**FLIGHT PROCEDURES**

**IFR Flights:** Aircraft within the Class B airspace are required to operate in accordance with current IFR procedures.

**VFR Flights:** Arriving aircraft should contact Charlotte Approach Control on the specified frequencies. Although arriving aircraft may be operating beneath the floor of the Class B airspace on initial contact, communications should be established with Approach Control for sequencing and spacing purposes.

b. Aircraft departing the primary airport are requested to advise clearance delivery prior to taxiing of their intended altitude and direction of flight to depart the Class B airspace.

c. Aircraft desiring to transit the Class B airspace may obtain an ATC clearance and will be handled on an equitable "first-come, first-served" basis, provided the requirements of FAR 91 are met.

ADENA TWO RNAV ARRIVAL (ADENA, ADENA2)

**ROUTE:**
- From ADENA via 054° track to LOCKS, then as depicted to CATAN. Depart CATAN heading 003° for vectors to final approach course.

**FOR OPERATING RULES AND PILOT AND EQUIPMENT REQUIREMENTS**
SEE FAR 91.131, 91.117 AND 91.125
CHANGES: Airports served elevations, name.

1. DME required.
2. CHARLESTON and SAVANNAH transitions for Turbojet aircraft only.
3. Also serves

WOODSTOCK, N CAR
Anson Co
300

ROCK HILL, S CAR
666
Rock Hill/York Co/Bryant

SHELBY, N CAR
847
877

LINCOLNTON, N CAR
GASTONIA, N CAR
Gastonia Mun
798

CHESTER, S CAR
656 LANCASTER, S CAR
Lancaster Co-McWhirter
486

WAXHAW, N CAR
Jaars-Townsend
602

MONROE, N CAR
Lincoln Co Regl

MONROE, N CAR
-Cleveland Co Regl

BOOZE
N34 42.2 W080 20.4

HUSTN
R139^ 5
D5 CLT
D10 CLT
16
D26

STRET
317^ D
5000 4
132^ 22
FLORENCE
(FLO.CTF3)
312^ 215^

FAYETTEVILLE
72
11000
(FAY.CTF3)
258^ 107
FL180
(D26)

5
D42

16
D26

11000
334^ 035^ 011^ 39

115.0 CLT
CLT

N35 11.4 W080 57.1
(D)(L)

108.2 CTF
CTF

N34 39.0 W080 16.5
(D)(L)

108.8 FAY
FAY

N34 59.1 W078 52.5
(D)(L)

115.2 CTF
CTF

N34 14.0 W079 39.4
(H)

115.95 SAV
SAV

N32 08.8 W081 11.9
(H)

113.5 CHS
CHS

N32 53.7 W080 02.3
(H)

115.0 CLT
CLT

N34 53.3 W080 34.3

139^ 035^ 011^ 39

3800'

CHANGES:
MSA CLT VOR
KCLT/CLT
CHARLOTTE/DOUGLAS INTL.Eff.7.May.

CHARLOTTE, N CAR
3800'
CHESTERFIELD THREE ARRIVAL (CTF.CTF3)

ROUTE:
From over CTF-VB CTF-817 to BOOZE.

LANDING CHARLOTTE/DOUGLAS INTL
Then via CLT-V-139 to HUSTN. EXPECT RADAR vectors to final approach course prior to D5 CLT.

LANDING ALL OTHER AIRPORTS
Direct distance from CLT to:
AIRPORTS SERVED
1 10 NM
2 22 NM
3 20 NM
4 32 NM

NOT TO SCALE
LANDING NORTH: At PACOK fly heading 090°, MAINTAIN 5000'. Intercept and execute ILS or LOC RWY 36L approach. If unable, proceed direct to CLT and hold, MAINTAIN 5000'.

LANDING SOUTH: At FOSSE fly heading 090°, MAINTAIN 5000'. Intercept and execute ILS or LOC RWY 18R approach. If unable, proceed direct to CLT and hold, MAINTAIN 5000'.

HOLSTON MOUNTAIN and FALMOUTH transitions: BZM, CLT and HMV DMEs must be operational for non-GPS equipped aircraft. CHARLESTON and VOLUNTEER transitions: BZM and CLT DMEs must be operational for non-GPS equipped aircraft. CTF DME must be operational.

