



Canadian Virtual Airlines Pilot Training Program

Phase 1 - TurboProp Training Lesson Plan tp02 - Advanced Aircraft Handling

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 any type of autopilot assist is prohibited

Outline

This flight will introduce you to advanced VFR flight profiles to expand your abilities in hand flying the DH8. Tolerances for this flight are listed above and will be decreased for future flights. You may fly this, and other, flight profiles as many times as you wish until you are comfortable with the teaching points. Between each flight maneuver allow such time as necessary for the aircraft to stabilize in the new flight envelope. No video recording of this flight is required however you will be required to answer a few questions with regards to speeds associated with this flight. This flight should take approximately 45 minutes to complete.

PreFlight

Set weather to daytime VFR no winds
Set aircraft fuel to 50% volume
Place your aircraft at Portage la Prairie - CYPG on the main ramp.
NAV/COMM Nav1 YPG VOR 114.6
ADF PG NDB 353
TXPNDR 1200 (or as assigned by online ATC)

If you are flying this profile on the VATSIM network file a VFR flight plan CYPG to CYPG local training.

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. Note that this is a short runway and we will use 15* of flap for this takeoff.

- (i) takeoff and establish a 1000fpm climb at 160kias
- (iii) at 3500'ASL turn left to H180 maintain 160kias 1000fpm climb
- (iii) level at 8000'ASL and accelerate to 200kias

the next steep angle turns should be between 60 and 90
as you get into the steep bank angle the nose will want to drop
DO NOT EXCEED 90* bank angle*

- (iv) make a steep bank angle right turn to H270 maintain 8000'ASL and 200kias
- (v) make a steep bank angle left turn to H090 maintain 8000'ASL and 200kias

*the next maneuvers will examine the stall characteristics
deselect 'stick pusher' on main panel beside clock*

after recovering from these stall maneuvers the aircraft will be out of trim

- (vi) maintain 8000'ASL – reduce power to idle – allow speed to decay
you will require back pressure and nose up trim to maintain altitude
note the speed when a full clean stall occurs
*recover by lowering the nose and adding power
retrim the aircraft to neutral as soon as possible*
- (vii) reestablish H090 and climb to 8000'
- (viii) reduce power to idle add flaps 5 at 180 and full flaps/gear at 140 – allow speed to decay
note the speed when a full dirty stall occurs
recover by lowering nose, adding power and retracting flaps/gear
- (ix) descend to 2500'/200kias navigate to a 5 mile final rwy 31L (track direct the YPG)
- (x) fly a straightin approach pattern – flapless – to rwy 31L
the flapless approach may be flown at 140-180kias
- (xi) carry out a low approach (not below 100'AGL) rwy 31L
consider this your introduction to airshow flying
- (xi) fly a standard right hand circuit pattern to join 31R - maintain 2500'/200kias
- (xii) conduct a full flap – full reverse thrust – full brakes short field landing
*use caution aligning with 31R – do not use VASIS from 31L
do not land on delta taxiway
challenge yourself to see how short a rollout you can achieve*

Exit the runway, taxi to the ramp and shut down

Conclusion

This flight lesson contained advanced flight procedures such as steep turns, clean and dirty stalls, and short field operations. This ends our VFR flight training segment and our next flights will concentrate on IFR departure, enroute and approach procedures. 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 CVAtp02. Include with the PIREP the speed at which the dirty and clean stalls occurred during the flight. 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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