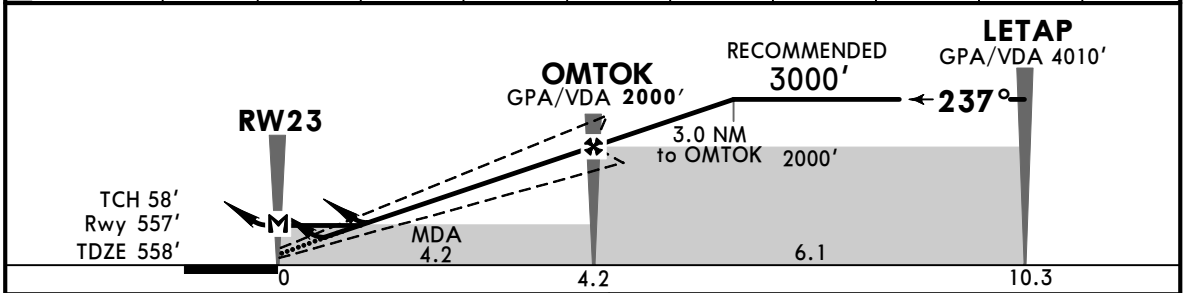
Alt Set: INCHES | Trans level: FL180 | Trans alt: 18000′

1. SAFE ALTITUDE WITHIN 100 NM 4900′. 2. Simultaneous approach authorized with Rwy 24L or 24R. 3. LNAV procedure not authorized during simultaneous operations. 4. For uncompensated Baro-VNAV systems, LNAV/VNAV not authorized below -23°C (-9°F) and above 45°C (113°F).

3100
MSA RW23



NM to RW23	1.1	2.0	3.0	4.0	5.0	6.0	7.2	8.0	9.0	10.3
VDA ALTITUDE	980′	1270′	1600′	1930′	2260′	2590′	3000′	3250′	3580′	4010′



Gnd speed-Kts		70	90	100	120	140	160
GPA/VDA	3.10°	384	494	548	658	768	878
MAP at RW23							

SSALR
PAPI
1100′
237° hdg

State STRAIGHT-IN LANDING

	LPV	LNAV/VNAV		LNAV	
	DA(H) **808′**(250′)	DA(H) **990′**(433′)		MDA(H) **980′**(423′)	
	HIALS out		HIALS out		HIALS out
A	R50 or V1	R50 or V1	V1 1/4	R50 or V1	V1 1/4
B					
C					
D					

CHANGES: Airport name, new AOM concept.

CYYZ/YYZ
LESTER B PEARSON INTL

JEPPESEN
28 APR 23 (12-10)

TORONTO, ONT
RNAV (GNSS) X Rwy 23

D-ATIS	LONDON Radio	TORONTO Arrival	TORONTO Tower	Ground
120.825 133.1	123.275	132.8 124.475 125.4	118.35 118.7	121.9 121.65 119.1

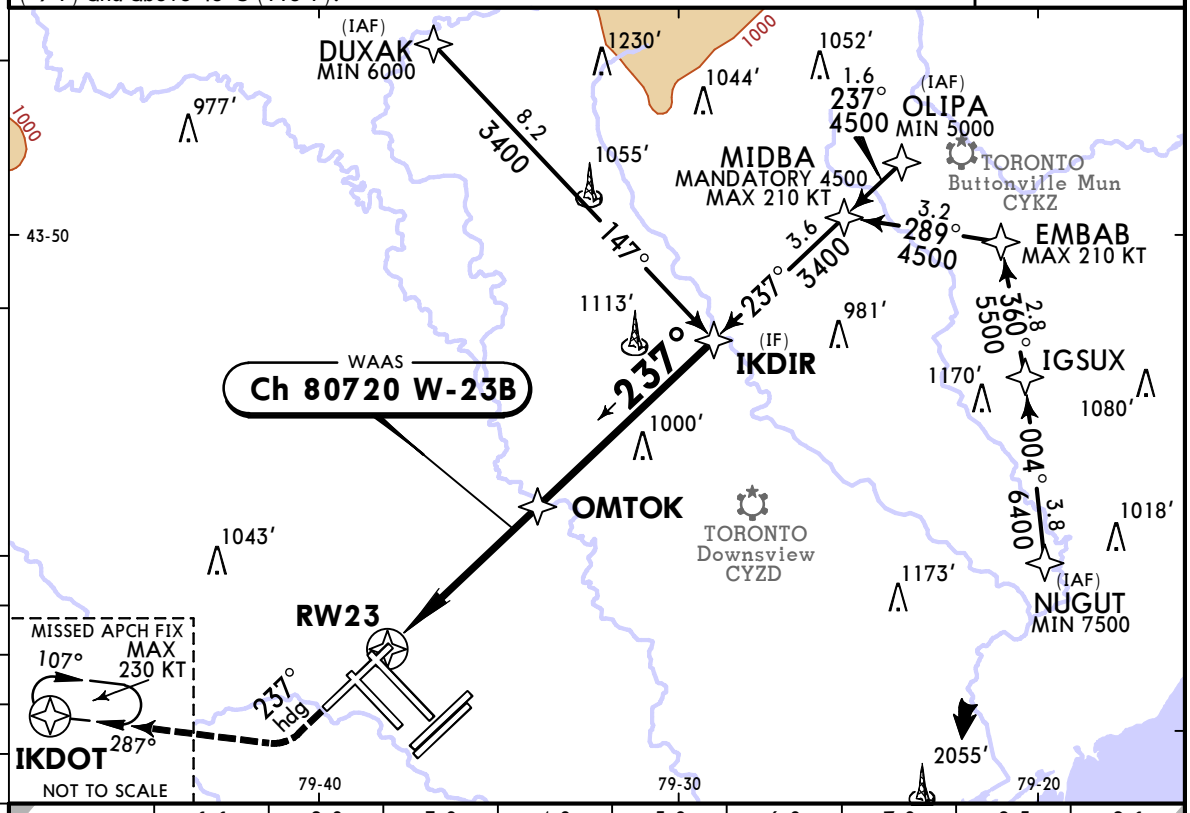
BRIEFING STRIP™

WAAS	Final Apch Crs	GPA	LPV DA(H)	Apt Elev 569′
Ch 80720 W-23B	**237°**	**OMTOK** **2000′** (1443′)	**808′** (250′)	Rwy 557′

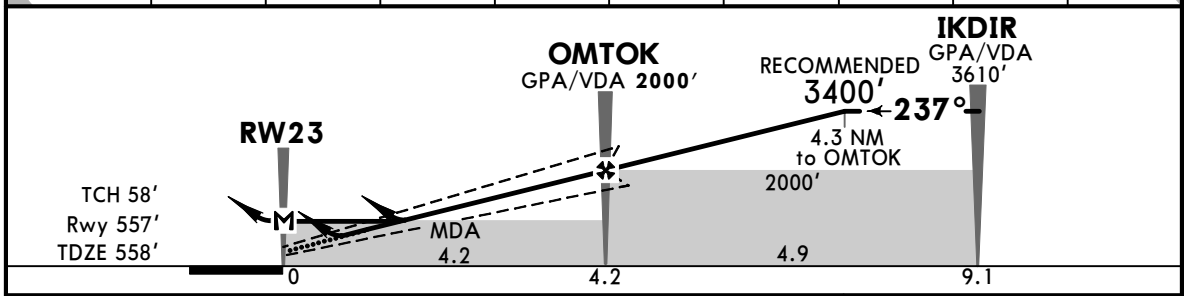
MISSED APCH: Climb to 1100′ heading 237°. Then climbing RIGHT turn to 3000′ direct to IKDOT.

Alt Set: INCHES | Trans level: FL180 | Trans alt: 18000′

1. SAFE ALTITUDE WITHIN 100 NM 4900′. 2. Simultaneous approach authorized with Rwy 24L or 24R. 3. LNAV procedure not authorized during simultaneous operations. 4. For uncompensated Baro-VNAV systems, LNAV/VNAV not authorized below -23°C (-9°F) and above 45°C (113°F).



NM to RW23	1.1	2.0	3.0	4.0	5.0	6.0	7.0	8.5	9.1
VDA ALTITUDE	980′	1270′	1600′	1930′	2260′	2590′	2920′	3400′	3610′



Gnd speed-Kts		70	90	100	120	140	160
GPA/VDA	3.10°	384	494	548	658	768	878
MAP at RW23							

SSALR
PAPI
1100′
237° hdg

State — STRAIGHT-IN LANDING

	LPV DA(H) 808′ (250′)		LNAV/VNAV DA(H) 990′ (433′)		LNAV MDA(H) 980′ (423′)	
		HIALS out		HIALS out		HIALS out
A B C D	R50 or V1		R50 or V1	V1 1/4	R50 or V1	V1 1/4

CHANGES: Airport name, new AOM concept.

CYYZ/YYZ
LESTER B PEARSON INTL

JEPPESEN

28 APR 23 (12-11)

TORONTO, ONT
RNAV (GNSS) Z Rwy 24L

D-ATIS	LONDON Radio	TORONTO Arrival	TORONTO Tower	Ground
120.825 133.1	123.275	132.8 124.475 125.4	118.35 118.7	121.9 121.65 119.1

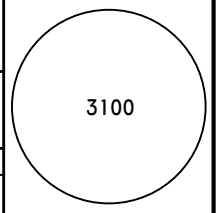
BRIEFING STRIP™

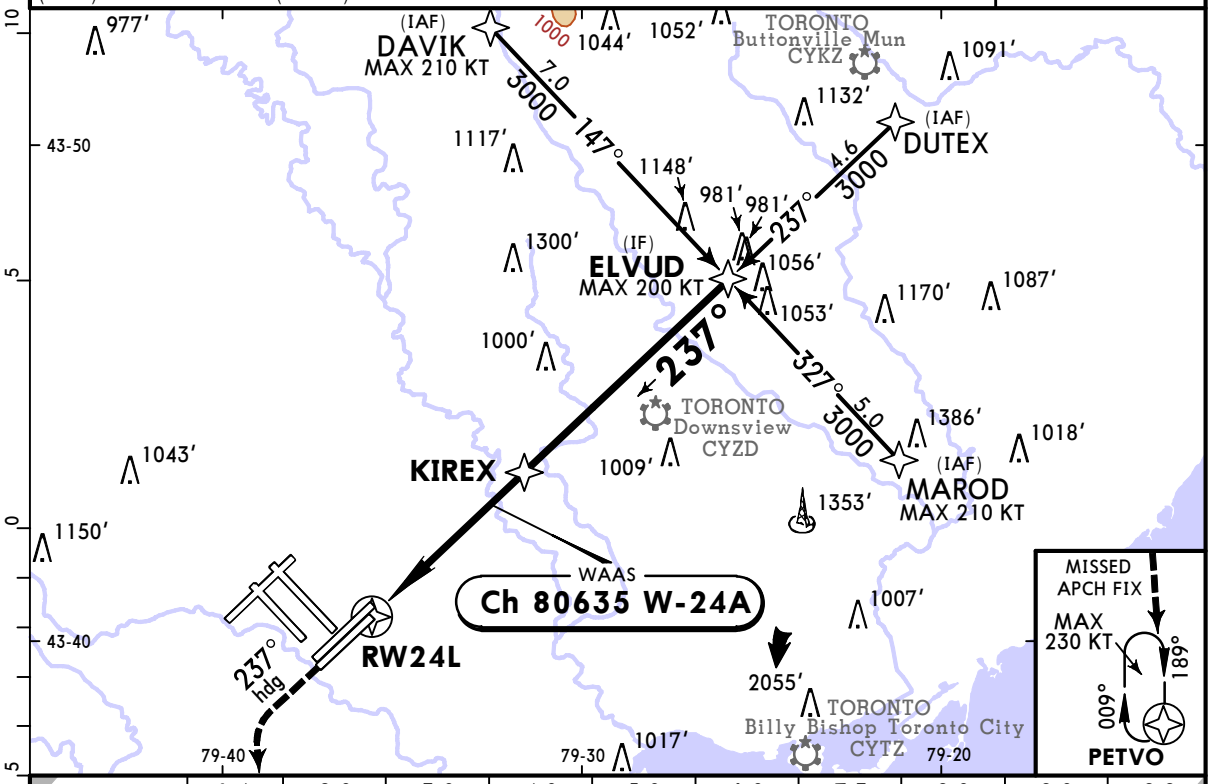
WAAS	Final Apch Crs	GPA	LPV DA(H) Refer to Minimums	Apt Elev 569′ Rwy 547′
Ch 80635 W-24A	237°	KIREX 2000′ (1453′)		

MISSED APCH: Climb to 1100′ heading 237°. Then climbing LEFT turn to 3000′ direct to PETVO.

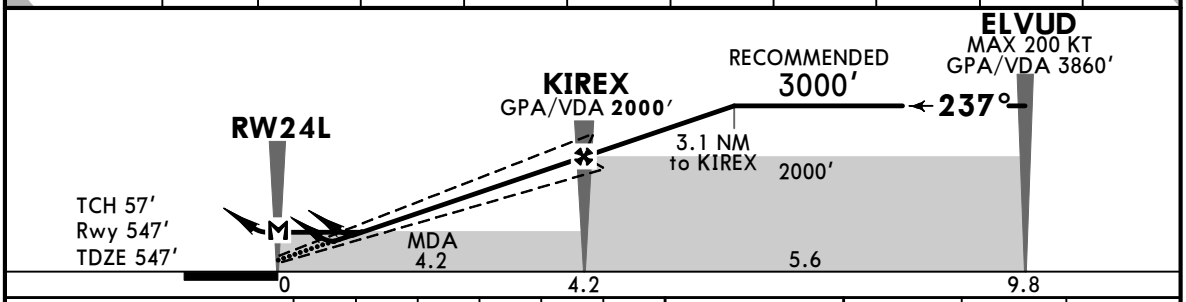
Alt Set: INCHES | Trans level: FL180 | Trans alt: 18000′

1. SAFE ALTITUDE WITHIN 100 NM 4900′. 2. Simultaneous approach authorized with Rwy 23. 3. LNAV procedure not authorized during simultaneous operations. 4. For uncompensated Baro-VNAV systems, LNAV/VNAV not authorized below -23°C (-9°F) and above 45°C (113°F).





NM to RW24L	1.4	2.0	3.0	4.0	5.0	6.0	7.3	8.0	9.0	9.9
VDA ALTITUDE	1060′	1260′	1590′	1920′	2250′	2580′	3000′	3240′	3570′	3860′



Gnd speed-Kts		70	90	100	120	140	160
GPA/VDA	3.10°	384	494	548	658	768	878
MAP at RW24L							

SSALR
PAPI

1100′

237° hdg

State

STRAIGHT-IN LANDING

	LPV		LNAV/VNAV		LNAV	
	DA(H) 747′ (200′)	DA(H) 797′ (250′)	DA(H) 953′ (407′)		MDA(H) 1060′ (514′)	
		HIALS out		HIALS out		HIALS out
A B C D	R26 or V1/2	R50 or V1	R50 or V1	V1 1/4	R50 or V1	V1 1/2

CHANGES: Airport name, new AOM concept.

CYYZ/YYZ
LESTER B PEARSON INTL

JEPPESEN
28 APR 23 (12-12)

TORONTO, ONT
RNAV (GNSS) X Rwy 24L

D-ATIS	LONDON Radio	TORONTO Arrival	TORONTO Tower	Ground
120.825 133.1	123.275	132.8 124.475 125.4	118.35 118.7	121.9 121.65 119.1

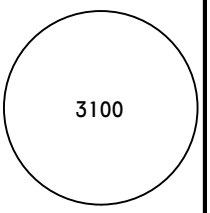
BRIEFING STRIP™

WAAS	Final Apch Crs	GPA	LPV DA(H) Refer to Minimums	Apt Elev 569′
Ch 80721 W-24E	237°	KIREX 2000′ (1453′)		Rwy 547′

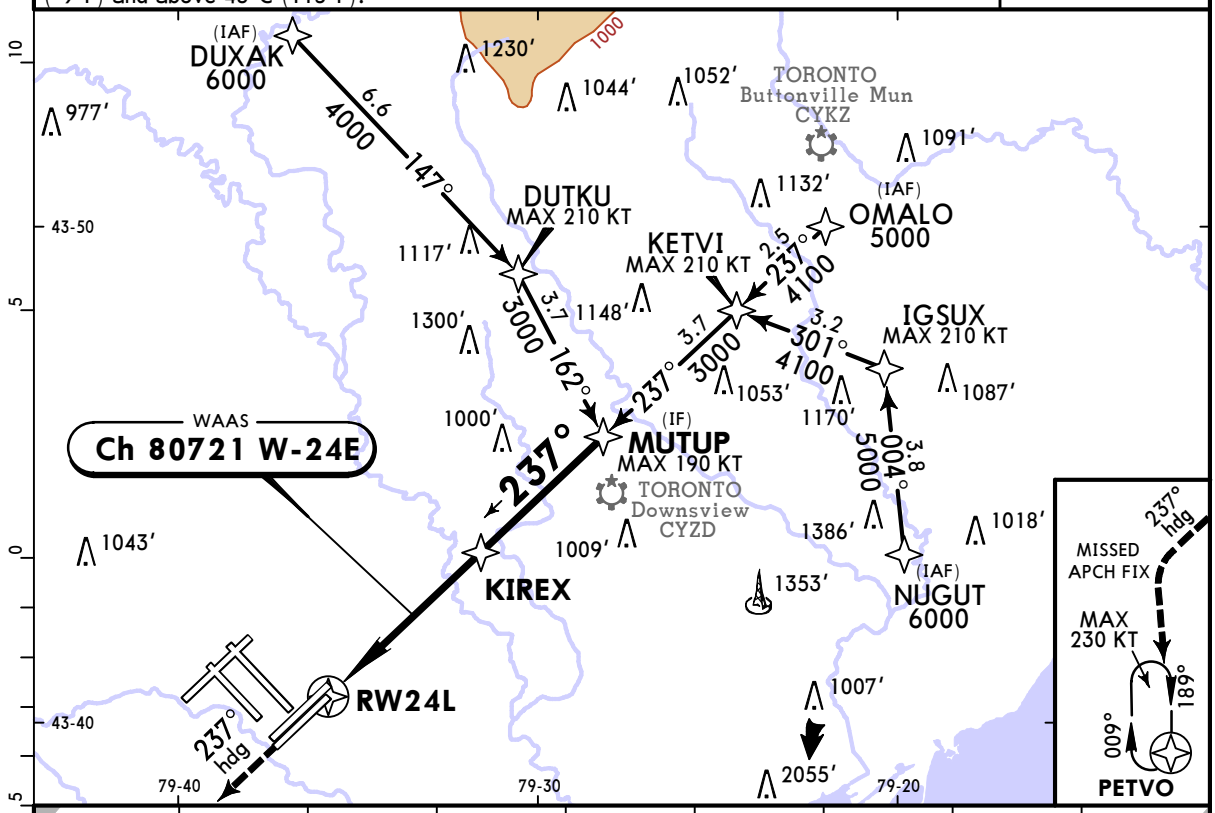
MISSED APCH: Climb to 1100′ heading 237°. Then climbing LEFT turn to 3000′ direct to PETVO.

Alt Set: INCHES | Trans level: FL180 | Trans alt: 18000′

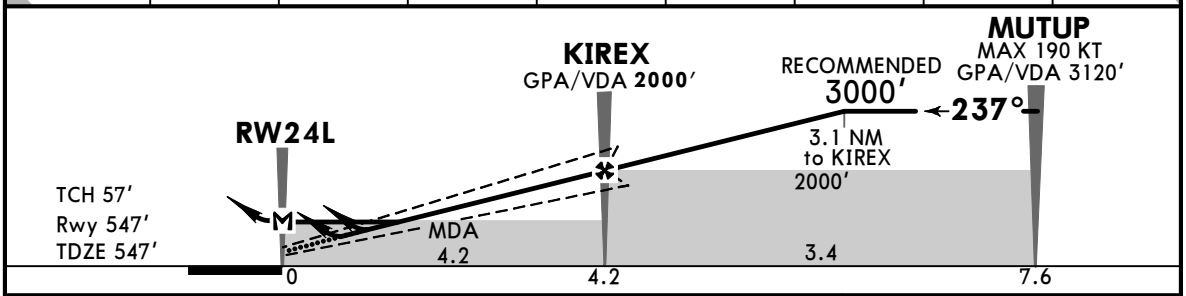
1. SAFE ALTITUDE WITHIN 100 NM 4900′. 2. Simultaneous approach authorized with Rwy 23. 3. LNAV procedure not authorized during simultaneous operations. 4. For uncompensated Baro-VNAV systems, LNAV/VNAV not authorized below -23°C (-9°F) and above 45°C (113°F).



MSA RW24L



NM to RW24L	1.4	2.0	3.0	4.0	5.0	6.0	7.3	7.6
VDA ALTITUDE	1060′	1260′	1590′	1920′	2250′	2580′	3000′	3120′



Gnd speed-Kts		70	90	100	120	140	160
GPA/VDA	3.10°	384	494	548	658	768	878
MAP at RW24L							

SSALR
PAPI
1100′
237° hdg

State — STRAIGHT-IN LANDING

	LPV		LNAV/VNAV		LNAV	
	DA(H) 747′ (200′)	DA(H) 797′ (250′)	DA(H) 953′ (407′)		MDA(H) 1060′ (514′)	
		HIALS out		HIALS out		HIALS out
A						
B						
C	R26 or V1/2	R50 or V1	R50 or V1	V1 1/4	R50 or V1	V1 1/2
D						

CHANGES: Airport name, new AOM concept.

CYYZ/YYZ
LESTER B PEARSON INTL

JEPPESEN
28 APR 23 (12-13)

TORONTO, ONT
RNAV (GNSS) Z Rwy 24R

D-ATIS	LONDON Radio	TORONTO Arrival	TORONTO Tower	Ground
120.825 133.1	123.275	132.8 124.475 125.4	118.35 118.7	121.9 121.65 119.1

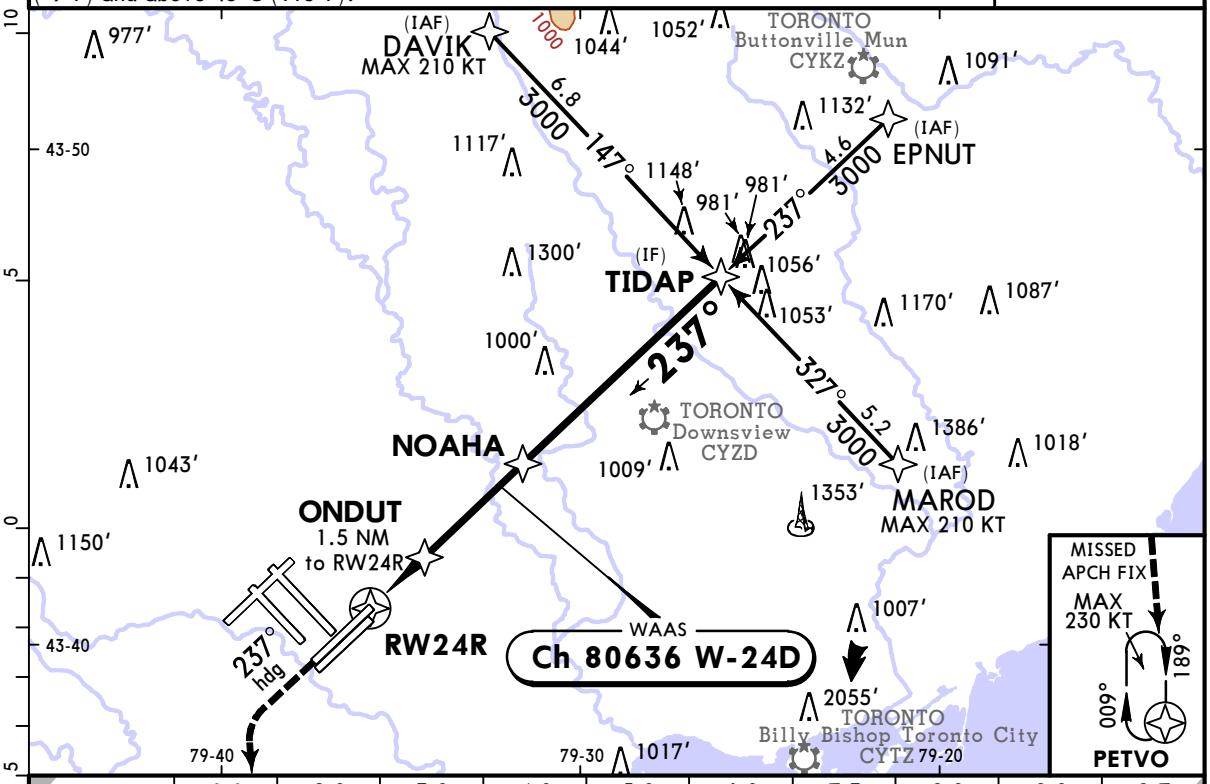
BRIEFING STRIP™

WAAS	Final	GPA	LPV	
Ch 80636 W-24D	Apch Crs **237°**	**NOAHA** **2000′** (1454′)	DA(H) **796′** (250′)	Apt Elev 569′ Rwy 546′

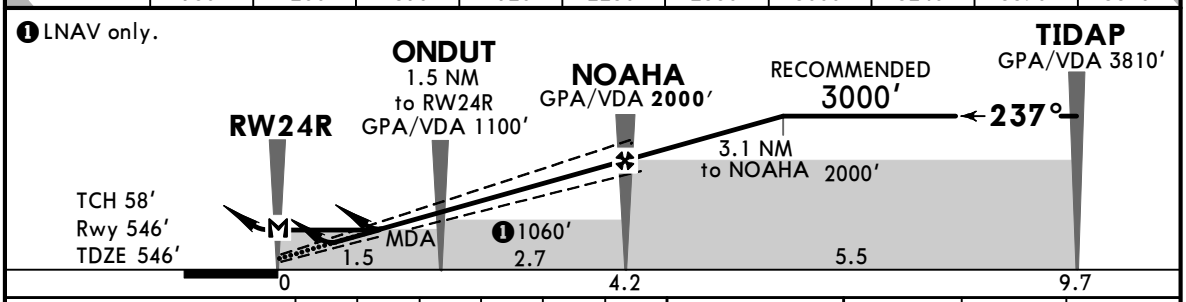
MISSED APCH: Climb to 1100′ heading 237°. Then climbing LEFT turn to 3000′ direct to PETVO.

Alt Set: INCHES | Trans level: FL180 | Trans alt: 18000′

1. CAUTION: Twy Charlie (600′ right of centerline) similar in appearance to rwy. 2. SAFE ALTITUDE WITHIN 100 NM 4900′. 3. Simultaneous approach authorized with Rwy 23. 4. LNAV procedure not authorized during simultaneous operations. 5. For uncompensated Baro-VNAV systems, LNAV/VNAV not authorized below -23°C (-9°F) and above 45°C (113°F).



NM to RW24R	1.1	2.0	3.0	4.0	5.0	6.0	7.3	8.0	9.0	9.7
VDA ALTITUDE	980′	1260′	1590′	1920′	2250′	2580′	3000′	3240′	3570′	3810′



Gnd speed-Kts		70	90	100	120	140	160
GPA/VDA	3.10°	384	494	548	658	768	878
MAP at RW24R							

SSALS
REIL
PAPI

1100′

237° hdg

State

STRAIGHT-IN LANDING

	LPV	LNAV/VNAV	LNAV
	DA(H) **796′** (250′)	DA(H) **1028′** (482′)	MDA(H) **980′** (434′)
	HIALS out	HIALS out	HIALS out
A B C D	R50 or V1	V1 1/2	V1 1/4

CHANGES: Airport name, new AOM concept.

CYYZ/YYZ
LESTER B PEARSON INTL

JEPPESEN

28 APR 23 (12-14)

TORONTO, ONT
RNAV (GNSS) X Rwy 24R

D-ATIS	LONDON Radio	TORONTO Arrival	TORONTO Tower	Ground
120.825 133.1	123.275	132.8 124.475 125.4	118.35 118.7	121.9 121.65 119.1

BRIEFING STRIP™

WAAS	Final Apch Crs	GPA	LPV DA(H)	Apt Elev 569′
Ch 80722 W-24B	237°	NOAHA 2000′ (1454′)	796′ (250′)	Rwy 546′

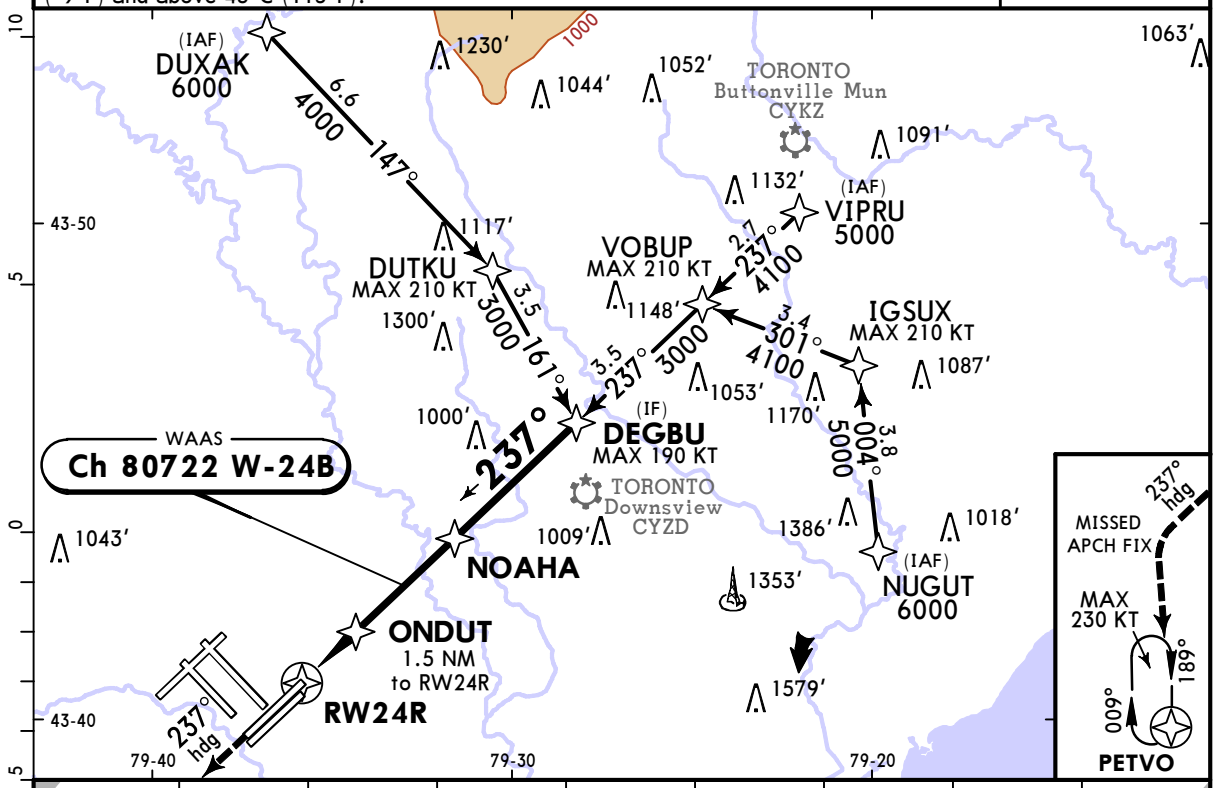
MISSED APCH: Climb to 1100′ heading 237°. Then climbing LEFT turn to 3000′ direct to PETVO.

Alt Set: INCHES | Trans level: FL180 | Trans alt: 18000′

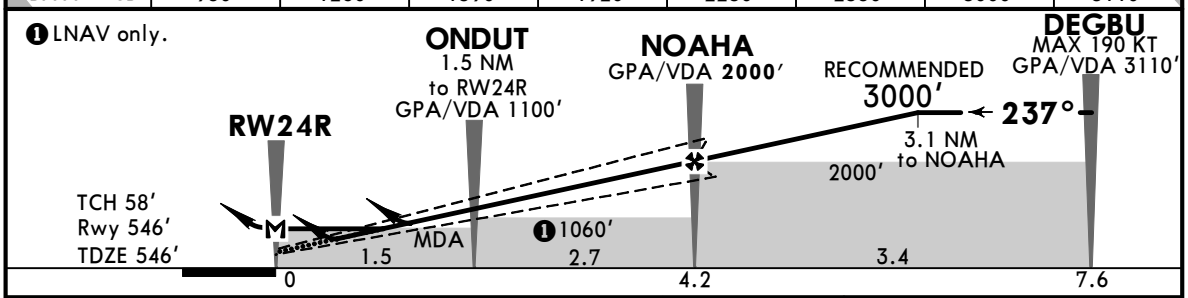
1. CAUTION: Taxiway Charlie (600′ right of centerline) similar in appearance to rwy. 2. SAFE ALTITUDE WITHIN 100 NM 4900′. 3. Simultaneous approach authorized with Rwy 23. 4. LNAV procedure not authorized during simultaneous operations. 5. For uncompensated Baro-VNAV systems, LNAV/VNAV not authorized below -23°C (-9°F) and above 45°C (113°F).

3100

MSA RW24R



NM to RW24R	1.1	2.0	3.0	4.0	5.0	6.0	7.3	7.6
VDA ALTITUDE	980′	1260′	1590′	1920′	2250′	2580′	3000′	3110′



Gnd speed-Kts		70	90	100	120	140	160
GPA/VDA	3.10°	384	494	548	658	768	878
MAP at RW24R							

SSALS
REIL
PAPI

1100′

237° hdg

State

STRAIGHT-IN LANDING

	LPV	LNAV/VNAV	LNAV
	DA(H) 796′ (250′)	DA(H) 1028′ (482′)	MDA(H) 980′ (434′)
	HIALS out	HIALS out	HIALS out
A B C D	R50 or V1	V1 1/2	V1 1/4

CHANGES: Airport name, new AOM concept.

CYYZ/YYZ
LESTER B PEARSON INTL

JEPPESEN

28 APR 23 (12-15)

TORONTO, ONT
RNAV (GNSS) Z Rwy 33L

D-ATIS	LONDON Radio	TORONTO Arrival	TORONTO Tower	Ground
120.825 133.1	123.275	132.8 124.475 125.4	118.35 118.7	121.9 121.65 119.1

BRIEFING STRIP™

WAAS	Final Apch Crs	GPA	LPV DA(H)	Apt Elev 569′
Ch 80637 W-33A	**327°**	**APMAM** **2000′** (1454′)	**842′** (296′)	Rwy 546′

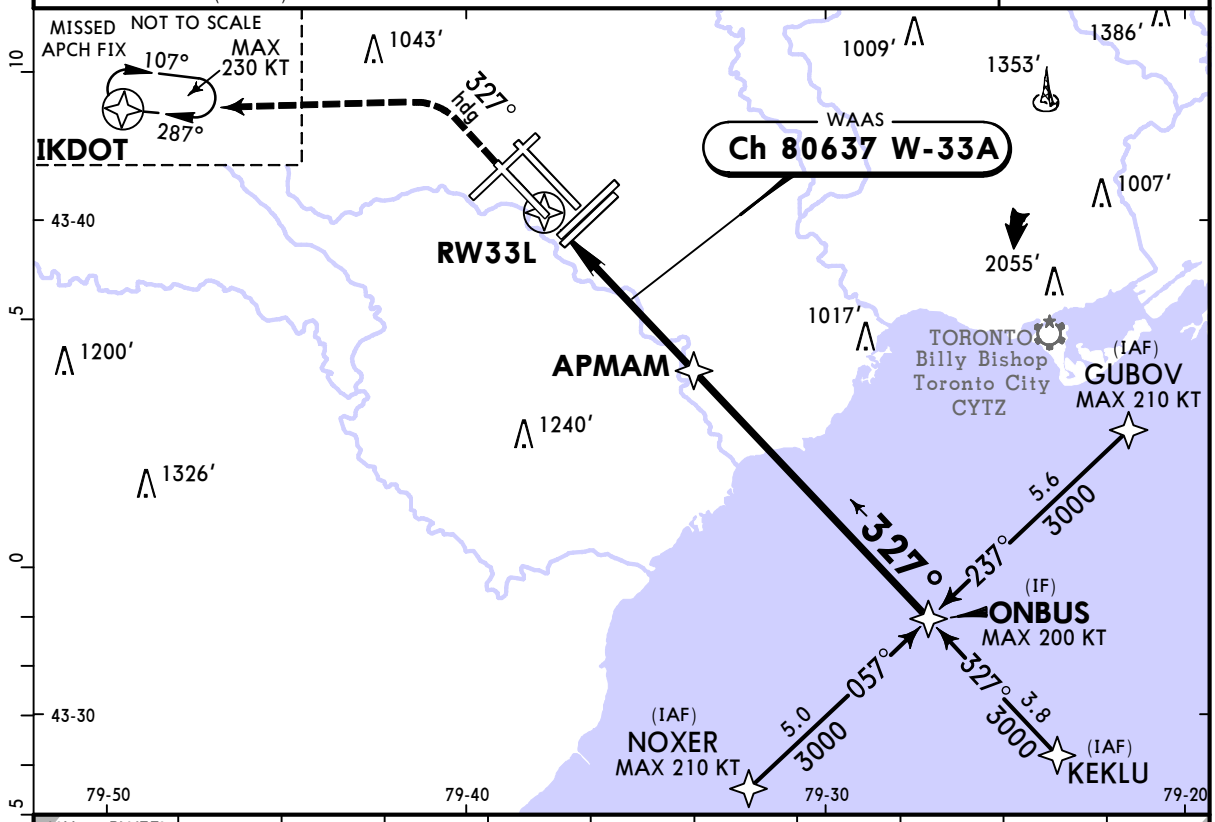
MISSED APCH: Climb to 1100′ heading 327°. Then climbing LEFT turn to 3000′ direct to IKDOT.

Alt Set: INCHES | Trans level: FL180 | Trans alt: 18000′

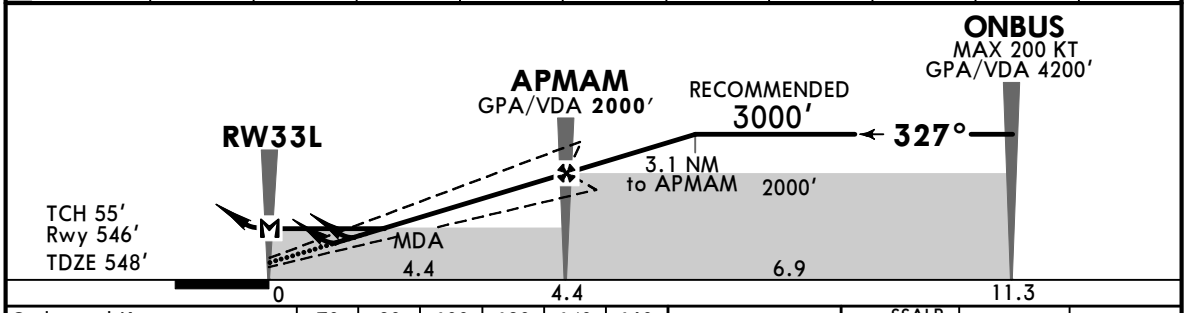
1. SAFE ALTITUDE WITHIN 100 NM 4900′. 2. Simultaneous approach authorized with Rwy 33R. 3. LNAV procedure not authorized during simultaneous operations. 4. For uncompensated Baro-VNAV systems, LNAV/VNAV not authorized below -19°C (-2°F) and above 54°C (129°F).

3100

MSA RW33L



NM to RW33L	1.4	2.0	3.0	4.0	5.0	6.0	7.5	9.0	10.0	11.3
VDA ALTITUDE	1040′	1240′	1560′	1870′	2190′	2510′	3000′	3470′	3790′	4200′



Gnd speed-Kts		70	90	100	120	140	160
GPA/VDA	3.00°	372	478	531	637	743	849
MAP at RW33L							

SSALR
PAPI

1100′

327° hdg

State

STRAIGHT-IN LANDING

	LPV DA(H) 842′ (296′)		LNAV/VNAV DA(H) 950′ (404′)		LNAV MDA(H) 1040′ (494′)	
		HIALS out		HIALS out		HIALS out
A B C D	R50 or V1		R50 or V1	V1 1/4	R50 or V1	V1 1/2

CHANGES: Airport name, new AOM concept.

CYYZ/YYZ
LESTER B PEARSON INTL

JEPPESEN
28 APR 23 (12-16)

TORONTO, ONT
RNAV (GNSS) Z Rwy 33R

D-ATIS	LONDON Radio	TORONTO Arrival	TORONTO Tower	Ground
120.825 133.1	123.275	132.8 124.475 125.4	118.35 118.7	121.9 121.65 119.1

BRIEFING STRIP™

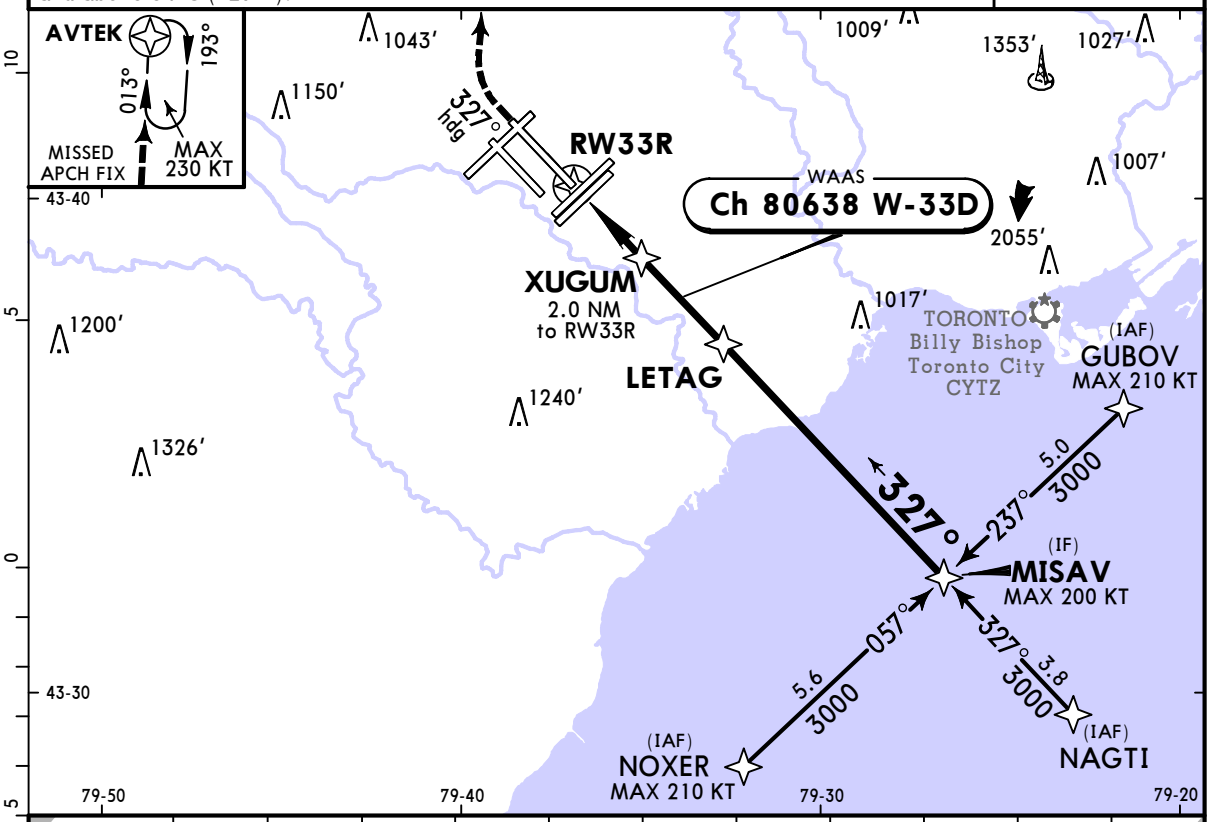
WAAS	Final Apch Crs	GPA	LPV DA(H) Refer to Minimums	Apt Elev 569′
Ch 80638 W-33D	**327°**	**LETAG** **2000′** (1456′)		Rwy 544′

MISSED APCH: Climb to 1100′ heading 327°. Then climbing RIGHT turn to 3000′ direct to AVTEK.

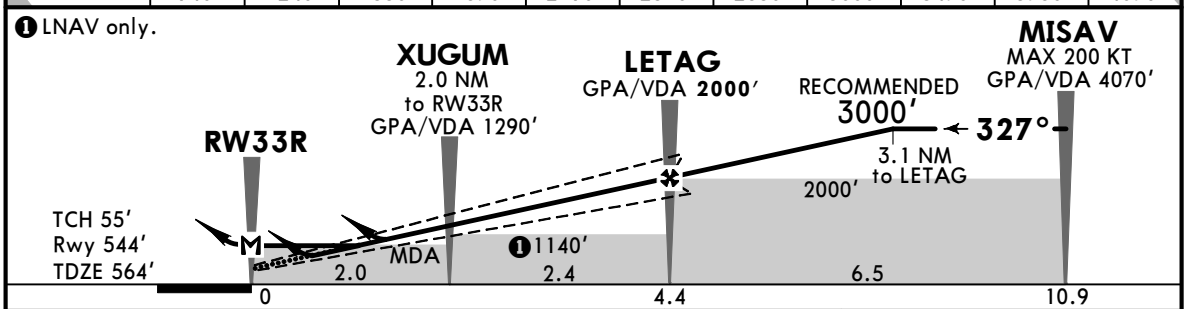
Alt Set: INCHES | Trans level: FL180 | Trans alt: 18000′

1. SAFE ALTITUDE WITHIN 100 NM 4900′. 2. Simultaneous approach authorized with Rwy 33L. 3. LNAV procedure not authorized during simultaneous operations. 4. For uncompensated Baro-VNAV systems, LNAV/VNAV not authorized below -19°C (-2°F) and above 54°C (129°F).

3100
MSA RW33R



NM to RW33R	1.1	2.0	3.0	4.0	5.0	6.0	7.0	7.5	9.0	10.0	10.9
VDA ALTITUDE	940′	1240′	1550′	1870′	2190′	2510′	2830′	3000′	3470′	3780′	4070′



Gnd speed-Kts		70	90	100	120	140	160
GPA/VDA	3.00°	372	478	531	637	743	849
MAP at RW33R							

SSALR
PAPI
1100′
327° hdg

State STRAIGHT-IN LANDING

	LPV		LNAV/VNAV		LNAV	
	DA(H) **771′** (227′)	DA(H) **794′** (250′)	DA(H) **947′** (403′)		MDA(H) **940′** (396′)	
		HIALS out		HIALS out		HIALS out
A B C D	R26 or V1/2	R50 or V1	R50 or V1	V1 1/4	R50 or V1	V1 1/4

CHANGES: Airport name, new AOM concept.

CYYZ/YYZ
LESTER B PEARSON INTL

JEPPESEN

28 APR 23 (12-20)

TORONTO, ONT
RNAV (RNP) Y Rwy 05

D-ATIS	LONDON Radio	TORONTO Arrival	TORONTO Tower	Ground
120.825 133.1	123.275	132.8 124.475 125.4	118.35 118.7	121.9 121.65 119.1

BRIEFING STRIP ™

RNAV	Final Apch Crs **056°**	Minimum Alt **KOBAL** **2500′** (1936′)	RNP 0.15 DA(H) **863′** (300′)	Apt Elev 569′ Rwy 564′

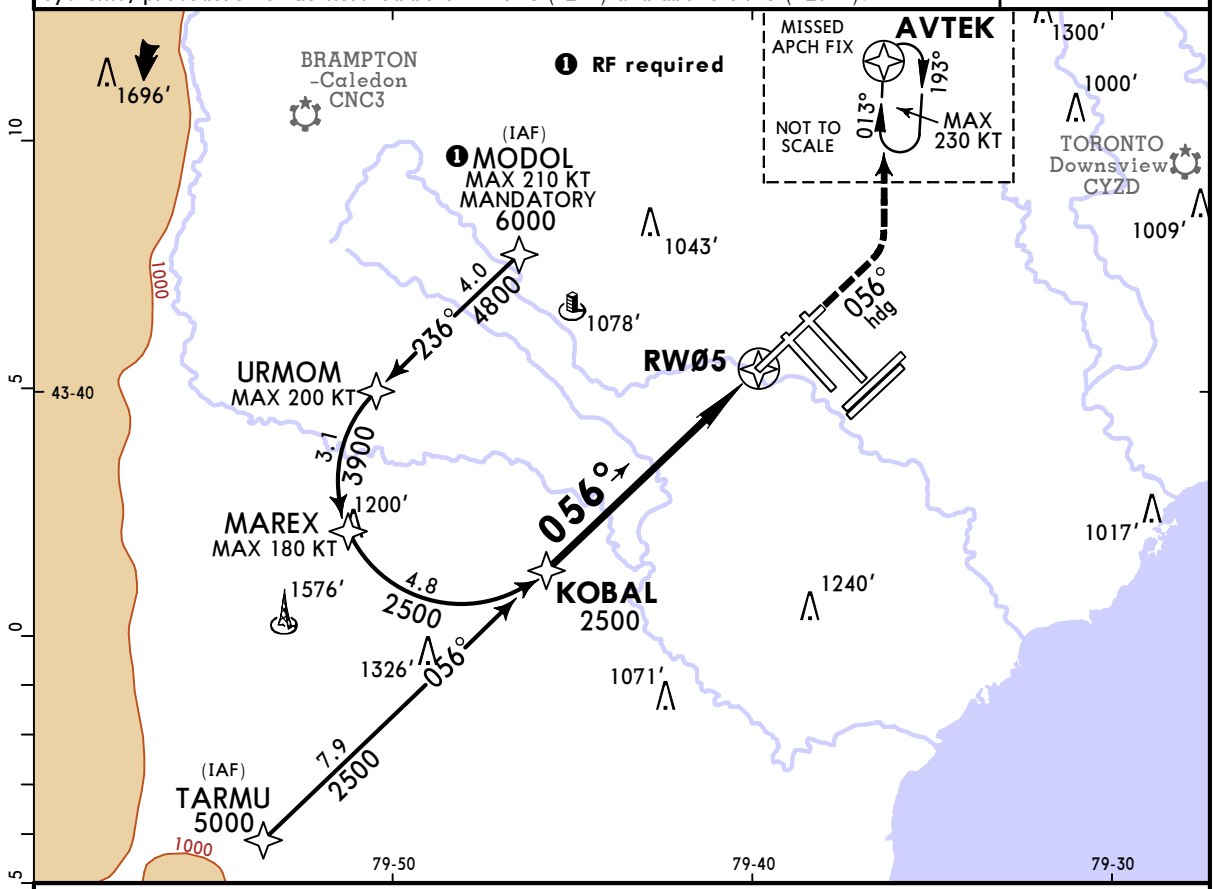
MISSED APCH: Climb to 1100′ heading 056°. Then climbing LEFT turn to 3000′ direct to AVTEK.

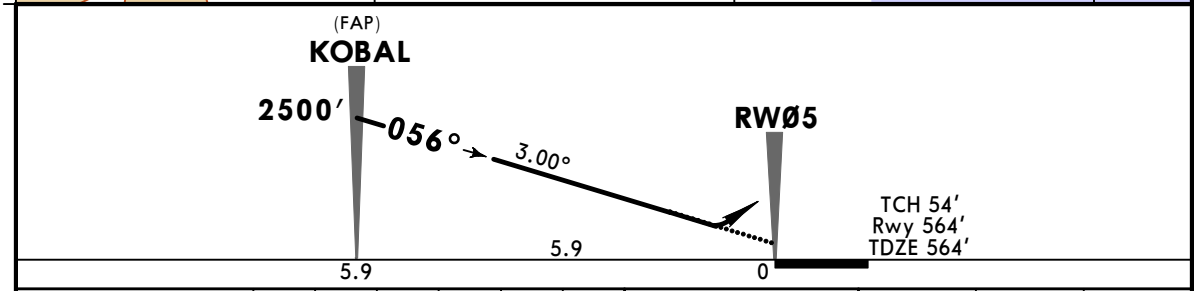
Alt Set: INCHES | Trans level: FL180 | Trans alt: 18000′

1. AUTHORIZATION REQUIRED. 2. SAFE ALTITUDE WITHIN 100 NM 4900′. 3. Simultaneous approach authorized with Rwy 06L or 06R. 4. See Attention All Users - - Established on RNP AR User Instructions (12-0). 5. For uncompensated Baro-VNAV systems, procedure not authorized below -19°C (-2°F) and above 54°C (129°F).

3100

MSA RWØ5





Gnd speed-Kts		70	90	100	120	140	160
Glide Path Angle	3.00°	372	478	531	637	743	849

ALSF-II
PAPI

1100′

056° hdg

State STRAIGHT-IN LANDING

	RNP 0.15 DA(H) **863′** (300′) HIALS out	RNP 0.30 DA(H) **1082′** (519′) HIALS out	
A	R50 or V1	V1 1/4	V1 1/2
B			
C			
D			

CHANGES: Airport name, new AOM concept.

CYYZ/YYZ
LESTER B PEARSON INTL

JEPPESEN

28 APR 23 (12-21)

TORONTO, ONT
RNAV (RNP) Y Rwy 23

D-ATIS	LONDON Radio	TORONTO Arrival	TORONTO Tower	Ground
120.825 133.1	123.275	132.8 124.475 125.4	118.35 118.7	121.9 121.65 119.1

BRIEFING STRIP ™

RNAV	Final Apch Crs **237°**	Minimum Alt **DANOS** **2700′**(2143′)	RNP 0.15 DA(H) **854′**(297′)	Apt Elev 569′ Rwy 557′

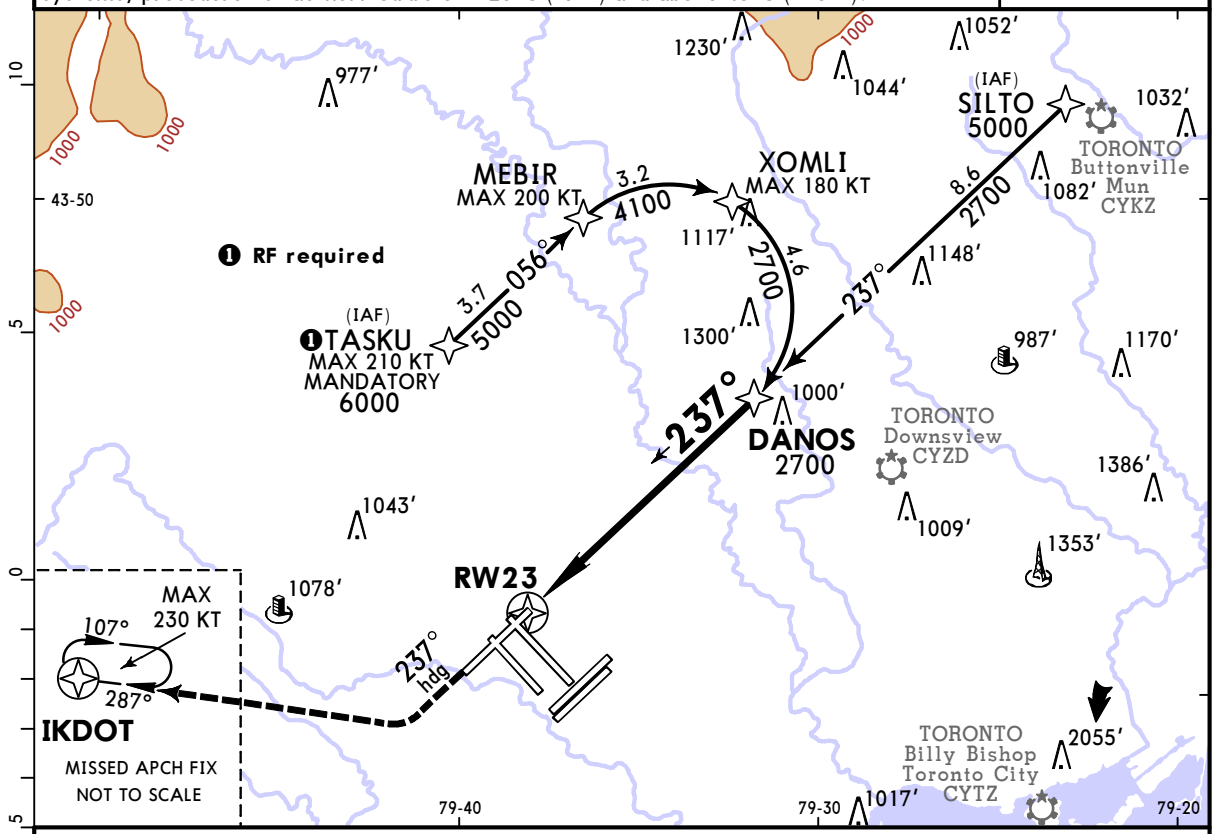
MISSED APCH: Climb to 1100′ heading 237°. Then climbing RIGHT turn to 3000′ direct to IKDOT.

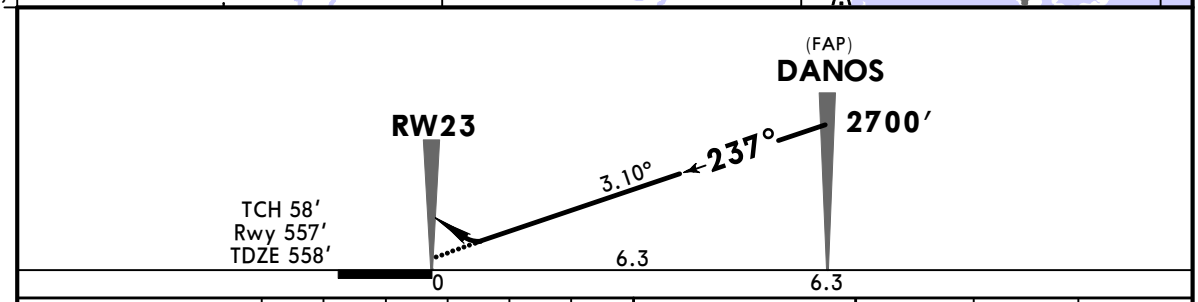
Alt Set: INCHES | Trans level: FL180 | Trans alt: 18000′

1. AUTHORIZATION REQUIRED. 2. SAFE ALTITUDE WITHIN 100 NM 4900′. 3. Simultaneous approach authorized with Rwy 24L or 24R. 4. See Attention All Users - - Established on RNP AR User Instructions (12-0). 5. For uncompensated Baro-VNAV systems, procedure not authorized below -23°C (-9°F) and above 45°C (113°F).

3100

MSA RW23





Gnd speed-Kts		70	90	100	120	140	160
Glide Path Angle	3.10°	384	494	548	658	768	878

SSALR
PAPI

1100′

237° hdg

State STRAIGHT-IN LANDING

	RNP 0.15 DA(H) 854′(297′) HIALS out	RNP 0.30 DA(H) 997′(440′)	RNP 0.30 HIALS out
A			
B			
C	R50 or V1	R50 or V1	V1 1/2
D			

CHANGES: Airport name, new AOM concept.