Direct distance from FOSSE to: Charlotte/Douglas Int'l 24 NM
Direct distance from PACOK to: Charlotte/Douglas Int'l 25 NM
**Changes:**

- Arrivals served elevations.

**Direct distance from CLT to:**
- Direct distance from CLT to 1 NM
- Direct distance from CLT to 1 NM
- Direct distance from CLT to 1 NM
- Direct distance from CLT to 1 NM

**Also serves:**
- Also serves 1

**Apt Elev:**
- See Graphic

**Alt Set:**
- Inches

**Trans level:**
- FL180

**Trans alt:**
- 18000’

**From over UNARM via CLT R-232 to LOCKS. EXPECT RADAR vectors to final approach course.**

**From over UNARM via CLT R-232 to CLT. EXPECT RADAR vectors to destination airport or final approach course prior to D10 CLT.**

**LANDING ALL OTHER AIRPORTS**

**Direct distance from CLT to:**
- Direct distance from CLT to 1 NM
- Direct distance from CLT to 1 NM
- Direct distance from CLT to 1 NM
- Direct distance from CLT to 1 NM
6. Transponder code will be issued via PDC or Charlotte clearance delivery.

7. For non-GPS equipped aircraft: CLT and SPA DMEs must be operational for take-off Rwy 18L/C; BZM, CLT and SPA DMEs must be operational for take-off Rwy 36C; CLT and CTF DMEs must be operational for take-off Rwy 36R; CAE, CLT, FLO and SPA DMEs must be operational for take-off Rwy 5, 23.

8. Accelerate to 250 KT, if unable, advise ATC.
This SID requires take-off minimums (for standard minimums, refer to airport chart):

**CHARLOTTE/DOUGLAS INTL:** Rwys 5, 18L/C, 23, 36C/R:
- Standard (or lower than standard, if authorized).

**CONCORD REGL:** Rwys 2, 300-1 1/2 or standard (or lower than standard, if authorized) with minimum climb of 210' per NM to 1000', or alternatively, with standard (or lower than standard, if authorized) take-off minimums and a normal 200' per NM climb gradient, take-off must occur no later than 1400' prior to departure end of runway.

**Rwys 3, 21:** Standard (or lower than standard, if authorized) with minimum climb of 267' per NM to 2500'.

**GASTONIA MUN:** Rwys 3, 21: Standard (or lower than standard, if authorized).

**MONROE REGL:** Rwys 5, 23: Standard (or lower than standard, if authorized).

**GREEN SPEED: 75 100 150 200 250 300**

**210' per NM**

150 200 250 300 350 425 525 675 800 950**

**267' per NM**

150 200 250 300 350 450 550 650 750 850**

<table>
<thead>
<tr>
<th>AIRPORT</th>
<th>INITIAL CLimb</th>
<th>ALTITUDE</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHARLOTTE/DOUGLAS INTL</td>
<td>Rw5: Climbing heading 055°</td>
<td>MAINTAIN 800'</td>
</tr>
<tr>
<td>Rw18: Climbing heading 183° until passing D1.6 CLT, then turn RIGHT heading 200°</td>
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<tr>
<td>Rw23: Climbing heading 255°</td>
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<tr>
<td>Rw36C: Climbing LEFT turn heading 330°</td>
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<tr>
<td>Rw36R: Climbing RIGHT turn heading 205°</td>
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</tr>
<tr>
<td>CONCORD REGL</td>
<td>Rw2: Climbing heading 016°</td>
<td>MAINTAIN 3000'</td>
</tr>
<tr>
<td>Rw20: Climbing heading 196°</td>
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<td></td>
</tr>
<tr>
<td>GASTONIA MUN</td>
<td>Rw3: Climbing heading 034°</td>
<td>MAINTAIN 3400'</td>
</tr>
<tr>
<td>Rw21: Climbing heading 214°</td>
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<td></td>
</tr>
<tr>
<td>MONROE REGL</td>
<td>Rw5: Climbing heading 053°</td>
<td>MAINTAIN 3000'</td>
</tr>
<tr>
<td>Rw23: Climbing heading 233°</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**CHANGES:** None.
1. RNAV 1, 2. DME/DME/IRU or GPS required. 3. Radar required. 4. For turbojets only.

