NDB RWY 21 (GNSS)

TML Toronto – 133.4
TFC – 124.8

SAFE ALT 100 NM
4900

NDB
KZ 248

APCH CRS 214°

MIN ALT
KZ 1900

LDA 2694

ARMAL 124.8°

TORONTO/BUTTONVILLE MUNICIPAL, ON

OHSAYA
391 00

Category A B C D

NDB
1260 (610)
2

CIRCLING
1260 (610)
2

Canada Air Pilot
Effective 0901Z 10 OCT 2019 to 0901Z 5 DEC 2019
RNAV (GNSS) RWY 33

**TML Toronto – 133.4**

**TFC – 124.8**

**SAFE ALT 100 NM**

4900

**RNAV**

**APCH CRS**

334°

**MIN ALT**

LOBNI

1500

**LDA**

3897

**ARCAL 124.8°**

---

**DIST FROM RW33**

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<td>2800</td>
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</table>

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**ELEV 650**

**TDZE 637**

**CATEGORY**

A

B

C

D

**LNAV**

1100

(463)

1½

**CIRCLING**

1160

(510)

1½

1180

(530)

1¾

1260

(610)

2

---

**Canada Air Pilot**

Effective 0901Z 10 OCT 2019 to 0901Z 5 DEC 2019
Departure Procedure

Rwy 03 – ½: Requires a minimum climb gradient of 310 ft/NM to 900.

Note: Building and trees to 738 ASL within 0.3 NM of departure end of rwy.
or
SPEC VIS - Climb visual over aprt to 1400 BPOC.

Rwy 15 – ½:

Note: Trees to 673 ASL aprx 350' past departure end of rwy.

Rwy 21 – ½:

Note: Trees to 738 ASL within 0.6 NM of departure end of rwy.
Building to 746 ASL aprx 0.2 NM past departure end of rwy, 650' LEFT of rwy centrelne.

Rwy 33 – ½: Requires a minimum climb gradient of 250 ft/NM to 900.

Note: Trees to 767 ASL within 0.6 NM of departure end of rwy.
Tower to 687 ASL aprx 400' past departure end of rwy, 530' LEFT of rwy centrelne.
or
SPEC VIS - Climb visual over aprt to 1400 BPOC.

DEPARTURE CLIMB RATE V/V (FPM)

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</table>
Noise Abatement Procedures

Fixed Wing Aircraft

General
Pursuant to CAR 602.105, the following procedures apply at Toronto/Buttonville Municipal airport.

Departure Procedures
Rwys 03, 21, 33 no turns below 1150 ASL (500 AGL).
Rwy 15 after take-off track runway centreline.
No right turns below 1150 ASL (500 AGL), no left turns below 1650 ASL (1000).

Arrivals Procedures
1. Turns to final approach will be made at or above 1150 ASL (500 AGL).
2. All approaches to remain above or on an assumed 3.0° Glide Slope.
3. Right hand circuit rwy 15. Circuit height 1650 ASL (1000 AGL) except as specifically authorized by ATC.
Toronto/Buttonville Pre-Threshold Area Operational Test

Purpose
The purpose of this trial is to allow aircraft operators at Toronto/Buttonville Municipal Airport to:

1. Utilize the paved strip end portion of 161 feet prior to the threshold of rwy 15 for aircraft take-off manoeuvres; and
2. Use the following new declared distances terminology in order to take into consideration the area prior to the threshold of rwy 15.

The area for rwy 15 that can be used for departure operations is marked with a yellow transverse stripe, located 161' from the end of the pavement. This defines the limits of the usable length for aircraft operations. Red edge lights outline the 161' paved area and, threshold and runway end lights have been inset. The expanded taxiway adjoining the threshold of rwy 15 allows the pilot to either enter the pre-threshold area, just north of the white transverse stripe (at the actual runway threshold) or, taxi directly onto the runway at the original threshold.

The 161' paved portion has the same bearing strength as the runway, exceeds the runway width due to the extension of the fillet from taxiway D and is maintained to the same standard as the runway. The subject area is referred to as the Initial Take-Off Area (ITOA) and is defined as:

**Initial Take-Off Area (ITOA):** A prepared area, prior to a threshold, available for aircraft take-off manoeuvres, intended for use as a supplemental distance to the TORA, TODA and ASDA.

New declared distances are defined as follows:

**Extended Take-Off Run Available (ETORA):** The length of the runway declared available and suitable for the ground run of an airplane taking off, including the Initial Take-Off Area (ITOA).

