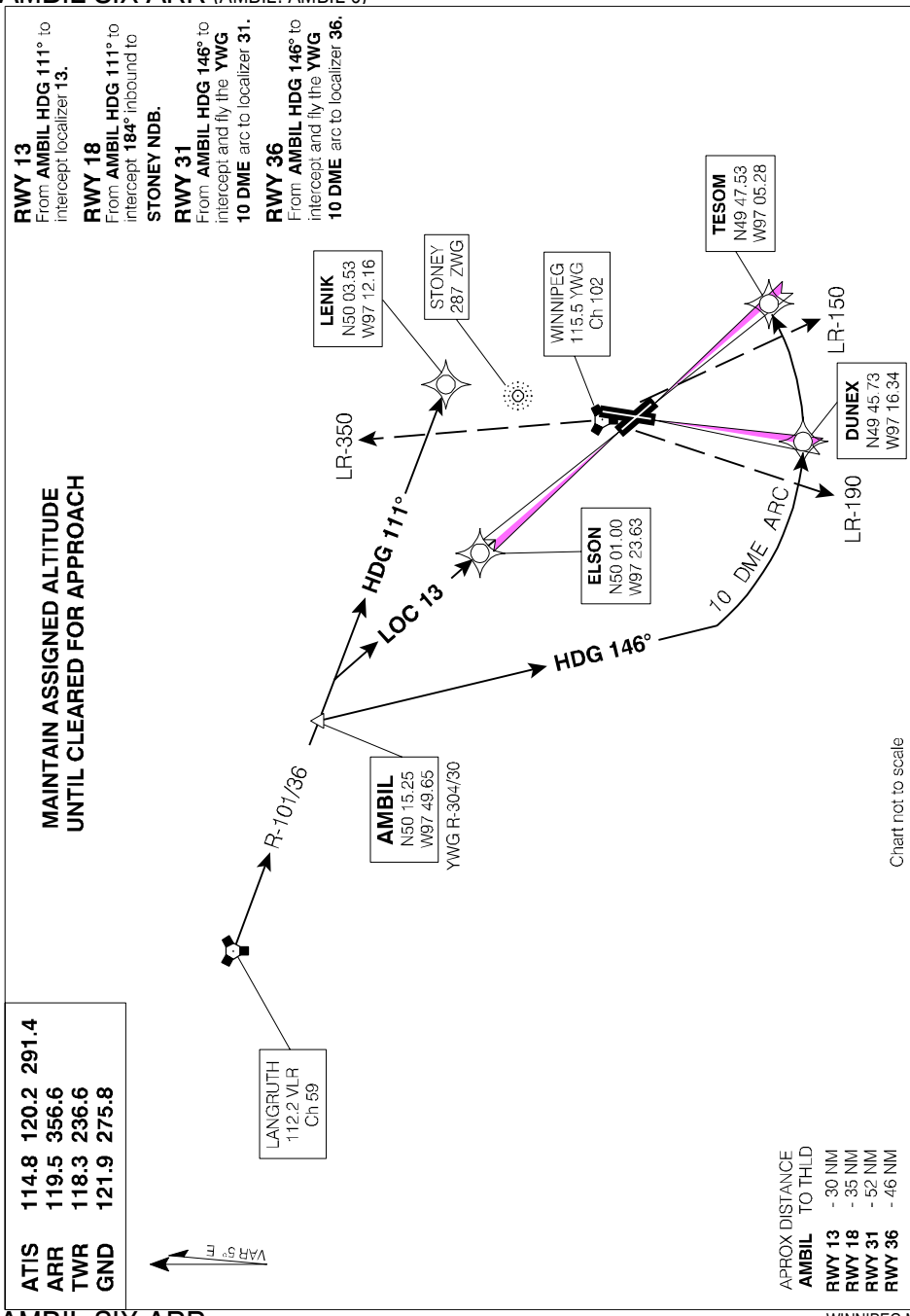
STAR

WINNIPEG /JAMES ARMSTRONG RICHARDSON INTL
WINNIPEG MB

AMBIL SIX ARR (AMBIL. AMBIL 6)

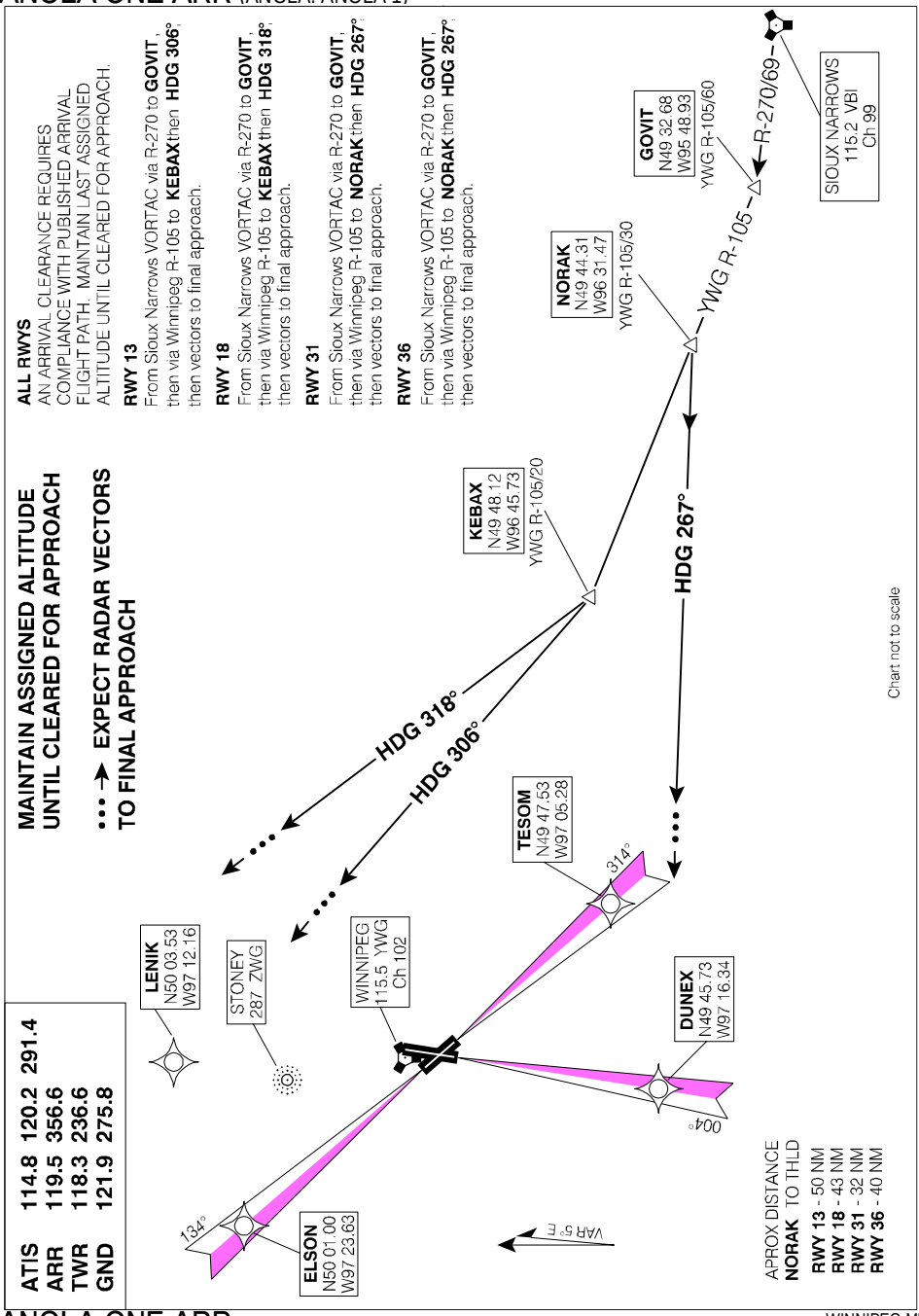


AMBIL SIX ARR (AMBIL. AMBIL 6)
WINNIPEG MB
WINNIPEG /JAMES ARMSTRONG RICHARDSON INTL

STAR

ANOLA ONE ARR (ANOLA. ANOLA 1)

