



GRAND FORKS MUNICIPAL AIRPORT

AIRPORT OPERATIONS MANUAL

PART II

AIRPORT SPECIFICATIONS

N:airport/aop Part II

PART II – AIRPORT SPECIFICATIONS

2.1 INTRODUCTION

This part is an inventory of the specifications for the Grand Forks Airport. The notation “**Not Required**” indicates that the item is not installed and that the item is not stipulated as a requirement in TP 312E. TP 312 may recommend that the item be installed.

2.1.1 Units of Measurement

- (a) *Elevation* – given to the nearest foot (above sea level, unless noted).
- (b) *Linear Dimensions* – given to the nearest one-half metre and also in feet, if published in the CAP/CFS.
- (c) *Geographic Co-ordinates* – latitude and longitude given to the nearest second and measured in accordance with NAD83 reference datum.
- (d) *Bearings* – given to the nearest one-tenth degree.

2.2 AERODROME DATA

2.2.1 Reference Point Same as geometric centre

2.2.2 Geometric Centre

Co-ordinates N49⁰ 00'56" W118⁰ 25'50"

2.2.3 Aerodrome Elevation

Locations Threshold Rwy 07
Co-ordinates N49⁰ 00'56" W118⁰ 26'22"
Elevation 1,720 feet

2.2.4 Outer Surface 4000m radius, 45m AGL

2.2.5 Aerodrome Magnetic Variation

As of December 2003 18⁰ East

2.2.6 Aerodrome Reference Temperature 27 degrees Celsius

2.2.7 Windsock Location(s)

- (a) The windsock for Rwy 07 is located on the left (north) side of the runway, 150m. beyond the threshold, 50m. from the runway edge.
- (b) The windsock for Rwy 25 is located on the left (south) side of the runway, 150m. beyond the threshold, 60m. from the runway edge.

2.2.8 Electronic Navigation Aids

Grand Forks DME co-ordinates	N49 ⁰ 01'03" W118 ⁰ 25'25"
Freq. 109.7 MHZ Chan. 34	
Grade Elevation	1,703.7 feet
2J NDB (250KHz "L")	
Co-ordinates	N49 ⁰ 01'03" W118 ⁰ 25'25"
Grade Elevation	1,703.7 feet

2.2.9 Significant Obstacles in the Vicinity of the Aerodrome

Airport located in a narrow mountain valley.

The following obstructions are lighted with dual fixture occulting red obstruction lights:

- (a) Type Reservoir Hill
Location Approx. 2.2 nm WNW of airport off the threshold of Runway 07 centre
Co-ordinates N49⁰ 01'34" W118⁰ 29'29"
Top Elevation 2,825 feet
- (b) Type Observation Mountain
Location Approx. 1.5 nm NNW of the airport.
Co-ordinates N49⁰ 02'19" W118⁰ 24'43"
Top Elevation 2,550 feet
- (c) Type Rattlesnake Mountain WKP right of way
Location Approx. 1.0 nm NNE of threshold of Runway 25
Co-ordinates N49⁰ 01'50" W118⁰ 24'43"
Top Elevation 2,028 feet
- (d) Type Rattlesnake Mountain WKP right of way
Location Approx. 1.3 nm NE of the threshold of Runway 25
Co-ordinates N49⁰ 01'45" W118⁰ 23'51"
Top Elevation 2,330 feet

All obstruction beacons are lighted when runway lights are turned on.
AC sites have battery backup.

2.3 AERODROME LIGHTING

2.3.1 Aerodrome Beacon Not Required

2.3.2 Hazard Beacons White Strobe Beacons

<p>Danville (SW) Site #1</p>	<p>Solar NW slope Co-ordinates</p> <p>Elevation DL 362</p>	<p>Hazard Beacon (white) Galena Mountain N 49-00'05" W 118-28'49" 2,313 feet Marchal property</p>
<p>USCC (NW) Site #2</p>	<p>Solar SE slope Co-ordinates</p> <p>Elevation DL 2651</p>	<p>Hazard Beacon (white) Hardy Mountain N 49-01'53" W 118-30'34" 2,914 feet USCC property</p>
<p>Morrissey (NE) Site #3</p>	<p>Solar South slope Co-ordinates</p> <p>Elevation DL 492</p>	<p>Hazard Beacon (white) Rattlesnake Mountain N 49-01'55" W 118-23'39" 2,520 feet Walter Mehmal property</p>
<p>Hampf's (E) Site #4</p>	<p>Power SW base Co-ordinates</p> <p>Elevation DL 416</p>	<p>Hazard Beacon (white) Morrissey Mountain N 49-01'39" W 118-21'45" 2,064 feet Hampf property</p>
<p>CBC (SE) Site #5</p>	<p>Power NW base Co-ordinates</p> <p>Elevation DL1475</p>	<p>Hazard Beacon (white) Galena Mountain N 49-00'35" W 118-23'28" 2,007 feet CBC Repeater site</p>
<p>Reservoir (WNW) Site #A</p>	<p>Solar Top Co-ordinates</p> <p>Elevation Location</p> <p>DL 2735</p>	<p>Obstruction Beacon (red) Reservoir Hill N 49-01'35" W 118-29'29" 2,825 feet Approximately 2.2nm WNW of Airport off threshold of Runway 07 center Crown Land with City license</p>

