PILOT'S

FLIGHT CREW CHECKLIST

C-182 Q

Manufacture date 1978

N 94986

RALLY 08

USAF ACADEMY AERO CLUB

P.O. BOX 77

AIR FORCE ACADEMY, CO 80840

719-333-4423

21 January 2021

C 182 Q / 94986
KTS

ROTATION	**60**
NORMAL CLIMB	**90**
BEST GLIDE	**70**
Vx	**60**
Vy (SL-10,000 MSL)	**78-72**
Vs	**41**
Vso	**38**
Vfe 0-10 / 10-40	**140 / 95**
Va **weight**	**111/100/89** **2950/2450/1950**
DOWNWIND	**95**
BASE	**80**
FINAL	**70**
SHORT FINAL FLAPS UP	**70**
SHORT FINAL FLAPS DOWN	**60**
USABLE FUEL Gals all flt conditions	**75**
MAX WEIGHT LBS	**2950**

INTERIOR INSPECTION

1. **Hobbs & Engine Tach readings ---------- VERIFY**
2. **Required Documents ---------- ON BOARD**
3. **CO Detector Exp. Date & Color ---------- CHECK**
4. **Mixture ---------- IDLE CUT OFF**
5. **Electrical Switches ---------- OFF**
6. **Circuit Breakers ---------- IN**
7. **Avionics Master Switch ---------- OFF**
8. **Control Wheel Lock ---------- REMOVE**
9. **Ignition Switch ---------- OFF**
10. **Primer ---------- IN & LOCKED**
11. **Master Switch – (remove pitot cover first) ---------- ON**
12. **Fuel Quantity ---------- CHECK**
13. **Flaps ---------- DOWN 30 DEGREES**
14. **Landing Light ---------- CHECK, THEN OFF**
15. **Pitot Heat ---------- CHECK, THEN OFF**
16. **Nav/Beacon/Strobe Lights --------- CHECK, THEN OFF**
17. **Stall Warning Horn ---------- CHECK OPERATION**
18. **Master Switch---------- OFF**
19. **Beacon Light Switch ---------- ON**
21. **Alternate Static Air ---------- CHECK, THEN OFF**
21. **Elevator Trim ---------- SET FOR TAKE OFF**
22. **Rudder Trim ---------- NEUTRAL**
23. **Cowl Flaps ---------- OPEN**
24. **Fuel Selector ---------- BOTH**

EXTERIOR INSPECTION

LEFT SIDE

1. **Fuel Tank Sump ---------- DRAIN**
2. **Baggage Door ---------- CLOSED & LOCKED**
3. **ELT Antenna ---------- CONDITION**
4. **Left Fuselage & Bottom ---------- CONDITION**

EMPENNAGE

LEFT SIDE

1. **Vertical Stabilizer ---------- CONDITION**
2. **Horizontal Stabilizer ----------CONDITION**
3. **Elevator ---------- CONDITION**
   - **Movement & Stops ---------- CHECK**
   - **Security (cable & hinges) ---------- CHECK**
4. **Lights ---------- CHECK**
5. **VOR Antenna ---------- CONDITION**
6. **Rudder ---------- CONDITION**
   - **Movement & Stops ---------- CHECK**
   - **Security (cable & hinges) ---------- CHECK**
7. **Tie Down ---------- DISCONNECT**

RIGHT SIDE

8. **Elevator ---------- CONDITION**
   - **Movement & Stops ---------- CHECK**
   - **Security (cable & hinge) ---------- CHECK**
   - **Trim Tab (alignment) ---------- CHECK**
9. **Vertical Stabilizer ---------- CONDITION**
10. **Horizontal Stabilizer ---------- CONDITION**
11. **Fuselage ---------- CONDITION**

RIGHT MAIN LANDING GEAR

1. **Main Gear Strut ---------- CHECK**
2. **Brake Assembly ---------- CHECK**
3. **Tire Condition & Inflation ---------- CHECK**
4. **Wheel Hub Nut & Pin ---------- CHECK**

RIGHT WING

1. Fuel Tank Sump ---------- DRAIN
2. Flap ---------- CONDITION & MOVEMEN
   - Tracks & Roller---------- CONDITION
   - Control Rod ---------- SECURE
3. Aileron ---------- CONDITION & MOVEMENT
   - Hinges & Control Rod ---------- SECURE
4. Wing Tip ---------- CONDITION
5. Leading Edge ---------- CONDITION
6. Under Surface of Wing & Strut ---------- CONDITION
7. Tie Down ---------- DISCONNECT
8. Fuel Quantity ---------- CHECK VISUALLY
9. Fuel Filler Cap ---------- SECURE
10. Top of Wing & Antennas ---------- CONDITION
11. Air Vents Inlets ---------- CLEAR