WINNIPEG /JAMES ARMSTRONG RICHARDSON INTL
WINNIPEG MB

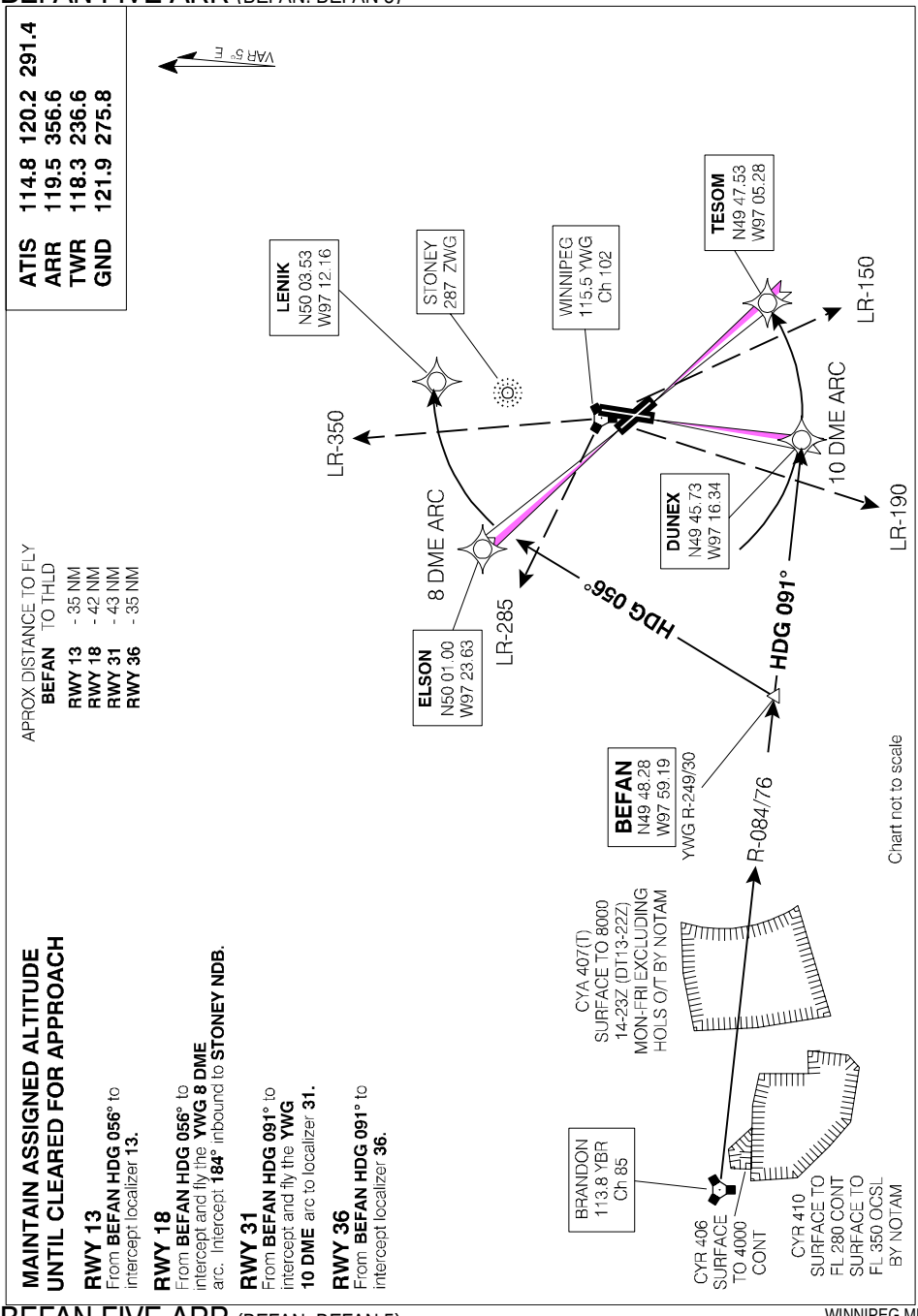


ANOLA ONE ARR (ANOLA. ANOLA 1)
WINNIPEG MB
WINNIPEG /JAMES ARMSTRONG RICHARDSON INTL

STAR

BEFAN FIVE ARR (BEFAN. BEFAN 5)

WINNIPEG /JAMES ARMSTRONG RICHARDSON INTL
WINNIPEG MB



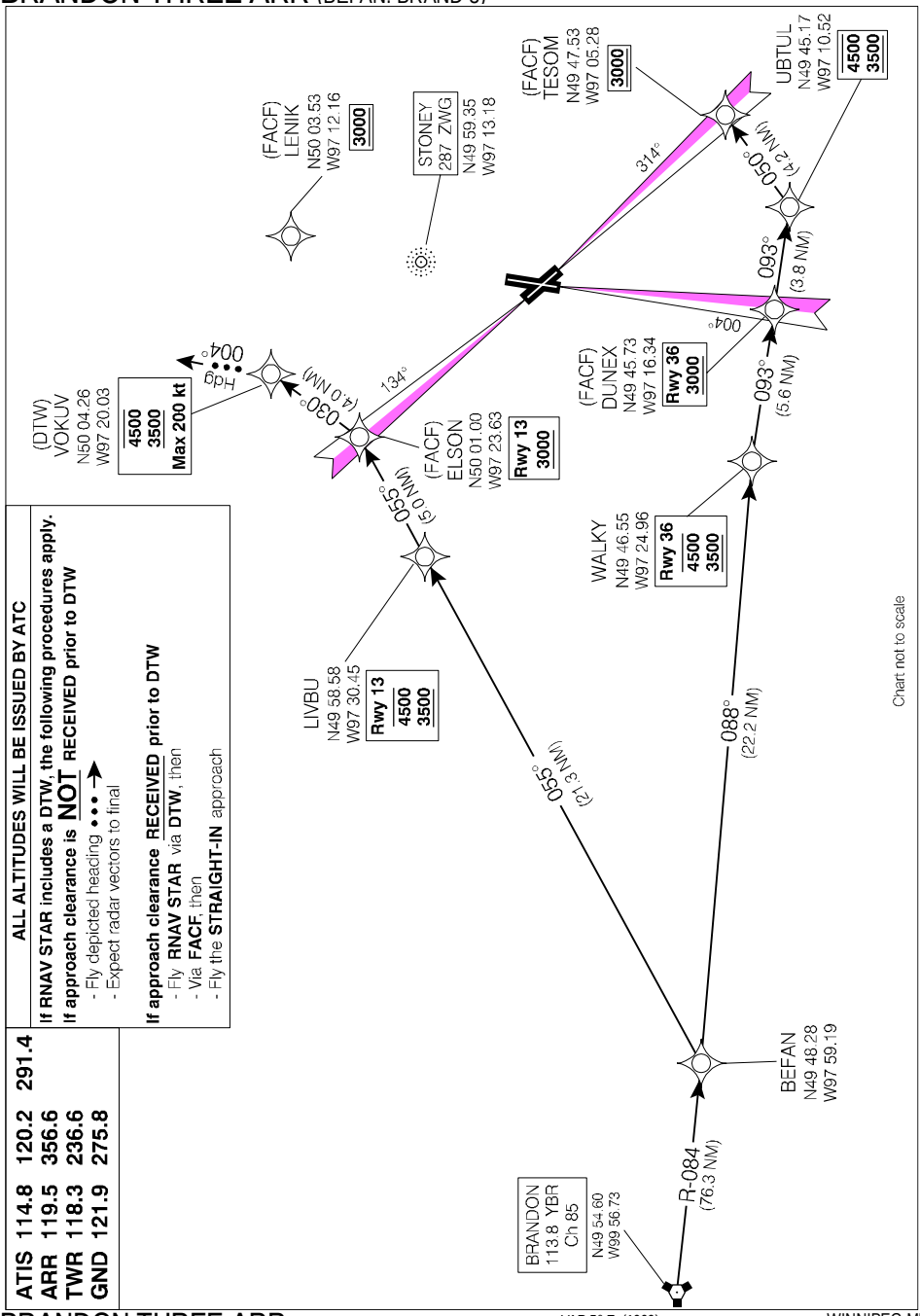
BEFAN FIVE ARR (BEFAN. BEFAN 5)

WINNIPEG MB
WINNIPEG /JAMES ARMSTRONG RICHARDSON INTL

STAR (RNAV)

BRANDON THREE ARR (BEFAN. BRAND 3)

WINNIPEG /JAMES ARMSTRONG RICHARDSON INTL
WINNIPEG MB



BRANDON THREE ARR (BEFAN. BRAND 3)

