

## **DC-3 Airways, Charter Flight 324-7 – Charter Flights From Halifax - General & Flight Description**

### **NOTAM - Notices To Airmen**

**If you do not understand how to enter VFR (Visual Flight Rules) traffic patterns or how to complete a 90 / 270 Procedure Turn or a Teardrop Procedure Turn, do some reading before flying these legs. Check the Technical Editor page on the DC-3 Airways web site for more information.**

Premise: If you flew the Great Canadian Cross Country, you know that you were headed for Halifax. You finally made it. Now you're ready to fly the originally contracted cargo and passenger flights for a local business. You're here to make money, so you won't waste time climbing above 2,500 feet.

This is an exercise in quick turn-arounds. Brush up on your navigation skills -- VOR and ADF (NDB) tracking as well as dead reckoning. Better review short field operations (takeoff and landing) also. Some airfields are as short at 1600 feet and it seems like trees abound near both ends of runways. There are also a couple of "floating" surprises for FS2002 users. Watch for the notes in the descriptions.

Abbreviations used in the flight plan descriptions:

AGL	Above Ground Level	Length	Length of runway
Approx	Approximately	METO	Max (power) Except Take Off
BOD	Beginning Of Descent	MSL	Mean Sea Level
Dpt	Depart	NDB	Non Directional Beacon
DIR	Direct	OB	Out Bound
DR	Dead Reckoning	Rwy	Runway
Elev	Runway Elevation	VOR	VHF Omni Range
HDG	Heading		

Example:	YSB VOR (112.3) – OB 099	Indicates that the YSB VOR (frequency 112.3) is the next navigation aid, and after passing the VOR, take the 099 degree radial Out Bound.
	ILS Rwy 07 (112.5 HDG 072)	Indicates an ILS to runway 07 (ILS frequency is 112.5 and the final approach heading is 072)

**Flight plans** were test flown for routes, timing, fuel consumption and accuracy using the NATS R4D 50819 in FS2002 and the Dutch Dakota PH-DDZ in FS2000. During both of these tests, I had FSNavigator (FSN) active, but the little moving airplane was turned off. I then flew N1776-TR1 in FS2002 without FSN, using only the charter flight descriptions. **There are a couple of differences between FS2000 and FS2002. They are noted in the flight descriptions.**

**FSNavigator (FSN)** -flight plans (.fsn) were saved in Version 3.

**Dead Reckoning** – I've computed dead reckoning times for some legs. These can be used if you don't have DME equipment or do not want to use the DME. Times were computed as follows: IAS (Indicated Airspeed) is 130 knots. Add 5 knots to that figure to determine TAS (True Airspeed). I assumed minimal or no winds aloft. Therefore, TAS becomes a no-wind GS (Ground Speed) or a GS of 135 knots. If you are flying with a wind, you'll need to take it into account.

**PIREP** - one leg per PIREP. Each leg, -01, -02, etc. will require three or more landings. The Flight Descriptions include notes when a PIREP is due. PIREP reporting for the legs will be: 324-7-01, 324-7-02, 324-7-03 and 324-7-04.

**Distance & Time (ETE)** - The figures shown in the Flight Descriptions were gathered from the FSN flight plans and not from the test flights. They may vary from actual results. Flight times shown on the following page are from my flight tests.

**Runways Assigned** - If you fly with ATC (FS2002), online or with Real Weather, the runways assigned by ATC will probably vary from those shown in these flight plans.

**Fuel consumption** is not critical due to short legs. The entire charter can be flown with a single fuel load of 804 gallons. That assumes minimum ground time at all stops.

**Instrument Flight Rules (IFR)** - The last landing of leg 03 into Yarmouth can be flown IFR using the Instrument Approach Plate (IAP) included in this package. The IAP was created in Final Approach 2000 by Just Flight and then "saved" as an Adobe PDF file.