**Extended Take-Off Distance Available (ETODA):** The length of the take-off run available, including the Initial Take-Off Area (ITOA), plus the length of the clearway, if provided.

**Extended Accelerate-Stop Distance Available (EASDA):** The length of the take-off run available, including the Initial Take-Off Area (ITOA), plus the length of the stopway, if provided.

**Toronto/Buttonville Muni, ON – CYKZ, Rwy 15**

Extended Take-Off Run Available (ETORA) – 4058 ft.
Extended Take-Off Distance Available (ETODA) – 4258 ft.
Extended Accelerate-Stop Distance Available (EASDA) – 4058 ft.

**Use of the ITOA:**
1. Must be requested from ATC; and,
2. Is restricted to aircraft with a radius of turn less than or equal to 15 m.

Comments should be directed to Toronto/Buttonville Airport Manager.

The trial is planned to terminate 11 JAN 2018.
Departure Route Description

Unless otherwise assigned by ATC:

All rwys: Maintain 3000.

Rwy 03: Requires a minimum climb gradient of 310 ft/NM to 900. Depart rwy 03, climb hdg 033° or as assigned. Expect radar vectors to ANCOL (or as assigned) then proceed via depicted route.

Rwy 15: Depart rwy 15, climb hdg 153° or as assigned. Expect radar vectors to ANCOL (or as assigned) then proceed via depicted route.

Rwy 21: Depart rwy 21, climb hdg 213° or as assigned. Expect radar vectors to ANCOL (or as assigned) then proceed via depicted route.

Rwy 33: Requires a minimum climb gradient of 250 ft/NM to 900. Depart rwy 33, climb hdg 333° or as assigned. Expect radar vectors to ANCOL (or as assigned) then proceed via depicted route.

DEPARTURE CLIMB RATE V/V (FPM)

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DERLO TRANSITION: (ANCOL3.DERLO)

GNTTRY TRANSITION: (ANCOL3.GNTTRY)

ALMER TRANSITION: (ANCOL3.YQO)

Communication Failure

On recognition of failure 10 minutes or less after take-off and in IFR weather conditions, climb to 3100 and proceed as follows:

A. Aircraft Flight Planning 4000.
   1. Select transponder code 7600;
   2. Proceed directly on course, then;
   3. Maintain 4000.

B. Aircraft Flight Planning 5000 or above.
   1. Select transponder code 7600;
   2. Proceed directly on course;
   3. Maintain last assigned altitude or 5000, whichever is higher, for 5 minutes after recognition of the failure, then;
   4. Climb to flight planned altitude.

NOTE: If communication failure occurs more than 10 minutes after take-off, comply with appropriate procedure for communication failure enroute.
For use by GNSS equipped act. GNSS act with selectable CDI must be set to 1 NM sensitivity. Act without selectable CDI must use flight director.
Departure Route Description

Unless otherwise assigned by ATC:

All rwys: Maintain 3000.

Rwy 03: Requires a minimum climb gradient of 310 ft/NM to 900. Depart rwy 03, climb hdg 033° or as assigned. Expect radar vectors to OAKVL (or as assigned) then proceed via depicted route.

Rwy 15: Depart rwy 15, climb hdg 153° or as assigned. Expect radar vectors to OAKVL (or as assigned) then proceed via depicted route.

Rwy 21: Depart rwy 21, climb hdg 213° or as assigned. Expect radar vectors to OAKVL (or as assigned) then proceed via depicted route.

Rwy 33: Requires a minimum climb gradient of 250 ft/NM to 900. Depart rwy 33, climb hdg 333° or as assigned. Expect radar vectors to OAKVL (or as assigned) then proceed via depicted route.

Communication Failure

On recognition of failure 10 minutes or less after take-off and in IFR weather conditions, climb to 3100 and proceed as follows:

A. Aircraft Flight Planning 4000.
   1. Select transponder code 7600;
   2. Proceed directly on course, then;
   3. Maintain 4000.

B. Aircraft Flight Planning 5000 or above.
   1. Select transponder code 7600;
   2. Proceed directly on course;
   3. Maintain last assigned altitude or 5000, whichever is higher, for 5 minutes after recognition of the failure, then;
   4. Climb to flight planned altitude.