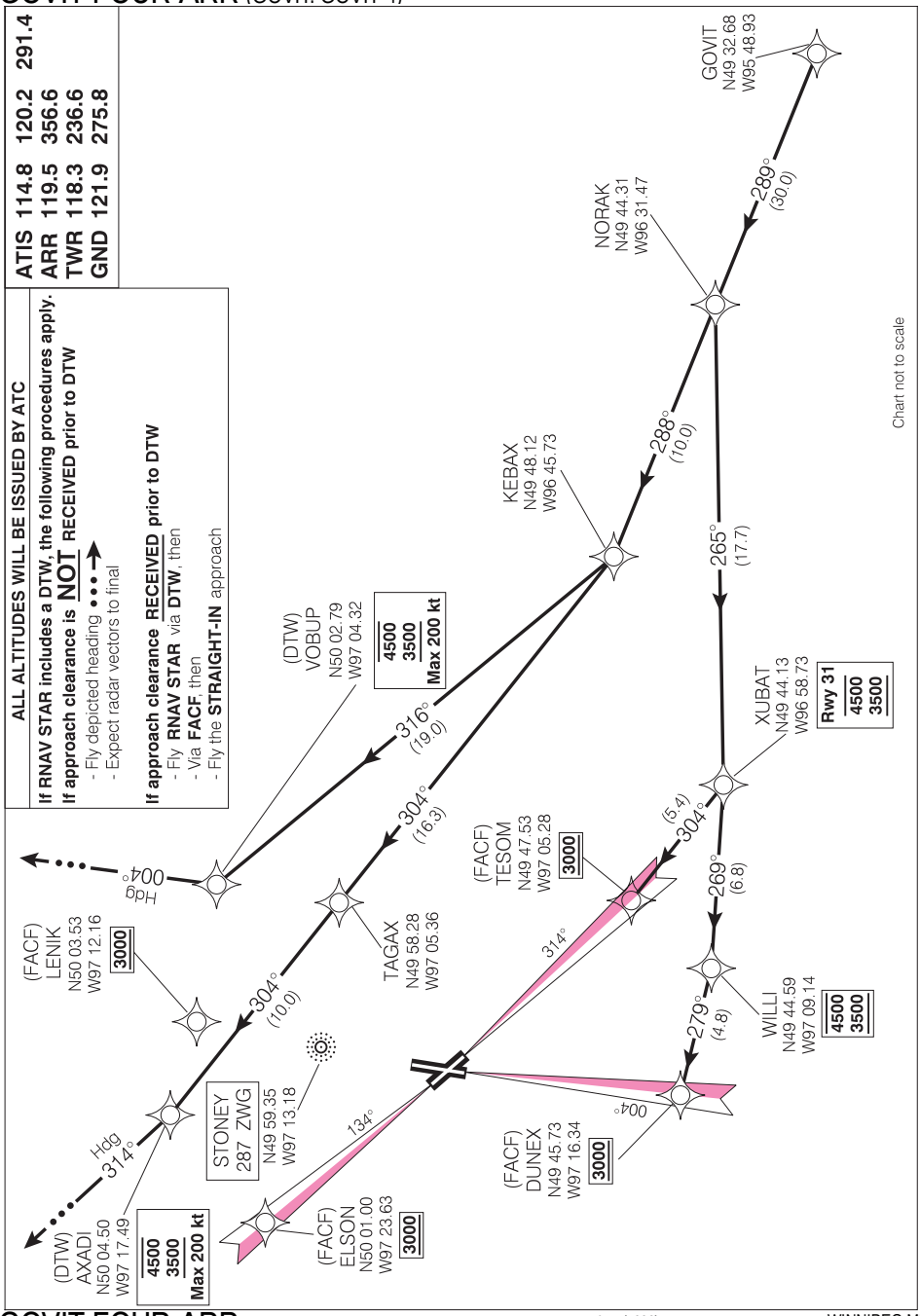
VAR 5° E (1999)

WINNIPEG MB
WINNIPEG /JAMES ARMSTRONG RICHARDSON INTL

STAR (RNAV)

GOVIT FOUR ARR (GOVIT. GOVIT 4)

WINNIPEG /JAMES ARMSTRONG RICHARDSON INTL
WINNIPEG MB



GOVIT FOUR ARR (GOVIT. GOVIT 4)

VAR 5° E (1999)

WINNIPEG MB
WINNIPEG /JAMES ARMSTRONG RICHARDSON INTL

STAR (RNAV)

LANGRUTH THREE ARR (VLR. LANGR 3)

WINNIPEG /JAMES ARMSTRONG RICHARDSON INTL
WINNIPEG MB

ATIS	114.8	120.2	291.4
ARR	119.5	356.6	
TWR	118.3	236.6	
GND	121.9	275.8	

ALL ALTITUDES WILL BE ISSUED BY ATC

If RNAV STAR includes a DTW, the following procedures apply.

If approach clearance is NOT RECEIVED prior to DTW
- Fly depicted heading •••→
- Expect radar vectors to final

If approach clearance RECEIVED prior to DTW
- Fly **RNAV STAR** via **DTW**, then
- Via **FACF**, then
- Fly the **STRAIGHT-IN** approach

LANGRUTH
112.2 VLR
Ch 59
N50 25.34
W98 43.42

099°
(35.9 NM)

AMBIL
N50 15.25
W97 49.65

110°
(7.8 NM)

TETIB
N50 11.81
W97 38.55

133°
(9.5 NM)

110°
(14.0 NM)

OMADU
N50 05.74
W97 19.20
4500
3500

110°
(5.0 NM)

(FACF)
LENIK
N50 03.53
W97 12.16
3000

145°
(22.4 NM)

XERUT
N50 04.73
W97 28.79
4500
3500

133°
(5.0 NM)

(FACF)
ELSON
N50 01.00
W97 23.63
3000

134°

STONEY
287 ZWG
N49 59.35
W97 13.18

ELILA
N49 55.72
W97 32.79

145°
(10.5 NM)

(FACF)
TESOM
N49 47.53
W97 05.28
3000

314°

004°

(DTW)
WALKY
N49 46.55
W97 24.96
Rwy 36
4500
3500
Max 200 kt

Hdg
184°

093°
(5.6 NM)

093°
(3.8 NM)

050°
(4.2 NM)

(FACF)
DUNEX
N49 45.73
W97 16.34
Rwy 36
3000

UBTUL
N49 45.17
W97 10.52
4500
3500

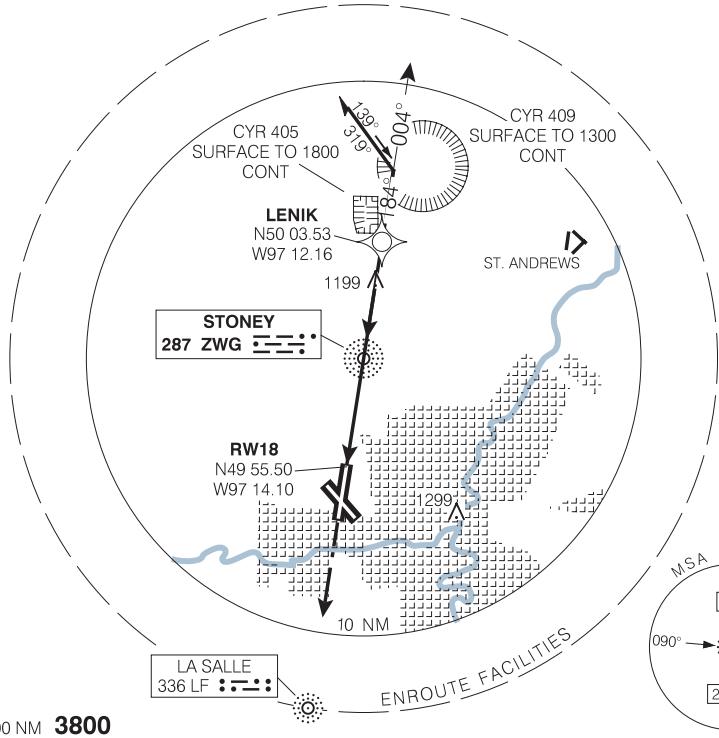
Chart not to scale

WINNIPEG /JAMES ARMSTRONG RICHARDSON INTL
WINNIPEG MB

NDB RWY 18 (GNSS)

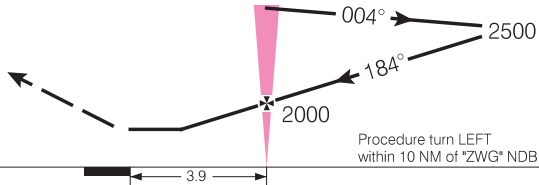
ATIS	ARR	TWR	GND	DEP	ELEV 783
114.8 291.4 120.2	119.5 356.6	118.3 236.6	121.9 275.8	119.9 366.5	TDZE 18 781

CYWG

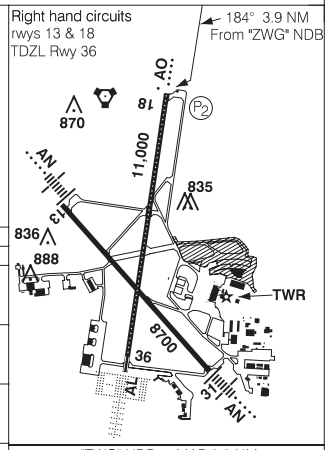


SAFE ALT 100 NM **3800**

MISSED APPROACH
Climb to **3000** on track of **184°** to "LF" NDB.



