# Civil Air Patrol

## Cessna-182T Nav III – N775CP

### Preflight Cabin

1. Pitot Tube Cover …Remove. Check pitot tube for blockage.
2. Hobbs & Tach ..... Check.
3. POH ..... Accessible to Pilot.
4. Garmin G1000™ Cockpit Reference Guide..... Accessible to Pilot.
5. Weight & Balance ..... Checked.
6. Parking Brake ..... Set.
7. Control Wheel Lock ..... Remove.
8. MAGNETOS Switch.....Off.
9. AVN Switch (BUS 1&2).....Off.
10. MASTER Switch (ALT & BAT) .On.
11. Wing Flaps……Down.
12. Primary Flt Display .....Verify On.
13. FUEL QTY (L&R) ..... Check.
14. LOW FUEL L & R Annunciators .....Verify Off.
15. OIL PRESS Annunciator Verify On.
16. LOW VOLTS Annunciator…Verify On.
17. LOW VACUUM Annunciator…….. .....Verify On.
18. AVIONICS Switch (BUS 1).....On.
19. Forward Avionics Fan. ..... Check.
20. AVIONICS Switch (BUS 1).....Off.
21. AVIONICS Switch (BUS 2).....On.
22. Aft Avionics Fan.. ..... Check.
23. AVIONICS Switch (BUS 2).....Off.
24. PITOT HEAT Switch .... On/Check.
25. Stall Warning System..... Check.
26. PITOT HEAT Switch .....Off.
27. MASTER Switch (ALT & BAT) .Off.
28. Trim Controls.....Takeoff position.
29. FUEL SELECTOR Valve..... Both.
30. ALT STATIC AIR Valve.....Off.
31. Fire Extinguisher ..... Verify green.

### Empennage

1. Baggage Door…… Locked.
2. Tail Tie-Down.....Disconnect.
3. Control Surfaces ..... .Check.
4. Trim Tab.....Check for security.
5. Antennas..... Check.

### Right Wing

1. Flap..... Check.
2. Aileron..... Check.
3. Wing Tie Down……..Disconnect.
4. Fuel Tank Vent Opening..... Check.
5. Main Wheel/Tire/Brake…….Inspect.
6. Fuel Quick Drain Valves(5)...Check.

**See Fuel Contamination Warning in the POH.**

7. Fuel Quantity.....Check Visually.
8. Fuel Filler Cap..... Secure and Vent Unobstructed.

### Nose

1. Static Source Opening..... Check.
2. Fuel Strainer Quick Drains(3) Drain.

**See Fuel Contamination Warning in the POH.**

3. Engine Cooling Air Inlets.....Clear.
4. Propeller & Spinner..... Check.
5. Air Filter..... Check.
6. Nose wheel Strut and Tire ... Check.
7. Static Source Opening..... Check.
8. Engine Oil Dipstick... Check oil level and secure. (4 qt min., 9 qt for extended flights)

### Left Wing

1. Fuel Quantity.....Check Visually.
2. Fuel Filler Cap..... Secure and Vent Unobstructed.
3. Fuel Tank Vent Opening..... Check.
4. Wing Tie-down ..... Disconnect.
5. Landing/Taxi light(s) ..... Check.
6. Aileron……Check.
7. Flap……..Check.
8. Fuel Quick Drain Valves(5).....Drain.

**See Fuel Contamination Warning in the POH.**

9. Main Wheel/Tire/Brake……Inspect.

### Before Starting Engine

1. Preflight Inspection.....Complete.
2. Passenger Brief.....Complete.

**SUGGESTED PASSENGER BRIEF**

- **Seat Belts / Shoulder Harness / Doors**
- **Air Vents / Comfort**
- **Fire Extinguisher Location / Operation**
- **Emergency Procedures & Exits**
- **Sterile Cockpit Procedures**

3. Seats / Belts / Shoulder Harness Adjust and lock, check inertia reel (front & rear).
4. Brakes ..... Test & Set.
5. Circuit Breakers.....Check In.
6. Electrical Equipment ..... Off.