5. If unable to accept climb rates, advise ATC on initial contact.

6. Transponder code will be issued via PDC or Charlotte clearance delivery.

7. For non-GPS equipped aircraft: CLT and CTF DMEs must be operational for take-off Rwys 18L/C, 36R; BZM, CLT and CTF DMEs must be operational for take-off Rwy 36C; CTF DME must be operational for take-off Rwys 5, 23.

8. Accelerate to 250 KT, if unable, advise ATC.

Buckl FIVE RNAV DEPARTURE (Buckl5.Buckl)

Speed: DO NOT EXCEED 280 KT UNTIL ADVISED BY ATC

Direct distance from Charlotte/Douglas Intl (Rwy 36R) to: EBAWI (Rwy 18C) to: GIRGY (Rwy 36C) to: KAYFO

OBSTACLES

Rwy 5: Multiple trees beginning 1031' from DER, 480' LEFT of centerline, up to 127' AGL/856' MSL.
Rwy 18L: Tower and pole beginning 981' from DER, 708' LEFT of centerline, up to 160' AGL/850' MSL.

Multiple trees beginning 1295' from DER, 707' RIGHT of centerline, up to 48' AGL/767' MSL.
Rwy 18C: Multiple trees beginning 1688' from DER, 735' LEFT of centerline, up to 108' AGL/783' MSL.

Multiple trees beginning 3205' from DER, 995' RIGHT of centerline, up to 102' AGL/841' MSL.
Rwy 23: Multiple trees beginning 3483' from DER, 198' LEFT of centerline, up to 99' AGL/818' MSL.

Multiple trees beginning 1481' from DER, 603' RIGHT of centerline, up to 74' AGL/823' MSL.
Rwy 36C: Multiple trees beginning 1937' from DER, 725' LEFT of centerline, up to 94' AGL/823' MSL.

Multiple trees beginning 1420' from DER, 309' RIGHT of centerline, up to 104' AGL/823' MSL.
Rwy 36R: Pole and multiple trees beginning 921' from DER, 198' LEFT of centerline, up to 99' AGL/818' MSL.

Multiple trees beginning 3493' from DER, 198' LEFT of centerline, up to 99' AGL/818' MSL.

Multiple trees beginning 1491' from DER, 1688' FROM DER, 735' LEFT of centerline, up to 94' AGL/823' MSL.

Multiple trees beginning 471' from DER, 93' RIGHT of centerline, up to 96' AGL/855' MSL.

This SID requires take-off minimums (for standard minimums, refer to airport chart): Rwy 5: Standard (or lower than standard, if authorized) with minimum climb of 275' per NM to 2000' AGL, then 500' per NM to 1260'.

Rwys 18L/C, 23, 36C/R: ATC climb of 500' per NM 625 833 1250 1667 2083 2500.

At or above 1260'

Gnd speed KT 75 100 150 200 250 300

275' per NM 344 458 688 917 1146 1375

500' per NM 635 833 1250 1667 2083 2500

RWY 5

INITIAL CLIMB

Climb heading 055° or as assigned by ATC, expect vectors to BAYAL, then via depicted route.

Climb heading 183° to 1260’, then direct HISOR, then via depicted route to BAYAL.

Climb heading 183° to 1260’, then direct GIRGY, then via depicted route to BAYAL.

Climb heading 235° or as assigned by ATC, expect vectors to BAYAL, then via depicted route.

Climb heading 003° to intercept the 326° course to EBAWI, then via 269° track to KATSE, then LEFT turn via 177° track to TARBT, then via depicted route to BAYAL.

Climb heading 003° to intercept the 028° course to KAYFO, then via depicted route to BAYAL.

Expect clearance to filed altitude within 10 minutes after departure.
1. RNAV 1
2. DME/DME/IRU or GPS required.
3. RADAR required.
4. For turbojets only.