NOSE

1. Windshield ---------- CONDITION & CLEAR
2. Cowling Fasteners ---------- SECURE
3. Static Port (right) ---------- CLEAR
4. Spinner & Propeller ---------- CONDITION
5. Engine Cooling Air Inlets ---------- CLEAR
6. Alternator Belt ---------- CHECK
7. Landing Light ---------- CONDITION
8. Carburetor Air Filter ---------- CONDITION
9. Nose Gear Strut ----------EXTENTION 3"
   - Steering Rods ---------- SECURE
   - Shimmy Dampener ---------- CONDITION
10. Tire Inflation & Condition ---------- CHECK
11. Tie Down ---------- DISCONNECT
12. Static Port (left) ---------- CLEAR
13. Cowling Fasteners ---------- SECURE
14. Fuel Strainer Knob ---------- PULL 4 SECONDS
15. Oil Quantity --min 10 qts ---------- CHECK
16. Oil Dip Stick ---------- SECURE
17. Oil Access Door ---------- SECURE

LEFT WING

1. Fuel Quantity ---------- CHECK VISUALLY
2. Fuel Filler Cap ---------- SECURE
3. Top of Wing & Antennas ---------- CONDITION
4. Air Vent Inlets ---------- CLEAR
5. Pitot Tube ---------- CHECK
6. Fuel Vent ---------- CHECK
7. Stall Warning Horn ---------- CHECK OPERATION
8. Tie Down ---------- DISCONNECT
9. Under Surface of Wing & Strut ---------- CONDITION
10. Wing Leading Edge ---------- CONDITION
11. Wing Tip ---------- CONDITION
13. Aileron ---------- CONDITION & MOVEMENT
    - hinges & control rod ---------- SECURE
14. Flap ---------- CONDITION & SECURE
    - track & roller ---------- CONDITION
    - control rod ---------- SECURE

LEFT MAIN LANDING GEAR

1. Main Gear Strut ---------- CHECK
2. Brake Assembly ---------- CHECK
3. Tire Inflation & Condition ---------- CHECK
4. Wheel Hub Nut & Pin ---------- CHECK
5. Chock ---------- REMOVE
6. Aircraft ---------- ROLL FORWARD 1 FOOT
7. All Tires ---------- CHECK AGAIN

PASSENGER BRIEFING

1. Use of Seat Belt & Shoulder Harness
2. Operation of Fresh Air Vents
3. Latching of Doors & Windows
4. Location of Exits
5. Location of Survival Equipment
6. Emergency Procedures

BEFORE STARTING ENGINE

1. Seats & Seat Belts ---------- ADJUST & SECURE
2. Flight Controls ---------- FREE & CORRECT
3. Key ---------- IN IGNITION

NORMAL START

1. Mixture ---------- RICH
2. Prop ----------(full forward)---- HIGH RPM
3. Carburetor Heat ---------- COLD
4. Throttle ---------- OPEN 1/2”
5. Primer ---------- AS REQUIRED
6. Master Switch ---------- ON
7. Propeller Area ---------- CLEAR
8. Ignition Switch ---------- START
   - release when engine starts

   if engine fails to start within 10 blades, stop cranking and allow starter to cool for 2 minutes.

HOT START ==========

1. Mixture ---------- RICH
2. Throttle ---------- Pump Once, OPEN 1"
3. Carburetor Heat ---------- COLD
4. Master Switch ---------- ON
5. Propeller Area ---------- CLEAR
6. Ignition Switch ---------- START

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8. Throttle ---------- 1000 RPM
9. Oil Pressure / Suction ---------- CHECK

AFTER ENGINE START

1. Avionics Master Switch ---------- ON
2. Nav Lights (Night) ---------- ON
3. Mixture ---------- LEAN 1" (above 5000' MSL)
4. Flaps ---------- (check visually) -- UP
5. Radios ---------- SET

