C182T Profiles Guide

March 2011, rev 0

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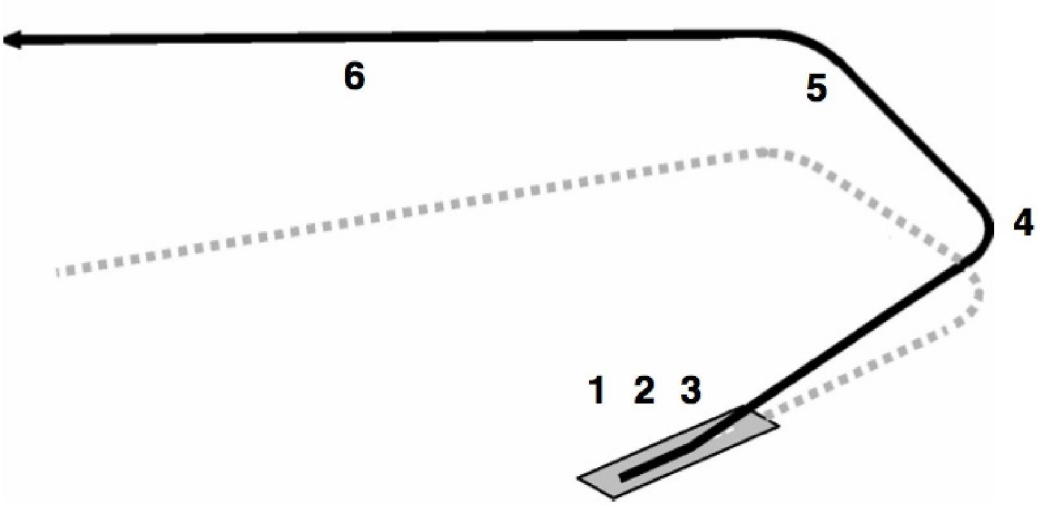
Cessna 182T Normal Take-off



1. Cleared into Position
   a. Crew Departure Brief - COMPLETE
   b. Final Traffic – CLEAR
   c. Final BLTM Check – Beacon, Lights, Trim, Mixture

2. Takeoff
   a. Wing Flaps – Set 0-10 (10 preferred)
   b. Throttle – FULL OPEN
   c. Propeller Control – 2400 RPM
   d. Mixture - RICH
   e. Engine Instruments - CHECK
   f. Airspeed - ACCELERATING

3. Rotate
   a. Rotate – Smoothly at 59 KIAS
   b. Pitch – 7.5 – 10 degrees nose up
   c. Climb – 70-80 KIAS
   d. Wing Flaps – Retract at 70 KIAS & Safe Altitude

4. Cross Wind Departure
   a. Turn Above 700 AGL

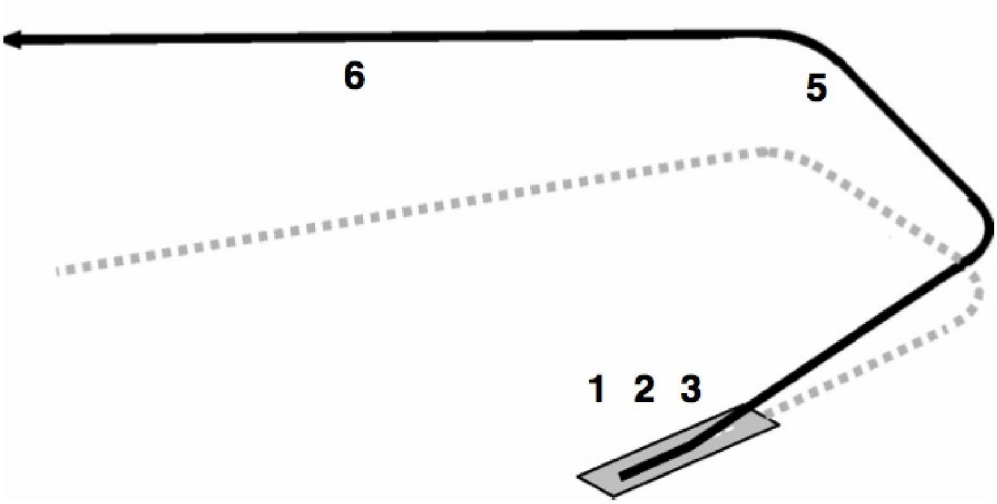
5. Normal Climb
   a. Airspeed – 85-95 KIAS
   b. Throttle – 23" MP
   c. Propeller Control – 2400 RPM
   d. Mixture – Lean to 15 Gal/Hr
   e. Cowl Flaps – As required – Check CHT

6. Downwind Departure
   a. Continue to Climb to Cruise Altitude

If departing against or across traffic flow, wait until at least pattern altitude + 500' before turning on course.

At uncontrolled airports, state intentions on CTAF when departing and before making any turns.

Cessna 182T Short Field Take-off



1. Cleared into Position
   a. Crew Departure Brief - COMPLETE
   b. Final Traffic – CLEAR
   c. Final BLTM Check – Beacon, Lights, Trim, Mixture

2. Takeoff
   a. Wing Flaps – SET 20
   b. Brakes - HOLD
   c. Throttle – FULL OPEN
   d. Propeller Control – 2400 RPM
   e. Mixture - RICH
   f. Engine Instruments - CHECK
   g. Airspeed - ACCELERATING

3. Rotate
   a. Elevator Control – SLIGHTLY TAIL LOW
   b. Rotate – Smoothly at 53 KIAS
   c. Pitch – 12.5 – 15 degrees nose up
   d. Climb – 58 KIAS until clear obstacles
   e. Wing Flaps – Retract SLOWLY at Safe Altitude & Airspeed > 70 KIAS