Right hand circuits
rwys 13 & 18
TDZL Rwy 36



CATEGORY	A	B	C	D
NDB	**1220** (439) 1 ¼			
CIRCLING	**1360** (577) 1 ¾		**1360** (577) 2	**1400** (617) 2

"ZWG" NDB to MAP 3.9 NM

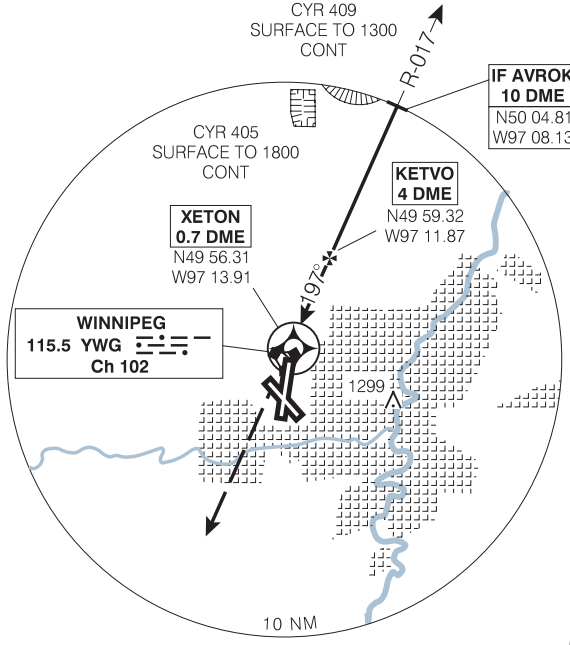
Knots	70	90	110	130	150
Min:Sec	**3:20**	**2:36**	**2:08**	**1:48**	**1:34**