<b>Leg Number</b>	<b>From</b>	<b>To</b>	<b>Distance</b>	<b>Approximate flying time **</b>	<b>Approx Fuel Remaining (gallons)</b>
<b>324-7-01</b>	Halifax	Hopewell	48	0+30	766
	Hopewell	Thorburn	7	0+20	758
	Thorburn	Trenton	3	0+15	740
		Approx Leg Total	58	1+20	
<b>324-7-02</b>	Trenton	Charlottetown	46	0+30	702
	Charlottetown	Tatamagouche	34	0+30	674
	Tatamagouche	Summersite	50	0+30	620
	Summersite	Amhearst	60	0+35	576
	Amhearst	Halifax	69	0+40	520
		Approx Leg Total	259	3+10	
<b>324-7-03</b>	Halifax	Stanley	60	0+15	502
	Stanley	Apple River	65	0+40	450
	Apple River	Clementsport	65	0+40	394
	Clementsport	Yarmouth	56	0+30 (IFR, add 0+10)	340
		Approx Leg Total	216	2+25 (2+35)	
<b>324-7-04</b>	Yarmouth	Liverpool	59	0+40	292
	Liverpool	Halifax / Shearwater	67	0+40	244
	Halifax / Shearwater	Halifax	36	0+15	230
		Approx Leg Total	162	1+50	
<b>Charter</b>	<b>Total</b>		695	8+45 (8+55)	Used - 574 gal.

\*\* "Approx Leg Total" Test flight data and includes five minutes ground time at all stops.

### DC-3 Airways - Charter Flight - 324-7

From / To	Flight Description	Course	Dist.	ETE HH+MM
Halifax  <b>CYHZ</b>  to  Hopewell  <b>CCF3</b>	<b>Charter Leg: 324-7-01</b> Initial Cruise Alt - 2500  = Dpt Rwy 06, (Elev 475, Length 8796 x 200) = After takeoff, right turn to 082 ----- = DIR YHZ VOR (115.1) ----- = OB 062 ----- = BOD to 1400 feet, 30 DME from YHZ VOR (115.1) = Airport is approx 43.5 DME from YHZ VOR = Land Rwy 04, (Elev 396, Length 3000 x 100, Dirt) ----- = Make 180 on runway, open door and discharge passengers.	  082  062    49	  5    49	  0+02    0+21
Hopewell  <b>CCF3</b>  to  Thorburn  <b>CCZ5</b>	<b>Charter Leg: 324-7-01 (cont.)</b> Initial Cruise Alt - 1000  = Dpt Rwy 22, (Elev 396, Length 3000 x 100) - Watch trees = After takeoff, right turn (to approx 110 degrees) back over runway. = OB heading 066 ----- = Airport is approx 52 DME from YHZ VOR (115.1), may lose VOR prior to arrival. ----- = If so, tune 5Y NDB (338.0) & when ADF points to 330 you are on a 3.0 nm final. = Land Rwy 04, (Elev 118, Length 2000 x 40, Oil Treated) = Taxi to end & make 180 on runway, open door and discharge passengers.	  066  066        	    7      	    0+03    

From / To	Flight Description	Course	Dist.	ETE HH+MM
Thorburn  <b>CCZ5</b>  to  Trenton  <b>CCU3</b> -or- <b>CYTN</b> (see Note)	<b>Charter Leg: 324-7-01 (cont.)</b> Initial Cruise Alt - 1300  <b>NOTE:</b> Trenton: FS2000 - internal map is CCU3. All other references in FS2000/2002 & FSN are CYTN  = Dpt Rwy 22, (Elev 118, Length 2000 x 40, Oil Treated) Watch trees on takeoff. Caution - radio towers during first turn.  = After takeoff, left turn to approx 360  = Dir 5Y NDB (338.0) -----  = Overfly runway, enter right downwind for Rwy 25.  = Land Rwy , (Elev 318, Length 4495 x 145, Asphalt)  = Taxi to ramp and shut down engines.	357	3	0+02
<b>End Leg 01</b>	<b>Log flight time and submit one (1) PIREP (324-7-01) for this flight (3 legs). Total distance is approx 58 nm and total flight time is about 1+20</b>			