4. Cross Wind Departure
   a. Turn Above 700 AGL

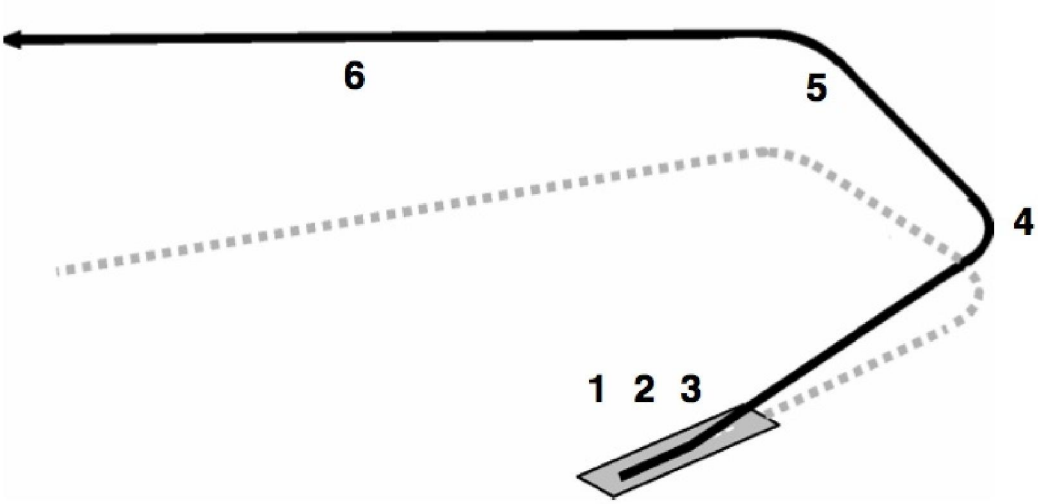
5. Normal Climb
   a. Airspeed – 85-95 KIAS
   b. Throttle – 23" MP
   c. Propeller Control – 2400 RPM
   d. Mixture – Lean to 15 Gal/Hr
   e. Cowl Flaps – As required – Check CHT

6. Downwind Departure
   a. Continue to Climb to Cruise Altitude

If departing against or across traffic flow, wait until at least pattern altitude + 500' before turning on course.

At uncontrolled airports, state intentions on CTAF when departing and before making any turns.

Cessna 182T Soft Field Take-off



1. Cleared into Position
   a. Crew Departure Brief - COMPLETE
   b. Final Traffic – CLEAR
   c. Final BLTM Check – Beacon, Lights, Trim, Mixture

2. Takeoff
   a. Wing Flaps – SET 20
   b. Elevator – HOLD AFT using rolling take-off technique
   c. Throttle – FULL OPEN
   d. Propeller Control – 2400 RPM
   e. Mixture - RICH
   f. Engine Instruments - CHECK
   g. Airspeed - ACCELERATING

3. Rotate
   a. Elevator – SLIGHTLY TAIL LOW
   b. Level Airplane just above runway
   c. Accelerate in Ground Effect
   d. Pitch – 7.5 – 10 degrees nose up
   e. Climb – 58 KIAS until clear all obstacles
   f. Wing Flaps – Retract at 70 KIAS & Safe Altitude

4. Cross Wind Departure
   a. Turn Above 700 AGL

5. Normal Climb
   a. Airspeed – 85-95 KIAS
   b. Throttle – 23" MP
   c. Propeller Control – 2400 RPM
   d. Mixture – Lean to 15 Gal/Hr
   e. Cowl Flaps – As required – Check CHT

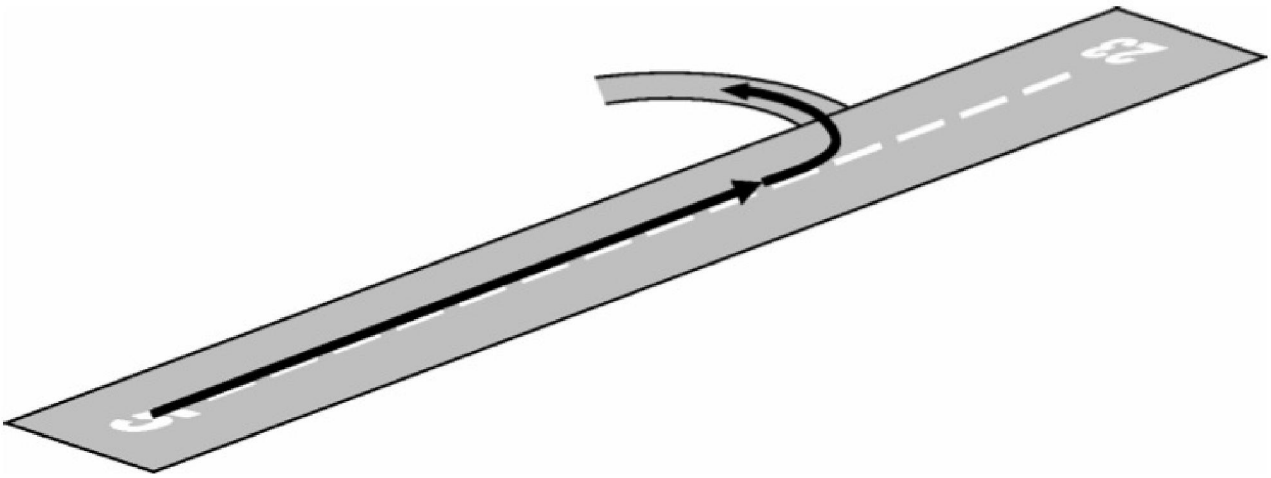
6. Downwind Departure
   a. Continue to Climb to Cruise Altitude

CAUTION: A tail strike can occur if elevator backpressure is not reduced as power is increased during the take-off roll.

If departing against or across traffic flow, wait until at least pattern altitude + 500' before turning on course.

At uncontrolled airports, state intentions on CTAF when departing and before making any turn

Cessna 182T Aborted Take-off



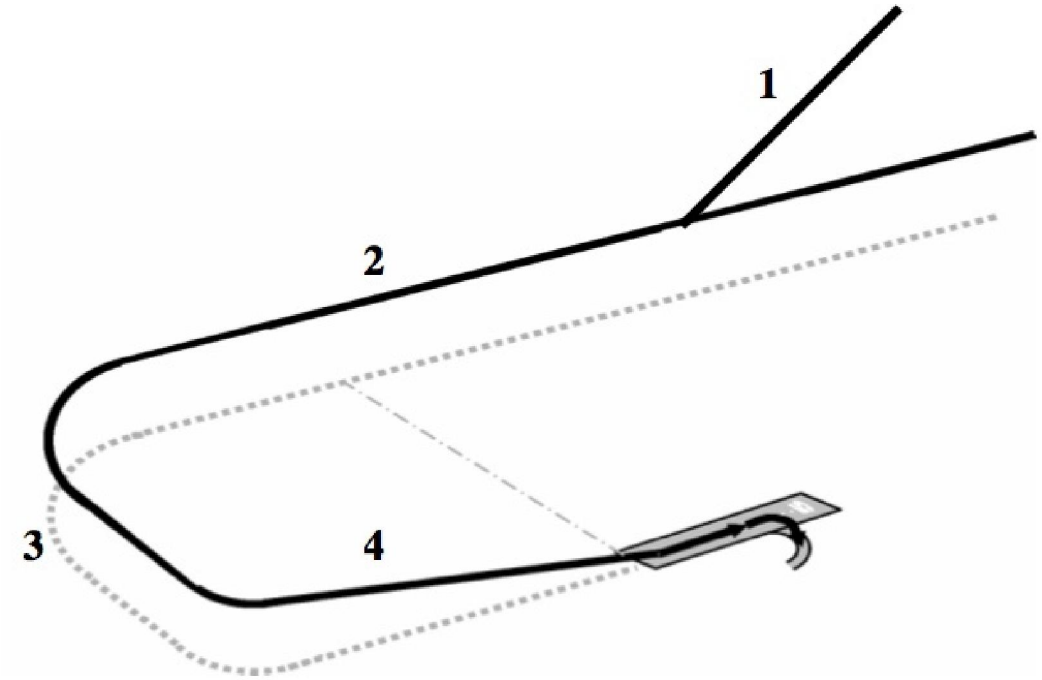
1. Cleared into Position
   a. Crew Departure Brief - COMPLETE
   b. Final Traffic – CLEAR
   c. Final BLTM Check – Beacon, Lights, Trim, Mixture