VOR/DME RWY 18

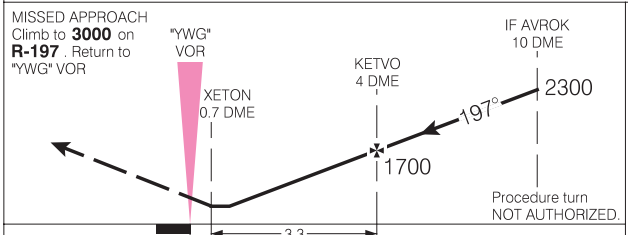
WINNIPEG /JAMES ARMSTRONG RICHARDSON INTL
WINNIPEG MB

ATIS	ARR	TWR	GND	DEP	ELEV 783
114.8 291.4 120.2	119.5 356.6	118.3 236.6	121.9 275.8	119.9 366.5	TDZE 18 781

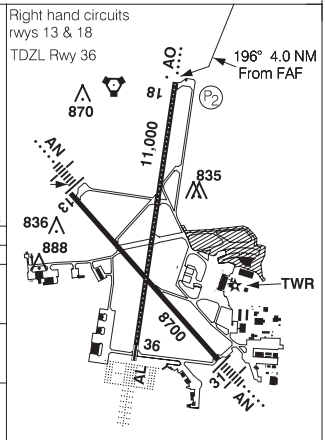
CYWG



SAFE ALT 100 NM **3800**



CATEGORY	A	B	C	D
VOR/DME	1180	(399)	1 ¼	
CIRCLING	1360	(577)	1 ¾	1360 (577) 2	1400 (617) 2

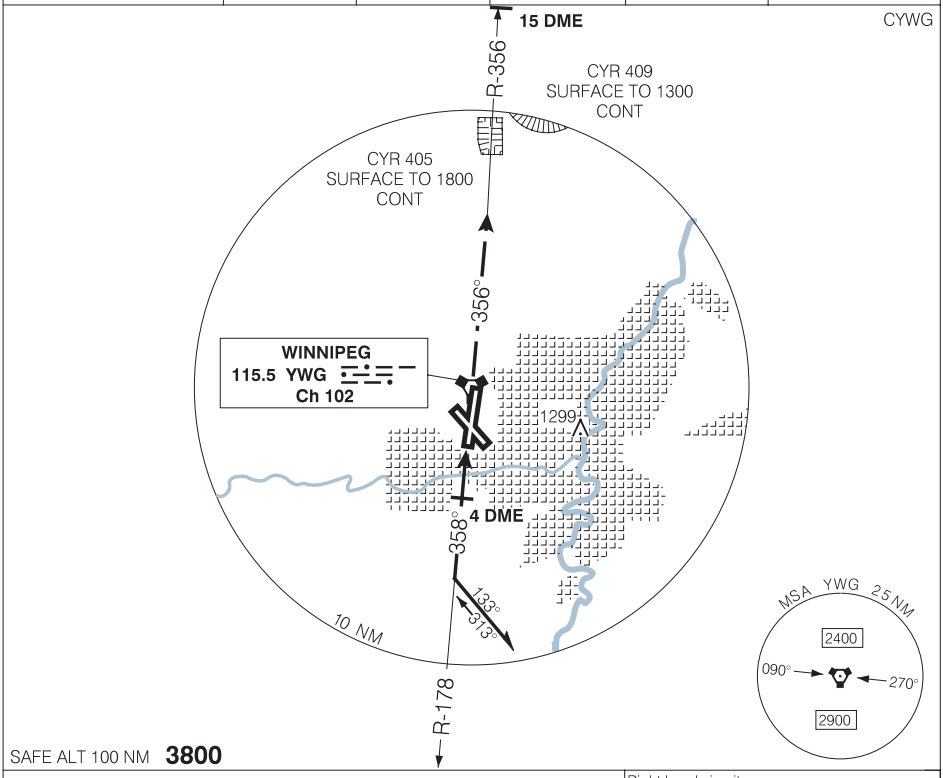


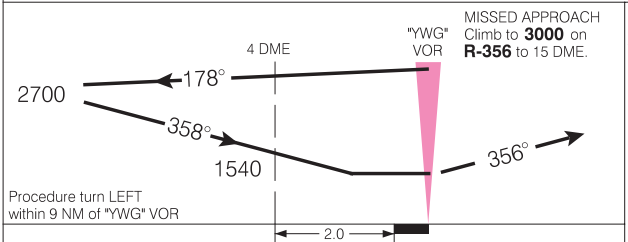
Knots	70	90	110	130	150
Min:Sec					

WINNIPEG /JAMES ARMSTRONG RICHARDSON INTL
WINNIPEG MB

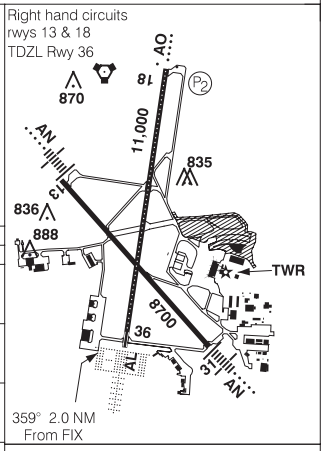
VOR/DME RWY 36

ATIS	ARR	TWR	GND	DEP	ELEV 783
114.8 291.4 120.2	119.5 356.6	118.3 236.6	121.9 275.8	119.9 366.5	TDZE 36 778





CATEGORY	A	B	C	D
VOR/DME	1200	(422)	1	
CIRCLING	1360	(577)	1 ¾	1360 (577) 2	1400 (617) 2

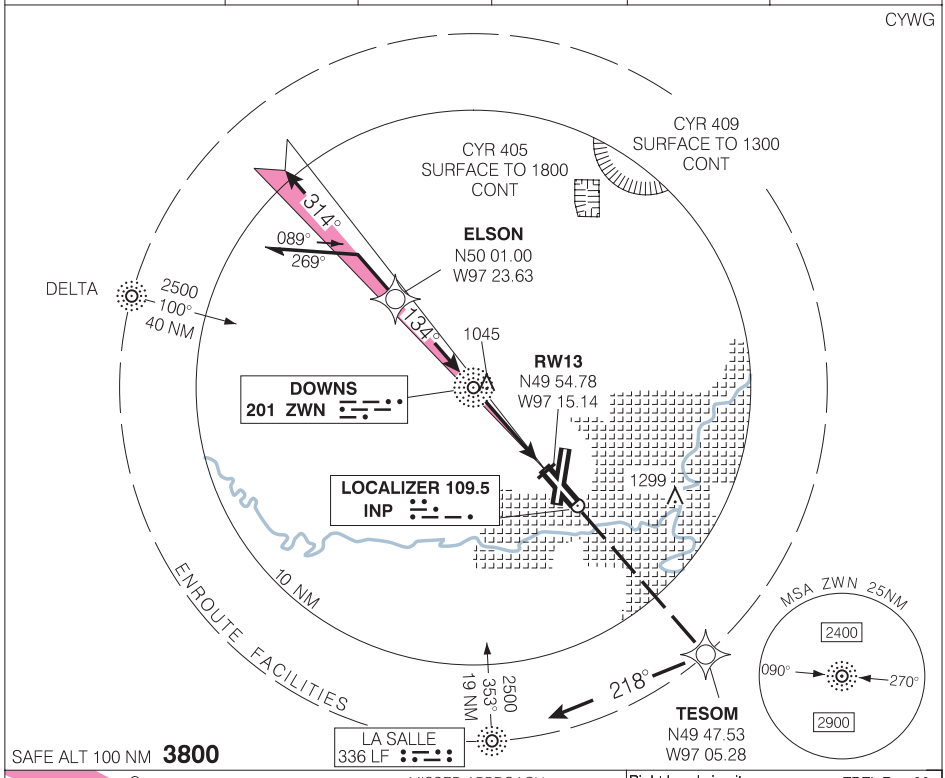


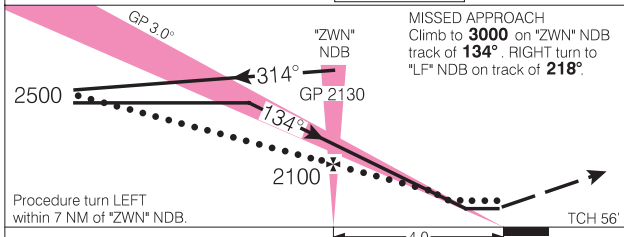
Knots	70	90	110	130	150
Min:Sec					

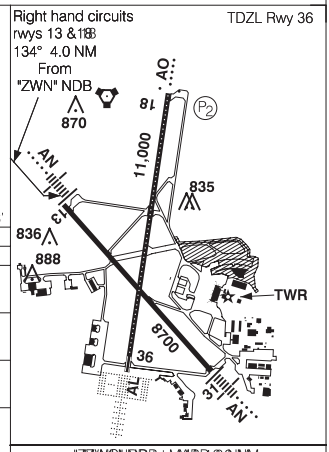
WINNIPEG /JAMES ARMSTRONG RICHARDSON INTL
WINNIPEG MB

ILS or NDB RWY 13 (GNSS)

ATIS	ARR	TWR	GND	DEP	ELEV 783
114.8 291.4 120.2	119.5 356.6	118.3 236.6	121.9 275.8	119.9 366.5	TDZE 13 783







CATEGORY	A	B	C	D
ILS	**983**	(200)	½ RVR 26	
LOC	**1160**	(377)	1 RVR 50	
NDB	**1260**	(477)	1 RVR 50	
CIRCLING	**1360** (577) 1 ¾		**1360** (577) 2	**1400** (617) 2

"ZWN" NDB to MAP 3.9 NM

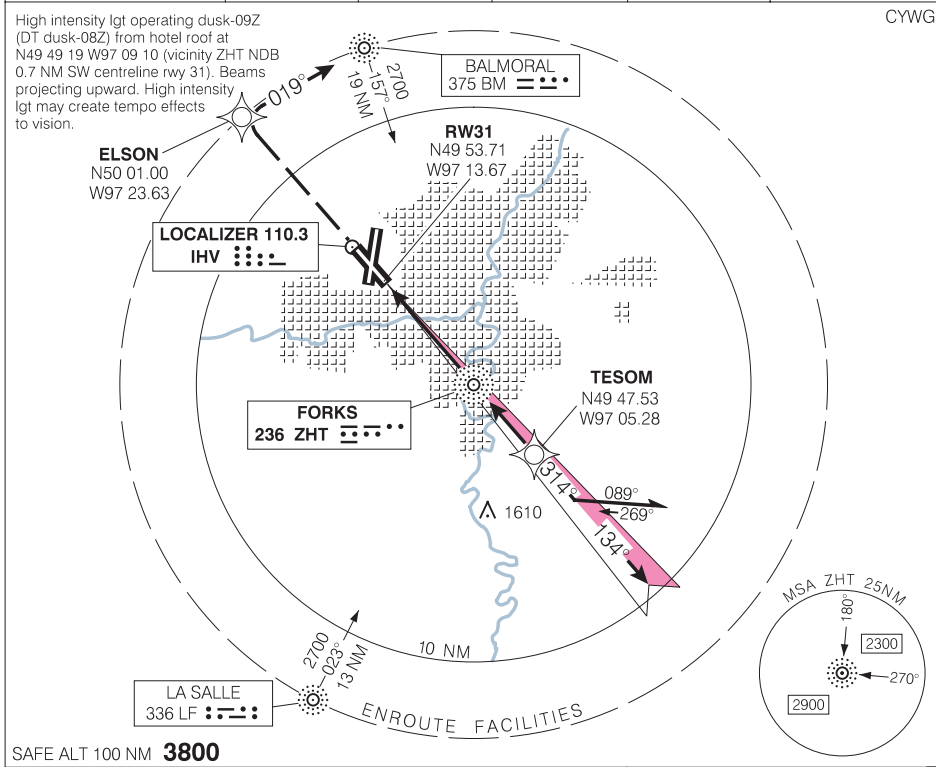
Knots	70	90	110	130	150
Min:Sec	**3:26**	**2:40**	**2:11**	**1:51**	**1:36**

WINNIPEG /JAMES ARMSTRONG RICHARDSON INTL
WINNIPEG MB

ILS or NDB RWY 31 (GNSS)

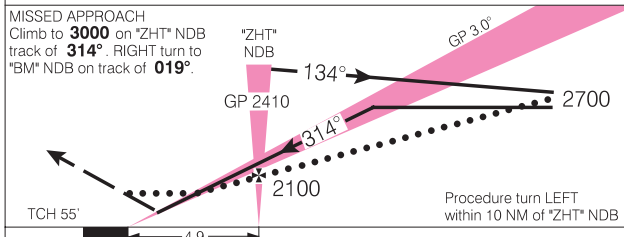
ATIS	ARR	TWR	GND	DEP	ELEV 783
114.8 291.4 120.2	119.5 356.6	118.3 236.6	121.9 275.8	119.9 366.5	TDZE 31 776

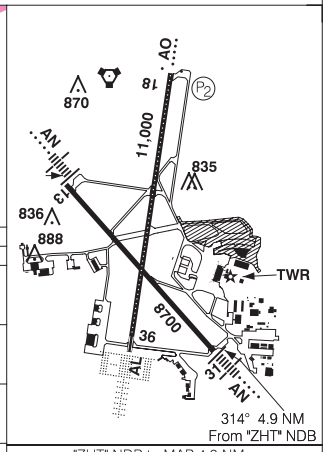
CYWG



SAFE ALT 100 NM **3800**

MISSED APPROACH
Climb to **3000** on "ZHT" NDB track of **314°**. RIGHT turn to "BM" NDB on track of **019°**.