6. Transponder (1200 / 0245) ---------- SET
7. ATIS / ASOS ---------- WEATHER/RUNWAY INFO

TAXI

1. Obtain Taxi Clearance or announce on CTAF
2. Toe Brakes ---------- CHECK
3. Control Surfaces --------- (according to wind) POSITION
4. Flight Instruments ---------- CHECK

RUN UP

1. Brakes ---------- HOLD
2. Throttle ---------- 1700 RPM
3. Mixture ---------- LEAN FOR MAX POWER
   Above 5000' MSL
4. Suction / Engine Instrument ---------- CHECK
5. Alternator - (Voltage Low Light ON/OFF)------- CHECK
6. Carburetor Heat ---------- CHECK
7. Magnetos ---------- CHECK
   - Check right first, 150 max drop / 50 max diff.
8. Prop ---------- (3 times) – CYCLE
   - man press-increase/RPM-decrease/oil press-decrease
9. Throttle ----------IDLE CHECK, THEN 1000RPM
   - smooth engine operation
   - idle rpm
   - oil pressure
10. Mixture ---------- ENRICHEN 1 FULL TURN
11. Flight Instruments ---------- CHECK & SET
12. Nav Instruments ---------- SET COURSE
13. Departure Procedure ---------- REVIEW
14. Emergency Procedures ---------- REVIEW
15. Doors & Windows ---------- CLOSED & LOCKED

BEFORE TAKEOFF

1. Landing & Strobe Lights ---------- ON
2. Obtain takeoff clearance or announce on CTAF

NORMAL TAKEOFF

1. **Wing Flaps ---------- UP**
2. **Carburetor Heat ---------- COLD**
3. **Power --------- THROTTLE FULL OPEN & 2400 RPM**
4. **Oil Pressure / Airspeed ---------- CHECK**
5. **Rotate (lift nose) ---------- 60KTS**
6. **Normal Climb Speed ---------- 90KTS**

SHORT FIELD TAKEOFF

1. **Wing Flaps ---------- 20**
2. **Carburetor Heat ---------- COLD**
3. **Brakes ---------- APPLY**
4. **Power ----------THROTTLE FULL OPEN & 2400 RPM**
5. **Oil Pressure ---------- CHECK**
6. **Brakes ---------- RELEASE**
7. **Elevator Control---------- SLIGHTY TAIL LOW**
8. **Climb Speed ---------- 60KTS**
   - **until obstacles are cleared, then climb at Vy-72 to normal climb 85K**
9. **Flaps ---------- RETRACT INCREMENTALLY**

SOFT FIELD TAKEOFF

1. **Wing Flaps ---------- 20**
2. **Carburetor Heat ---------- COLD**
3. **Brakes ---------- DO NOT APPLY**
4. **Throttle as necessary to keep rolling**
5. **Elevator Control ----------FULL BACK**
6. **Power ----------THROTTLE FULL OPEN**
   - **when aligned with the runway**
7. **Elevator Control ---------- RELAX**
   - **after nose wheel is clear of the ground**
8. **oil pressure / airspeed**
9. **When Airborne Level off immediately and accelerate**
   - **using ground effect, climb at Vx-60 until obstacles are cleared, then climb at Vy-72 to normal climb 90K**

10. **Flaps ---------- RETRACT INCREMENTALLY**
11. **Power ---------- Man Press 23" RPM 2400**

ENROUTE

CLIMB

1. **Normal Climb Speed ---------- 90KTS**
2. **Power ---------- MAN PRESS 23" & 2400 RPM**
3. **RPM / Oil Pressure / Temp ---------- CHECK**
4. **Flaps ---------- UP**
5. **Landing Light ---------- OFF**
6. **Cowl Flaps ---------- OPEN as required**

CRUISE

1. **Man Press / RPM ---------- 19" 2300rpm**
   - **No more than 75%; 65% power for best fuel econ, refer to POH**
2. **Mixture ---------- LEAN AS REQUIRED**
   - **WARNING: Improper leaning procedures will greatly reduce endurance**
3. **Trim ---------- ADJUST**
4. **Engine Instruments ---------- CHECK**
5. **Flight Instruments ---------- CHECK**
6. **Cowl Flaps ---------- CLOSE as required**

DESCENT

1. **Fuel Quantity ---------- CHECK**
2. **fuel Selector ---------- BOTH**
2. **Carburetor Heat ---------- AS REQUIRED**
3. **Throttle / Prop ---------- AS DESIRED**
4. **Mixture ---------- RICH AS REQUIRED**
5. **Cowl Flaps ---------- CLOSED**