General Information

Location: VANCOUVER BC CAN
ICAO/IATA: CYVR / YVR
Lat/Long: N49° 11.7', W123° 11.0'
Elevation: 13 ft

Airport Use: Public
Daylight Savings: Observed
UTC Conversion: +8:00 = UTC
Magnetic Variation: 17.0° E

Fuel Types: 100 Octane (LL), Jet A, Jet A-1
Oxygen Types: High Pressure, Low Pressure
Repair Types: Major Airframe, Major Engine
Customs: Yes
Airport Type: IFR
Landing Fee: Yes
Control Tower: Yes
Jet Start Unit: Yes
LLWS Alert: No
Beacon: No

Sunrise: 1332 Z
Sunset: 0257 Z

Runway Information

Runway: 08L
Length x Width: 9941 ft x 200 ft
Surface Type: concrete
TDZ-Elev: 13 ft
Lighting: Edge, ALS, Centerline, TDZ

Runway: 08R
Length x Width: 10803 ft x 200 ft
Surface Type: asphalt
TDZ-Elev: 9 ft
Lighting: Edge, ALS, Centerline, TDZ

Runway: 13
Length x Width: 7300 ft x 200 ft
Surface Type: asphalt
TDZ-Elev: 8 ft
Lighting: Edge, ALS

Runway: 26L
Length x Width: 10803 ft x 200 ft
Surface Type: asphalt
TDZ-Elev: 7 ft
Lighting: Edge, ALS, Centerline, TDZ

Runway: 26R
Length x Width: 9941 ft x 200 ft
Surface Type: concrete
TDZ-Elev: 9 ft
Lighting: Edge, ALS, Centerline, TDZ

Runway: 31
Length x Width: 7300 ft x 200 ft
Surface Type: asphalt
TDZ-Elev: 8 ft
Lighting: Edge, ALS

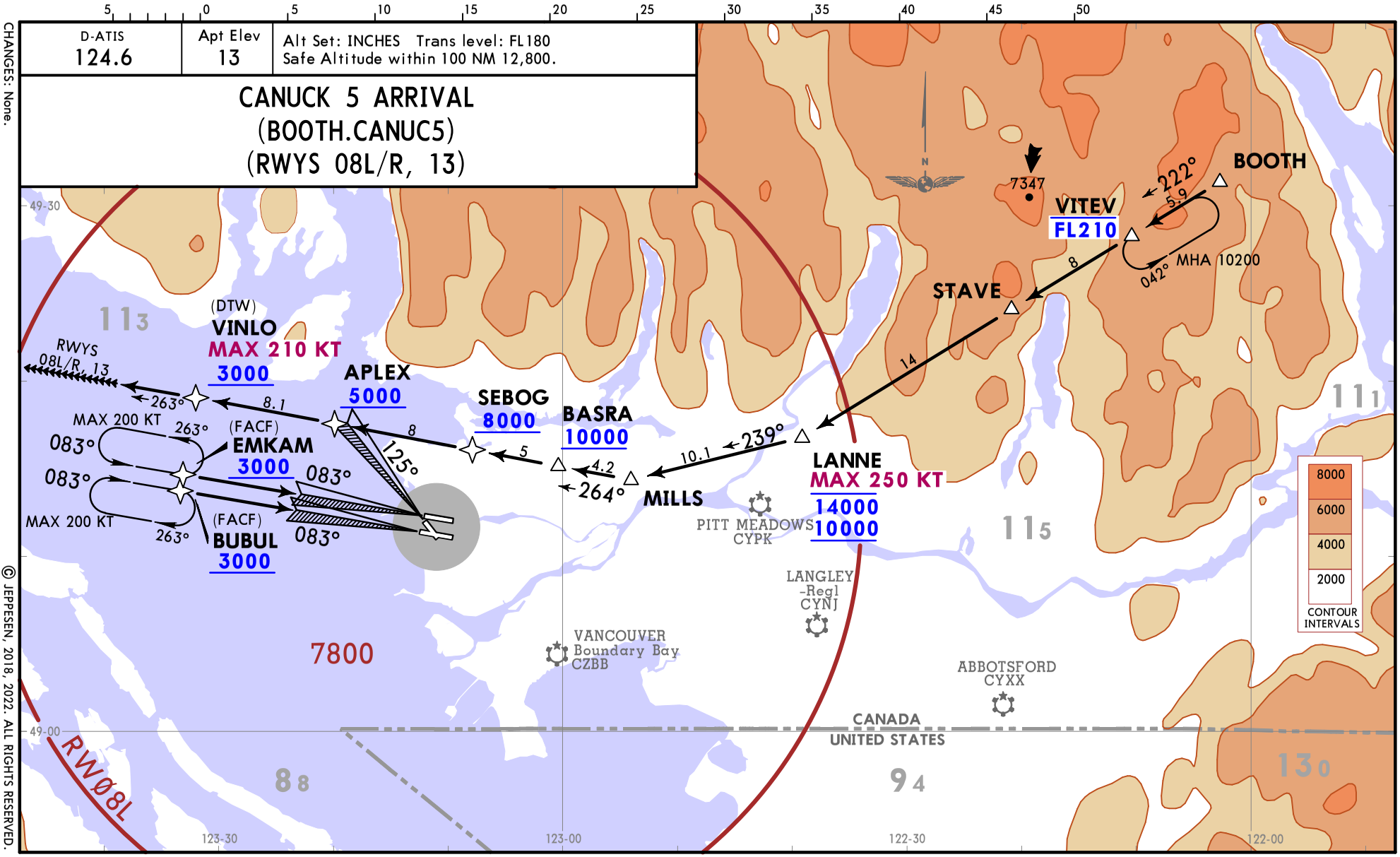
Communication Information

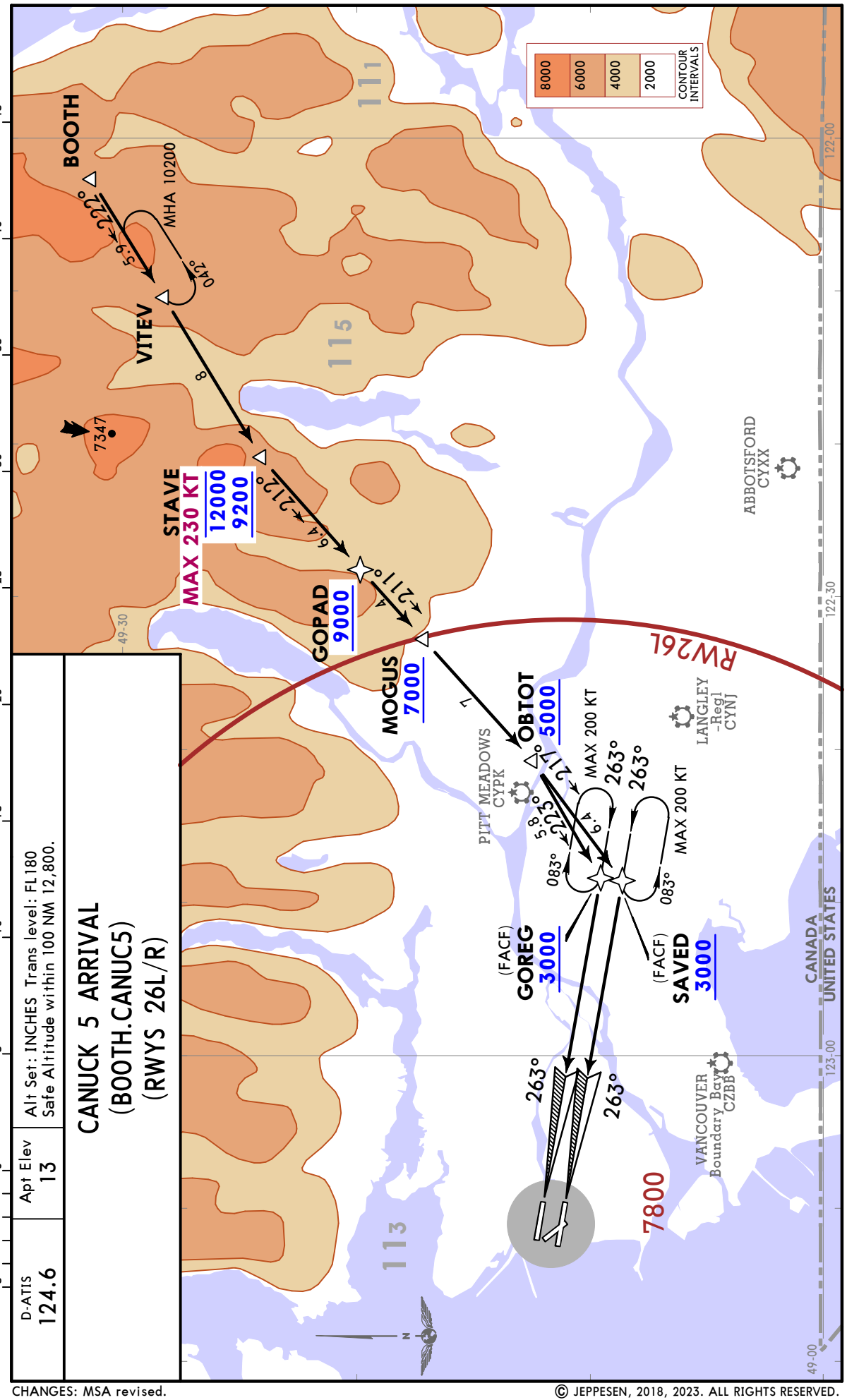
ATIS: 124.600
Vancouver Tower: 118.700
Vancouver Tower: 125.650
Vancouver Tower: 124.025
Vancouver Tower: 119.550
Vancouver Ground: 127.150
Vancouver Ground: 121.700
Vancouver Clearance Delivery: 121.400
Vancouver Arrival: 128.175
Vancouver Arrival: 128.600
Vancouver Arrival: 133.100
Vancouver Arrival: 134.225
Vancouver Departure: 126.125
Vancouver Departure: 132.300
Pacific Radio Radio: 123.150 Flight Info Service RCO
Vancouver De-Ice Operations: 129.950
Vancouver Terminal Area: 125.200
Pad Control Operations: 131.975
Iceman Operations: 130.925
Iceman Operations: 130.700

CHANGES: None.

D-ATIS	Apt Elev	Alt Set: INCHES Trans level: FL180
124.6	13	Safe Altitude within 100 NM 12,800.

CANUCK 5 ARRIVAL
(BOOTH.CANUC5)
(RWYS 08L/R, 13)





D-ATIS 124.6

Apt Elev 13

Alt Set: INCHES Trans level: FL180
Safe Altitude within 100 NM 12,800.

CANUCK 5 ARRIVAL
(BOOTH.CANUC5)
(RWYS 26L/R)

CHANGES: MSA revised.

COLUMBIA 2 ARRIVAL
(BOOTH.COLMB2)
RWYS 08L/R

D-ATIS 124.6

Apt Elev 13

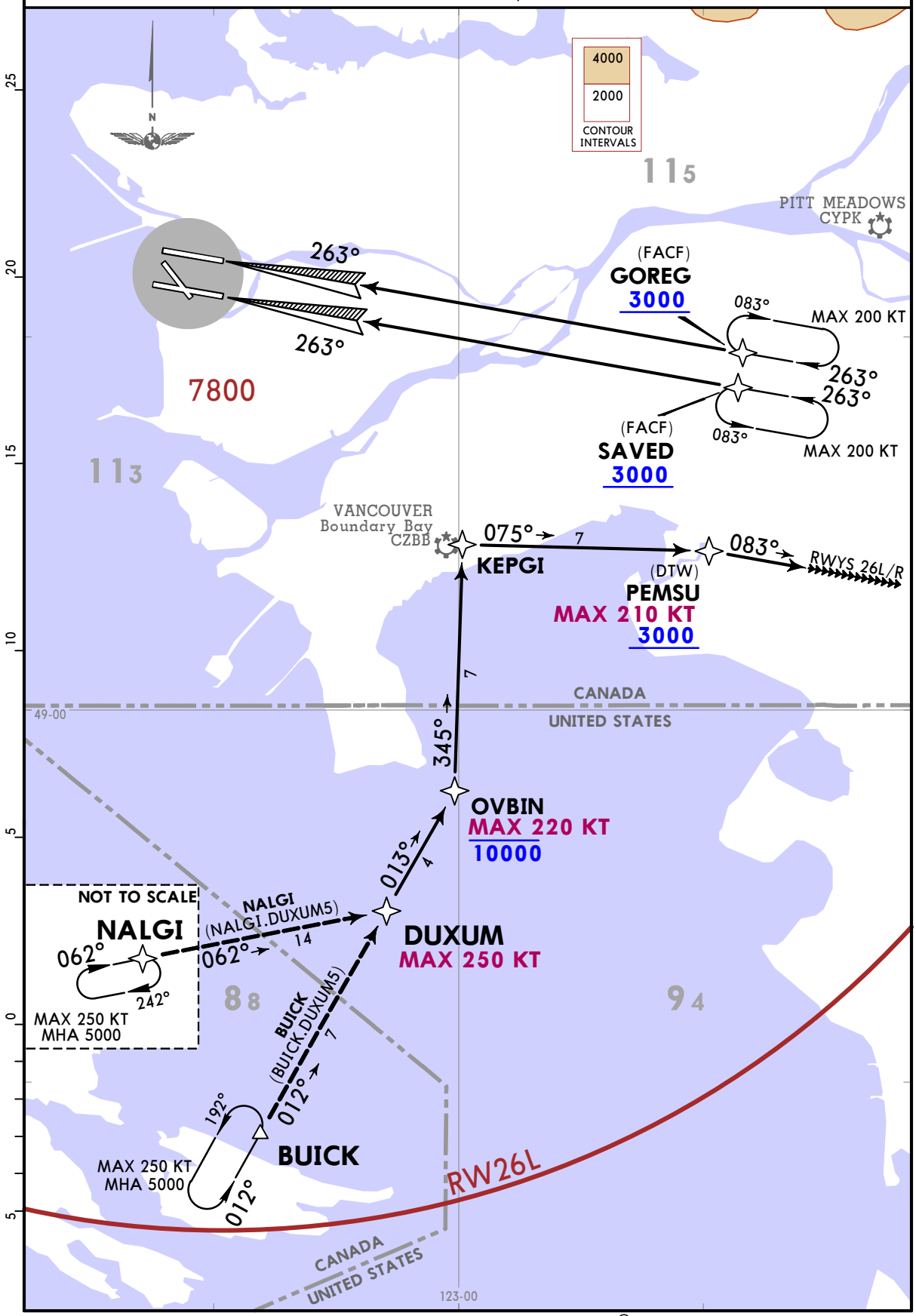
Alt Set: INCHES Trans level: FL180
1. RNP 1.
2. Safe Altitude within 100 NM 12,800.

BOOTH
222°
9
MHA 10200
040°
VITEV
FL210
8
7347
STAVE
14
LANNE
MAX 250 KT
14000
10000
239°
10
MILLS
PITT MEADOWS CYPK
LANGLEY Regl CYNJ
ABBOTSFORD CYXX
CANADA
UNITED STATES
BASRA
4
264°
SEBOG
At 210 KT
5800
5
APLEX
5000
8
263°
RWYS 08L/R
RNAV (RNP) RWY 08L
RNAV (GNSS) RWY 08R
VANCOUVER Boundary Bay CZBB
7800
RWØ8L
CONTOUR INTERVALS 8000 6000 4000 2000

CHANGES: None.

D-ATIS	Apt Elev	
124.6	13	Alt Set: INCHES Trans level: FL180 Safe Altitude within 100 NM 12,800.

DUXUM 5 ARRIVAL
(DUXUM.DUXUM5)
RWYS 26L/R



CHANGES: MSA revised.

JEPPESEN
17 FEB 23 (10-2D) Eff 23 Feb

VANCOUVER, BC
RNAV STAR

D-ATIS	Apt Elev	Alt Set: INCHES Trans level: FL180
124.6	13	Safe Altitude within 100 NM 12,800.

GRIZZ 7 ARRIVAL (EGRET.GRIZZ7)
RWYS 08L/R & 13

RWYS 08L/R & 13
263°
NAKMA
MAX 210 KT
3000
083°
083°
7800
17
268°
VANCOUVER
115.9 YVR
8000
TATGO
10000
RWØ8L
29
295°
EGRET
JET AIRCRAFT
At 280 KT
12000
10000
NON-JET AIRCRAFT
10000
17
278°
PIZZE
14000
109°
11
152°
BEZOV
20
289°
ILSAA
METOW
(METOW.GRIZZ7)
65
NOT TO SCALE
268°
METOW
PAINE
(PAE.GRIZZ7)
58
332°
PAINE
110.6 PAE

PITT MEADOWS CYPK
LANGLEY -Regl CYNJ
VANCOUVER Boundary Bay CZBB
ABBOTSFORD CYXX
NANAIMO CYCD
CANADA
UNITED STATES
BELLINGHAM -Intl KBLI
EASTSOUND Orcas I KORS
VICTORIA -Intl CYYJ
FRIDAY HARBOR KFHR
LOPEZ Lopez Island S31
BURLINGTON/MT VERNON Skagit Regl KBVS
OAK HARBOR Whidbey I NAS KNUW
OAK HARBOR Eisenberg KOKH
ARLINGTON -Mun KAWO
PORT ANGELES Port Angeles Cgas KNOW
PORT ANGELES William R Fairchild Intl KCLM
PORT TOWNSEND Jefferson Co Intl 0S9
EVERETT Snohomish Co KPAE
SNOHOMISH Harvey S43
10769

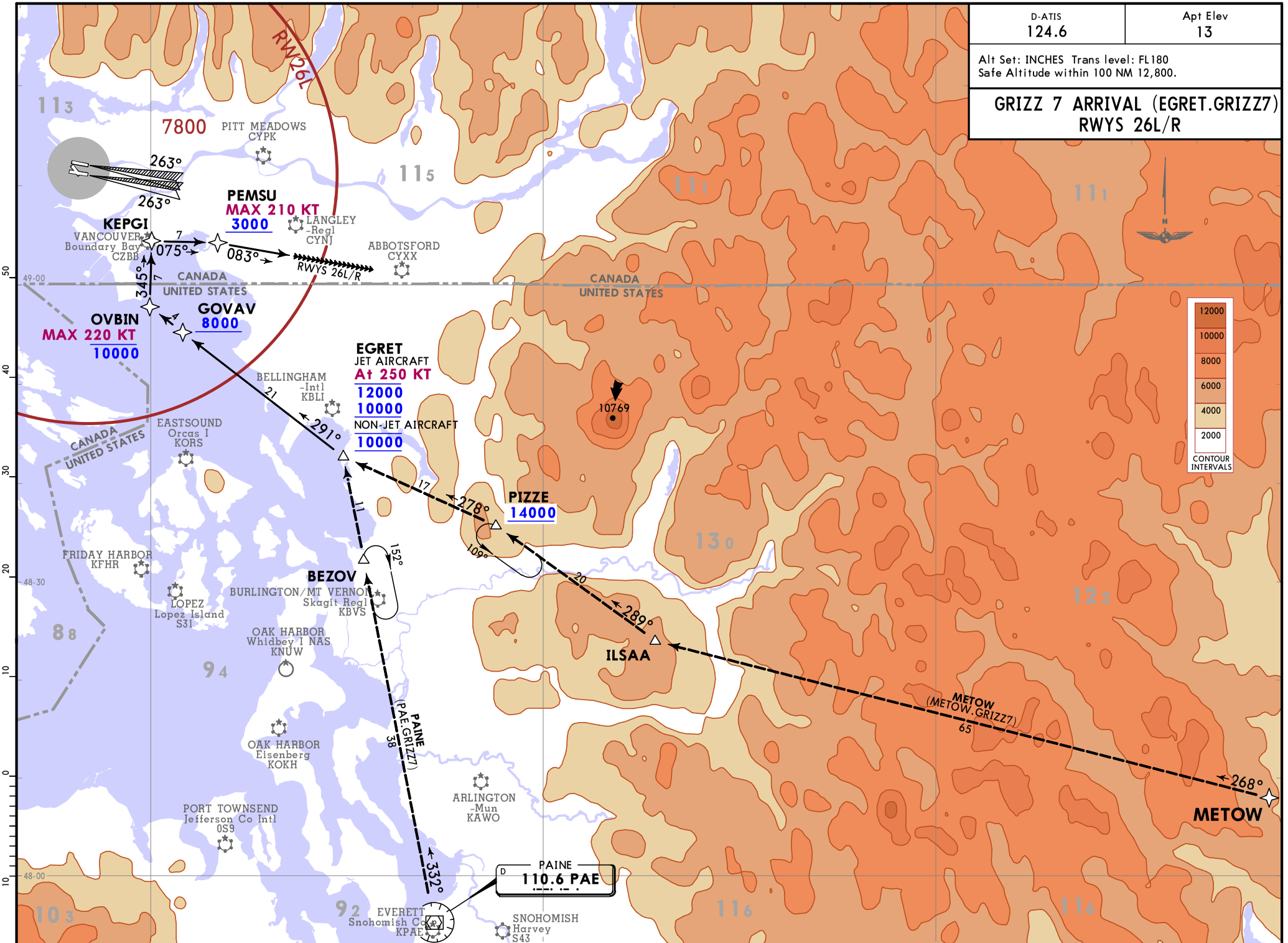
CONTOUR INTERVALS
12000
10000
8000
6000
4000
2000

CHANGES: None.

D-ATIS	Apt Elev
124.6	13

Alt Set: INCHES Trans level: FL180
Safe Altitude within 100 NM 12,800.

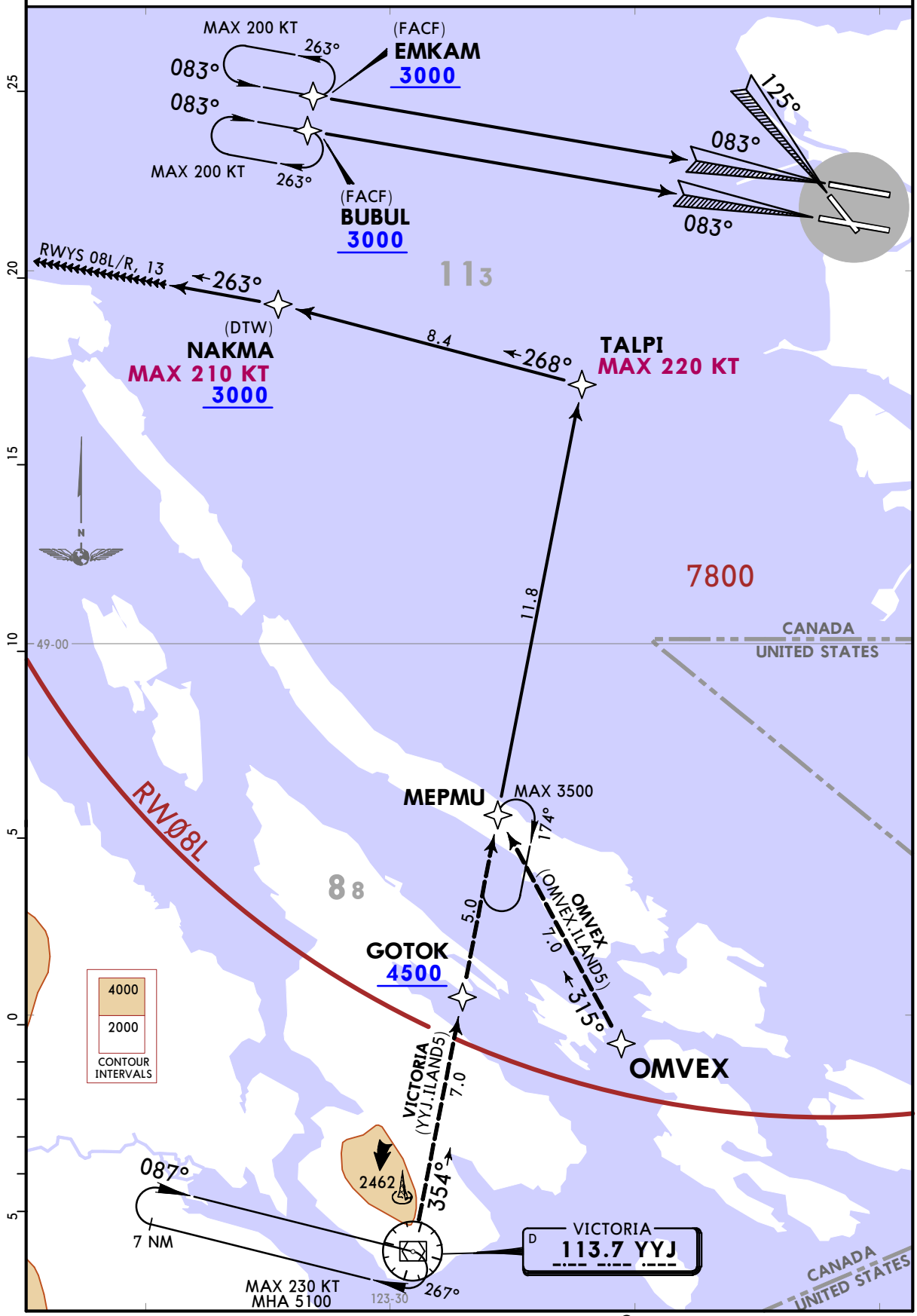
GRIZZ 7 ARRIVAL (EGRET.GRIZZ7)
RWYS 26L/R



CHANGES: MSA revised.

D-ATIS	Apt Elev	
124.6	13	Alt Set: INCHES Trans level: FL180 Safe Altitude within 100 NM 12,800.

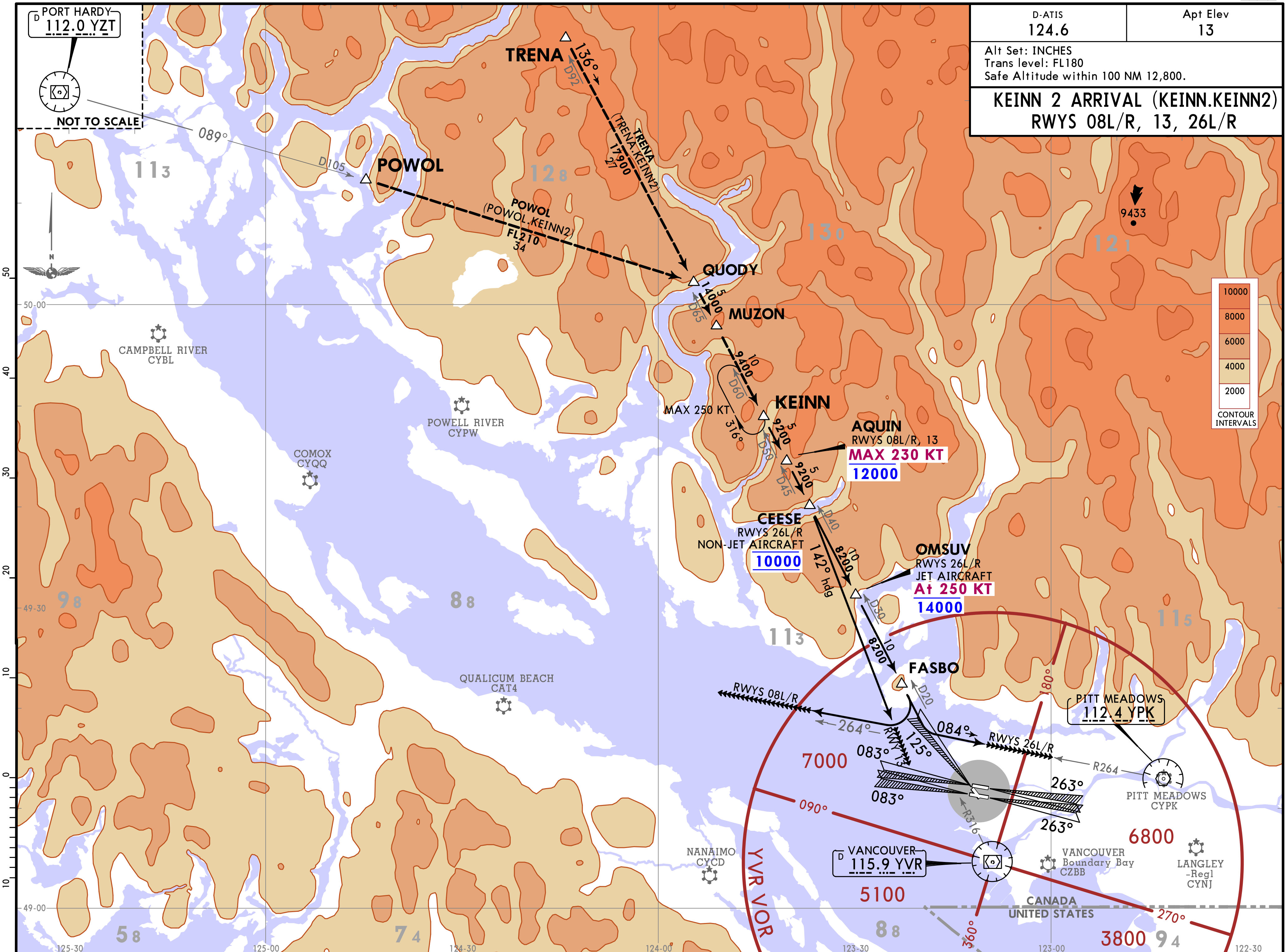
ISLAND 5 ARRIVAL (MEPMU.ILAND5)
(RWYS 08L/R, 13)



D-ATIS	Apt Elev
124.6	13

Alt Set: INCHES
Trans level: FL180
Safe Altitude within 100 NM 12,800.

KEINN 2 ARRIVAL (KEINN.KEINN2)
RWYS 08L/R, 13, 26L/R

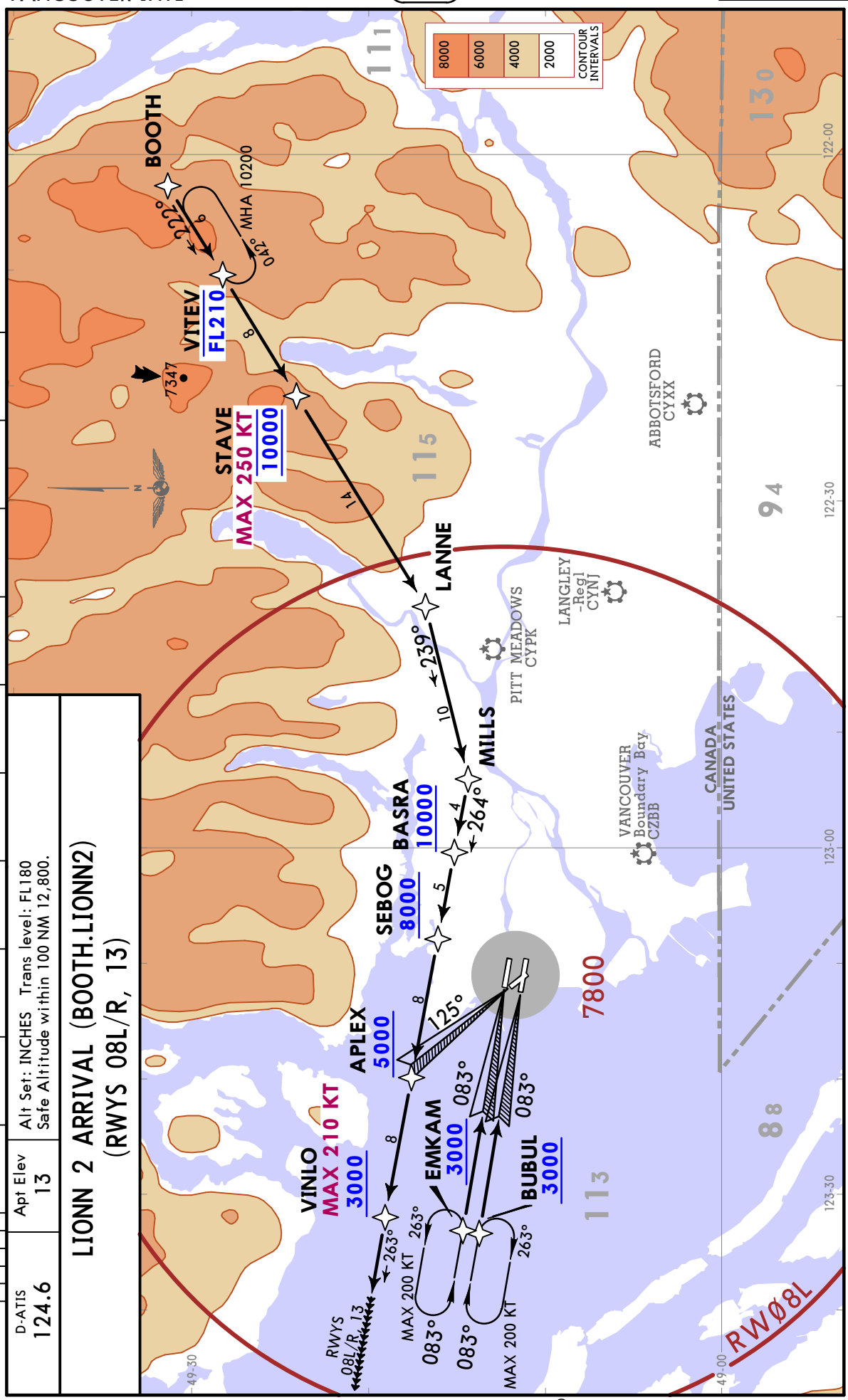

PORT HARDY
D 112.0 YZT
NOT TO SCALE
089°
D105
POWOL
POWOL
(POWOL.KEINN2)
FL210
34
TRENA
136°
D92
TRENA
(TRENA.KEINN2)
17900
27
QUODY
5
14000
D65
MUZON
10
9400
D60
MAX 250 KT
316°
KEINN
5
9200
D50
AQUIN
RWYS 08L/R, 13
MAX 230 KT
12000
5
9200
D45
CEESE
RWYS 26L/R
NON-JET AIRCRAFT
10000
D40
10
8200
142° hdg
OMSUV
RWYS 26L/R
JET AIRCRAFT
At 250 KT
14000
D30
10
8200
FASBO
D20
084°
RWYS 26L/R
RWYS 08L/R
264°
083°
RWY 13
125°
083°
263°
263°
R264
R316
PITT MEADOWS
112.4 YPK
PITT MEADOWS
CYPK
VANCOUVER
D 115.9 YVR
VANCOUVER
Boundary Bay
CZBB
LANGLEY
-Regl
CYNJ
CANADA
UNITED STATES
YVR VOR
180°
090°
270°
360°
7000
6800
5100
3800
CAMPBELL RIVER
CYBL
POWELL RIVER
CYPW
COMOX
CYQQ
QUALICUM BEACH
CAT4
NANAIMO
CYCD
9433
113
128
130
121
115
113
98
88
58
74
88
94
10000
8000
6000
4000
2000
CONTOUR INTERVALS
50-00
49-30
49-00
125-30
125-00
124-30
124-00
123-30
123-00
122-30
50
40
30
20
10
0
10

CHANGES: MSA.

CYVR/YVR
VANCOUVER INTL

JEPPESEN
2 SEP 22 (10-2J) Eff 8 Sep

VANCOUVER, BC
RNAV STAR



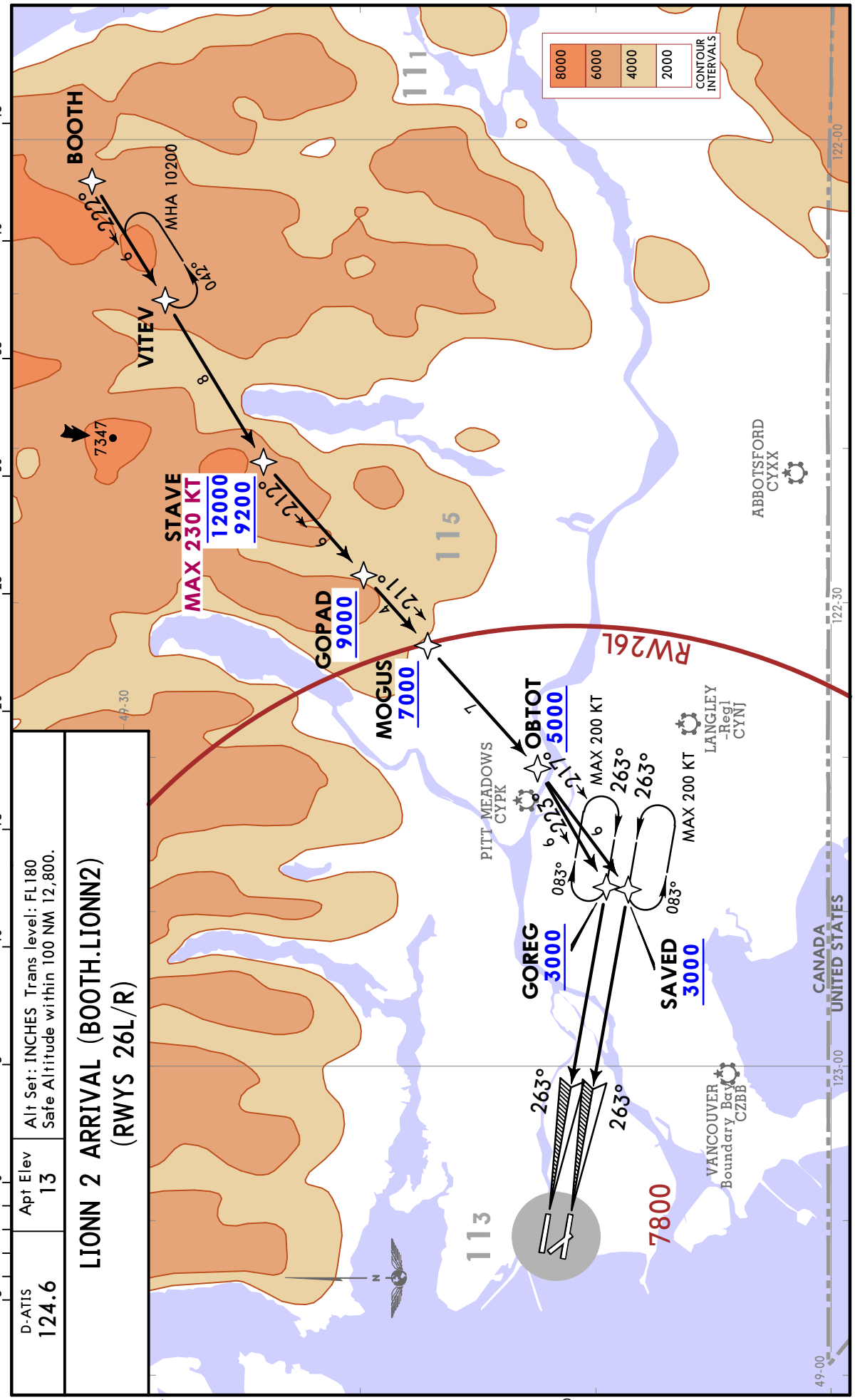
LIONN 2 ARRIVAL (BOOTH.LIONN2)
(RWYS 08L/R, 13)

Alt Set: INCHES Trans level: FL180
Safe Altitude within 100 NM 12,800.

Apt Elev 13

D-ATIS 124.6

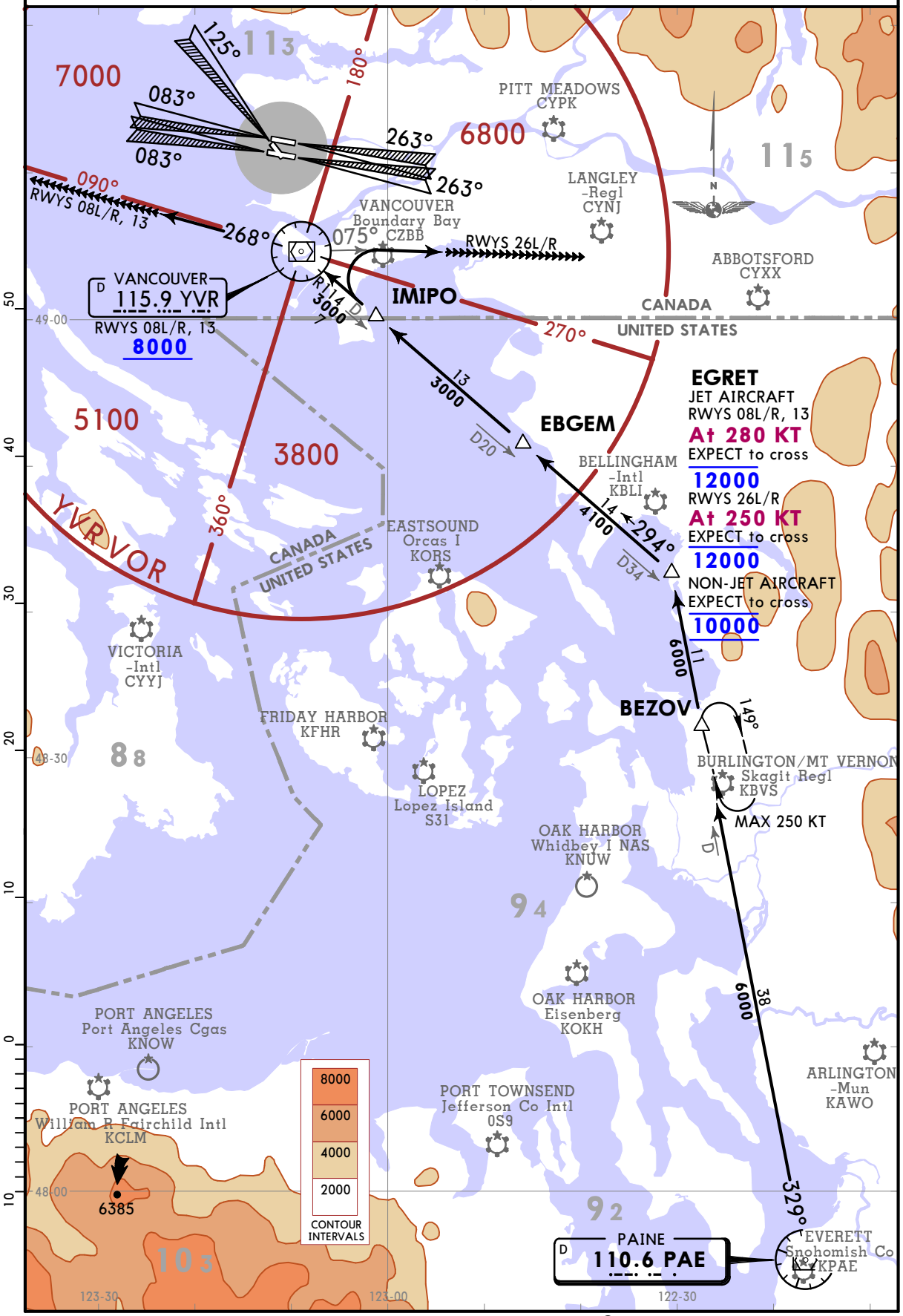
CHANGES: None.



CHANGES: MSA revised.

D-ATIS	Apt Elev	
124.6	13	Alt Set: INCHES Trans level: FL180 Safe Altitude within 100 NM 12,800.

PAINE 4 ARRIVAL (PAE.PAINE4)
RWYS 08L/R, 13, 26L/R



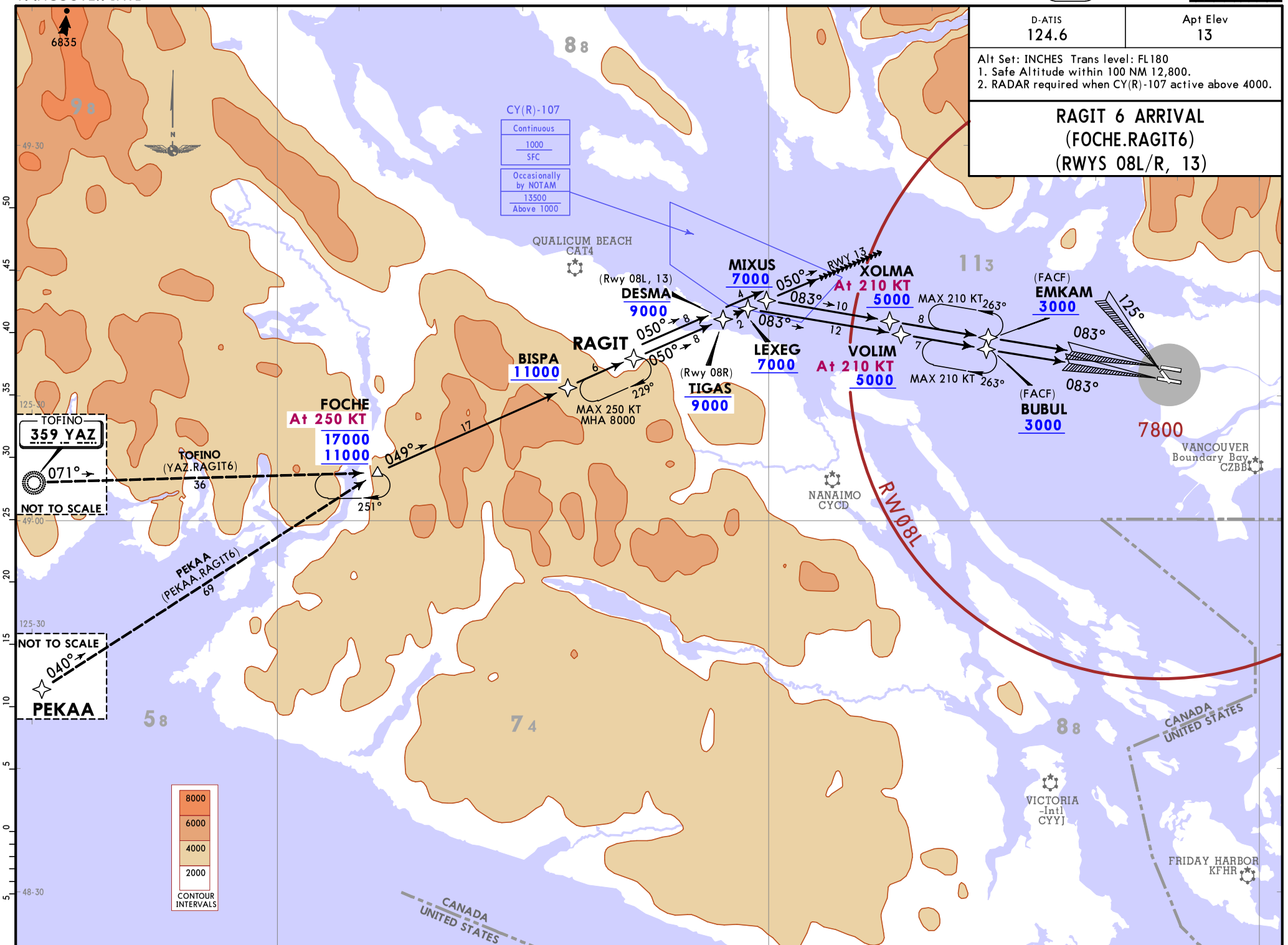
CHANGES: None.

JEPPESEN VANCOUVER, BC
17 FEB 23 (10-2M) Eff 23 Feb
RNAV STAR

D-ATIS	Apt Elev
124.6	13

Alt Set: INCHES Trans level: FL180
1. Safe Altitude within 100 NM 12,800.
2. RADAR required when CY(R)-107 active above 4000.

RAGIT 6 ARRIVAL
(FOCHE.RAGIT6)
(RWYS 08L/R, 13)



CHANGES: None.

D-ATIS	Apt Elev	Alt Set: INCHES Trans level: FL180 Safe Altitude within 100 NM 12,800.
124.6	13	

SHARK 2 ARRIVAL
(CASDY.SHARK2)
(RWYS 26L/R)

7150

TOFINO
359 YAZ

071°

TOFINO
(YAZ.SHARK2)
36

FOCHE

072°

20

251°

ANVAP
FL220
11000

073°

13

CASDY

073°

12.5

URMIX
MAX 250 KT
12000
10000

13

ATUKI
10000

7

075°

13

VANCOUVER
115.9 YVR
8000

(FACF)
SAVED
3000

(FACF)
GOREG
3000

263°

263°

083°

MAX 200 KT

263°

263°

083°

MAX 200 KT

RWYS 26L/R

(DTW)
PEMSU
MAX 210 KT
3000

PEKAA
(PEKAA.SHARK2)
69

040°

NOT TO SCALE

PEKAA

RW26L

7800

8000
6000
4000
2000
CONTOUR INTERVALS

COMOX
CYQQ

QUALICUM BEACH
CAT4

NANAIMO
CYCD

VANCOUVER
Boundary Bay
CZBB

PITT MEADOWS
CYPK

LANGLEY
-Regl
CYNJ

BELLINGHAM
-Intl
KBLI

EASTSOUND
Orcas I
KORS

VICTORIA
-Intl
CYYJ

FRIDAY HARBOR
KFHR

LOPEZ
Lopez Island
S31

OAK HARBOR
Whidbey I NAS
KNUW

OAK HARBOR
Eisenberg
KOKH

PORT ANGELES
Port Angeles Cgas
KNOW

PORT ANGELES
William R Fairchild Intl
KCLM

CANADA
UNITED STATES

CANADA
UNITED STATES

49-30
49-00
48-30
125-30
125-00
124-30
124-00
123-00

CHANGES: MSA revised.

CYVR/YVR
VANCOUVER INTL

JEPPESEN
17 FEB 23 (10-2P) Eff 23 Feb

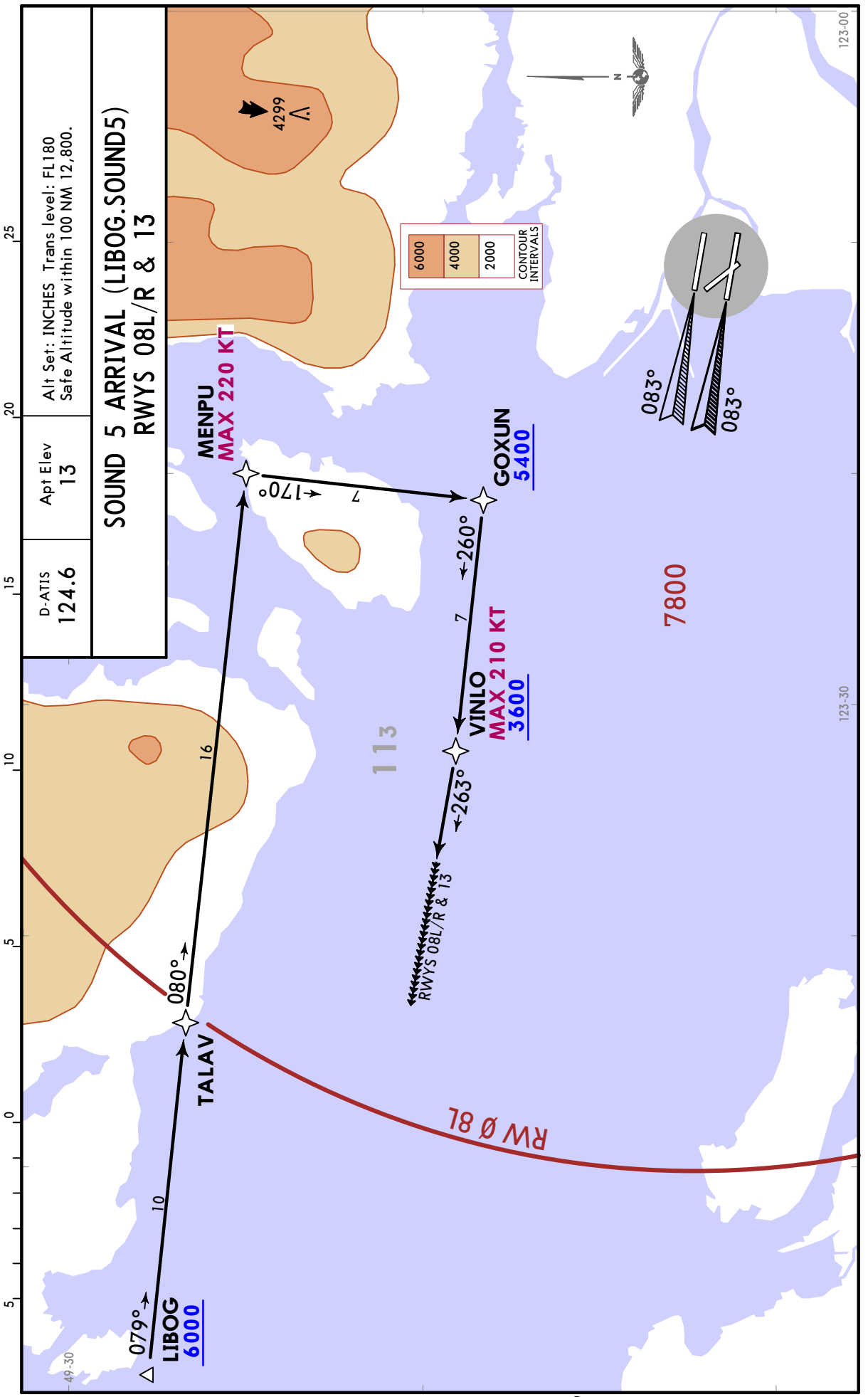
VANCOUVER, BC
RNAV STAR

SOUND 5 ARRIVAL (LIBOG.SOUND5)
RWYS 08L/R & 13

Alt Set: INCHES Trans level: FL180
Safe Altitude within 100 NM 12,800.

Apt Elev 13

D-ATIS 124.6



CHANGES: None.

CYVR/YVR
VANCOUVER INTL

JEPPESEN
17 FEB 23 (10-2Q) Eff 23 Feb

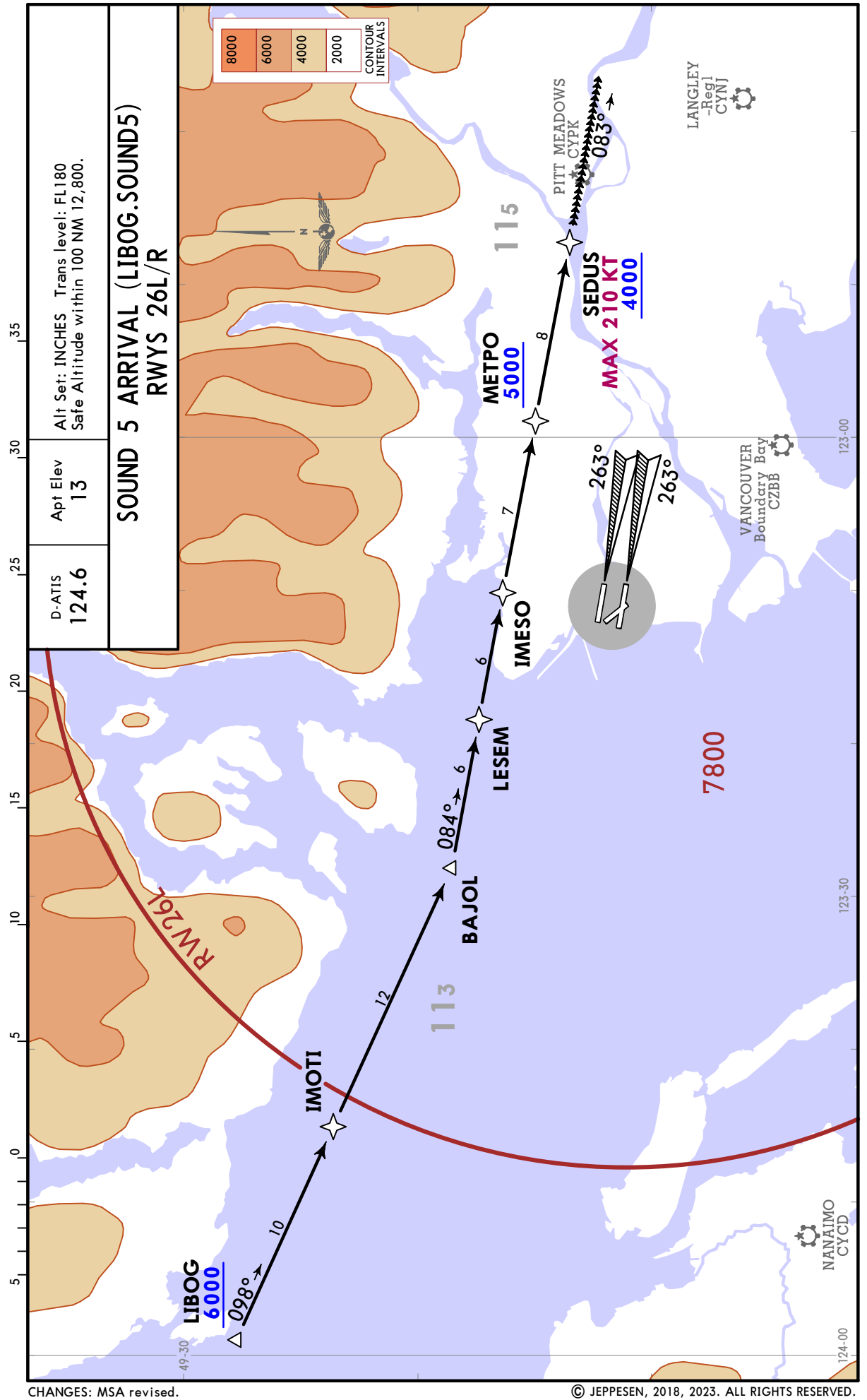
VANCOUVER, BC
RNAV STAR

SOUND 5 ARRIVAL (LIBOG.SOUND5)
RWYS 26L/R

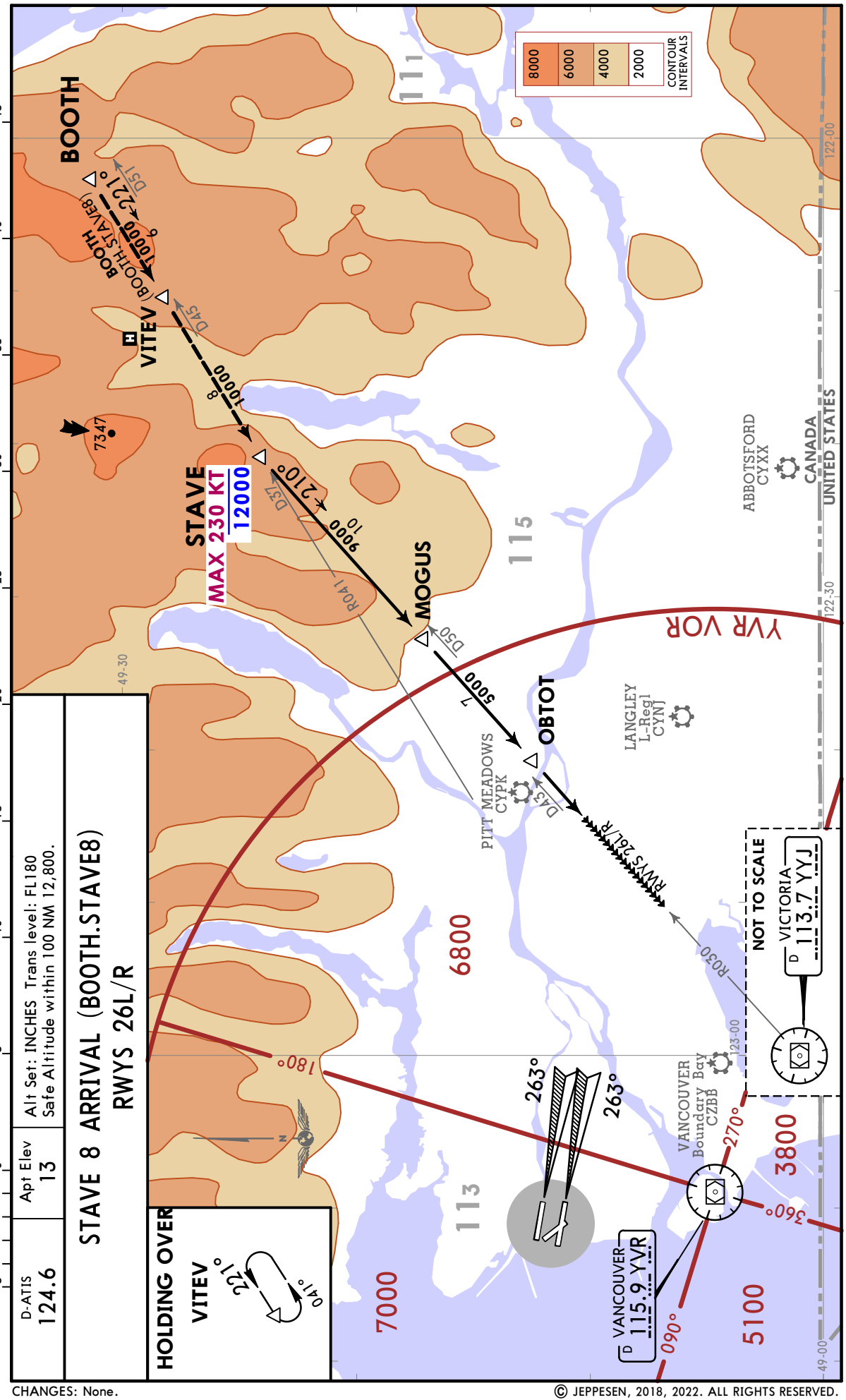
D-ATIS 124.6

Apt Elev 13

Alt Set: INCHES Trans level: FL180
Safe Altitude within 100 NM 12,800.



CHANGES: MSA revised.



VITEV 4 ARRIVAL (BOOTH.VITEV4) RWYS 26L/R

D-ATIS 124.6

Apt Elev 13

Alt Set: INCHES Trans level: FL180
Safe Altitude within 100 NM 12,800.

CONTOUR INTERVALS: 8000 6000 4000 2000

BOOTH

222° 6

VITEV

047° 8

STAVE
At 230 KT
12000
10000

247° 8

GONIR
9500

246 9

PILGO

RW26L

9

157° 6

ILUXU
MAX 220 KT
6700

METPO
6100

084° 8

SEDUS
MAX 210 KT
4000

083°

PITT MEADOWS
CYPK

RWYS 26L/R

LANGLEY
-Regl
CYNJ

263° 263°

VANCOUVER
Boundary Bay
CZBB

7347

111 115 113

7800

122-00 122-30 123-00 49-30

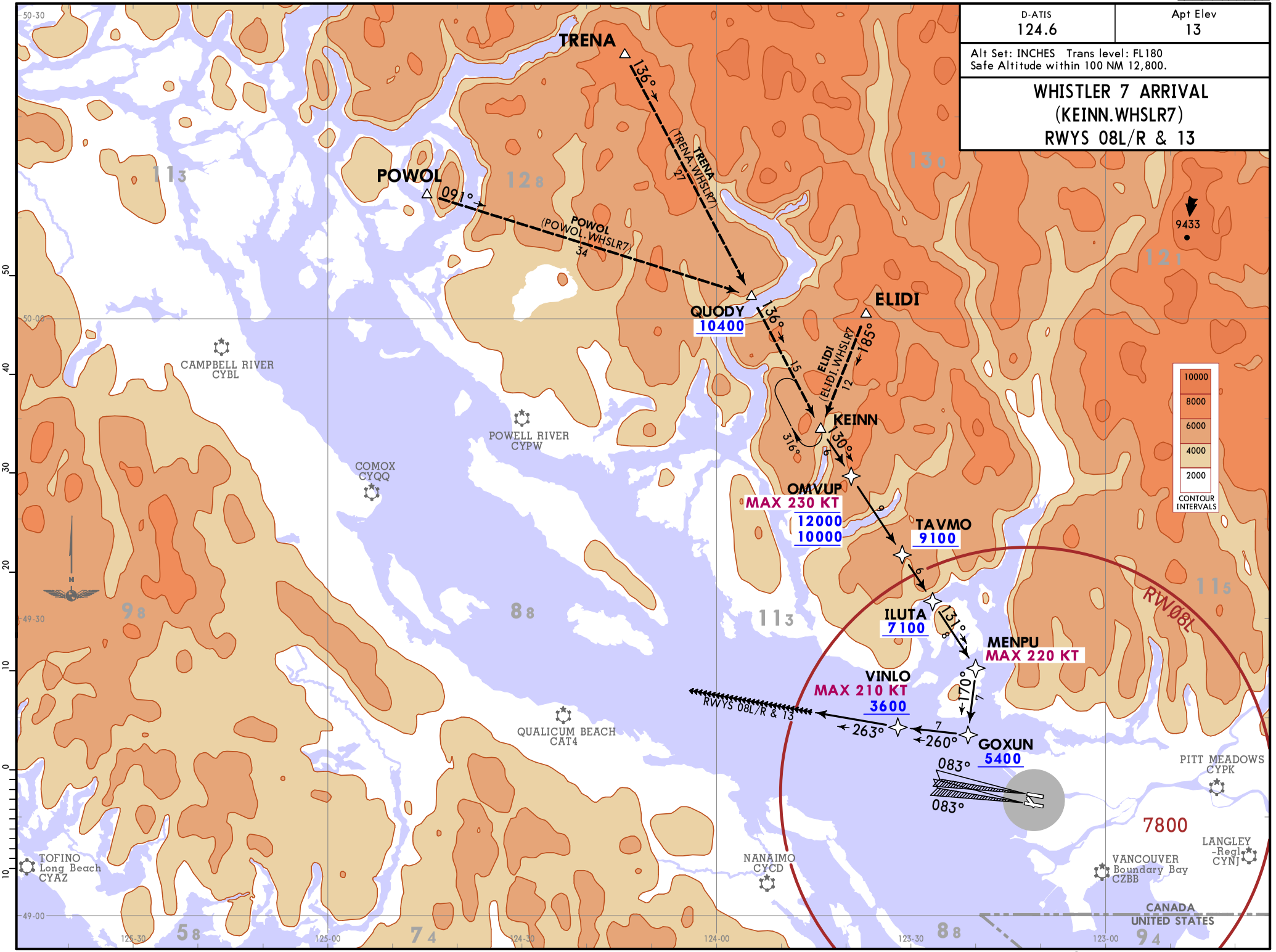
CHANGES: MSA revised.

JEPPESEN VANCOUVER, BC
17 FEB 23 (10-2U) Eff 23 Feb RNAV STAR

D-ATIS	Apt Elev
124.6	13

Alt Set: INCHES Trans level: FL180
Safe Altitude within 100 NM 12,800.

WHISTLER 7 ARRIVAL
(KEINN.WHSLR7)
RWYS 08L/R & 13



CHANGES: None.

JEPPESEN
17 FEB 23 (10-2V) Eff 23 Feb

VANCOUVER, BC
RNAV STAR

D-ATIS	Apt Elev	Alt Set: INCHES Trans level: FL180
124.6	13	Safe Altitude within 100 NM 12,800.