2. Decision to Abort/Reject Take-off
   a. Pilot noting the Anomaly Requiring Abort – Announce ABORT, ABORT, ABORT
   b. Throttle – IDLE
   c. Brakes –AS REQUIRED
   d. ATC/Local Traffic - NOTIFY

3. Clearing Runway
   a. Emergency Evacuation Checklist – COMPLETE AS APPRPRIATE

4. Evacuation NOT Required
   a. Appropriate Emergency Checklist - COMPLETE

Cessna 182T Normal Landing



1. 45 Degree Entry
   a. Descend to Traffic Pattern altitude
   b. Airspeed slowing to 90 KIAS
   c. Pre-landing checklist - COMPLETE

2. Downwind
   a. Airspeed 90 KIAS (16-18" MP)
   b. Abeam Landing point
      i. Reduce Power (12-15" MP)
      ii. Pitch – Lower Nose
      iii. Flaps – 10 Degrees

3. Base
   1. Airspeed – 80 KIAS (12-15" MP)
   2. Flaps – 20 Degrees

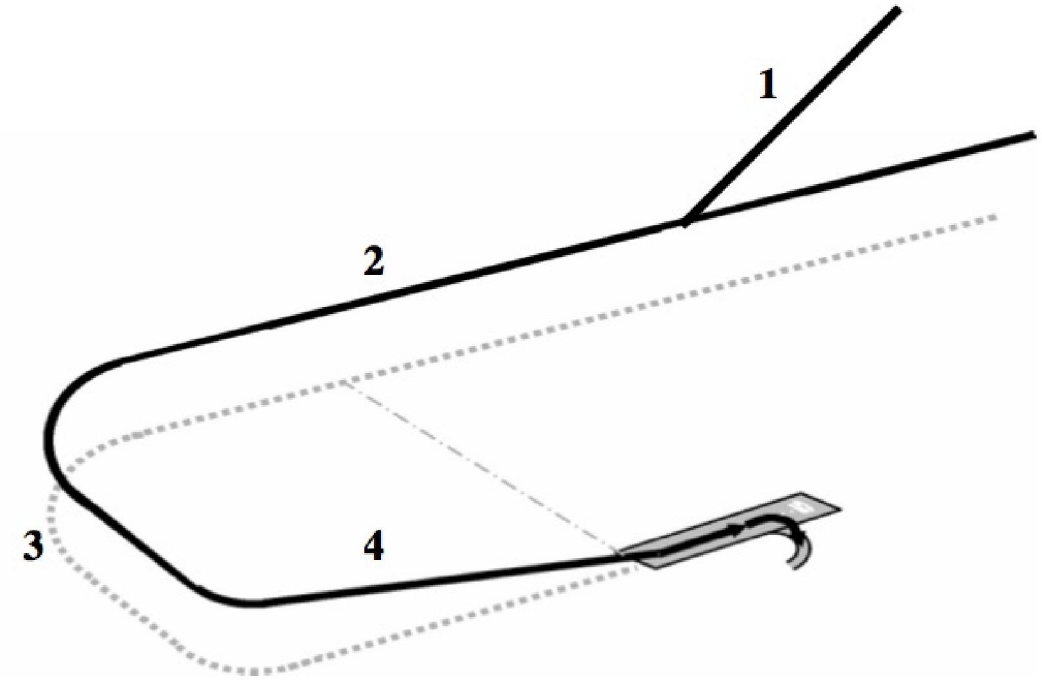
4. Final
   a. Airspeed – 70 KIAS (12-15" MP)
   b. FLAPS – 40 degrees if desired (3/4 mile & 300 AGL)
   c. TRIM – 70 KIAS

5. **Touch Down**
   a. Elevator Control –Slowly release back pressure
   b. Brakes – APPLY AS NEEDED

NOTE: If landing with 20 degrees of flaps use 10-12" MP

NOTE: Gusty and/or strong crosswinds may require partial flaps and increase airspeed by ½ the gust factor.

Cessna 182T Short Field Landing



1. 45 Degree Entry
   a. Plan to fly a wider than normal pattern
   b. Descend to Traffic Pattern altitude
   c. Airspeed slowing to 90 KIAS
   d. Pre-landing checklist - COMPLETE

2. Downwind
   a. Airspeed 90 KIAS (16-18" MP)
   b. Abeam Landing point
      i. Reduce Power (12-15" MP)
      ii. Pitch – Lower Nose
      iii. Flaps – 10 Degrees

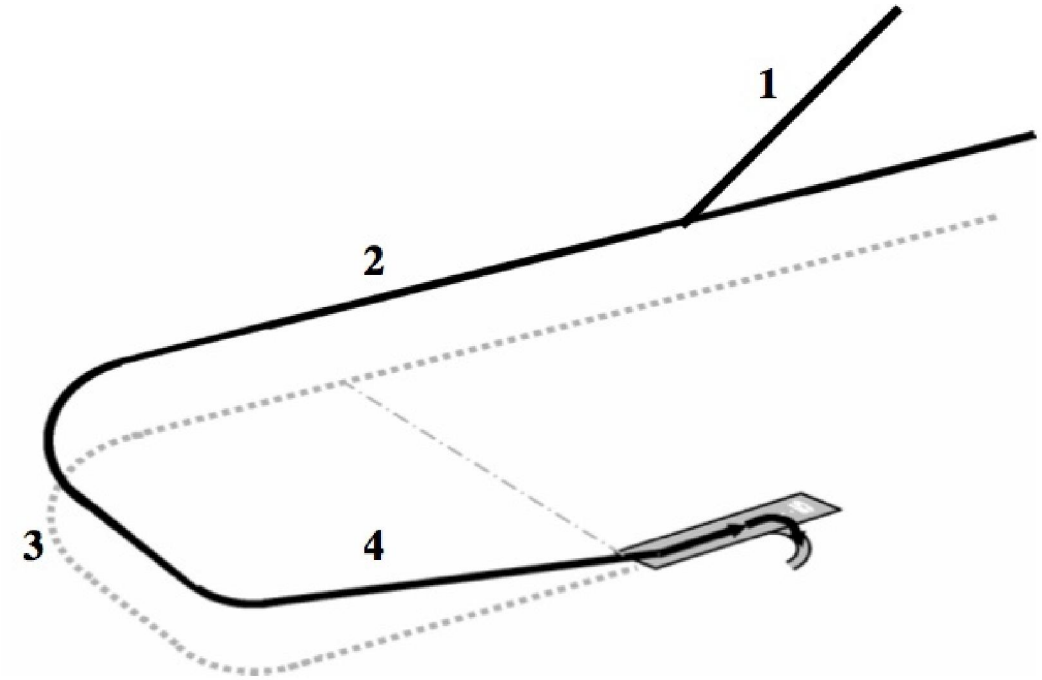
3. Base
   a. Airspeed – 80 KIAS (12-15" MP)
   b. Flaps – 20 Degrees