LANDING

BEFORE LANDING

1. Landing Light ---------- ON
2. Carburetor Heat ---------- ON
3. Power ------ THROTTLE AS REQ / PROP HIGH RPM
4. Mixture ---------- RICH AS NECESSARY
5. Rudder Trim ---------- NEUTRAL
6. Cowl Flaps ---------- OPEN as required
7. Seat Belt & Shoulder Harness ---------- FASTEN

NORMAL LANDING

1. Airspeed ---------- 70 KTS (flaps up)
   ------- 60KTS (flaps down)
2. Touchdown ---------- ON MAIN WHEELS FIRST
3. Landing Roll ------- LOWER NOSE WHEEL GENTLY
4. Braking ---------- MINIMUM REQUIRED

GO-AROUND

1. Power ---------- THROTTLE FULL OPEN / 2400 RPM
2. Carburetor Heat ---------- COLD
3. Flaps Retract ---------- 20
4. Establish Climb Attitude ---------- Vx-60 then climb Vy-72, accelerate to 90K
5. Flaps ---------- RETRACT INCREMENTALLY
6. Power ---------- Man Press 23" RPM 2400

TOUCH AND GO

1. Flaps ---------- UP
2. Power --------- THROTTLE FULL OPEN & 2400 RPM
3. Carburetor Heat ---------- COLD
4. Rotate (lift nose) ---------- 60KTS
5. Normal Climb Airspeed ----------90KTS
6. Power ---------- Man Press 23" 2400 RPM

SHORT FIELD LANDING

1. Airspeed ---------- 70KTS (flaps up)
   ------ 60KTS (flaps down)
2. Throttle ---------- REDUCE TO IDLE
3. Touchdown ---------- MAIN WHEELS FIRST
4. Flaps ---------- RETRACT
5. Brakes ---------- APPLY HEAVILY

SOFT FIELD LANDING

1. Airspeed ---------- 70KTS (flaps up)
   ------60KTS (flaps down)
2. Throttle ---------- AS REQUIRED
   - To touchdown on main wheel as softly as possible
3. Landing Roll ------- LOWER NOSE WHEEL GENTLY
   - As late as possible
4. Elevator Control ------ (speed permitting) FULL BACK
5. Brakes ---------- DO NOT APPLY
6. Flaps ---------- DO NOT RETRACT

AFTER LANDING

1. Cowl Flaps ---------- OPEN
2. Carburetor Heat ---------- OFF
3. Landing Light / Strobes ---------- OFF
4. Flaps ---------- UP
5. Obtain Taxi Clearance or Announce of CTAF

POST FLIGHT

SHUTDOWN

1. **Avionics Master Switch ---------- OFF**
2. **Nav Lights (if used) ---------- OFF**
3. **Throttle ---------- IDLE**
4. **Magneto Grounding ---------- CHECK**
5. **Throttle ---------- 1000 RPM**
6. **Mixture ---------- IDLE CUTOFF**
7. **Throttle ---------- CLOSED**
8. **Ignition Switch ---------- OFF, KEY REMOVED**
9. **Master Switch ---------- OFF**
10. **FLIGHT PLAN ---------- CLOSE**

SECURING AIRCRAFT

1. **Control Wheel Lock -------- (except in hanger) INSTALL**
2. **Headsets ---------- STOW**
3. **Cabin Vents, Air & Heat Knobs ---------- CLOSED**
4. **CO Detector Color ---------- CHECK**
5. **Hobbs & Engine Tach Readings / Key ---------- RECORD**
6. **Sun Screen (summer) ---------- INSTALL**
7. **Seat Belts / Shoulder Harness---------- STOW**
8. **Fuel Selector ---------- RIGHT**
9. **Remove Personal Belongings ------ INCLUDING TRASH**
10. **Inspect Tires ---------- CHECK FOR TREAD CORD**
11. **Chocks ---------- INSTALL**
12. **Oil Access Door ---------- OPEN**
13. **Windshield ---------- CLEAN**
14. **Tie Downs ---------- INSTALL**
15. **Master Switch ---------- RECHECK OFF**
16. **Doors & Windows ---------- CLOSE & LOCK**
    - **Do not lock doors in hanger**
    - **Leave windows open; summer only**
17. **Pitot Tube Cover – (after each flight) ---------- INSTALL**
18. **Checklist ---------- STOW BETWEEN PILOT SEATS**