WHISTLER 7 ARRIVAL (KEINN.WHSLR7)
RWYS 26L/R

TRENA
136°
(TRENA.WHSLR7)
27
TRENA.WHSLR7)
POWOL
091°
POWOL
(POWOL.WHSLR7)
34
QUODY
10400
136°
15
ELIDI
185°
ELIDI
(ELIDI.WHSLR7)
12
KEINN
316°
10
CEESE
NON-JET AIRCRAFT
10000
10
OMSUV
JET AIRCRAFT
At 250 KT
14000
10000
135°
16
RW26L
LESEM
10000
084°
6
IMESO
8000
7
METPO
5000
8
SEDUS
MAX 210 KT
4000
PITT MEADOWS
CYPK
083°
RWYS 26L/R
263°
263°
LANGLEY
-Regl
CYNJ
VANCOUVER
Boundary Bay
CZBB
7800
9433

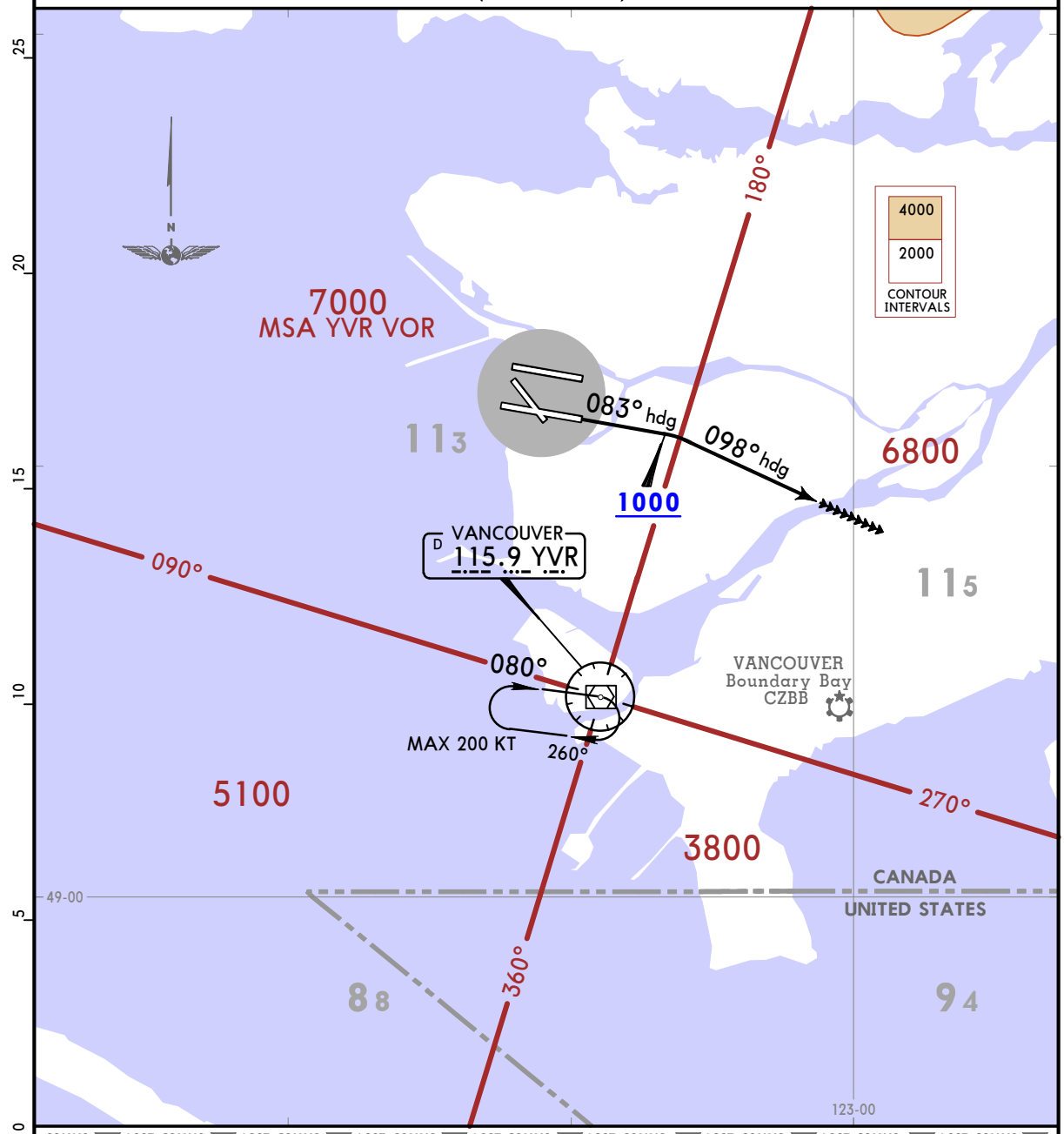
CONTOUR INTERVALS
10000
8000
6000
4000
2000

CAMPBELL RIVER
CYBL
POWELL RIVER
CYPW
COMOX
CYQQ
QUALICUM BEACH
CAT4
NANAIMO
CYCD
CANADA
UNITED STATES

CHANGES: MSA revised.

VANCOUVER Departure		Apt Elev	
NORTH	SOUTH	13	Trans alt: 18000 1. Safe Altitude within 100 NM 12,800. 2. Jet aircraft use Noise Abatement Departure Procedure 1 or 2. 3. Refer to 10-4 Noise Abatement Procedures for additional requirements.
126.12	132.3		

FRASER 7 DEPARTURE (FSR7.) (VECTOR)
(RWY 08R)



COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST COMMS

LOST COMMS ▶ On recognition of failure 5 minutes or less after take-off, below 7000 and in IFR weather conditions, proceed as follows:
1. Select transponder code 7600.
2. Beyond D10.0 of YVR MAINTAIN last assigned altitude, RIGHT turn direct to YVR VOR. Hold inbound R-260.
3. Proceed on course 5 minutes after selecting 7600 and climb to flight planned altitude.
If communication failure occurs more than 5 minutes after take-off, comply with the appropriate procedure for communication failure enroute.

◀ LOST COMMS

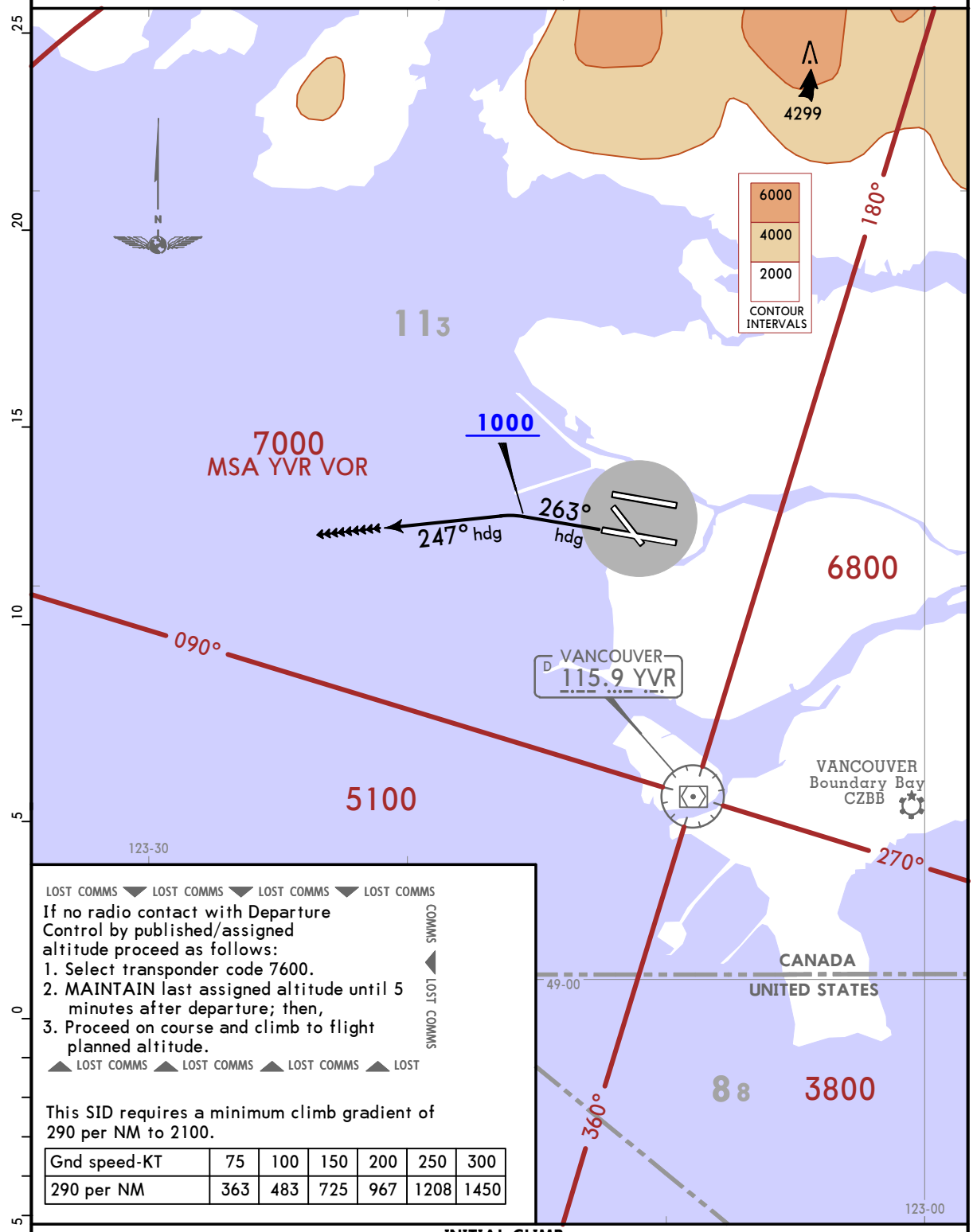
INITIAL CLIMB

Climb heading 083° to 1000. Then climbing RIGHT turn heading 098° or as assigned by ATC. MAINTAIN 7000 or as assigned. EXPECT RADAR vectors to filed/assigned route and clearance to flight planned altitude/flight level 5 minutes after departure.

CHANGES: MSA.

VANCOUVER Departure		Apt Elev	
NORTH	SOUTH	13	Trans alt: 18000 1. CAUTION: Simultaneous parallel departures may be in use. 2. Safe Altitude within 100 NM 12,800. 3. Jet aircraft use Noise Abatement Departure Procedure 1 or 2. 4. Refer to 10-4 Noise Abatement Procedures for additional requirements.
126.12	132.3		

GEORGIA 6 DEPARTURE (GRG6.) (VECTOR)
(RWY 26L)



LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST COMMS

If no radio contact with Departure Control by published/assigned altitude proceed as follows:

1. Select transponder code 7600.
2. MAINTAIN last assigned altitude until 5 minutes after departure; then,
3. Proceed on course and climb to flight planned altitude.

COMMS ◀ LOST COMMS

▲ LOST COMMS ▲ LOST COMMS ▲ LOST COMMS ▲ LOST

This SID requires a minimum climb gradient of 290 per NM to 2100.

Gnd speed-KT	75	100	150	200	250	300
290 per NM	363	483	725	967	1208	1450

INITIAL CLIMB

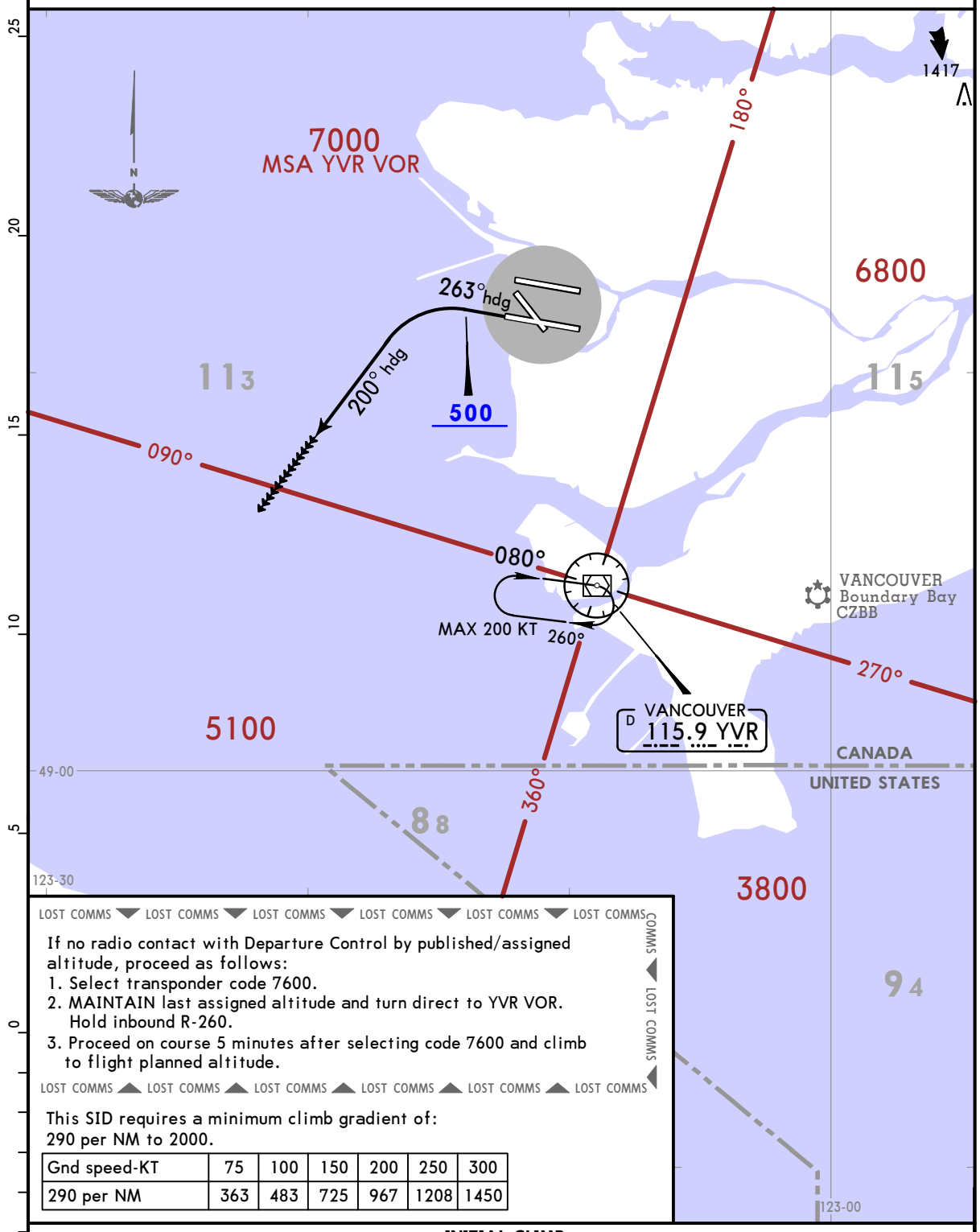
Climb heading 263° to 1000. Then climbing LEFT turn heading 247° or as assigned by ATC. MAINTAIN 7000 or as assigned. EXPECT RADAR vectors to filed/assigned route or depicted fix and clearance to flight planned altitude/flight level 5 minutes after departure.

CHANGES: MSA.

VANCOUVER Departure (SOUTH) 132.3	Apt Elev 13	Trans alt: 18000 1. Safe altitude within 100 NM 12,800. 2. Non-Jet aircraft only. 3. Refer to 10-4 Noise Abatement Procedures for additional requirements.

RICHMOND 7 DEPARTURE (RICHM7.) (VECTOR)
(RWY 26L)

SPEED: DO NOT EXCEED 165 KT IN CLIMB UNTIL IN CONTACT WITH DEPARTURE CONTROL AND PASSING 4000



LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST COMMS

If no radio contact with Departure Control by published/assigned altitude, proceed as follows:
1. Select transponder code 7600.
2. MAINTAIN last assigned altitude and turn direct to YVR VOR. Hold inbound R-260.
3. Proceed on course 5 minutes after selecting code 7600 and climb to flight planned altitude.

LOST COMMS ▲ LOST COMMS ▲ LOST COMMS ▲ LOST COMMS ▲ LOST COMMS ▲ LOST COMMS

COMMS LOST COMMS

This SID requires a minimum climb gradient of:
290 per NM to 2000.

Gnd speed-KT	75	100	150	200	250	300
290 per NM	363	483	725	967	1208	1450

INITIAL CLIMB

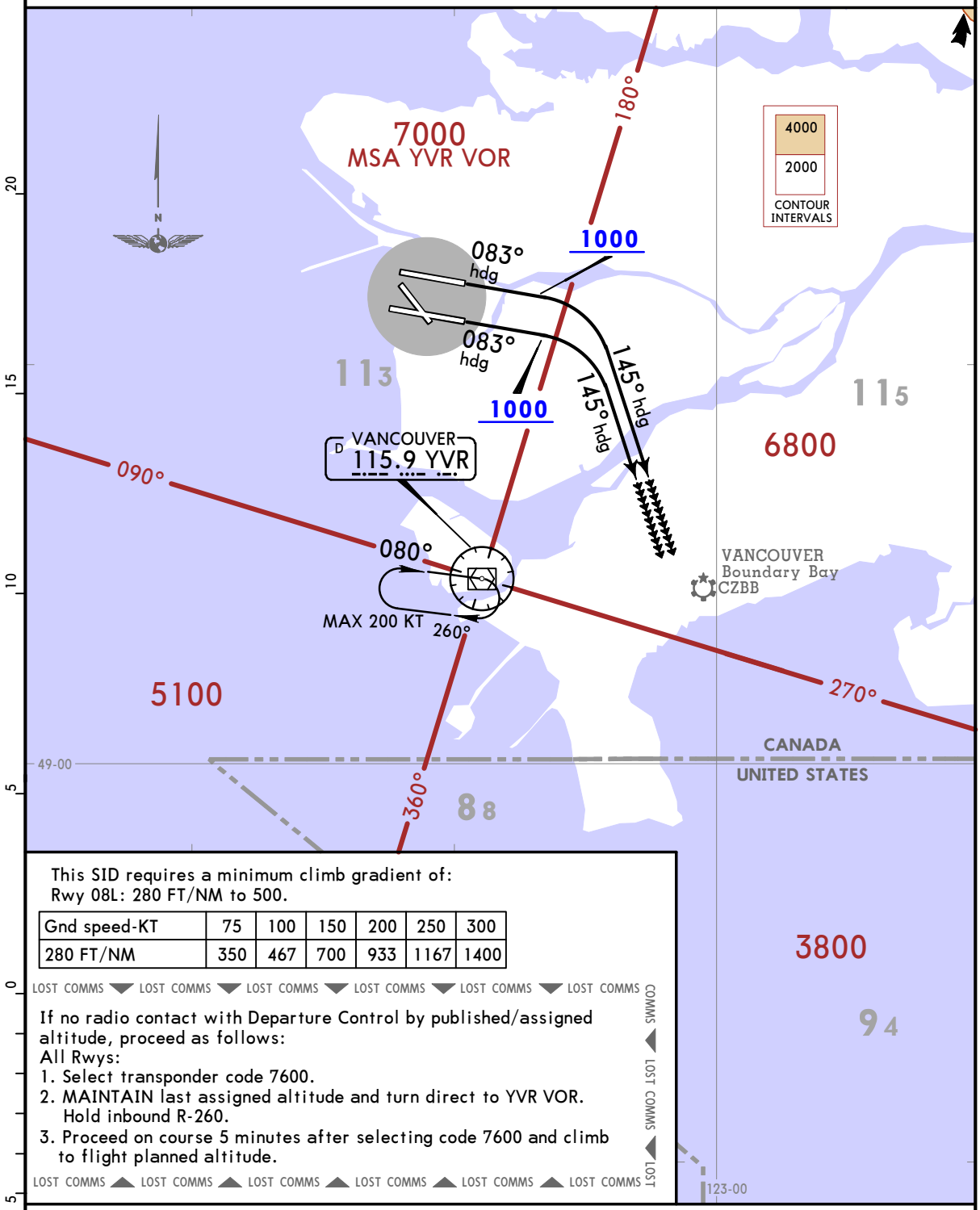
Climb heading 263° to 500. Then climbing LEFT turn heading 200° or as assigned by ATC.
Contact Departure Control after passing 1000 unless instructed otherwise by ATC. MAINTAIN 2000 or as assigned. EXPECT RADAR vectors to filed/assigned route or depicted fix and clearance to flight planned altitude/flight level 10 minutes after departure.

CHANGES: MSA.

VANCOUVER Departure (SOUTH) 132.3	Apt Elev 13	Trans alt: 18000 1. Safe altitude within 100 NM 12,800. 2. Non-Jet aircraft only. 3. Refer to 10-4 Noise Abatement Procedures for additional requirements.

STANLEY 5 DEPARTURE (STNLE5.)
(VECTOR)
(RWYS 08L/R)

SPEED: DO NOT EXCEED 165 KT IN CLIMB UNTIL IN CONTACT WITH DEPARTURE CONTROL AND PASSING 4000



This SID requires a minimum climb gradient of:
Rwy 08L: 280 FT/NM to 500.

Gnd speed-KT	75	100	150	200	250	300
280 FT/NM	350	467	700	933	1167	1400

LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST COMMS

If no radio contact with Departure Control by published/assigned altitude, proceed as follows:
All Rwys:
1. Select transponder code 7600.
2. MAINTAIN last assigned altitude and turn direct to YVR VOR. Hold inbound R-260.
3. Proceed on course 5 minutes after selecting code 7600 and climb to flight planned altitude.

LOST COMMS ▲ LOST COMMS ▲ LOST COMMS ▲ LOST COMMS ▲ LOST COMMS ▲ LOST COMMS

LOST COMMS ◀ LOST COMMS ◀ LOST COMMS

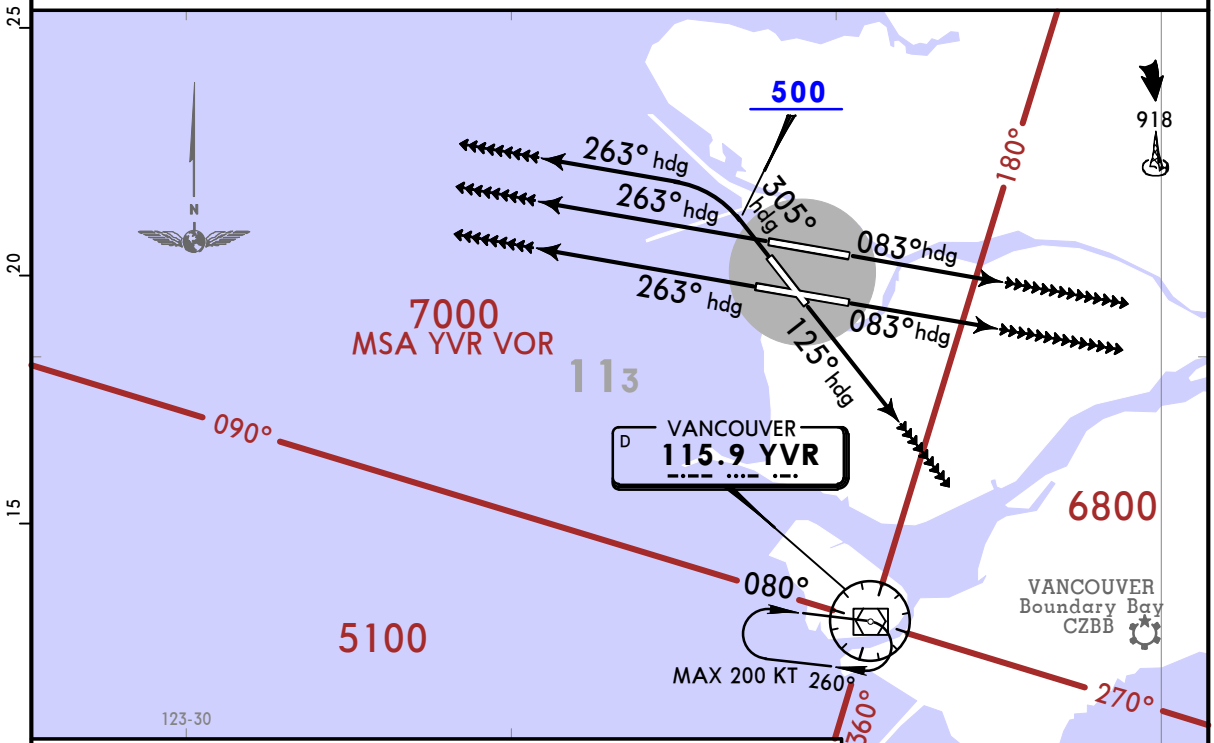
INITIAL CLIMB

Climb heading 083° to 1000. Then climbing RIGHT turn heading 145° or as assigned by ATC. MAINTAIN 2000 or as assigned. EXPECT RADAR vectors to filed/assigned route and clearance to flight planned altitude/flight level 10 minutes after departure.

CHANGES: Procedure renumbered, climb gradient, MSA.

VANCOUVER Departure		Apt Elev	Trans alt: 18000
NORTH	SOUTH	13	1. Safe altitude within 100 NM 12,800.
126.125	132.3		2. Non-Jet aircraft do not exceed 165 KT in climb until in contact with Departure Control and passing 4000.
			3. Jet aircraft use Noise Abatement Departure Procedure 1 or 2.
			4. Refer to 10-4 Noise Abatement Procedures for additional requirements.

VANCOUVER 2 DEPARTURE (YVR2.)
(VECTOR)
(ALL RWYS)



This SID requires a minimum climb gradients of:
Rwy 08L: 280 FT/NM to 500.
Rwys 26L/R: 290 FT/NM to 2100.

Gnd speed-KT	75	100	150	200	250	300
280 FT/NM	350	467	700	933	1167	1400
290 FT/NM	363	483	725	967	1208	1450

LOST COMMS

On recognition of failure 5 minutes or less after take-off, below 7000 and in IFR weather conditions, proceed as follows:

Rwys 08L/R:

1. Select transponder code 7600.
2. Beyond D10.0 of YVR VOR MAINTAIN last assigned altitude, RIGHT turn direct to YVR VOR. Hold inbound R-260.
3. Proceed on course 5 minutes after selecting 7600 and climb to flight planned altitude.

Rwys 13, 26L/R, 31:

1. Select transponder code 7600.
2. Proceed on course 5 minutes after selecting 7600 and climb to flight planned altitude.

If communication failure occurs more than 5 minutes after take-off, comply with appropriate procedures for communication failure enroute.

RWY	INITIAL CLIMB
08L/R	Climb heading 083° or as assigned by ATC.
13	Climb heading 125° or as assigned by ATC. NOTE: Building to 50 approximately 0.15 NM past DER, 685 LEFT of runway centerline. Tower to 50 approximately 0.2 NM past DER, 500 LEFT of runway centerline.
26L/R	Climb heading 263° or as assigned by ATC.
31	Climb heading 305° to 500. Then climbing LEFT turn heading 263° or as assigned by ATC.

ROUTING

MAINTAIN 7000 or as assigned. EXPECT RADAR vectors to filed/assigned route and clearance to flight planned altitude/flight level 5 minutes after departure.

CHANGES: Procedure renumbered, climb gradient, MSA.

NOISE ABATEMENT PROCEDURES

APPLICATION

These procedures apply to JET AIRCRAFT unless noted otherwise.

DEPARTURE PROCEDURES

JET AIRCRAFT

1. Noise Abatement Departure Procedure 1 or 2 required for all runways. See Jeppesen Canada ATC para 7.6. Advise ATC CLNC DEL if using Noise Abatement Departure Procedure 1. Follow SID to 3000′ before proceeding on course.
2. Rwy 08R between 2300-0600 local time; aircraft on westerly routes follow assigned SID to 2000′ before proceeding on course.
3. ICAO Annex 16 Chapter 2 or FAA FAR Part 36 Stage 2 certified aircraft; departures on Rwys 08L and 26R not permitted.

ARRIVAL PROCEDURES

IFR APPROACHES & PUBLISHED VISUAL APPROACHES

Use low power/drag profiles consistent with safe operating procedures, conforming to published visual approaches and as directed by ATC.

VFR APPROACHES

Conform to published VTA routes and as directed by ATC.

REVERSE THRUST - LANDING

All Rwys: Use of reverse thrust is to be avoided or reduced when conditions permit.

NIGHT RESTRICTIONS

LOCAL TIME	Procedure
1. 0001-0600	Departure of ICAO Annex 16 Chapter 2 or FAA FAR Part 36 Stage 2 certified JET AIRCRAFT 34,000 kg (74,957 lbs) and over not permitted.
2. 0001-0600	Departure of JET AIRCRAFT rated over 34,000 kg (74,957 lbs) (MTOW), regardless of actual take-off weight, require prior approval from YVRAA OPERATIONS.
3. 2200-0700	Departure/Arrival of ALL AIRCRAFT on Rwys 08L & 26R not permitted.*
4. 2200-0700	Local training flights not permitted.

* See CONTACT and APPROVALS Section.

ALL AIRCRAFT (PRIORITY FLIGHTS EXEMPT)

LOCAL TIME	Preferencial Runway Usage
1. 0600-2300 One direction flow	Defer to westerly flow. Minimize departures on runway 13 and arrivals on runway 31.
2. 2300-0600 Two direction flow	Westerly flow for departures and easterly flow for arrivals. Minimize departures on runway 13 and arrivals on runway 31.
Subject to limiting factors including: physical condition of surfaces; irregular airfield operations; crosswind and tailwind conditions: and, traffic volume. (MEDEVACS EXEMPT).	

IT IS THE PILOT'S RESPONSIBILITY TO ADHERE TO PUBLISHED NOISE ABATEMENT PROCEDURES.

CHANGES: Reverse Thrust - Landing.

NOISE ABATEMENT PROCEDURES

ENGINE RUN-UP RESTRICTIONS

Maintenance engine run-ups for ALL AIRCRAFT require prior approval from YVRAA OPERATIONS. Guidelines are contained in the Airport Operations Directive, Aircraft Engine Run-ups.

ALTITUDE RESTRICTIONS

1. Exclusive of the Departure and Arrival procedures, no departing or arriving aircraft shall operate over the City at less than 5000′ MSL (8000′ between 2300 - 0700 local time- except aircraft operating on published RNAV STAR).

2. The City is defined as that area lying between the South Arm of the Fraser River and the North Shore of Burrard Inlet and from Point Gray to the eastern boundary of the Vancouver Control Zone.

CONTACT and APPROVALS

Night Restrictions #3: YVRAA OPERATIONS may permit exemptions for emergencies and airfield maintenance. **Tel: 604-207-7022; Fax: 604-276-6099 (24 hours)**

IT IS THE PILOT′S RESPONSIBILITY TO ADHERE TO PUBLISHED NOISE ABATEMENT PROCEDURES.

CODED TAXI ROUTES

READ BACK: "CODE ROUTE (name) AND ASSIGNED RUNWAY"

Monitor tower frequency approaching the hold line of the assigned runway, unless otherwise instructed by ATC.

Rwy 08R/26L - Tower 118.7 Rwy 08L/26R - Tower 119.55

CODE	TAXI ROUTE
Echo	Rwy 08R - E, D, H, hold short L. Rwy 08L - E, D, H, hold short V, contact Ground 127.15 (expect taxi via H, M, M10). Rwy 26R - E, D, H, hold short V, contact Ground 127.15 (expect taxi via V, M, M9). Rwy 26L - E, D.
Golf	Rwy 08R - G, H, hold short L. Rwy 08L - G, H, hold short V, contact Ground 127.15 (expect taxi via H, M, M10). Rwy 26R - G, H, hold short V, contact Ground 127.15 (expect taxi via V, M, M9). Rwy 26L - G, H, D.
❶ Juliet-Alpha	Rwy 08R - JA, J, K, V, hold short H, contact Ground 121.7 (expect taxi via V, L). Rwy 08L - JA, J, M, M10. Rwy 26R - JA, J, M, M9. Rwy 26L - JA, J, K, V, hold short H, contact Ground 121.7 (expect taxi via H, D).
❶ Juliet-Bravo	Rwy 08R - JB, J, K, V, hold short H, contact Ground 121.7 (expect taxi via V, L). Rwy 08L - JB, J, M, M10. Rwy 26R - JB, J, M, M9. Rwy 26L - JB, J, K, V, hold short H, contact Ground 121.7 (expect taxi via H, D).
❶ Juliet-Charlie	Rwy 08R - JC, K, V, hold short H, contact Ground 121.7 (expect taxi via V, L). Rwy 08L - JC, J, M, M10. Rwy 26R - JC, J, M, M9. Rwy 26L - JC, K, V, hold short H, contact Ground 121.7 (expect taxi via H, D).
Lima	Rwy 08L - L, H, hold short V, contact Ground 127.15 (expect taxi via H, M, M10). Rwy 26R - L, H, hold short V, contact Ground 127.15 (expect taxi via V, M, M9). Rwy 26L - L, J, H, D.
❶ Papa	Rwy 08R - P, M, V, hold short H, contact Ground 121.7 (expect taxi via V, L). Rwy 08L - P, M, M10. Rwy 26R - P, M, M9. Rwy 26L - P, M, V, hold short H, contact Ground 121.7 (expect taxi via H, D).
Sierra	Rwy 08R - S, M, V, hold short H, contact Ground 121.7 (expect taxi via V, L). Rwy 08L - S, M, M10. Rwy 26R - S, M, M9. Rwy 26L - S, M, V, hold short H, contact Ground 121.7 (expect taxi via H, D).
❶ Tango	Rwy 08R - T, M, V, hold short H, contact Ground 121.7 (expect taxi via V, L). Rwy 08L - T, M, M10. Rwy 26R - T, M, M9. Rwy 26L - T, M, V, hold short H, contact Ground 121.7 (expect taxi via H, D).

❶ Taxi routes for A340-600/B777-300/A350-900/A350-1000.

2023 SUMMER CONSTRUCTION AT CYVR: TAXIWAYS L, L2, L4 AND D3 REHABILITATION AND IMPROVEMENTS (SUP 15/23)

Introduction

From late March to Mid-December 2023, Vancouver International Airport (CYVR) will be conducting multiple airfield construction projects, impacting several surfaces on the south airfield. The following projects will take place between Late March 2023 to Late October 2023:

- Taxiway L Rehabilitation
- Taxiway L2 Improvements
- Taxiway L4 Improvements
- Taxiway D3 Improvements

Since all activities are subject to operational requirements and construction schedules, actual dates and times of surface closures relating to construction activities will be promulgated through briefing documents and NOTAM.

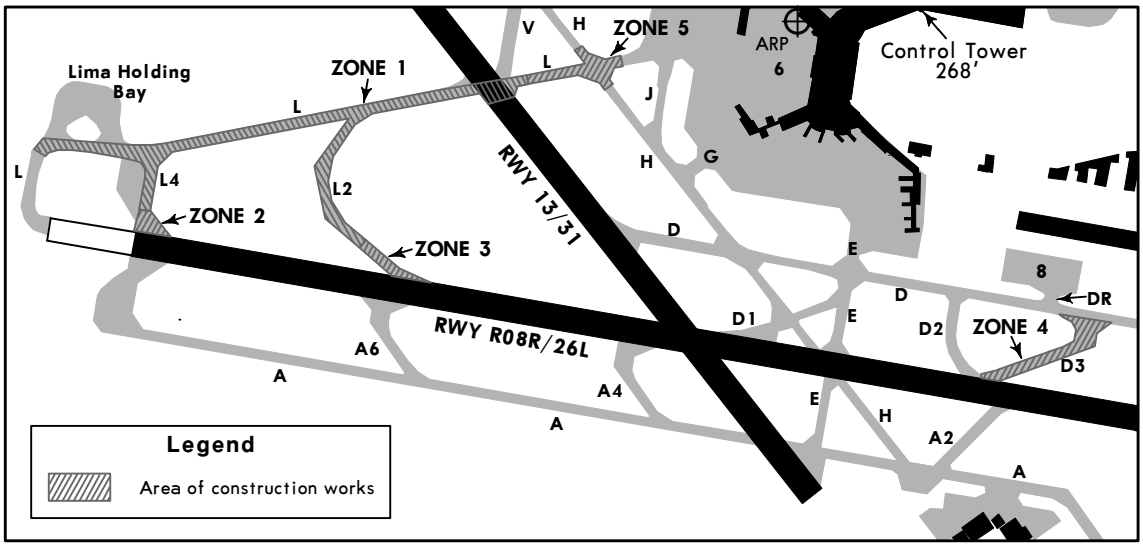


Figure 1: Work Zones

General Airfield Impacts During Construction

Date	Facility	Impact	Work Zone(s)
Late March - Late June	Twy L and Rwy 13/31 Intersection	**CLOSED** Daytime Work	Zone 1
Late March - Late July	Twy L between Rwy 13/31 and Twy L4	**CLOSED** Daytime Work	Zone 1
Late March - Late July	Twy L between Twy L4 and 08R Holding Position	**CLOSED** Daytime Work	Zone 1
Early July - Late July	Twy L between Twy J and Rwy 13/31	**CLOSED** Nighttime Work	Zone 5
Late March - Late October	Twy L2 within Rwy 08R/26L Strip	**CLOSED** Nighttime Work	Zone 3
	Twy L2 outside Rwy 08R/26L Strip	**CLOSED** Daytime Work	Zone 1
Late March - Late July	Twy L4 within Rwy 08R/26L Strip	**CLOSED** Nighttime Work	Zone 2
	Twy L4 outside Rwy 08R/26L Strip	**CLOSED** Daytime Work	Zone 1
Early July - Late October	Twy D3	**CLOSED** Nighttime Work	Zone 4

Details of any procedure or level of service changes implemented due to this construction activity will be promulgated via NOTAM.

CHANGES: New construction chart.

D-ATIS	Data Comm: D-ATIS PDC	VANCOUVER Clearance	Ground North	Ground South
124.6		121.4	127.15	121.7

Tower North	Tower South			PACIFIC Radio	VANCOUVER Departure North	VANCOUVER Departure South
119.55	118.7	124.0	125.65	123.15	126.125	132.3

123-13 123-12 123-11 123-10 123-09

17°E

08L 083° Elev 13′

13 125° Elev 8′

08R 083°

26R 263°

26L 263°

31 305°

9941′ 3030m

10,803′ 3293m

7300′ 2225m

A 121′

Aircraft pushing back from gates 40-43 contact Ground (North) 127.15.

Not all taxiways are available in conditions of less than RVR 12.

No right turns onto Twy H4 or Twy A from Twy H.

Rwy Dist To Go signs present on runways 08R/26L.

Ground North
Ground South

De-icing Facility

ARP

Control Tower 268′

Lima Holding Bay

Elev 9′

697′ 212m Runway End Safety Area

CAT II HOLD POINT

Elev 7′

Building Area

GROUND RUNUP ENCLOSURE

CAUTION: All jet aircraft turning from Twy F onto Twy C, light aircraft susceptible to jetblast.

FOR PARKING POSITIONS SEE CHART
PARKING POSITIONS (APRON 6), COORDS

FOR PARKING POSITIONS SEE CHART
PARKING POSITIONS (COMMON USE CARGO), COORDS

FOR PARKING POSITIONS SEE CHART
PARKING POSITIONS (SOUTH TERM), COORDS

RUNWAY INCURSION HOT SPOTS

HS 1

See AIRPORT INFO (CONTD), TAKE-OFF MNMS for description of Hot Spots

For Arrival/Departure and Apron notes see AIRPORT INFO (CONTD), TAKE-OFF MNMS.

HS 1 HS 2 HS 3 HS 4 HS 5 HS 6 HS 7

Take-off Run Available for Intersection Departures:

RUNWAY	INTERSECTION	RUNWAY REMAINING
08L	M8	9612′ (2930m)
	M6	7828′ (2386m)
	M4	6099′ (1859m)
26R	M7/N7	9612′ (2930m)
	M5	7828′ (2386m)
	M3	6103′ (1860m)
08R	L	11,500′ (3505m)
	A6	8800′ (2682m)
	L2	8665′ (2641m)
	A4	6801′ (2073m)
	H	5290′ (1612m)
	E	5104′ (1556m)
	L4/A	10,803′ (3293m)
26L	D9	11,500′ (3505m)
	D7	10,803′ (3293m)
	D5/C	10,407′ (3172m)
	B	8806′ (2684m)
	D3	7064′ (2153m)
	H	5580′ (1701m)
	E	5775′ (1760m)

TAXIWAYS:

A (east of E): Restricted to B767/A310 and smaller.
A2: Restricted to Lear 60/DH8-300 and smaller.
B: Restricted to B767/A310 and smaller.
C (south of F): Restricted to B737/A321 and smaller.
C (north of F): Restricted to B767/A310 and smaller.
D (eastbound): No left turns onto H by A321/B737-900 and larger.
D (westbound): No left turns onto H. Right hand turns onto Twy DR - discretionary oversteer required.
D: Aircraft cannot safely taxi via Twy D East or West past aircraft at the Twy D5 or Twy D7 hold lines.
D2: Restricted to CRJ-900 and smaller.
D7: No right hand turns onto D.
DR, DS: Restricted to B767/A310 and smaller.
DW: Restricted to B757 and smaller.
E (north of D): Restricted to A330/B787-10 and smaller.
F (west of C): Restricted to B767/A310 and smaller.
F (east of C): Restricted to CRJ-900 and smaller.
G: Restricted to A310/B767 and smaller.
H (southbound): No right turns onto A, L or H4, no right turns onto D by B737-900/A321 and larger. No left turns onto D1.
H (northbound): No left turns onto V. No right turns onto D. No right turns onto L for B767/A310 and larger.
H (south of Rwy 08R/26L): Restricted to B767/A310 and smaller.
H2: Available for B767, A310 and smaller aircraft.
J (southbound): B747/A340 not authorized south of K. All aircraft use minimum thrust when turning due jet blast.
J (northbound): No left turns onto K by aircraft B767/A310 and larger.
L: Entry and exit at Apron 6 restricted to B737/A321 and smaller. No right turns onto V.
M1-M6 (rapid exit): Design speed in wet conditions is 50 Kts (95 km/h).
M3: Not available to A340-600/B777-300/A350-900/A350-1000/B787-10 and larger.
M4: No left or right turns onto M for A340-600/B777-300/A350-900/A350-1000/B787-10 and larger.
P: Right turn onto M restricted to B767/A310 and smaller.
S: Restricted to B767/A310 and smaller.
V: No left turns onto L.

UNCONTROLLED TAXIWAYS:

C (south of F), F, J (between K and L), Q, DR, DS, DT, DU, DV and DW.

Feet 0 500 1000 1500 2000 2500 3000
Meters 0 200 400 600 800 1000

49-12 49-11

CHANGES: Twy DW note.

GENERAL

CAUTION: October - April migratory birds in vicinity of airport: Resident snow goose population, significant hazard at and below 400' AGL West of the threshold of Rwy 08R and Rwy 08L out to 1.9 NM.
CAUTION: Frequent VFR float aircraft activity on river south side of airport.
CAUTION: ALL JET AIRCRAFT: Light aircraft susceptable to jetblast when turning from twy F on to C.

Multilateration: Pilots must keep their transponder on at all times when maneuvering on the airport (turned on prior to brake release and on arrival, on until final engine shutdown). Pilots that do not have transponder code issued by ATC squawk 1000 when taxiing.

Rwy Arrivals & Departures:

Rwy 08L arrivals:
Use of reverse thrust is to be avoided or reduced when conditions permit.

Rwy 08R arrivals: Aircraft exiting onto Twy D1, turn North on Twy E.
Do not stop in rwy area. See HOT SPOT 2.

Rwy 26R arrivals:
Use of reverse thrust is to be avoided or reduced when conditions permit.

Rwy 26L arrivals: Turns onto Rwy 31 NOT AUTHORIZED without clearance. Aicraft exiting onto Rwy 13/31: Right hand turns onto Twy D restricted to B767/A310 & smaller, discretionary oversteer is required. Aircraft exiting onto Twy H, hold short of Twy D. Do not stop in rwy area. See HOT SPOT 2.

Rwy 13 departures: Not Authorized for A340-600/B777-300/A350-900/A350-1000/B787-10 and larger.

Rwy 31 arrivals: Not Authorized for A340-600/B777-300/A350-900/A350-1000/B787-10 and larger.

UNCONTROLLED VEHICLES CROSSINGS

Twys DS, DT, DU, DV, DY, F, H (north of H4), J, JA, JB, JC, K, N7, P, Q, R, S, T, V.

APU SHUTDOWN PROCEDURE

Aircraft Auxiliary Power Unit (APU) use shall be limited to 15 minutes or less in total between on-block time and departure of aircraft from stands supplied with Ground Power Unit (GPU) and/or preconditioned air, for environmental reasons, if the outside air temperature is between 0 degrees and 20 degrees Celsius.

Aircraft shall not need to comply with the above limitations on stands not equipped with serviceable GPU and/or preconditioned air or if there are overriding health & safety considerations.

APRON

Advise ATC if ground crew not present at gate.

Apron 1: Restricted to CRJ-900/SF34 and smaller.

Apron 3: Jets towed in and out.

Apron 4: Restricted to B757 and smaller. Aircraft stand taxilane east of DW restricted to Convair CV-580 and smaller.

Apron 1, 2, 3, 4, 5, 6, 8: Prior permission required Airport Operations.

Apron 6 (East): bypass (taxilane centerline amber lighting): Simultaneous use of dual taxilanes restricted to narrow body aircraft. Restricted to B737 and smaller.

Apron 6 (East): Pushbacks from remote parking positions E1-E3 to west taxilane.

Apron 6 (East): Pushbacks from remote parking positions E10-E19 to south taxilane.

Apron 6 (horseshoe): Taxilanes restricted to B737/A321 and smaller.

Apron 6: Traveling eastbound, turns onto P restricted to B767/A310 and smaller.

Apron 6: All aircraft use minimum thrust due to jet blast.

Prior permission required from YVR OPS for all engine airstarts or crossbleed starts on Aprons 1, 2, 3, 4, 5, 6, 8.

Apron 8: Restricted to B767/A310 and smaller.

WIDE BODY Aircraft

A380 ❶/B747-8/AN124 Available Twys: D, DT, D3, D5, D7, D9, H (north of Rwy 08R/26L), J (north of parking position W2), JA, K (west of R), L (west of 13/31), M, M5, M6, M7, M9, M10, P, R, V. Discretionary oversteer is required at every intersection.

A340-600/B777-300/A350-900/A350-1000/B787-10 Available Twys: D, D3, D5, D7, D9, DT, DY, E (south of Rwy 08R/26L), H (north of Rwy 08R/26L), J, JA, JB, JC, K, L (west of J), M, M4, M5, M6, M7, M8, M9, M10, P, T, R, V. Discretionary oversteer is required at every intersection.

Departing A340-600/B777-300 use the following coded taxi routes ONLY:

- Juliet - Alpha
- Juliet - Bravo
- Juliet - Charlie
- Papa
- Tango

❶ **A380:** When A380 is on Twy M between Twy J and Twy T, the taxilane between Gate 66 & Twy T is restricted to B757 & smaller (& vice versa).

ADDITIONAL RUNWAY INFORMATION

RWY		USABLE LENGTHS — LANDING BEYOND: Threshold	LANDING BEYOND: Glide Slope	TAKE-OFF	WIDTH
08R 26L	HIRL CL ALSF-II TDZ ❷PAPI-L (angle 3.0°) RVR		9724' 2964m 9640' 2938m	11,500' 3505m	200' 61m
❷ For aircraft with eye-to-wheel height up to 45'.					
08L 26R	HIRL CL ALSF-II TDZ ❸PAPI-L (angle 3.0°) RVR		8887' 2709m 8935' 2723m		200' 61m
❸ For aircraft with eye-to-wheel height up to 45'.					
13 31	MIRL ODALS ❹PAPI-L (angle 3.0°)		6193' 1888m		200' 61m
❹ For aircraft with eye-to-wheel height up to 45'.					

RUNWAY INCURSION HOT SPOTS

For information only, not to be construed as ATC instuctions.

HS 1 Twy V holdline for Rwy 13/31 is 100' (30m) back due to intersection geometry.

HS 2 Aircraft taxiing H, southbound, holdline is located 100' (30m) back from the standard runway hold position. Aircraft exiting onto Twy D1, turn North on Twy E. Do not stop in runway area.

HS 3 Twy N7 hold line for Rwy 26R/08L at intersection Twy N7 and Apron IX. 702' (214m) from Rwy edge.

HS 4 Aircraft cannot safely taxi via Twy D East or West past aircraft at the Twy D5 or Twy D7 hold lines. Twy D9 commences beyond the runway holdshort line for Rwy 08R/26L on Twy D and Twy DY.

HS 5 Multiple taxilanes converge.

HS 6 Taxiing to Rwy 08R/26L, aircraft fail to hold short and incur on Rwy 13/31 on Twy A.

HS 7 Taxiing across Rwy 08R/26L, aircraft fail to hold short and incur on Rwy 13/31 on Twy E.

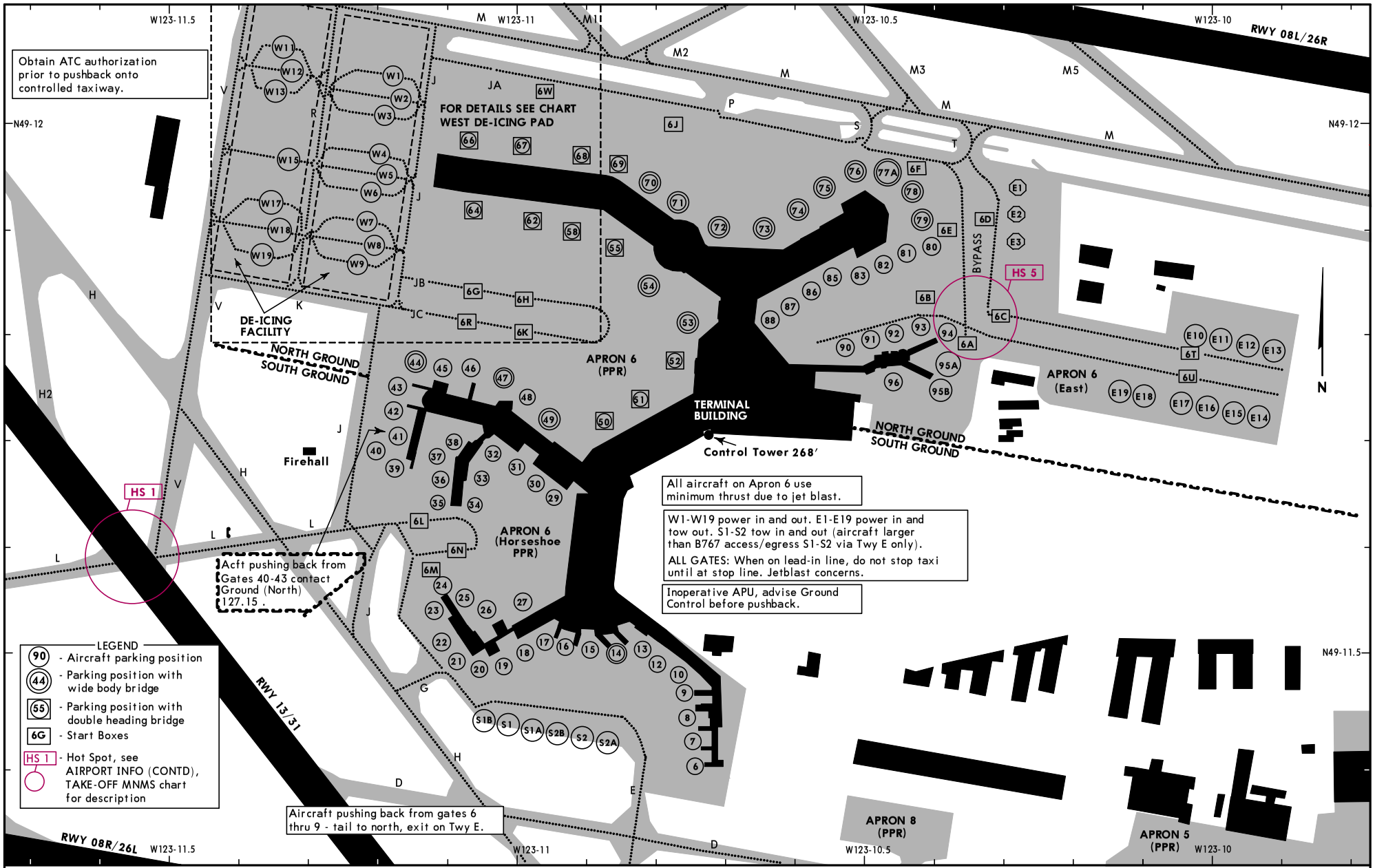
TAKE-OFF & DEPARTURE PROCEDURE

For departure procedure see Vancouver SID

	Rwys 08L/R, 26L/R			Rwys 13, 31
	Authorized Air Carriers		All Other Aircraft	
	HIRL & CL & RCLM	HIRL or CL or RCLM		
A B C D	TDZ RVR 6 Rollout or Mid RVR 6	❶ RVR 12 or 1/4	RVR 26 or 1/2	1/2

❶ RVR 10 required for start.

CHANGES: Apron 4 note.



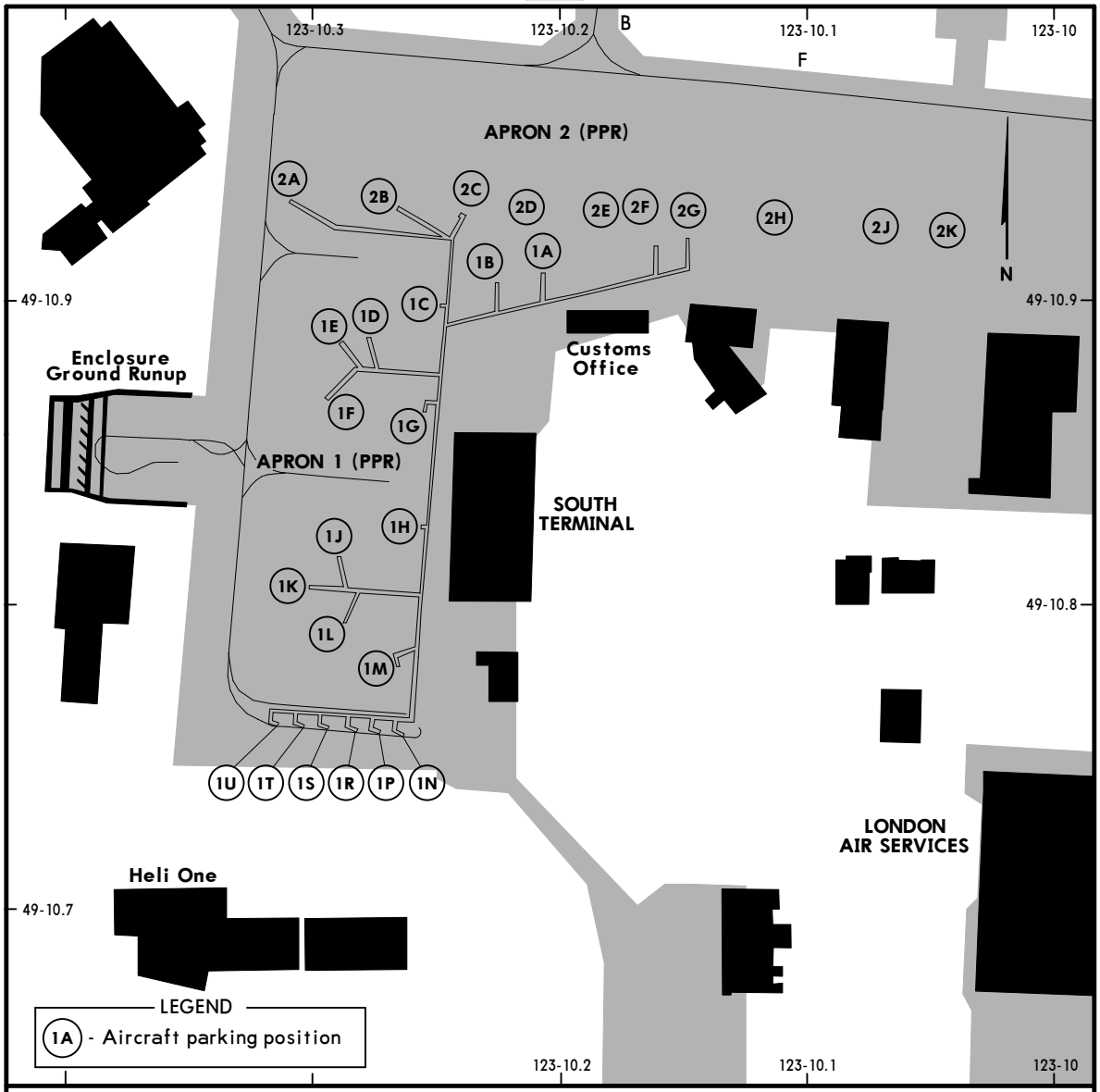
PARKING POSITION COORDINATES

POSITION No.	COORDINATES	POSITION No.	COORDINATES	POSITION No.	COORDINATES	POSITION No.	COORDINATES	POSITION No.	COORDINATES
6 thru 8	N49 11.4 W123 10.7	36 thru 38	N49 11.7 W123 11.1	66, 67	N49 12.0 W123 11.0	93, 94, 95A	N49 11.8 W123 10.4	S1, S1A, S1B	N49 11.4 W123 11.0
9, 10, 12, 13	N49 11.5 W123 10.8	39 thru 43	N49 11.7 W123 11.2	68, 69	N49 11.9 W123 10.9	95B	N49 11.7 W123 10.4	S2, S2A, S2B	N49 11.4 W123 10.9
14 thru 16	N49 11.5 W123 10.9	44 thru 46	N49 11.8 W123 11.1	70, 71	N49 11.9 W123 10.8	96	N49 11.7 W123 10.5	W1	N49 12.1 W123 11.2
17 thru 19	N49 11.5 W123 11.0	47	N49 11.8 W123 11.0	72, 73	N49 11.9 W123 10.7	E1 thru E3	N49 11.9 W123 10.3	W2 thru W4	N49 12.0 W123 11.2
20 thru 22	N49 11.5 W123 11.1	48, 49	N49 11.7 W123 11.0	74, 75	N49 11.9 W123 10.6	E10	N49 11.8 W123 10.0	W5, W6	N49 12.0 W123 11.3
23 thru 25	N49 11.6 W123 11.1	50	N49 11.7 W123 10.9	76, 77A, 78	N49 11.9 W123 10.5	E11 thru E13	N49 11.8 W123 09.9		
26, 27	N49 11.5 W123 11.0	51	N49 11.7 W123 10.8	79, 80	N49 11.9 W123 10.4	E14	N49 11.7 W123 09.8	W7 thru W9	N49 11.9 W123 11.3
29	N49 11.7 W123 10.9	52 thru 54	N49 11.8 W123 10.8	81 thru 83	N49 11.8 W123 10.5	E15	N49 11.7 W123 09.9	W11 thru W13	N49 12.0 W123 11.3
30 thru 33	N49 11.7 W123 11.0	55, 58	N49 11.9 W123 10.9	85, 86 thru 88, 90	N49 11.8 W123 10.6	E16 thru E18	N49 11.7 W123 10.0	W15	N49 12.0 W123 11.4
34, 35	N49 11.6 W123 11.1	62, 64	N49 11.9 W123 11.0	91, 92	N49 11.8 W123 10.5	E19	N49 11.7 W123 10.1	W17 thru W19	N49 11.9 W123 11.4

CHANGES: None.

VANCOUVER, BC

VANCOUVER INTL



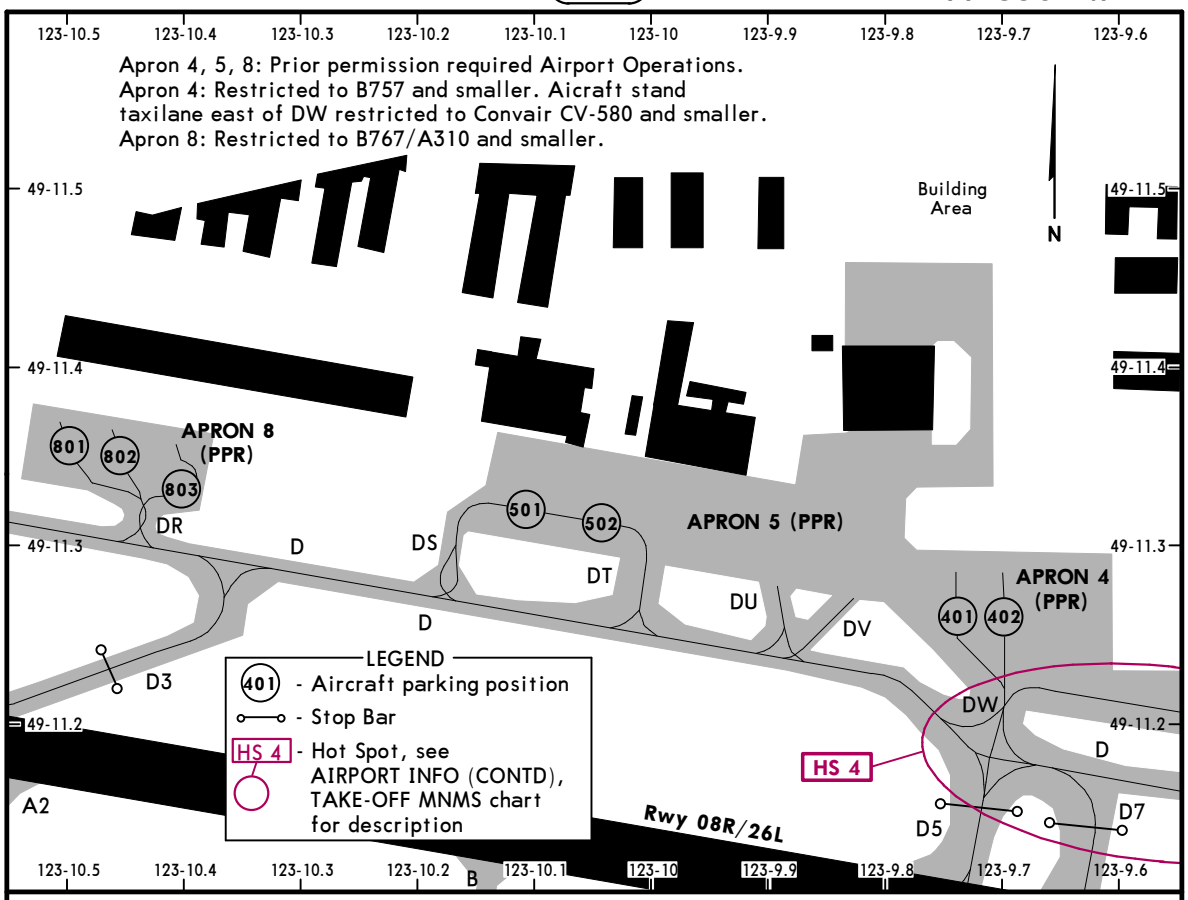
PARKING POSITION COORDINATES

POSITION No.	COORDINATES
1A, 1B, 1C	N49 10.9 W123 10.2
1D, 1E, 1F	N49 10.9 W123 10.3
1G	N49 10.9 W123 10.2
1H	N49 10.8 W123 10.2
1J, 1K, 1L, 1M, 1N	N49 10.8 W123 10.3
1P, 1R, 1S, 1T, 1U	N49 10.8 W123 10.3
2A	N49 10.9 W123 10.3
2B, 2C, 2D, 2E, 2F	N49 10.9 W123 10.2
2G, 2H, 2J	N49 10.9 W123 10.1
2K	N49 10.9 W123 10.0

CHANGES: Enclosure Ground Runup.