CATEGORY	A	B	C	D
ILS	**976**	(200)	½ RVR 26	
LOC	**1200**	(424)	1 ¼	
NDB	**1340**	(564)	1 ¼	
CIRCLING	**1360** (577) 1 ¾		**1360** (577) 2	**1400** (617) 2

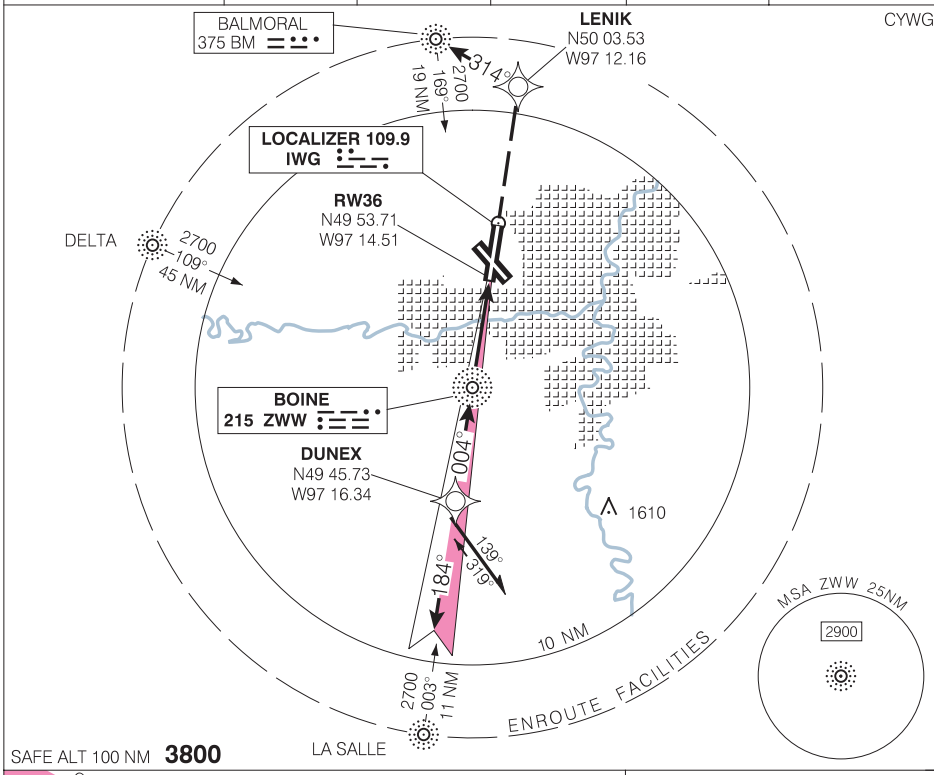
"ZHT" NDB to MAP 4.9 NM

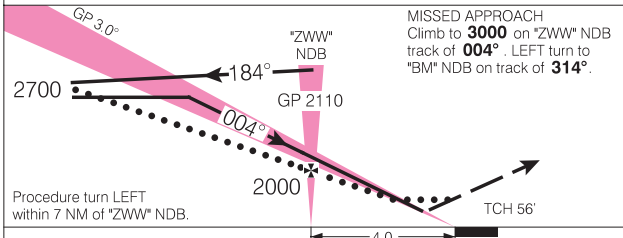
Knots	70	90	110	130	150
Min:Sec	**4:12**	**3:16**	**2:40**	**2:16**	**1:58**

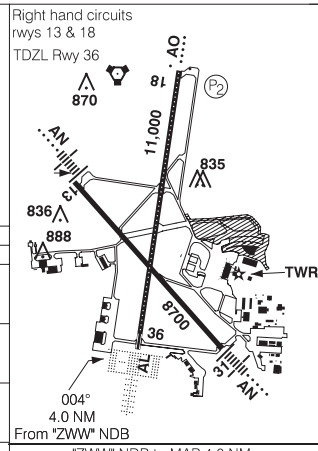
WINNIPEG /JAMES ARMSTRONG RICHARDSON INTL
WINNIPEG MB

ILS or NDB RWY 36 (GNSS)

ATIS	ARR	TWR	GND	DEP	ELEV 783
114.8 291.4 120.2	119.5 356.6	118.3 236.6	121.9 275.8	119.9 366.5	TDZE 36 778







CATEGORY	A	B	C	D
ILS	978	(200)	½ RVR 26	
LOC	1140	(362)	1 RVR 50	
NDB	1260	(482)	1	
CIRCLING	1360 (577) 1 ¾		1360 (577) 2	1400 (617) 2

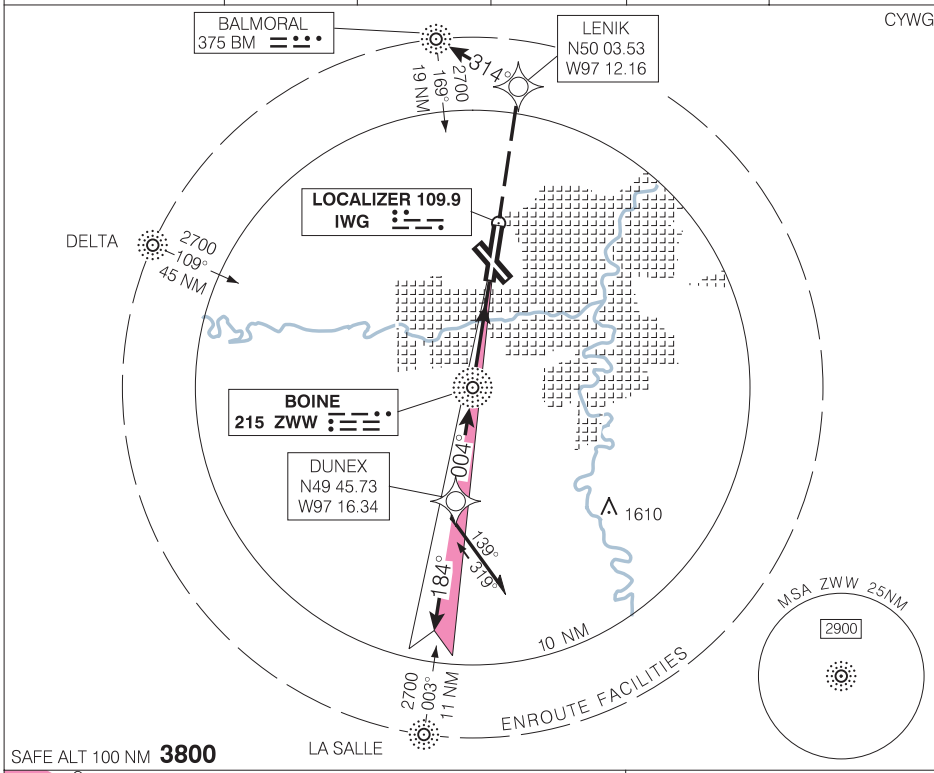
"ZWW" NDB to MAP 4.0 NM

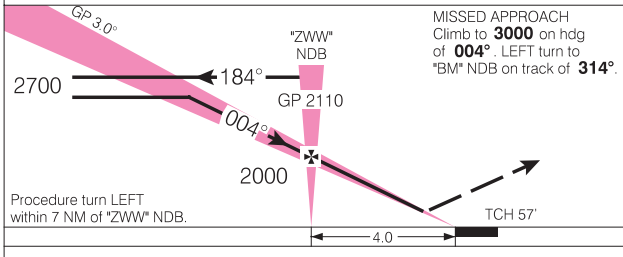
Knots	70	90	110	130	150
Min:Sec	3:26	2:40	2:11	1:51	1:36

WINNIPEG /JAMES ARMSTRONG RICHARDSON INTL
WINNIPEG MB

ILS CAT II RWY 36

ATIS	ARR	TWR	GND	DEP	ELEV 783
114.8 291.4 120.2	119.5 356.6	118.3 236.6	121.9 275.8	119.9 366.5	TDZE 36 778

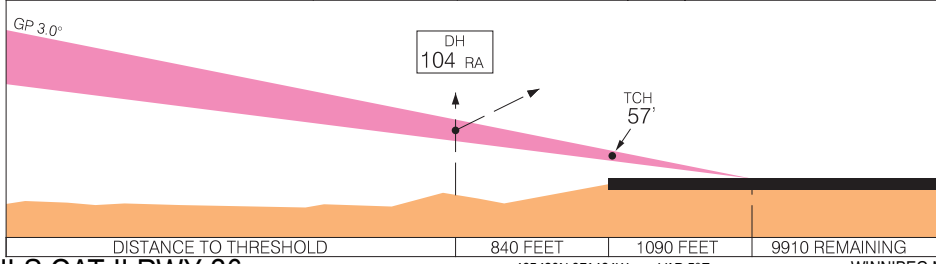




MISSED APPROACH
Climb to **3000** on hdg of **004°**. LEFT turn to "BM" NDB on track of **314°**.

