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

10 October 2021

C 182 Q / 94986
KTS

ROTATION	**60**
NORMAL CLIMB	**90**
BEST GLIDE	**70**
Vx	**60**
Vy (SL-10,000 MSL)	**78-72**
Vs	**48**
Vso	**45**
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**