4. Final
   a. Airspeed – 65-70 KIAS (12-15" MP)
   b. FLAPS – 30 degrees
   c. TRIM to hold airspeed
   d. Stable airspeed (65-70 KIAS)

5. **Touch Down**
   a. Brakes – APPLY HEAVILY
   b. Flaps -RETRACT

NOTE: Gusty and/or strong crosswinds may require partial flaps and increase airspeed by ½ the gust factor

Cessna 182T Soft Field Landing



1. 45 Degree Entry
   a. Descend to Traffic Pattern altitude
   b. Airspeed slow to 90 KIAS
   c. Pre-landing checklist - COMPLETE

2. Downwind
   a. Airspeed 90 KIAS (16-18" MP)
   b. Abeam Landing point
      i. Reduce Power (12-15" MP)
      ii. Pitch – Lower Nose
      iii. Flaps – 10 Degrees

3. Base
   a. Airspeed – 80 KIAS (12-15" MP)
   b. Flaps – 20 Degrees

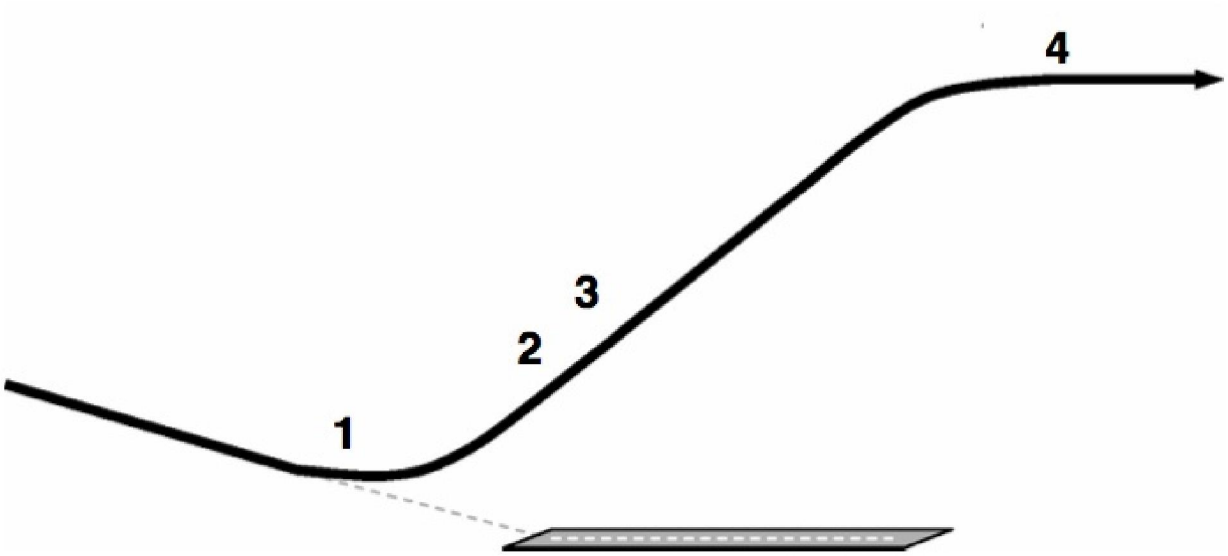
4. Final
   a. Airspeed – 65-70 KIAS (12-15" MP)
   b. FLAPS – 40 degrees
   c. TRIM to hold airspeed
   d. Power – 10-12" MP until after landing

5. **Touch Down**
   a. Power – Maintain through landing if required
   b. Elevator Control – HOLD AFT to keep pressure off nose landing gear

NOTE: Gusty and/or strong crosswinds may require partial flaps and increase airspeed by ½ the gust factor.

NOTE: After landing avoid stopping airplane on wet or soft surfaces. Keep rolling until on firm terrain.

Cessna 182T Go-Around



1. Go-Around Decision
   a. THROTTLE – Set Full
   b. GA BUTTON – Depress
   c. PITCH – To FD Bars (GFC700) –or- 7-8 degrees nose up (KAP140)
   d. FLAPS – Retract to 20 degrees

2. Positive Rate
   a. FLAPS – Retract slowly in 10 degree increments
   b. Maintain Runway heading

3. Establish Climb Power (> 600' AGL)
   a. POWER – 23" MP
   b. PROPELLER – 2400 RPM
   c. FUEL FLOW – Top of Green bar (15 Gal/hr)

4. Continue in traffic pattern or exit area

Maneuvering Flight Checklist

Maneuvering flight accounts for a considerable number of aviation accidents and incidents. It is best performed with more than one pilot, where one pilot performs maneuvers and the other monitors the flight and environment (terrain, traffic, etc.). The checklist below must be performed before practicing maneuvers.