PRIOR AUTH REQUIRED FROM TC

CAT II	**878** (100) RVR 12

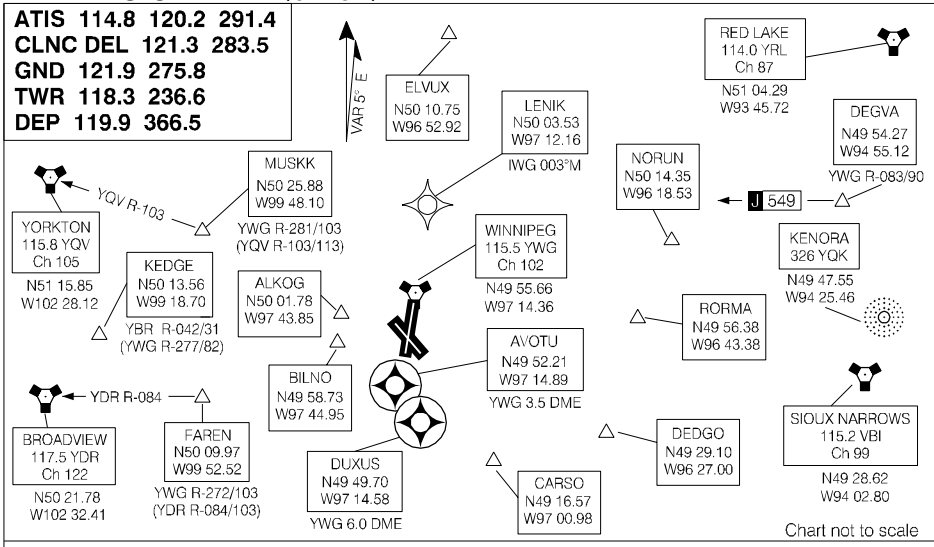


SID(VECTOR)

WINNIPEG /JAMES ARMSTRONG RICHARDSON INTL
WINNIPEG MB

WINNIPEG ONE DEP (CYWG 1)

ATIS 114.8 120.2 291.4
CLNC DEL 121.3 283.5
GND 121.9 275.8
TWR 118.3 236.6
DEP 119.9 366.5



DEPARTURE ROUTE DESCRIPTION

TURBO-JET/TURBO-FAN AIRCRAFT REFER TO NOISE ABATEMENT PROCEDURES FOR ADDITIONAL REQUIREMENTS.

ALL RWYS: Climb to and maintain 4000' ASL or flight planned altitude, whichever is lower. Contact Departure Control as soon as practical after take-off. Anticipate radar vectors to filed/assigned route. Expect clearance to flight planned altitude/flight level 10 minutes after departure.

Rwys 13, 31: Climb rwy hdg or as assigned for radar vectors.

Rwy 18, 36: **NON TURBO-JET/TURBO-FAN aircraft.** Climb rwy hdg or as assigned for radar vectors.

Rwy 18: **TURBO-JET/TURBO-FAN aircraft.** Climb and maintain extended runway centreline (184° M) by best available means to 3.5 DME (N49 52.21 W97 14.89), (AVOTU) . At 3.5 DME (AVOTU), turn left, climb hdg 171° or if able, track direct to 6 DME (N49 49.70 W97 14.58), (DUXUS) . At 6 DME (DUXUS) anticipate radar vectors.

Rwy 36: **TURBO-JET/TURBO-FAN aircraft.**
(a) Between 23:00 - 07:00 Local time [05-13Z, (04-12DT)] Clb, turn W 5° to 359° hdg as soon as safely able. Anticipate Radar vectors.
(b) Between 07:01 - 22:59 local time [1301-0459Z, (1201-0359DT)] Clb & maintain extended runway centreline (004° M) by best available means. Anticipate Radar vectors.

COMMUNICATION FAILURE

Transponder mode A/3 code 7600. On recognition of communications failure 10 minutes or less after take-off, and in IFR conditions:

1. Upon reaching last assigned altitude, proceed directly on course. (See note below)
2. Maintain last assigned altitude until 10 minutes after take-off;
3. Climb to flight planned altitude.

NOTE: If communications failure occurs immediately after take-off (before turning), maintain runway heading to 10 DME before proceeding on course.
If communications failure occurs more than 10 minutes after take-off, comply with appropriate procedures for communication failure enroute.

TURBO JET/TURBO-FAN

DEPARTURE PROCEDURES

RWY	VNAP
13, 18, 36	A or B
ALL OTHERS	N/A

Rwy 13 - Climb runway heading to 4000' ASL before proceeding on course.
Rwy 18 - Climb and maintain 4000' ASL. Maintain extended runway centreline (184° M) by best available means to 3.5 DME (N49 52.21 W97 14.89), (AVOTU), At 3.5 DME (AVOTU), turn left, climb hdg 171° or if able, track direct to 6 DME (N49 49.70 W97 14.58), (DUXUS). At 6 DME (DUXUS) anticipate radar vectors.
Rwy 36 - (a) Between 23:00 - 07:00 Local time [05-13Z,(04-12DT)] Clb, turn W 5° to 359° as soon as safely able to 4000' ASL BPOC.
Rwy 36 - (b) Between 07:01 - 22:59 local time [1301-0459Z, (1201-0359DT)] For east bound turns to the on course, clb & maintain extended rwy centreline (004° M) by best avbl means to 4000' ASL BPOC.

ARRIVAL PROCEDURES

Intercept final approach, at or above 2000' ASL, and at or outside the NDB final approach fix for the runway in use.
(Circuit training traffic may turn inside the final approach fix as required.)

ALL AIRCRAFT

PREFERENTIAL RUNWAY DETERMINATION

Consistent with safe operating procedures, ATC will assign runways to divert as many departures and arrivals as possible from flight over noise-sensitive areas. Unless operational conditions do not permit, pilots shall accept runways as assigned by ATC.
The preferred order for runway usage is as follows:

Arrivals: 13, 18, 36, 31
Departures: 36, 31, 18, 13

Runway 36 is the preferred calm wind runway for departure except
- for propeller driven aircraft, and;
- after 0700 local time, westbound acft may be auth rwy 31 dep.

ARRIVAL PROCEDURES

1. Circuit height is 2000' ASL (weather permitting).

2. Maintain 2000' ASL or above as long as practicable before commencing final descent.

3. Remain on or above the ILS or VASIS glide slope.

4. Consistent with safety of operations, aircraft should be flown on the approach so as to give the best possible performance with respect to noise abatement (flap and gear selection, power settings).

NOTE: For night operations - See NIGHT RESTRICTIONS (Page 2)

NIGHT RESTRICTIONS 23:00 - 07:00 LOCAL TIME

1. Turbo Jet/Turbo-Fan acft departing rwy 36 are to clb & turn W 5° to 359° hdg as soon as safely able.
2. Reverse thrust above idle not permitted unless required for the safety of the acft.
3. Powerback ops not permitted.
4. PPR for flight training & maintenance engine runups. Ctc Ops 204-987-7834
5. Intxn dep rwy 13 or 18 not auth.

GENERAL NOISE ABATEMENT CONSIDERATIONS

1. Circling procedures to runways 31 and 36 are not permitted.
2. When simulating power loss after take-off or overshoot on runways 13 or 18, power may be reduced on one engine to simulate emergencies provided either,

   - All engines are returned to take-off or overshoot power before the aircraft crosses the departure end of the runway, or

   - The departure end of the runway is crossed at 300' or more above the ground and "one engine out" rate of climb is 500' per minute or greater and is maintained to 2000' ASL.