**NOTE:** If communication failure occurs more than 10 minutes after take-off, comply with appropriate procedure for communication failure enroute.
**Departure Route Description**

Unless otherwise assigned by ATC:

- **All rwys**: Maintain 3000 unless otherwise assigned by ATC.
- **Rwy 03**: Requires a minimum climb gradient of 310 ft/NM to 900. Depart rwy 03, climb hdg 033° or as assigned for radar vectors.
- **Rwy 15**: Depart rwy 15, climb hdg 153° or as assigned for radar vectors.
- **Rwy 21**: Depart rwy 21, climb hdg 213° or as assigned for radar vectors.
- **Rwy 33**: Requires a minimum climb gradient of 250 ft/NM to 900. Depart rwy 33, climb hdg 333° or as assigned for radar vectors.

**DEPARTURE CLIMB RATE V/V (FPM)**

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**Communication Failure**

On recognition of failure 10 minutes or less after take-off and in IFR weather conditions, climb to 3100 and proceed as follows:

**A. Aircraft Flight Planning 4000.**
1. Select transponder code 7600;
2. Proceed directly on course, then;
3. Maintain 4000.

**B. Aircraft Flight Planning 5000 or above.**
1. Select transponder code 7600;
2. Proceed directly on course;
3. Maintain last assigned altitude or 5000, whichever is higher, for 5 minutes after recognition of the failure, then;
4. Climb to flight planned altitude.

**NOTE**: If communication failure occurs more than 10 minutes after take-off, comply with appropriate procedure for communication failure enroute.
Departure Route Description

Unless otherwise assigned by ATC:

All rwys: Maintain 3000.

Rwy 03: Requires a minimum climb gradient of 310 ft/NM to 900. Depart rwy 03, climb hdg 033° or as assigned. Expect radar vectors to TULEK (or as assigned) then proceed via depicted route.

Rwy 15: Depart rwy 15, climb hdg 153° or as assigned. Expect radar vectors to TULEK (or as assigned) then proceed via depicted route.

Rwy 21: Depart rwy 21, climb hdg 213° or as assigned. Expect radar vectors to TULEK (or as assigned) then proceed via depicted route.

Rwy 33: Requires a minimum climb gradient of 250 ft/NM to 900. Depart rwy 33, climb hdg 333° or as assigned. Expect radar vectors to TULEK (or as assigned) then proceed via depicted route.

SLLAP TRANSITION: (GOPUP2.SLLAP)

HOCKE TRANSITION: (GOPUP2.HOCKE)

Communication Failure

On recognition of failure 10 minutes or less after take-off and in IFR weather conditions, climb to 3100 and proceed as follows:

A. Aircraft Flight Planning 4000.
   1. Select transponder code 7600;
   2. Proceed directly on course, then;
   3. Maintain 4000.

B. Aircraft Flight Planning 5000 or above.
   1. Select transponder code 7600;
   2. Proceed directly on course;
   3. Maintain last assigned altitude or 5000, whichever is higher, for 5 minutes after recognition of the failure, then;
   4. Climb to flight planned altitude.

NOTE: If communication failure occurs more than 10 minutes after take-off, comply with appropriate procedure for communication failure enroute.

G transporting to 3100 and proceed as follows:

A. Aircraft Flight Planning 4000.
   1. Select transponder code 7600;
   2. Proceed directly on course, then;
   3. Maintain 4000.

B. Aircraft Flight Planning 5000 or above.
   1. Select transponder code 7600;
   2. Proceed directly on course;
   3. Maintain last assigned altitude or 5000, whichever is higher, for 5 minutes after recognition of the failure, then;
   4. Climb to flight planned altitude.

NOTE: If communication failure occurs more than 10 minutes after take-off, comply with appropriate procedure for communication failure enroute.

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GOPUP TWO DEP (GOPUP2.)

Canada Air Pilot
Effective 0901Z 10 OCT 2019 to 0901Z 5 DEC 2019
GOPUP TWO DEP (GOPUP2) DEPARTURE ROUTES

TML Toronto – 133.4
Radio London – 123.15

TFC – 124.8

Radar Required

For use by GNSS equipped acft. GNSS acft with selectable CDI must be set to 1 NM sensitivity.
Aircraft without selectable CDI must use flight director.

SEE FOLLOWING PAGE(S) FOR TRANSITION ROUTES

TULEK
N43 43.98
W80 17.78

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For use by GNSS equipped act, GNSS act with selectable CDI must be set to 1 NM sensitivity. Act without selectable CDI must use flight director.
Departure Route Description

Unless otherwise assigned by ATC:

All rwys: Maintain 3000.