- ü Airspace - Use uncongested airspace
- ü Emergency - Nearby emergency landing field
- ü Altitude – Above 1500' AGL
- ü Seatbelts - SECURE
- ü Fuel Sector – BOTH
- ü Propeller – High RPM
- ü Engine Instruments – GREEN
- ü Wind Direction – CHECK
- ü Clearing Turns – ACCOMLISHED
- ü Multi-Function Display – TRAFFIC ENABLE

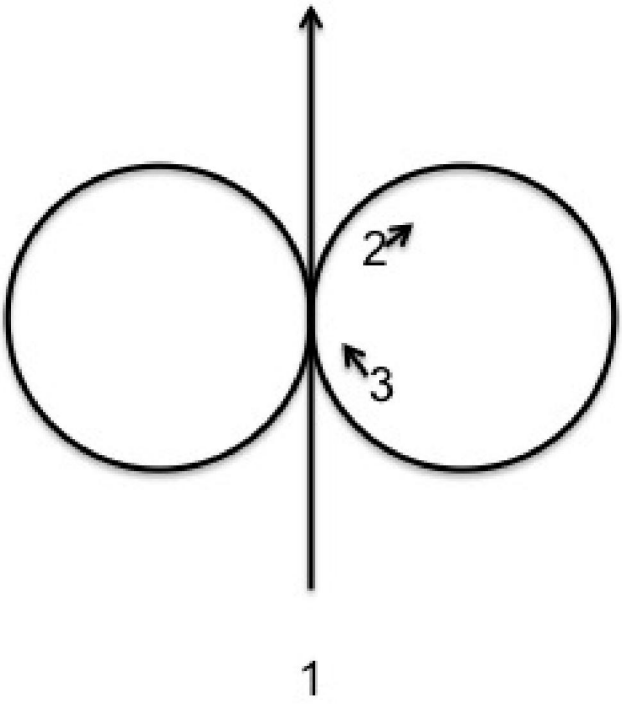
Cessna 182T 45 Degree Steep Turn

Notes

Avoid sudden head movements.

Maintaining constant bank angle will reduce attitude changes

Do not "chase the VSI". Make small corrections to maintain altitude.



PERFORM CLEARING TURNS BEFORE ALL MANEUVERS
USE MFD TRAFFIC SCREEN DURING MANEUVERS

1. Entry Settings
   a. Power – 16-18" MP Winter, 18-20" Summer
   b. Speed - 100-115 KIAS
   c. Heading Bug – Push to sync for entry Heading (Push HEADING Knob)

2. Enter Turn
   a. Smoothly bank to 45 degrees. Maintain coordinated flight.
   b. Pitch – 3-4 degrees nose up (typical)
   c. Power - Add 2" MP to hold speed

3. Exit Turn
   a. Smoothly bank to 0 degrees – Start 20 degrees before entry heading

4. Repeat
   a. Repeat in opposite direction

Cessna 182T Slow Flight

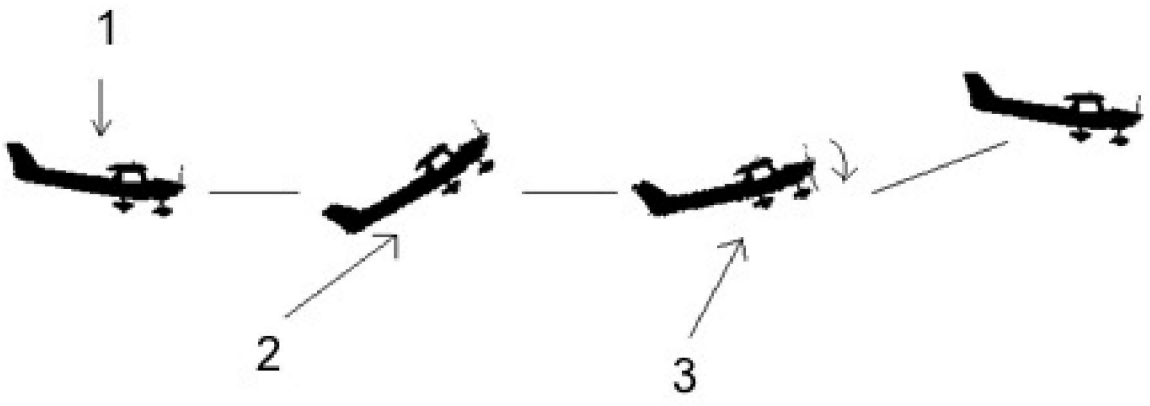
PERFORM CLEARING TURNS BEFORE ALL MANEUVERS
USE MFD TRAFFIC SCREEN DURING MANEUVERS

1. Entry Settings
   a. Engine Instruments – Select System -> Lean. CHT must remain < 400 degrees
   b. Clean Configuration
   c. Heading Bug – SNAP to entry Heading (Push HEADING Knob)

2. Clean Configuration
   a. Flaps – 0 Degrees
   b. Power – 18" MP
   c. Pitch – 10 degrees nose up
   d. Speed – 60KIAS
   e. Turns – No more than 15 degrees bank. Add power as needed

3. Full Flaps Configuration
   a. Flaps – 40 degrees
   b. Power – 18" MP
   c. Pitch – 6 degrees nose up
   d. Speed – 50 KIAS
   e. Turns – No more than 15 degrees bank. Add power as needed

Cessna 182T Power Off (Landing) Stall



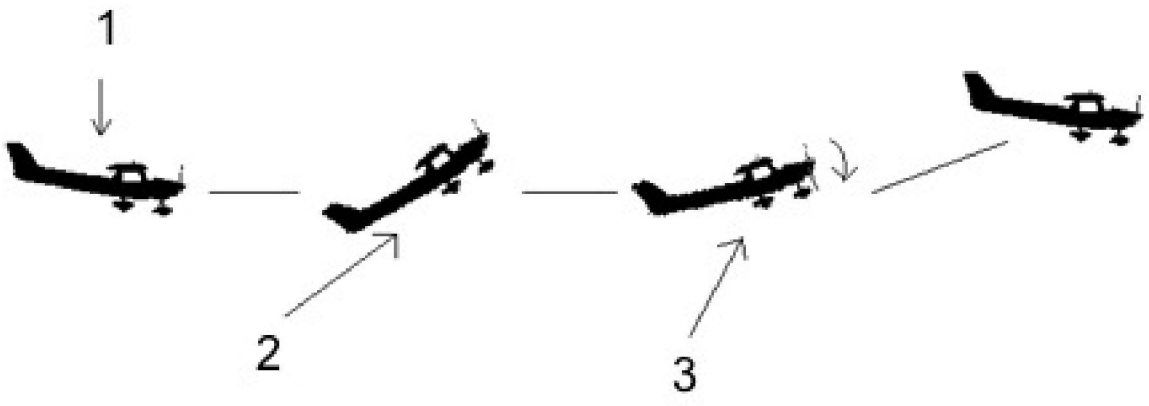
PERFORM CLEARING TURNS BEFORE ALL MANEUVERS
USE MFD TRAFFIC SCREEN DURING MANEUVERS

1. Entry Settings
   a. Engine Instruments – Select System -> Lean. CHT must remain < 400 degrees
   b. Flaps – To full in 10 degree increments
   c. Heading Bug – SNAP to entry Heading (Push HEADING Knob)
   d. Speed – Reduce to minimum controllable airspeed