5. If unable to accept climb rates, advise ATC on initial contact.
6. Transponder code will be issued via PDC or Charlotte clearance delivery.
7. For non-GPS equipped aircraft: BZM, CLT, and GRD DMEs must be operational for take-off.
Rwy 18L: BZM and CLT DMEs must be operational for take-off.
Rwy 18C and 36C/R: BZM, CLT, GRD and SPA DMEs must be operational for take-off.
Rwy 5, 23.
8. Accelerate to 250 KT, if unable, advise ATC.

Direct distance from Charlotte/Douglas Intl
(Rwys 5, 23) to: DANEC 18 NM
(Rwy 18L) to: HISOR 4 NM
(Rwy 18C) to: GIRGY 3 NM
(Rwy 36C) to: EBAWI 6 NM
(Rwy 36R) to: KAYFO 6 NM

This SID requires take-off minimums
(for standard minimums, refer to airport chart):
Rwy 5: Standard (or lower than standard, if authorized) with minimum climb of 275' per NM to 1260'.
Rwys 18L/C, 23, 36C/R: ATC climb of 500' per NM to 1260'.

Gnd speed-KT 75 100 150 200 250 300
275' per NM 344 458 688 917 1146 1375
500' per NM 825 833 1230 1667 2083 2500

NOT TO SCALE

ROUTE

Rwy 18L: Climb heading 183° to 1260', then direct HISOR, then via depicted route to DANEC.
Rwy 18C: Climb heading 183° to 1260', then direct GIRGY, then via depicted route to DANEC.
Rwy 23: Climb heading 235° or as assigned by ATC, then via depicted route to DANEC.
Rwy 36C: Climb heading 003° to intercept the 326° course to EBAWI, then via depicted route to DANEC.
Rwy 36R: Climb heading 003° to intercept the 028° course to KAYFO, then LEFT turn direct KATSE, then via depicted route to DANEC.

EXPECT clearance to filed altitude within 10 minutes after departure.
This SID requires take-off minimums (for standard minimums, refer to airport chart): 

- Rwy 5: Standard (or lower than standard, if authorized) with minimum climb of 275’ per NM to 2000’. ATC climb of 500’ per NM to 1260’.
- Rwy 18L/C, 36C/R: ATC climb of 500’ per NM to 1260’.

**INITIAL CLimb**

- Gnd speed-KT: 75 100 150 200 250 300
- 275’ per NM: 345 455 685 817 1148 1370
- 500’ per NM: 525 832 1290 1687 2083 2500

**MAINTAIN 8000’**

**ROUTING**

- EXPECT clearance to filed altitude within 10 minutes after departure.

**OBSTACLES**

- Multiple trees beginning 1031’ from DER, 480’ LEFT of centerline, up to 127’ AGL/856’ MSL.
- Multiple trees beginning 1235’ from DER, 707’ RIGHT of centerline, up to 48’ AGL/767’ MSL.
- Multiple trees beginning 1260’.
- Multiple trees beginning 1235’ from DER, 707’ RIGHT of centerline, up to 48’ AGL/767’ MSL.
- Multiple trees beginning 1260’.
- Multiple trees beginning 1235’ from DER, 707’ RIGHT of centerline, up to 48’ AGL/767’ MSL.
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- Multiple trees beginning 1235’ from DER, 707’ RIGHT of centerline, up to 48’ AGL/767’ MSL.
- Multiple trees beginning 1260’.
- Multiple trees beginning 1235’ from DER, 707’ RIGHT of centerline, up to 48’ AGL/767’ MSL.
- Multiple trees beginning 1260’.
- Multiple trees beginning 1235’ from DER, 707’ RIGHT of centerline, up to 48’ AGL/767’ MSL.
- Multiple trees beginning 1260’.
- Multiple trees beginning 1235’ from DER, 707’ RIGHT of centerline, up to 48’ AGL/767’ MSL.
- Multiple trees beginning 1260’. 

**SPEED**

- DO NOT EXCEED 280 KT UNTIL ADVISED BY ATC
CHANGES: None.

This SID requires take-off minimums (for standard minimums, refer to airport chart):

- CHARLOTTE/DOUGLAS INTL: Rwys 5, 18L/C, 23, 36C/R:
  - Standard or lower than standard, if authorized.
- CONCORD REGL: Rwys 2, 2001-23 Std, if authorized.
- GASTONIA MUN: Rwys 3, 21: Standard or lower than standard, if authorized.
- MONROE REGL: Rwys 5, 23: Standard or lower than standard, if authorized.