From / To	Flight Description	Course	Dist.	ETE HH+MM
Trenton  <b>CYTN</b>  to  Charlottetown  <b>CYYG</b>	<b>Charter Leg: 324-7-02</b> Initial Cruise Alt - 2500  = Dpt Rwy 25, (Elev 318, Length 4495 x 145, Asphalt) Watch trees on takeoff = After takeoff, right turn, Hdg 355 ----- = Dir YYG VOR (113.8) track 355 degrees inbound = BOD to 1200 feet, 10 DME prior to YYG VOR ----- = Enter left downwind for Rwy 21 = Land Rwy 21, (Elev 157, Length 7003 x 150, Asphalt) = Stop on Rwy & discharge cargo. Prepare to takeoff on remaining runway.  <b>NOTE: FS2002 only - CCYG</b> runway floats on water! You will sink if you taxi off the runway. If the landing looks too hazardous, overfly the runway, open the door and kick the cargo out at 400 MSL Your insurance company will handle any damage - if your insurance is current :-) It's not that bad, give it a try.	356  356	46	0+20
Charlottetown  <b>CYYG</b>  to  Tatamagouche  <b>CDA2</b>	<b>Charter Leg: 324-7-02 (cont.)</b> Initial Cruise Alt - 2000  = Dpt Rwy 21 (remaining runway), (Elev 157, Length 7003 x 105, Asphalt) = After takeoff, maintain Rwy heading ----- = Intercept 216 degree radial OB from YYG VOR (113.8) ----- = Destination approx: 216 degree radial / 34 DME from YYG VOR. = BOD to 1000 feet, 25 DME from YYG VOR. = VFR, short of runway (32 DME from YYG VOR), turn right and enter left downwind for Rwy 09. Watch trees on approach = Land Rwy 09, (Elev 9, Length 3500 x 45, Asphalt)----- = Taxi to end & make 180 on runway, open door and discharge passengers.	210 216	35	0+15

From / To	Flight Description	Course	Dist.	ETE HH+MM
Tatamagouche  <b>CDA2</b>  to  Summersite  <b>CYSU</b>	<b>Charter Leg: 324-7-02 (cont.)</b> Initial Cruise Alt - 2500			
	= Dpt Rwy 27, (Elev 27, Length 3500 x 45, Asphalt) Watch trees on takeoff			
	= After takeoff, HDG 351 -----	351		
	= BOD to 1000 feet over water.			
	= DIR to 5B NDB (254.0) -----	351	49	0+21
	= At 5B NDB you are on very short final (2.5 nm). If you can make it, turn right to 059 and land.			
	= If it's too close, overfly 5B NDB and turn left to 210 degrees. -----	210		
	Hold for 1 1/2 minutes. Descend to 800 feet in left turn to final approach 059.	059		
	= Land Rwy 06, (Elev 62, Length 7994 x 200, Asphalt)			
	= "Floating" runways again. See note below for taxi instructions.			
	<b>NOTE: FS2002 only - CYSU</b> runway also floats on water! You will sink if you taxi off the runway. On Rwy 06, taxi to closed runway 12 and turn right, then left onto parallel taxiway. Taxi to Rwy 24, stop short, discharge passengers.			