VANCOUVER, BC

VANCOUVER INTL



PARKING POSITION COORDINATES

POSITION No.	COORDINATES
401, 402	N49 11.3 W123 09.7
501	N49 11.3 W123 10.1
502	N49 11.3 W123 10.0
801, 802	N49 11.4 W123 10.5
803	N49 11.3 W123 10.4

CHANGES: Apron 4 note.

DE-ICING PROCEDURES

DE-ICING GENERAL:

1. De-icing at gates permitted for frost removal only, contact VANCOUVER DE-ICE on 129.95.
2. De-icing pad West is positively controlled when De-icing OPS are in effect, PAD CONTROL is providing control of all aircraft and vehicle movements on this surface.
3. 30 minutes prior to pushback or taxi, advise VANCOUVER DE-ICE on 129.95 that de-icing is required, the type(s) of fluids required and the aircraft type. VANCOUVER DE-ICE will designate de-ice pad.
4. When requesting pushback or taxi clearance, advise ATC that de-icing is required and designated de-ice pad.
5. When advised by ATC, contact PAD CONTROL on 131.975 for instructions in the de-icing center and assignment to a de-icing bay.
6. Follow PAD CONTROL instructions to de-icing bay.
7. When advised by PAD CONTROL, contact ICEMAN on 130.7 and confirm brakes set, aircraft configured, engines at idle, de-icing fluid requirements and any special de-icing instructions.
8. After de-icing is completed and the aircraft has been inspected, ICEMAN will confirm aircraft is clean, start time for HOLDOVER and types of fluids applied.
9. When advised by ICEMAN, contact PAD CONTROL on 131.975 for instructions.

UNDER NO CIRCUMSTANCES MAY THE AIRCRAFT BE MOVED BEFORE PAD CONTROL ADVISES THAT THE AIRCRAFT IS CLEARED TO TAXI OUT OF THE BAY.

WEST PAD:

1. Aircraft queuing is on Twy V at Twy K and on Twy M.
2. Narrow-body aircraft will use positions W1, W3, W4, W6, W7, W9, W17 and W19, indicated by yellow inset guidance lights.
3. When transferred from ATC, follow PAD CONTROL instructions to de-icing bays.

GROUND RUN-UP ENCLOSURE (GRE):

Operators must receive an orientation for the GRE facility prior to use. Crews may contact the Icehouse to schedule de-icing up to 120 minutes prior to departure. Information required:

- Aircraft type, flight number/call sign, and the type(s) of fluids required.

Parking position 2A, on Apron 1, is the only staging position for the facility.
Aircraft waiting to use the GRE must remain on their aprons until 2A becomes available.
All propeller aircraft and jet aircraft with a wingspan of 71' (21.6m) or less (Dassault Falcon 900 with winglets and smaller) may power in/out of the facility.
ICEMAN will advise if engines should be running during de-icing.

ENTRY PROCEDURE:

1. Before contacting ATC for taxi, contact ICEMAN 130.925 for position in de-icing queue.
2. When ICEMAN approves access to either the staging position (2A) or GRE, contact ATC 121.7 for taxi.
3. Proceed as instructed by ICEMAN. CAUTION: DO NOT enter GRE until instructed by ICEMAN.
4. Advise ICEMAN 130.925 when stopped in the GRE.

DE-ICING PROCEDURE:

5. Contact ICEMAN 130.925 to confirm brakes set, aircraft configured, engines idle, and provide fluid requirements.
6. After de-icing is complete and the aircraft has been inspected, ICEMAN will confirm aircraft is clean, start time for HOLDOVER and types of fluids applied.

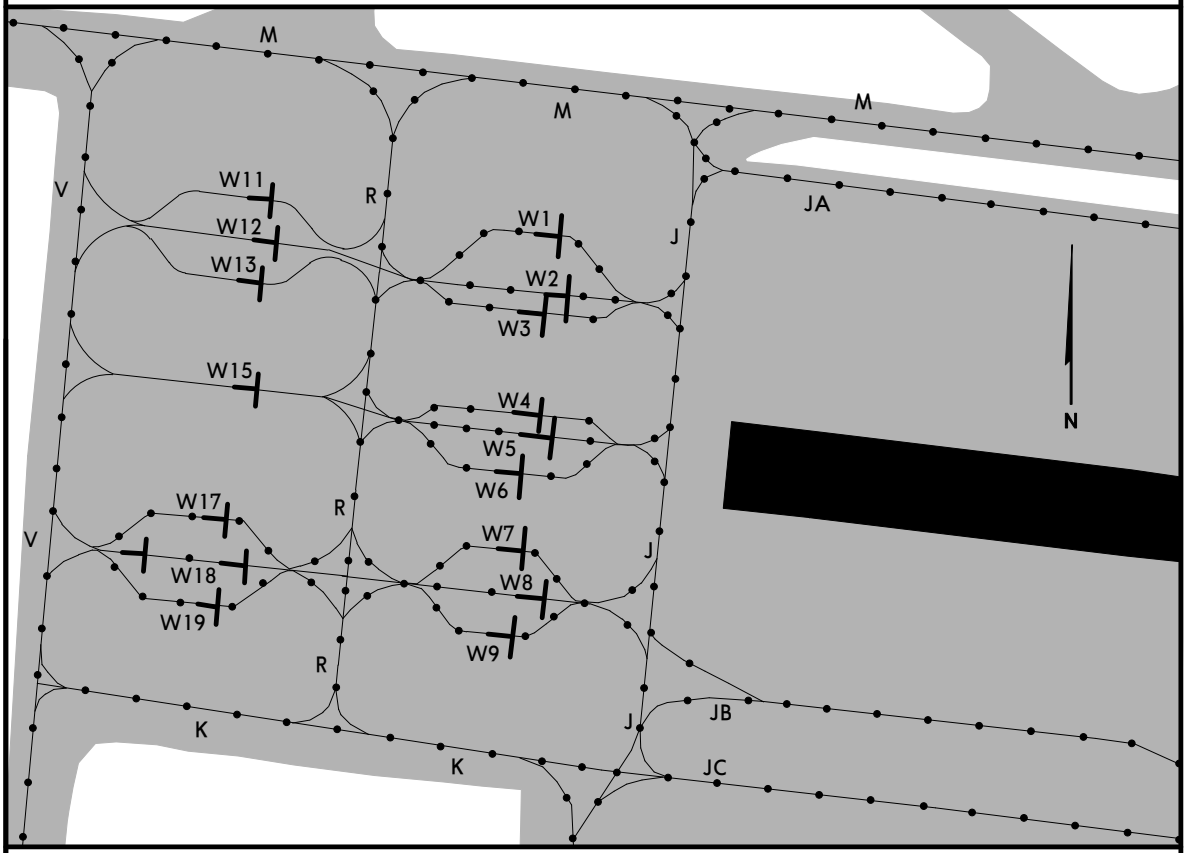
EXIT PROCEDURE:

7. When ready to taxi contact ICEMAN 130.925 for instructions.

CHANGES: De-icing general note deleted.

WEST DE-ICING PAD

Vancouver De-ice	Pad Control	Iceman	South Ground	North Ground
129.95	131.975	130.7	121.7	127.15

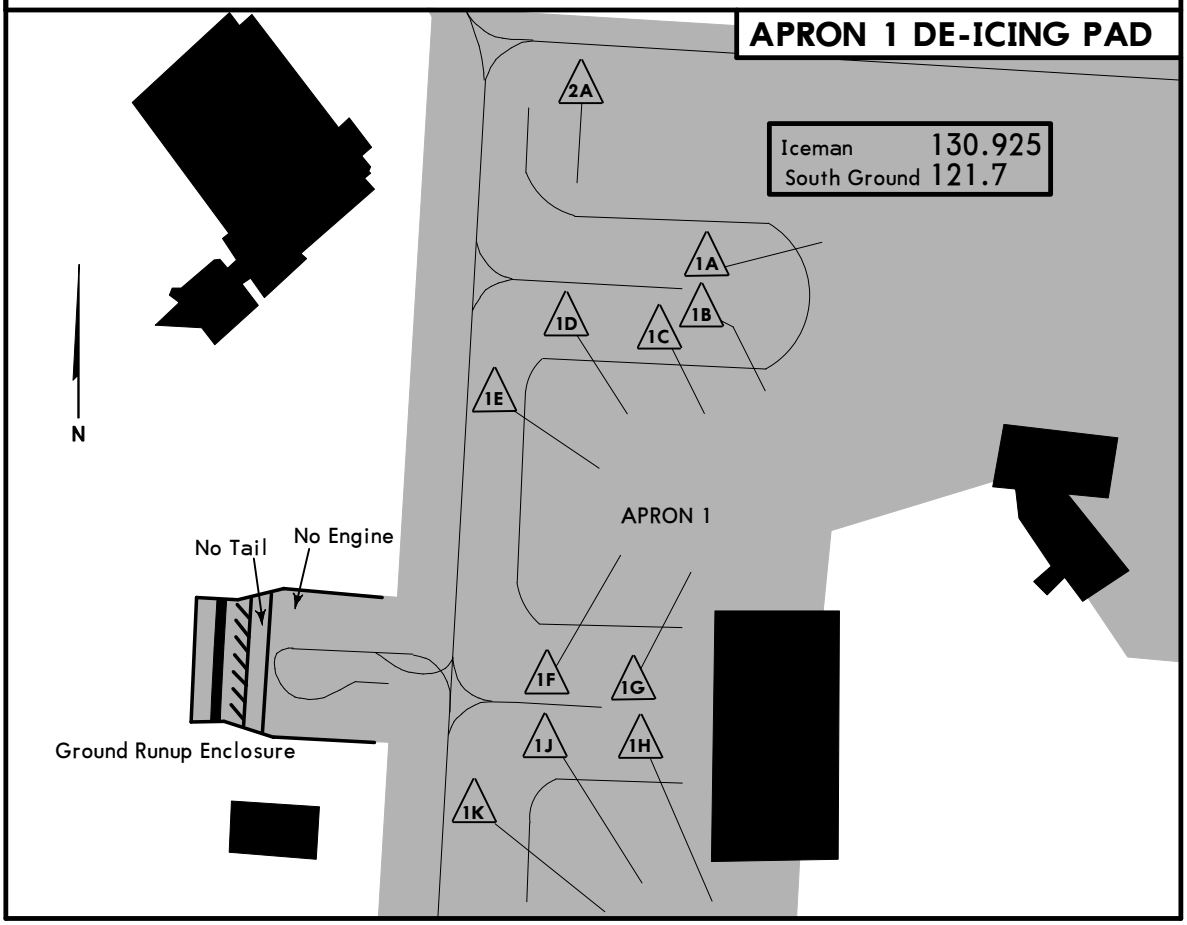


LEGEND

Hold line

Inset Guidance Lights

APRON 1 DE-ICING PAD



CHANGES: None.

LOW VISIBILITY PROCEDURES
(RVR LESS THAN 1200 TO 600 FT)

APPLICATION

These procedures apply to ground movements of aircraft arriving and departing under low visibility conditions. Arrivals and departures below RVR 600 are not authorized. When weather conditions indicate visibility below RVR 1200 is imminent, procedures will be implemented restricting aircraft and vehicle operations on the movement area. The following message will be added to the ATIS broadcast: Low visibility procedures in effect for (name of applicable runway).

GENERAL

Taxi Routes

Low Visibility Taxi Routes are equipped with green inset centerline lighting. Some taxiway/taxiway intersections have been indentified with three inset yellow centerline lights. Midfield crossings of 08R/26L are not permitted during low visibility operations.

Airport Surface Detection Equipment (ASDE)

Ground radar is used to monitor the position of aircraft operating on the maneuvering area. In the event of an ASDE failure, ATC may suspend, restrict or terminate low visibility operations.

DEPARTURES

The primary runways for departure are 08R/26L. Yellow flashing runway guard lights (wig-wags) and stop bars are installed abeam each hold line. Intersection take-offs are not permitted.

Sequencing of Aircraft Ground Movement for Take-off

Do not request start, push back or call for taxi clearance until the reported RVR is greater than:

Aircraft/Pilot Take-off Minima	Minimum RVR for Start
1200 RVR	1000 RVR
600 RVR	600 RVR

SMGCS Rwy 08L/26R and 08R/26L

Runway/taxiway intersections are equipped with yellow flashing runway guard lights and stop bars consisting of red inset lights and red elevated lights located at the taxi hold position. At runway entry points, M10, M8, M7, M9, N7, L, D, D5, D7, DY, C and A, when the red stop bar lights are illuminated, green lead-on lights beyond the stop bar are extinguished. When ATC issues a clearance to proceed onto the runway, the red stop bar lights will be extinguished and the green lead-on lights beyond the stop bar will be illuminated. The stop bar is reset automatically as the aircraft moves onto the runway.

"AT NO TIME SHALL A PILOT CROSS AN ILLUMINATED RED STOP BAR"

ARRIVALS

The primary runways for arrival are 08L/26R.

Plan to exit on the centerline lighted rapid exit taxiways and proceed beyond the alternating green and yellow centerline lights to the taxi intersection lights to ensure the aircraft is clear of the runway and the ILS sensitive area.

CYVR/YVR
VANCOUVER INTL

JEPPESEN
17 FEB 23
Eff 23 Feb
10-9H

SMGCS

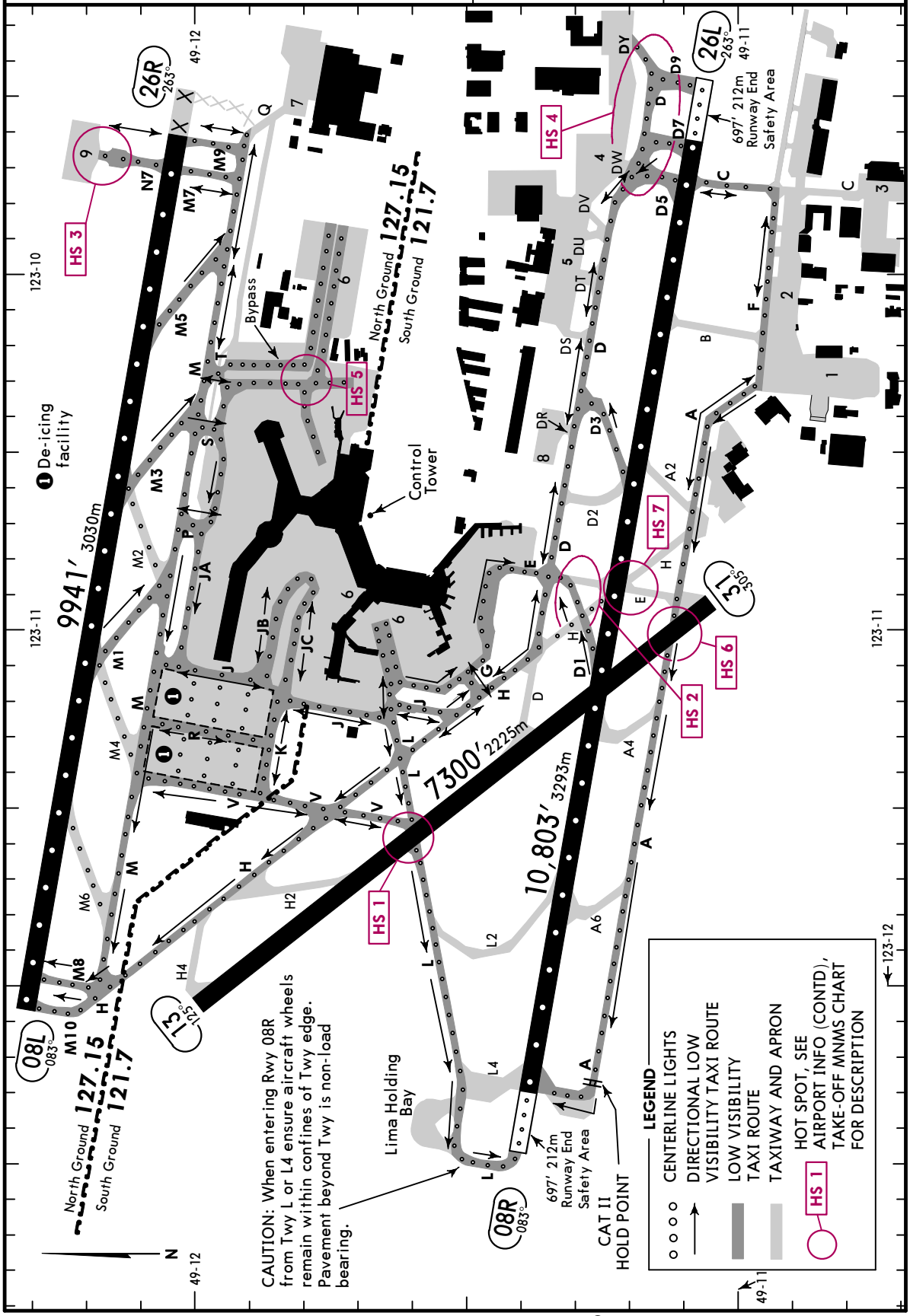
VANCOUVER, BC
LOW VISIBILITY TAXI CHART
LAND Rwy 08L/08R, DEPART Rwy 08L/08R

LESS THAN RVR 1200 to 600

For Low Visibilty Procedures See 10-9D

D-ATIS	Data Comm	VANCOUVER Clearance	Ground	
124.6	D-ATIS PDC	121.4	North 127.15	South 121.7

Tower				PACIFIC Radio	VANCOUVER Departure	
North 119.55	South 118.7	124.0	125.65	123.15	North 126.125	South 132.3



CHANGES: Hot Spots 6 & 7 added.

CYVR/YVR
VANCOUVER INTL

JEPPESEN
17 FEB 23
Eff 23 Feb
10-9J

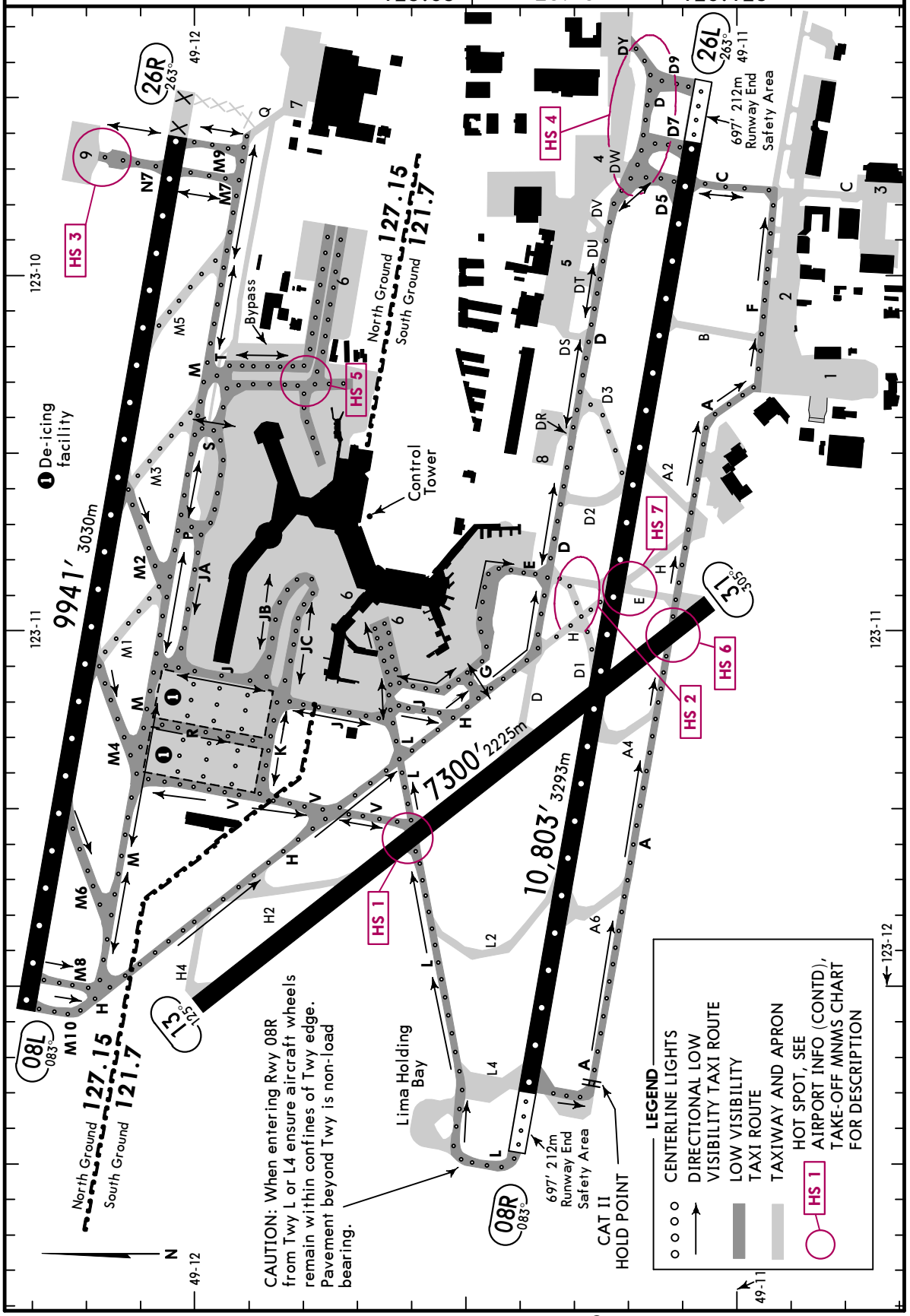
SMGCS

VANCOUVER, BC
LOW VISIBILITY TAXI CHART
LAND Rwy 26L/26R, DEPART Rwy 26L/26R
For Low Visibilty Procedures See 10-9D

LESS THAN RVR 1200 to 600

D-ATIS	Data Comm D-ATIS PDC	VANCOUVER Clearance	Ground	
124.6		121.4	North 127.15	South 121.7

Tower				PACIFIC Radio	VANCOUVER Departure	
North 119.55	South 118.7	124.0	125.65	123.15	North 126.125	South 132.3



CHANGES: Hot Spots 6 & 7 added.

CYVR/YVR
VANCOUVER INTL

JEPPESEN
17 FEB 23 (11-1) Eff 23 Feb

VANCOUVER, BC
ILS Z Rwy 08L

BRIEFING STRIP ™

D-ATIS	PACIFIC Radio	VANCOUVER Arrival	
		Outer	Inner
124.6	123.15	128.17 128.6	133.1 134.225

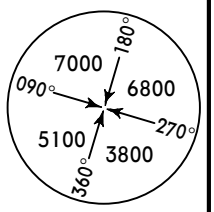
VANCOUVER Tower			Ground	
North		South	North	South
119.55	124.0	118.7	127.15	121.7

LOC ITL	Final Apch Crs	GS	ILS DA(H)	Apt Elev 13′
110.55	083°	OMRAD 2030′ (2017′)	Refer to Minimums	TDZE 13′

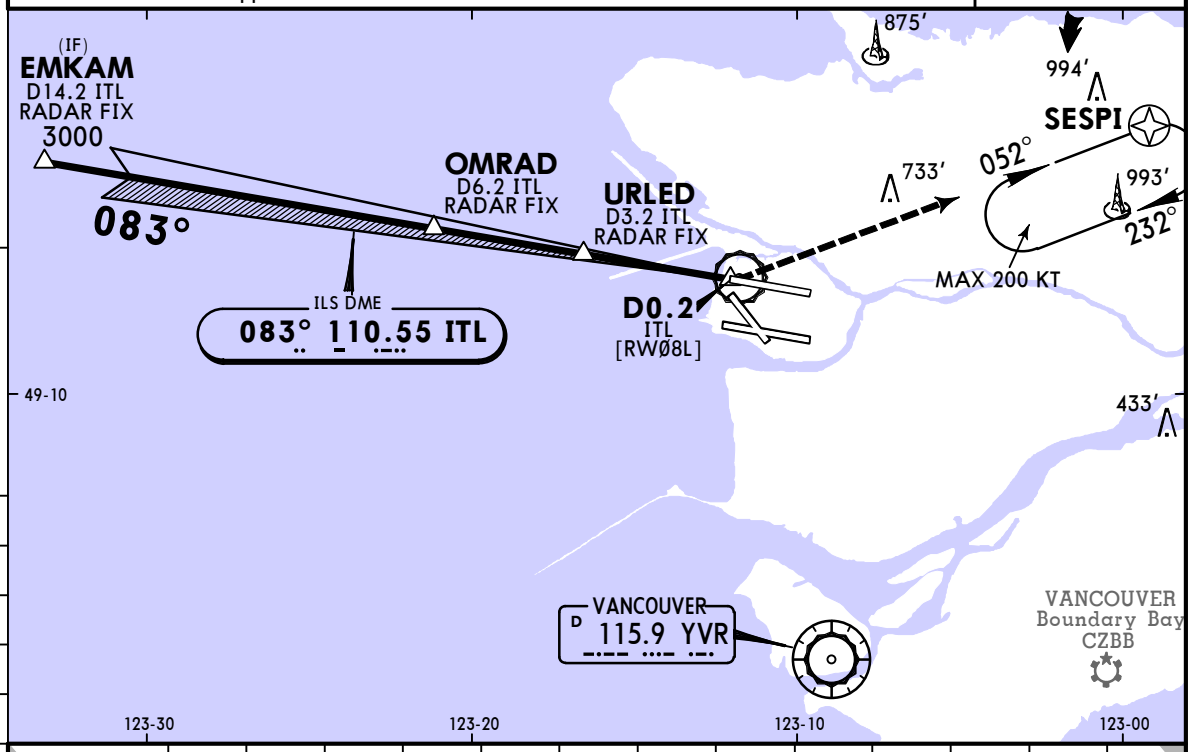
MISSED APCH: Do not exceed 230 KT until SESPI. Climbing LEFT turn to 3000′ direct to SESPI. As required shuttle climb.

Alt Set: INCHES | Trans level: FL180 | Trans alt: 18000′

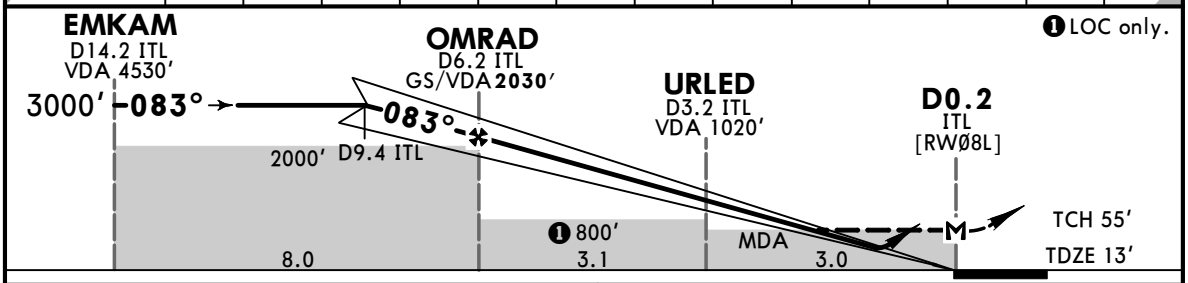
1. Radar or RNAV required. 2. SAFE ALTITUDE WITHIN 100 NM 12,800′. 3. Procedure turn NOT AUTHORIZED. 4. Simultaneous approach AUTHORIZED with Rwy 08R. 5. Localizer reliable only within 10° either side of centerline. 6. Non RNAV aircraft must obtain missed approach instructions from ATC.



MSA YVR VOR



NM to ITL DME	14.2	12.0	11.0	10.0	9.4	8.0	7.0	6.0	5.0	4.0	3.0	2.0	0.9
VDA ALTITUDE	4530′	3830′	3510′	3190′	3000′	2560′	2240′	1920′	1600′	1280′	970′	650′	300′



Gnd speed-Kts		70	90	100	120	140	160
GS/VDA	3.00°	372	478	531	637	743	849
MAP at D0.2 ITL							
OMRAD to MAP	6.1	5:14	4:04	3:40	3:03	2:37	2:17

ALSF-II PAPI | 230 KT MAX UNTIL SESPI | 3000′ LT | D | SESPI

STRAIGHT-IN LANDING RWY 08L

	ILS DME or ILS RADAR		LOC (GS out) DME or LOC (GS out) RADAR	
	DA(H) 213′ (200′)	DA(H) 263′ (250′)	MDA(H) 300′ (287′)	
	FULL	HIALS out		HIALS out
A	RVR 26 or ½	RVR 50 or 1	RVR 50 or 1	
B				
C				
D				

CHANGES: Note, missed apch, waypoints, altitudes, distances, LOC angle.

CYVR/YVR VANCOUVER INTL

JEPPESEN

17 FEB 23
Eff 23 Feb

(11-1A)

VANCOUVER, BC
ILS CAT II or III Y Rwy 08L

BRIEFING STRIP ™

D-ATIS	PACIFIC Radio	VANCOUVER Arrival	
124.6	123.15	Outer 128.17 128.6	Inner 133.1 134.225

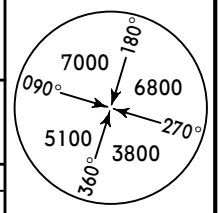
VANCOUVER Tower			Ground	
North 119.55	124.0	South 118.7	North 127.15	South 121.7

LOC ITL	Final Apch Crs	GS	CAT IIIC	CAT IIIB	CAT IIIA	CAT II ILS	Apt Elev
110.55	083°	OMRAD 2030′ (2017′)	NA	NA	Refer to Minimums	RA 113′ DA(H) 113′(100′)	13′ TDZE 13′

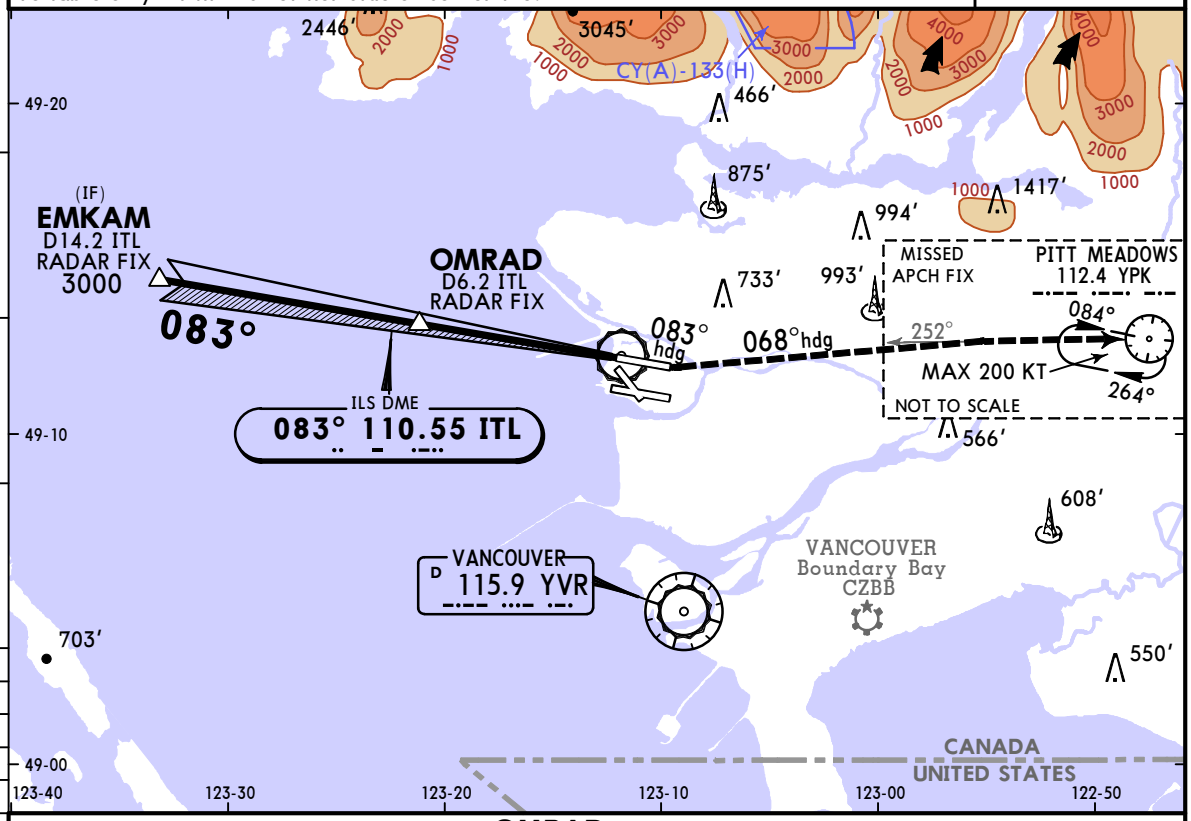
MISSED APCH: Climb to 420′ heading 083°. Then climbing LEFT turn to 3500′ heading 068°. Intercept inbound R-252 YPK to YPK VOR.

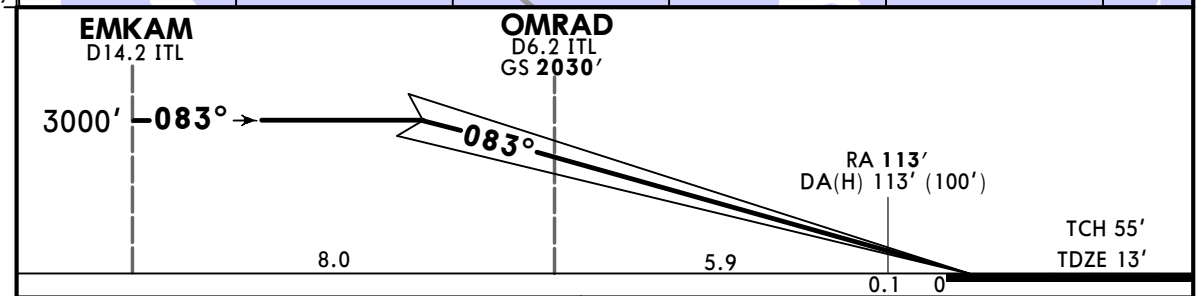
Alt Set: INCHES | Trans level: FL180 | Trans alt: 18000′

1. Radar or RNAV required. 2. PRIOR AUTHORIZATION REQUIRED FROM TRANSPORT CANADA. 3. SAFE ALTITUDE WITHIN 100 NM 12,800′. 4. Procedure turn NOT AUTHORIZED. 5. Simultaneous approach AUTHORIZED with Rwy 08R. 6. Localizer reliable only within 10° either side of centerline.



MSA YVR VOR





Gnd speed-Kts		70	90	100	120	140	160
GS	3.00°	372	478	531	637	743	849

ALSF-II
PAPI

420′ | 083° hdg | 3500′ LT | 068° hdg

STRAIGHT-IN LANDING RWY 08L

CAT IIIC ILS	CAT IIIB ILS	CAT IIIA ILS	CAT II ILS RA 113′ DA(H) 113′(100′)
NOT AUTHORIZED	NOT AUTHORIZED	RVR 6	RVR 12

CHANGES: Waypoints, GS altitude, distances.

CYVR/YVR
VANCOUVER INTL

JEPPESEN
17 FEB 23 (11-2) Eff 23 Feb

VANCOUVER, BC
ILS Rwy 08R

BRIEFING STRIP™

D-ATIS	PACIFIC Radio	VANCOUVER Arrival	
124.6	123.15	Outer 128.17 128.6	Inner 133.1 134.225

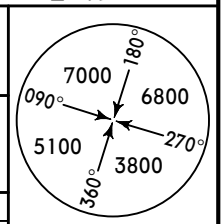
VANCOUVER Tower			Ground	
North		South	North	South
119.55	124.0	118.7	127.15	121.7

LOC IVR	Final Apch Crs	GS	ILS DME DA(H)	Apt Elev 13′
109.5	083°	TAVPI 2030′ (2021′)	Refer to Minimums	TDZE 9′

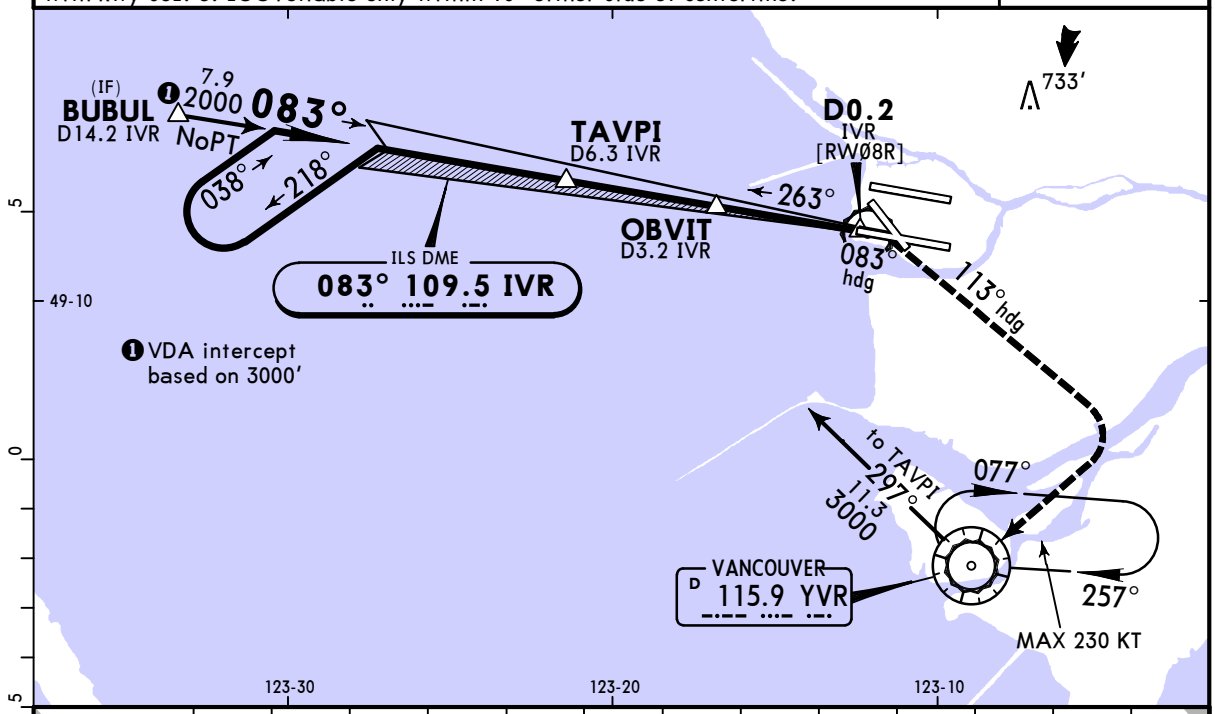
MISSED APCH: Climb to 420′ heading 083°. Then climbing RIGHT turn to 2000′ heading 113°. Then RIGHT turn direct to YVR VOR. Shuttle climb at YVR VOR to 5400′ before proceeding on course.

Alt Set: INCHES | Trans level: FL180 | Trans alt: 18000′

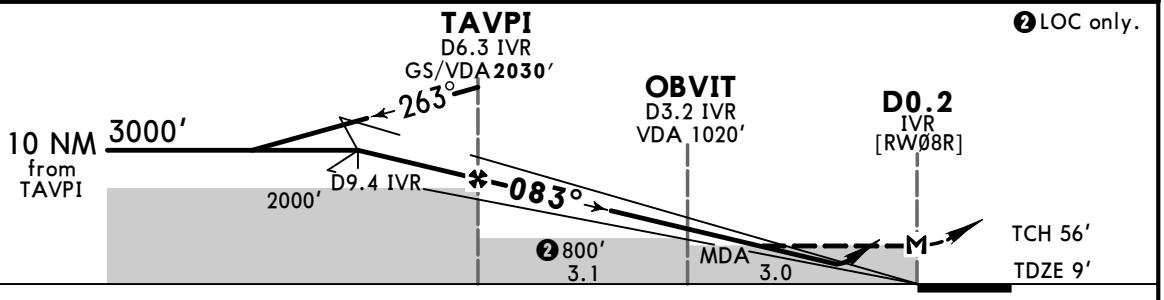
1. SAFE ALTITUDE WITHIN 100 NM 12,800′. 2. Simultaneous approach AUTHORIZED with Rwy 08L. 3. LOC reliable only within 10° either side of centerline.



MSA YVR VOR



NM to IVR DME	14.2	12.0	11.0	10.0	9.4	8.0	7.0	6.0	5.0	4.0	3.0	2.0	0.9
VDA ALTITUDE	4530′	3830′	3510′	3190′	3000′	2550′	2230′	1920′	1600′	1280′	960′	640′	280′



Gnd speed-Kts	70	90	100	120	140	160
GS/VDA 3.00°	372	478	531	637	743	849
MAP at D0.2 IVR						

ALSF-II
PAPI

420′ ↑ 083° hdg | 2000′ RT 113° hdg

STRAIGHT-IN LANDING RWY 08R

	ILS DME		LOC (GS out) DME	
	DA(H) 209′(200′)	DA(H) 259′(250′)	MDA(H) 280′(271′)	
	FULL	HIALS out		HIALS out
A B C D	RVR 26 or ½	RVR 50 or 1	RVR 50 or 1	

CHANGES: Missed apch, transition, waypoints, dist, alt, TCH, holding, LOC mnms.

CYVR/YVR VANCOUVER INTL

JEPPESEN

17 FEB 23
Eff 23 Feb

(11-2A)

VANCOUVER, BC
ILS CAT II or III Rwy 08R

D-ATIS	PACIFIC Radio	VANCOUVER Arrival Outer	VANCOUVER Arrival Inner
124.6	123.15	128.17 128.6	133.1 134.225

VANCOUVER Tower North	VANCOUVER Tower	VANCOUVER Tower South	Ground North	Ground South
119.55	124.0	118.7	127.15	121.7

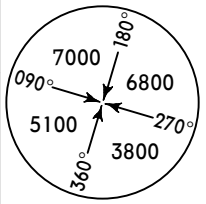
BRIEFING STRIP ™

LOC IVR	Final Apch Crs	GS	CAT IIIC	CAT IIIB	CAT IIIA	CAT II ILS	Apt Elev
109.5	083°	TAVPI 2030′ (2021′)	NA	NA	Refer to Minimums	RA 99′ DA(H) 109′ (100′)	13′ TDZE 9′

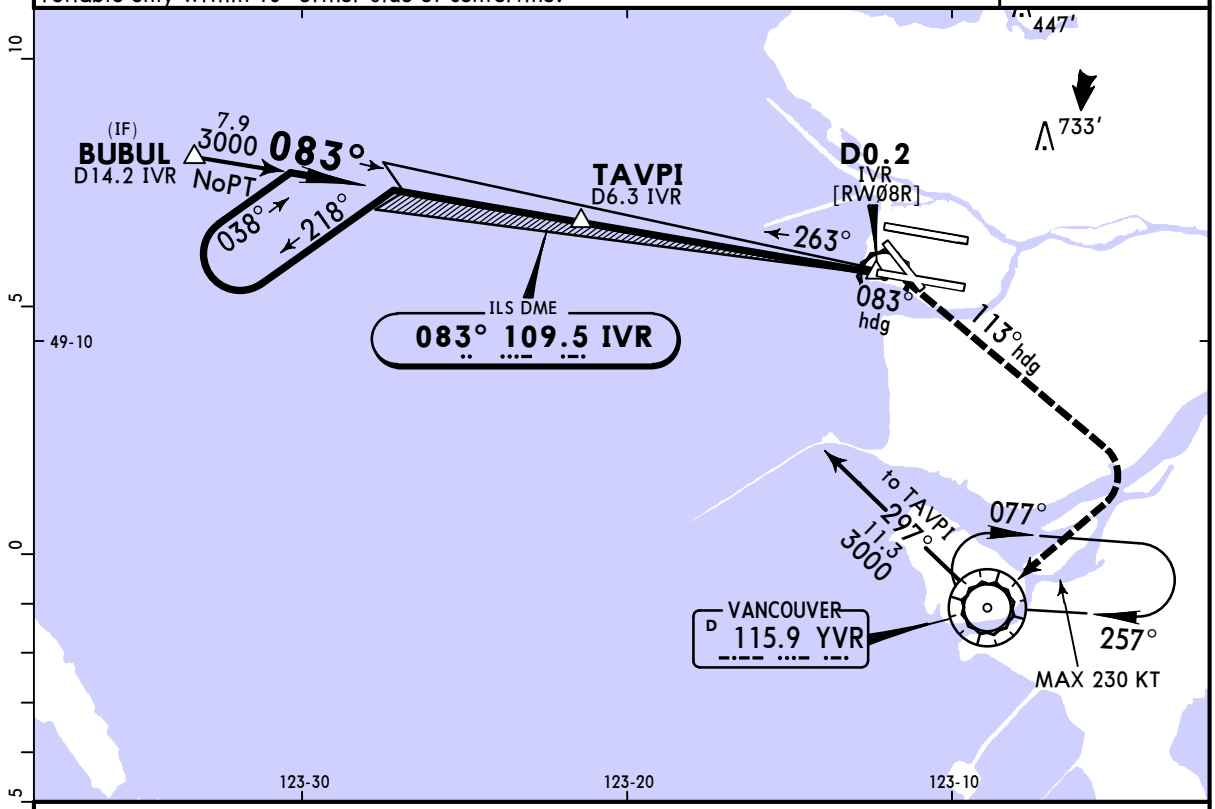
MISSED APCH: Climb to 420′ heading 083°. Then climbing RIGHT turn to 2000′ heading 113°. Then RIGHT turn direct to YVR VOR. Shuttle climb at YVR VOR to 5400′ before proceeding on course.

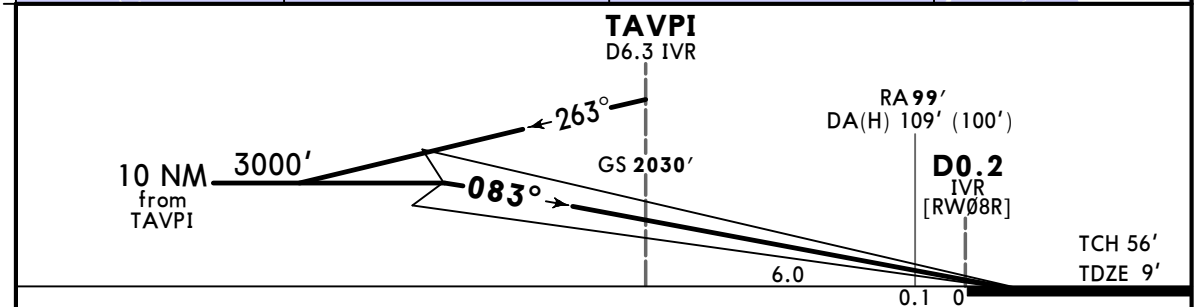
Alt Set: INCHES | Trans level: FL180 | Trans alt: 18000′

1. PRIOR AUTHORIZATION REQUIRED FROM TRANSPORT CANADA. 2. SAFE ALTITUDE WITHIN 100 NM 12,800′. 3. Simultaneous approach AUTHORIZED with Rwy 08L. 4. LOC reliable only within 10° either side of centerline.



MSA YVR VOR





Gnd speed-Kts	70	90	100	120	140	160
GS 3.00°	372	478	531	637	743	849

ALSF-II
PAPI

420′ ↑ | 083° hdg | 2000′ RT | 113° hdg

STRAIGHT-IN LANDING RWY08R

CAT IIIC ILS	CAT IIIB ILS	CAT IIIA ILS	CAT II ILS RA 99′ DA(H) 109′ (100′)
NOT AUTHORIZED	NOT AUTHORIZED	RVR 6	RVR 12

CHANGES: Missed apch, transition, wpts, dist, alt, TCH, holding, CAT II mnm.

CYVR/YVR
VANCOUVER INTL

JEPPESEN
16 SEP 22 (11-3)

VANCOUVER, BC
ILS Rwy 13

BRIEFING STRIP ™

D-ATIS	PACIFIC Radio	VANCOUVER Arrival	
		Outer	Inner
124.6	123.15	128.17 128.6	133.1 134.225

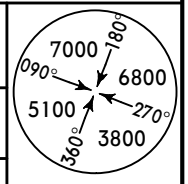
VANCOUVER Tower			Ground	
North		South	North	South
119.55	124.0	118.7	127.15	121.7

LOC IMK	Final Apch Crs	GS DATSI	ILS DME DA(H)	Apt Elev 13′ TDZE 8′
111.1	125°	2690′ (2682′)	258′ (250′)	

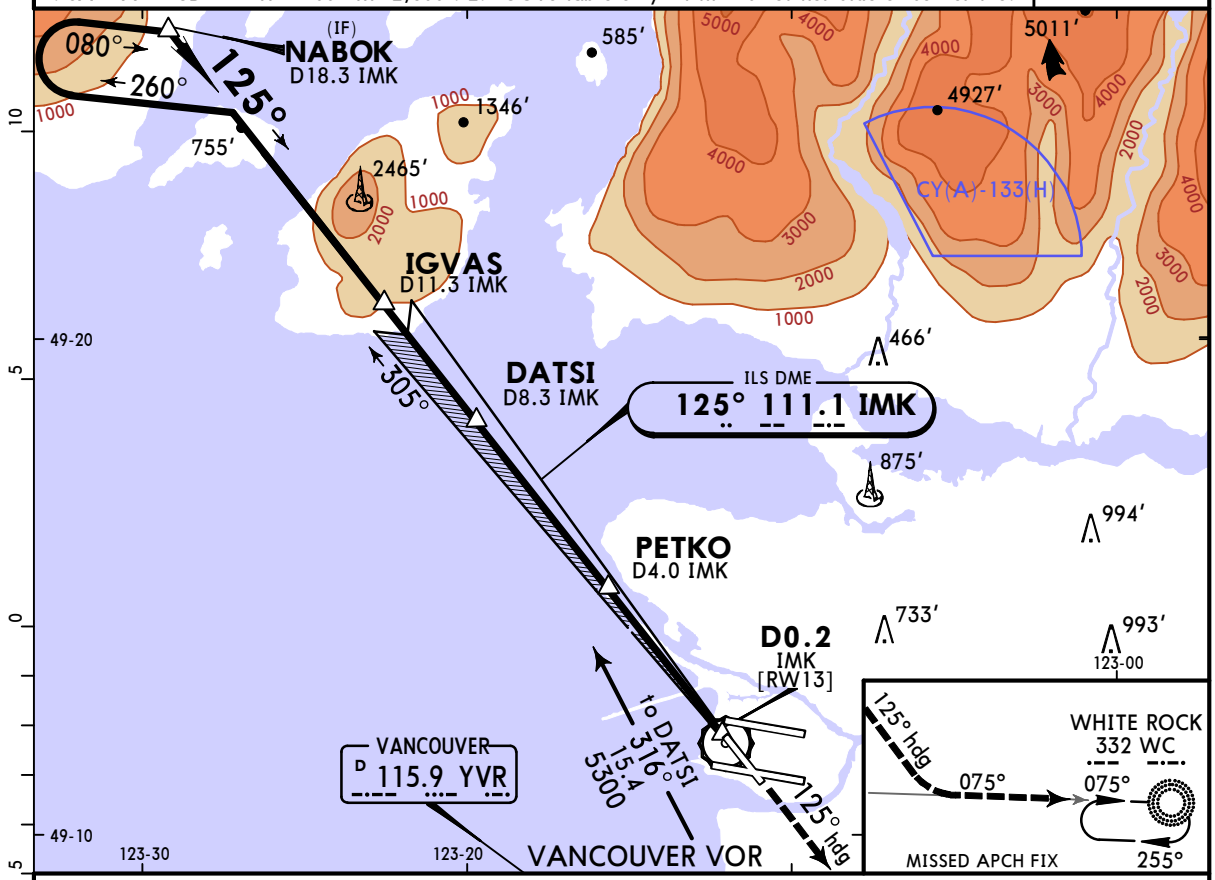
MISSED APCH: Climb to 3000′ heading 125°. Then LEFT turn direct to WC NDB. Shuttle to 7500′ before proceeding on course.

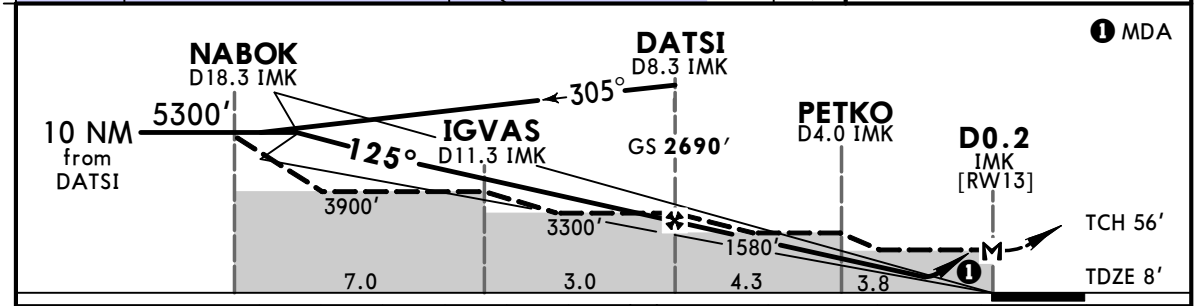
Alt Set: INCHES | Trans level: FL180 | Trans alt: 18000′

1. SAFE ALTITUDE WITHIN 100 NM 12,800′. 2. LOC reliable only within 10° either side of centerline.



MSA YVR VOR





Gnd speed-Kts	70	90	100	120	140	160
GS 3.00°	372	478	531	637	743	849
LOC Descent Angle 3.75°	465	597	664	796	929	1062
MAP at D0.2 IMK						

ODALS PAPI	3000′	125° hdg	LT	WC 332

STRAIGHT-IN LANDING RWY 13

	ILS DME	LOC (GS out) DME
	DA(H) 258′ (250′)	MDA(H) 440′ (432′)
	ALS out	ALS out
A	1	1¼
B		
C		
D		

CHANGES: LOC descent angle.

CYVR/YVR
VANCOUVER INTL

JEPPESEN
17 FEB 23 (11-4) Eff 23 Feb

VANCOUVER, BC
ILS Rwy 26L

BRIEFING STRIP ™

D-ATIS	PACIFIC Radio	VANCOUVER Arrival	
		Outer	Inner
124.6	123.15	128.17 128.6	133.1 134.225

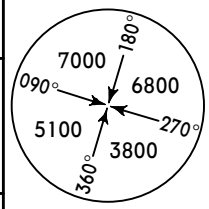
VANCOUVER Tower			Ground	
North		South	North	South
119.55	124.0	118.7	127.15	121.7

LOC	Final	GS	ILS	Apt Elev 13′
IFZ	Apch Crs	DUTOM	DA(H)	
110.7	263°	2030′ (2023′)	Refer to Minimums	TDZE 7′

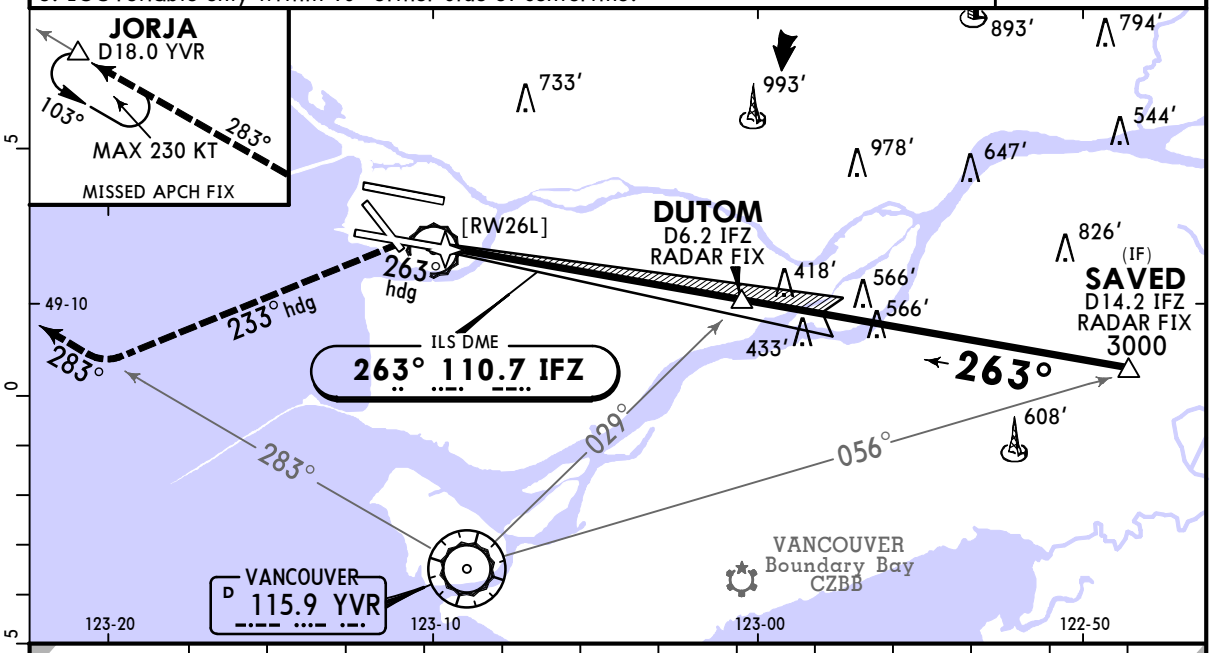
MISSED APCH: Climb to 420′ heading 263°. Then climbing LEFT turn to 2000′ heading 233°. Intercept outbound R-283 YVR VOR. Then climb to 3000′ to JORJA. Shuttle climb at JORJA to 4800′ before proceeding on course.

Alt Set: INCHES | Trans level: FL180 | Trans alt: 18000′

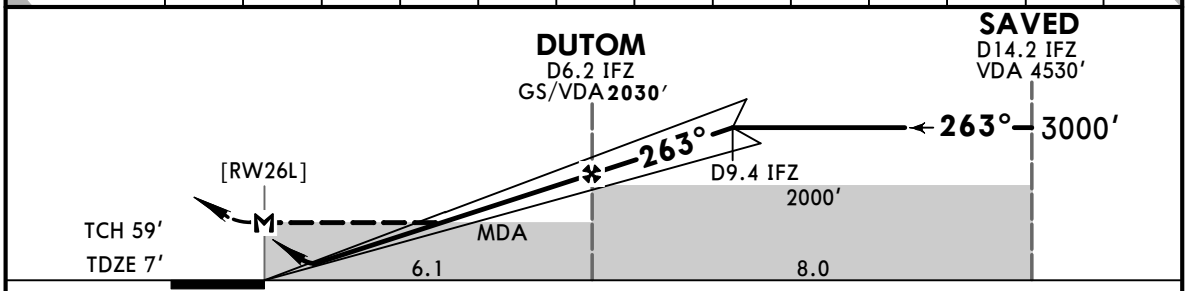
1. Radar or RNAV required. 2. SAFE ALTITUDE WITHIN 100 NM 12,800′. 3. Procedure turn NOT AUTHORIZED. 4. Simultaneous approach AUTHORIZED with Rwy 26R. 5. LOC reliable only within 10° either side of centerline.



MSA YVR VOR



NM to IFZ DME	1.7	3.0	4.0	5.0	6.0	7.0	8.0	9.4	10.0	11.0	12.0	13.0	14.2
VDA ALTITUDE	540′	960′	1280′	1600′	1920′	2230′	2550′	3000′	3190′	3510′	3830′	4140′	4530′



Gnd speed-Kts		70	90	100	120	140	160
GS/VDA	3.00°	372	478	531	637	743	849
DUTOM to MAP	6.1	5:14	4:04	3:40	3:03	2:37	2:17

ALSF-II
PAPI

420′	263° hdg	2000′ LT	233° hdg

STRAIGHT-IN LANDING RWY 26L

	ILS DME or ILS RADAR		LOC (GS out) DME or LOC (GS out) VOR	
	DA(H) 207′ (200′)	DA(H) 257′ (250′)	MDA(H) 540′ (533′)	
	FULL	HIALS out		HIALS out
A B C D	RVR 26 or ½	RVR 50 or 1	1¼	1¾

CHANGES: MSA, missed apch, wpts, distances, altitudes, holding, minimums.

CYVR/YVR
VANCOUVER INTL

JEPPESEN
17 FEB 23
Eff 23 Feb
11-4A

VANCOUVER, BC
ILS CAT II or III Rwy 26L

BRIEFING STRIP™

D-ATIS	PACIFIC Radio	VANCOUVER Arrival Outer	VANCOUVER Arrival Inner
124.6	123.15	128.17 128.6	133.1 134.225

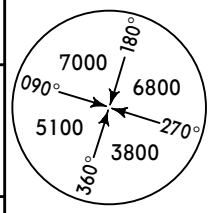
VANCOUVER Tower North	VANCOUVER Tower	VANCOUVER Tower South	Ground North	Ground South
119.55	124.0	118.7	127.15	121.7

LOC IFZ	Final Apch Crs	GS	CAT IIIC	CAT IIIB	CAT IIIA	CAT II ILS	Apt Elev
110.7	263°	DUTOM 2030′ (2023′)	NA	NA	Refer to Minimums	RA 103′ DA(H) 107′(100′)	13′ TDZE 7′

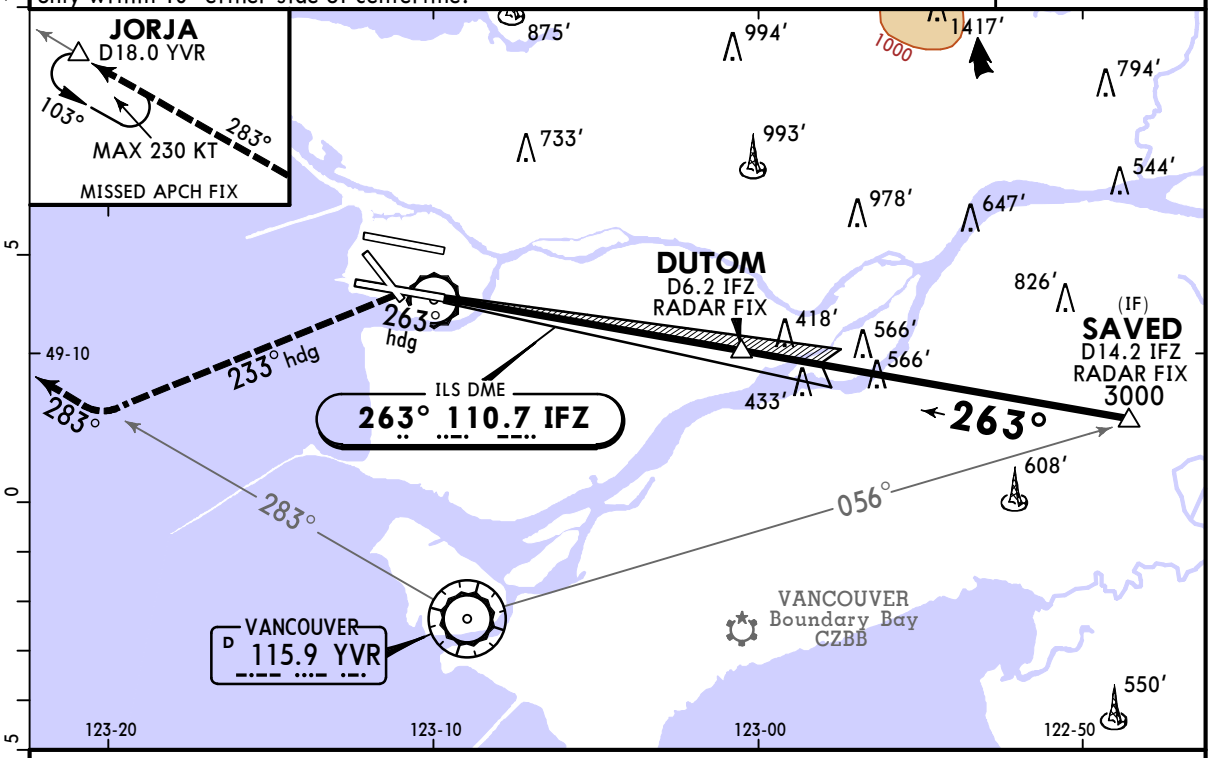
MISSED APCH: Climb to 420′ heading 263°. Then climbing LEFT turn to 2000′ heading 233°. Intercept outbound R-283 YVR VOR. Then climb to 3000′ to JORJA. Shuttle climb at JORJA to 4800′ before proceeding on course.