Ground speed-KT 250

1. RADAR and DME required.
2. For turbojets only.
3. Also serves
4. CHARLOTTE/DOUGLAS INTL only: Transponder code will be issued via PDC or Charlotte Clearance Delivery.
5. CONCORD REGL only: Transponder code will be issued via Concord ATCT or Charlotte Clearance Delivery.
6. GASTONIA MUN: MONROE REGL only: Transponder code will be issued via Charlotte Clearance Delivery.
7. Accelerate to 250 KT, if unable, advise ATC.

This SID requires take-off minimums (for standard minimums, refer to airport chart):

- CHARLOTTE/DOUGLAS INTL: Rwys 5, 18L/C, 23, 36C/R:
  - Standard or lower than standard, if authorized.
- CONCORD REGL: Rwys 2, 2001-23 Std, if authorized.
- GASTONIA MUN: Rwys 3, 21: Standard or lower than standard, if authorized.
- MONROE REGL: Rwys 5, 23: Standard or lower than standard, if authorized.

Ground speed-KT 250

1. RADAR and DME required.
2. For turbojets only.
3. Also serves
4. CHARLOTTE/DOUGLAS INTL only: Transponder code will be issued via PDC or Charlotte Clearance Delivery.
5. CONCORD REGL only: Transponder code will be issued via Concord ATCT or Charlotte Clearance Delivery.
6. GASTONIA MUN: MONROE REGL only: Transponder code will be issued via Charlotte Clearance Delivery.
7. Accelerate to 250 KT, if unable, advise ATC.

This SID requires take-off minimums (for standard minimums, refer to airport chart):

- CHARLOTTE/DOUGLAS INTL: Rwys 5, 18L/C, 23, 36C/R:
  - Standard or lower than standard, if authorized.
- CONCORD REGL: Rwys 2, 2001-23 Std, if authorized.
- GASTONIA MUN: Rwys 3, 21: Standard or lower than standard, if authorized.
- MONROE REGL: Rwys 5, 23: Standard or lower than standard, if authorized.

Ground speed-KT 250

1. RADAR and DME required.
2. For turbojets only.
3. Also serves
4. CHARLOTTE/DOUGLAS INTL only: Transponder code will be issued via PDC or Charlotte Clearance Delivery.
5. CONCORD REGL only: Transponder code will be issued via Concord ATCT or Charlotte Clearance Delivery.
6. GASTONIA MUN: MONROE REGL only: Transponder code will be issued via Charlotte Clearance Delivery.
7. Accelerate to 250 KT, if unable, advise ATC.

This SID requires take-off minimums (for standard minimums, refer to airport chart):

- CHARLOTTE/DOUGLAS INTL: Rwys 5, 18L/C, 23, 36C/R:
  - Standard or lower than standard, if authorized.
- CONCORD REGL: Rwys 2, 2001-23 Std, if authorized.
- GASTONIA MUN: Rwys 3, 21: Standard or lower than standard, if authorized.
- MONROE REGL: Rwys 5, 23: Standard or lower than standard, if authorized.

Ground speed-KT 250

1. RADAR and DME required.
2. For turbojets only.
3. Also serves
4. CHARLOTTE/DOUGLAS INTL only: Transponder code will be issued via PDC or Charlotte Clearance Delivery.
5. CONCORD REGL only: Transponder code will be issued via Concord ATCT or Charlotte Clearance Delivery.
6. GASTONIA MUN: MONROE REGL only: Transponder code will be issued via Charlotte Clearance Delivery.
7. Accelerate to 250 KT, if unable, advise ATC.
JeppView 3.6.3.1