2. Induce Stall
   a. Power – Reduce to IDLE
   b. Pitch – Increase until imminent (horn) or full stall (Maintain Altitude)

3. Recovery
   a. Simultaneously
      i. Pitch – Reduce angle of attack by releasing back elevator pressure (level to +2 degrees)
      ii. Power – Advance to maximum allowable power
   b. Flaps – 20 Degrees
   c. Flaps - Slowly retract as airspeed increases

Cessna 182T Power-On (Departure) Stall



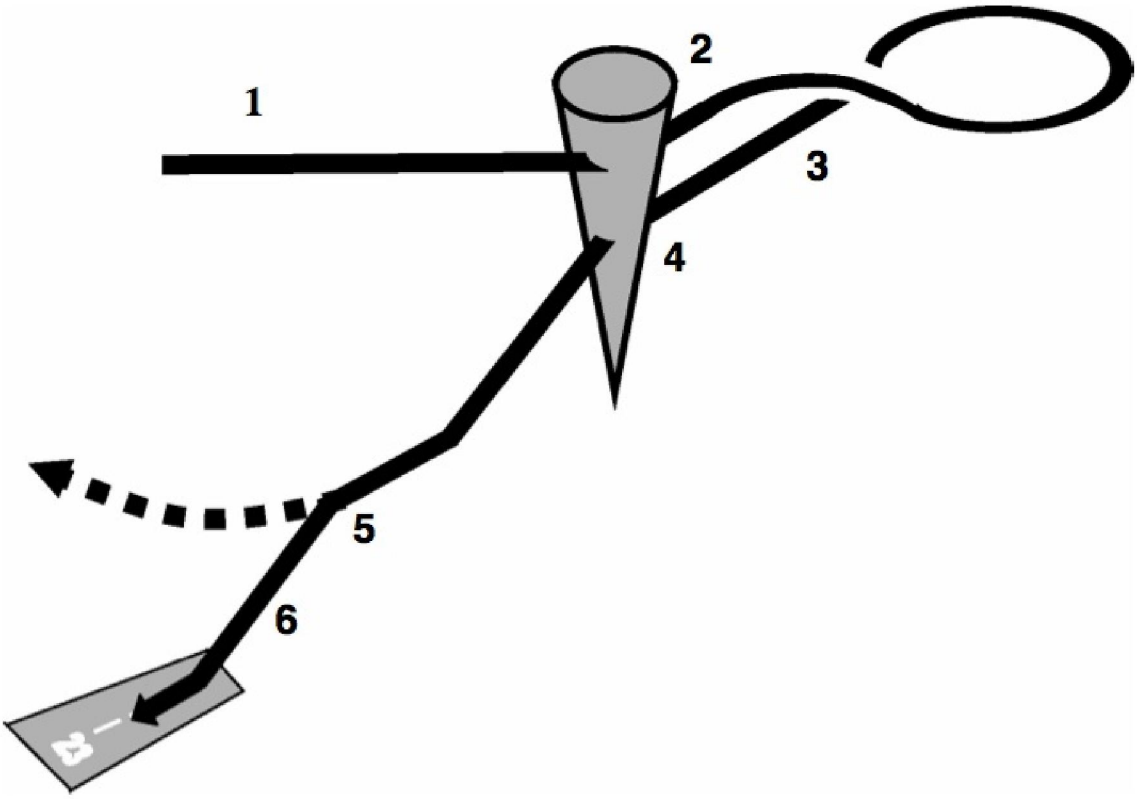
PERFORM CLEARING TURNS BEFORE ALL MANEUVERS
USE MFD TRAFFIC SCREEN DURING MANEUVERS

1. Entry Settings
   a. Engine Instruments – Select System -> Lean. CHT must remain < 400 degrees
   b. Flaps – 10 degrees
   c. Heading Bug – SNAP to entry Heading (Push HEADING Knob)
   d. Speed – 65 KIAS

2. Induce Stall
   a. Power – 15" MP
   b. Pitch – 15 degrees nose up
   c. Bank – 15 degrees

3. Recovery
   a. Simultaneously
      i. Pitch – Reduce angle of attack by releasing back elevator pressure (level to +2 degrees)
      ii. Power – Advance to maximum allowable power
   b. Flaps – Slowly retract as airspeed increases

Cessna 182T Precision Instrument Approach



1. Outside IAF –or- Downwind (Vectors)
   a. Procedure loaded in G1000
   b. Approach Checklist complete
   c. Approach Brief - COMPLETE

2. IAF –or- Base Leg (Vectors)
   a. FLAPS – 10 degrees
   b. Airspeed 90 KIAS (16-18" MP)

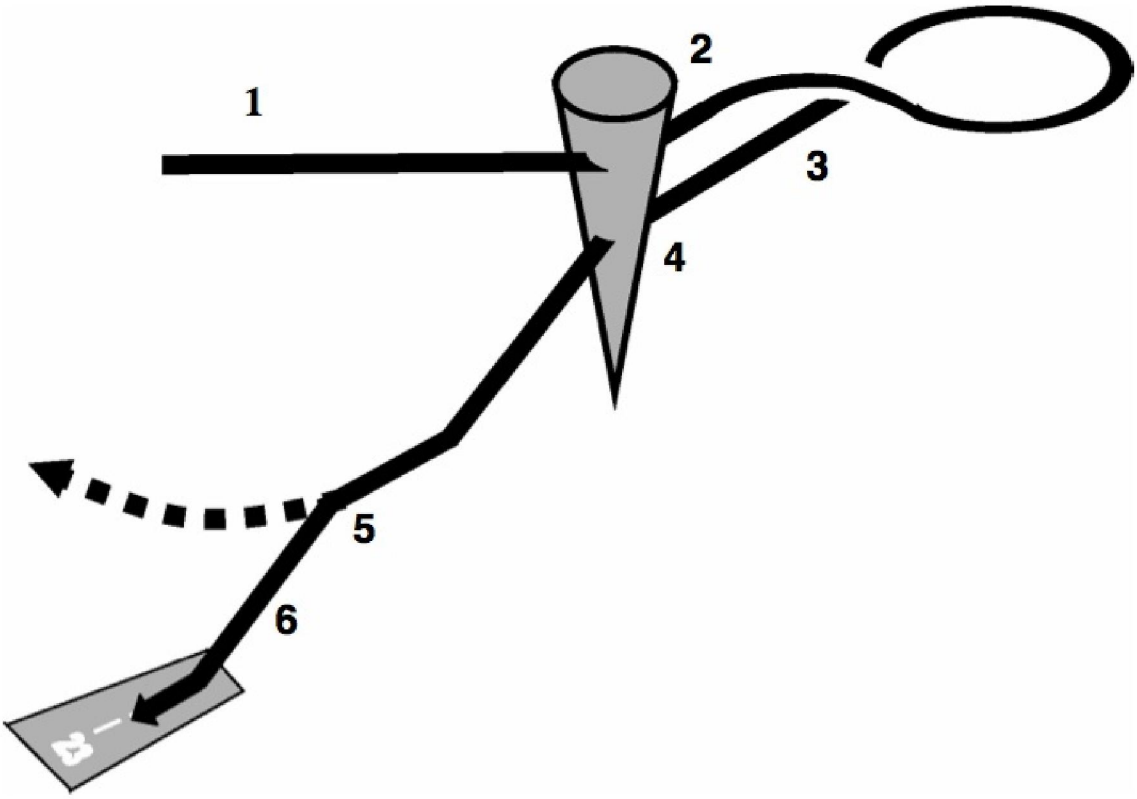
3. 2-3 NM before FAF
   a. Verify configuration & Speed
   b. Verify CDI NAV Mode is correct for the approach
   c. Landing checklist complete