Rwy 03: Requires a minimum climb gradient of 310 ft/NM to 900. Depart rwy 03, climb hdg 033° or as assigned. Expect radar vectors to RIKEM (or as assigned) then proceed via depicted route.

Rwy 15: Depart rwy 15, climb hdg 153° or as assigned. Expect radar vectors to RIKEM (or as assigned) then proceed via depicted route.

Rwy 21: Depart rwy 21, climb hdg 213° or as assigned. Expect radar vectors to RIKEM (or as assigned) then proceed via depicted route.

Rwy 33: Requires a minimum climb gradient of 250 ft/NM to 900. Depart rwy 33, climb hdg 333° or as assigned. Expect radar vectors to RIKEM (or as assigned) then proceed via depicted route.

Communication Failure

On recognition of failure 10 minutes or less after take-off and in IFR weather conditions, climb to 3100 and proceed as follows:

A. Aircraft Flight Planning 4000.
   1. Select transponder code 7600;
   2. Proceed directly on course, then;
   3. Maintain 4000.

B. Aircraft Flight Planning 5000 or above.
   1. Select transponder code 7600;
   2. Proceed directly on course;
   3. Maintain last assigned altitude or 5000, whichever is higher, for 5 minutes after recognition of the failure, then;
   4. Climb to flight planned altitude.

NOTE: If communication failure occurs more than 10 minutes after take-off, comply with appropriate procedure for communication failure enroute.

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WOZEE TRANSITION: (KEPTA2.WOZEE)
BMPAH TRANSITION: (KEPTA2.BMPAH)
KEPTA TWO DEP (KEPTA2) DEPARTURE ROUTES

Effective 0901Z 10 OCT 2019 to 0901Z 5 DEC 2019

For use by GNSS equipped auct. GNSS actv with selectable CDI must be set to 1 NM sensitivity.
Actv without selectable CDI must use flight director.

Canada Air Pilot

TML Toronto - 133.4
Radio London - 123.15

Markham
Billy Bishop Toronto City Airport
Lester B. Pearson Intl.

Source of Canadian Civil Aeronautical Data: © 2019 NAV CANADA All rights reserved
For use by GNSS equipped actf. GNSS actf with selectable CDI must be set to 1 NM sensitivity. Acf without selectable CDI must use flight director.
Departure Route Description

Unless otherwise assigned by ATC:

**All rwys:** Maintain **3000**.

**Rwy 03:** Requires a minimum climb gradient of **310** ft/NM to **900**. Depart rwy 03, climb hdg **033°** or as assigned. Expect radar vectors to DUSOM (or as assigned) then proceed via depicted route.

**Rwy 15:** Depart rwy 15, climb hdg **153°** or as assigned. Expect radar vectors to DUSOM (or as assigned) then proceed via depicted route.

**Rwy 21:** Depart rwy 21, climb hdg **213°** or as assigned. Expect radar vectors to DUSOM (or as assigned) then proceed via depicted route.

**Rwy 33:** Requires a minimum climb gradient of **250** ft/NM to **900**. Depart rwy 33, climb hdg **333°** or as assigned. Expect radar vectors to DUSOM (or as assigned) then proceed via depicted route.

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**PHILIPSBURG TRANSITION:** (RIGUS2.PSB)

Communication Failure

On recognition of failure 10 minutes or less after take-off and in IFR weather conditions, climb to **3100** and proceed as follows:

**A. Aircraft Flight Planning 4000.**
   1. Select transponder code 7600;
   2. Proceed directly on course, then;
   3. Maintain **4000**.

**B. Aircraft Flight Planning 5000 or above.**
   1. Select transponder code 7600;
   2. Proceed directly on course;
   3. Maintain last assigned altitude or **5000**, whichever is higher, for 5 minutes after recognition of the failure, then;
   4. Climb to flight planned altitude.

**NOTE:** If communication failure occurs more than 10 minutes after take-off, comply with appropriate procedure for communication failure enroute.
RIGUS TWO DEP (RIGUS2) TRANSITION ROUTES

For use by GNSS equipped acft. GNSS acft with selectable CDI must be set to 1 NM sensitivity. Acft without selectable CDI must use flight director.

Canada Air Pilot
Effective 0901Z 10 OCT 2019 to 0901Z 5 DEC 2019

TML Toronto – 133.4
Radio London – 123.15
TFC – 124.8

DUSOM
N43 14.78
W79 40.42

RIGUS
N42 51.67
W79 40.10

MIKKY
N42 18.81
W79 43.66

PSB
N40 54.98
W77 59.56

NOT TO SCALE!