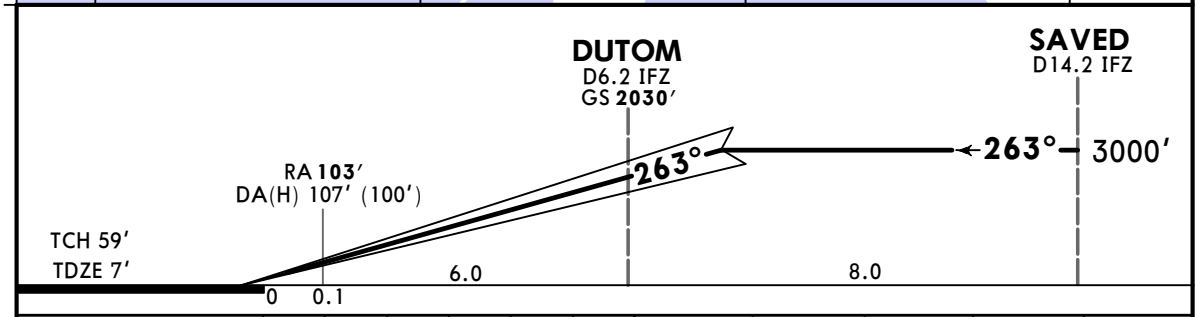
Alt Set: INCHES | Trans level: FL180 | Trans alt: 18000′

1. Radar or RNAV required. 2. PRIOR AUTHORIZATION REQUIRED FROM TRANSPORT CANADA 3. SAFE ALTITUDE WITHIN 100 NM 12,800′. 4. Procedure turn NOT AUTHORIZED. 5. Simultaneous approach AUTHORIZED with Rwy 26R. 6. LOC reliable only within 10° either side of centerline.



MSA YVR VOR





Gnd speed-Kts		70	90	100	120	140	160
GS	3.00°	372	478	531	637	743	849

ALSF-II
PAPI

420′	263° hdg	2000′ LT	233° hdg

STRAIGHT-IN LANDING RWY26L

CAT IIIC ILS	CAT IIIB ILS	CAT IIIA ILS	CAT II ILS RA 103′ DA(H) 107′(100′)
NOT AUTHORIZED	NOT AUTHORIZED	RVR 6	RVR 12

CHANGES: MSA, missed apch, wpts, distances, altitudes, holding, minimums.

CYVR/YVR
VANCOUVER INTL

JEPPESEN
17 FEB 23 (11-5) Eff 23 Feb

VANCOUVER, BC
ILS Rwy 26R

BRIEFING STRIP ™

D-ATIS	PACIFIC Radio	VANCOUVER Arrival	
124.6	123.15	Outer 128.175 128.6	Inner 133.1 134.225

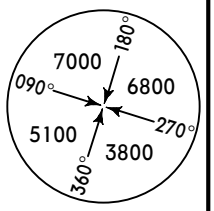
VANCOUVER Tower				Ground	
North			South	North	South
119.55	124.025	125.65	118.7	127.15	121.7

LOC IRD	Final Apch Crs	GS	ILS DA(H)	Apt Elev 13′
111.95	263°	TOTIM 2030′ (2021′)	Refer to Minimums	TDZE 9′

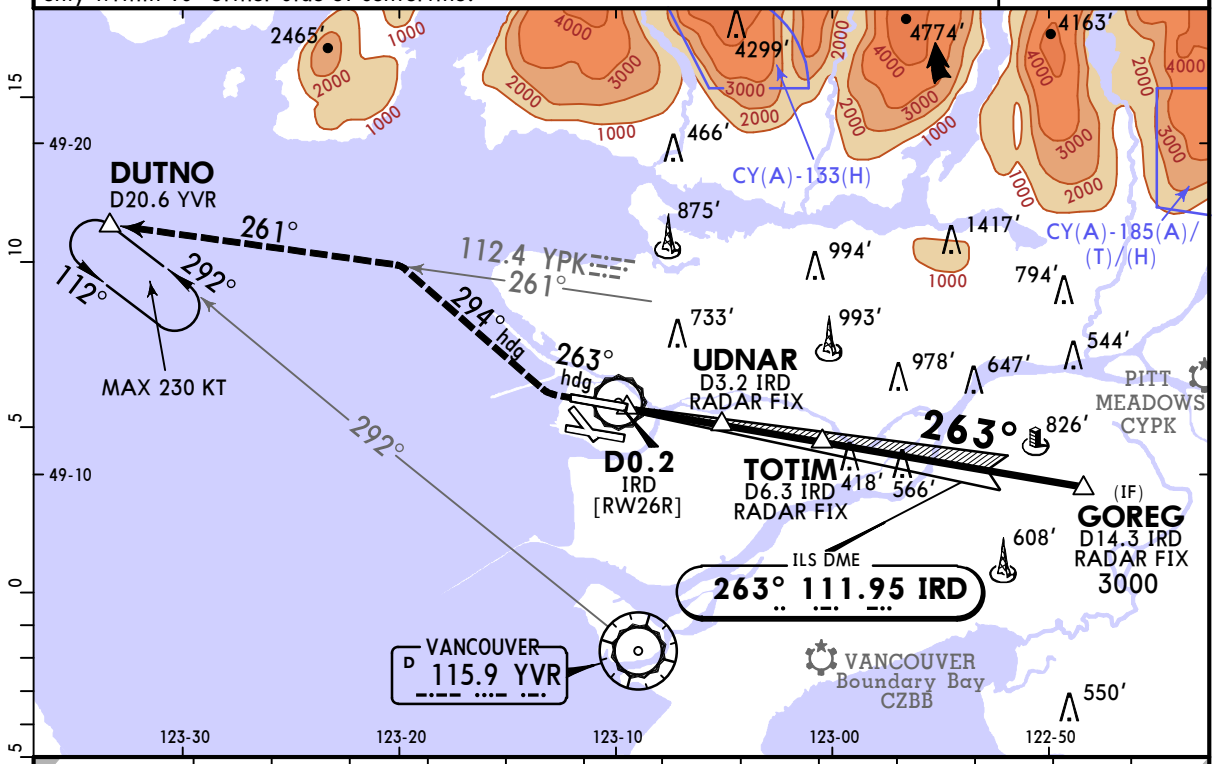
MISSED APCH: Climb to 420′ heading 263°. Then climbing RIGHT turn to 3000′ heading 294°. Intercept outbound YPK VOR R-261 to DUTNO. Shuttle climb at DUTNO to 5300′ before proceeding on course.

Alt Set: INCHES | Trans level: FL180 | Trans alt: 18000′

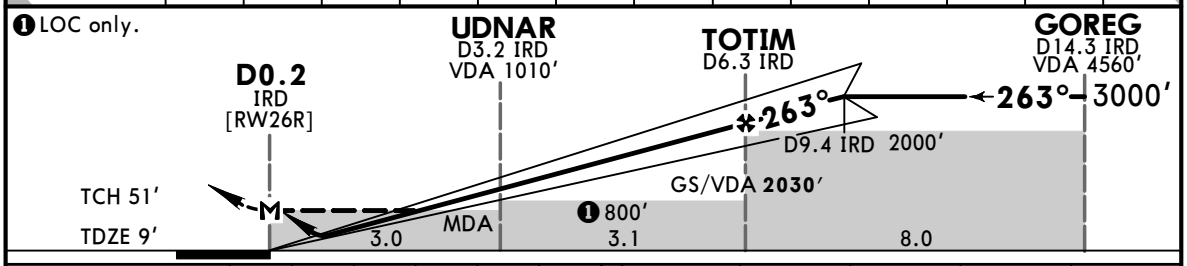
1. Radar or RNAV required. 2. SAFE ALTITUDE WITHIN 100 NM 12,800′. 3. Procedure turn NOT AUTHORIZED. 4. Simultaneous approach AUTHORIZED with Rwy 26L. 5. LOC reliable only within 10° either side of centerline.



MSA YVR VOR



NM to IRD DME	1.9	3.0	4.0	5.0	6.0	7.0	8.0	9.4	10.0	11.0	12.0	13.0	14.3
VDA ALTITUDE	600′	960′	1280′	1600′	1920′	2230′	2550′	3000′	3190′	3510′	3830′	4140′	4560′



Gnd speed-Kts		70	90	100	120	140	160
GS/VDA	3.00°	372	478	531	637	743	849
MAP at D0.2 IRD							
TOTIM to MAP	6.1	5:14	4:04	3:40	3:03	2:37	2:17

ALSF-II
PAPI

420′	263° hdg	3000′ RT	294° hdg

STRAIGHT-IN LANDING RWY **26R**

	ILS DME or ILS RADAR		LOC (GS out) DME or LOC (GS out) RADAR	
	DA(H) 209′ (200′)	DA(H) 259′ (250′)	MDA(H) 600′ (591′)	
	FULL	HIALS out		HIALS out
A	RVR 26 or ½	RVR 50 or 1	1¼	1¾
B				
C				
D				

CHANGES: Missed approach, waypoints, distances, altitudes, TCH, LOC angle.

CYVR/YVR
VANCOUVER INTL

JEPPESEN
17 FEB 23
Eff 23 Feb
(11-5A)

VANCOUVER, BC
ILS CAT II or III Rwy 26R

BRIEFING STRIP™

D-ATIS	PACIFIC Radio	VANCOUVER Arrival Outer	VANCOUVER Arrival Inner
124.6	123.15	128.175 128.6	133.1 134.225

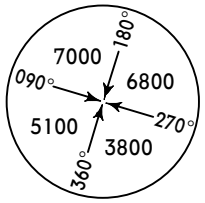
VANCOUVER Tower North	VANCOUVER Tower South	Ground North	Ground South
119.55 124.025	125.65 118.7	127.15	121.7

LOC IRD	Final Apch Crs	GS TOTIM	CAT IIIC	CAT IIIB	CAT IIIA	CAT II ILS	Apt Elev
111.95	263°	2030′ (2021′)	NA	NA	Refer to Minimums	RA 106′ DA(H) 109′(100′)	13′ TDZE 9′

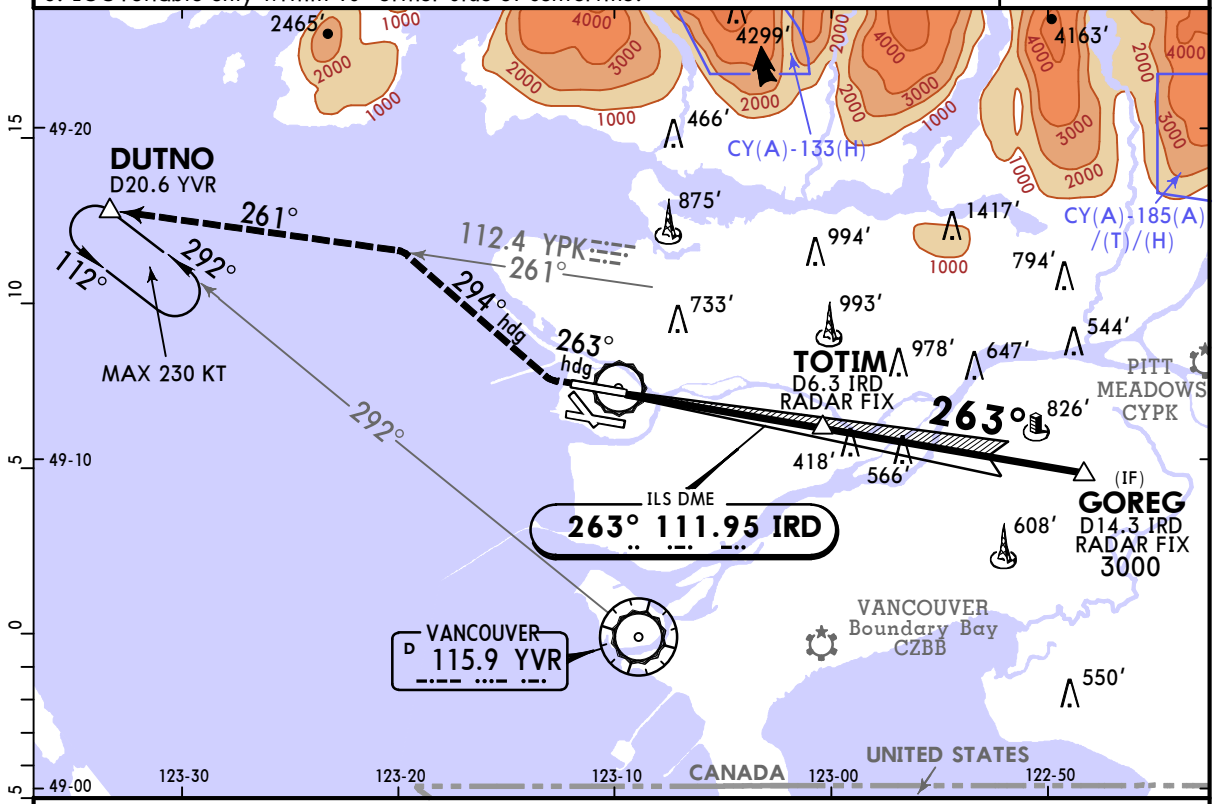
MISSED APCH: Climb to 420′ heading 263°. Then climbing RIGHT turn to 3000′ heading 294°. Intercept outbound R-261 YPK VOR to DUTNO. Shuttle climb at DUTNO to 5300′ before proceeding on course.

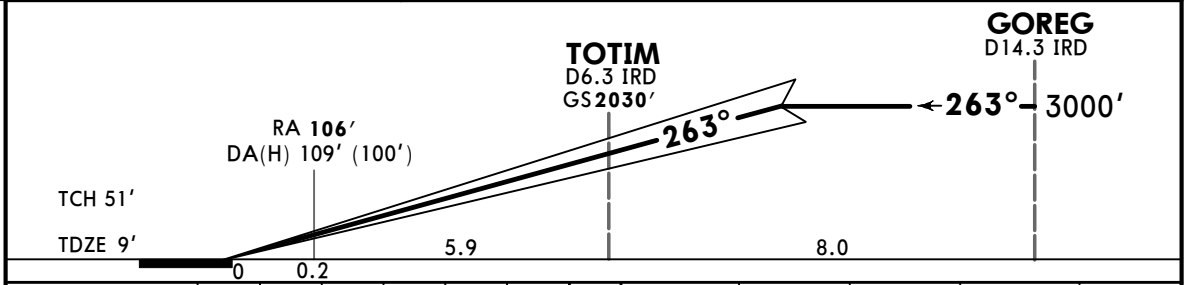
Alt Set: INCHES | Trans level: FL180 | Trans alt: 18000′

1. Radar or RNAV required. 2. PRIOR AUTHORIZATION REQUIRED FROM TRANSPORT CANADA. 3. SAFE ALTITUDE WITHIN 100 NM 12,800′. 4. Procedure turn NOT AUTHORIZED. 5. Simultaneous approach AUTHORIZED with Rwy 26L. 6. LOC reliable only within 10° either side of centerline.



MSA YVR VOR





Gnd speed-Kts	70	90	100	120	140	160
GS 3.00°	372	478	531	637	743	849

ALSF-II
PAPI
420′
263° hdg
3000′ RT
294° hdg

STRAIGHT-IN LANDING RWY 26R

CAT IIIC ILS	CAT IIIB ILS	CAT IIIA ILS	CAT II ILS
			RA 106′ DA(H) 109′(100′)
NOT AUTHORIZED	NOT AUTHORIZED	RVR 6	RVR 12

CHANGES: Missed approach, waypoints, distances, altitudes, TCH.

CYVR/YVR
VANCOUVER INTL

17 FEB 23
Eff 23 Feb

JEPPESEN
12-1

VANCOUVER, BC
RNAV (GNSS) Z Rwy 08L

BRIEFING STRIP ™

D-ATIS	PACIFIC Radio	VANCOUVER Arrival	
124.6	123.15	Outer 128.175 128.6	Inner 133.1 134.225

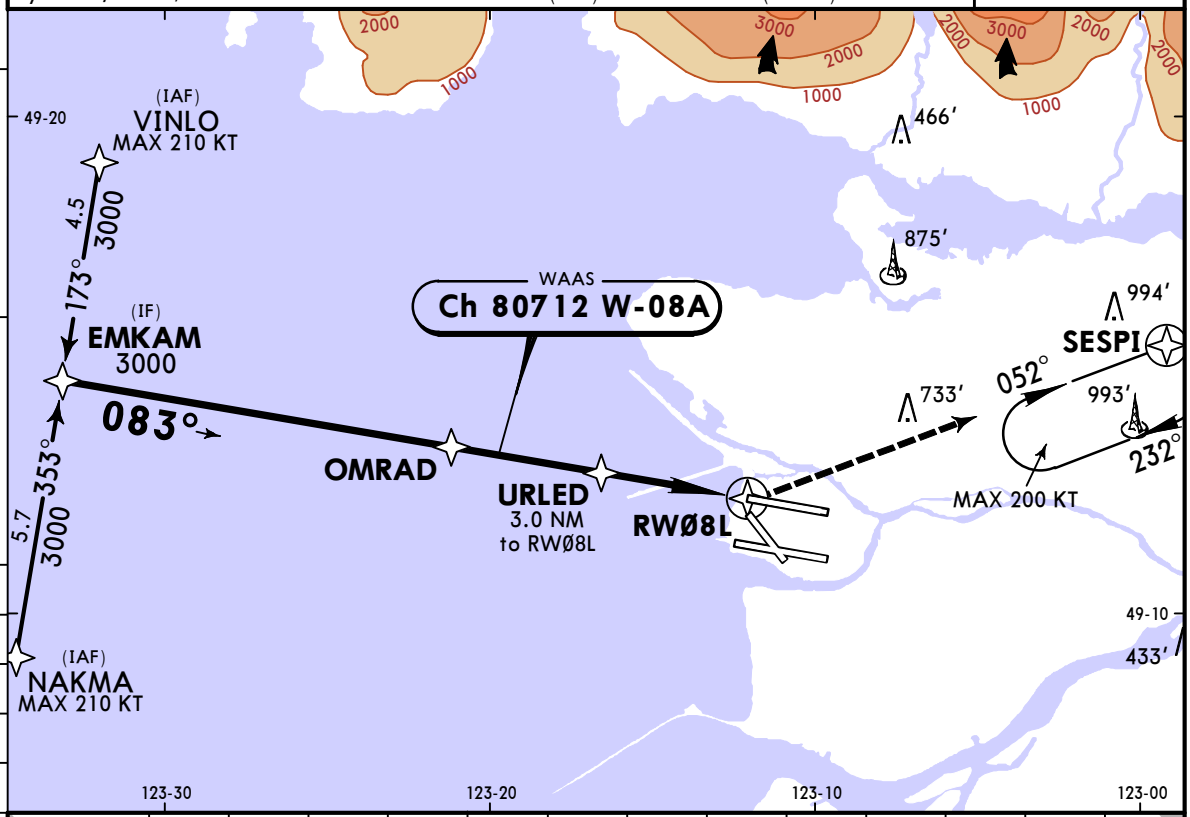
VANCOUVER Tower				Ground	
North			South	North	South
119.55	124.025	125.65	118.7	127.15	121.7

WAAS	Final Apch Crs	GPA	LPV DA(H) Refer to Minimums	Apt Elev 13′ Rwy 13′
Ch 80712 W-08A	083°	OMRAD 2000′ (1987′)		

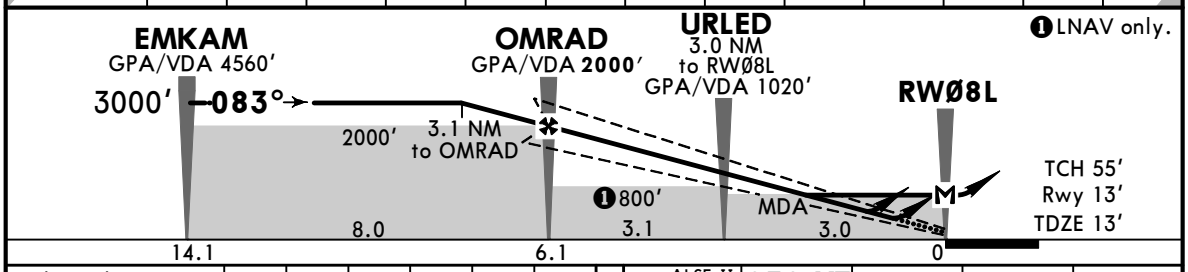
MISSED APCH: Do not exceed 230 KT until SESPI. Climbing LEFT turn to 3000′ direct to SESPI. As required shuttle climb.

Alt Set: INCHES | Trans level: FL180 | Trans alt: 18000′

1. SAFE ALTITUDE WITHIN 100 NM 12,800′. 2. Simultaneous approach AUTHORIZED with Rwy 08R. 3. LNAV procedure NOT AUTHORIZED during simultaneous operations. 4. Advise ATC if unable to conduct LPV or LNAV/VNAV approach. 5. For uncompensated Baro-VNAV systems, LNAV/VNAV not authorized below -18°C (0°F) or above 54°C (129°F).



NM to RWØ8L	14.1	12.0	11.0	10.0	9.2	8.0	7.0	6.0	5.0	4.0	3.0	2.0	1.0
VDA ALTITUDE	4560′	3890′	3570′	3250′	3000′	2620′	2300′	1980′	1660′	1340′	1020′	700′	380′



Gnd speed-Kts		70	90	100	120	140	160
GPA/VDA	3.00°	372	478	531	637	743	849
MAP at RWØ8L							

PAPI | ALSF-II | 230 KT MAX UNTIL SESPI | 3000′ LT | SESPI

STRAIGHT-IN LANDING RWY 08L

	LPV		LNAV/VNAV	LNAV	
	DA(H) 213′ (200′)	DA(H) 263′ (250′)	DA(H) 329′ (316′)	MDA(H) 380′ (367′)	
		HIALS out	HIALS out		HIALS out
A B C D	RVR 26 or ½	RVR 50 or 1	RVR 50 or 1	RVR 50 or 1	1¼

CHANGES: Missed approach, temp limit, VOR del, wpts, distances, altitude.

CYVR/YVR VANCOUVER INTL

JEPPESEN 17 FEB 23 (12-2) Eff 23 Feb

VANCOUVER, BC RNAV (GNSS) Rwy 08R

BRIEFING STRIP ™

D-ATIS	PACIFIC Radio	VANCOUVER Arrival	
124.6	123.15	Outer 128.175 128.6	Inner 133.1 134.225

VANCOUVER Tower				Ground	
North			South	North	South
119.55	124.025	125.65	118.7	127.15	121.7

WAAS	Final Apch Crs	GPA	LPV DA(H)	Apt Elev 13′
Ch 80922 W-08B	083°	TAVPI 2000′ (1991′)	Refer to Minimums	Rwy 9′

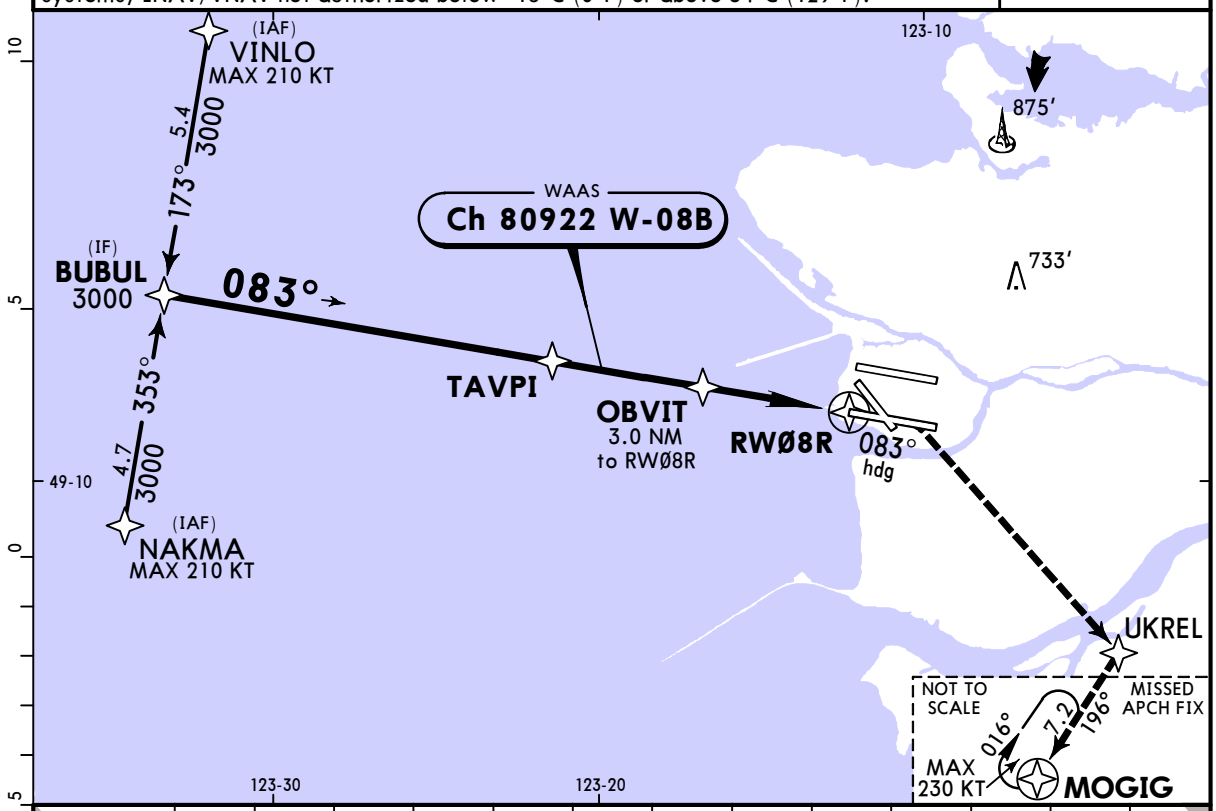
MISSED APCH: Do not exceed 200 KT until MOGIG. Climb to 600′ heading 083°. Climbing RIGHT turn to 2000′ direct to UKREL. Then track 196° to MOGIG. Shuttle climb at MOGIG to 5200′ before proceeding on course.

Alt Set: INCHES | Trans level: FL180 | Trans alt: 18000′

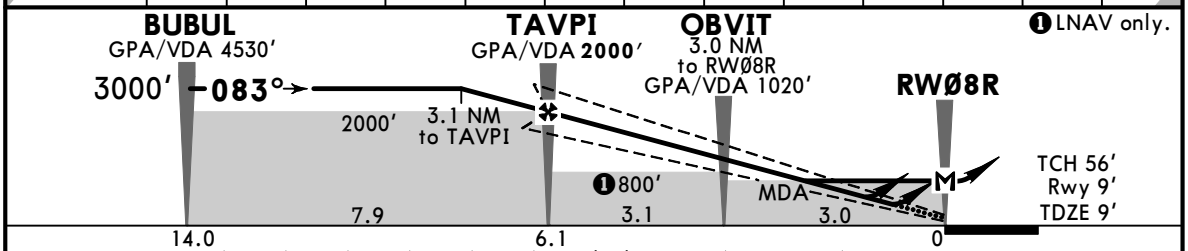
1. SAFE ALTITUDE WITHIN 100 NM 12,800′. 2. Simultaneous approach AUTHORIZED with Rwy 08L. 3. LNAV procedure NOT AUTHORIZED during simultaneous operations. 4. Advise ATC if unable to conduct LPV or LNAV/VNAV approach. 5. For uncompensated Baro-VNAV systems, LNAV/VNAV not authorized below -18°C (0°F) or above 54°C (129°F).

7800

MSA RWØ8R



NM to RWØ8R	14.0	12.0	11.0	10.0	9.2	8.0	7.0	6.0	5.0	4.0	3.0	2.0	1.0
VDA ALTITUDE	4530′	3890′	3570′	3250′	3000′	2610′	2290′	1980′	1660′	1340′	1020′	700′	380′



Gnd speed-Kts	70	90	100	120	140	160
GPA/VDA 3.00°	372	478	531	637	743	849
MAP at RWØ8R						

ALSF-II PAPI | 200 KT MAX UNTIL MOGIG | 600′ | 083° hdg | 2000′ RT | UKREL

STRAIGHT-IN LANDING RWY 08R

	LPV		LNAV/VNAV	LNAV	
	DA(H) 209′ (200′)	DA(H) 259′ (250′)	DA(H) 283′ (274′)	MDA(H) 380′ (371′)	
		HIALS out	HIALS out		HIALS out
A B C D	RVR 26 or ½	RVR 50 or 1	RVR 50 or 1	RVR 50 or 1	1¼

CHANGES: Procedure revised.

CYVR/YVR
VANCOUVER INTL

JEPPESEN
17 FEB 23 (12-3) Eff 23 Feb

VANCOUVER, BC
RNAV (GNSS) Rwy 13

D-ATIS	PACIFIC Radio	VANCOUVER Arrival	
124.6	123.15	Outer 128.175 128.6	Inner 133.1 134.225

VANCOUVER Tower				Ground	
North			South	North	South
119.55	124.025	125.65	118.7	127.15	121.7

WAAS	Final Apch Crs	GPA	LPV DA(H)	Apt Elev 13′
Ch 80550 W-13A	125°	UDLEM 2300′ (2292′)	258′ (250′)	Rwy 8′

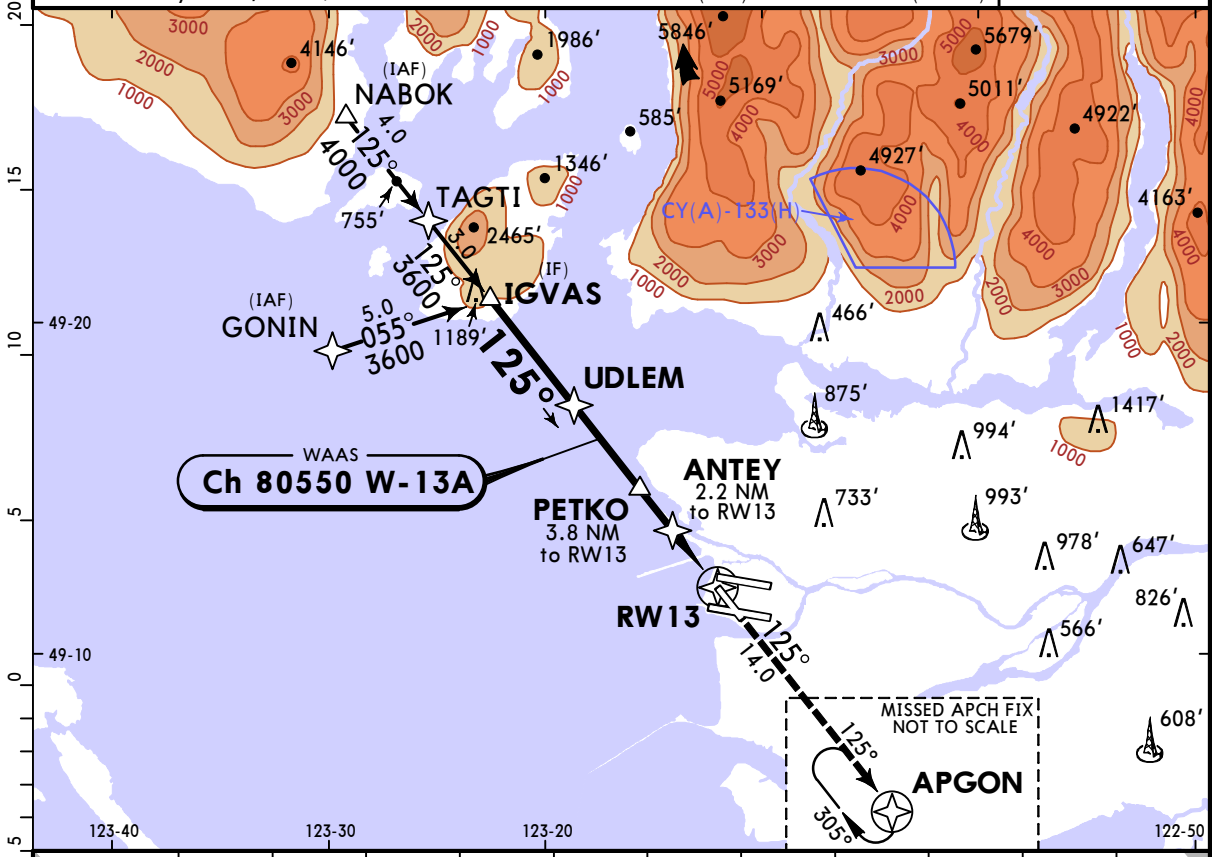
MISSED APCH: Climb to 3000′ track 125° to APGON. Shuttle to 5800′ before proceeding on course.

Alt Set: INCHES | Trans level: FL180 | Trans alt: 18000′

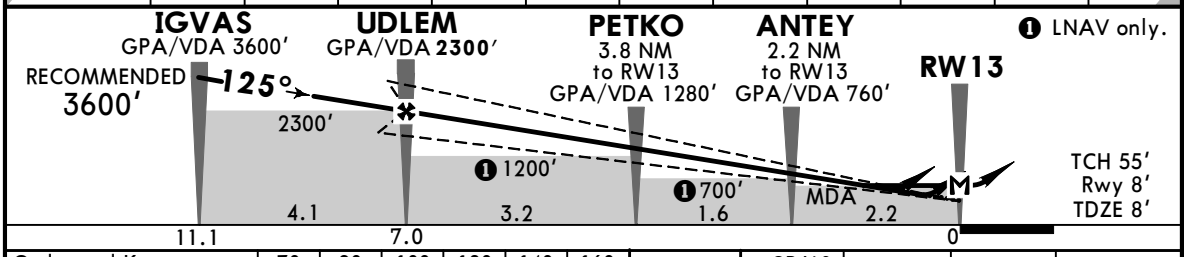
1. SAFE ALTITUDE WITHIN 100 NM 12,800′. 2. RADAR required. 3. For uncompensated Baro-VNAV systems, LNAV/VNAV not authorized below -18°C (0°F) or above 54°C (129°F).

7800
MSA RW13

BRIEFING STRIP™



NM to RW13	11.1	10.0	9.0	8.0	7.0	6.0	5.0	4.0	3.0	2.0	1.1
VDA ALTITUDE	3600′	3250′	2930′	2610′	2290′	1970′	1660′	1340′	1020′	700′	400′



Gnd speed-Kts		70	90	100	120	140	160	ODALS	3000′	125°	APGON
GPA/VDA	3.00°	372	478	531	637	743	849	PAPI			
MAP at RW13											

STRAIGHT-IN LANDING RWY 13

	LPV	LNAV/VNAV	LNAV
	DA(H) 258′ (250′)	DA(H) 330′ (322′)	MDA(H) 400′ (392′)
	ALS out	ALS out	ALS out
A	1	1	1¼
B			
C			
D			

CHANGES: None.

CYVR/YVR
VANCOUVER INTL

JEPPESEN
17 FEB 23 (12-4) Eff 23 Feb

VANCOUVER, BC
RNAV (GNSS) Rwy 26L

BRIEFING STRIP ™

D-ATIS	PACIFIC Radio	VANCOUVER Arrival	
		Outer	Inner
124.6	123.15	128.175 128.6	133.1 134.225

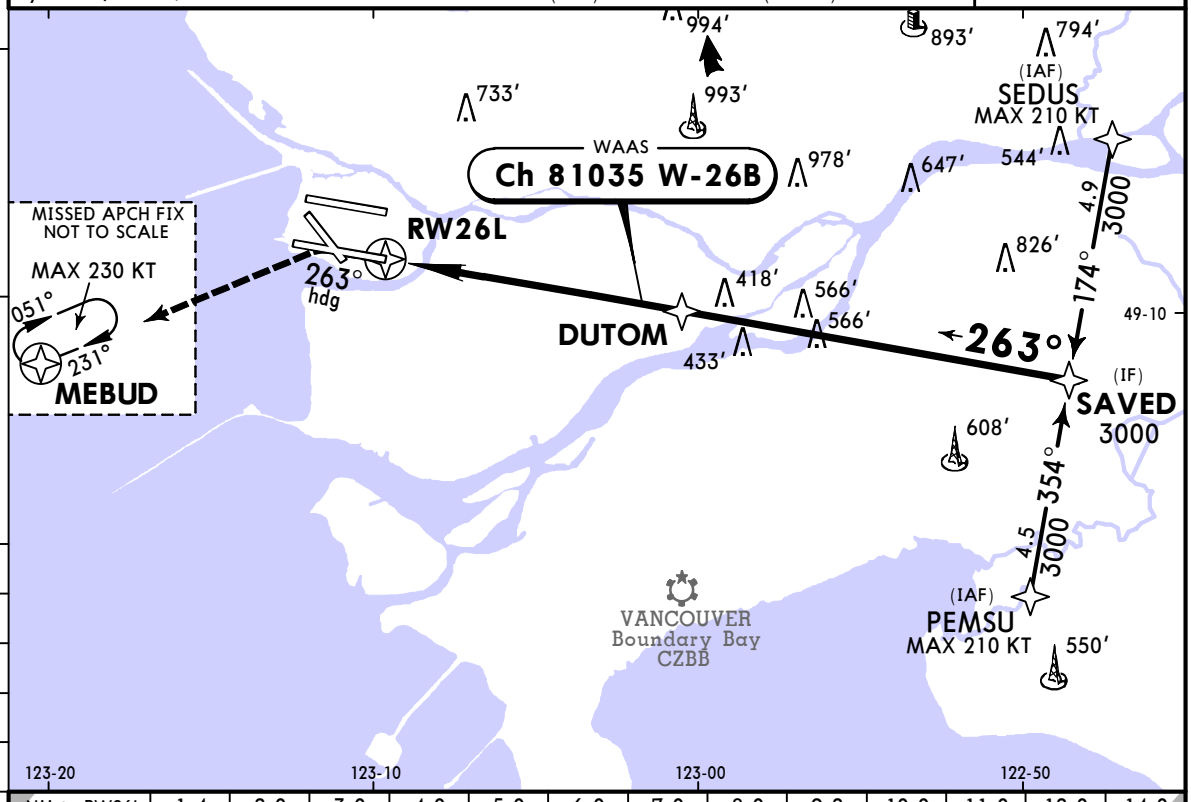
VANCOUVER Tower				Ground	
North			South	North	South
119.55	124.025	125.65	118.7	127.15	121.7

WAAS	Final Apch Crs	GPA	LPV DA(H) Refer to Minimums	Apt Elev 13′ Rwy 7′
Ch 81035 W-26B	263°	DUTOM 2000′ (1993′)		

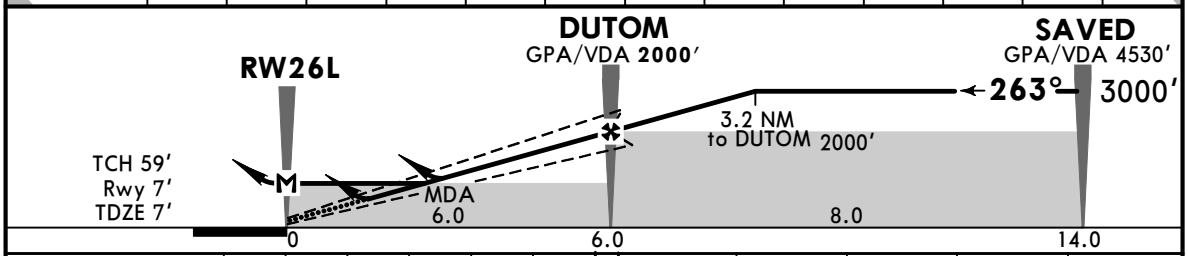
MISSED APCH: Climb to 600′ heading 263°. Then climbing LEFT turn to 2000′ direct to MEBUD. Shuttle climb at MEBUD to 5100′ before proceeding on course.

Alt Set: INCHES | Trans level: FL180 | Trans alt: 18000′

1. SAFE ALTITUDE WITHIN 100 NM 12,800′. 2. Simultaneous approach AUTHORIZED with Rwy 26R. 3. LNAV procedure NOT AUTHORIZED during simultaneous operations. 4. Advise ATC if unable to conduct LPV or LNAV/VNAV approach. 5. For uncompensated Baro-VNAV systems, LNAV/VNAV not authorized below -17°C (1°F) or above 54°C (129°F).



NM to RW26L	1.4	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.2	10.0	11.0	12.0	14.0
VDA ALTITUDE	520′	700′	1020′	1340′	1660′	1980′	2300′	2610′	3000′	3250′	3570′	3890′	4530′



Gnd speed-Kts	70	90	100	120	140	160
GPA/VDA 3.00°	372	478	531	637	743	849
MAP at RW26L						

ALSF-II | PAPI | 600′ | 263° hdg | 2000′ LT | MEBUD

STRAIGHT-IN LANDING RWY **26L**

	LPV		LNAV/VNAV		LNAV	
	DA(H) 207′ (200′)	DA(H) 257′ (250′)	DA(H) 566′ (559′)		MDA(H) 520′ (513′)	
		HIALS out		HIALS out		HIALS out
A B C D	RVR 26 or ½	RVR 50 or 1	1½	1¾	RVR 50 or 1	1½

CHANGES: Procedure revised.

CYVR/YVR
VANCOUVER INTL

JEPPESEN
17 FEB 23 (12-5) Eff 23 Feb

VANCOUVER, BC
RNAV (GNSS) Rwy 26R

BRIEFING STRIP™

D-ATIS	PACIFIC Radio	VANCOUVER Arrival	
124.6	123.15	Outer 128.175 128.6	Inner 133.1 134.225

VANCOUVER Tower				Ground	
North			South	North	South
119.55	124.025	125.65	118.7	127.15	121.7

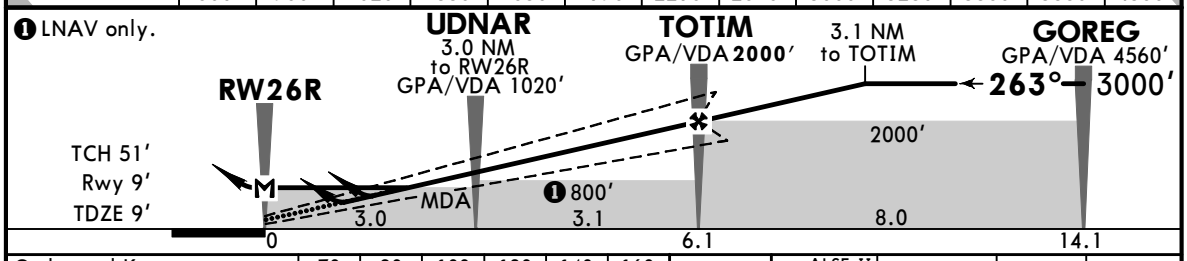
WAAS	Final Apch Crs	GPA	LPV DA(H)	Apt Elev 13′
Ch 80687 W-26A	263°	TOTIM 2000′ (1991′)	Refer to Minimums	Rwy 9′

MISSED APCH: Do not exceed 230 KT until DUTNO. Climb to 700′ heading 263°. Climbing RIGHT turn to 3000′ direct to KEDGA. Then climb track 245° to DUTNO. Shuttle climb at DUTNO to 5300′ before proceeding on course.

Alt Set: INCHES | Trans level: FL180 | Trans alt: 18000′

1. SAFE ALTITUDE WITHIN 100 NM 12,800′. 2.Simultaneous approach AUTHORIZED with Rwy 26L. 3. LNAV procedure NOT AUTHORIZED during simultaneous operations. 4. Advise ATC if unable to conduct LPV or LNAV/VNAV approach. 5. For uncompensated Baro-VNAV systems, LNAV/VNAV not authorized below -18°C (0°F) or above 54°C (129°F).

NM to RW26R	1.7	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.2	10.0	11.0	12.0	14.1
VDA ALTITUDE	600′	700′	1020′	1330′	1650′	1970′	2290′	2610′	3000′	3250′	3560′	3880′	4560′



Gnd speed-Kts		70	90	100	120	140	160
GPA/VDA	3.00°	372	478	531	637	743	849
MAP at RW26R							

ALSF-II
PAPI

230 KT MAX UNTIL DUTNO

700′

263° hdg

STRAIGHT-IN LANDING RWY 26R

	LPV		LNAV/VNAV		LNAV	
	DA(H) 209′ (200′)	DA(H) 259′ (250′)	DA(H) 567′ (558′)		MDA(H) 600′ (591′)	
		HIALS out		HIALS out		HIALS out
A B C D	RVR 26 or ½	RVR 50 or 1	1½	1¾	1¼	1¾

CHANGES: Procedure revised.

CYVR/YVR VANCOUVER INTL

JEPPESEN 17 FEB 23 (12-6) Eff 23 Feb

VANCOUVER, BC RNAV (GNSS) Rwy 31

BRIEFING STRIP™

D-ATIS	PACIFIC Radio	VANCOUVER Arrival	
124.6	123.15	Outer 128.175 128.6	Inner 133.1 134.225

VANCOUVER Tower				Ground	
North			South	North	South
119.55	124.025	125.65	118.7	127.15	121.7

WAAS	Final Apch Crs	GPA	LPV DA(H)	Apt Elev 13′
Ch 80139 W-31A	305°	KEKTU 2000′ (1993′)	257′ (250′)	Rwy 7′

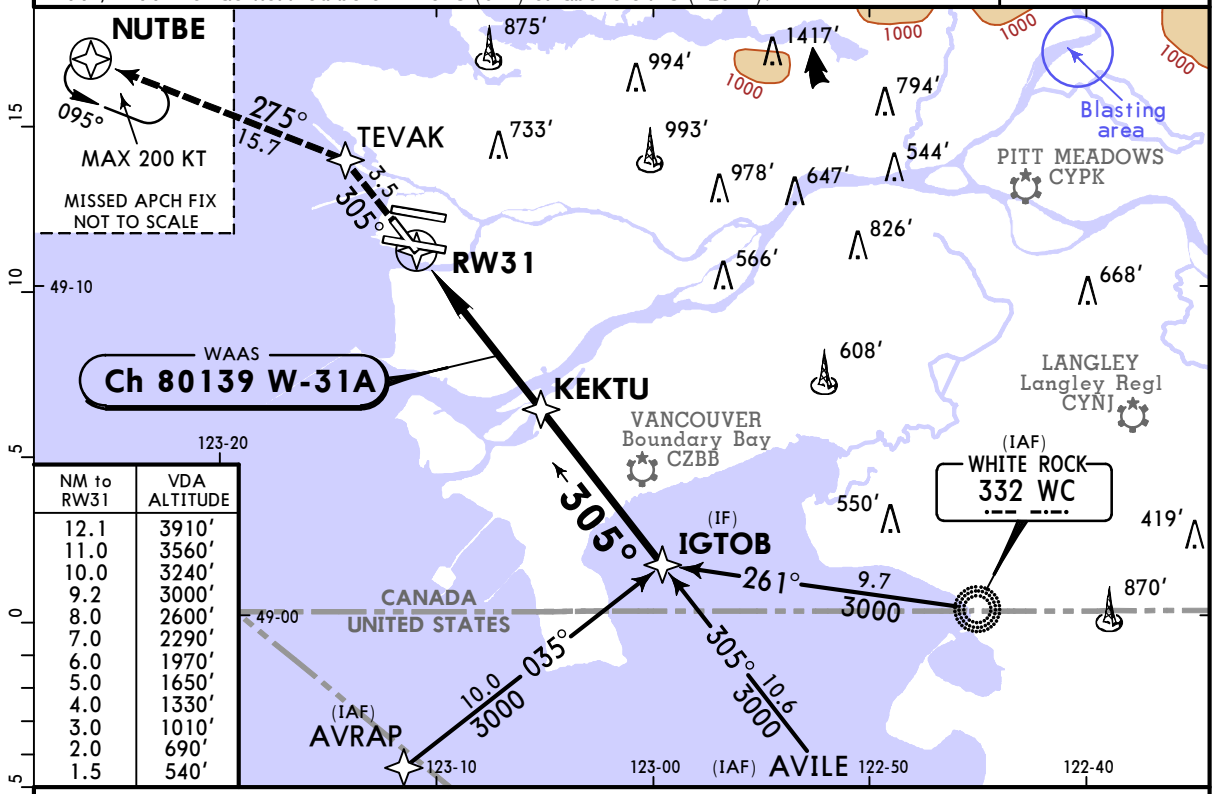
MISSED APCH: Climb track 305° to TEVAK, then climbing LEFT turn to 3000′ track 275° to NUTBE. Shuttle to 5600′ before proceeding on course.

Alt Set: INCHES | Trans level: FL180 | Trans alt: 18000′

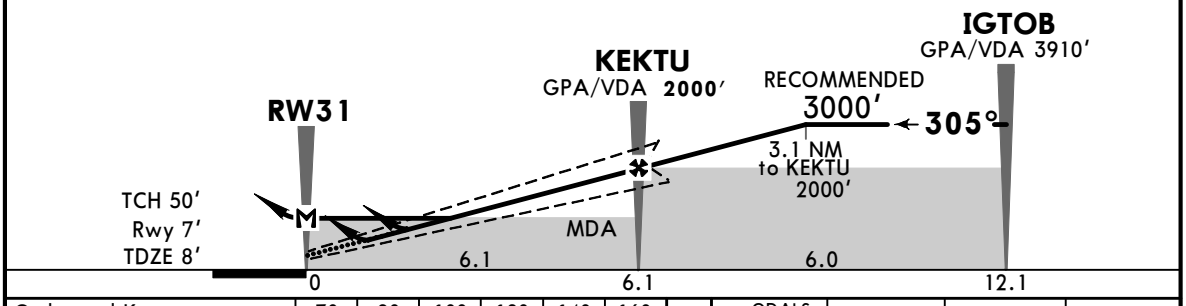
1. SAFE ALTITUDE WITHIN 100 NM 12,800′. 2. For uncompensated Baro-VNAV systems, LNAV/VNAV not authorized below -18°C (0°F) or above 54°C (129°F).

7800

MSA RW31



NM to RW31	VDA ALTITUDE
12.1	3910′
11.0	3560′
10.0	3240′
9.2	3000′
8.0	2600′
7.0	2290′
6.0	1970′
5.0	1650′
4.0	1330′
3.0	1010′
2.0	690′
1.5	540′



Gnd speed-Kts		70	90	100	120	140	160
GPA/VDA	3.00°	372	478	531	637	743	849
MAP at RW31							

ODALS PAPI

305° TEVAK

STRAIGHT-IN LANDING RWY 31

	LPV	LNAV/VNAV	LNAV
	DA(H) 257′ (250′)	DA(H) 353′ (346′)	MDA(H) 540′ (533′)
	ALS out	ALS out	ALS out
A	1	1¼	1¾
B			
C			
D			

CHANGES: None.

CYVR/YVR
VANCOUVER INTL

JEPPESEN
14 APR 23
Eff 20 Apr
12-20

VANCOUVER, BC
RNAV (RNP) Y Rwy 08L

BRIEFING STRIP ™

D-ATIS	PACIFIC Radio	VANCOUVER Arrival	
124.6	123.15	Outer 128.17 128.6	Inner 133.1 134.225

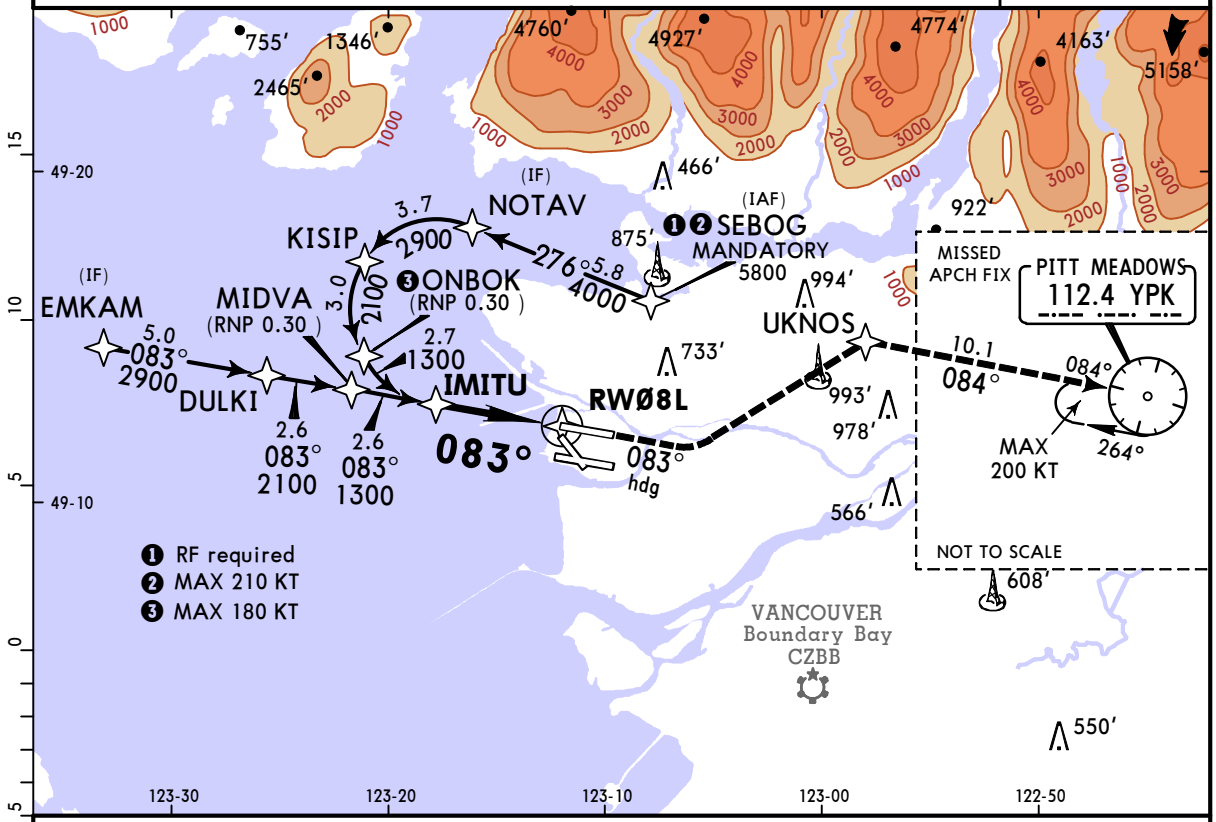
VANCOUVER Tower		Ground	
North	South	North	South
119.55	118.7	127.15	121.7

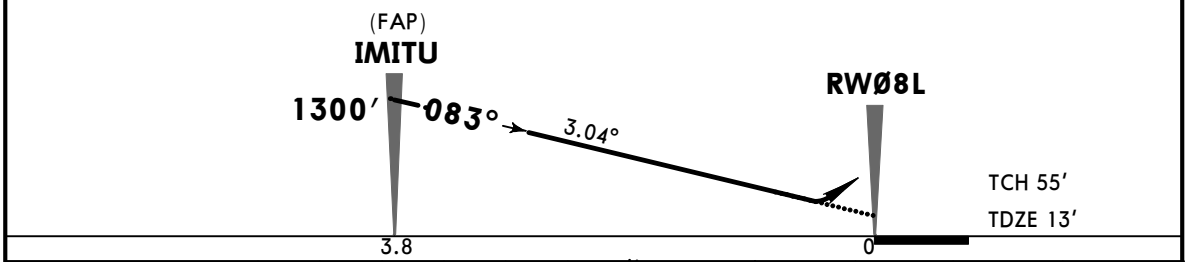
RNAV	Final Apch Crs	Minimum Alt	RNP 0.15 DA(H)	Apt Elev 13′
	083°	IMITU 1300′ (1287′)	302′ (289′)	TDZE 13′

MISSED APCH: Climb to 420′ heading 083°. Then climbing LEFT turn to 3500′ direct to UKNOS.Then climb track 084° to YPK VOR.

Alt Set: INCHES | Trans level: FL180 | Trans alt: 18000′

1. AUTHORIZATION REQUIRED. 2. SAFE ALTITUDE WITHIN 100 NM 12,800′.
3. Simultaneous approach AUTHORIZED with Rwy 08R. 4. For uncompensated Baro-VNAV systems, procedure not authorized below -20°C (-4°F) or above 54°C (129°F).





Gnd speed-Kts		70	90	100	120	140	160
Descent Angle	3.04°	376	484	538	645	753	861

ALSF-II | PAPI | 420′ | 083° hdg | 3500′ LT | UKNOS

STRAIGHT-IN LANDING RWY 08L

	RNP 0.15 DA(H) 302′ (289′)		RNP 0.30 DA(H) 334′ (321′)	
	HIALS out		HIALS out	
A	RVR 50 or 1		RVR 50 or 1	
B				
C				
D				

CHANGES: Waypoint ident, speed restriction changed.

JEPPESEN
JeppView for Windows

Chart changes since cycle 08-2023

ADD = added chart, REV = revised chart, DEL = deleted chart.