**JEPPESEN**

**ROUTING**

CLT

**CHARLOTTE, N CAR**

**RNVA 5 S1D**

**JACAL FOUR RNAV DEPARTURE (JACAL 4.JACAL)**

**SPEED:** DO NOT EXCEED 280 KT UNTIL ADVISED BY TC

**OBSTACLES**

Rwy 5: Multiple trees beginning 1031' from DER, 480' LEFT of centerline, up to 127' AGL/856' MSL.
Rwy 18L: Tower and pole beginning 981' from DER, 708' LEFT of centerline, up to 160' AGL/850' MSL.
Rwy 18C: Multiple trees beginning 1235' from DER, 735' LEFT of centerline, up to 108' AGL/787' MSL.
Rwy 36C: Multiple trees beginning 1937' from DER, 198' LEFT of centerline, up to 99' AGL/823' MSL.
Rwy 36L: Multiple trees beginning 1235' from DER, 708' LEFT of centerline, up to 160' AGL/850' MSL.
Rwy 23: Multiple trees beginning 1688' from DER, 735' LEFT of centerline, up to 108' AGL/787' MSL.
Rwy 36R: Multiple trees beginning 3251' from DER, 995' RIGHT of centerline, up to 99' AGL/823' MSL.
Rwy 5: Multiple trees beginning 471' from DER, 93' RIGHT of centerline, up to 96' AGL/823' MSL.
Rwy 23: Multiple trees beginning 1491' from DER, 603' RIGHT of centerline, up to 96' AGL/855' MSL.
Rwy 18C: Multiple trees beginning 3493' from DER, 198' LEFT of centerline, up to 99' AGL/818' MSL.
Rwy 36L: Multiple trees beginning 1420' from DER, 309' RIGHT of centerline, up to 104' AGL/823' MSL.
Rwy 5: Multiple trees beginning 1260' from DER, 93' RIGHT of centerline, up to 96' AGL/855' MSL.
Rwy 18L: Multiple trees beginning 981' from DER, 708' LEFT of centerline, up to 160' AGL/850' MSL.
Rwy 36R: Multiple trees beginning 917' from DER, 1146' LEFT of centerline, up to 127' AGL/856' MSL.
Rwy 36L: Multiple trees beginning 108' AGL/823' MSL.
Rwy 18C: Multiple trees beginning 1420' from DER, 309' RIGHT of centerline, up to 104' AGL/823' MSL.
Rwy 36R: Multiple trees beginning 3251' from DER, 995' RIGHT of centerline, up to 99' AGL/823' MSL.
Rwy 5: Multiple trees beginning 471' from DER, 93' RIGHT of centerline, up to 96' AGL/823' MSL.
Rwy 23: Multiple trees beginning 1491' from DER, 603' RIGHT of centerline, up to 96' AGL/855' MSL.
Rwy 18L: Multiple trees beginning 1260' from DER, 93' RIGHT of centerline, up to 96' AGL/855' MSL.

**CHANGES:** Procedure renumbered.

**NOT TO SCALE**

Direct distance from Charlotte/Douglas Intl

(Wy 5, 23) to: JACAL 30 NM
(Wy 18L) to: HISOR 4 NM
(Wy 18C to: GIRGY 3 NM
(Wy 36C to: EBAWI 6 NM
(Wy 36R to: KAYFO 6 NM

This SID requires take-off minimums
(for standard minimums, refer to airport chart): Rwy 5: Standard (or lower than standard, if authorized) with minimum climb of 275' per NM to 2000'. ATC climb of 500' per NM to 1260'. Rwy 18C, 23, 36C/R: ATC climb of 500' per NM to 1260'.

Grid speed-KT: 75 100 150 200 250 300
275' per NM: 344 455 566 677 788 899
500' per NM: 625 833 1250 1667 2083 2500

**INITIAL CLIMB**

5 Climb heading 055° or as assigned by ATC, EXPECT vectors to JACAL.
18L Climb heading 183° to 1260', then direct HISOR, then via depicted route to JACAL.
18C Climb heading 183° to 1260', then direct GIRGY, then via depicted route to JACAL.
23 Climb heading 235° or as assigned by ATC, EXPECT vectors to JACAL.
36C Climb heading 003° to intercept the 326° course to EBAWI, then via depicted route to JACAL.
36R Climb heading 003° to intercept the 228° course to KAYFO, then via depicted route to JACAL.
JeppView 3.6.3.1

JeppView 3.6.3.1

ROUTEING

CHANGES: Procedure text, renumbered.

