

## GROUND OPERATION PROCEDURES

Cessna 182Q

N735LH

### CABIN

1. Required Documents..... A.R.O.W.
2. Control Wheel Lock ..... REMOVE
3. Ignition Switch ..... OFF / KEY ON DASH
4. Avionics Power Switch ..... OFF
5. Master Switch ..... ON
6. Avionics Master Switch ..... ON
7. Avionics Cooling Fan ..... AUDIBLE
8. Avionics Master Switch ..... OFF
9. Fuel Quantity Indicators ..... CHECK
10. Flaps ..... FULL DOWN
11. Cowl Flaps ..... OPEN
12. All Exterior Lights ..... ON
13. Pitot Cover..... REMOVED
14. Pitot Heat ..... ON
15. Check Operation of :  
..... Nav/Strobe, Beacon, and Landing Light
16. Stall Warning ..... CHECKED
17. Pitot Tube..... CLEAR / WARM
18. Exterior Lights ..... All OFF, BEACON ON
19. Pitot Heat ..... OFF
20. Master Switch ..... OFF
21. Alternate Static ..... DRAINED/CLOSED
22. Fuel Selector ..... BOTH
23. Oil Level: Loosen dipstick and let oil settle

### EMPENNAGE

1. Baggage Door ..... CHECK
2. Rudder Gust Lock (if installed) ..... REMOVE
3. Tail Tie-Down ..... DISCONNECT
4. Control Surfaces ..... CHECK
5. Airplane Antennas ..... CHECK

### RIGHT WING

1. Flap and Aileron ..... CHECK
2. Wing Tip ..... CHECK
3. Leading Edge ..... CHECK
4. Wing Tie-Down ..... REMOVE
5. Overhead Cabin Vent Inlets ..... CHECK
6. Main Wheel Tire / Brake ..... CHECK
7. Fuel Tank Sump ..... DRAIN / CHECK
8. Fuel Quantity ..... CHECK VISUALLY
9. Fuel Filler Cap..... *vent unobstructed* SECURE

### NOSE

1. Static Source Opening (both sides) .... CHECK
2. Propeller and Spinner ..... CHECK
3. Landing Light Covers ..... CHECK
4. Carburetor Air Inlet ..... CHECK
5. Nose Wheel Strut and Tire ..... CHECK
6. Nose Tie-Down ..... REMOVE

7. Engine Cowling ..... CHECK
8. Engine Oil Level ..... *9-12 quarts* CHECK
9. Fuel Strainer ..... *4 seconds* PULL

### LEFT WING

1. Overhead Cabin Vent Inlets ..... CHECK
2. Main Wheel Tire / Brake ..... CHECK
3. Fuel Tank Sump ..... DRAIN / CHECK
4. Fuel Quantity ..... CHECK VISUALLY
5. Fuel Filler Cap..... *vent unobstructed* SECURE
6. Leading Edge ..... CHECK
7. Stall Warning Vane ..... CHECK
8. Fuel Tank Vent Opening ..... CHECK
9. Wing Tie-Down ..... REMOVE
10. Wing Tip ..... CHECK
11. Aileron and Flap ..... CHECK



### V-SPEEDS

### INFO

Vso	45	Oil (full/min)	12 / 9
Vs1	48	Fuel [use]	80 [75]
Vr	50	Weight TO	2950
Vx	54	Weight Lnd	2950
Vy	78	Demo Xwind	15
Vg	70		
Vfe/10°	140	App FL DN	60 - 70
Vfe/>10	95	App FL UP	70 - 80
Va	89-111		
Vno	143		
Vne	179		

### BEFORE STARTING ENGINE

1. Preflight Inspection ..... COMPLETE
2. Passenger Briefing ..... COMPLETE
3. Seats/SeatBelts ..... ADJUST, LOCK
4. Fuel selector valve ..... BOTH
5. Av. Pwr Switch, Elect. Equip..... OFF
6. Brakes ..... TEST; SET/HOLD
7. Cowl Flaps ..... OPEN
8. Circuit Breakers..... CHECK IN

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### STARTING ENGINE (With Battery)