ACT	PROCEDURE IDENT	INDEX	REV DATE	EFF DATE
TORONTO, ON (LESTER B PEARSON INTL - CYYZ)				
REV	AIRPORT BRIEFING	10-1P	28 Apr 2023	
REV	AIRPORT BRIEFING (CONTD 1...	10-1P1	28 Apr 2023	
REV	BOXUM 6 ARR (RWYS 05 & 06...	10-2	28 Apr 2023	
REV	BOXUM 6 ARR (RWYS 15L/R)	10-2A	28 Apr 2023	
REV	BOXUM 6 ARR (RWYS 23 & 24...	10-2A1	28 Apr 2023	
REV	BOXUM 6 ARR (RWYS 33L/R)	10-2A2	28 Apr 2023	
REV	DUVOS 4 ARR (RWYS 05 & 06...	10-2B	28 Apr 2023	
REV	DUVOS 4 ARR (RWYS 15L/R)	10-2B1	28 Apr 2023	
REV	DUVOS 4 ARR (RWYS 23 & 24...	10-2B2	28 Apr 2023	
REV	DUVOS 4 ARR (RWY 33L)	10-2B3	28 Apr 2023	
REV	DUVOS 4 ARR (RWY 33R)	10-2B4	28 Apr 2023	
REV	IMEBA 9 ARR (RWYS 05 & 06...	10-2C	28 Apr 2023	
REV	IMEBA 9 ARR (RWYS 15L/R)	10-2C1	28 Apr 2023	
REV	IMEBA 9 ARR (RWYS 23 & 24...	10-2C2	28 Apr 2023	
REV	IMEBA 9 ARR (RWYS 33L/R)	10-2C3	28 Apr 2023	
REV	LINNG 3 ARR (RWYS 05 & 06...	10-2D	28 Apr 2023	
REV	LINNG 3 ARR (RWYS 15L/R)	10-2D1	28 Apr 2023	
REV	LINNG 3 ARR (RWYS 23 & 24...	10-2D2	28 Apr 2023	
REV	LINNG 3 ARR (RWYS 33L/R)	10-2D3	28 Apr 2023	
REV	NAKBO 5 ARR (RWYS 05 & 06...	10-2E	28 Apr 2023	
REV	NAKBO 5 ARR (RWYS 15L/R &...	10-2E1	28 Apr 2023	
REV	NAKBO 5 ARR (RWYS 23 & 24...	10-2E2	28 Apr 2023	
REV	NUBER 5 ARR (RWYS 05 & 06...	10-2E3	28 Apr 2023	
REV	NUBER 5 ARR (RWYS 15L/R &...	10-2E4	28 Apr 2023	
REV	NUBER 5 ARR (RWYS 23 & 24...	10-2E5	28 Apr 2023	
REV	RAGID 5 ARR (RWYS 05 & 06...	10-2F	28 Apr 2023	
REV	RAGID 5 ARR (RWYS 15L/R)	10-2F1	28 Apr 2023	
REV	RAGID 5 ARR (RWYS 23 & 24...	10-2F2	28 Apr 2023	
REV	RAGID 5 ARR (RWYS 33L/R)	10-2F3	28 Apr 2023	
REV	UDNOX 5 ARR (RWYS 05 & 06...	10-2G	28 Apr 2023	
REV	UDNOX 5 ARR (RWYS 15L/R)	10-2G1	28 Apr 2023	
REV	UDNOX 5 ARR (RWYS 23 & 24...	10-2G2	28 Apr 2023	
REV	UDNOX 5 ARR (RWYS 33L/R)	10-2G3	28 Apr 2023	
REV	VERKO 1 ARR (RWYS 05 & 06...	10-2H	28 Apr 2023	
REV	VERKO 1 ARR (RWYS 15L/R)	10-2H1	28 Apr 2023	
REV	VERKO 1 ARR (RWYS 23 & 24...	10-2H2	28 Apr 2023	
REV	VERKO 1 ARR (RWYS 33L/R)	10-2H3	28 Apr 2023	
REV	VIBLI 6 ARR (RWYS 05 & 06...	10-2J	28 Apr 2023	
REV	VIBLI 6 ARR (RWYS 15L/R)	10-2J1	28 Apr 2023	
REV	VIBLI 6 ARR (RWYS 23 & 24...	10-2J2	28 Apr 2023	
REV	VIBLI 6 ARR (RWYS 33L/R)	10-2J3	28 Apr 2023	
REV	ANCOL 5 DEP (RWYS 05, 06L...	10-3	28 Apr 2023	
REV	ANCOL 5 DEP (RWYS 15L/R &...	10-3A	28 Apr 2023	
REV	ARROW 4 DEP	10-3A1	28 Apr 2023	
REV	AVSEP 7 DEP (RWYS 05, 06L...	10-3A2	28 Apr 2023	
REV	AVSEP 7 DEP (RWYS 15L/R &...	10-3A3	28 Apr 2023	
REV	BETES 3 DEP (RWYS 05, 06L...	10-3B	28 Apr 2023	
REV	BETES 3 DEP (RWYS 15L/R &...	10-3B1	28 Apr 2023	
REV	BOMET 8 DEP (RWYS 05, 06L...	10-3B2	28 Apr 2023	

REV	BOMET 8 DEP (RWYS 15L/R &...	10-3B3	28 Apr 2023
REV	DEDKI 5 DEP (RWYS 05, 06L...	10-3C	28 Apr 2023
REV	DEDKI 5 DEP (RWYS 15L/R &...	10-3C1	28 Apr 2023
REV	DUSOM 3 DEP (RWYS 05, 06L...	10-3C2	28 Apr 2023
REV	DUSOM 3 DEP (RWYS 15L/R &...	10-3C3	28 Apr 2023
REV	EBKIN 4 DEP (RWYS 05, 06L...	10-3D	28 Apr 2023
REV	EBKIN 4 DEP (RWYS 15L/R &...	10-3D1	28 Apr 2023
REV	GOPUP 4 DEP (RWYS 05, 06L...	10-3D2	28 Apr 2023
REV	GOPUP 4 DEP (RWYS 15L/R &...	10-3D3	28 Apr 2023
REV	IKLEN 3 DEP (RWYS 05, 06L...	10-3E	28 Apr 2023
REV	IKLEN 3 DEP (RWYS 15L/R &...	10-3E1	28 Apr 2023
REV	KEPTA 3 DEP (RWYS 05, 06L...	10-3E2	28 Apr 2023
REV	KEPTA 3 DEP (RWYS 15L/R &...	10-3E3	28 Apr 2023
REV	KISEP 4 DEP (RWYS 05, 06L...	10-3E4	28 Apr 2023
REV	KISEP 4 DEP (RWYS 15L/R &...	10-3E5	28 Apr 2023
REV	LAKES 4 DEP (RWYS 05, 06L...	10-3F	28 Apr 2023
REV	LAKES 4 DEP (RWYS 15L/R &...	10-3F1	28 Apr 2023
REV	MATES 6 DEP (RWYS 05, 06L...	10-3G	28 Apr 2023
REV	MATES 6 DEP (RWYS 15L/R &...	10-3G1	28 Apr 2023
REV	MAVAN 3 DEP (RWYS 05, 06L...	10-3G2	28 Apr 2023
REV	MAVAN 3 DEP (RWYS 15L/R &...	10-3G3	28 Apr 2023
REV	MIXUT 7 DEP (RWYS 05, 06L...	10-3G4	28 Apr 2023
REV	MIXUT 7 DEP (RWYS 15L/R &...	10-3G5	28 Apr 2023
REV	NOSIK 4 DEP (RWYS 05, 06L...	10-3H	28 Apr 2023
REV	NOSIK 4 DEP (RWYS 15L/R &...	10-3H1	28 Apr 2023
REV	NUGOP 6 DEP (RWYS 05, 06L...	10-3H2	28 Apr 2023
REV	NUGOP 6 DEP (RWYS 15L/R &...	10-3H3	28 Apr 2023
REV	OAKVL 3 DEP (RWYS 05, 06L...	10-3H4	28 Apr 2023
REV	OAKVL 3 DEP (RWYS 15L/R &...	10-3H5	28 Apr 2023
REV	PEMBA 6 DEP (RWYS 05, 06L...	10-3J	28 Apr 2023
REV	PEMBA 6 DEP (RWYS 15L/R &...	10-3J1	28 Apr 2023
REV	PERLO 5 DEP (RWYS 05, 06L...	10-3J2	28 Apr 2023
REV	PERLO 5 DEP (RWYS 15L/R &...	10-3J3	28 Apr 2023
REV	RIGUS 5 DEP (RWYS 05, 06L...	10-3K	28 Apr 2023
REV	RIGUS 5 DEP (RWYS 15L/R &...	10-3K1	28 Apr 2023
REV	SEDOG 6 DEP (RWYS 05, 06L...	10-3L	28 Apr 2023
REV	SEDOG 6 DEP (RWYS 15L/R &...	10-3M	28 Apr 2023
REV	TEVAD 3 DEP (RWYS 05, 06L...	10-3N	28 Apr 2023
REV	TEVAD 3 DEP (RWYS 15L/R &...	10-3P	28 Apr 2023
REV	TORONTO 4 DEP	10-3Q	28 Apr 2023
REV	TULEK 4 DEP (RWYS 05, 06L...	10-3Q1	28 Apr 2023
REV	TULEK 4 DEP (RWYS 15L/R &...	10-3Q2	28 Apr 2023
REV	URSAL 4 DEP (RWYS 05, 06L...	10-3Q3	28 Apr 2023
REV	URSAL 4 DEP (RWYS 15L/R &...	10-3Q4	28 Apr 2023
REV	VERDO 7 DEP (RWYS 05, 06L...	10-3S	28 Apr 2023
REV	VERDO 7 DEP (RWYS 15L/R &...	10-3T	28 Apr 2023
REV	NOISE ABATEMENT	10-4	28 Apr 2023
REV	NOISE ABATEMENT CONTD 1	10-4A	28 Apr 2023
REV	NOISE ABATEMENT CONTD 2	10-4B	28 Apr 2023
REV	CONSTRUCTION ACTIVITIES (...	10-8	28 Apr 2023
REV	CONSTRUCTION ACTIVITIES (...	10-8A	28 Apr 2023
REV	CONSTRUCTION ACTIVITIES (...	10-8B	28 Apr 2023
REV	CONSTRUCTION ACTIVITIES (...	10-8C	28 Apr 2023
REV	CONSTRUCTION ACTIVITIES (...	10-8D	28 Apr 2023
REV	CONSTRUCTION ACTIVITIES (...	10-8E	28 Apr 2023
REV	CONSTRUCTION ACTIVITIES (...	10-8F	28 Apr 2023

REV	CONSTRUCTION ACTIVITIES (...	10-8G	28 Apr 2023
REV	CONSTRUCTION ACTIVITIES (...	10-8H	28 Apr 2023
REV	AIRPORT, AIRPORT INFO	10-9	28 Apr 2023
REV	AIRPORT INFO (CONTD), TAK...	10-9A	28 Apr 2023
REV	APRON PROCS, PARKING GATE...	10-9B	28 Apr 2023
REV	TAXILANE LIMITATIONS	10-9B1	28 Apr 2023
REV	TAXILANE LIMITATIONS CONT...	10-9B2	28 Apr 2023
REV	PARKING AREAS (INFIELD)	10-9C	28 Apr 2023
REV	COMMUTER PARKING AREAS	10-9D	28 Apr 2023
REV	PARKING POSITION COORDS	10-9D1	28 Apr 2023
REV	LOW VIS TAXI CHART, LAND ...	10-9E	28 Apr 2023
REV	LOW VIS TAXI CHART, LAND ...	10-9F	28 Apr 2023
REV	LOW VIS TAXI CHART, LAND ...	10-9F1	28 Apr 2023
REV	LOW VIS PROCS	10-9G	28 Apr 2023
REV	DE-ICING	10-9H	28 Apr 2023
REV	DE-ICING CONTD 1	10-9J	28 Apr 2023
REV	DE-ICING CONTD 2	10-9K	28 Apr 2023
REV	ENGINE FAN BLADE ICE SHED...	10-9L	28 Apr 2023
REV	ENGINE FAN BLADE ICE SHED...	10-9M	28 Apr 2023
REV	ILS RWY 05	11-1	28 Apr 2023
REV	ILS RWY 33R	11-10	28 Apr 2023
REV	ILS CAT II OR III RWY 05	11-1A	28 Apr 2023
REV	ILS RWY 06L	11-2	28 Apr 2023
REV	ILS CAT II OR III RWY 06L	11-2A	28 Apr 2023
REV	ILS RWY 06R	11-3	28 Apr 2023
REV	ILS RWY 15L	11-4	28 Apr 2023
REV	ILS RWY 15R	11-5	28 Apr 2023
REV	ILS RWY 23	11-6	28 Apr 2023
REV	ILS RWY 24L	11-7	28 Apr 2023
REV	ILS RWY 24R	11-8	28 Apr 2023
REV	ILS RWY 33L	11-9	28 Apr 2023
REV	ESTABLISHED ON RNP AR USE...	12-0	28 Apr 2023
REV	RNAV (GNSS) Z RWY 05	12-1	28 Apr 2023
REV	RNAV (GNSS) X RWY 23	12-10	28 Apr 2023
REV	RNAV (GNSS) Z RWY 24L	12-11	28 Apr 2023
REV	RNAV (GNSS) X RWY 24L	12-12	28 Apr 2023
REV	RNAV (GNSS) Z RWY 24R	12-13	28 Apr 2023
REV	RNAV (GNSS) X RWY 24R	12-14	28 Apr 2023
REV	RNAV (GNSS) Z RWY 33L	12-15	28 Apr 2023
REV	RNAV (GNSS) Z RWY 33R	12-16	28 Apr 2023
REV	RNAV (GNSS) X RWY 05	12-2	28 Apr 2023
REV	RNAV (RNP) Y RWY 05	12-20	28 Apr 2023
REV	RNAV (RNP) Y RWY 23	12-21	28 Apr 2023
REV	RNAV (GNSS) Z RWY 06L	12-3	28 Apr 2023
REV	RNAV (GNSS) X RWY 06L	12-4	28 Apr 2023
REV	RNAV (GNSS) Z RWY 06R	12-5	28 Apr 2023
REV	RNAV (GNSS) X RWY 06R	12-6	28 Apr 2023
REV	RNAV (GNSS) Z RWY 15L	12-7	28 Apr 2023
REV	RNAV (GNSS) Z RWY 15R	12-8	28 Apr 2023
REV	RNAV (GNSS) Z RWY 23	12-9	28 Apr 2023

VANCOUVER, BC (VANCOUVER INTL - CYVR)

TERMINAL CHART CHANGE NOTICES

No Chart Change Notices for Airport CYVR

No Chart Change Notices for Airport CYYZ

Chart Change Notices for Country CAN

Type: Gen Tmnl
Effectivity: Permanent
Begin Date: Immediately
End Date: No end date

At locations with approach charts depicting the Plan View Ball Flag Note: "Minimum VDA intercept [altitude]" or "Recommended VDA intercept [altitude]", it should read "VDA intercept based on [altitude]".

Communication Information For CZEG ACC

No communication information available

Communication Information For CZEG FIR

CPDLC Service: CPDLC SERVICES ARE AVAILABLE WITH LOGON ADDRESS OF CZEG IN EDMONTON FIR
SATCOM Service: SATCOM VOICE DIRECT DIAL IS 1-780-890-2775
INMARSAT Service: INMARSAT SECURITY NUMBER IS 431601 INMARSAT SECURITY NUMBER FOR ARCTIC RADIO IS 431610

Callsign:	Frequency	Radar	ServiceIndicators
Type: ACC:			
EDMONTON CENTRE:	123.7 MHz		
EDMONTON CENTRE:	123.9 MHz		
EDMONTON CENTRE:	124.15 MHz		
EDMONTON CENTRE:	124.2 MHz		
EDMONTON CENTRE:	124.25 MHz		
EDMONTON CENTRE:	124.3 MHz		
EDMONTON CENTRE:	124.45 MHz		
EDMONTON CENTRE:	124.52 MHz		
EDMONTON CENTRE:	124.75 MHz		
EDMONTON CENTRE:	124.85 MHz		
EDMONTON CENTRE:	125.05 MHz		
EDMONTON CENTRE:	127.77 MHz		
EDMONTON CENTRE:	132.05 MHz		
EDMONTON CENTRE:	132.07 MHz		
EDMONTON CENTRE:	132.1 MHz		
EDMONTON CENTRE:	132.15 MHz		
EDMONTON CENTRE:	132.22 MHz		
EDMONTON CENTRE:	132.25 MHz		
EDMONTON CENTRE:	132.4 MHz		
EDMONTON CENTRE:	132.5 MHz		
EDMONTON CENTRE:	132.55 MHz		
EDMONTON CENTRE:	132.6 MHz		
EDMONTON CENTRE:	132.65 MHz		
EDMONTON CENTRE:	132.67 MHz		
EDMONTON CENTRE:	132.7 MHz		
EDMONTON CENTRE:	132.75 MHz		
EDMONTON CENTRE:	132.77 MHz	(R)	
EDMONTON CENTRE:	132.8 MHz	(R)	
EDMONTON CENTRE:	132.85 MHz		
EDMONTON CENTRE:	132.87 MHz		
EDMONTON CENTRE:	132.9 MHz		
EDMONTON CENTRE:	133.0 MHz		
EDMONTON CENTRE:	133.07 MHz		
EDMONTON CENTRE:	133.17 MHz		
EDMONTON CENTRE:	133.2 MHz		
EDMONTON CENTRE:	133.32 MHz		
EDMONTON CENTRE:	133.37 MHz		
EDMONTON CENTRE:	133.4 MHz		
EDMONTON CENTRE:	133.45 MHz		
EDMONTON CENTRE:	133.5 MHz		
EDMONTON CENTRE:	133.52 MHz	(R)	
EDMONTON CENTRE:	133.6 MHz		
EDMONTON CENTRE:	133.7 MHz		
EDMONTON CENTRE:	133.72 MHz	(R)	
EDMONTON CENTRE:	133.75 MHz		
EDMONTON CENTRE:	133.82 MHz	(R)	
EDMONTON CENTRE:	133.85 MHz		
EDMONTON CENTRE:	133.95 MHz		
EDMONTON CENTRE:	134.0 MHz		
EDMONTON CENTRE:	134.02 MHz		
EDMONTON CENTRE:	134.05 MHz		
EDMONTON CENTRE:	134.15 MHz		
EDMONTON CENTRE:	134.3 MHz		
EDMONTON CENTRE:	134.35 MHz		
EDMONTON CENTRE:	134.4 MHz		
EDMONTON CENTRE:	134.42 MHz		

EDMONTON CENTRE:	134.45 MHz	
EDMONTON CENTRE:	134.47 MHz	
EDMONTON CENTRE:	134.5 MHz	
EDMONTON CENTRE:	134.65 MHz	
EDMONTON CENTRE:	134.67 MHz	
EDMONTON CENTRE:	134.7 MHz	
EDMONTON CENTRE:	134.8 MHz	
EDMONTON CENTRE:	134.82 MHz	
EDMONTON CENTRE:	134.85 MHz	
EDMONTON CENTRE:	134.9 MHz	(R)
EDMONTON CENTRE:	135.02 MHz	
EDMONTON CENTRE:	135.1 MHz	
EDMONTON CENTRE:	135.17 MHz	
EDMONTON CENTRE:	135.2 MHz	
EDMONTON CENTRE:	135.27 MHz	
EDMONTON CENTRE:	135.4 MHz	
EDMONTON CENTRE:	135.47 MHz	(R)
EDMONTON CENTRE:	135.5 MHz	
EDMONTON CENTRE:	135.6 MHz	
EDMONTON CENTRE:	135.7 MHz	
EDMONTON CENTRE:	135.75 MHz	
EDMONTON CENTRE:	135.8 MHz	

Communication Information For CZVR FIR

CPDLC Service: CPDLC SERVICES ARE AVAILABLE WITH LOGON ADDRESS OF CZVR IN VANCOUVER FIR. FLIGHTS ENTERING CANADIAN DOMESTIC AIRSPACE CPDLC AREA FROM A NON-CPDLC DATA LINK AREA SHOULD PERFORM A LOGON 45 TO 15 MINUTES PRIOR TO ENTERING AIRSPACE.
SATCOM Service: SATCOM VOICE DIRECT DIAL IS 1-604-507-7875 CONTACT VANCOUVER CENTER ON THE NEAREST PERIPHERAL FREQUENCY AT THE TIME OF CROSSING FIR BOUNDARY. TRANSPONDER ADJUSTED TO REPLY ON MODE A-3 CODE 2000.
INMARSAT Service: INMARSAT SECURITY NUMBER IS 431607

Callsign:	Frequency	Radar	ServiceIndicators
Type: ACC:			
VANCOUVER CENTRE:	123.87 MHz		
VANCOUVER CENTRE:	124.07 MHz		
VANCOUVER CENTRE:	128.4 MHz		
VANCOUVER CENTRE:	132.2 MHz		
VANCOUVER CENTRE:	132.35 MHz		
VANCOUVER CENTRE:	132.52 MHz		
VANCOUVER CENTRE:	132.9 MHz		
VANCOUVER CENTRE:	133.4 MHz		
VANCOUVER CENTRE:	133.5 MHz		
VANCOUVER CENTRE:	133.6 MHz		
VANCOUVER CENTRE:	133.67 MHz		
VANCOUVER CENTRE:	133.7 MHz		
VANCOUVER CENTRE:	133.77 MHz		
VANCOUVER CENTRE:	133.8 MHz		
VANCOUVER CENTRE:	134.0 MHz		
VANCOUVER CENTRE:	134.2 MHz		
VANCOUVER CENTRE:	134.4 MHz		
VANCOUVER CENTRE:	134.55 MHz		
VANCOUVER CENTRE:	134.6 MHz		
VANCOUVER CENTRE:	134.8 MHz		
VANCOUVER CENTRE:	135.0 MHz		
VANCOUVER CENTRE:	135.05 MHz		
VANCOUVER CENTRE:	135.5 MHz		

Communication Information For CZWG ACC

No communication information available

Communication Information For CZWG FIR

CPDLC Service: CPDLC SERVICES ARE AVAILABLE WITH LOGON ADDRESS OF CZWG IN WINNIPEG FIR

SATCOM Service: SATCOM VOICE DIRECT DIAL IS 1-204-837-9481
INMARSAT Service: INMARSAT SECURITY NUMBER IS 431608

Callsign:	Frequency	Radar	ServiceIndicators
Type: ACC:			
WINNIPEG CENTRE:	118.0 MHz		
WINNIPEG CENTRE:	119.5 MHz		
WINNIPEG CENTRE:	119.7 MHz		
WINNIPEG CENTRE:	119.9 MHz		
WINNIPEG CENTRE:	120.1 MHz		
WINNIPEG CENTRE:	120.5 MHz		
WINNIPEG CENTRE:	121.0 MHz		
WINNIPEG CENTRE:	123.8 MHz		
WINNIPEG CENTRE:	124.0 MHz		
WINNIPEG CENTRE:	124.3 MHz		
WINNIPEG CENTRE:	124.47 MHz		
WINNIPEG CENTRE:	126.4 MHz		
WINNIPEG CENTRE:	132.12 MHz		
WINNIPEG CENTRE:	132.2 MHz		
WINNIPEG CENTRE:	132.25 MHz		
WINNIPEG CENTRE:	132.37 MHz		
WINNIPEG CENTRE:	132.52 MHz		
WINNIPEG CENTRE:	132.8 MHz		
WINNIPEG CENTRE:	132.82 MHz		
WINNIPEG CENTRE:	132.9 MHz		
WINNIPEG CENTRE:	133.1 MHz		
WINNIPEG CENTRE:	133.15 MHz		
WINNIPEG CENTRE:	133.25 MHz		
WINNIPEG CENTRE:	133.7 MHz		
WINNIPEG CENTRE:	133.77 MHz		
WINNIPEG CENTRE:	133.9 MHz		
WINNIPEG CENTRE:	133.95 MHz		
WINNIPEG CENTRE:	134.07 MHz		
WINNIPEG CENTRE:	134.17 MHz		
WINNIPEG CENTRE:	134.32 MHz		
WINNIPEG CENTRE:	134.4 MHz		
WINNIPEG CENTRE:	134.6 MHz		
WINNIPEG CENTRE:	134.65 MHz		
WINNIPEG CENTRE:	134.97 MHz		
WINNIPEG CENTRE:	135.05 MHz	(R)	
WINNIPEG CENTRE:	135.1 MHz		
WINNIPEG CENTRE:	135.15 MHz	(R)	
WINNIPEG CENTRE:	135.22 MHz		
WINNIPEG CENTRE:	135.32 MHz		
WINNIPEG CENTRE:	135.47 MHz	(R)	
WINNIPEG CENTRE:	135.62 MHz		
Type: Arrival:			
WINNIPEG CENTRE:	133.9 MHz		
Type: Departure:			
WINNIPEG CENTRE:	133.9 MHz		
Type: Radio:			
WINNIPEG RADIO:	122.1 MHz		
WINNIPEG RADIO:	122.3 MHz		
WINNIPEG RADIO:	122.37 MHz		
WINNIPEG RADIO:	123.27 MHz		
WINNIPEG RADIO:	123.37 MHz		
WINNIPEG RADIO:	123.47 MHz		
WINNIPEG RADIO:	123.55 MHz		
WINNIPEG RADIO:	126.0 MHz		
WINNIPEG RADIO:	126.7 MHz		

Communication Information For CZYZ ACC

No communication information available

Communication Information For CZYZ FIR

CPDLC Service: CPDLC SERVICES ARE AVAILABLE WITH LOGON ADDRESS OF CZYZ IN TORONTO FIR. FLIGHTS ENTERING CANADIAN DOMESTIC AIRSPACE CPDLC AREA FROM A NON-CPDLC DATA LINK AREA SHOULD PERFORM A LOGON 45 TO 15 MINUTES PRIOR TO ENTERING AIRSPACE
SATCOM Service: SATCOM VOICE DIRECT DIAL IS 1-905-676-4509
INMARSAT Service: INMARSAT SECURITY NUMBER IS 431606

Callsign:	Frequency	Radar	ServiceIndicators
Type: ACC:			
TORONTO CENTRE:	124.02 MHz		
TORONTO CENTRE:	124.07 MHz		
TORONTO CENTRE:	124.37 MHz		
TORONTO CENTRE:	124.67 MHz		
TORONTO CENTRE:	124.92 MHz		
TORONTO CENTRE:	125.77 MHz		
TORONTO CENTRE:	127.0 MHz		
TORONTO CENTRE:	127.25 MHz		
TORONTO CENTRE:	128.27 MHz		
TORONTO CENTRE:	128.3 MHz		
TORONTO CENTRE:	132.47 MHz		
TORONTO CENTRE:	132.57 MHz		
TORONTO CENTRE:	132.65 MHz		
TORONTO CENTRE:	132.8 MHz		
TORONTO CENTRE:	133.72 MHz		
TORONTO CENTRE:	134.25 MHz		
TORONTO CENTRE:	134.37 MHz		
TORONTO CENTRE:	134.42 MHz		
TORONTO CENTRE:	134.57 MHz		
TORONTO CENTRE:	134.92 MHz		
TORONTO CENTRE:	135.3 MHz		
TORONTO CENTRE:	135.4 MHz		
TORONTO CENTRE:	135.5 MHz		
TORONTO CENTRE:	135.62 MHz		
TORONTO CENTRE:	135.82 MHz		

Communication Information For KZLC FIR

Callsign:	Frequency	Radar	ServiceIndicators
Type: ACC:			
SALT LAKE CITY:	118.05 MHz	(R)	
SALT LAKE CITY:	118.97 MHz	(R)	
SALT LAKE CITY:	119.95 MHz	(R)	
SALT LAKE CITY:	124.35 MHz	(R)	
SALT LAKE CITY:	125.57 MHz	(R)	
SALT LAKE CITY:	126.85 MHz	(R)	
SALT LAKE CITY:	127.07 MHz	(R)	
SALT LAKE CITY:	127.7 MHz	(R)	
SALT LAKE CITY:	127.75 MHz	(R)	
SALT LAKE CITY:	127.82 MHz	(R)	
SALT LAKE CITY:	127.92 MHz	(R)	
SALT LAKE CITY:	128.05 MHz	(R)	
SALT LAKE CITY:	128.35 MHz	(R)	
SALT LAKE CITY:	128.55 MHz	(R)	
SALT LAKE CITY:	132.25 MHz	(R)	
SALT LAKE CITY:	132.4 MHz	(R)	
SALT LAKE CITY:	133.25 MHz	(R)	
SALT LAKE CITY:	133.4 MHz	(R)	
SALT LAKE CITY:	133.45 MHz	(R)	
SALT LAKE CITY:	133.6 MHz	(R)	
SALT LAKE CITY:	133.8 MHz		
SALT LAKE CITY:	133.9 MHz	(R)	
SALT LAKE CITY:	135.77 MHz	(R)	

Communication Information For KZLC UIR

Callsign:	Frequency	Radar	ServiceIndicators
Type: ACC:			
SALT LAKE CITY:	119.75 MHz	(R)	
SALT LAKE CITY:	119.95 MHz	(R)	
SALT LAKE CITY:	120.27 MHz		
SALT LAKE CITY:	121.15 MHz	(R)	
SALT LAKE CITY:	124.35 MHz	(R)	
SALT LAKE CITY:	125.92 MHz		
SALT LAKE CITY:	126.85 MHz	(R)	
SALT LAKE CITY:	127.75 MHz	(R)	
SALT LAKE CITY:	127.82 MHz		
SALT LAKE CITY:	127.92 MHz	(R)	
SALT LAKE CITY:	128.35 MHz	(R)	
SALT LAKE CITY:	128.55 MHz	(R)	
SALT LAKE CITY:	128.72 MHz	(R)	
SALT LAKE CITY:	132.4 MHz	(R)	
SALT LAKE CITY:	132.42 MHz	(R)	
SALT LAKE CITY:	133.25 MHz	(R)	
SALT LAKE CITY:	133.45 MHz	(R)	Discrete
SALT LAKE CITY:	133.6 MHz	(R)	Discrete
SALT LAKE CITY:	134.52 MHz	(R)	
SALT LAKE CITY:	135.77 MHz	(R)	

Communication Information For KZMP ARTCC

No communication information available

Communication Information For KZMP FIR

CPDLC Service: CPDLC SERVICES ARE AVAILABLE WITH LOGON ADDRESS OF KUSA IN MINNEAPOLIS FIR CPDLC.

Callsign:	Frequency	Radar	ServiceIndicators
Type: ACC:			
MINNEAPOLIS:	118.05 MHz	(R)	
MINNEAPOLIS:	118.85 MHz	(R)	
MINNEAPOLIS:	119.1 MHz	(R)	
MINNEAPOLIS:	119.4 MHz	(R)	
MINNEAPOLIS:	119.6 MHz	(R)	
MINNEAPOLIS:	120.6 MHz	(R)	
MINNEAPOLIS:	120.85 MHz	(R)	
MINNEAPOLIS:	120.9 MHz	(R)	
MINNEAPOLIS:	121.05 MHz	(R)	
MINNEAPOLIS:	121.25 MHz	(R)	
MINNEAPOLIS:	124.2 MHz	(R)	Discrete
MINNEAPOLIS:	124.25 MHz	(R)	
MINNEAPOLIS:	124.4 MHz	(R)	
MINNEAPOLIS:	125.02 MHz	(R)	
MINNEAPOLIS:	125.1 MHz	(R)	
MINNEAPOLIS:	125.3 MHz	(R)	
MINNEAPOLIS:	125.47 MHz	(R)	
MINNEAPOLIS:	125.5 MHz	(R)	
MINNEAPOLIS:	125.55 MHz	(R)	
MINNEAPOLIS:	125.65 MHz	(R)	
MINNEAPOLIS:	126.05 MHz	(R)	
MINNEAPOLIS:	126.1 MHz	(R)	
MINNEAPOLIS:	126.25 MHz	(R)	
MINNEAPOLIS:	126.4 MHz	(R)	
MINNEAPOLIS:	126.45 MHz	(R)	
MINNEAPOLIS:	127.1 MHz	(R)	

MINNEAPOLIS:	127.3 MHz	(R)	
MINNEAPOLIS:	127.35 MHz		Discrete
MINNEAPOLIS:	127.6 MHz	(R)	
MINNEAPOLIS:	127.65 MHz	(R)	
MINNEAPOLIS:	127.75 MHz	(R)	
MINNEAPOLIS:	127.9 MHz	(R)	
MINNEAPOLIS:	128.0 MHz	(R)	
MINNEAPOLIS:	128.5 MHz	(R)	
MINNEAPOLIS:	128.6 MHz	(R)	
MINNEAPOLIS:	128.75 MHz	(R)	
MINNEAPOLIS:	132.05 MHz	(R)	
MINNEAPOLIS:	132.35 MHz	(R)	
MINNEAPOLIS:	132.9 MHz	(R)	
MINNEAPOLIS:	133.55 MHz	(R)	
MINNEAPOLIS:	133.65 MHz	(R)	
MINNEAPOLIS:	134.0 MHz	(R)	
MINNEAPOLIS:	134.55 MHz	(R)	
MINNEAPOLIS:	134.6 MHz	(R)	
MINNEAPOLIS:	134.75 MHz	(R)	
MINNEAPOLIS:	134.85 MHz	(R)	
MINNEAPOLIS:	135.0 MHz	(R)	
MINNEAPOLIS:	135.25 MHz	(R)	

Communication Information For KZMP UIR

CPDLC Service: CPDLC SERVICES ARE AVAILABLE WITH LOGON ADDRESS OF KUSA IN MINNEAPOLIS FIR CPDLC.

Callsign:	Frequency	Radar	ServiceIndicators
Type: ACC:			
MINNEAPOLIS:	118.82 MHz	(R)	
MINNEAPOLIS:	118.85 MHz	(R)	
MINNEAPOLIS:	119.52 MHz	(R)	
MINNEAPOLIS:	119.72 MHz	(R)	
MINNEAPOLIS:	119.87 MHz	(R)	
MINNEAPOLIS:	123.72 MHz	(R)	
MINNEAPOLIS:	123.97 MHz	(R)	
MINNEAPOLIS:	124.2 MHz	(R)	
MINNEAPOLIS:	124.87 MHz	(R)	
MINNEAPOLIS:	126.25 MHz	(R)	
MINNEAPOLIS:	127.35 MHz	(R)	
MINNEAPOLIS:	127.6 MHz	(R)	
MINNEAPOLIS:	128.42 MHz	(R)	
MINNEAPOLIS:	132.15 MHz	(R)	
MINNEAPOLIS:	132.42 MHz	(R)	
MINNEAPOLIS:	133.07 MHz	(R)	
MINNEAPOLIS:	133.4 MHz	(R)	
MINNEAPOLIS:	133.45 MHz	(R)	
MINNEAPOLIS:	133.75 MHz	(R)	
MINNEAPOLIS:	134.22 MHz	(R)	
MINNEAPOLIS:	134.25 MHz	(R)	
MINNEAPOLIS:	134.55 MHz	(R)	
MINNEAPOLIS:	135.1 MHz	(R)	
MINNEAPOLIS:	135.7 MHz	(R)	
MINNEAPOLIS:	135.77 MHz	(R)	

Communication Information For KZOB ARTCC

No communication information available

Communication Information For KZOB FIR

Callsign:	Frequency	Radar	ServiceIndicators

Type: ACC:			
CLEVELAND:	120.45 MHz	(R)	
CLEVELAND:	120.6 MHz	(R)	
CLEVELAND:	120.77 MHz	(R)	
CLEVELAND:	121.2 MHz	(R)	
CLEVELAND:	124.32 MHz	(R)	
CLEVELAND:	124.4 MHz	(R)	
CLEVELAND:	125.2 MHz	(R)	
CLEVELAND:	126.72 MHz	(R)	
CLEVELAND:	126.75 MHz	(R)	
CLEVELAND:	126.95 MHz	(R)	
CLEVELAND:	127.07 MHz	(R)	
CLEVELAND:	127.47 MHz	(R)	
CLEVELAND:	127.7 MHz	(R)	
CLEVELAND:	127.9 MHz	(R)	
CLEVELAND:	128.45 MHz	(R)	
CLEVELAND:	128.62 MHz	(R)	
CLEVELAND:	132.25 MHz	(R)	
CLEVELAND:	132.45 MHz	(R)	
CLEVELAND:	134.47 MHz	(R)	
CLEVELAND:	134.65 MHz	(R)	
CLEVELAND:	134.9 MHz	(R)	
CLEVELAND:	135.1 MHz	(R)	

Communication Information For KZOB UIR

Callsign:	Frequency	Radar	ServiceIndicators
Type: ACC:			
CLEVELAND:	118.62 MHz	(R)	
CLEVELAND:	119.32 MHz	(R)	
CLEVELAND:	119.37 MHz	(R)	
CLEVELAND:	119.72 MHz	(R)	
CLEVELAND:	119.87 MHz	(R)	
CLEVELAND:	120.07 MHz	(R)	
CLEVELAND:	120.62 MHz	(R)	
CLEVELAND:	121.07 MHz	(R)	
CLEVELAND:	125.42 MHz	(R)	
CLEVELAND:	125.87 MHz	(R)	
CLEVELAND:	126.52 MHz	(R)	
CLEVELAND:	127.67 MHz	(R)	
CLEVELAND:	128.02 MHz	(R)	
CLEVELAND:	132.12 MHz	(R)	
CLEVELAND:	132.92 MHz	(R)	
CLEVELAND:	133.07 MHz	(R)	
CLEVELAND:	133.37 MHz	(R)	
CLEVELAND:	133.52 MHz	(R)	
CLEVELAND:	133.87 MHz	(R)	
CLEVELAND:	134.12 MHz	(R)	
CLEVELAND:	134.77 MHz	(R)	
CLEVELAND:	135.17 MHz	(R)	
CLEVELAND:	135.37 MHz	(R)	
CLEVELAND:	135.72 MHz	(R)	

Communication Information For KZSE FIR

Callsign:	Frequency	Radar	ServiceIndicators
Type: ACC:			
SEATTLE:	119.65 MHz	(R)	

SEATTLE:	120.3 MHz	(R)	
SEATTLE:	123.95 MHz	(R)	
SEATTLE:	124.2 MHz	(R)	
SEATTLE:	124.85 MHz	(R)	
SEATTLE:	125.1 MHz	(R)	
SEATTLE:	125.8 MHz	(R)	
SEATTLE:	126.1 MHz	(R)	
SEATTLE:	126.15 MHz	(R)	
SEATTLE:	126.6 MHz	(R)	
SEATTLE:	127.05 MHz	(R)	
SEATTLE:	127.55 MHz	(R)	
SEATTLE:	127.6 MHz	(R)	
SEATTLE:	128.15 MHz	(R)	
SEATTLE:	128.3 MHz	(R)	
SEATTLE:	132.6 MHz	(R)	
SEATTLE:	134.95 MHz	(R)	
SEATTLE:	306.3 MHz	(R)	MIL

Communication Information For KZSE UIR

Callsign:	Frequency	Radar	ServiceIndicators
Type: ACC:			
SEATTLE:	119.22 MHz	(R)	
SEATTLE:	120.3 MHz	(R)	
SEATTLE:	121.35 MHz	(R)	
SEATTLE:	124.75 MHz	(R)	
SEATTLE:	125.1 MHz	(R)	
SEATTLE:	126.6 MHz	(R)	
SEATTLE:	127.05 MHz	(R)	
SEATTLE:	128.3 MHz	(R)	
SEATTLE:	128.45 MHz	(R)	
SEATTLE:	132.07 MHz	(R)	
SEATTLE:	134.9 MHz	(R)	
SEATTLE:	134.95 MHz	(R)	
SEATTLE:	135.15 MHz	(R)	
SEATTLE:	135.35 MHz	(R)	
SEATTLE:	135.45 MHz	(R)	
SEATTLE:	360.7 MHz	(R)	MIL

Operational Notes

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CHICAGO Type: Class B Airspace
Notes: VFR: VFR TRAFFIC REQUESTING TRAFFIC ADVISORIES OR TO TRANSITION THE CLASS B AIRSPACE CONTACT CHICAGO APP/DEP VFR:

DETROIT Type: Class B Airspace
Notes: VFR: HEAVY VFR TRAFFIC BELOW FLOOR OF CLASS B AIRSPACE VFR:

WASHINGTON TRI-AREA Type: Class B Airspace
Notes: EXCLUDES PROHIBITED AREA P-56 AND THE AIRSPACE CONTAINED IN RESTRICTED AREAS R-4001A, R-4001B AND R-4001C WHEN ACTIVE.

EXCLUDES PROHIBITED AREA P-56.

EXCLUDES PROHIBITED AREA P-56.

EXCLUDES RESTRICTED AREA R-4001B WHEN ACTIVE.

EXCLUDING THE AIRSPACE CONTAINED IN RESTRICTED AREAS R-4001A, R-4001B AND R-4001C WHEN ACTIVE.

BOLTON Type: Class D Airspace
Notes: EXCLUDING THAT AIRSPACE WITHIN THE PORT COLUMBUS INTERNATIONAL AIRPORT, OH CLASS C AIRSPACE AREA.

DUPAGE Type: Class D Airspace
Notes: EXCLUDING THAT AIRSPACE WITHIN THE CHICAGO, IL, CLASS B AIRSPACE AREA.

MARTIN STATE Type: Class D Airspace
Notes: EXCLUDING THAT AIRSPACE WITHIN RESTRICTED AREAS R-4001A AND R-4001B WHEN THEY ARE IN EFFECT.

ST LOUIS REGL Type: Class D Airspace
Notes: EXCLUDING THAT AIRSPACE WITHIN THE LAMBERT-ST. LOUIS INTERNATIONAL AIRPORT, MO, CLASS B AIRSPACE AREA.

AKRON FULTON INTL Type: Class E Airspace
Notes: EXCLUDING THAT AIRSPACE WITHIN THE AKRON-CANTON REGIONAL AIRPORT, OH, CLASS C AIRSPACE AREA.

ATLANTIC LOW OFFSHORE AIRSPACE Type: Class E Airspace
Notes: EXCLUDING FEDERAL AIRWAYS AND THE EAST COAST LOW OFFSHORE AIRSPACE.

CUYAHOGA CO Type: Class E Airspace
Notes: EXCLUDING THAT AIRSPACE WITHIN THE CLEVELAND, CUYAHOGA COUNTY AIRPORT, OH, CLASS D AIRSPACE AREA.

MARTIN STATE Type: Class E Airspace
Notes: EXCLUDING THAT AIRSPACE WITHIN RESTRICTED AREAS R-4001A AND R-4001B WHEN THEY ARE IN EFFECT.

EXCLUDING THAT AIRSPACE WITHIN RESTRICTED AREAS R-4001A AND R-4001B WHEN THEY ARE IN EFFECT.

SAULT STE MARIE Type: Class E Airspace
Notes: PILOTS OPERATING IN CANADIAN / U.S. CLASS (D) AIRSPACE ARE REQUIRED TO ESTABLISH AND MAINTAIN TWO-WAY COMMUNICATIONS AND OBTAIN ATC CLEARANCE FROM SAULT STE MARIE ATCT (SAULT TWR 118.8) PRIOR TO OPERATING IN THE CLASS (D) AIRSPACE. TRAFFIC ADVISORY SERVICE (118.8) IS AVAILABLE IN THE U.S. CLASS (E) SURFACE EXTENSION 0700-2000LT.

BELLE PLAINE MUN Type: Class E5 Airspace
Notes: EXCLUDING THAT PORTION WHICH OVERLIES THE CEDAR RAPIDS, IA, CLASS E AIRSPACE AREA.

BROWN CO Type: Class E5 Airspace
Notes: EXCLUDES AIRSPACE WITHIN THE WEST UNION, OH CLASS E AIRSPACE AREA.

CANANDAIGUA Type: Class E5 Airspace
Notes: EXCLUDING THAT PORTION THAT COINCIDES WITH THE PALMYRA, NY, AIRSPACE AREA.

CEDAR RIDGE Type: Class E5 Airspace
Notes: EXCLUDING THE AIRSPACE WITHIN THE KEOKUK, IA, AND FORT MADISON, IA, CLASS E AIRSPACE AREAS.

CLEARFIELD-LAWRENCE Type: Class E5 Airspace
Notes: EXCLUDING THE PORTION THAT COINCIDES WITH THE PHILIPSBURG, PA, CLASS E AIRSPACE AREA.

DANSVILLE MUN Type: Class E5 Airspace
Notes: EXCLUDING THE PORTION THAT COINCIDES WITH THE HORNELL, NY, 700 FOOT CLASS E AIRSPACE.

DISTRICT OF COLUMBIA Type: Class E5 Airspace
Notes: THE PORTION WITHIN P-56 IS EXCLUDED.

THE PORTION WITHIN P-56 IS EXCLUDED.

GRAND MARAIS/COOK CO Type: Class E5 Airspace
Notes: EXCLUDING THAT AIRSPACE WHICH OVERLIES P-204.

GRIMES Type: Class E5 Airspace
Notes: EXCLUDES THE AIRSPACE WITHIN THE DAYTONA, OH CLASS E AIRSPACE AREA.

HARBOR SPRINGS Type: Class E5 Airspace
Notes: EXCLUDING THAT AIRSPACE WITHIN V-78.

INDIANAPOLIS EXECUTIVE Type: Class E5 Airspace
Notes: EXCLUDES THAT AIRSPACE WITHIN THE INDIANAPOLIS, IN CLASS C AIRSPACE AREA.

INTERNATIONAL FALLS E6 Type: Class E5 Airspace
Notes: EXCLUDING THAT AIRSPACE WITHIN FEDERAL AIRWAYS AND WITHIN CANADIAN AIRSPACE.

MARYLAND Type: Class E5 Airspace
Notes: EXCLUDING THAT AIRSPACE WITHIN PROHIBITED AREA P-40.

PORT MEADVILLE Type: Class E5 Airspace
Notes: EXCLUDING THE PORTION THAT COINCIDES WITH THE GREENVILLE, PA, CLASS E AIRSPACE AREA.

RANTOUL NATL AVIATION CENTER-E Type: Class E5 Airspace
Notes: EXCLUDING THOSE PORTIONS WHICH OVERLIE THE CHAMPAIGN, IL, AND PAXTON, IL, CLASS E AIRSPACE AREAS.

SAULT STE MARIE Type: Class E5 Airspace
Notes: EXCLUDING THAT PORTION OF AIRSPACE OUTSIDE THE UNITED STATES.

SYRACUSE HANCOCK INTL Type: Class E5 Airspace
Notes: EXCLUDING THAT PORTION THAT COINCIDES WITH THE FULTON, NY, DURHAMVILLE, NY, AND SKANEATELES, NY, CLASS E AIRSPACE AREAS.

UPSHUR CO Type: Class E5 Airspace
Notes: EXCLUDING THAT PORTION THAT COINCIDES WITH THE CLARKSBURG, WV CLASS E AIRSPACE AREA.

WEST BEND MUN Type: Class E5 Airspace
Notes: EXCLUDING THAT AIRSPACE WITHIN THE HARTFORD, WI, CLASS E AIRSPACE AREA.

ZANESVILLE MUN Type: Class E5 Airspace
Notes: EXCLUDING THAT AIRSPACE WITHIN THE CAMBRIDGE, OH CLASS E AIRSPACE AREA.

SAULT STE MARIE CAE Type: Control Area (Airport)
Notes: EXCLUDING THAT PORTION OF AIRSPACE OUTSIDE CANADA.

EXCLUDING THAT PORTION OF AIRSPACE OUTSIDE CANADA.

SAULT STE MARIE Type: Control Zone (CTZ/CTR)
Notes: EXCLUDING THAT PORTION OF AIRSPACE OUTSIDE CANADA.

PILOTS OPERATING IN CANADIAN / U.S. CLASS (D) AIRSPACE ARE REQUIRED TO ESTABLISH AND MAINTAIN TWO-WAY COMMUNICATIONS AND OBTAIN ATC CLEARANCE FROM SAULT STE MARIE ATCT (SAULT TWR 118.8) PRIOR TO OPERATING IN THE CLASS (D) AIRSPACE. TRAFFIC ADVISORY SERVICE (118.8) IS AVAILABLE IN THE U.S. CLASS (E) SURFACE EXTENSION 0700-2000LT.

WINDSOR Type: Control Zone (CTZ/CTR)
Notes: CLASS D CONTROL ZONE EXCLUDED BELOW 700' AGL OVER THE DETROIT RIVER AND LAKE ST CLAIR

CZEG Type: FIR
Notes: AIRSPACE-ZONES, AREAS, AND REGIONS 1. DOMESTIC CLEARANCE - NORTH ATLANTIC (NAT) WEST-BOUND TRAFFIC. A) PILOTS PROCEEDING WESTBOUND ACROSS THE NORTH ATLANTIC (NAT) AND ENTERING CDA WITHIN THE GANDER, MONCTON AND MONTREAL FIRS SHALL COMPLY WITH THE FOLLOWING PROCEDURES: I) FLIGHTS CLEARED BY ATC VIA THE FLIGHT PLANNED ROUTE PRIOR TO REACHING CDA WILL NOT BE ISSUED EN-

ROUTE CLEARANCES UPON ENTERING DOMESTIC AIRSPACE, AND ARE TO FOLLOW THE FLIGHT PLANNED ROUTE AS CLEARED. DOMESTIC EN-ROUTE CLEARANCES WILL BE ISSUED: A) FOR FLIGHTS THAT HAVE BEEN REROUTED AND EXIT OCEANIC AIRSPACE AT OTHER THAN THE FLIGHT PLANNED EXIT FIX: B) AT A PILOT'S REQUEST FOR ANOTHER ROUTING OR C) IF A FLIGHT PLAN HAS NOT BEEN RECEIVED BY THE ACC. B) IF ENTERING CANADIAN DOMESTIC AIRSPACE WITHIN THE EDMONTON FLIGHT INFORMATION REGION (FIR) THE ONWARD DOMESTIC ROUTING WILL HAVE BEEN ESTABLISHED IN COORDINATION BETWEEN THE REYKJAVIK AND EDMONTON ACCS, AND ADDITIONAL DOMESTIC CLEARANCE IS NOT NORMALLY REQUIRED. HOWEVER, IF THERE HAS BEEN A CHANGE IN ROUTE FROM FILED FLIGHT PLAN, CLARIFICATION OF THE ONWARD ROUTING MAY BE OBTAINED FROM EDMONTON ACC ON REQUEST. CPDLC: CPDLC SERVICES ARE AVAILABLE WITH LOGON ADDRESS OF CZEG IN EDMONTON FIR CPDLC: INMARSAT: INMARSAT SECURITY NUMBER IS 431601 INMARSAT: SATCOM: SATCOM VOICE DIRECT DIAL IS 1-780-890-2775 SATCOM: INMARSAT: INMARSAT SECURITY NUMBER FOR ARCTIC RADIO IS 431610 INMARSAT:

CZUL Type: FIR
Notes: CPDLC: CPDLC SERVICES ARE AVAILABLE WITH LOGON ADDRESS OF CZUL IN MONTREAL FIR. FLIGHTS ENTERING CANADIAN DOMESTIC AIRSPACE CPDLC AREA FROM A NON-CPDLC DATA LINK AREA SHOULD PERFORM A LOGON 45 TO 15 MINUTES PRIOR TO ENTERING AIRSPACE CPDLC: INMARSAT: INMARSAT SECURITY NUMBER IS 431605 INMARSAT: SATCOM: SATCOM VOICE DIRECT DIAL IS 1-514-636-3606 SATCOM:

CZWG Type: FIR
Notes: CPDLC: CPDLC SERVICES ARE AVAILABLE WITH LOGON ADDRESS OF CZWG IN WINNIPEG FIR CPDLC: INMARSAT: INMARSAT SECURITY NUMBER IS 431608 INMARSAT: SATCOM: SATCOM VOICE DIRECT DIAL IS 1-204-837-9481 SATCOM:

CZYZ Type: FIR
Notes: CPDLC: CPDLC SERVICES ARE AVAILABLE WITH LOGON ADDRESS OF CZYZ IN TORONTO FIR. FLIGHTS ENTERING CANADIAN DOMESTIC AIRSPACE CPDLC AREA FROM A NON-CPDLC DATA LINK AREA SHOULD PERFORM A LOGON 45 TO 15 MINUTES PRIOR TO ENTERING AIRSPACE CPDLC: INMARSAT: INMARSAT SECURITY NUMBER IS 431606 INMARSAT: SATCOM: SATCOM VOICE DIRECT DIAL IS 1-905-676-4509 SATCOM:

KZDC Type: FIR
Notes: CPDLC: CPDLC SERVICES ARE AVAILABLE WITH LOGON ADDRESS OF KUSA IN WASHINGTON FIR CPDLC.

KZID Type: FIR
Notes: CPDLC: CPDLC SERVICES ARE AVAILABLE WITH LOGON ADDRESS OF KUSA IN INDIANAPOLIS FIR CPDLC:

KZKC Type: FIR
Notes: CPDLC: CPDLC SERVICES ARE AVAILABLE WITH LOGON ADDRESS OF KUSA IN KANSAS CITY FIR CPDLC:

KZMP Type: FIR
Notes: CPDLC: CPDLC SERVICES ARE AVAILABLE WITH LOGON ADDRESS OF KUSA IN MINNEAPOLIS FIR CPDLC.

KZWY Type: FIR/UIR
Notes: AIRCRAFT INTENDING TO ENTER THE NEW YORK OCEANIC FIR FROM PIARCO FIR, OBTAIN OCEANIC CLEARANCE FROM PIARCO ACC ON 123.7 OR PIARCO RADIO AT LEAST 30 MINUTES PRIOR TO REACHING THE FIR BOUNDARY. CPDLC: CPDLC SERVICES ARE AVAILABLE WITH LOGON ADDRESS OF KZWY IN NEW YORK OCEANIC FIR CPDLC: INMARSAT: INMARSAT SECURITY NUMBER FOR NEW YORK OCEANIC EAST (NAT) IS 436695 INMARSAT: INMARSAT: INMARSAT SECURITY NUMBER FOR NEW YORK RADIO IS 436623 INMARSAT: INMARSAT: INMARSAT SECURITY NUMBER FOR NEW YORK OCEANIC WEST (WATRS) IS 436696 INMARSAT: SATCOM: SATCOM VOICE DIRECT DIAL FOR NEW YORK OCEANIC (NAT) IS 1-631-468-1496 SATCOM: SATCOM: SATCOM VOICE DIRECT DIAL FOR NEW YORK OCEANIC (WATRS) IS 1-631-468-1495 SATCOM:

NEW YORK OCEANIC CTA WEST Type: Oceanic Control Area (Non-Airport)
Notes: EXCLUDING THAT PORTION WITHIN THE AIRSPACE AT AND BELOW FL500 WITHIN 180 NM RADIUS OF THE BERMUDA VOR (NEW YORK RADAR AREA).

WASHINGTON DC SFRA Type: Special Rules Area
Notes: WASHINGTON DC SPECIAL FLIGHT RULES AREA FOR COMPLETE INFORMATION SEE JEPPESEN ADVISORY PAGES 10-1B1 THROUGH 10-1B7. VFR: ATC COMMUNICATION REQUIRED ALL ALTITUDES PRIOR TO ENTRY. SFRA WEST 127.325/236.775 - SFRA EAST 132.775/342.425 - SOUTH 125.125/291.775 WASHINGTON, DC METROPOLITAN AREA SPECIAL FLIGHT RULES AREA/FLIGHT RESTRICTED ZONE ARE IN EFFECT. SPECIAL REGULATIONS APPLY TO ALL AIRCRAFT OPERATIONS FROM THE SURFACE TO BUT NOT INCLUDING FLIGHT LEVEL 180 IN THE WASHINGTON DC METROPOLITAN AREA. PILOTS SHOULD CONTACT FLIGHT SERVICE FOR NOTAM INFORMATION PRIOR TO FLIGHT IN THE WASHINGTON DC METROPOLITAN AREA. THE WASHINGTON DC FLIGHT RESTRICTED ZONE (DC FRZ) IS WITHIN AND PART OF THE WASHINGTON DC METROPOLITAN AREA SFRA. THE LEESBURG MANEUVERING AREA IS THE AREA DEFINED AS WITHIN THE DC SFRA AND IS THE AIRSPACE AROUND THE LEESBURG EXECUTIVE AIRPORT (JYO) FROM THE SURFACE TO THE FLOOR OF THE CLASS B AIRSPACE , BOUNDED BY THE LINE BEGINNING AT THE WASHINGTON DCA VOR-DME 299° RADIAL AT 30 NM N39 01 39.1 W077 38 26.7, THENCE CLOCKWISE ALONG THE DCA 30 NM ARC TO THE N39 12 42 W077 29 30 OR THE ARMEL AML VOR-DME 004° RADIAL AT 16.6 NM, THENCE SOUTH VIA A LINE DRAWN TO THE N39 03 33 W077 28 37 OR THE AML VOR-DME 004° RADIAL AT 7 NM, THENCE COUNTERCLOCKWISE ALONG THE AML 7 NM ARC TO THE AML 331° RADIAL AT 7 NM N39 01 39.3 W077 33 25.5, THENCE WEST VIA A LINE DRAWN TO THE POINT OF BEGINNING. PURSUANT TO 49 USC 40103(B), THE FEDERAL AVIATION ADMINISTRATION (FAA) CLASSIFIES THE WASHINGTON D.C. METROPOLITAN SFRA/FRZ AS 'NATIONAL DEFENSE AIRSPACE'. PILOTS WHO DO NOT ADHERE TO THE FOLLOWING PROCEDURES MAY BE INTERCEPTED, DETAINED AND INTERVIEWED BY LAW ENFORCEMENT/SECURITY PERSONNEL. SPECIAL AWARENESS TRAINING FOR THE WASHINGTON, D.C. METROPOLITAN AREA 14 CFR PART 91. SECTION 91.161 REQUIRES ANY PILOT WHO FLIES UNDER VFR WITHIN A 60 NAUTICAL MILE RADIUS OF DCA VOR-DME TO COMPLETE THE 'WASHINGTON DC SPECIAL FLIGHT RULES AREA (SFRA)' TRAINING. THIS TRAINING HAS BEEN DEVELOPED AND PROVIDED BY THE FAA ON IT WWW.FAASAFETY.GOV WEBSITE. SEE NOTAMS. VFR:

40 Type: Special Use Airspace
Notes: CONTACT FLIGHT SERVICE FOR LATEST FLIGHT RESTRICTION STATUS AND NOTAMS ASSOCIATED WITH P-40

4009 Type: Special Use Airspace
Notes: CONTACT FLIGHT SERVICE FOR LATEST FLIGHT RESTRICTION STATUS AND NOTAMS ASSOCIATED WITH R-4009

518 Type: Special Use Airspace
Notes: NO PERSON SHALL OPERATE AN AIRCRAFT, INCLUDING MODEL AIRCRAFT, WITHIN THE AREA DESCRIBED UNLESS THE FLIGHT HAS BEEN AUTHORIZED BY THE USER/CONTROLLING AGENCY, EXCEPT FOR MEDICAL, POLICE AND MILITARY AIRCRAFT ON OFFICIAL DUTY FLIGHTS.

5502B Type: Special Use Airspace
Notes: EXCLUDING R-5502A WHEN ACTIVE.

620 Type: Special Use Airspace
Notes: NO PERSON SHALL OPERATE AN AIRCRAFT, INCLUDING MODEL AIRCRAFT, WITHIN THE AREA DESCRIBED UNLESS THE FLIGHT HAS BEEN AUTHORIZED BY THE USER/CONTROLLING AGENCY.

BEAVER Type: Special Use Airspace
Notes: EXCLUDING THE AIRSPACE BELOW 1500 AGL WITHIN 3 NM OF THE FOLLOWING PUBLIC USE AIRPORTS: BIG FALLS, BIGFORK, BOWSTRING, NORTHHOME, AND WASKISH.

DC FRZ Type: Special Use Airspace
Notes: WASHINGTON DC FLIGHT RESTRICTION ZONE: FOR COMPLETE INFORMATION SEE JEPPESEN ADVISORY PAGES 10-1B1 THROUGH 10-1B7. VFR: ATC COMMUNICATION REQUIRED ALL ALTITUDES PRIOR TO ENTRY. SFRA WEST 127.325/236.775 - SFRA EAST 132.775/342.425 - SOUTH 125.125/291.775 WASHINGTON, DC METROPOLITAN AREA SPECIAL FLIGHT RULES AREA/FLIGHT RESTRICTED ZONE ARE IN EFFECT. SPECIAL REGULATIONS APPLY TO ALL AIRCRAFT OPERATIONS FROM THE SURFACE TO BUT NOT INCLUDING FLIGHT LEVEL 180 IN THE WASHINGTON DC METROPOLITAN AREA. PILOTS SHOULD CONTACT FLIGHT SERVICE FOR NOTAM INFORMATION PRIOR TO FLIGHT IN THE WASHINGTON DC METROPOLITAN AREA. THE WASHINGTON DC FLIGHT RESTRICTED ZONE (DC FRZ) IS WITHIN AND PART OF THE WASHINGTON DC METROPOLITAN AREA SFRA. THE LEESBURG MANEUVERING AREA IS THE AREA DEFINED AS WITHIN THE DC SFRA AND IS THE AIRSPACE AROUND THE LEESBURG EXECUTIVE AIRPORT (JYO) FROM THE SURFACE TO THE FLOOR OF THE CLASS B AIRSPACE , BOUNDED BY THE LINE BEGINNING AT THE WASHINGTON DCA VOR-DME 299° RADIAL AT 30 NM N39 01 39.1 W077 38 26.7, THENCE CLOCKWISE ALONG THE DCA 30 NM ARC TO THE N39 12 42 W077 29 30 OR THE ARMEL AML VOR-DME 004° RADIAL AT 16.6 NM, THENCE SOUTH VIA A LINE DRAWN TO THE N39 03 33 W077 28 37 OR THE AML VOR-DME 004° RADIAL AT 7 NM, THENCE COUNTERCLOCKWISE ALONG THE AML 7 NM ARC TO THE AML 331° RADIAL AT 7 NM N39 01 39.3 W077 33 25.5, THENCE WEST VIA A LINE DRAWN TO THE POINT OF BEGINNING. PURSUANT TO 49 USC 40103(B), THE FEDERAL AVIATION ADMINISTRATION (FAA) CLASSIFIES THE WASHINGTON D.C. METROPOLITAN SFRA/FRZ AS 'NATIONAL DEFENSE AIRSPACE'. PILOTS WHO DO NOT ADHERE TO THE FOLLOWING PROCEDURES MAY BE INTERCEPTED, DETAINED AND INTERVIEWED BY LAW ENFORCEMENT/SECURITY PERSONNEL. SPECIAL AWARENESS TRAINING FOR THE WASHINGTON, D.C. METROPOLITAN AREA 14 CFR PART 91. SECTION 91.161 REQUIRES ANY PILOT WHO FLIES UNDER VFR WITHIN A 60 NAUTICAL MILE RADIUS OF DCA VOR-DME TO COMPLETE THE 'WASHINGTON DC SPECIAL FLIGHT RULES AREA (SFRA)' TRAINING. THIS TRAINING HAS BEEN DEVELOPED AND PROVIDED BY THE FAA ON IT WWW.FAASAFETY.GOV WEBSITE. SEE NOTAMS. VFR:

DCVFR Type: Special Use Airspace
Notes: SPECIAL AWARENESS TRAINING IS REQUIRED FOR PILOTS WHO FLY UNDER VFR WITHIN A 60NM RADIUS OF DCA VORDME VFR: ALL VFR AIRCRAFT OPERATIONS WITHIN THE AIRSPACE BETWEEN 30NM RADIUS AND 60NM RADIUS OF DCA VORDME FROM THE SURFACE UP TO BUT NOT INCLUDING FL180 ARE RESTRICTED TO AN INDICATED AIRSPEED OF 230 KTS OR LESS, IF CAPABLE. IF UNABLE THE PILOT MUST CONTACT THE APPROPRIATE ATC FACILITY AND ADVISE THEM OF THE AIRCRAFT'S OPERATIONAL LIMITATIONS PRIOR TO ENTERING THE 60NM RADIUS OF DCA VORDME VFR:

LMA Type: Special Use Airspace
Notes: EXCLUDES CLASS B AIRSPACE. COMPLIANCE WITH LMA REQUIREMENTS DOES NOT AUTHORIZE OPERATIONS IN THE DC SFRA OUTSIDE OF THE LMA, WHICH MUST BE IN COMPLIANCE WITH DC SFRA NOTAM AND 14 CFR SECTIONS 93.335, 93.337, 93.339, 93.341, 93.343, 93.345, AND 99.7. B. THE LMA IS PART OF THE DC SFRA, WHICH THE FAA HAS ESTABLISHED AS 'NATIONAL DEFENSE AIRSPACE' PURSUANT TO 49 USC 40103(B)(3). PERSONS OPERATING IN THE LMA WHO DO NOT ADHERE TO THE PROCEDURES PRESCRIBED BY 14 CFR SECTIONS 93.335, 93.337, 93.339, AND 99.7, AND LMA-SPECIFIC INSTRUCTIONS MAY FACE RESPONSE AND ENFORCEMENT ACTIONS DESCRIBED BY THE DC SFRA AND DC FRZ NOTAMS. OPERATING REQUIREMENTS CAN BE FOUND IN FDC NOTAM 6/7215.

MINNOW Type: Special Use Airspace
Notes: EXCLUDING THAT AIRSPACE WITHIN R-6903 WHEN ACTIVATED.

N29 Type: Special Use Airspace
Notes: ATC communication required all altitudes prior to entry. SFRA WEST 127.325 / SFRA EAST 132.775 / SFRA SOUTH 125.125.

Washington DC Metropolitan SFRA/FRZ restrictions are in effect. Special regulations apply to all aircraft operations from GND-FL180 in the Washington DC Metropolitan Area. Pilots should contact a local FSS for NOTAM information prior to flight.

ONTONAGON Type: Special Use Airspace
Notes: EXCLUDING THE AIRSPACE AT AND BELOW 1500 FEET AGL WITHIN A 3 NM RADIUS OF THE ONTONAGON COUNTY - SCHUSTER FIELD AIRPORT.

PIKE EAST Type: Special Use Airspace
Notes: EXCLUDING THAT AIRSPACE WITHIN R-4207 WHEN ACTIVATED.

VOLK WEST Type: Special Use Airspace
Notes: EXCLUDES R-6904A & B WHEN ACTIVATED

KZDC Type: UIR
Notes: CPDLC: CPDLC SERVICES ARE AVAILABLE WITH LOGON ADDRESS OF KUSA IN WASHINGTON FIR CPDLC.

KZID Type: UIR
Notes: CPDLC: CPDLC SERVICES ARE AVAILABLE WITH LOGON ADDRESS OF KUSA IN INDIANAPOLIS FIR CPDLC:

KZKC Type: UIR
Notes: CPDLC: CPDLC SERVICES ARE AVAILABLE WITH LOGON ADDRESS OF KUSA IN KANSAS CITY FIR CPDLC:

KZMP Type: UIR
Notes: CPDLC: CPDLC SERVICES ARE AVAILABLE WITH LOGON ADDRESS OF KUSA IN MINNEAPOLIS FIR CPDLC.

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CHRISTINA LAKE TNA Type: Class E Airspace
Notes: TRANSPONDER REQUIRED

TRANSPONDER REQUIRED

EDMONTON TNA Type: Class E Airspace
Notes: TRANSPONDER REQUIRED

TRANSPONDER REQUIRED

TRANSPONDER REQUIRED

TRANSPONDER REQUIRED

TRANSPONDER REQUIRED

KIRBY LAKE TNA Type: Class E Airspace
Notes: TRANSPONDER REQUIRED

BISMARCK MUN Type: Class E5 Airspace
Notes: EXCLUDING ALL FEDERAL AIRWAYS.