5. If unable to accept climb rates, advise ATC on initial contact.
6. Transponder code will be issued via PDC or Charlotte clearance delivery.
7. For non-GPS equipped aircraft: GSO DME must be operational for take-off
   Rwys 18L/C; BZM and CLT DMEs must be operational for take-off Rwy 36C;
   CTF DME must be operational for take-off Rwy 9, 23.
8. Accelerate to 250 KT, if unable, advise ATC.

5. If unable to accept climb rates, advise ATC on initial contact.
6. Transponder code will be issued via PDC or Charlotte clearance delivery.
7. For non-GPS equipped aircraft: GSO DME must be operational for take-off
   Rwys 18L/C; BZM and CLT DMEs must be operational for take-off Rwy 36C;
   CTF DME must be operational for take-off Rwy 9, 23.
8. Accelerate to 250 KT, if unable, advise ATC.

5. If unable to accept climb rates, advise ATC on initial contact.
6. Transponder code will be issued via PDC or Charlotte clearance delivery.
7. For non-GPS equipped aircraft: GSO DME must be operational for take-off
   Rwys 18L/C; BZM and CLT DMEs must be operational for take-off Rwy 36C;
   CTF DME must be operational for take-off Rwy 9, 23.
8. Accelerate to 250 KT, if unable, advise ATC.

5. If unable to accept climb rates, advise ATC on initial contact.
6. Transponder code will be issued via PDC or Charlotte clearance delivery.
7. For non-GPS equipped aircraft: GSO DME must be operational for take-off
   Rwys 18L/C; BZM and CLT DMEs must be operational for take-off Rwy 36C;
   CTF DME must be operational for take-off Rwy 9, 23.
8. Accelerate to 250 KT, if unable, advise ATC.

5. If unable to accept climb rates, advise ATC on initial contact.
6. Transponder code will be issued via PDC or Charlotte clearance delivery.
7. For non-GPS equipped aircraft: GSO DME must be operational for take-off
   Rwys 18L/C; BZM and CLT DMEs must be operational for take-off Rwy 36C;
   CTF DME must be operational for take-off Rwy 9, 23.
8. Accelerate to 250 KT, if unable, advise ATC.
5. If unable to accept climb rates, advise ATC on initial contact.
6. Transponder code will be issued via PDC or Charlotte clearance delivery.
7. For non-GPS equipped aircraft: CLT and CTF DMEs must be operational for take-off Rwys 18L/C; BZM and CLT DMEs must be operational for take-off Rwy 36C; BZM DME must be operational for take-off Rwy 36R; CLT and GSO DMEs must be operational for take-off Rwys 5, 23.
8. Accelerate to 250 KT; if unable, advise ATC.

**SPEED: DO NOT EXCEED 280 KT UNTIL ADVISED BY ATC**

**OBSERVATIONS**
- Rwys 5, 23: Standard (or lower than standard, if authorized) with minimum climb of 275' per NM to 2000'.
- Rwys 18L/C, 36C/R: ATC climb of 500' per NM to 1260'.

**ATC CLIMB SPEEDS:**
- Ground speed-KT: 75, 100, 150, 200, 250, 300
- 275' per NM: 344, 458, 688, 917, 1146, 1375
- 500' per NM: 625, 833, 1250, 1687, 2083, 2500

**INITIAL CLIMB**

<table>
<thead>
<tr>
<th>RWY</th>
<th>INITIAL CLIMB</th>
<th>ALTITUDE</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>Climb heading 055° as assigned by ATC, EXPECT vectors to MUNBE.</td>
<td>MAINTAIN 8000'</td>
</tr>
<tr>
<td>18L</td>
<td>Climb heading 183° to 1260', then direct HISOR, then via depicted route to MUNBE.</td>
<td></td>
</tr>
<tr>
<td>18C</td>
<td>Climb heading 183° to 1260', then direct GIRGY, then via depicted route to MUNBE.</td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>Climb heading 235° as assigned by ATC, EXPECT vectors to MUNBE.</td>
<td></td>
</tr>
<tr>
<td>36C</td>
<td>Climb heading 003° to intercept the 326° course to EBAWI, then RIGHT turn direct SILSE, then via depicted route to MUNBE.</td>
<td></td>
</tr>
<tr>
<td>36R</td>
<td>Climb heading 003° to intercept the 028° course to KAYFO, then via depicted route to MUNBE.</td>
<td></td>
</tr>
</tbody>
</table>