ATC REQUIREMENTS (WINNIPEG CLASS D AIRSPACE)

1. VFR & IFR Flight plans, file at least 30 minutes prior to proposed dep time. All non-flight planned aircraft intending flight within Winnipeg Class D airspace, contact ATC at least 30 minutes prior to flight for transponder code. 866-WXBRIEF (866-992-7433).
2. Unless otherwise instructed by ATC, the following procedures will apply to practice approaches.

   a. The facility will be crossed outbound at 3000' ASL.

   b. Descent from 3000' ASL is to be initiated on the procedure turn side when clear of the outbound track.

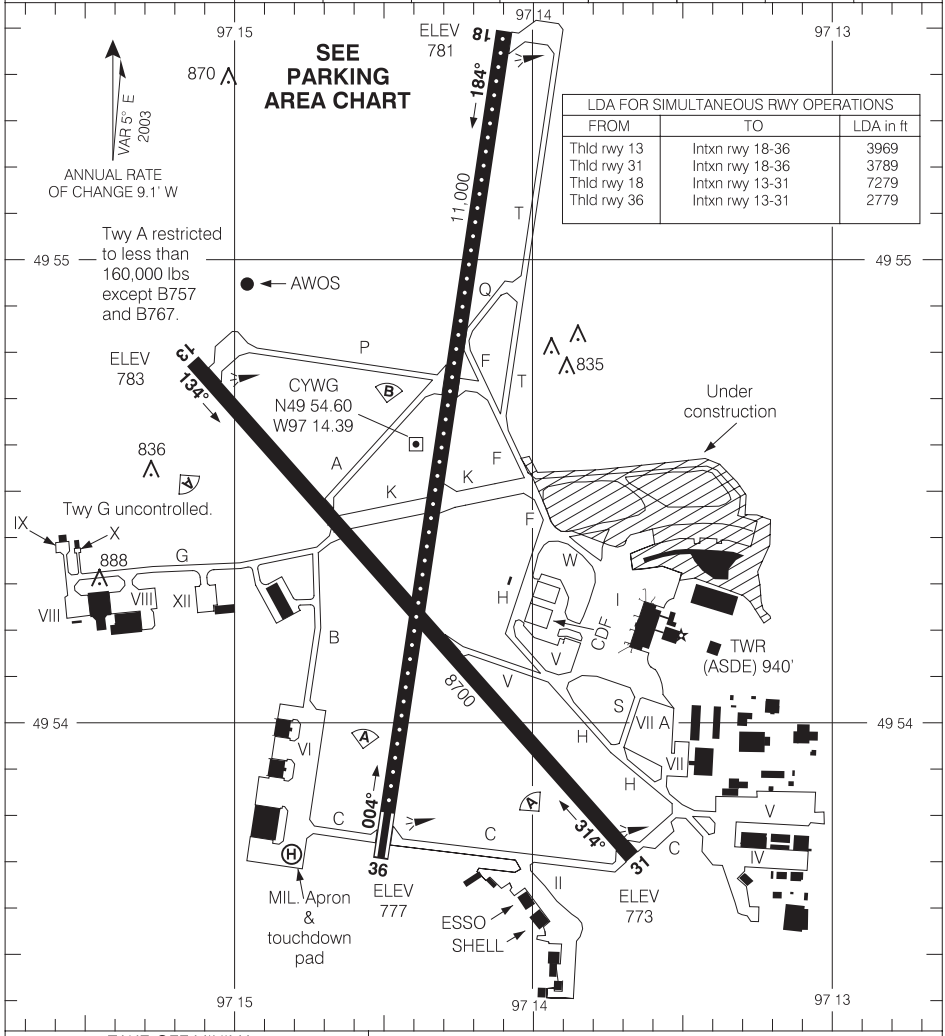
   c. Missed approaches are to be flown as published. Request for circling approach procedures must be made with the initial request for the associated instrument approach.

WINNIPEG /JAMES ARMSTRONG RICHARDSON INTL
WINNIPEG MB

AERODROME CHART

VOT	ATIS	CLNC DEL	GND	TWR	DEP
114.8	114.8 291.4 120.2	121.3 283.5	121.9 275.8	118.3 236.6	119.9 366.5

DECLARED DISTANCES	13	31	18	36				
TORA	8700	8700	11,000	11,000				
TODA	9700	9700	12,000	12,000				
ASDA	8700	8700	11,000	11,000				
LDA	8700	8700	11,000	11,000				



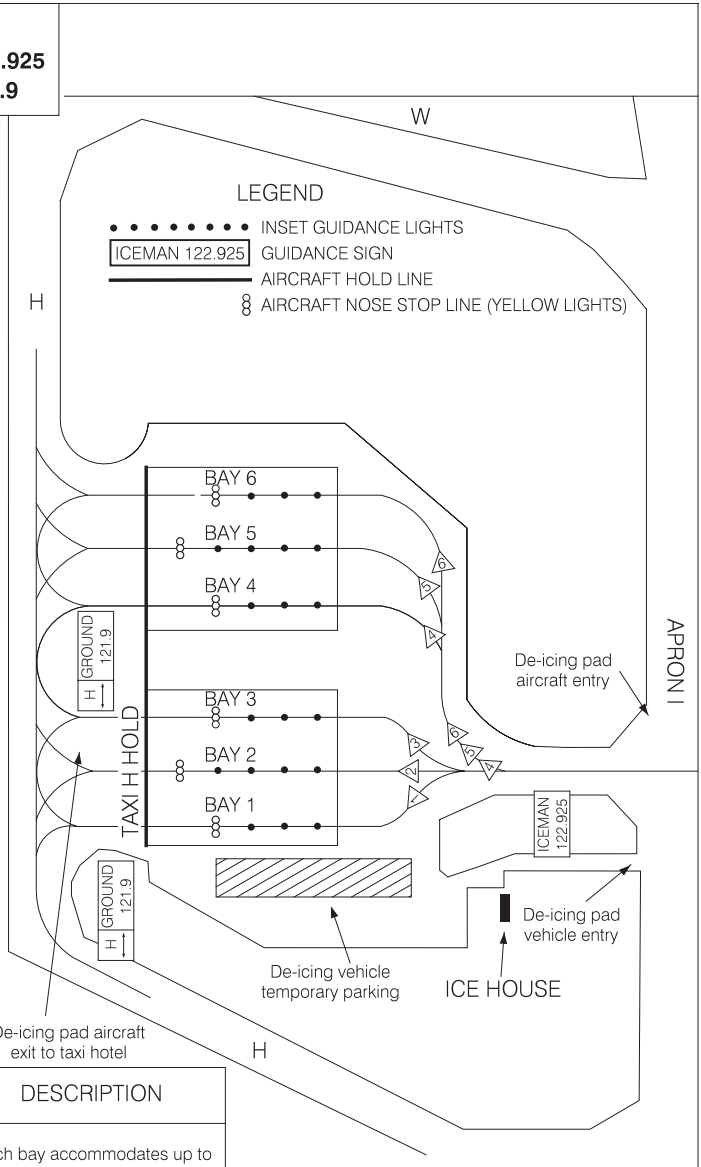
TAKE-OFF MINIMA	SCALE IN FEET
All Rwys: ½	2000 0 2000

AERODROME CHART
WINNIPEG MB
WINNIPEG /JAMES ARMSTRONG RICHARDSON INTL

WINNIPEG /JAMES ARMSTRONG RICHARDSON INTL
WINNIPEG MB

CENTRAL DE-ICING FACILITY

PAD CONTROL / ICEMAN 122.925
GND 121.9



DURING DE-ICING OPERATIONS

1. Notify Winnipeg gnd prior pushback when de-icing is required.
2. On Apron I hold short of CDF and ctc iceman on 122.925 for instructions to the de-icing pad.
3. Follow instructions and guidance lights to staging and de-icing bays.
4. After receiving final instructions from iceman with brakes set, acft configured and engines at idle, ctc company de-icing opr on assigned freq or via intercom.
5. After de-icing do not move acft, ctc iceman to advise that all eqpt and staff are away from the acft in the safe zone.
6. Follow iceman instructions to designated exit point, holding short of taxiway "H", ctc gnd 121.9.

DE-ICING BAYS	DESCRIPTION
1, 3, 4, 6	Each bay accommodates up to one aircraft with a wingspan not exceeding 38m (124 ft).
2, 5	Each bay accommodates up to one aircraft with a wingspan not exceeding 65m (213 ft).

CENTRAL DE-ICING FACILITY
WINNIPEG MB
WINNIPEG /JAMES ARMSTRONG RICHARDSON INTL

PARKING AREA