BRITTON MUN Type: Class E5 Airspace
Notes: EXCLUDING ALL FEDERAL AIRWAYS.

BURLEY MUN Type: Class E5 Airspace
Notes: EXCEPT THAT AIRSPACE WITHIN THE CONFINES OF FEDERAL AIRWAYS.

EXCEPT THAT AIRSPACE WITHIN THE CONFINES OF FEDERAL AIRWAYS.

EXCEPT THAT AIRSPACE WITHIN THE CONFINES OF FEDERAL AIRWAYS.

CASSELTON MILLER REGL Type: Class E5 Airspace
Notes: EXCLUDING THAT AIRSPACE WITHIN THE FARGO, ND, CLASS E AIRSPACE AREA.

FOSS Type: Class E5 Airspace
Notes: EXCLUDING ALL FEDERAL AIRWAYS.

HAWLEY MUN Type: Class E5 Airspace
Notes: EXCLUDING THAT PORTION WHICH OVERLIES THE FARGO, ND, CLASS E AIRSPACE AREA.

INTERNATIONAL FALLS E6 Type: Class E5 Airspace
Notes: EXCLUDING THAT AIRSPACE WITHIN FEDERAL AIRWAYS AND WITHIN CANADIAN AIRSPACE.

MERCER CO REGL Type: Class E5 Airspace

Notes: EXCLUDING ALL FEDERAL AIRWAYS.

MILLER MUN Type: Class E5 Airspace
Notes: EXCLUDING THE ABERDEEN, SD; THE PIERRE, SD; THE MITCHELL, SD; AND THE HURON, SD, 1,200-FOOT CLASS E AIRSPACE AREAS AND ALL FEDERAL AIRWAYS.

RAVALLI CO Type: Class E5 Airspace
Notes: EXCLUDING THAT AIRSPACE WITHIN FEDERAL AIRWAYS.

STANLEY MUN Type: Class E5 Airspace
Notes: EXCLUDING THAT AIRSPACE WITHIN THE TIOGA, ND, MINOT, ND, AND NEW TOWN, ND, CLASS E AIRSPACE AREAS, AND EXCLUDING ALL FEDERAL AIRWAYS.

WATERTOWN REGIONAL Type: Class E5 Airspace
Notes: EXCLUDING THAT AIRSPACE WITHIN ALL FEDERAL AIRWAYS.

YELLOWSTONE Type: Class E5 Airspace
Notes: EXCLUDING THAT PORTION THAT OVERLIES V298 AND V343.

REGINA TNA Type: Control Area (Airport)
Notes: EXCLUDING THE MOOSE JAW, SK MTCA

CHRISTINA LAKE Type: Control Zone (CTZ/CTR)
Notes: TRANSPONDER REQUIRED

CONKLIN Type: Control Zone (CTZ/CTR)
Notes: TRANSPONDER REQUIRED

KIRBY LAKE Type: Control Zone (CTZ/CTR)
Notes: TRANSPONDER REQUIRED

PRIMROSE Type: Control Zone (CTZ/CTR)
Notes: TRANSPONDER REQUIRED

CZEG Type: FIR
Notes: AIRSPACE-ZONES, AREAS, AND REGIONS 1. DOMESTIC CLEARANCE - NORTH ATLANTIC (NAT) WEST-BOUND TRAFFIC. A) PILOTS PROCEEDING WESTBOUND ACROSS THE NORTH ATLANTIC (NAT) AND ENTERING CDA WITHIN THE GANDER, MONCTON AND MONTREAL FIRS SHALL COMPLY WITH THE FOLLOWING PROCEDURES: I) FLIGHTS CLEARED BY ATC VIA THE FLIGHT PLANNED ROUTE PRIOR TO REACHING CDA WILL NOT BE ISSUED EN-ROUTE CLEARANCES UPON ENTERING DOMESTIC AIRSPACE, AND ARE TO FOLLOW THE FLIGHT PLANNED ROUTE AS CLEARED. DOMESTIC EN-ROUTE CLEARANCES WILL BE ISSUED: A) FOR FLIGHTS THAT HAVE BEEN REROUTED AND EXIT OCEANIC AIRSPACE AT OTHER THAN THE FLIGHT PLANNED EXIT FIX: B) AT A PILOT'S REQUEST FOR ANOTHER ROUTING OR C) IF A FLIGHT PLAN HAS NOT BEEN RECEIVED BY THE ACC. B) IF ENTERING CANADIAN DOMESTIC AIRSPACE WITHIN THE EDMONTON FLIGHT INFORMATION REGION (FIR) THE ONWARD DOMESTIC ROUTING WILL HAVE BEEN ESTABLISHED IN COORDINATION BETWEEN THE REYKJAVIK AND EDMONTON ACCS, AND ADDITIONAL DOMESTIC CLEARANCE IS NOT NORMALLY REQUIRED. HOWEVER, IF THERE HAS BEEN A CHANGE IN ROUTE FROM FILED FLIGHT PLAN, CLARIFICATION OF THE ONWARD ROUTING MAY BE OBTAINED FROM EDMONTON ACC ON REQUEST. CPDLC: CPDLC SERVICES ARE AVAILABLE WITH LOGON ADDRESS OF CZEG IN EDMONTON FIR CPDLC: INMARSAT: INMARSAT SECURITY NUMBER IS 431601 INMARSAT: SATCOM: SATCOM VOICE DIRECT DIAL IS 1-780-890-2775 SATCOM: INMARSAT: INMARSAT SECURITY NUMBER FOR ARCTIC RADIO IS 431610 INMARSAT:

CZWG Type: FIR
Notes: CPDLC: CPDLC SERVICES ARE AVAILABLE WITH LOGON ADDRESS OF CZWG IN WINNIPEG FIR CPDLC: INMARSAT: INMARSAT SECURITY NUMBER IS 431608 INMARSAT: SATCOM: SATCOM VOICE DIRECT DIAL IS 1-204-837-9481 SATCOM:

KZMP Type: FIR
Notes: CPDLC: CPDLC SERVICES ARE AVAILABLE WITH LOGON ADDRESS OF KUSA IN MINNEAPOLIS FIR CPDLC.

203 Type: Special Use Airspace
Notes: VERTICAL LIMITS: GND - 17,000' MSL, OCSL HIGHER BY NOTAM.

232 Type: Special Use Airspace
Notes: OCSL GND - 3399' BY NOTAM.

305 Type: Special Use Airspace
Notes: EXCLUDING CY(R)-303

5402 Type: Special Use Airspace
Notes: EXCLUDING THE AIRSPACE WITHIN R-5401 WHEN ACTIVE, AND R-5403A WHEN ACTIVE.

BEAVER Type: Special Use Airspace

Notes: EXCLUDING THE AIRSPACE BELOW 1500 AGL WITHIN 3 NM OF THE FOLLOWING PUBLIC USE AIRPORTS: BIG FALLS, BIGFORK, BOWSTRING, NORTHHOME, AND WASKISH.

DEVL LK E* Type: Special Use Airspace
Notes: EXCLUDING R-5401, R-5402, R-5403A, R-5403B, R-5403C, R-5403D, R-5403E, AND R-5403F WHEN ACTIVE.

IDAHOFALLS Type: Special Use Airspace
Notes: A CORRIDOR 2 MILES WIDE WITH NO ALTITUDE RESTRICTIONS EXISTS IN THE NORTHERN PORTION OF THIS BOUNDARY EXTENDING FROM THE INTERSECTION OF ID 33 AND ID 22 NEAR THE POINT OF THE MOUNTAIN AT LAT. 43°48'16"N., LONG. 112°50'55"W.; DUE EAST APPROXIMATELY 12 MILES TO A POINT APPROXIMATELY 1 MILE SOUTH OF A CIRCULAR BUTTE AT LAT. 43°47'40"N., LONG. 112°34'30"W.

PWDR RV 1B Type: Special Use Airspace
Notes: EXCLUDING THE AIRSPACE 1500' AGL AND BELOW WITHIN A 3 NM RADIUS OF THE COLSTRIP AIRPORT, MT.

PWDR RV 1C Type: Special Use Airspace
Notes: EXCLUDING THE AIRSPACE WITHIN THE NORTHERN CHEYENNE INDIAN RESERVATION.

PWDR RV 1D Type: Special Use Airspace
Notes: EXCLUDING THE AIRSPACE WITHIN THE NORTHERN CHEYENNE INDIAN RESERVATION AND THE AIRSPACE 1500' AGL AND BELOW WITHIN A 3 NM RADIUS OF THE ST. LABRE MISSION AIRPORT, MT.

PWDR RV 2L Type: Special Use Airspace
Notes: EXCLUDING THE AIRSPACE 1500' AGL AND BELOW WITHIN A 3 NM RADIUS OF BROADUS AIRPORT, MT; LAIRD RANCH AIRPORT, MT; LANNING RANCH AIRPORT, MT; CAMP CROOK AIRPORT, SD; AND SKY RANCH AIRPORT, SD.

PWDR RV 3L Type: Special Use Airspace
Notes: EXCLUDING THE AIRSPACE 2000' AGL AND BELOW WITHIN A 3 NM RADIUS OF BAKER MUNICIPAL AIRPORT, MT, AND BOWMAN MUNICIPAL AIRPORT, ND.

KZMP Type: UIR
Notes: CPDLC: CPDLC SERVICES ARE AVAILABLE WITH LOGON ADDRESS OF KUSA IN MINNEAPOLIS FIR CPDLC.

JAC Type: VOR
Notes: MINIMUM TURNING ALTITUDE V330 E TO V520 W 16000'; V328 NW TO V465 SW 15100'; V465 NE TO V330 W OR V520 W 16000'; V520 E TO V330 W 14200'.

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CZVR Type: ACC
Notes: EXCLUDING FL255.

CHRISTINA LAKE TNA Type: Class E Airspace
Notes: TRANSPONDER REQUIRED

EDMONTON TNA Type: Class E Airspace
Notes: TRANSPONDER REQUIRED

TRANSPONDER REQUIRED

TRANSPONDER REQUIRED

TRANSPONDER REQUIRED

TRANSPONDER REQUIRED

FELTS Type: Class E Airspace
Notes: EXCLUDES THAT AIRSPACE WITHIN THE SPOKANE INTERNATIONAL AIRPORT, WA, CLASS C AIRSPACE AREA.

KIRBY LAKE TNA Type: Class E Airspace
Notes: TRANSPONDER REQUIRED

BOARDMAN E6 Type: Class E5 Airspace
Notes: EXCLUDING THE PORTION WITHIN RESTRICTED AREA R-5704 DURING ITS PUBLISHED HOURS OF DESIGNATION.

BOISE E6 Type: Class E5 Airspace
Notes: EXCLUDING FEDERAL AIRWAYS, BOISE AND MCCALL, ID, AND ONTARIO, OR, CLASS E AIRSPACE AREAS.

BURLEY MUN Type: Class E5 Airspace
Notes: EXCEPT THAT AIRSPACE WITHIN THE CONFINES OF FEDERAL AIRWAYS.

EXCEPT THAT AIRSPACE WITHIN THE CONFINES OF FEDERAL AIRWAYS.

EXCEPT THAT AIRSPACE WITHIN THE CONFINES OF FEDERAL AIRWAYS.

CASCADE RANGE E6 Type: Class E5 Airspace
Notes: EXCLUDING FEDERAL AIRWAYS, WENATCHEE, WA, ELLENSBURG, WA, AND YAKIMA, WA, CLASS E AIRSPACE AREAS.

COLVILLE E6 Type: Class E5 Airspace
Notes: THAT AIRSPACE BELOW 1,200 FEET AGL IS EXCLUDED.

DEER PARK Type: Class E5 Airspace
Notes: EXCLUDING THE SPOKANE, WA, CLASS E AIRSPACE AREA.

LA GRANDE/UNION CO Type: Class E5 Airspace
Notes: EXCLUDING THAT AIRSPACE WITHIN FEDERAL AIRWAYS.

LEXINGTON Type: Class E5 Airspace
Notes: EXCLUDING THAT AIRSPACE WITHIN FEDERAL AIRWAYS.

LUCIN E6 Type: Class E5 Airspace
Notes: EXCLUDING THAT AIRSPACE DESIGNATED FOR FEDERAL AIRWAYS; EXCLUDING THE PORTIONS WITHIN RESTRICTED AREA R-6404 AND LUCIN MOA DURING THEIR PUBLISHED HOURS OF DESIGNATION. EXCLUDING EXISTING CONTROLLED AIRSPACE 8,500 FEET MSL AND ABOVE.

NEWPORT MUN Type: Class E5 Airspace
Notes: EXCLUDING THAT AIRSPACE WITHIN FEDERAL AIRWAYS.

OLYMPIC PENINSULA E6 Type: Class E5 Airspace
Notes: THAT AIRSPACE BELOW 1,200 FEET AGL IS EXCLUDED.

RAVALLI CO Type: Class E5 Airspace
Notes: EXCLUDING THAT AIRSPACE WITHIN FEDERAL AIRWAYS.

SANDPOINT E6 Type: Class E5 Airspace
Notes: EXCLUDING FEDERAL AIRWAYS AND THAT AIRSPACE BELOW 1200' AGL.

SEATTLE-TACOMA INTL Type: Class E5 Airspace
Notes: EXCLUDING THAT AIRSPACE WITHIN THE WENATCHEE PANGBORN MEMORIAL AIRPORT, WA, CLASS E AIRSPACE AREA.

TILLAMOOK Type: Class E5 Airspace
Notes: EXCLUDING THAT AIRSPACE WITHIN FEDERAL AIRWAYS; THE ASTORIA, OR; THE PORTLAND- HILLSBORO, OR; AND THE PORTLAND, OR, CLASS E AIRSPACE AREAS.

EXCLUDING THAT AIRSPACE WITHIN FEDERAL AIRWAYS; THE ASTORIA, OR; THE PORTLAND- HILLSBORO, OR; AND THE PORTLAND, OR, CLASS E AIRSPACE AREAS.

YELLOWSTONE Type: Class E5 Airspace
Notes: EXCLUDING THAT PORTION THAT OVERLIES V298 AND V343.

CONKLIN Type: Control Zone (CTZ/CTR)
Notes: TRANSPONDER REQUIRED

PRIMROSE Type: Control Zone (CTZ/CTR)
Notes: TRANSPONDER REQUIRED

CZEG Type: FIR
Notes: AIRSPACE-ZONES, AREAS, AND REGIONS 1. DOMESTIC CLEARANCE - NORTH ATLANTIC (NAT) WEST-BOUND TRAFFIC. A) PILOTS PROCEEDING WESTBOUND ACROSS THE NORTH ATLANTIC (NAT) AND ENTERING CDA WITHIN THE GANDER, MONCTON AND MONTREAL FIRS SHALL COMPLY WITH THE FOLLOWING PROCEDURES: I) FLIGHTS CLEARED BY ATC VIA THE FLIGHT PLANNED ROUTE PRIOR TO REACHING CDA WILL NOT BE ISSUED EN-ROUTE CLEARANCES UPON ENTERING DOMESTIC AIRSPACE, AND ARE TO FOLLOW THE FLIGHT PLANNED ROUTE AS CLEARED. DOMESTIC EN-ROUTE CLEARANCES WILL BE ISSUED: A) FOR FLIGHTS THAT HAVE BEEN REROUTED AND EXIT OCEANIC AIRSPACE AT OTHER THAN THE FLIGHT PLANNED EXIT FIX: B) AT A PILOT'S REQUEST FOR ANOTHER ROUTING OR C) IF A FLIGHT PLAN HAS NOT BEEN RECEIVED BY THE ACC. B) IF ENTERING CANADIAN DOMESTIC AIRSPACE WITHIN THE EDMONTON FLIGHT INFORMATION REGION (FIR) THE ONWARD DOMESTIC ROUTING WILL HAVE BEEN ESTABLISHED IN COORDINATION BETWEEN THE REYKJAVIK AND EDMONTON ACCS, AND ADDITIONAL DOMESTIC CLEARANCE IS NOT NORMALLY REQUIRED. HOWEVER, IF THERE HAS BEEN A CHANGE IN ROUTE FROM FILED FLIGHT PLAN, CLARIFICATION OF THE ONWARD ROUTING MAY BE OBTAINED FROM

EDMONTON ACC ON REQUEST. CPDLC: CPDLC SERVICES ARE AVAILABLE WITH LOGON ADDRESS OF CZEG IN EDMONTON FIR CPDLC: INMARSAT: INMARSAT SECURITY NUMBER IS 431601 INMARSAT: SATCOM: SATCOM VOICE DIRECT DIAL IS 1-780-890-2775 SATCOM: INMARSAT: INMARSAT SECURITY NUMBER FOR ARCTIC RADIO IS 431610 INMARSAT:

CZVR Type: FIR

Notes: THE VANCOUVER FIR WEST OF TOFINO, CAPE SCOTT, PORT HARDY, AND SANDSPIT NDB IS UNCONTROLLED BELOW 6000' AGL. CPDLC: CPDLC SERVICES ARE AVAILABLE WITH LOGON ADDRESS OF CZVR IN VANCOUVER FIR. FLIGHTS ENTERING CANADIAN DOMESTIC AIRSPACE CPDLC AREA FROM A NON-CPDLC DATA LINK AREA SHOULD PERFORM A LOGON 45 TO 15 MINUTES PRIOR TO ENTERING AIRSPACE. CPDLC: INMARSAT: INMARSAT SECURITY NUMBER IS 431607 INMARSAT: SATCOM: SATCOM VOICE DIRECT DIAL IS 1-604-507-7875 SATCOM: SATCOM: CONTACT VANCOUVER CENTER ON THE NEAREST PERIPHERAL FREQUENCY AT THE TIME OF CROSSING FIR BOUNDARY. TRANSPONDER ADJUSTED TO REPLY ON MODE A-3 CODE 2000. SATCOM:

KZAK Type: FIR

Notes: CPDLC: USE LOGON ADDRESS KZAK FOR ALL CPDLC COMMUNICATIONS IN THE OAKLAND OCEANIC FIR. WHEN MAKING HF VOICE CHECK-IN WITH SAN FRANCISCO RADIO UPON TRANSFERRING DATA LINK CONTACT TO SAN FRANCISCO, SFO RADIO REQUESTS YOU INCLUDE; POINT OF DEPARTURE, DESTINATION, A/C REGISTRATION AND SELCAL CODE. FOR AIRCRAFT DEPARTING FROM AIRPORTS ALONG THE WEST COAST OF NORTH AMERICA, GUAM AND HAWAII, OAKLAND OCEANIC CONTROL REQUIRES THAT DATA-LINK AIRCRAFT NOT LOGON TO OAKLAND OCEANIC (KZAK) UNTIL AFTER LEAVING 10,000' MSL. FOR AIRCRAFT ENTERING THE OAKLAND OCEANIC FIR FROM NON-CPDLC AIRSPACE: LOG ON TO CPDLC AT LEAST 15 BUT NOT MORE THAN 45 MINUTES PRIOR TO ENTERING. FOR AIRCRAFT ENTERING THE OAKLAND OCEANIC FIR FROM ADJACENT CPDLC AIRSPACE: IF KZAK IS THE ACTIVE CENTER CONTACT SAN FRANCISCO RADIO. IF KZAK IS NOT THE ACTIVE CENTER, TERMINATE THE CPDLC CONNECTION WITHIN 5 MINUTES AFTER THE BOUNDARY IS CROSSED, THEN LOG ON TO KZAK AND CONTACT SAN FRANCISCO RADIO. FOR AIRCRAFT OVER-FLYING HONOLULU CERAP: AIRCRAFT WILL RECEIVE AN END SERVICE MESSAGE THAT WILL RESULT IN TERMINATION OF CPDLC. AIRCRAFT SHALL RE-LOG ON TO CPDLC PRIOR TO REENTERING OAKLAND OCEANIC FIR. FOR AIRCRAFT ENTERING GUAM CERAP: CONTACT GUAM CERAP 250 MILES OUT ON 118.7, SQUAWK 2100. FOR AIRCRAFT OVER-FLYING GUAM CERAP: CPDLC CONNECTION WITH OAKLAND MAY BE TERMINATED WITHIN THE GUAM CERAP. IF THE CPDLC CONNECTION WITH KZAK IS NOT TERMINATED, DO NOT USE CPDLC FOR ATC UNTIL GUAM CERAP ADVISES YOU TO TO AGAIN CONTACT ENROUTE COMMUNICATIONS OR SAN FRANCISCO RADIO. IT MAY BE NECESSARY TO LOG BACK ON TO CPDLC WITH KZAK 10-15 MINUTES PRIOR TO EXITING GUAM CERAP IF THE CPDLC CONNECTION WAS TERMINATED. CPDLC: INMARSAT: INMARSAT SECURITY NUMBER FOR OAKLAND CENTER IS 436697 INMARSAT: INMARSAT: INMARSAT SECURITY NUMBER FOR SAN FRANCISCO RADIO IS 436625 INMARSAT: SATCOM: SATCOM VOICE DIRECT DIAL FOR OAKLAND CENTER IS 1-510-745-3415 SATCOM: PILOTS SHOULD MONITOR VHF EMERGENCY FREQUENCY 121.5 MHZ ON LONG OVERWATER ROUTES WHEN POSSIBLE. SEE VHF EMERGENCY FREQUENCY REQUIREMENT. POSITION REPORTS OVER OAKLAND OCEANIC OCA/FIR 120 W BOUNDARIES A. AIRCRAFT ENTERING THE OAKLAND OCA/FIR OVER 120 DEGREES WEST LONGITUDE WITHOUT A KZAK ADS-C CONNECTION ARE REQUESTED TO FORWARD BOUNDARY POSIT

113 Type: Special Use Airspace

Notes: THE RULES FOR CLASS G AIRSPACE APPLY WHEN THE AREA IS ACTIVE. WHEN NOT ACTIVE, THE RULES FOR THE APPLICABLE SURROUNDING AIRSPACE APPLY.

116 Type: Special Use Airspace

Notes: RULES FOR CLASS G AIRSPACE APPLY WHEN THE AREA IS ACTIVE. WHEN NOT ACTIVE, THE RULES FOR THE APPLICABLE SURROUNDING AIRSPACE APPLY.

117 Type: Special Use Airspace

Notes: RULES FOR CLASS G AIRSPACE APPLY WHEN AREA IS ACTIVE. WHEN NOT ACTIVE, THE RULES FOR THE APPLICABLE SURROUNDING AIRSPACE APPLY.

118 Type: Special Use Airspace

Notes: THE RULES FOR CLASS G AIRSPACE APPLY WHEN THE AREA IS ACTIVE. WHEN NOT ACTIVE, THE RULES FOR THE APPLICABLE SURROUNDING AIRSPACE APPLY.

184 Type: Special Use Airspace

Notes: THE RULES FOR CLASS G AIRSPACE APPLY WHEN THE AREA IS ACTIVE. WHEN NOT ACTIVE, THE RULES FOR THE APPLICABLE SURROUNDING AIRSPACE APPLY.

186 Type: Special Use Airspace

Notes: THE RULES FOR CLASS G AIRSPACE APPLY WHEN THE AREA IS ACTIVE. WHEN NOT ACTIVE, THE RULES FOR THE APPLICABLE SURROUNDING AIRSPACE APPLY.

187 Type: Special Use Airspace

Notes: THE RULES FOR CLASS G AIRSPACE APPLY WHEN THE AREA IS ACTIVE. WHEN NOT ACTIVE, THE RULES FOR THE APPLICABLE SURROUNDING AIRSPACE APPLY.

188 Type: Special Use Airspace

Notes: THE RULES FOR CLASS G AIRSPACE APPLY WHEN THE AREA IS ACTIVE. WHEN NOT ACTIVE, THE RULES FOR THE APPLICABLE SURROUNDING AIRSPACE APPLY.

203 Type: Special Use Airspace
Notes: VERTICAL LIMITS: GND - 17,000' MSL, OCSL HIGHER BY NOTAM.

232 Type: Special Use Airspace
Notes: OCSL GND - 3399' BY NOTAM.

BOARDMAN Type: Special Use Airspace
Notes: EXCLUDING THAT AIRSPACE WITHIN R-5701 AND R-5706 WHEN ACTIVE.

BOARDMANL* Type: Special Use Airspace
Notes: EXCLUDING THAT AIRSPACE WITHIN R-5701 AND R-5706 WHEN ACTIVE.

IDAHOFALLS Type: Special Use Airspace
Notes: A CORRIDOR 2 MILES WIDE WITH NO ALTITUDE RESTRICTIONS EXISTS IN THE NORTHERN PORTION OF THIS BOUNDARY EXTENDING FROM THE INTERSECTION OF ID 33 AND ID 22 NEAR THE POINT OF THE MOUNTAIN AT LAT. 43°48'16"N., LONG. 112°50'55"W.; DUE EAST APPROXIMATELY 12 MILES TO A POINT APPROXIMATELY 1 MILE SOUTH OF A CIRCULAR BUTTE AT LAT. 43°47'40"N., LONG. 112°34'30"W.

JARBIDGE N Type: Special Use Airspace
Notes: EXCLUDING THAT AIRSPACE 1500 FEET AGL AND BELOW WITHIN A 3 NM RADIUS OF THE GRASMERE ARPT, ID CENTERED AT LAT 42-22-00N, LONG 115-53-03W.

N2561 Type: Special Use Airspace
Notes: Obtain Pearson Field weather & establish two-way radio CTC with CTAF 119.000 prior entering the SFRA.

OLYMPIC Type: Special Use Airspace
Notes: EXCLUDING THAT AIRSPACE BELOW 1,200 FEET AGL.

RAINIER 1 Type: Special Use Airspace
Notes: EXCLUDES THE AIRSPACE OF R-6703A, B, C, D, E, F, H AND J, WHEN ACTIVE.

RAINIER 2 Type: Special Use Airspace
Notes: EXCLUDES THE AIRSPACE OF R-6703F, G, H AND I, WHEN ACTIVE.

JAWBN Type: Waypoint
Notes: MINIMUM TURNING ALTITUDE V495 SE TO V4 W 8000'.

OLIBY Type: Waypoint
Notes: GEG R-052 UNUSABLE AT OLIBY FROM 12000-14000 FT.

Regional Notes

Page 1 Strip Charts

CZEG Type: FIR
RNP PROCEDURES
Within RNPC (Required Navigation Performance Capability) airspace aircraft may use established RNAV Routes, provided the aircraft is certificated in accordance with the RNPC concept.

CZUL Type: FIR
RNP PROCEDURES
Within RNPC (Required Navigation Performance Capability) airspace aircraft may use established RNAV Routes, provided the aircraft is certificated in accordance with the RNPC concept.

CZWG Type: FIR
RNP PROCEDURES
Within RNPC (Required Navigation Performance Capability) airspace aircraft may use established RNAV Routes, provided the aircraft is certificated in accordance with the RNPC concept.

CZYZ Type: FIR
RNP PROCEDURES
Within RNPC (Required Navigation Performance Capability) airspace aircraft may use established RNAV Routes, provided the aircraft is certificated in accordance with the RNPC concept.

KZAU Type: FIR
FAA Q Routes (CONUS)
Not including Q routes in the Gulf of Mexico - GNSS or DME/DME/IRU RNAV required, unless otherwise indicated. DME/DME/IRU aircraft require radar surveillance. Refer to Jeppesen Enroute pages for DME information.

KZBW Type: FIR
FAA Q Routes (CONUS)
Not including Q routes in the Gulf of Mexico - GNSS or DME/DME/IRU RNAV required, unless otherwise indicated. DME/DME/IRU aircraft require radar surveillance. Refer to Jeppesen Enroute pages for DME information.

KZDC Type: FIR
FAA Q Routes (CONUS)
Not including Q routes in the Gulf of Mexico - GNSS or DME/DME/IRU RNAV required, unless otherwise indicated. DME/DME/IRU aircraft require radar surveillance. Refer to Jeppesen Enroute pages for DME information.

MAGNETIC DISTURBANCE
VFR Operations: Magnetic disturbance up to 8Â° exists at sea level from N39 17, W076 16 to N39 30, W075 54.

AREA OF HEAVY CONGESTION
VFR Operations: THE ENTIRE BALTIMORE-WASHINGTON AREA IS HEAVILY CONGESTED WITH MANY DIFFERENT AIRCRAFT TYPES. THESE ROUTE SUGGESTIONS ARE NOT STERILE OF OTHER TRAFFIC; THEY ARE AREA WE BELIEVE LEAST CONGESTED IN AN ARE OF HEAVY CONGESTION. PILOT ADHERENCE TO VFR RULES MUST BE EXERCISED AT ALL TIMES. COMMUNICATION MUST BE MAINTAINED BETWEEN AIRCRAFT AND CONTROL TOWERS WHILE IN CLASS D AIRSPACE.

KZID Type: FIR
FAA Q Routes (CONUS)
Not including Q routes in the Gulf of Mexico - GNSS or DME/DME/IRU RNAV required, unless otherwise indicated. DME/DME/IRU aircraft require radar surveillance. Refer to Jeppesen Enroute pages for DME information.

KZKC Type: FIR
FAA Q Routes (CONUS)
Not including Q routes in the Gulf of Mexico - GNSS or DME/DME/IRU RNAV required, unless otherwise indicated. DME/DME/IRU aircraft require radar surveillance. Refer to Jeppesen Enroute pages for DME information.

KZMP Type: FIR
FAA Q Routes (CONUS)
Not including Q routes in the Gulf of Mexico - GNSS or DME/DME/IRU RNAV required, unless otherwise indicated. DME/DME/IRU aircraft require radar surveillance. Refer to Jeppesen Enroute pages for DME information.

KZNY Type: FIR
NATIONAL DEFENSE OPERATING AREAS
VFR Operations: Warning: National Defense Areas Operations hazardous to the flight of aircraft conducted within these areas.

AIR TOUR OPERATIONS
VFR Operations: Heavy concentration of air tour operations at 500' AGL in the vicinity of Statue of Liberty and Ellis Island. Air tour helicopters may initiate a climb to higher altitude in this vicinity. Pilots should avoid overflying these areas and maintain appropriate lateral distance.

CAUTION
VFR Operations: CAUTION: USAF PAVE PAW Radar Hazardous to Aircraft 1 NM radius N41 45.1 W070 32.3 GND to 4500' MSL.

KZOB Type: FIR
FAA Q Routes (CONUS)
Not including Q routes in the Gulf of Mexico - GNSS or DME/DME/IRU RNAV required, unless otherwise indicated. DME/DME/IRU aircraft require radar surveillance. Refer to Jeppesen Enroute pages for DME information.

VFR AIRSPACE RESTRICTION
VFR Operations: No VFR flight within Canadian Class B Airspace is permitted above 12,500' MSL, or MEA, wichever is higher, to but not including 18,000' MSL without being controlled by ATC. For additional details see appropriate Canadian publications.

KZWY Type: FIR
COMMUNICATION PROCEDURES
Flights from the SAM/CAR regions entering New York MNPSA via New York OCA do not need to obtain Oceanic Clearance from New York OAC until establishing first contact with New York on HF via ARINC.

TRANSPONDER OPERATIONS
TRANSPONDER OPERATION: Unless otherwise directed by ATC, and except in cases of emergency or radio failure, pilots of aircraft flying in the NAT Region shall operate transponders continuously on Mode A/C, Code 2000 all directions, except that the last assigned Code shall be retained for 30 minutes after entry into NAT airspace. Aircraft operating within the SOTA have to select Mode A/C, Codes will be allocated by Shannon ATCC. Reykjavik ATC provides Radar Control service in the southeastern part of its area ; thus transponder codes issued must be retained throughout Reykjavik OCA until advised by ATC. All aircraft transitioning from Miami Center and San Juan CERAP into the WATRS Area via fixed ATS routes shall remain on their last assigned beacon code.

Page 2 Strip Charts

CZEG Type: FIR
RNP PROCEDURES
Within RNPC (Required Navigation Performance Capability) airspace aircraft may use established RNAV Routes, provided the aircraft is certificated in accordance with the RNPC concept.

CZWG Type: FIR
RNP PROCEDURES
Within RNPC (Required Navigation Performance Capability) airspace aircraft may use established RNAV Routes, provided the aircraft is certificated in accordance with the RNPC concept.

KZAU Type: FIR
FAA Q Routes (CONUS)
Not including Q routes in the Gulf of Mexico - GNSS or DME/DME/IRU RNAV required, unless otherwise indicated. DME/DME/IRU aircraft require radar surveillance. Refer to Jeppesen Enroute pages for DME information.

KZDV Type: FIR
FAA Q Routes (CONUS)
Not including Q routes in the Gulf of Mexico - GNSS or DME/DME/IRU RNAV required, unless otherwise indicated. DME/DME/IRU aircraft require radar surveillance. Refer to Jeppesen Enroute pages for DME information.

NOTICE

VFR Operations: PILOTS ARE REQUESTED TO AVOID LANDING OR HOVERING AT TABLE MOUNTAIN FIELD SITE.

MAGNETIC DISTURBANCE
VFR Operations: Magnetic disturbance of as much as 13Â° exists at ground level at Manitou Springs.

INTENSIVE FLIGHT TRAINING AND PARACHUTE JUMPING AREA
VFR Operations: Pilots are requested to avoid flight in the vicinity of the USAF Academy due to intensive student pilot training and parachute jumping, surface to 17,500' MSL. See Airport/Facility Directory for hours of operation. Suggest flight east of I-25 at or above 9000' MSL. For advisory information, contact Academy Tower on 124.15 MHz.

KZLC Type: FIR
MILITARY OPERATIONS
Military operations south of J-58-80 and west of J-9-107, direct routings normally unavailable.

FAA Q Routes (CONUS)
Not including Q routes in the Gulf of Mexico - GNSS or DME/DME/IRU RNAV required, unless otherwise indicated. DME/DME/IRU aircraft require radar surveillance. Refer to Jeppesen Enroute pages for DME information.

KZMP Type: FIR
FAA Q Routes (CONUS)
Not including Q routes in the Gulf of Mexico - GNSS or DME/DME/IRU RNAV required, unless otherwise indicated. DME/DME/IRU aircraft require radar surveillance. Refer to Jeppesen Enroute pages for DME information.

Page 3 Strip Charts

CZEG Type: FIR
RNP PROCEDURES
Within RNPC (Required Navigation Performance Capability) airspace aircraft may use established RNAV Routes, provided the aircraft is certificated in accordance with the RNPC concept.

KZAK Type: FIR
VHF EMERGENCY FREQUENCY REQUIREMENTS
VHF EMERGENCY FREQUENCY REQUIREMENT Pilots should remember that there is a need to continuously guard the VHF emergency frequency 121.5 MHz when on long over-water flights, except when communications on other VHF channels, equipment limitations, or cockpit duties prevent simultaneous guarding of two channels. Guarding of 121.5 MHz is particularly critical when operating in proximity to flight information region (FIR) boundaries since it serves to facilitate communications with regard to aircraft which may experience in-flight emergencies, communications, or navigational difficulties.

CPDLC LOGON
Controller Pilot Data Link Communications (CPDLC) aircraft entering Guam ARTCC contact Guam CERAP 250NM out on 118.7, squawk 2100.

REGIONAL WARNINGS
All pilots should avoid the Kaena Point Satellite Tracking Station. Electromagnetic radiation will continuously exist 2800' above antenna systems along a 3 mile stretch of mountain ridge. Aircraft flying within this airspace will be exposed to direct radiation which may produce harmful effects to personnel and equipment.

REGIONAL WARNINGS
All pilots should avoid the Kokee NASA Telemetry Station. Electromagnetic radiation will continuously exist within a 2500' radius and 2500' above antenna. Aircraft flying within this airspace will be exposed to direct radiation which may produce harmful effects to personnel and equipment.

KZDV Type: FIR
FAA Q Routes (CONUS)
Not including Q routes in the Gulf of Mexico - GNSS or DME/DME/IRU RNAV required, unless otherwise indicated. DME/DME/IRU aircraft require radar surveillance. Refer to Jeppesen Enroute pages for DME information.

NOTICE
VFR Operations: PILOTS ARE REQUESTED TO AVOID LANDING OR HOVERING AT TABLE MOUNTAIN FIELD SITE.

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KZLC Type: FIR
MILITARY OPERATIONS
Military operations south of J-58-80 and west of J-9-107, direct routings normally unavailable.

FAA Q Routes (CONUS)
Not including Q routes in the Gulf of Mexico - GNSS or DME/DME/IRU RNAV required, unless otherwise indicated. DME/DME/IRU aircraft require radar surveillance. Refer to Jeppesen Enroute pages for DME information.

KZSE Type: FIR
FAA Q Routes (CONUS)
Not including Q routes in the Gulf of Mexico - GNSS or DME/DME/IRU RNAV required, unless otherwise indicated. DME/DME/IRU aircraft require radar surveillance. Refer to Jeppesen Enroute pages for DME information.

MAGNETIC DISTURBANCE
VFR Operations: Magnetic disturbance of as much as 6Â° exists at ground level between Maple Valley and Cedar Grove.

Reference Notes

Page 1 Strip Charts

CZEG Type: FIR
USE OF DND AND CIVIL HIGH ARCTIC AERODROMES
USE OF DND and CIVIL HIGH ARCTIC AERODROMES: Civil operators must obtain permission from DND to use High Arctic Aerodromes in Canada. See Entry Requirements Tab.

CANADIAN DOMESTIC AIRSPACE (DOMESTIC CLEARANCE)
a. North Atlantic (NAT) West-bound Traffic.

1. Pilots proceeding westbound across the North Atlantic (NAT) and entering Canadian Domestic Airspace (CDA) within the Gander, Moncton and Montreal FIRs should comply with the following procedures:

(a) Flights cleared by ATC via the flight planned route prior to reaching CDA will not be issued en-route clearances upon entering domestic airspace, and are to follow the flight planned route as cleared.

(b) Domestic en-route clearances will be issued for flights that have been rerouted and exit oceanic airspace at other than the flight planned exit fix, at a pilot's request for another routing or if a flight plan has not been received by the ACC.

2. If entering Canadian Domestic Airspace within the Edmonton FIR, the onward domestic routing will have been established in coordination between the Reykjavik and Edmonton ACCs, and additional domestic clearance is not normally required. However, if there has been a change in route from the filed flight plan, clarification of the onward routing may be obtained from Edmonton ACC on request.

TRANSPONDER SETTING (Secondary Surveillance Radar-SSR) For Beacon Code procedures see Enroute Tab.

CZUL Type: FIR
CANADIAN DOMESTIC AIRSPACE (DOMESTIC CLEARANCE)
a. North Atlantic (NAT) West-bound Traffic.

1. Pilots proceeding westbound across the North Atlantic (NAT) and entering Canadian Domestic Airspace (CDA) within the Gander, Moncton and Montreal FIRs should comply with the following procedures:

(a) Flights cleared by ATC via the flight planned route prior to reaching CDA will not be issued en-route clearances upon entering domestic airspace, and are to follow the flight planned route as cleared.

(b) Domestic en-route clearances will be issued for flights that have been rerouted and exit oceanic airspace at other than the flight planned exit fix, at a pilot's request for another routing or if a flight plan has not been received by the ACC.

2. If entering Canadian Domestic Airspace within the Edmonton FIR, the onward domestic routing will have been established in coordination between the Reykjavik and Edmonton ACCs, and additional domestic clearance is not normally required. However, if there has been a change in route from the filed flight plan, clarification of the onward routing may be obtained from Edmonton ACC on request.

TRANSPONDER SETTING (Secondary Surveillance Radar-SSR) For Beacon Code procedures see Enroute Tab.

CZWG Type: FIR
TRANSPONDER SETTING (Secondary Surveillance Radar-SSR) For Beacon Code procedures see Enroute Tab.

KZWY Type: FIR
TRANSPONDER SETTING (Secondary Surveillance Radar-SSR) For Beacon Code procedures see Enroute Tab.

WATRS PLUS ROUTE STRUCTURE OPERATIONAL POLICY AND PROCEDURES
For Operational Policies and Procedures required for flights within the WATRS Plus route structure redesign see Enroute Tab.

WATRS OPERATIONAL POLICIES
WEST ATLANTIC ROUTE SYSTEM (WATRS) PLUS CTAs: For Operational Policy and Procedures refer to ENROUTE section.

NORTH ATLANTIC ORGANIZED TRACK SYSTEM (NAT OTS)
a. Organized Tracks are formulated and published as an AFTN Track Structure Message. The day-time structure, valid from 1130 UTC until 1900 UTC at 030Â°W is published by Shanwick, and the night-time structure, valid from 0100 UTC until 0800 UTC at 030Â°W by Gander. To enable oceanic planners to take into consideration

the operators preferred route in the construction of the OTS all NAT operators should provide, by AFTN, their proposed flights and optimum tracks. The Preferred Route Message (PRM) should be received by Shanwick (EUCHZMFP and EUCBZMFP) copy Gander (CZQXZQZX) no later than 1000 UTC for the following nighttime OTS and by Gander copy Shanwick no later than 1900 UTC for the following daytime OTS.

b. Flight Planning on OTS:

1. NAT Track Structure Messages are identified by a 3-digit Track Message Identification number (TMI) appearing at the end of the Track Message. This number relates to the day of the year (no reference to month). Any subsequent NAT track amendment(s) on a given day will carry a successive alpha number, i.e. TMI33B would reflect the 2nd amendment of the TMI for the 33rd day of the year. Ensuring that the flight is planned on the correct track of the day is essential. Crews should also be given copy of the track message(s) at time of briefing.

2. Operators should use the Flight Level Allocation Scheme (FLAS) for flight planning guidance:

(a) FL430 - May be flight planned for both East- and Westbound NON-RVSM certified aircraft

(b) FL410 - Eastbound

(c) FL310, 320, 340, 360, 380, 400 - Westbound FL (except within Eastbound OTS)

(d) FL330, 350, 370, 390 - Eastbound FL (except within Westbound OTS)

(e) FL300 and below - Even FLs westbound ; Odd FLs eastbound.

3. 1. Operators are permitted to file flight plans at any flight level for a route which is wholly contained within the routing structure of T13, T16 and T213. Operators are reminded that T13, T16 and T213 are included in the DLM. Flight planning requirements apply for T9 and T290: Item 10A - GRZ Item 18 - NAV/RNP2

4. To accommodate significant single direction demand during OTS times, OACCs may exchange Flight Levels on a tactical basis. This allows additional profiles for main direction flow.

5. During OTS times, aircraft intending to use the OTS may Flight Plan levels which are allocated to the published OTS. Additionally, to accommodate demand:

(a) During the eastbound OTS, eastbound non-OTS aircraft may Flight Plan at FL340 or FL380

(b) During the westbound OTS, westbound non-OTS aircraft may Flight Plan at FL330.

6. Unless suitable eastbound Tracks exist, during the eastbound OTS times, eastbound traffic originating in New York OACC, planned to enter Shanwick OACC, is recommended to Flight Plan as follows:

(a) FL310 or FL340 and restrict routing to landfall BEDRA or south

(b) FL310, FL340 or FL380, and restrict routing to landfall either: BEDRA or south, or to remain south of the OTS, whichever is further south.

7. During the westbound OTS, track and random westbound aircraft, flight planned to enter Shanwick and Gander airspace which landfalls BOKTO-AVPUT inclusive should not flight plan at FL340. FL340 is reserved for flights between Reykjavik OACC and Gander OACC.

c. Random Flight Planning (Predominantly East - West direction):

1. For flights operating at or South of 70N, the planned tracks shall normally be defined by significant points formed by the intersection of half or whole degrees of latitude with meridians spaced at intervals of 10 degrees from the Greenwich meridian to longitude 70W.

2. For flights operating north of 70N and at or south of 80N, the planned tracks shall normally be defined by significant points formed by the intersection of parallels of latitude expressed in degrees and minutes with meridians normally spaced at intervals of 20 degrees from the Greenwich meridian to longitude 60W, using the longitudes 000W, 020W, 040W and 060W.

3. When the flight time between successive significant points is less than 30 minutes, one of these points may be omitted.

(a) at intervals of 10 degrees of longitude (between 5W and 65W) for flights operating at or south of 70N; and

(b) at intervals of 20 degrees of longitude (between 10W and 50W) for flights operating north of 70N and at or south of 80N.

4. For flights operating north of 80N, the planned tracks shall normally be defined by significant points formed by the intersection of parallels of latitude expressed in degrees and minutes with meridians expressed in whole degrees. The distance between significant points shall normally equate to not less than 30 and not more than 60 minutes of flying time.

d. Random Flight Planning (Predominantly North - South direction):

1. For flights whose flight paths at or South of 80N are predominantly oriented in a north-south direction, the planned tracks shall normally be defined by significant points formed by the intersection of whole degrees of longitude with specified parallels of latitude which are spaced at intervals of 5 degrees.

2. For flights operating north of 80N, the planned tracks shall be defined by points of intersection of parallels of latitude expressed in degrees and minutes with

meridians expressed in whole degrees. The distance between significant points shall normally equate to not less than 30 and not more than 60 minutes of flying time.

e. After leaving oceanic airspace flight crews maintain their assigned Mach number in domestic controlled airspace unless and until the appropriate ATC unit authorizes a change.

f. If an aircraft has inadvertently deviated from the route specified in the ATC clearance it shall forthwith take action to regain such route within 100 nm from the position at which the deviation was observed.

NORTH ATLANTIC DATA LINK COMMUNICATION PROCEDURES

a. Many NAT air/ground ATC communications are still conducted on single side-band HF frequencies. For unrestricted operations in the NAT region fully functioning HF communications equipment is required. While SATVOICE and data link communications are now in widespread use in NAT operations, HF also constitutes a required back-up.

b. It is important to note that it is equally essential to comply with the foregoing SELCAL provisions even if SATVOICE or CPDLC are being used for routine air/ground ATS communications. This will ensure that ATC has a timely means of contacting the aircraft.

1. provide the SELCAL code in the flight plan; (any subsequent change of aircraft for a flight will require refiling of the flight plan or submitting a modification message (CHG) which includes the new registration and SELCAL);

2. check the operation of the SELCAL equipment, at or prior to entry into oceanic airspace, with the appropriate radio station. (This SELCAL check must be completed prior to commencing SELCAL watch); and

3. maintain thereafter a SELCAL watch.

c. Radio operators usually maintain a listening watch on more than one single frequency, therefore it is useful for flight crews to state the frequency used when placing the initial call to the radio station.

d. The carriage of HF communications equipment is mandatory for flight in the Shanwick OCA.

e. In the event of HF communication failure, when so equipped, an aircraft should use Satellite Voice Communications to contact the responsible aeradio station via special telephone numbers/short codes. If not equipped with SATCOM then the flight crew should attempt to use VHF and request relay of position reports via another aircraft. For this purpose the air to air VHF frequency 123.45 MHz may be used. If necessary the initial contact with the other aircraft may be made on 121.5 MHz.

f. The Aeronautical Mobile Satellite (Route) Service (AMS(R)S), more commonly referred to as SATVOICE, can be used as a supplement to HF & CPDLC communications throughout the NAT region for any routine, non-routine or emergency ATS air/ground communications.

g. Radio stations are also responsible for the operation of General Purpose VHF (GP/VHF) outlets. North Atlantic flights may use these facilities for all regular and emergency communications with relevant OACCs.

h. It is important for the flight crew to appreciate that when using GP/VHF, as with HF and SATVOICE, these communications are with a radio station and the flight crew is not in direct contact with ATC. However, contact between the flight crew and ATC can be arranged, if necessary, via patch-through on HF or GP/VHF frequencies by Iceland Radio and Shanwick Radio.

POSITION REPORTING PROCEDURES

a. Unless otherwise requested by ATC , position reports for flights on routes not defined by designated reporting points should be made at the significant points listed in the flight plan.

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

c. 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.

d. Unless providing position reports via ADS-C, if the Estimated Time for the "next position", as last reported to ATC has changed by 2 minutes or more, a revised Estimate must be transmitted to the ATS unit concerned as soon as possible.

e. Flight Crews must always report to ATC as soon as possible on reaching any new cruising level.

f. For flights outside domestic ATS route networks, positions should be expressed in terms of latitude and longitude except when flying over named reporting points. For flights whose tracks are predominantly east or west, latitude should be expressed in degrees and minutes, longitude in degrees only. For flights whose tracks are predominantly north or south, latitude should be expressed in degrees only, longitude in degrees and minutes. However, it should be noted that when such minutes are zero then the position report may refer solely to degrees.

STANDARD AIR GROUND MESSAGE TYPES AND FORMATS

a. Aircraft entering, operating within, or leaving the Oceanic Control Areas of Gander, New York, Bodo, Reykjavik, Santa Maria and Shanwick will transmit the elements of information in position reports to the appropriate Oceanic Control.

b. For routine position reports. The phraseology used to indicate the next position on the assigned route is "ESTIMATING", for the following subsequent position "NEXT", "ABLE" or "REQUEST", as applicable for the acceptable or requested next higher FL position or time.

1. Content and Data Sequence:

   (a) "Position"

   (b) Flight identification (additionally state frequency when using HF)

   (c) Present position

   (d) Time over present position (hours and minutes)

   (e) Present Flight level

   (f) Next position on assigned route or OCA entry point

   (g) Estimated time for next position or OCA entry point

   (h) Next subsequent position

   (i) Next higher FL acceptable or requested at Position or Time

   (j) Any further information e.g. MET data or company message

c. In conjunction with a routine position report, to request a change of Mach Number, Flight Level, or route and to request Westbound Oceanic Clearance prior to entering Reykjavik, Santa Maria and Shanwick OCA's.

1. To request a change in Mach Number, or route when a position report message is not appropriate.

   (a) "Request Clearance"

   (b) Flight identification (additionally state frequency when using HF)

   (c) Present or last reported position

   (d) Time over present or last reported position (hours and minutes)

   (e) Present Flight Level

   (f) Next position on assigned route or OCA entry point

   (g) Estimated time for next position or OCA entry point

   (h) Next subsequent position

   (i) Requested Mach Number, Flight Level, or route

   (j) Further information or clarifying remarks

2. Content and Data sequence

   (a) â€œRequest Clearance"

   (b) Flight identification (additionally state frequency when using HF)

   (c) Requested Mach Number, or route

   (d) Further information or clarifying remarks

d. To update time estimate for next position.

1. Content and Data sequence

   (a) "Revised Estimate"

   (b) Flight identification (additionally state frequency when using HF)

   (c) Next position on route

(d) Revised estimate for next position (hours and minutes)

(e) Further information

e. To pass information on position or time a climb to the next higher FL is acceptable or a clearance for higher FLs is requested when inclusion in a position report message is not appropriate

1. Content and Data sequence

(a) Flight identification (additionally state frequency when using HF)

(b) Requested or Acceptable FLs

(c) at position or time

f. To pass information or make a request in plain language that does not conform with the content of other message format. No message designator is required as this will be inserted by the ground station.

1. Content and Data sequence

(a) Flight identification (additionally state frequency when using HF)

(b) General information or request in plain language and format free.

g. If the estimated time for the next position, as last reported to ATC, has changed by 2 minutes or more, a revised estimate must be transmitted to the ATS unit concerned as soon as possible.

h. A "When Able Higher" (WAH) report must be provided by all flights entering New York MNPSA and Santa Maria OCA.

1. WAH reports on entering other NAT OCAs is optional but useful and may be requested by any OAC. The WAH report includes the time or location the flight will be ABLE to accept the next higher flight level. More than one level may be quoted if that information is available. Should an aircraft desire to register a request for one or more future step climbs the word "REQUEST" must be substituted for the word "ABLE" in the report. It should be noted that ATC acknowledgement of a WAH report (and any included request) is NOT a clearance to change altitude.

i. Report immediately on reaching any new cruising level following a reclearance or completing a step climb etc.

WEATHER DEVIATION PROCEDURES FOR OCEANIC-CONTROLLED AIRSPACE

a. The pilot shall inform ATC when weather deviation is no longer required, or when a weather deviation has been completed and the aircraft has returned to its cleared route.

b. The pilot should contact ATC and request clearance to deviate from track or route, advising the extent of the deviation requested. The flight crew will use whatever means is appropriate (i.e., CPDLC and/or voice) to communicate during a weather deviation.

1. ATC should take one of the following actions:

(a) when appropriate separation can be applied, issue clearance to deviate from track or route; or

(b) (3) request the pilotâ€™s intentions.

2. The pilot should take the following actions:

(a) comply with the ATC clearance issued; or

(b) advise ATC of intentions and execute the procedures detailed below.

c. Actions to be taken if a revised ATC clearance cannot be obtained

(a) Originally cleared track or route center line

(1) East 000Â° - 179Â° magnetic

[a] DESCEND 300 ft (90 m)

[b] CLIMB 300 ft (90 m)

(2) West 180Â° - 359Â° magnetic

[a] CLIMB 300 ft (90 m)

[b] DESCEND 300 ft (90 m)

OPERATIONAL EQUIPMENT
For Description and requirements within the NAT MNPS airspace refer to the Canadian Air Traffic Control Pages.

SPECIAL PROCEDURES FOR IN-FLIGHT CONTINGENCIES IN OCEANIC AIRSPACE ICAO DOC 4444, SECTION 15.2
Introduction

1. Although all possible contingencies cannot be covered, these procedures provide for the more frequent cases such as:

a. Inability to comply with assigned clearance due to meteorological conditions.

b. En-route diversion across the prevailing traffic flow; and

c. Loss of, or significant reduction in, the required navigation capability when operating in an airspace where the navigation performance accuracy is a prerequisite to the safe conduct of flight operations, or pressurization failure.

2. General Procedures

1. If an aircraft is unable to continue the flight in accordance with its ATC clearance, a revised clearance shall be obtained, whenever possible, prior to initiating any action.

2. If prior clearance cannot be obtained, the following contingency procedures should be employed until a revised clearance is received. In general terms, the aircraft should be flown at an offset level and on an offset track where other aircraft are less likely to be encountered. Specifically, the pilot shall:

a. Leave the cleared track or ATS route by initially turning at least 30 degrees to the right or to the left, in order to establish and maintain a parallel, same direction track or ATS route offset 5 NM (9.3 km). The direction of the turn should be based on one or more of the following factors:

1) aircraft position relative to any organized track or ATS route system;

2) the direction of flights and flight levels allocated on adjacent tracks;

3) the direction to an alternate airport;

4) any strategic lateral offset being flown; and

5) terrain clearance.

b. Maintain a watch for conflicting traffic both visually and by reference to ACAS (if equipped), leaving ACAS in RA mode at all times, unless aircraft operating limitations dictate otherwise;

c. turn on all aircraft exterior lights (commensurate with appropriate operating limitations);

d. keep the SSR transponder on at all times and, when able, squawk 7700, as appropriate and, if equipped with ADS-B or ADS-C, select the appropriate emergency functionality;

e. as soon as practicable, advise air traffic control of any deviation from their assigned clearance;

f. use means as appropriate (ie. voice and/or CPDLC) to communicate during a contingency or emergency;

g. if voice communications are used, the radiotelephony distress signal (MAYDAY) or urgency signal (PAN PAN) preferably spoken three times, shall be used, as appropriate;

h. when emergency situations are communicated via CPDLC, the controller may respond via CPDLC. However, the controller may also attempt to make voice contact with the aircraft;

i. establish communications with and alert nearby aircraft by broadcasting on the frequencies in use and at suitable intervals on 121.5 MHz (or, as a backup, on the inter-pilot air-to-air frequency 123.45 MHz): aircraft identification, the nature of the distress condition, intention of the pilot, position (including the ATS route designator or the track code, as appropriate) and flight level; and

j. the controller should attempt to determine the nature of the emergency and ascertain any assistance that may be required. Subsequent ATC action with respect to that aircraft shall be based on the intentions or the pilot and overall traffic situation.

3. Actions to be taken once offset from track:

a) operation within a parallel track system;

b) the potential for user preferred routes (UPR's) parallel to the aircraft's track or ATS route;

c) the nature of the contingency (e.g. aircraft system malfunction; and

d) weather factors (e.g. convective weather at lower flight levels).

4. If possible, maintain the assigned flight level until established on the 9.3 km (5.0 NM) parallel, same direction track or ATS route offset. If unable, initially minimize the rate of descent to the extent that is operationally feasible.

5. Once established on a parallel, same direction track or ATS route offset by 9.3km (5.0 NM), either:

a) descend below FL 290, and establish a 150 m (500 ft) vertical offset from those flight levels normally used, and proceed as required by the operational situation or if an ATC clearance has been obtained, in accordance with the clearance; or

b) establish a 150 m (500 ft) vertical offset (or 300 m (1000 ft) vertical offset if above FL 410) from those flight levels normally used, and proceed as required by the operational situation, or if ATC clearance has been obtained, in accordance with the clearance.

COMMON PROCEDURES FOR RADIO COMMUNICATION FAILURE
The following procedures are intended to provide general guidance for North Atlantic (NAT) aircraft experiencing a communication failure. These procedures are intended to complement and not supersede state procedures/regulations. It is not possible to provide guidance for all situations associated with a communications failure.

a. General

1. The flight crew of an aircraft experiencing a two-way ATS communications failure should operate the SSR transponder on identity Mode A Code 7600 and Mode C.

2. When so equipped, an aircraft should use SATVOICE Communications to contact the responsible aeradio station via special telephone numbers/short codes.

3. If the aircraft is not equipped with SATVOICE then the flight crew should attempt to use VHF to contact any (other) ATC facility or another aircraft, inform them of the difficulty and request that they relay formation to the ATC facility with which communications are intended.

4. The inter-pilot air-to-air VHF frequency, 123.450 MHz, may be used to relay position reports via another aircraft.

5. In view of the traffic density in the NAT Region, flight crews of aircraft experiencing a two way ATS communications failure should broadcast regular position reports on the inter-pilot frequency 123.450 MHz until such time as communications are re-established.

6. Due to the potential length of time in Oceanic Airspace, it is strongly recommended that a flight crew experiencing communications failure whilst still in European domestic airspace does not enter the Shanwick Oceanic Control Area.

b. Communications failure prior to entering NAT Oceanic Airspace

1. If operating with a received and acknowledged oceanic clearance, the flight crew shall enter oceanic airspace at the cleared oceanic entry point, level and speed and proceed in accordance with the received and acknowledged oceanic clearance. Any level or speed changes required to comply with the oceanic clearance shall be completed in domestic airspace within the vicinity of the oceanic entry point.

2. If operating without a received and acknowledged oceanic clearance, the flight crew shall enter oceanic airspace at the first oceanic entry point level and speed, as contained in the filed flight plan and proceed via the filed flight plan route to landfall. That first oceanic level and speed shall be maintained to landfall.

c. Communications failure prior to exiting NAT Oceanic Airspace

1. Cleared on filed flight plan route:

(a) The flight crew shall proceed in accordance with the last received and acknowledged oceanic clearance to the last specified oceanic route point, normally landfall, then continue on the filed flight plan route. Maintain the last assigned oceanic level and speed to landfall. After passing the last specified oceanic route point, the pilot shall conform with the relevant State procedures/regulations.

(b) The pilot shall maintain the last assigned oceanic level and speed to landfall. After passing the last specified oceanic route point, the pilot shall conform with the relevant State procedures/regulations.

2. The flight crew shall proceed in accordance with the last received and acknowledged oceanic clearance to the last specified oceanic route point, normally landfall. After passing this point, rejoin the filed flight plan route by proceeding directly to the next significant point ahead of the track of the aircraft as contained in the filed flight plan. Where possible use published ATS route structures, then continue on the flight plan route. Maintain the last assigned oceanic level and speed to the last specified oceanic route point. After passing this point conform with the relevant State procedures/regulations.

d. Summary of Operational Procedures Required following Loss of Air/Ground ATS Communications in the NAT Region

1. Equipment Failure before receiving an oceanic clearance Divert or fly the flight plan route, speed and initial planned oceanic level to landfall.

2. Blackout encountered (in an HF comms Domestic ATC environment) before receiving an oceanic clearance Continue at Domestic cleared level and follow

flight planned route and speed to landfall.

3. Equipment Failure or Blackout after receiving an oceanic clearance Fly that clearance to landfall.

OPERATIONAL APPROVAL AND AIRCRAFT SYSTEM REQUIREMENTS FOR FLIGHTS IN THE NAT HIGH LEVEL AIRSPACE (HLA)
Flight crews may fly across the North Atlantic within NAT High Level Airspace (HLA) only if they are in possession of the appropriate NAT HLA and RVSM approvals issued by the State of Registry of the aircraft or by the State of the operator. The Minimum Equipment List (MEL) for operations must be strictly observed. For complete information and further guidance to regulatory material relating to North Atlantic aircraft operations refer to the NAT Doc 007 â€˜NORTH ATLANTIC OPERATIONS AND AIRSPACE MANUALâ€™ - (www.icao.int/EURNAT/).

a. Description and Requirements:

1. NAT HLA is that volume of airspace between flight level (FL) 285 and FL 420 within the oceanic control areas of Bodo Oceanic, Gander Oceanic, New York Oceanic East, Reykjavik, Santa Maria and Shanwick, excluding the Shannon and Brest Ocean Transition Areas

2. â€¢ If a flight experiences an equipment failure PRIOR to departure which renders the aircraft non-DLM compliant, the flight should re-submit a flight plan so as to remain clear of the NAT regional DLM airspace.

3. Horizontal Navigation Requirements for unrestricted NAT HLA Airspace Operations

(a) The navigation system accuracy requirements for NAT MNPSA/HLA operation should only be based on the PBN specifications, RNP 10 (PBN application of RNAV 10) or RNP 4 (see ICAO PBN Manual Doc. 9613). Although when granting consequent approval for operations in MNPSA/NAT HLA, States should take account of the RNP 10 time limits for aircraft equipped with dual INS or inertial reference unit (IRU) systems. All approvals issued after 04 February 2016 must be designated as â€œNAT HLAâ€ approvals. State approval of unrestricted operation in the NAT HLA may presently be granted to an aircraft equipped as follows:

(1) With at least TWO fully serviceable Long Range Navigation Systems (LRNSs).

[a] A LRNS may be one of the following:

â€“ One navigation system using the inputs from one or more Inertial Reference System (IRS) or any other Sensor System complying with the NAT HLA requirement.

[b] Each LRNS must be capable of providing to the flight crew a continuous indication of the aircraft position relative to desired track.

[c] It is also highly desirable that the navigation system employed for the provision of steering guidance is capable of being coupled to the auto-pilot.

(2) Time-based longitudinal separations between subsequent aircraft following the same track (in-trail) and between aircraft on intersecting tracks in the NAT HLA airspace are assessed in terms of differences in ATAs/ETAs at common points. The time-based longitudinal separation minima currently used in the NAT HLA airspace are thus expressed in clock minutes. The maintenance of in-trail separations is aided by the application of the Mach Number Technique. However, aircraft clock errors resulting in waypoint ATA errors in position reports can lead to an erosion of actual longitudinal separations between aircraft. It is thus vitally important that the time-keeping device intended to be used to indicate waypoint passing times is accurate, and is synchronized to an acceptable UTC time signal before commencing flight in NAT HLA airspace. In many modern aircraft, the Master Clock can only be reset while the aircraft is on the ground. Thus the Pre-flight Procedures for any NAT HLA operation must include a UTC time check and resynchronization of the aircraft Master Clock (typically the FMS). The following are examples of acceptable time standards:

[a] GPS (corrected to UTC). Available at all times via approved on-board GPS (TSO-C129) equipment.