4. Glide-slope/path Intercept
   a. Initiate Descent – 90 KIAS (12-15" MP)
   b. TIMER – Start
   c. Verify Glide Slope Intercept Altitude

5. **Decision Height**
   a. Elect LAND –OR- MISSED
   b. IF LANDING – Flaps and/or Power as needed to slow to normal landing speed

NOTE: Power reduction at DH is usually adequate to reduce airspeed to normal landing range without additional flaps if glide-slope/path is maintained.

Cessna 182T Non-Precision Instrument Approach



1. Outside IAF –or- Downwind (Vectors)
   a. Procedure loaded in G1000
   b. Approach Checklist complete
   c. Approach Brief - COMPLETE

2. IAF –or- Base Leg (Vectors)
   a. FLAPS – 10 degrees
   b. Airspeed 90 KIAS (16-18" MP)

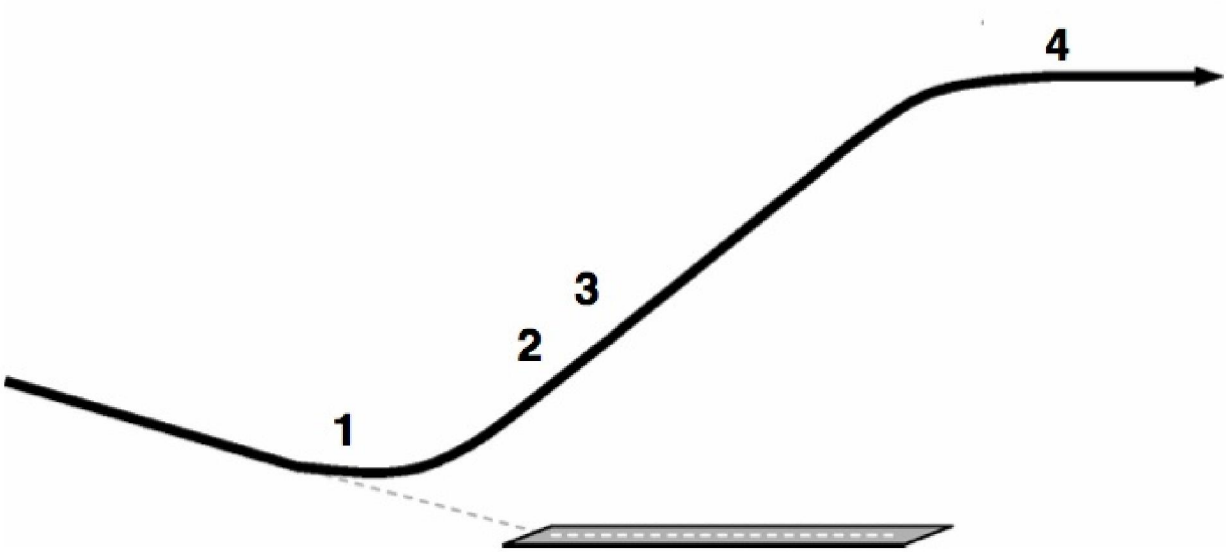
3. 2-3 NM before FAF
   a. Verify configuration & Speed
   b. Verify CDI NAV Mode is correct for the approach
   c. Landing checklist complete

4. Final Approach Fix
   a. Initiate Descent – 90 KIAS (12-15" MP)
   b. TIMER – Start

5. **MDA**
   a. Elect LAND –OR- MISSED
   b. IF LANDING – Flaps and/or Power as needed to maneuver and slow to normal landing speed

NOTE: Power reduction at DH is usually adequate to reduce airspeed to normal landing range without additional flaps if glide-slope/path is maintained.

Cessna 182T Missed Approach



1. Missed Approach Decision
   a. THROTTLE – Set Full
   b. GA BUTTON – Depress (GFC700 Only)
   c. PITCH – To FD Bars (GFC700)–or- 7-8 degrees up (KAP140) (MAINTAIN Vx)
   d. FLAPS – Retract to 10 degrees

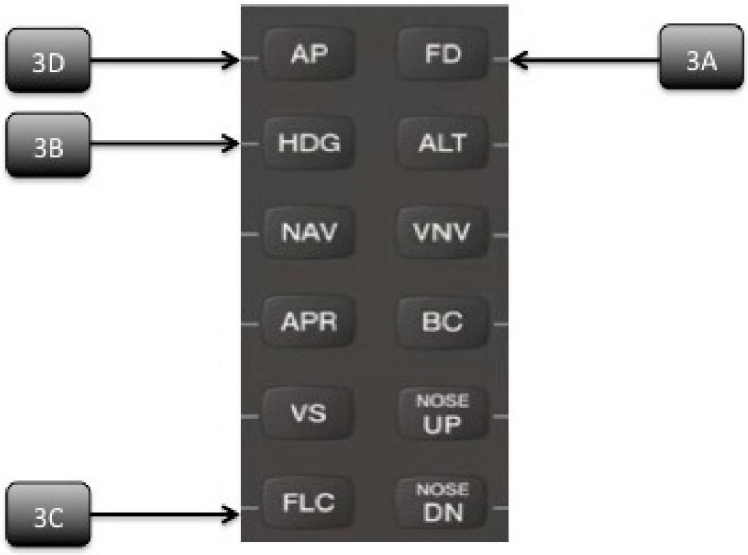
2. Positive Rate
   a. FLAPS – Retract slowly – 10 degrees at a time
   b. POWER – 23" MP
   d. PROPELLER – 2400 RPM

3. Flight Director (GFC 700)(KAP 140)
   a. HDG BUTTON – Depress
   b. HDG BUG – Per Missed Approach Procedure
   c. SUSP Soft key – Per Missed Approach Procedure
   d. CDI SOFTKEY – Verify NAV source
   e. NAV BUTTON – Depress

4. Report
   a. Report Missed Approach to ATC
   b. Missed Approach Checklist

CAUTIONARY NOTE:
Follow Missed Approach Procedures EXACTLY as published, ie climb before turning (READ CAREFULLY!!!)