2.3.2 Hazard Beacons (cont'd)

Observation (WNW) Site #B	Power Top Co-ordinates Elevation Location DL 746	Obstruction Beacon (red) Observation Mountain N 49-02'19" W 118-26'47" 2,550 feet Approximately 1.5nm NNW of the Airport Crown land with City license
Morrissey West (NNE) Site #C	Power South slope Co-ordinates Elevation Location DL 495	Obstruction Beacon (red) Rattlesnake Mountain N 49-01'50" W 118-24'43" 2,028 feet Approximately 1.0nm NNE of the threshold of Runway 25 John Mehmaal property
Morrissey East (NE) Site #D	Power South slope Co-ordinates Elevation Location DL 327	Obstruction Beacon (red) Rattlesnake Mountain N 49-01'45" W 118-23'51" 2,330 feet Approximately 1.3nm NE of the threshold of Runway 25 Peter DeHaan property

All Hazard Beacons are lighted when runway lights are turned on.
AC sites have battery backup.

2.3.3 Windsocks

Both windsocks are lighted and on the left side of the runway edge.

2.3.4 ARCAL

Any future use of ARCAL is prohibited due to night restrictions.

2.3.5 Diesel Generator Unit

Providing standby power for all illuminator signs, PAPIs, runway, taxiway and apron lights. Testing is done in accordance with TP312E.

2.4 AERODROME SIGNAGE

See Appendix "D" – Signage for a list and drawing of signage location, inscription, colour and illumination.

2.5 AERODROME MARKINGS

2.5.1 Road Holding Position Markings Not Required

2.5.2 Information Markings Not Required

2.6 RUNWAY DATA

2.6.1 Runway 07 Data

Physical Characteristics

Runway	reference code	2C Non-Instrument
	orientation – true	091 ⁰
	orientation – magnetic	073 ⁰
	length	1,313m (4,300 feet)
	width	30.5m (100 feet)
	longitudinal slope	- 0.7%
	surface type	asphalt
	touchdown zone elevation	1,720 feet
	graded area	23m either side of runway centerline
Threshold	co-ordinates	N49 ⁰ 00'56" W118 ⁰ 26'22"
	elevation	1,720 feet
Runway Strip	length	60m (beyond runway end)
	width	30m either side of runway centerline
Stopway	surface type	down sloped loose sand
	length	none provided
	width	
	surface type	
Clearway	length	122m (400 feet)
	width	30m either side of runway centerline to fence
	ground profile	down sloped loose sand
Runway End Safety Area		Not Required

Obstacle Limitation Surfaces

Approach Surface	length to inner edge	30m either side of runway centerline
	distance from threshold	60m
	divergence	10%
	length	2,500+ m
	slope	4% (1:25)
Transitional Surface		20% (1:5)
Outer Surface	<i>Refer to Aerodrome Data (Section 2.2)</i>	

Runway Lighting

Edge Lights	White medium intensity
Approach Lighting	Not Required
Visual Approach Slope Indicator Systems	PAPI (P1) 4 ⁰
Runway Lead-in Lighting Systems	Not Required
Runway Identification Lights (RILs)	Not Required
Runway Threshold Lights	Six Green
Runway Wing Bar Lights	Not Required
Runway End Lights	Six Red
Runway Centreline Lights	Not Required
Runway Touchdown Zone Lights	Not Required
Stopway Lights	Not Required

Runway Markings

Runway Designation	White
Centreline	White
Threshold	White
Displaced Threshold: Transverse strip	Not Required
Chevrons or Arrows	Not Required
Aiming Point	White 300m
Touchdown Zone	Not Required
Runway Side Stripe	Not Required

The applicable runway markings are depicted in Appendix D.

2.6.2 Runway 25 Data

Physical Characteristics

Runway	reference code	2C Non-Instrument
	orientation – true	271 ⁰
	orientation – magnetic	253 ⁰
	length	1,313m (4,300 ft)
	width	30.5m (100 ft)
	longitudinal slope	+ 0.7%
	surface type	asphalt
	touchdown zone elevation	1,696 feet
	graded area	23m either side of runway centerline

Threshold	co-ordinates	N49 ⁰ 00'56" W118 ⁰ 25'17"
	elevation	1,690 feet

Runway Strip	length	60m (beyond runway end)
	width	30m either side of runway centerline
	surface type	level loose sand

Stopway	length	none provided
	width	
	surface type	

Clearway	length	149.5m (490 ft)
	width	30m either side of runway centerline
	ground profile	level loose sand