<b>End Leg 02</b>	<b>Log flight time and submit one (1) PIREP (324-7-02) for this flight (5 legs). Total distance is approx 259 nm and total flight time is about 3+10</b>			
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<b>From / To</b>	<b>Flight Description</b>	<b>Course</b>	<b>Dist.</b>	<b>ETE HH+MM</b>
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Halifax  <b>CYHZ</b>  to  Stanley  <b>CCW4</b>	<b>Charter Leg: 324-7-03</b> Initial Cruise Alt - 2000 = Dpt Rwy 06, (Elev 475, Length 8793 x 200, Concrete) = After takeoff turn left to 360 ----- = Intercept 317 degree radial of YHZ VOR (115.1) to destination, 24.4 DME from YHZ VOR ----- = BOD to 1100 feet at 15 DME from YHZ VOR. Nearly a straight- in VFR approach. = Land Rwy 33, (Elev 91, Length <b>1600</b> x 150, Dirt -- look for Rwy extending past of the center of the cross runway). ----- = Taxi to end of Rwy and turn left onto other dirt Rwy. Taxi to 09. Open door and discharge passengers.	360  317	30	0+13
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Stanley  <b>CCW4</b>  to  Apple River  <b>CCA7</b>	<b>Charter Leg: 324-7-03 (cont.)</b> Initial Cruise Alt - 2500 = Dpt Rwy 09, (Elev 91, Length 2400 x 80, Asphalt) = After takeoff, turn left to 280 degrees ----- = DIR GF NDB (341.0) ----- = Track OB 020 degrees from GF NDB to destination. 26.6 nm from GF NDB (DR time for leg is 12 minutes) ----- = BOD to 1100 feet over water. = Overfly the runway, turn right, enter right downwind for Rwy 27-- = Land Rwy 27, (Elev 134, Length 2500 x 60, Dirt) = Taxi to end & make 180 on runway, open door and discharge passengers.	280  020	38  27	0+16  0+12  0+11
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From / To	Flight Description	Course	Dist.	ETE HH+MM
Apple River  <b>CCA7</b>  to  Clementsport  <b>CCB6</b>	<p><b>Charter Leg: 324-7-03 (cont.)</b> Initial Cruise Alt - 2500</p> <p>= Dpt Rwy 09, (Elev 91, Length 2500 x 60, Dirt)</p> <p>= After takeoff, left turn to approx 221 degrees -----</p> <p>= DIR YZX NDB (266.0) -----</p> <p>= Track OB from YZX NDB 260 degrees for 23.5 nm to approach point (DR for leg is 10.5 minutes) -----</p> <p>= BOD to 2000 feet abeam head of inlet (river widens)</p> <p>= At approach point (Fix01), turn left to 220 degrees [back up for fix is 31.5 DME from UZX VOR (117.6)] -----</p> <p>= You are 3.0 nm from Rwy 22. Overfly Rwy -----</p> <p>= Hold Rwy Hdg for 2 minutes at 90 – 100 kts. BOD to 1000 feet OB from Rwy, execute a 90 / 270 turn back to Rwy 04.</p> <p>=Land Rwy 04, (Elev 46, Length <b>1700</b> x 70, Dirt)</p> <p><b>FS2000 - Watch buildings at both ends of runway</b></p> <p>= Taxi to end &amp; make 180 on runway, open door and discharge passengers.</p> <p>= <b>If next leg is flown IFR:</b> before takeoff from Clementsport, set weather to: Ceiling – overcast (8/8) with cloud base at 700 feet (tops at 5000) and visibility 2 nm</p>	<p>221</p> <p>260</p> <p>23</p> <p>3</p>	<p>35</p> <p>3</p>	<p>0+15</p> <p>0+10.5</p> <p>0+10</p> <p>0+02</p>