1. Beacon ..... ON
2. Mixture ..... RICH
3. Propeller ..... HIGH RPM
4. Carburetor Heat ..... COLD
5. Throttle ..... OPEN 1/2"
6. Prime ..... As Required
7. Propeller area ..... CLEAR
8. Master switch ..... ON
9. Ignition switch ..... START
10. Oil pressure ..... CHECK
11. Throttle ..... 1000 RPM or LESS
12. Mixture ..... LEAN, If Required
13. Nav, strobe lights ..... ON, as REQ'd
14. Avionics power switch & radios ..... ON
15. Transponder ..... ALT
16. Flaps ..... RETRACT
17. GPS ..... Initial fuel; Runway diagram
18. ATIS / Altimeter ..... SET
19. Taxi Lights ..... ON as REQ'd

### RUNUP

1. Parking Brake ..... SET or HOLD
2. Seat & Seat Belts ..... CHECK SECURE
3. Doors & Windows ..... CLOSED/LOCKED
4. Flight controls ..... FREE and CORRECT
5. Flight Instruments ..... CHECK & SET  
..... (Heading & Altimeter)
6. Fuel Quantity ..... CHECK
7. Fuel Selector Valve ..... BOTH
8. Mixture ..... RICH
9. Elevator/Rudder Trim ..... set for TAKEOFF
10. Throttle ..... 1700 RPM
  - a. Magnetos ..... CHECK BOTH (175/50)
  - b. Carburetor heat ..... CHECK/COLD
  - c. Propeller ..... CYCLE high-low-high 3x
  - d. Engine instruments ..... CHECK
  - e. Suction Gage ..... CHECK
  - f. Ammeter ..... CHECK alt with load
  - g. Throttle ..... 1000 RPM
11. Throttle friction lock ..... ADJUST
12. Radios and Avionics ..... SET
13. Navigaton/GPS ..... SET as REQ'd
14. Autopilot ..... TEST, OFF

### BEFORE TAKEOFF

1. Doors & Windows ..... CLOSED/LOCKED
2. Fuel Quantity ..... CHECK
3. Fuel Selector Valve ..... BOTH
4. Carb Heat ..... COLD
5. Mixture ..... RICH

6. Propeller ..... HIGH RPM
7. Cowl Flaps ..... OPEN
8. Elevator/Rudder Trim ..... set for TAKEOFF
9. Wing flaps ..... as REQ'd
10. At runway ..... Lights As Req'd;

### INFLIGHT CHECKS ON SECOND CARD

### SECURING AIRPLANE

1. Parking Brake ..... SET or HOLD
2. Throttle ..... 1500 RPM
  - a. Mixture ..... LEANED, 20 seconds
  - b. Avionics ..... CHECK 121.5
3. Throttle ..... REDUCE as REQ'd
4. Parking Brake ..... RELEASED
5. All lights ..... As Req'd
6. Power ..... IDLE
7. Avionics Pwr Switch, Elect. Equip ..... OFF
8. Exterior, Interior & Panel Lights ..... OFF
9. Beacon Light ..... ON
10. Magneto Ground ..... CHECK
11. Mixture ..... IDLE CUT OFF
12. Ignition Switch ..... OFF
13. Aircraft Keys ..... ON DASH
14. Master Switch ..... OFF
15. Fuel Selector ..... RIGHT TANK
16. Gust Lock ..... INSTALLED
17. Pitot Cover ..... INSTALLED
18. Wheel Chocks ..... INSTALLED
19. Tie Downs ..... INSTALLED
20. Tires and Aircraft ..... INSPECTED
21. Shade/Cover ..... INSTALLED

### FIRE DURING START

1. Cranking ..... CONTINUE
- If engine starts:**
2. Power ..... 1,700 RPM for a few minutes
  3. Engine ..... SHUTDOWN
- If engine fails to start:**
4. Throttle ..... FULL OPEN
  5. Mixture ..... IDLE CUT OFF
  6. Cranking ..... CONTINUE
  7. Fire Extinguisher ..... OBTAIN
  8. Master Switch ..... OFF
  9. Ignition Switch ..... OFF
  10. Fuel Selector ..... OFF
  11. Fire Extinguisher ..... ACTIVATE
  12. Airplane ..... EVACUATE