**Caution (See Complete Caution in POH) The avionics switch (Bus 1 and 2) must be off during engine start to prevent possible damage to the avionics ….**

7. Avionics Switch (Bus 1&2) ..... Off.
8. Cowl Flaps ..... Open.
9. Fuel Selector Valve.....Both.

### Starting Engine (Using Battery)

1. Throttle Control ..... Open ¼ Inch.
2. Propeller Control .....High RPM.
3. Mixture Control.....Idle Cut-Off.
4. Stby Batt Switch .....
   a. **Test** (Hold for 20 seconds, verify that green test lamp does not go out)
   b. **ARM** (verify that PFD comes on).
5. Engine Indicating System.....Check parameters, (verify no red X's through ENGINE page indicators).
6. Bus E Volts.....Verify 24 volts min.
7. M Bus Volt…..Verify less than 1.5V.
8. Batt S Amps .... Verify Neg. Charge.
9. Stby Batt Annunciator ..... Verify On.
10. Propeller Area.....Clear.
11. Master Switch (ALT and BAT) . On.
12. Rotating Beacon……On.

***Note***

*If engine is warm, omit priming procedure of steps 12, 13 and 14 below.*

13. Fuel Pump Switch..... On.
14. Mixture Control.. ... Advance to Full Rich, wait until fuel flow indication is stable, then return to idle cut-off position.
15. Fuel Pump Switch..... Off.
16. Magnetos Switch ..... Start.

***See starter duty cycle at end of checklist.***

17. Mixture Control..Smoothly advance to full rich when engine starts.

*Note*

*If the engine floods, place the mixture control in the Idle Cut-Off position, open the throttle control ½ to full, and engage the starter motor (Start). When the engine starts, advance the mixture control to the Full Rich position and retard the throttle control promptly.*

18. Oil Pressure .....Check.
19. Amps (M Batt & Batt S).....Check positive charge.
20. Low Volts Annunciator ...Verify Off.
21. Nav Lights Switch ..... On as req'd.
22. Avionics Switch (Bus1&2)..... On.
23. Mixture Control…… Lean for Taxi.
24. Flaps……...Up Incrementally.
25. Brakes……..Check.

### Before Takeoff/Run-Up

1. Parking Brake.....Set.
2. Pilot and Passenger Seat Backs - Most upright position.
3. Seats and Seat Belts..…..Check Secure.
4. Cabin Doors ....Closed and Locked.
5. Flight Controls ..... Free & Correct.
6. Flight Instruments..Check no red Xs.
7. Altimeter:
   - PFD (Baro) .....Set.
   - Standby Altimeter .....Set.
   - KAP 140 Autopilot (Baro) ..Set.
8. PFD Altitude Alerter.....Set.
9. KAP 140 Altitude Select .....Set.
10. Standby Flight Instruments .Check.
11. Fuel Totalizer……Zeroed and Quantity Set.

### Before Takeoff/Run-Up cont'

12. Fuel Quantity.....Check.

*Note*
*Flight is not recommended when both fuel quantity indicators are in the yellow arc range.*

13. Fuel Selector Valve……..Both.
14. Elevator & Rudder Trim……Set for Take Off.
15. Manual Electric Trim (MET) Check. *See expanded procedure at end of checklist.*
16. Auto Pilot……On.
17. Auto Pilot……Over-power test.
18. A/P Trim Disc Button……Press.
19. Mixture Control……Rich.
20. Throttle Control ..... 1800 RPM.
    - Magnetos Switch Check (RPM drop 175 or 50 differential between magnetos.)
    - Prop Control. ..Cycle from high to low RPM, return to high RPM (full in).
    - VAC Indicator..... Check.
    - Engine Indicators..... Check.
    - Ammeters & Voltmeters.Check.
21. Annunciators ..... Check none illuminated.
22. Throttle Control ..... Idle Check.
23. Throttle Control 1000 RPM or less.
24. Throttle Friction Lock.....Adjust.
25. Com Frequency(s) ..... Set.
26. Nav Frequency(s)..... Set.
27. FMS/GPS Flight Plan ..As Desired.
28. GPS Status……Chk on Aux page.
29. Transponder..... Set.
30. Heading Bug….Set as appropriate.
31. CDI Softkey .... Select NAV source.

**Caution (See Full Caution in POH)**
**The G1000 HSI does not provide a warning "Flags". The missing D-Bar is considered to be the warning flag.**

32. Wing Flaps..0°-20°(Recomnd 10º).
33. Cowl Flaps .....Open.
34. Cabin Windows . Closed & Locked.
35. Strobe Lights Switch .....On.
36. Pulse Light.....On.
37. Parking Brake..... Release.

## Takeoff

1. Wing Flaps... 0°-20°(Recomnd 10º).
2. Throttle Control .....Full.
3. Propeller Control ..... 2400 RPM.
4. Mixture Control…….Full Rich, above 5000 ft. alt., lean for max. RPM.
5. Rotate.....50-60 KIAS.
6. Normal Climb Speed..... 80 KIAS.
   - Short Field T.O. .... 20° Flaps / 58 KIAS Until Clear of Obstacles.
   - Soft Field T.O. .....20° Flaps; Ground Effect ASAP.
7. Wing Flaps ..... Retract at safe alt.