[b] WWV (NIST - Fort Collins, Colorado) H24 on 2500, 5000, 10000, 15000 and 20000 kHz (AM/SSB).

[c] CHU (NRC - Ottawa, Canada) H24 on 3330, 7850 and 14670 kHz (SSB).

[d] All times given in UTC and every minute within specified periods.

4. Altimetry Equipment required for operation in RVSM Airspace

(a) TWO independent operational primary altimetry systems;

(b) One Automatic Altitude Control System;

(c) Standard pre-flight checks of altimeters are required. At least two primary altimeters must agree at all times within plus or minus 200 ft. At intervals of approx one hour, crosschecks between the primary altimeters should be made.

b. Aircraft with triple system installed, with only TWO systems operational, can proceed normally. For aircraft with only TWO operational systems, the following guidance is offered in case of system failure.

1. North Atlantic

(a) One System (of two operational systems) Fails Before Take-Off Delay departure until repair is possible If the remaining system is fully operative, the Pilot may file a new Flight Plan using the SPECIAL ROUTES as described under paragraph D or obtain a clearance above or below NAT HLA airspace.

(b) ONE System (of two operational systems) Fails Before the OCA Boundary is Reached. The flight crew should consider:

(1) Landing at a suitable aerodrome before the boundary or returning to the aerodrome of departure.

(2) Diverting via one of the special routes as described under Para 4.

(3) Obtaining a re-clearance above or below NAT HLA airspace.

(4) Note: A revised Oceanic ATC clearance will be issued after co-ordination between all the OACs concerned. Should the Organized Track System at the time of the incident extend to the Northern part of the NAT Region, the aircraft concerned may be required to accept a lower than optimum flight level in its revised Oceanic Clearance, especially during peak traffic periods. The above guidance material in no way relieves the pilot from the obligation to take the best possible course of action under the prevailing circumstances.

(c) ONE System (of two operational systems) Fails After the OCA Bounday is Crossed. The flight crew should normally continue in accordance with the Oceanic Clearance already received, appreciating that the reliability of the total navigation system has been significantly reduced. However, the flight crew should:

(1) Assess the prevailing circumstances (e.g. performance of the remaining system, remaining portion of the flight in NAT HLA airspace, etc.).

(2) Prepare a proposal to ATC with respect to prevailing circumstances (e.g. request clearance above or below NAT HLA airspace, turn-back, obtain clearance to fly along one of the SPECIAL ROUTES, etc.).

(3) Advise and consult with ATC as to the most suitable action.

(4) Obtain appropriate re-clearance prior to any deviation from the last acknowledged Oceanic Clearance. When the flight continues in accordance with its original clearance, the pilot should begin a careful monitoring program:

(5) Take special care in the operation of the remaining system bearing in mind that routine methods of error checking are no longer available.

(6) Check main and stand-by compass systems frequently against the information which is still available.

(7) Check performance record of remaining equipment, and if in doubt regarding its performance and/or reliability, the following procedures should be considered:

[a] Attempting visual sighting of other aircraft or their contrails which may provide a track indication.

[b] Calling the appropriate OAC for information on other aircraft adjacent to the aircraftâ€™s estimated position and/or calling on VHF to establish contact with such aircraft (preferably same track/level) to obtain from them useful information (e.g. drift, groundspeed, wind details etc.).

(d) The Remaining System Fails After Entering NAT HLA Airspace

(1) Immediately notify ATC

(2) Make best use of procedures specified in iii) 7., (a) and (b) above

(3) Keep a special look-out for possible conflicting aircraft and make maximum use of external lights.

(4) If no instructions are received from ATC within a reasonable period: consider climbing/descending 500ft / 150m, broadcast action on 121.5 MHz, and advise ATC as soon as possible.

(e) Should the computer element of the Navigation System fail, the basic output of the IRS (LAT/LONG, drift and ground speed) should be available unimpaired. Providing a suitable plotting chart is onboard and the cleared route has been plotted: Extract mean true tracks between waypoints. Use the basic IRS/GPS outputs to adjust heading to maintain mean track and calculate ETAs. At intervals of not more than 15 minutes plot LAT/LONG position on the chart and adjust heading to regain track.

c. In-Flight RVSM Procedures and Contingencies:

1. Prior to entry into NAT HLA airspace, check to ensure the two primary altimeters are reading within 200 feet of each other (or lesser value if specified in your aircraftâ€™s flight manual). Conduct this check while at level flight. You should also note the stand-by altimeter reading. The readings of the primary and standby altimeters should be recorded to be available for use in any possible contingency situations.

2. Within NAT HLA airspace, one automatic altitude-control system should be operative and engaged throughout the cruise. This system should only be disengaged when it is necessary to re-trim the aircraft, or when the aircraft encounters turbulence and operating procedures dictate. When passing waypoints, or at intervals not exceeding 60 minutes (whichever occurs earlier), or on reaching a new cleared flight level, a cross-check of primary altimeters should be conducted. If at any time the readings of the two primary altimeters differ by more than 200 ft, the aircraftâ€™s altimetry system should be considered defective and ATC must be so informed. It is essential in the NAT HLA that flight crews not using CPDLC/ADS-C always report to ATC immediately on leaving the current cruising level and on reaching any new cruising level.

3. The Strategic Lateral Offset Procedure (SLOP) is now a standard operating procedure throughout the North Atlantic (NAT) Region. This procedure mitigates collision risk and wake turbulence encounters. Pilots conducting oceanic flight within the NAT Region with automatic offset programming capability are recommended to fly centerline or 1 or 2 NM right of centerline. Aircraft shall not apply SLOP below FL285 in the Reykjavik CTA and Bodo OCA. The introduction of very accurate aircraft navigation systems, along with sophisticated flight management systems, has drastically reduced the number of risk bearing lateral navigation errors reported in NAT airspace. Paradoxically, the capability of aircraft to navigate to such a high level of accuracy has led to a situation where aircraft on the same track but at different levels,

are increasingly likely to be in lateral overlap. This results in an increased risk of collision if an aircraft departs from its cleared level for any reason. SLOP reduces risk by distributing aircraft laterally. It is applicable within the New York Oceanic, Gander Oceanic, Shanwick Oceanic, Santa Maria Oceanic, Nuuk and Reykjavik Flight Information Regions, and within the Bodo Oceanic Flight Information Region when flights are operated more than 185 km (100 NM) seaward from the shoreline. SLOP conforms to direction in the ICAO Procedures for Air Navigation Services-Air Traffic Management (PANS-ATM, Doc 4444, 16.5) and is subject to the following guidelines:

(a) Aircraft without automatic offset programming capability must fly the centerline.

(b) Aircraft able to perform offsets in tenths of nautical mile should do so as it contributes to risk reduction.

(c) It is recommended that flight crews of aircraft capable of programming automatic offsets should randomly select flying centerline or an offset. In order to obtain lateral spacing from nearby aircraft (i.e. those immediately above and/or below), flight crews should use whatever means are available (e.g. ACAS/TCAS, communications, visual acquisition, GPWS) to determine the best flight path to fly.

(d) An aircraft overtaking another aircraft should offset within the confines of this procedure, if capable, so as to minimize the amount of wake turbulence for the aircraft being overtaken.

(e) For wake turbulence purposes, flight crews should fly one of the offset positions. Flight crews may contact other aircraft on the air-to-air channel, 123.450, as necessary, to coordinate the best wake turbulence mutual offset option.

(f) Pilots may apply an offset outbound after the oceanic entry point and must return to centerline before the oceanic exit point, unless otherwise authorized by the appropriate ATS authority or directed by the appropriate ATC unit.

(g) There is no ATC clearance required for this procedure and it is not necessary that ATC be advised.

(h) Voice Position reports should be based on the waypoints of the current ATC clearance and not the offset positions.

(i) Aircraft shall not apply SLOP below FL285 in the Reykjavik CTA and Bodo OCA.

(j) Aircraft shall not apply SLOP for flights operating along T9 and T290 and shall maintain along route centerline.

4. Turbine-engined aircraft having a maximum certificated take-off mass exceeding 5,700 kg or authorized to carry more than 19 passengers are required to carry ACAS II in the NAT region. The technical specifications for ACAS II are contained in ICAO Annex 10 Volume IV. Compliance with this requirement can be achieved through the implementation of traffic alert and collision avoidance system (TCAS) Version 7.1 as specified in RTCA/DO-185B or EUROCAE/ED-143.

d. No aircraft should use these routes unless specifically authorized by the State of Registry or state of the operator as appropriate.

1. Aircraft with SHORT RANGE navigation equipment plus ONE operational LONG RANGE navigation equipment.

(a) ROUTES Europe to/from Canada via Greenland/Iceland

(1) Minimum acceptable operational navigation equipment VOR/DME and ADF plus:

[a] one Inertial Navigation System (INS) ;

[b] one Global Navigation Satellite System (GNSS); or

[c] one navigation system using the inputs from one or more Inertial Reference System (IRS) or any other sensor system complying with the NAT HLA requirement.

[d] Each LRNS must be capable of providing to the flight crew with a continuous indication of the aircraft position relative to desired track.

[e] It is highly desirable that the navigation system employed for the provision of steering guidance is capable of being coupled to the auto-pilot.

(2) Approved SPECIAL ROUTES:

[a] ATSIX - 61N 1234W - ALDAN - KFV (1.)

[b] RATSU - ALDAN - KFV (2.)

[c] GOMUP - 60N 15W - 61N 1630W - BREKI - KFV (3.)

[d] MOXAL - RATSU (4.)

[e] OSKUM - RATSU (4.)

[f] KFV - SOPEN - DA - SF - IKNOG - YFB (4.)

[g] KFV - EPENI -63N 30W - 61N 40W - OZN (4.)

[h] OZN - 59N 50W - AVUTI - PRAWN - YDP (4.)

[i] OZN - 59N 50W - CUDDY - PORGY - HO (4.)

[j] OZN - 58N 50W - HOIST - YYR (4.)

[k] SF (Kangerlussuaq) - DARUB (67N 60W) - YXP (4.)

[l] KU (Kook Islands) - EPMAN (66N 60W) - YXP (4.)

[m] KU (Kook Islands) - 64N 60W - MUSVA (64N 63W) - YFB (4.)

[n] RE (Reykjanesskoli) - 6930N 2240W - CP (4.)

â€“ 4.) Continuous VHF coverage exists on these routes at FL310 and above.

(b) ROUTES UK/Spain/Portugal to/from Azores and Madeira

(1) Approved SPECIAL ROUTES with Minimum acceptable operational navigation equipment according to Para 4, a), ii) above

[a] ADVAT - T290 - GELPO (VHF, HF and ADS-B required)

[b] Routings between the Azores, Funchal, Porto Santo and the Portuguese mainland.

2. Aircraft with ONLY SHORT RANGE navigation equipment

(a) ROUTES Europe to/from Iceland

(1) Minimum acceptable operational navigation equipment:- VOR/DME and ADF

(2) Approved SPECIAL ROUTES:

[a] VALDI - G3 - MY - ING - KFV

[b] Note: The above Special Routes should also be considered when partial loss of long range navigation capacity occurs prior to take-off or prior to entry into NAT HLA airspace. In this latter case a revised Flight Plan must be filed and ATC clearance obtained.

3. Aircraft that do not meet NAT HLA requirements may be allowed to operate in NAT HLA if the following conditions are satisfied:

(a) The aircraft is being provided with ATS Surveillance service

(b) Direct controller-pilot VHF voice communication is maintained; and

(c) The aircraft has a certified installation of equipment providing it the ability to navigate along the cleared track.

e. Climb/Descent through RVSM Levels

1. NAT HLA approved aircraft that are not approved for RVSM operation will be permitted, subject to traffic, to climb/descend through RVSM levels in order to attain cruising levels above or below RVSM airspace. Flights should climb/descend continuously through the RVSM levels without stopping at any intermediate level and should â€œReport leavingâ€ current level and â€œReport reachingâ€ cleared level. Such aircraft are also permitted to flight plan and operate at FL430 either Eastbound or Westbound above the NAT HLA.

2. ATC may provide special approval for a NAT HLA approved aircraft that is not approved for RVSM operation to fly in the NAT HLA provided that the aircraft:

(a) is on a delivery flight, or

(b) was RVSM approved but has suffered an equipment failure and is being returned to its base for repair and/or re-approval, or

(c) This service, as explained above, will not be provided to aircraft without approval for NAT HLA operations. It must be noted that the provision of this service is intended exclusively for the purposes listed above and is not the means for an operator or flight crew to circumvent the RVSM approval process. Operators or flight crews are required to provide written justification for the request, upon completion of the flight plan, to the NAT Central Monitoring Agency (CMA). Any suspected misuse of the exceptions rule above, regarding RVSM operation, will be reported and will therefore be subject to follow-up action by the State of Registry or State of the operator as applicable.

3. Some flight planning systems cannot generate a flight plan through RVSM airspace unless the â€œWâ€ designator is inserted in item 10 (equipment). For a flight which has received this special approval, it is of utmost importance that the â€œWâ€ is removed prior to transmitting the ICAO Flight Plan to ATC. ATC will use the equipment block information to apply either 1000 ft or 2000ft separation. Additionally, flight crews of any such non-RVSM flights operating in RVSM airspace should include the phraseology â€œNegative RVSMâ€ in all initial calls on ATC frequencies, requests for flight level changes, read-backs of flight level clearances within RVSM airspace and read-back of climb or descent clearances through RVSM airspace.

WEATHER REPORTING
In accordance with ICAO Annex 3, aircraft are no longer required to provide voice reports of MET observations of wind speed and direction nor outside air temperature. When an ATS unit establishes an event contract with an aircraft to provide ADS-C position reports, it may also establish an additional periodic report contract (e.g. with a 30 min interval). Such ADS-C periodic reports, unlike event reports, contain wind and temperature data and thereby satisfy the MET authorities requirements for the provision of MET data. However, it must be appreciated, that any such automated MET Reports do not include information on any observations of special or non-routine significant meteorological phenomena, such as moderate/severe turbulence or icing, volcanic ash, thunderstorms, etc. Therefore any flight crew providing position reports via datalink, who encounters any such significant meteorological phenomena should report this information via voice or, if appropriate, via a CPDLC free text downlink message. The format to be used for the reporting of such observations should, where appropriate, be by reference to geographical co-ordinates.

CONTINGENCY SITUATIONS AFFECTING ATM PROVISION IN THE NAT REGION
In the anticipation of situations arising which might result in the partial or total disruption of Air Traffic Services within the NAT Region, NAT ATS Providers have developed arrangements which would, in such events, be put in place to ensure, as far as possible, the continued safety of air navigation. Such arrangements include required actions by pilots and operators of affected flights. These arrangements are detailed in the â€œAir Traffic Management Operational Contingency Plan - North Atlantic Regionâ€ (NAT Doc.006) www.icao.int/EURNAT/..... .
Operators and Pilots planning and conducting operations in North Atlantic region should ensure their familiarity with these arrangements and in particular with the actions expected of pilots in such contingency situations.

SELCAL PROCEDURES WITHIN NAT
All aircraft operating as IFR flights in the NAT region shall be equipped with a pressure- altitude reporting SSR transponder. Unless otherwise directed by ATC, flight crews flying in the NAT FIRs will operate transponders continuously in Mode A/C Code 2000, except that the last assigned code will be retained for a period of 30 minutes after entry into NAT airspace or after leaving a radar service area. Flight crews should note that it is important to change from the last assigned domestic code to the Mode A/C Code 2000 since the original domestic code may not be recognized by the subsequent Domestic Radar Service on exit from the oceanic airspace. One exception to this requirement should be noted. Because of the limited time spent in the NAT HLA, when flying on Route Tango 9, the change from the last assigned domestic code to Code 2000 should be made Northbound 10 minutes after passing BEGAS and Southbound 10 minutes after passing LASNO.
It should be noted that this procedure does not affect the use of the special purpose codes (7500, 7600 and 7700) in cases of unlawful interference, radio failure or emergency. However, given the current heightened security environment flight crews must exercise CAUTION when selecting Codes not to inadvertently cycle through any of these special purpose codes and thereby possibly initiate the launching of an interception.
Reykjavik ACC provides a radar control service in the south-eastern part of its area and consequently transponder codes issued by Reykjavik ACC must be retained throughout the Reykjavik OCA until advised by ATC.
New York Oceanic FIR: All aircraft transitioning into the West Atlantic Route System (WATRS) via fixed ATS routes must remain on the last ATCâ^'assigned beacon code.

PERFORMANCE BASED SEPARATION MINIMA IN NAT AIRSPACE
Overview
Performance based separation minima of 42.6km (23NM) lateral, 5 minutes and 55.5km (30NM)/93km (50NM) longitudinal predicated on PBCS and PBN, in accordance with ICAO Doc 4444 Procedures for Air Navigation Services - Air Traffic Management (PANS-ATM) has been implemented in the ICAO NAT Region.
Application
a. The 55.5km (30NM) and 93km (50NM) longitudinal separation minima are between eligible aircraft pairs within the New York East and Santa Maria OCAs;

b. The 5 minute longitudinal separation minimum is applied between eligible aircraft pairs within the Gander, Reykjavik, Santa Maria and Shanwick OCAs;

c. The 42.6km (23NM) lateral separation minimum is applied between eligible aircraft pairs within the Gander, Reykjavik, Santa Maria, New York East (30NM lateral applied) and Shanwick OCAs.

NOTE: NAT Doc008 â€˜Application of Separation Minimaâ€™ Appendix A contains details of the separation minima applied in the North Atlantic Region.
Operator/Aircraft Eligibility
Operators are eligible to flight plan to operate on published PBCS tracks provided the flights are:
a. Authorized for Required Navigation Performance 4 (RNP 4);

b. Fitted with and operating FANS 1/A CPDLC and ADS-C ; and

c. Authorized for RCP 240 and RSP 180.

Operators/aircraft not eligible for performance based separation may be permitted to:
a. Infringe PBCS tracks at FL350 - FL390 (inclusive) at only one point (including Oceanic Entry Point/ Exit Point) i.e. cross but not join an OTS PBCS track, and;

b. Climb or descend through levels FL350 - FL390 on a PBCS track provided the climb or descent is continuous.

For details of separation minima in NAT Airspace refer to Jeppesen ATC pages â€œPERFORMANCE BASED SEPARATION MINIMA IN NAT AIRSPACEâ€ .

NORTH ATLANTIC (NAT) OCEANIC CLEARANCE PROCEDURES

New York ARTCC issues Oceanic Clearances to eastbound aircraft entering North Atlantic High Level Airspace (NAT HLA).
Due to continuing safety concerns associated with the non-adherence to, or incorrect execution of, Oceanic Clearances and tactical reroutes, the FAA evaluated its current method of issuing an Oceanic Clearance by New York ARTCC. This analysis identified several procedural changes that could be made to the method by which an Oceanic Clearance is issued in order to improve safety.
These procedural changes will not eliminate the issuance of any portion of the Oceanic Clearance and will satisfy the requirements contained in Nat Doc 007, Chapter 5, â€œOceanic ATC Clearances.â€ It is not the intent to remove any altitude or speed confirmation; only the re-issuing of the cleared route will be eliminated.

There are three components to an Oceanic Clearance: (1) route; (2) altitude; and (3) speed. New York ARTCC will use multiple methods to comply with the NAT requirement to issue the three elements of an Oceanic Clearance.

Aircraft entering the New York ARTCC Oceanic CTA from a FAA facility:
The airport clearance which an aircraft receives on the ground at its departure aerodrome is considered to be the route portion of the Oceanic Clearance. Altitude and speed assignment will occur prior to entry into the New York ARTCC Oceanic CTA.
As is the current operating procedure, unsolicited en-route route, altitude or speed amendments may occur due to changing traffic situations. At all times, the last assigned route, altitude and speed are to be maintained and should be considered the new oceanic profile.
Having received all three components, the requirement to receive an oceanic clearance will have been met.

North American (NAM) region departures:
Aircraft departing airports close to an oceanic boundary will receive the route portion of their Oceanic Clearance from Clearance Delivery. At most major airports in North America, the route portion is up-linked to the flight deck using the Pre-departure Clearance (PDC) method. This is an automated means to transmit the flight plan on file with air traffic control directly to the flight crew. At airports without the use of PDC, clearances are relayed via voice.
Once airborne and within United States offshore RADAR airspace, aircraft will be assigned an oceanic altitude and Mach number. The oceanic altitude may or may not be the aircraft current cleared altitude.
Caribbean/South American (CAR/SAM) region departures:
For aircraft originating from airports within the CAR/SAM region, New York ARTCC will utilize the procedures outlined in 5.6 of NAT Doc 007 to fulfill the requirements of the route portion of an oceanic clearance. Once airborne and within United States offshore RADAR airspace, the aircraft will be assigned its oceanic altitude and Mach number.
Piarco FIR traffic:
Aircraft originating from airports within the CAR/SAM region and not entering a United States offshore RADAR sector will not be included in these changes at this time. Piarco will continue to use existing procedures for these aircraft.
Canadian FIR traffic:
Aircraft originating from airports within the NAM region and not entering a United States offshore RADAR sector will not be included in these changes at this time. Moncton ACC and Gander ACC will continue to use existing procedures for these aircraft.
If a route, speed or altitude change en-route is desired, then aircraft should make a request from the ATC unit in which they are operating. At all times, the last assigned route, altitude and speed are to be maintained.
In conjunction with this procedure, operators are encouraged to file in Item 15 of the FPL the coordinates of a track in lieu of the track identification letter (e.g. NATU). Operators are reminded of the requirement to file an FPL and any subsequent changes with New York Oceanic at KZWYZOZX, along with any other ATC facilities that may require such filing.

NORTH ATLANTIC CROSSING CLEARANCE PROCEDURES AND FREQUENCIES

a. General

1. Various methods of obtaining oceanic clearances include:

(a) use of published VHF clearance delivery frequencies;

(b) by HF communications to the OACC through the appropriate radio station (in accordance with specified timeframes);

(c) a request via domestic or other ATC agencies;

(d) by data link, when arrangements have been made with designated airlines to request and receive clearances using on-board equipment (ACARS).

2. Oceanic clearances are required for all flights within NAT controlled airspace (at or above FL60). Flight crews should request oceanic clearances from the ATC responsible for the first OCA within which they wish to operate, following the procedures and the time-frame laid down in appropriate AIPs and NAT OPS Bulletins. Such clearances are applicable only from that entry point. To assist in optimum airspace utilization, when requesting an oceanic clearance the flight crew should:

(a) Advise of any required changes to oceanic flight planned level, track, or speed

(b) Advise the maximum acceptable flight level at the oceanic boundary

(c) Advise of preferred alternative NAT track if applicable

3. When flight crews are requesting oceanic clearance, they are required to maintain contact on the control frequency, unless having received permission to leave the frequency. If an aircraft encounters an in-flight equipment failure relevant to the airspace, enroute to the NAT oceanic airspace, then the flight crew must advise ATC when requesting an oceanic clearance.

4. The flight crew should monitor the forward estimate for oceanic entry, and if this changes by 2 minutes or more, unless providing position reports via ADS-C, pass a revised estimate to ATC. As planned longitudinal spacing by these OACCs is based on the estimated times over the oceanic entry fix or boundary, failure to adhere to this ETA amendment procedure may jeopardize planned separation between aircraft, thus resulting in a subsequent re-clearance to a less economical track/flight level for the complete crossing. Any such failure may also penalize following aircraft. If any of the route, flight level or speed in the clearance differs from that flight planned, requested or previously cleared, attention may be drawn to such changes when the clearance is delivered (whether by voice or by data link). Flight crews should pay particular attention when the issued clearance differs from the flight plan.

5. If the entry point of the oceanic clearance differs from that originally requested and/or the oceanic flight level differs from the current flight level, the flight crew is responsible for requesting and obtaining the necessary domestic re-clearance to ensure that the flight is in compliance with its oceanic clearance when entering oceanic airspace.

6. If flight crews have not received their oceanic clearance prior to reaching the OCA boundary, they must follow the guidance provided in the appropriate State AIP.

7. Unless otherwise stated the oceanic clearance issued to each aircraft is at a specified flight level and cruise Mach number. Subsequent en route changes to flight level or Mach number should not be made without prior ATC clearance, except in an urgency situation (e.g. encountering unanticipated severe turbulence).

b. Abbreviated Clearances

1. An abbreviated clearance is issued by Air Traffic Services when clearing an aircraft to fly along the whole length of an organised track. The flight crew should confirm the current NAT track message by using the TMI number (including any appropriate alpha suffix) in the readback. There is no requirement for the flight crew to read back the NAT track coordinates. If any doubt exists as to the TMI or the NAT track coordinates, the flight crew should request the complete track coordinates. Similarly, if the flight crew cannot correctly state the TMI, confirmation will include NAT track coordinates in full and a full read back of those coordinates will be required.

2. If the term, â€œvia flight plan routeâ€ is used when issuing an oceanic clearance, the flight crew is required to readback the full coordinates of the flight plan route, from the oceanic entry point to the exit point.

c. Oceanic Area Control Centers Specific Procedures

1. Shanwick OCA

(a) Oceanic Clearance (Westbound):

(1) Aircraft operating within the UK FIR/UIR and the northern part of the France UIR should request oceanic clearance from "Shanwick Oceanic" on VHF (VHF coverage depicted on chart). UK departures are to request clearance as soon as possible after departure.

(2) Aircraft overflying the UK FIR/UIR and the northern part of the France UIR are to request clearance when they consider that they are within the specified VHF coverage.

(3) Aircraft other than Jet should request clearance at least 40 minutes before the ETA for the OCA entry point.

(4) Flights routing via RATSU (61N 010W) do not require OCA clearance from Shanwick OCA. Therefore, aircraft intending to route via RATSU (61N 010W) must not contact Shanwick clearance delivery.

(5) Aircraft unable to contact "Shanwick Oceanic" on VHF, should request clearance on NAT HF frequencies at least 40 minutes before the ETA for the oceanic boundary and thereafter maintain a SELCAL watch for receipt of the oceanic clearance.

(6) Aircraft Communication Addressing and Reporting System (ACARS) equipped aircraft may request and receive their westbound oceanic clearance via data link, utilizing the Oceanic Clearance Link (OCL), for entry points on the Shanwick eastern boundary (from LUSEN to PASAS) without the requirement to contact Shanwick on RTF. Approval for the use of this system will be given by the Team Leader Asset Engineering Ops. Support at Shanwick Oceanic. This system should not be used by aircraft within 30 minutes of the Shanwick boundary; VHF or HF RTF should be used.

(7) Requests for oceanic clearance shall include:

[a] callsign;

[b] OCA entry point and ETA;

[c] requested MACH number and flight level;

[d] any change to flight plan affecting OCA;

[e] the highest acceptable flight level which can be maintained at the OCA entry point.

(8) Maintain a listening watch for receipt of the oceanic clearance. If successful Selcal check has been completed with the appropriate aeradio station, a Selcal watch should be maintained. Unless advised otherwise, use the following primary frequencies:

[a] VHF:

â€“ 127.65 MHz for aircraft registered in states east of 030Â° West.

[b] HF:

â€“ Family H, I and J assigned on a tactical basis and coordinated between Shanwick Radio, adjoining NARTEL Radio Stations and Domestic ATC agencies.

(9) While in communication with Shanwick for oceanic clearance, aircraft must also maintain communication with the ATC authority for the airspace within which they are operating. Aircraft unable to contact Shanwick on VHF or on NARTEL HF should request the ATC authority for the airspace in which they are operating to relay their request for oceanic clearance to Shanwick.

(10) Due to the short flying times between Scottish and Irish aerodromes and the Shanwick OCA boundary, pilots may be required to request and receive an Oceanic Clearance prior to departure.

(11) Departures from Dublin, Weston and Casement (Baldonnel) airports request Oceanic clearance for all Oceanic entry points when airborne.

(12) Cork Departures, if flight planned to enter Shanwick airspace via OMOKO, TAMEL or LASNO require Oceanic clearance prior to departure. All other Oceanic entry, if the elapsed time to Shanwick Entry Point is 40 minutes or less, Oceanic clearance required prior to departure.

(13) Departures from Belfast Aldergrove, Belfast/City, Londonderry/Eglinton, Glasgow and Prestwick if flight planned to enter Shanwick at GOMUP or ETILO, oceanic clearance required prior to departure. If flight planned to enter Shanwick at all other entry points, request when airborne. Non-jet Departures request oceanic clearance when airborne.

(14) Departures from all other aerodromes, if the elapsed time to the Shanwick entry point is 40 minutes, or less, oceanic clearance required prior to departure.

(15) Oceanic clearances should be requested from Shanwick Oceanic via OCL. Shannon ACC will, on request, obtain Oceanic clearance from Shanwick Oceanic and pass the clearance to the flight prior to departure.

(16) Shannon Departures should contact Shannon ACC on Phone or on 121.7 MHz 40 minutes before ETD to request Oceanic Clearance. Pilots should contact Shannon ACC on 121.7 MHz at least 15 minutes before start up, to obtain Oceanic Clearance.

(17) Aircraft departing Dublin, Weston and Casement (Baldonnel) airports planned to enter NAT Airspace should request Oceanic Clearance when airborne using OCL or Shanwick Radio 127.9 MHz or HF.

(18) REMARKS:

[a] TMI IS 099 AND OPERATORS ARE REMINDED TO INCLUDE THE TMI NUMBER AS PART OF THE OCEANIC CLEARANCE READ BACK.

[b] OPERATORS ARE REMINDED THAT ADS-C AND CPDLC IS MANDATED FOR LEVELS 350-390 IN NAT AIRSPACE.)

SHANNON OCEANIC TRANSITION AREA (SOTA), NORTHERN OCEANIC TRANSITION AREA (NOTA)
Parts of the Shanwick OCA are designated as the Shannon Oceanic Transition Area (SOTA) and the Northern Oceanic Transition Area (NOTA). NOTA airspace is included in the NAT HLA and hence NAT HLA airspace requirements are still applicable from FL285 to FL420 in NOTA. However, SOTA is not included in the NAT HLA. Therefore flights within SOTA routing such that they are subject to an Oceanic Clearance, are required to be NAT HLA MNPS Approved. ATC service is provided by Shannon ACC via VHF. If unable to contact on VHF use HF. In the Westbound NAT OTS signal Shanwick OAC promulgates the track structure(s) applicable together with such other information as may be considered useful for operators to identify the route to be flown. The domestic landfall points KESIX, OSBOX, BEGID, SOVED, MOGLO, NETKI, KOKIB, BEXET, OLGON, GISTI, RILED, XETBO, LEKVA, ELSOX, EPUNA, ATSUR, BIMGO, NASBA, GUNSO and EMPER, which are associated with the OCA exit points, are promulgated in thee eastbound OTS message. If an eastbound NAT flight is rerouted via an oceanic landfall different to that filed in the Flight Plan, the flight may route DCT from the new landfall to the original filed exit point from Irish airspace. Westbound NAT random flights and NAT OTS flights operating in the SOTA or NOTA, designated as MET reporting flights are to treat 8W for SOTA and 10W for NOTA as a mid-point and 15W as a designated reporting point. The 8W respectively 10W and 15W MET reports are to be given with the 15W position report to Shanwick on HF. Eastbound flights are not required to make MET reports when flying in the SOTA/NOTA. Flight plans required for the SOTA/NOTA should be addressed to the IFPS addresses EUCHZMFP and EUCBZMFP. Flights requesting a change to their Oceanic Clearance must:

a. If East of 10Â°W make their request to Shanwick on VHF/HF or CPDLC otherwise

b. If West of 10Â°W make their request to Shannon ACC on VHF.

Flights not subject to an oceanic clearance, which flight plan to route through SOTA/NOTA, are not subject to MNPS approval.
BREST OCEANIC TRANSITION AREA (BOTA)
Part of the Shanwick OCA is designated as the Brest Oceanic Transition Area (BOTA). BOTA is not included in the NAT HLA. Hence only flights routing such that they are subject to an Oceanic Clearance, are required to be NAT HLA MNPS Approved. ATC service in BOTA is provided by Brest ATC. Eastbound flights may be given more direct routes by Brest UAC after passing 0845W meridian. The request for the Oceanic Clearance may be relayed by Brest ATC when unable to contact Shanwick on VHF or HF.
REYKJAVIK OCA
Aircraft entering the Reykjavik CTA shall request an oceanic clearance prior to entering the Reykjavik OCA as follows:

a. On data link in accordance with the document â€œACARS Data Link Oceanic Clearanceâ€ . published in Jeppesen ATC-Chapter, ATC-Data-Atlantic.

b. From Iceland Radio on HF.

c. Aircrews approaching Reykjavik airspace from the Scottish and Stavanger areas can contact Iceland Radio on primary 127.85, secondary 129.625 to obtain their oceanic clearance.

Reykjavik cannot issue oceanic clearances until coordination data has been received from the adjacent air traffic control centre and the flight data has been activated within the Reykjavik Flight Data Processing System (FDPS). This occurs a certain time before the aircraft is estimated to enter the Reykjavik CTA and the time interval varies depending on the control area from which the aircraft enters the Reykjavik CTA. Aircraft that are not data link equipped and are unable to contact Iceland Radio on HF/VHF should request the ATC authority for the airspace in which they are operating to relay their request for oceanic clearance to ReykjavÃk Centre. Pilots should always endeavour to obtain oceanic clearance prior to entering Reykjavik OCA; however if any difficulty is encountered the pilot should not hold while awaiting clearance unless so directed by ATC. In such circumstances, pending receipt of the oceanic clearance, the aircraft should continue to maintain the flight level cleared by the current control authority. Aircraft obtaining an oceanic clearance from Iceland Radio on HF/VHF should also maintain communication with the ATC authority for the airspace in which they are operating. When operating in BIRD and BGGL FIRs, aircrew unable to make position reports via VHF or CPDLC, ADS-C or FMC are expected to use HF or SATCOM telephone if so equipped. SATCOM voice communications should be made to Iceland radio, short code is 425105. The numbers 425101 and 425103, are connected at Reykjavik ATC centre and are valid for aircrew encountering emergencies.
BODO OCA
Flights entering the NAT Region through BodÃ¸ OCA shall request their Oceanic Clearance from Polaris ACC (BodÃ¸) on FREQ 127.725 MHZ, through BodÃ¸ Radio on appropriate HF frequencies, or through the appropriate data link service. Oceanic clearance via data link should be requested at least 30 minutes prior to Oceanic entry. For VHF/HF, at least 20 minutes prior to entry. Departures from aerodromes situated close to the NAT Region boundary shall request Oceanic clearance as soon as possible after departure. Pilots should always endeavour to obtain an Oceanic Clearance prior to entering Bodo Oceanic Control Area, however, if any difficulty is encountered, the pilot should not hold while awaiting clearance unless directed to do so by ATC. All aircraft within Bodo OFIR are required to maintain listening watch, SELCAL or aural, with Bodo Radio on HF Family D. While in communication with Bodo Oceanic Control or Bodo Radio for Oceanic Clearance, aircraft must also maintain communication with the ATC authority for the airspace within which they are operating.
SANTA MARIA OCA
Oceanic Clearances may be requested via the Santa Maria Oceanic Clearance Delivery (OCD) data link service or via the available voice services on VHF, HF or SATVOICE. All operators shall request their Oceanic Clearance at least 40 minutes before the ETO for the Santa Maria OCA boundary. Flights departing from aerodromes located in Lisbon FIR, which are close to Santa Maria OCA boundary, shall request Oceanic Clearance as soon as possible after departure. Flights departing

from Madeira Islands entering Santa Maria OCA via IRKID or ABALO are exempted of being leveled at oceanic entry point as long as prior authorization is obtained from Lisbon ATC or Santa Maria ATC. Flights departing from Azores Islands will receive the Oceanic Clearance in a three step process. The appropriate Tower must be informed of the intended flight level for oceanic crossing and will issue an initial flight level clearance. After departure, Santa Maria Radar will assure the climb to the approved final level. The pilot will only receive the oceanic route and speed clearance later on, usually through Santa Maria Radio on HF. Pilots should always endeavour to obtain Oceanic Clearance prior to entering Santa Maria Oceanic Control Area; however if any difficulty is encountered the pilot should not hold while waiting for the clearance, unless so instructed by ATC.
GANDER OCA
Unless otherwise advised by ATC, the following oceanic clearance delivery procedures are in effect daily between 2330 and 0730 UTC (DST 2230 and 0630 UTC) for all eastbound oceanic flights that transit the Gander domestic FIR/CTA. Clearance delivery frequencies are published daily in the Remarks section on the eastbound NAT track message. During published clearance delivery hours, pilots are to contact Gander Clearance Delivery on the frequency designated for their oceanic entry point. Pilots should contact Clearance Delivery when they are within 200 NM of the specified clearance delivery frequency location. In the event that contact cannot be established, pilots are to advise ATC on the assigned control frequency. The following frequencies and frequency locations will normally be used: 135.45 - NATASHQUAN (CYNA) (N50 11 W061 47) YNA VOR 128.45 - ALLANâ€™S ISLAND (N46 50 W055 47) 128.70 - CHURCHILL FALLS (CZUM) (N53 35 W064 14) UM NDB 135.05 - STEPHENVILLE (N48 34 W058 40) YJT VOR 119.42 - SYDNEY (N46 09 W060 03) YQY VOR 132.025 - BREVOORT (N63 20 W064 08) 134.20 - KUUJJUAQ (CYVP) (N58 05 W068 25) YVP VOR. Operators who do not receive the NAT track message are to contact Gander Clearance Delivery when they are within 200 NM of the frequency location. In the event that contact cannot be established, pilots are to advise ATC on the assigned control frequency.
Pilots are to maintain a continuous listening watch on the assigned control frequency while obtaining the oceanic clearance.
Flights that are equipped to request and receive solicited electronic oceanic clearances are not required to contact Clearance Delivery if an electronic clearance is received and confirmed successfully. Confirmation is the receipt of the following message: CLA RECEIVED CLEARANCE CONFIRMED END OF MESSAGE. If the above message is not received, data link oceanic clearances must be verified, either with Gander Clearance Delivery, during published hours, or on the control frequency, outside of published hours.
For detailed Gander data link oceanic clearance Delivery (OCD) crew procedures refer to the NAT OPS Bulletins http://www.paris.icao.int/.
Example of a data link oceanic clearance (on a NAT track): CLX 1259 060224 CZQX CLRNCE 026 ABC123 CLRD TO LFPG VIA NEEKO NAT W NEEKO 54N050W 56N040W 57N030W 57N020W PIKIL SOVED FM NEEKO/1348 MNTN F330 M082 END OF MESSAGE
Example of a Gander eastbound NAT track message: TZA466 241302 FF BIRDZQZZ 241302 CZQXZQZX (NAT-1/3 TRACKS FLS 320/400 INCLUSIVE APR 25/0100Z TO APR 25/0800Z PART ONE OF THREE PARTS- R ALLRY 51/50 52/40 52/30 53/20 MALOT GISTI EAST LVLS 320 330 340 350 360 370 380 390 400 WEST LVLS NIL NAR N389B N383B -
REMARKS:
a. TMI IS 151 AND OPERATORS ARE REMINDED TO INCLUDE THE TMI NUMBER AS PART OF THE OCEANIC CLEARANCE READ BACK.

b. OPERATORS ARE REMINDED THAT ADS-C AND CPDLC IS MANDATED FOR LEVELS 350-390 IN NAT AIRSPACE.

c. 80 PERCENT OF NAVIGATIONAL ERRORS RESULT FROM POOR COCKPIT PROCEDURES. ALWAYS CARRY OUT PROPER WAYPOINT PROCEDURES.)

GANDER OCA Communications:
a. All flights operating in the Gander OCA should report on international air-to-ground frequencies.

b. In addition to maintaining a listening watch on the appropriate en route frequency, flights shall establish and maintain communication with Gander, Moncton or Montreal as soon as possible in accordance with the following.

1. At FL 290 or above, when within 200 NM communication should take place over frequency:

   (a) Torbay (YYT) VORDME - 134.70, 132.05, 230.30, 128.175, 125.07 or 245.00 for oceanic entry/exit points (OEP) BOBTU to MUSAK;

   (b) Gander (YQX) VORTAC - 133.90, 294.50, 125.90, 132.60 or 342.90 for OEPs JOOPY to UMESI;

   (c) St. Anthony (YAY) VORDME - 134.30, 124.725 or 128.60 for OEPs TUDEP to MELDI;

   (d) Goose Bay (YYR) VORDME - 133.42, 127.675 or 132.40 for OEPs LOMSI to ENNSO;

   (e) Hopedale (HO) NDB - 132.65 or 128.32 for OEPs DORYY to TOXIT;

   (f) Saglek (N5828 W06239) - 135.325 for OEPs SAVRY to LIBOR;

   (g) Brevoort (N6320 W06408) - 124.825 for OEPs KETLA to AVPUT;

   (h) Wabush (YWK) VORDME - 134.00;

   (i) Sept-Iles (YZV) VORDME - 126.32;

   (j) Natash (YNA) VORDME - 118.875;

   (k) Stephenville (YJT) VORDME - 133.55;

   (l) Grindstone (YGR) VORDME - 132.80;

   (m) Sydney (YQY) VORTAC - 132.75, 133.70, 133.30 or 125.25;

2. At FL 280 or below, when within 150 NM communication should take place over frequency:

   (a) Torbay (YYT) VORDME - 133.15 or 227.30 for coastal fixes BOBTU to JOOPY;

(b) Gander (YQX) VORTAC - 132.10 or 289.40 for coastal fixes IBERG to UMESI;

(c) St. Anthony (YAY) VORDME - 133.00 or 371.90 for coastal fixes TUDEP to MELDI;

(d) Goose Bay (YYR) VORDME - 120.40 or 294.50 for coastal fixes LOMSI to HOIST;

(e) Hopedale (HO) NDB - 135.40 for coastal fixes PORGY to MOATT;

(f) Allanâ€™s Island (N4650 W05547) - 134.90;

(g) Stephenville (YJT) VORDME - 132.30 or 247.00.

GANDER OCEANIC TRANSITION AREA (GOTA)
Electronic RCL Messages Through GOTA
Pilots submitting an RCL must use an oceanic entry and exit points located within GOTA and not a boundary fix along the Montreal CTA boundary. Oceanic entry and exit points and details are available in the Gander Data Link Oceanic Clearance Delivery Crew Procedures document. Flight crews submitting an RCL based on Montreal CTA boundary (e.g. IKMAN, MIBNO) will cause system errors and may affect the ocean profile.
NEW YORK OCA EAST
For flights planning to enter the NAT directly from the New York Oceanic East FIR, the IFR clearance to destination received at the departure aerodrome constitutes the route portion of the oceanic clearance. Once airborne, and prior to entry into the NAT, aircraft will be assigned an altitude and a speed (if required) by New York Center. The receipt of all three elements of an oceanic clearance: route, flight level, and speed constitutes the complete oceanic clearance. A subsequent change to any element (s) of the oceanic clearance does not alter the others. Flights entering Canadian Domestic airspace from the New York Oceanic East FIR and then subsequently entering the NAT require a complete oceanic clearance. Flights entering the southern portion of New York East FIR from Piarco CTA will be issued all three components of the oceanic clearances prior to entering New York OCA.
Currently 50NM lateral separation standard is implemented in the New York Oceanic East FIR between aircraft meeting RNP 10 or RNP 4 specifications.
New York ARTCC
For details refer to Jeppesen ATC page â€œNORTH ATLANTIC (NAT) OCEANIC CLEARANCE PROCEDURESâ€ .

Page 2 Strip Charts

CZEG Type: FIR
USE OF DND AND CIVIL HIGH ARCTIC AERODROMES
USE OF DND and CIVIL HIGH ARCTIC AERODROMES: Civil operators must obtain permission from DND to use High Arctic Aerodromes in Canada. See Entry Requirements Tab.

CANADIAN DOMESTIC AIRSPACE (DOMESTIC CLEARANCE)
a. North Atlantic (NAT) West-bound Traffic.

1. Pilots proceeding westbound across the North Atlantic (NAT) and entering Canadian Domestic Airspace (CDA) within the Gander, Moncton and Montreal FIRs should comply with the following procedures:

(a) Flights cleared by ATC via the flight planned route prior to reaching CDA will not be issued en-route clearances upon entering domestic airspace, and are to follow the flight planned route as cleared.

(b) Domestic en-route clearances will be issued for flights that have been rerouted and exit oceanic airspace at other than the flight planned exit fix, at a pilot's request for another routing or if a flight plan has not been received by the ACC.

2. If entering Canadian Domestic Airspace within the Edmonton FIR, the onward domestic routing will have been established in coordination between the Reykjavik and Edmonton ACCs, and additional domestic clearance is not normally required. However, if there has been a change in route from the filed flight plan, clarification of the onward routing may be obtained from Edmonton ACC on request.

TRANSPONDER SETTING (Secondary Surveillance Radar-SSR) For Beacon Code procedures see Enroute Tab.

CZWG Type: FIR
TRANSPONDER SETTING (Secondary Surveillance Radar-SSR) For Beacon Code procedures see Enroute Tab.

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CZVR Type: FIR
MACH NUMBER TECHNIQUE For information about routes and/or areas affected, see Air Traffic Control Tab.

TRANSPONDER SETTING (Secondary Surveillance Radar-SSR) For Beacon Code procedures see Enroute Tab.

KZAK Type: FIR
FLIGHT PLANNING AND OVERFLIGHT ROUTES within the Pacific region: For complete Information see Enroute Tab.

ADIZ REQUIREMENTS
FOR ADIZ REQUIREMENTS See Enroute Tab.

EXTENDED RANGE OPERATIONS BY AIRCRAFT WITH TWO-TURBINE POWER-UNITS (ETOPS) 1. If the contingency procedures are employed by a twin-engine aircraft as a result of an engine shutdown or failure of an ETOPS critical system, the pilot should advise ATC as soon as practicable of the situation, reminding ATC of the type of aircraft involved, and request expeditious handling.

OCEANIC POSITION REPORTING PROCEDURES OAKLAND OCEANIC FIR
1. For non ADS equipped aircraft, any waypoint filed in the route of flight (ItemÂ 15 of the ICAO flight plan) must be reported as a position report whether the filed waypoint is compulsory or not. If a noncompulsory waypoint is not filed in item 15, it does not need to be reported.

2. POSITION REPORTS

a. When operating on a published ATS Route or a temporary route established by NOTAM, report and estimate the designated reporting points using the specified waypoint names or geographic coordinates as specified in the NOTAM.

b. When operating on a random route:

1. Flights whose tracks are predominantly east and west shall report over each 5Â degrees or 10Â degrees (10Â degrees will be used if the speed of the aircraft is such that 10Â degrees will be traversed within 80 minutes or less) meridian longitude extending east and west from 180Â degrees.

2. Flights whose tracks are predominantly north and south shall report over each 5Â degrees or 10Â degrees (10Â degrees if traversed within 80Â minutes) parallel of latitude extending north and south of the equator.

c. ATC may require specific flights to report more frequently than each 5Â degrees for aircraft with slow ground speeds.

d. Position reports shall be transmitted at the time of crossing the designated reporting point or as soon thereafter as possible.

3. Position reports shall include information on present position, estimated next position, and ensuing position in sequence as indicated below.

a. PRESENT POSITION - Information shall include:

1. The word â€œpositionâ€ .

2. Aircraft identification.

3. Reporting point name, or if not named:

(a) Latitude (2 digits or more) and,

(b) Longitude (3 digits or more).

b. Time over reporting point (4 digits UTC).

c. Altitude (Flight Level). When forwarding an altitude report within the Oakland OCA/FIR, pilots should report their present altitude and their assigned altitude exactly as cleared if the present and assigned altitudes differ. Aircraft assigned a block altitude must report their current altitude and the assigned block altitude. A restriction to cross a point at an altitude is not a block altitude assignment and should not be reported as a block of altitudes.

d. ESTIMATED NEXT POSITION

(1) Reporting point name, or if not named, latitude and longitude as in a.3 above and,

(2) Estimated time over next position (4 digits UTC).

e. ENSUING FIX

(1) Name only of the next succeeding fix whether compulsory or not, or if not named, latitude and longitude as in a.3 above.

4. WEATHER REPORTS:

a. Weather reports shall be included as provided in SectionÂ 3 of Standard AIREP Form by all flights unless exempted from weather reporting by the Weather Service and/or ATC.

5. ADHERENCE TO ATC APPROVED ROUTE

a. If an aircraft, notwithstanding all action taken to adhere to the route specified in the ATC clearance, inadvertently deviates from this route, action shall be taken to regain it as soon as reasonable and not further ahead than 200 nautical miles from the DR position at which the heading was altered to regain the route specified in the ATC clearance. Action to regain this route shall not be delayed in anticipation of obtaining a requested re-clearance.

6. EXCEPTIONS TO POSITION REPORTS PROCEDURES

a. Within Oakland OCA/FIR, no 5Â degree report need be made that would fall within 100Â NM of Guam. Aircraft cleared via terminal area routes report compulsory reporting fixes. Other aircraft report 100Â NM from Nimitz VORTAC. Where other island destinations within the Oakland Oceanic FIR are not more than one-degree latitude-longitude from a 5Â degrees fixed line reporting point, the ETA and arrival report may be substituted in lieu of the adjacent fixed line report.

b. To the east of the Hawaiian Islands it will not be necessary to report the 155Â degree west position if position will be reported at the entry/exit fixes on the Honolulu Control Facility boundary. To the west of the Hawaiian Islands, the 160Â degree west need not be reported.

NORTH PACIFIC (NOPAC) ROUTE PROCEDURES

a. The NOPAC Route System is comprised of five Air Traffic Service (ATS) routes which transit the North Pacific between Alaska and Japan. The two northern routes are used for westbound traffic. The three southern routes are used for eastbound traffic, except that R-591 or G-344 may be used for westbound aircraft crossing the Fukuoka/Anchorage FIR between 0000UTC and 0600UTC. The routes are as follows: R-220, R-580, A-590, R-591 and G-344.

b. Transition Routes

1. Within the Fukuoka FIR, Oceanic Transition Routes (OTRs) and, in one case, a Victor route, have been established for aircraft transitioning to or from the NOPAC Route System.

2. Within the Anchorage FIR, certain ATS routes are used for the same purpose. They are as follows: B-327 (For Westbound use only between BAMOK and SELDM), R-341, G-469, A-342, G-215, R-330, R-451, R-336, R-338, G-583 and G-349.

c. Separation Standards

1. The primary form of lateral separation within the NOPAC Route System is 25NM lateral either side of the centerline, based on Required Navigation Performance 10 (RNP-10) and 1000' vertical separation (FL290 - FL410) based on Reduced Vertical Separation Minimums (RVSM).

2. Lateral separation for Non-RNP10 aircraft and aircraft operating below FL180 is 50NM lateral either side of the centerline.

3. Standard longitudinal separation within the Anchorage Oceanic FIR is 15 minutes "in trail".

d. Flight Plans

1. Aircraft shall enter "R" in item 10 of the ICAO flight plan if the aircraft and operator have been approved for RNP 10 operations for the route of flight.

2. Aircraft shall enter "W" in item 10 of the ICAO flight plan if the aircraft and operator have been approved for RVSM.

3. Aircraft not approved for RNP 10 and/or RVSM shall not enter "R" and/or "W" in item 10.

4. Aircraft approved for both RNP 10 and RVSM may flight plan any of the NOPAC routes with the following altitude restrictions:

(a) R-220: Even Altitudes FL180 to FL400, also FL330, FL350, FL370, FL390, FL410

(b) R-580: Even Altitudes FL180 to FL400, also FL350, FL370

(c) A-590: Odd Altitudes FL190 to FL410, also FL300, FL320, FL340

(d) R-591: Eastbound, Odd Altitudes FL190 to FL410

(e) R-591: Westbound, Even Altitudes FL300 to FL400

(f) G-344: Eastbound, Odd Altitudes FL190 to FL410

(g) G-344: Westbound, Even Altitudes FL300 to FL400

(h) R-591 and G-344 are Eastbound routes unless designated as Westbound PACOTS. Traffic flows are either Eastbound or Westbound with the tracks being emptied of traffic before changing direction.

5. Non-RNP-10 aircraft shall flight plan as follows:

(a) Westbound: R-220 at all times.

(b) Eastbound: A-590 at all times.

(c) Eastbound: G-344 when available for eastbound flights.

(d) The altitudes available on these routes are at or below FL280 and at or above FL430.

e. Procedures

1. Peak traffic periods:

(a) Eastbound - 0700UTC to 2100UTC

(b) Westbound - 1200UTC to 1900UTC and 2200UTC to 0800UTC

(c) Due to traffic volume, flights desiring to operate contrary to the predominant traffic flow can expect to be rerouted or assigned less than optimum flight levels. If feasible, users planning to operate in the NOPAC Route System at airspeeds below MACH 0.78 should use other than the peak hours for their flights. This will reduce congestion and expedite traffic.

f. Aircraft cannot always be accommodated on their flight planned NOPAC route. In an effort to reduce coordination time and errors between ATC and flight crews, JCAB (Fukuoka ATMC) and FAA (Anchorage ARTCC) have agreed on a common procedure to accommodate most reroutes. Aircraft rerouted from one NOPAC ATC route to another NOPAC ATC route will be given short range clearances into the adjoining FIR's RADAR coverage airspace. The receiving ATC facility will then issue further routing to the aircraft prior to the aircraft reaching the clearance limit.

1. Example 1: aircraft ABC101 is routed via R-220 to RJTT but can not be accommodated on R-220. The aircraft may be re-cleared as follows: "ABC101 cleared to OATIS via R-580, expect further clearance from ATMC after OMOTO."

2. Example 2: aircraft ABC102 is routed via A-590 to PAFA but can not be accommodated on A-590. The aircraft may be re-cleared as follows: "ABC102 cleared to SYA via R-591, expect further routing from Anchorage ARTCC after AKISU."

CENTRAL EAST PACIFIC ROUTE SYSTEM (HAWAII â€“ U.S. MAINLAND)

a. The Central East Pacific (CEP) is the organized route system between Hawaii and California. Seven ATS routes, R-463, R-464, R-465, R-585, R-576, R-577 and R-578 are the primary routes within the CEP.

b. Reduced Vertical Separation Minimum (RVSM) and Required Navigation Performance 10 (RNP-10) are required for aircraft operating within the CEP Route System at FL290 through FL410. Non-approved aircraft can expect FL280 and below or FL430 and above, traffic permitting.

c. Operators show approval for RVSM and RNP-10 by annotating block 10 of the ICAO flight plan (equipment) with the letter W and R respectively.

d. Flight Levels normally assigned in the CEP are in accordance with ICAO Appendix 3a (East odd, West even).

ATS ROUTE RESTRICTION NOTES

ATS Route Restriction Notes for information regarding flight planning purposes see Enroute Tab.

RNP-10 SEPARATION
RNP-10 lateral separation (50 NM) may be applied wthin the Oakland Oceanic FIR between RNP-10 approved aircraft. RNP-10 approval is required for all PACOTS and for all aircraft operating within the CEP at FL290 through FL410. Non-RNP approved aircraft can expect FL280 and below or FL430 and above, traffic permitting.

MACH NUMBER TECHNIQUE For information about routes and/or areas affected, see Air Traffic Control Tab.

RVSM PROCEDURES
REDUCED VERTICAL SEPARATION MINIMUMS (RVSM) For procedures and equipment requirements see Air Traffic Control Tab.

REQUIRED NAVIGATION PERFORMANCE (RNP)
For procedures and equipment requirements, see Air Traffic Control pages and/or Air Traffic Control State pages for detailed information.

SPECIAL PROCEDURES FOR IN-FLIGHT CONTINGENCIES IN OCEANIC AIRSPACE ICAO DOC 4444, SECTION 15.2
Introduction

1. Although all possible contingencies cannot be covered, these procedures provide for the more frequent cases such as:

a. Inability to comply with assigned clearance due to meteorological conditions.

b. En-route diversion across the prevailing traffic flow; and

c. Loss of, or significant reduction in, the required navigation capability when operating in an airspace where the navigation performance accuracy is a prerequisite to the safe conduct of flight operations, or pressurization failure.

2. General Procedures

1. If an aircraft is unable to continue the flight in accordance with its ATC clearance, a revised clearance shall be obtained, whenever possible, prior to initiating any action.

2. If prior clearance cannot be obtained, the following contingency procedures should be employed until a revised clearance is received. In general terms, the aircraft should be flown at an offset level and on an offset track where other aircraft are less likely to be encountered. Specifically, the pilot shall:

a. Leave the cleared track or ATS route by initially turning at least 30 degrees to the right or to the left, in order to establish and maintain a parallel, same direction track or ATS route offset 5 NM (9.3 km). The direction of the turn should be based on one or more of the following factors:

1) aircraft position relative to any organized track or ATS route system;

2) the direction of flights and flight levels allocated on adjacent tracks;

3) the direction to an alternate airport;

4) any strategic lateral offset being flown; and

5) terrain clearance.

b. Maintain a watch for conflicting traffic both visually and by reference to ACAS (if equipped), leaving ACAS in RA mode at all times, unless aircraft operating limitations dictate otherwise;

c. turn on all aircraft exterior lights (commensurate with appropriate operating limitations);

d. keep the SSR transponder on at all times and, when able, squawk 7700, as appropriate and, if equipped with ADS-B or ADS-C, select the appropriate emergency functionality;

e. as soon as practicable, advise air traffic control of any deviation from their assigned clearance;

f. use means as appropriate (ie. voice and/or CPDLC) to communicate during a contingency or emergency;

g. if voice communications are used, the radiotelephony distress signal (MAYDAY) or urgency signal (PAN PAN) preferably spoken three times, shall be used, as appropriate;

h. when emergency situations are communicated via CPDLC, the controller may respond via CPDLC. However, the controller may also attempt to make voice contact with the aircraft;

i. establish communications with and alert nearby aircraft by broadcasting on the frequencies in use and at suitable intervals on 121.5 MHz (or, as a backup, on the inter-pilot air-to-air frequency 123.45 MHz): aircraft identification, the nature of the distress condition, intention of the pilot, position (including the ATS route designator or the track code, as appropriate) and flight level; and

j. the controller should attempt to determine the nature of the emergency and ascertain any assistance that may be required. Subsequent ATC action with respect to that aircraft shall be based on the intentions or the pilot and overall traffic situation.

3. Actions to be taken once offset from track:

a) operation within a parallel track system;

b) the potential for user preferred routes (UPR's) parallel to the aircraft's track or ATS route;

c) the nature of the contingency (e.g. aircraft system malfunction; and

d) weather factors (e.g. convective weather at lower flight levels).

4. If possible, maintain the assigned flight level until established on the 9.3 km (5.0 NM) parallel, same direction track or ATS route offset. If unable, initially minimize the rate of descent to the extent that is operationally feasible.

5. Once established on a parallel, same direction track or ATS route offset by 9.3km (5.0 NM), either:

a) descend below FL 290, and establish a 150 m (500 ft) vertical offset from those flight levels normally used, and proceed as required by the operational situation or if an ATC clearance has been obtained, in accordance with the clearance; or

b) establish a 150 m (500 ft) vertical offset (or 300 m (1000 ft) vertical offset if above FL 410) from those flight levels normally used, and proceed as required by the operational situation, or if ATC clearance has been obtained, in accordance with the clearance.

WEATHER DEVIATION PROCEDURES FOR OCEANIC CONTROLLED AIRSPACE â€" PACIFIC

When weather deviation is required, the pilot should initiate communications with ATC via voice or CPDLC. A rapid response may be obtained by either:

1. stating "WEATHER DEVIATION REQUIRED" to indicate that priority is desired on the frequency and for ATC response; or

2. requesting a weather deviation using a CPDLC lateral downlink message.

When necessary, the pilot should initiate the communications using the urgency call "PAN PAN PAN" (preferably spoken three times) or by using a CPDLC urgency downlink message.
The pilot shall inform ATC when weather deviation is no longer required, or when a weather deviation has been completed and the aircraft has returned to its cleared route.

The pilot should notify ATC and request clearance to deviate from track or ATS route, advising, when possible, the extent of the deviation requested. The flight crew will use whatever means are appropriate (i.e. voice and/or CPDLC) to communicate during a weather deviation.
ATC should take one of the following actions:

1. when appropriate separation can be applied, issue clearance to deviate from track; or

2. if there is conflicting traffic and ATC is unable to establish appropriate separation, ATC shall:

1. advise the pilot of inability to issue clearance for the requested deviation;

2. advise the pilot of conflicting traffic; and

3. request the pilot's intentions.

The pilot should take the following actions:

1. comply with the ATC clearance issued; or

2. advise ATC of intentions and execute the procedures detailed in the Action to be Taken if a Revised ATC Clearance Cannot Be Obtained procedure section.

If the aircraft is required to deviate from track or ATC route to avoid adverse meteorological conditions and prior clearance cannot be obtained, an ATC clearance shall be obtained at the earliest possible time. Until an ATC clearance is received, the pilot shall take the following actions:

1. if possible, deviate away from an organized track or ATS route system;

2. establish communications with and alert nearby aircraft by broadcasting, at suitable intervals: aircraft identification, flight level, position (including ATS route designator or the track code) and intentions, on the frequency in use and on 121.5 MHz (or, as a backup, on the inter-pilot air-to-air frequency 123.45 MHz);

3. watch for conflicting traffic both visually and by reference to ACAS (if equipped);

4. turn on all aircraft exterior lights (commensurate with appropriate operating limitations);

5. for deviations of less than 9.3 km (5.0 NM) from the originally cleared track or ATS route, remain at a level assigned by ATC;

6. for deviations greater than, or equal to 9.3 km (5.0 NM) from the originally cleared track or ATS route, when the aircraft is approximately 9.3 km (5.0 NM) from track, initiate a level change in accordance with the Originally Cleared Track or ATS Route Center Line / Deviations / Level Change section.

7. if the pilot receives clearance to deviate from cleared track or ATS route for a specified distance and, subsequently, requests, but cannot obtain a clearance to deviate beyond that distance, the pilot should apply an altitude offset in accordance with the Originally Cleared Track or ATS Route Center Line / Deviations / Level Change section before deviating beyond the cleared distance;

8. when returning to track or ATS route, be at its assigned flight level when the aircraft is within approximately 9.3 km (5.0 NM) of the center line; and

9. if contact was not established prior to deviating, continue to attempt to contact ATC to obtain a clearance. If contact was established, continue to keep ATC advised of intentions and obtain essential traffic information.

EAST 000Â° -179Â° magnetic
1. DESCEND 300 ft (90 m)

2. CLIMB 300 ft (90 m)

WEST 180Â° - 359Â° magnetic
1. CLIMB 300 ft (90 m)

2. DESCEND 300 ft (90 m)