## IN-FLIGHT NORMAL PROCEDURES

### NORMAL TAKEOFF

1. Wing Flaps..... 0 - 20°
2. Carburetor Heat..... COLD
3. Throttle..... FULL OPEN and 2400 RPM
4. Rotate ..... **50 kts**
5. Climb Speed ..... 70 kts (flaps 20°)  
..... **80 kts (flaps Up)**
6. Wing Flaps..... RETRACT
7. Noise abatement @ 500': 23" and 2100rpm

### SHORT FIELD TAKEOFF

1. Wing Flaps ..... 20°
2. Carburetor Heat ..... COLD
3. Brakes.....APPLY
4. Throttle ..... FULL OPEN and 2400 RPM
5. Mixture..... RICH (LEAN max RPM > 3000')
6. Brakes..... RELEASE
7. Elevator Control ..... SLIGHTLY TAIL LOW
8. Climb Speed ..... **57 kts** until over obstacles
9. Wing flaps..... RETRACT after 70 kts

### ENROUTE CLIMB

1. Airspeed ..... 85-100 kts
2. Throttle ..... 23" and 2400 RPM
3. Fuel selector valve ..... BOTH
4. Mixture ..... RICH (LEAN max RPM > 5000')
5. Cowl flaps..... OPEN, as Req'd

### CRUISE

1. Power ..... 15-23", 21k-24k RPM (75% Max)
2. Elevator/Rudder trim ..... ADJUST
3. Mixture..... LEAN as REQ'd
4. Cowl flaps..... CLOSED, as REQ'D

### DESCENT

1. Power..... as REQ'd
2. Carburetor Heat..... FULL, as req'd
3. Mixture..... ENRICHEN, as REQ'd
4. Cowl flaps..... CLOSED
5. ATIS/Altimeter ..... SET
6. NAV/GPS Switch..... SET
7. Fuel selector valve ..... BOTH
8. Wing Flaps..... AS DESIRED

### BEFORE LANDING

1. Seats/SeatBelt..... UPRIGHT,ADJUST,LOCK
2. Fuel Selector Valve ..... BOTH
3. Mixture..... RICH (or as REQ'd)
4. Carburetor Heat ..... ON
5. Propeller..... HIGH RPM
6. Landing/Taxi Lights..... ON
7. Autopilot ..... DISCONNECT

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### NORMAL LANDING

1. Wing flaps ..... as DESIRED (< 140/95 kts)
2. Airspeed... **70-80 kts (flaps UP)** . Airspeed  
..... **60-70 kts (flaps down)**
3. Touchdown ..... MAIN WHEELS FIRST
4. Landing Roll..... LOWER NOSE WHEEL
5. Braking..... MINIMUM REQUIRED

### SHORT-FIELD LANDING

1. Wing Flaps ..... FULL DOWN 40°
2. Airspeed ..... 60 kts
3. Throttle ..... CLOSED after obstacles
4. Touchdown..... MAIN WHEELS FIRST
5. Brakes.....APPLY HEAVILY–don't lock brakes
6. Wing flaps..... RETRACT

### BALKED LANDING

1. Throttle ..... FULL OPEN and 2400 RPM
2. Carburetor Heat..... COLD
3. Wing Flaps..... RETRACT TO 20°
4. Climb speed ..... 55 kts
5. Wing Flaps..... RETRACT after 70 kts
6. Cowl Flaps..... OPEN

### AFTER LANDING

1. Wing Flaps..... UP
2. Carburetor Heat ..... COLD
3. Cowl Flaps ..... OPEN
4. Taxi & Landing Light ..... ON as REQ'd
5. Transponder ..... ALT

### \*STOP & GO / FULL STOP TAXI BACK\*

1. Doors & Windows ..... CLOSED/LOCKED
2. Fuel Selector Valve..... BOTH
3. Elevator / Rudder Trim .....set for TAKEOFF
4. Cowl Flaps ..... OPEN
5. Wing flaps .....as REQ'd
6. Mixture ..... RICH
7. Propeller ..... FULL
8. Carburetor Heat..... COLD
9. At runway-All lights..... ON

Vso	45	Oil (full/min)	12 / 9
Vs1	48	Fuel [use]	80 [75]
Vr	50	Weight TO	2950
Vx	54	Weight Lnd	2950
Vy	78	Demo Xwind	15
Vg	70	App FL DN	60 - 70
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## IN-FLIGHT EMERGENCY PROCEDURES