From / To	Flight Description	Course	Dist.	ETE HH+MM
Clementsport  <b>CCB6</b>  to  Yarmouth  <b>CYQI</b>	<b>Charter Leg: 324-7-03 (cont.)</b> Initial Cruise Alt - 2500  = Dpt Rwy 22, (Elev 46, Length 1700 x 70, Dirt). Caution: terrain off end of Rwy = After takeoff, left turn to 246 degrees ----- = DIR Y9 NDB (220.0) – OB 214 ----- = AC NDB (230.0) ----- = OB to Rwy, 242 -----	246   214 242	  11 43 2.5	  0+05 0+17 0+01
	= <b>For VFR</b> – BOD to 1100 feet, 15 nm prior to AC NDB (to identify BOD point, use DR 9 minutes after Y9 NDB) = VFR 2.8 nm final for Rwy 24. Land Rwy 24, (Elev 137, Length 5989 x 150, Asphalt).  = <b>For IFR</b> - use Approach Plate NDB Rwy 06 (Yarmouth.pdf - in this package) = From AC NDB (230.0) – OB 241 to QI NDB (206.0) and follow IFR Procedures.  = After landing Taxi to ramp, shut down engines and remain overnight.  <b>If flown IFR, reset weather.</b>			
<b>End Leg 03</b>	<b>Log flight time and submit one (1) PIREP (324-7-03) for this flight (5 legs). Total distance is approx 216 nm and total flight time is about 2+25 to 2+35</b>			

From / To	Flight Description	Course	Dist.	ETE HH+MM
Yarmouth  CYQI  to  Liverpool  CYAU	<b>Charter Leg: 324-7-04</b> Initial Cruise Alt - 2500 = Dpt Rwy 06, (Elev 137, Length 5989 x 150, Asphalt) = After takeoff, 061 degrees ----- = DIR AC NDB (230.0) ----- = OB 086 degrees ----- = BOD to 1300 feet (DR 17 minutes after AC NDB). = DIR A9 NDB (330.0). ----- = Fly DIR to A9 NDB, VFR 0.3 nm to Rwy 07. = OB 070 and overfly Rwy on heading 070 for 2 minutes then execute a 90 / 270 turn back and land Rwy 25. = Land Rwy 25, (Elev 311, Length 3000 x 75, Asphalt). = Taxi to end & make 180 on runway, open door and discharge passengers.	061  086  086	3  55	0+02  0+17 0+06
Liverpool  CYAU  to  Halifax - Shearwater  CYAW	<b>Charter Leg: 324-7-04 (cont.)</b> Initial Cruise Alt - 2500 = Dpt Rwy 07 (Elev 311, Length 3000 x 75, Asphalt) = After takeoff turn to intercept 090 degree radial OB from A9 NDB (330.0) ----- = DIR H1 NDB (353.0) ----- = BOD to 1200 feet, 10 DME prior to UAW VOR (110.1). = DIR H1 NDB (353.0) ----- = At H1 NDB - OB 340, on a 2.3 nm final approach for Rwy 34. ----- = Land Rwy 34, (Elev 164, Length 8993 x 200, Asphalt) ----- = Taxi and turn left across (FS2000 - grass. FS2002 - Rwy extension) onto Rwy 28. Discharge passengers.	100 090  340	65  2	0+27  0+01

<b>From / To</b>	<b>Flight Description</b>	<b>Course</b>	<b>Dist.</b>	<b>ETE HH+MM</b>
Halifax-Shearwater  CYAW  to  Halifax  CYHZ	<b>Charter Leg: 324-7-04 (cont.)</b> Initial Cruise Alt - 2000 = Dpt Rwy 28, (Elev 164, Length 5692 x 200, Asphalt) = After takeoff right turn to 039 DIR YHZ VOR (115.1) ----- = Track inbound 039 (219 radial) ----- = BOD to 1500, 15 DME prior to YHA VOR = Approx 4.5 nm DME prior to YHZ VOR, intercept VFR final to Rwy 33 (109.1 Hdg 326) ----- = Land Rwy 33, (Elev 475, Length 7697 x 200, Asphalt)----- = Taxi to ramp and shut down engines.	          039 039          330	                    33 3	                    0+07 0+02
<b>End Leg 04</b>	<b>Log flight time and submit one (1) PIREP (324-7-04) for this flight (3 legs). Total distance is approx 162 nm and total flight time is about 1+50</b>			