## Normal Climb

1. Airspeed.....85-95 KIAS.
2. Throttle.....23 Inches or Full (If less than 23 in. Hg.).
3. Propeller Control ..... 2400 RPM.
4. Mixture…..15 GPH or Full Rich (If less than 15 GPH).
5. Fuel Selector Valve.....Both.
6. Cowl Flaps .....Open as req'd.

## Cruise

1. Power . 15-23 In. & 2000-2400 RPM (no more than 80%).
2. Elevator & Rudder Trim ..... Adjust.
3. Mixture .....Lean for Cruise.
4. Cowl Flaps .....Closed or as req'd.
5. FMS/GPS..... Review.
6. Pulse Light……Off.

## Descent

1. Power……As Desired.
2. Mixture .....Enrich as required.
3. Cowl Flaps .....Closed.
4. Altimeters:
   - PFD (Baro).....Set.
   - Standby Altimeter.....Set.
   - KAP 140 Autopilot (Baro) Set.
5. PFD Altitude Alerter .....Set.
6. KAP 140 Altitude Select.....Set.
7. CDI Softkey… Select NAV source.
8. FMS/GPS ..... Review.
9. Fuel Selector Valve……Both.
10. Wing Flaps……As Desired.

## Before Landing

1. Pilot and Passenger Seat Backs .. Most Upright Position.
2. Seats & Seat Belts..Secured & Lock.
3. Fuel Selector Valve..... Both.
4. Mixture Control.....Rich.
5. Propeller Control ..... High RPM.
6. Pulse Lights .....On.
7. Autopilot .....Off.
8. Cabin 12V Power Switch…….Off.

## Normal Landing

1. Airspeed .. 70-80 KIAS (Flaps Up).
2. Wing Flaps ..... As Desired.
3. Airspeed . 60-70 KIAS (Full Flaps).
4. Elevator and Rudder Trim .. Adjust.
5. Touchdown.....Main wheels first.
6. Landing Roll .....Lower nosewheel.
7. Braking .....Min required.

## Short Field Landing

1. Airspeed ……70-80 KIAS.
2. Wing Flaps…Full below 100 KIAS.
3. Airspeed.....60 KIAS.
4. Power……..Reduce to idle.
5. Touchdown……Main wheels first.
6. Wing Flaps……Up.
7. Brakes…….....Apply Heavily.

## Balked Landing

1. Power ... Full Throttle & 2400 RPM.
2. Wing Flaps .....Retract to 20°.
3. Climb Speed.....55 KIAS.
4. Flaps Retract Slowly above 70 KIAS.
5. Cowl Flaps .....Open.

## After Landing (Clear of Runway)

1. Wing Flaps ..... Up.
2. Cowl Flaps .....Open.
3. Mixture.....Lean for Taxi.
4. Pitot Heat..... Off.
5. Lights……..As Req'd.
6. Report Landing Time……As Req'd.

## Securing Aircraft

1. Parking Brake..... Set.
2. Throttle Control .....Idle.
3. Electrical Equipment .....Off.
4. Avionics Switch (Bus 1&2) .....Off.
5. Mixture..... Idle Cut-Off.
6. Magnetos.....Off.
7. Master Switch (ALT and BAT) Off.
8. Stby Batt Switch .....Off.
9. Control Wheel Lock..... Install.
10. Parking Brake .....Off.
11. Cowl Flaps .....Closed.
12. Fuel Selector.....Left or Right.
13. Flight Plan.....Closed.

**Expanded Electric Trim Test Procedure:**

1. Left switch up: No trim movement.
2. Left switch down: No trim movement.
3. Rgt switch up;No trim movement and PT light on.
4. Rgt switch down:No trim movement and PT light on.
5. Both switches up:trim wheel moves.
6. Depress A/P Trim Disc Button:trim wheel stops.
7. Release A/P Trim Disc Button:trim wheel moves.
8. Both switches down:trim wheel moves.
9. Depress A/P Trim Disc Button:trim wheel stops.
10. Release A/P Trim Disc Button:trim wheel moves.
11. Test Complete.

**Starter Duty Cycle Limitations**

Starter can be operated for 10 seconds followed by a 20 second cool-down period. Cycle can be repeated 2 additional times, followed by a 10 minute cool-down period. After cool-down period starter can be operated again for 3 more cycles of 10 seconds of cranking followed by a 20 second cool-down period. If engine fails to start, call maintenance.