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### ENGINE FAILURE DURING FLIGHT

1. Airspeed ..... 70 kts
2. Carburetor Heat ..... ON
3. Fuel Selector Valve ..... BOTH
4. Mixture..... RICH
5. Ignition Switch..... BOTH or START
6. Primer..... IN and LOCKED

### ENGINE FIRE IN FLIGHT

1. Mixture ..... IDLE CUT OFF
2. Fuel Selector Valve ..... OFF
3. Master Switch ..... OFF
4. Cabin Heat/Air. OFF(except overhead vents)
5. Airspeed ..... 100 kts (To extinguish fire)
6. Forced Landing..... EXECUTE

### EMERGENCY LANDING NO POWER

1. Airspeed ..... 70 kts (flaps UP)  
..... 65 kts (flaps DOWN)
2. Mixture..... IDLE CUT OFF
3. Fuel Selector Valve ..... OFF
4. Ignition Switch..... OFF
5. Wing Flaps.... AS REQ'D (40° recommended)
6. Doors ..... UNLATCH prior to touchdown
7. Master Switch ..... OFF (landing assured)
8. Touchdown..... SLIGHTLY TAIL LOW
9. Brakes..... APPLY HEAVILY

### DITCHING

1. Radio ..... TRANSMIT MAYDAY on 121.5
2. Transponder..... SQUAWK 7700
3. ELT ..... ACTIVATE
4. Heavy objects ..... SECURE or JETTISON
5. Flaps ..... 20°-40°
6. Power ..... Set for 300 fpm descent @ 60 kts
7. Approach:  
High winds, heavy seas: ..... INTO THE WIND  
Light winds, heavy swells ..... PARALLEL TO SWELLS
8. No power.... 70 kts flaps up / 65 kts flaps 10°
9. Cabin doors ..... UNLATCH
10. Touchdown..... LEVEL ATTITUDE
11. Face ..... CUSHION at touchdown
12. Airplane. Evacuate by door (open window)
13. LifeVests/Raft ..... CLEAR of A/C INFLATE

### ELECTRICAL FIRE IN FLIGHT

1. Master Switch ..... OFF
2. Vents/Cabin Air/Heat ..... CLOSED
3. Fire Extinguisher..... ACTIVATE
4. Avionics Master Switch ..... OFF
5. All Other Switches (except ignition) ..... OFF
- If Fire is CONFIRMED OUT: ..... Ventilate Cabin
6. Vents/Cabin Air/Heat ..... OPEN (if fire is out)
- If fire is out & elec. power is necessary:
7. Master Switch ..... ON
8. Circuit Breakers ..... CHECK (Don't RESET)
9. Radio Switches ..... OFF
10. Avionics Master Switch ..... ON
11. Radio/Electrical Switches ..... ON(1 at time)

### CABIN FIRE

1. Master Switch ..... OFF
2. Vents/Cabin Air/Heat. CLOSED(avoids draft)
3. Fire Extinguisher..... ACTIVATE
- If Fire is CONFIRMED OUT: ..... Ventilate Cabin
4. Vents/Cabin Air/Heat ..... OPEN (if fire is out)
5. Land the airplane as soon as possible

### WING FIRE

1. Landing/Taxi Light Switches ..... OFF
2. Navigation Light Switch ..... OFF
3. Strobe Light Switch..... OFF
4. Pitot Heat Switch..... OFF
5. Sideslip ..... NOSE TO SIDE WITH FIRE

### OVER-VOLTAGE LIGHT ILLUMINATES

1. Avionics Power Switch ..... OFF
2. Master Switch ..... OFF (both sides)
3. Master Switch ..... ON (both sides)
- If VOLTS stays off: Avionics Pwr Switch .... ON
- If VOLTS comes on: Flight ..... TERMINATE

### AMMETER SHOWS DISCHARGE

1. Alternator ..... OFF
2. Nonessential Electrical Equip ..... OFF
3. Flight..... LAND as soon as practical.

### AUTOPILOT or TRIM MALFUNCTION

1. Control Wheel ....GRASP FIRMLY & CONTROL
2. A/P..... DISCONNECT
3. Aircraft .....RE-TRIM manually as needed
4. Autopilot Circuit Breaker .....PULL