



Canadian Virtual Airlines Pilot Training Program

Phase 1 - TurboProp Training Lesson Plan tp05 – IFR3 SIDs STARs Holds

Requirements

Frolov/PSS DH8-300
VATSIM connection for online flight (optional)
FSR video flight recording for Instructor review

Tolerances

Altitude +/- 200' Speed +/- 20 kias Heading +/- 10*
Use of autopilot allowed in this lesson

Outline

This lesson will again take us on a flight to Winnipeg for an ILS approach via a STAR arrival routing. We will be filing direct the Langruth VOR and the LANGRUTH2 STAR arrival. We will conduct 2 holds on this flight – one at the VLR VOR and the other at the W NDB. Tolerances for this flight are listed above. You may fly this, and other, flight profiles as many times as you wish until you are comfortable with the teaching points. One video recorded segment of this flight is required - when video recording use 1 second recording interval. This flight should take approximately 75 minutes to complete. Note that I refer to the W NDB at Winnipeg for rwy36 – this NDB has been renamed BOINE with the ident ZWW. Depending on the date of your approach plates and flightsim scenery it may be displayed as either.

Discussion

STARs (standard terminal arrival routings) have been established to allow FMS/GPS equipped aircraft to follow preplanned routings to various runways and decrease pilot controller workloads. You will require the squawkbox FMS to pre-program the LANGRU2 STAR.

SIDs (standard instrument departures) likewise are established to allow pilots/controllers standard routings to simplify IFR departure procedures.

An IFR qualified pilot also must be able to conduct an instrument hold. In this lesson we will be conducting a hold on a VOR using a DME leg length procedure and another on an NDB.

PreFlight

Set weather to daytime – winds 320/5 ceiling 500' overcast visibility 2 miles
Set aircraft fuel to 50% volume
Place your aircraft at Portage la Prairie - CYPG on the main ramp.
NAV/COMM Nav1 VLR VOR 112.2 (OBS setting 100)
 Nav2 YWG VOR 115.5
 ADF W NDB 215

TXPNDR 2200 (or as assigned by online ATC)

If you are flying this profile on the VATSIM network file an IFR flight plan CYPG to CYWG via VLR.LANGRU1. In remarks you can add "request ILSrwy36 at WG".

FlightProfile

Carry out a normal preflight inspection. Commence a normal engine start routine. Taxi from the ramp to rwy 31R – do not exceed 20 knots taxiing speed. Upon completion of your pre takeoff checks line up on 31R.

- (i) takeoff and establish a 1000fpm climb at 160kias
- (ii) level at 14,000'ASL and make a right turn – track direct to the VLR VOR
- (iii) maintain 14,000'ASL and 200kias enroute to VLR

procedure #1 – DME Hold at VLR

- we will be conducting a DME hold at the VLR VOR – our clearance from ATC would be
***"cleared to the VLR VOR – maintain 14thousand - hold west inbound on the 280R
between 10 and 20 DME – expect further clearance at xxxxZ"***

- upon passing the VLR VOR turn left to H280
- we must now reverse course to establish inbound on the 280R
- at 10DME west of VLR turn left H250
- at 20DME west VLR turn right H070 and establish flight inbound on the VLR280R
- at 10DME turn right H280
- at 20DME turn right H100

- (iv) you have completed 2 orbits at the VLR – one to enter, the other to establish your hold

procedure#2 – Langruth2 STAR arrival

- we will be departing the hold and flying the STAR arrival
- reset Nav1 to IWG ILS 109.9 (OBS 003)
- FMS routing should be entered into the SB FMS
AMBIL-ELILA-WALKY-DUNEX
- note the vertical planning requirements to cross WALKY between 3500 and 4500'ASL
- note the vertical planning requirement to cross DUNEX level at 3000'ASL
- after passing DUNEX track the localizer rwy36 inbound at 3000'ASL
- maintain 3000'ASL and 180kias

procedure#3 – NDB Hold at W NDB

- we will now conduct a standard hold on the NDB – our clearance from ATC would be
***"cleared to the W NDB – maintain 3thousand – hold south inbound track 003
expect further clearance at xxxZ"***

- upon passing the W NDB turn right to H183
- proceed on H183 for 1 minute and 30 seconds
*****COMMENCE VIDEO RECORDING*****
- turn right and track inbound to the NDB 003
- upon passing the W NDB turn right to H183
- proceed on H183 for 1 minute and 30 seconds
- turn right and track inbound to the NDB 003

*****STOP VIDEO RECORDING*****

name the fsr recording CVAxTtp05.fsr

- we will now transition from the hold to the ILS36
- upon passing the W NDB turn right to H183
- proceed on H183 for 1 minute and 30 seconds
- descend to PT altitude of 2500'ASL
- turn right and intercept the localizer rwy36
- upon intercepting the glideslope reduce to 140kias - extend flaps/gear
- passing the FAF (W NDB) reduce to final approach speed
- (v) carry out a fullstop landing rwy36
- (vi) taxi to the main terminal

Conclusion

This flight lesson contained basic IFR flight procedures for flying holds and STAR arrivals. File your appropriate flight time with CVA through normal channels. File an additional PIREP via email with your designated Instructor Pilot indicating you have successfully (or unsuccessfully) completed CVAtp05 – include the zipped FSR recording you took of the holding procedure labeled CVAxTtp05.zip. Should you require online/offline assistance or have questions as to the procedures for handling the DH8 contact your instructor for guidance and/or schedule an online training flight.

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