**ROUTING**
- Via depicted route to MERIL, EXPECT clearance to filed altitude within 10 minutes after departure.
### ADDITIONAL RUNWAY INFORMATION

<table>
<thead>
<tr>
<th>RWY</th>
<th>Tarmac Markings</th>
<th>Threshold</th>
<th>Glide Slope</th>
<th>Take-off</th>
<th>Width</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>HIRL CL MALSR VASI-L grooved RVR</td>
<td>630’</td>
<td>192’</td>
<td>638’</td>
<td>150’ 46m</td>
</tr>
<tr>
<td>23</td>
<td>HIRL CL REIL VASI-R grooved RVR</td>
<td>638’</td>
<td>194’</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>RWY</th>
<th>Tarmac Markings</th>
<th>Threshold</th>
<th>Glide Slope</th>
<th>Take-off</th>
<th>Width</th>
</tr>
</thead>
<tbody>
<tr>
<td>18C</td>
<td>HIRL CL MALSR PAPI-R (angle 3.0°) RVR</td>
<td>8840’</td>
<td>2694m</td>
<td>9040’</td>
<td>150’ 46m</td>
</tr>
<tr>
<td>36C</td>
<td>HIRL CL ALSF-II TDZ PAPI-L (angle 3.0°) RVR</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>RWY</th>
<th>Tarmac Markings</th>
<th>Threshold</th>
<th>Glide Slope</th>
<th>Take-off</th>
<th>Width</th>
</tr>
</thead>
<tbody>
<tr>
<td>18L</td>
<td>HIRL CL REIL 1 VASI (3 bar)-R grooved RVR</td>
<td>7660’</td>
<td>2333m</td>
<td></td>
<td></td>
</tr>
<tr>
<td>36R</td>
<td>HIRL CL ALSF-II TDZ 1 PAPI-R grooved RVR</td>
<td>7634’</td>
<td>2327m</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. Upwind angle 3.25°, downwind angle 2.75°.
2. Angle 3.00°

### TAKE-OFF & OBSTACLE DEPARTURE PROCEDURE

#### 2 operating RVRs are required

<table>
<thead>
<tr>
<th>RWY</th>
<th>Adequate Vis Ref</th>
<th>3 &amp; 4 Eng</th>
<th>1 &amp; 2 Eng</th>
<th>Both RVRs required &amp; controlling</th>
<th>Adequate Vis Ref</th>
<th>3 &amp; 4 Eng</th>
<th>1 &amp; 2 Eng</th>
</tr>
</thead>
<tbody>
<tr>
<td>CL &amp; HIRL</td>
<td>Cl. or RCL &amp; HIRL</td>
<td>CDN 16 or 3</td>
<td>CDN 12</td>
<td>CDN 6 or 3</td>
<td>Cl. or RCL &amp; HIRL</td>
<td>CDN 16 or 3</td>
<td>CDN 12</td>
</tr>
<tr>
<td>TDZ RVR</td>
<td>24</td>
<td>10</td>
<td>RVR or</td>
<td>24</td>
<td>10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mid RVR</td>
<td>24</td>
<td>10</td>
<td>RVR or</td>
<td>24</td>
<td>10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rollout RVR</td>
<td>24</td>
<td>10</td>
<td>RVR or</td>
<td>24</td>
<td>10</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### OBSTACLE DP

Rwy 5: Climb heading 055° to 1700’ before turning right.
Rwy 36C: Climb heading 003° to 1400’ before turning left.

### FOR FILING AS ALTERNATE

<table>
<thead>
<tr>
<th>RWY</th>
<th>ILS Rwy 5</th>
<th>ILS Rwy 18L/C</th>
<th>ILS Rwy 36C/R</th>
<th>LOC All Rwy RNAV (GPS) All Rwy</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>600-2</td>
<td>700-2</td>
<td>800-2</td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>