C182T G1000/GFC-700 Take-Off Automaton



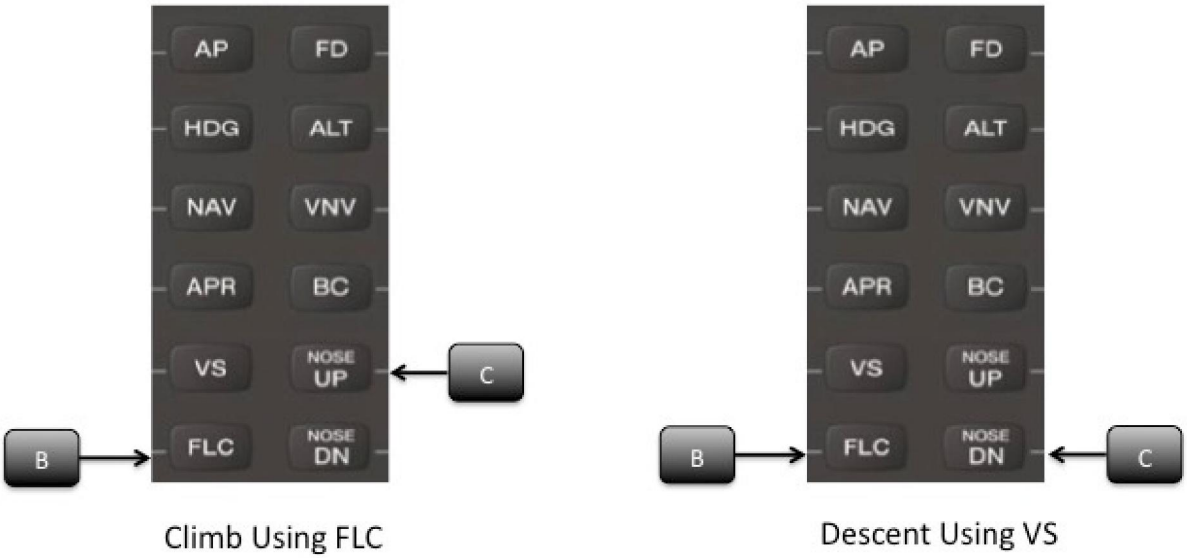
1. Pre-takeoff
   a. PFD ALT KNOB – Verify desired altitude set above Altitude Tape
   b. PFD HEADING BUG – Set runway heading

2. Establish Normal Climb
   a. See Take-Off Procedures
   b. Wait until at or above 1000' AGL

3. Engage Autopilot
   a. FD (Flight Director) – ON (Verify on PFD)
   b. HDG – Set lateral mode to follow heading bug
   c. FLC – Set vertical mode to constant airspeed climb
   d. AP - Autopilot engage Verify status on PFD (HDG, FLC to ALTS)
   e. Callout – "AUTOPILOT ENGAGED"

4. Intercept Course
   a. PFD CDI Source – Select GPS or VOR. Set VOR course
   b. PFD Heading Bug – Turn to an intercept course
   c. NAV - Lateral Mode – Set lateral mode to intercept CDI (Verify status HDG to GPS or VOR)

C182T G1000/GFC-700 Climb / Descend / Level-off Automaton



Climb to a selected altitude (autopilot engaged)

a. PFD ALT KNOB - Set altitude in window above altitude tape
b. FLC BUTTON – Set constant airspeed climb
c. NOSE UP BUTTON – Set desired airspeed on airspeed tape (90-115 KIAS)
d. MIXTURE – Rich
e. THROTTLE – Adjust as needed

Descend to a selected altitude (autopilot engaged)

a. PFD ALT KNOB - Set altitude in window above altitude tape
b. VS BUTTON – Select constant rate descent
c. NOSE DOWN – Select rate of descent on autopilot status bar (400-800 ft/min)
d. MIXTURE -Rich
e. THROTTLE - Adjust power as needed to maintain airspeed

Arriving at selected altitude

a. 1000’ TO GO – Pilot callout
b. 500’ TO GO – Pilot Callout
c. Monitor autopilot for level out
d. CRUISE CHECKLIST – COMPLETE

C182T G1000/KAP-140 Take-Off Automaton

1. Pre-takeoff
   a. PFD ALT KNOB – Verify desired altitude set above Altitude Tape
   b. KAP-140 BARO & KNOB – Set to desired altimeter setting
   c. KAP-140 ALTITUDE – Set to desired altitude setting (Same as 1a)
   d. PFD HEADING BUG – Set runway heading

2. Establish Normal Climb
   a. See Take-Off Procedures
   b. Wait until at or above 1000' AGL

3. Engage KAP-140 Autopilot
   a. AP – Verify ROL and VS mode (Note Vertical Speed is reasonable)
   b. HDG – Set lateral mode to follow PFD heading bug
   c. ARM – Arm altitude capture mode (Verify ALT ARM appears)
   d. Callout – "AUTOPILOT ENGAGED"
   e. Monitor Airspeed - Set KAP-140 Vertical Speed to maintain desired airspeed
   f. Upon reaching selected altitude, verify ALT captures (replaces VS on top line of KAP-140)

4. Intercept Course
   a. PFD CDI Source – Select GPS or VOR source. Twist CDI to desired course.
   b. PFD Heading Bug – Turn to an intercept heading
   c. KAP-140 NAV - Lateral Mode – Set lateral mode to intercept CDI

C182T G1000/KAP-140 Climb / Descend / Level-off Automaton

1. Climb/Descent to a selected altitude (autopilot engaged)
   a. PFD ALT KNOB - Set altitude in window above altitude tape
   b. KAP-140 KNOB – Select Desire altitude
   c. KAP-140 ALT button – Depress to switch to VS mode
   d. KAP-140 UP/DN BUTTON – Vertical Speed (Climb/Descent)
   e. MIXTURE – Rich
   f. THROTTLE – Adjust as needed

Caution
During long climbs, monitor airspeed and adjust KAP-140 vertical speed to maintain desired airspeed

2. Arriving at selected altitude
   a. 1000’ TO GO – Pilot callout
   b. 500’ TO GO – Pilot Callout
   c. Monitor autopilot for level out. ALT replaces VS on top line of KAP-140
   d. CRUISE CHECKLIST – COMPLETE