Runway End Safety Area	length	Not Required
	width	
	surface type	

Obstacle Limitation Surfaces

Approach Surface	length of inner edge	30m either side of runway centerline
	distance from threshold	60m
	divergence	10%
	length	2,500+ m
	slope	4% (1:25)

Transitional Surface	20% (1:5)
Outer Surface	Not Required

Runway Lighting

Edge Lights	White medium intensity
Approach Lighting	Not Required
Visual Approach Slope Indicator System	PAPI (P1) 4 ⁰
Runway Lead-in Lighting Systems	Not Required
Runway Identification Lights (RILs)	Not Required
Runway Threshold Lights	Six Green
Runway Wing Bar Lights	Not Required
Runway End Lights	Six Red
Runway Centreline Lights	Not Required
Runway Touchdown Zone Lights	Not Required
Stopway Lights	Not Required

Runway Markings

Runway 25 Designation	White
Centreline	White
Threshold	White
Aiming Point	White 300m
Touchdown Zone	Not Required
Runway Side Stripe	Not Required

The applicable runway markings are depicted in Appendix D.

2.7 DECLARED DISTANCES (in feet)

<u>RUNWAY</u>	<u>07</u>	<u>25</u>
Runway length	4,300	4,300
Clearway length	400	490
Stopway length	0	0
Threshold Displacement	0	0
TORA	4,300	4,300
TODA	4,700	4,790
ASDA	4,300	4,300
LDA	4,300	4,300

2.8 TAXIWAY DATA

The applicable taxiway markings referenced below are depicted on the sketch/diagram/technical drawing/aerial photo in Appendix D.

2.8.1 Taxiway 'B' (East)

Taxiway Code	C
Surface Type	Asphalt
Pavement Width	15m
Strip Width	26m (either side of taxiway centerline)
Graded Area	12.5m (either side of taxiway edges)
Lighting:	
Taxiway Edge Lights	Blue
Taxiway/Runway Intersection Lights	Two Double Blue
Taxiway/Taxiway Intersection Lights	Not Required
Taxiway/Apron Intersection Lights	Two Double Yellow
Taxiway Centre Line Lights	Not Required
Stop Bar Lights	Not Required
Runway Guard Lights	Not Required
Markings:	
Centreline	Not Required
Hold Position (dbl solid/dbl broken)	Yellow
Distance from runway centreline Intersection	75m
	Not Required

2.8.2 Taxiway 'A' (West)

Taxiway Code	C
Surface Type	Asphalt
Pavement Width	23m
Strip Width	26m (either side of taxiway centreline)
Graded Area	12.5m (either side of taxiway edges)

Lighting:

Taxiway Edge Lights	Blue
Taxiway/Runway Intersection Lights	Two Double Blue
Taxiway/Taxiway Intersection Lights	Not Required
Taxiway/Apron Intersection Lights	Two Double Yellow
Taxiway Centre Line Lights	Not Required
Stop Bar Lights	Not Required
Runway Guard Lights	Not Required

Markings:

Centreline	Solid Yellow
Hold Position (dbl solid/dbl broken)	Yellow
Distance from runway centreline	75m
Intersection	Not Required

2.9 APRON DATA

2.9.1 Apron '2' (Hangars)

Dimensions	150 feet x 150 feet	45.72m x 45.72m (2,090.3 m ²)
Apron Strip	20 feet	6.1m
	(minimum distance unobstructed from pavement edges)	
Apron Lighting:	Floodlighting	Yes
	Edge Lights	Blue
Apron Markings	Aircraft Stand Taxi lane	Not Required
	Aircraft Stand	Not Required
	Apron Safety Lines	White
	Passenger Path Lines	Not Required
	Helicopter Touchdown Pad	Yellow
	Outer diameter	23m
	Inner diameter	7m
	Identification	"H"

2.9.2 Apron '1' (Terminal)

Dimensions	150 feet x 350 feet	45.72m x 106.7m (4,877.2 m ²)
Apron Strip	40 feet	12.2m
	(minimum distance unobstructed from pavement edges)	
Apron Lighting: Floodlighting		Yes
	Edge Lights	Blue
Apron Marking:	Aircraft Stand Taxi lane	Not Required
	Aircraft Stand	Not Established
	Apron Safety Lines	White
	Passenger Path Lines	Not Established
	Helicopter Touchdown Pad	Not Established

2.10 STRENGTH OF PAVEMENT

Pavement Load Rating (PLR)/Pavement Classification Number (PCN)....

4(0.5) 8/F/C/0.5Mpa/T

Weight restrictions unknown

2.11 HELICOPTER OPERATIONS

Helicopters arrive and depart via the runway environment. Helicopters are permitted to operate on and off the common fueling ramp located on Apron "1". A helicopter Touchdown Pad is located on Apron "2". Transient parking area is located to the northeast end of Taxiway "B".