

**PILOT'S
FLIGHT CREW CHECKLIST**

T - 41 C

Manufacture date 1968

7903 N

RALLY 03

USAF ACADEMY AERO CLUB

P.O. BOX 77

AIR FORCE ACADEMY, CO 80840

719-333-4423

9 Dec 2021

T - 41C / 7903 N

1968

MPH

ROTATION	60
NORMAL CLIMB	95
BEST GLIDE	85
V_x	70
V_y	95
V_s	64
V_{so}	53
V_{fe}	100
V_a (2500 LBS)	127
DOWNWIND	105
BASE	85
SHORT FINAL FLAPS UP	85
SHORT FINAL FLAPS 20	80
SHORT FINAL FLAPS 40	75
USABLE FUEL Gals all flt conditions	46
MAX WEIGHT NORMAL	2500
MAX WEIGHT UTILITY	2200

PREFLIGHT

INTERIOR INSPECTION

1. Hobbs & Tach-Meter Reading -----VERIFY
2. Required Documents ----- ON BOARD
3. CO Detector Exp Date & Color ----- CHECK
4. Avionics Master Switch ----- OFF
5. Mixture ----- IDLE CUT OFF
6. Electrical Switches ----- OFF
7. Circuit Breakers ----- IN
8. Control Wheel Lock ----- REMOVE
9. Ignition Switch ----- OFF
10. Primer ----- IN AND LOCKED
11. Auxiliary Fuel Pump Switch ----- OFF
12. Fuel Shutoff Knob ----- IN
13. Master Switch ----- ON
14. Fuel Quantity ----- CHECK
15. Flaps ----- DOWN 30 DEGREES
16. Taxi / Landing Lights ----- CHECK, THEN OFF
17. Pitot Heat ----- CHECK, THEN OFF
18. Nav / Beacon / Strobe Lights ----- CHECK, THEN OFF
19. Master Switch ----- OFF
20. Elevator Trim ----- SET FOR TAKE OFF
21. Fuel Selector ----- BOTH

EXTERIOR INSPECTION

LEFT SIDE

1. Fuel Tank Sump ----- DRAIN
2. Baggage Door ----- LOCKED
2. E.L.T. Antenna ----- CONDITION
4. Static Port ----- CLEAR
3. Fuselage & Bottom ----- CONDITION
4. Battery Drain ----- CHECK FOR LEAKAGE

EMPENAGE

LEFT SIDE

1. Vertical Stabilizer ----- CONDITION
2. Horizontal Stabilizer ----- CONDITION
3. Elevator ----- CONDITION
 - Movement and Stops ----- CHECK
 - Security (cable & Hinges) ----- CHECK
4. VOR Antenna ----- CONDITION
5. Rudder ----- CONDITION
 - Movement and Stops ----- CHECK
 - Security (Cable & Hinges) ----- CHECK
6. Tie Down ----- REMOVE

RIGHT SIDE

1. Elevator ----- CONDITION
 - Movement and Stops ----- CHECK
 - Security (Cable & Hinges) ----- CHECK
 - Trim Tab (Alignment) ----- CHECK
2. Horizontal Stabilizer ----- CONDITION
3. Vertical Stabilizer ----- CONDITION
4. Fuselage ----- CONDITION
5. Static Port ----- CLEAR

RIGHT MAIN LANDING GEAR

1. Main Gear Strut ----- CHECK
2. Brake Assembly ----- CHECK
3. Tire ----- INFLATION & CONDITION
4. Wheel Hub & Pin ----- CHECK

RIGHT WING

1. Fuel Tank Sump ----- DRAIN
2. Flap ----- CONDITION & SECURE
 - 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 ----- REMOVE
8. Fuel Quantity ----- CHECK VISUALLY
do not step on strut
9. Fuel Filler Cap ----- SECURE
10. Top of Wing and Antennas ----- CONDITION
11. Air Vent Inlets ----- CLEAR

NOSE

1. Windshield ----- CONDITION & CLEAN
2. Cowling Fasteners ----- SECURE
3. Fuel Sump Drain (Belly) ----- DRAIN
4. Propeller ----- CONDITION
5. Engine Cooling Air Inlets ----- CLEAR
6. Nose Gear Strut ----- EXTENSION 3"
 - Steering Rods ----- SECURE
 - Shimmy Dampener ----- CONDITION
7. Tire ----- INFLATION & CONDITION
8. Cowling Fasteners ----- SECURE
9. Fuel Strainer Knob (cockpit) ----- PULL OUT 4 SEC

LEFT WING

10. Oil Quantity ----- CHECK10
11. Oil Dipstick ----- SECURE
12. Oil Access Door ----- SECURE
13. Fuel Quantity ----- CHECK VISUALLY
Do not step on strut
14. Fuel Filler Cap ----- SECURE
15. Top of Wing and Antennas ----- CONDITION
16. Air Vents Inlets ----- CLEAR
17. Pitot Tube ----- CHECK
18. Fuel Vent ----- CHECK
17. Stall Warning Horn Vent ----- CLEAR
18. Tie Down ----- REMOVE
19. Under Surface of Wing & Strut ----- CONDITION
20. Wing Leading Edge ----- CONDITION
21. Wing Tip ----- CONDITION
22. Aileron ----- CONDITION & MOVEMENT
 - Hinges and Control Rod ----- SECURE
23. Flap ----- CONDITION & SECURE
 - Tracks & Rollers ----- CONDITION
 - Control Rod ----- SECURE

LEFT MAIN LANDING GEAR

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

PASSENGER BRIEFING

1. USE OF SEAT BELT AND SHOULDER HARNESS
2. OPERATION OF FRESH AIR VENTS (OVERHEAD)
3. LATCHING DOORS AND WINDOWS
4. LOCATION OF EXITS
5. LOCATION OF SURVIVAL EQUIPMENT
6. EMERGENCY PROCEDURES

BEFORE STARTING ENGINE

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

STARTING ENGINE

1. Mixture ----- RICH
2. Master Switch ----- ON
3. Throttle ----- FULL OPEN
4. Auxiliary Fuel Pump Switch ----- (8 to 10 GPH) HIGH
5. Auxiliary Fuel Pump Switch ----- OFF
6. Throttle ----- CLOSED then open 1/4 to 1/2 inch
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 two minute

**HOT START NEXT PAGE
(VAPOR LOCK)**

HOT START (vapor lock) =====

1. Mixture ----- RICH
2. Throttle ----- FULL OPEN
3. Master Switch ----- ON
4. Auxiliary fuel boost pump -- (8 to 10 GPH) --- HIGH
5. Auxiliary fuel pump ----- OFF
6. Mixture ----- IDLE CUTOFF
7. Throttle ----- IN HALF WAY
8. Ignition Switch ----- START
 - Advance mixture as engine starts
 - Maintain engine RPM below 1500RPM
 - Throttle reduce to 1000 RPM

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9. Throttle ----- 1000 RPM
 10. Mixture ----- LEAN 1"
 11. Oil Pressure / Suction ----- CHECK
 12. Ammeter ----- CHECK

AFTER ENGINE START

1. Avionics Master Switch ----- ON
2. Nav Lights (Night) ----- ON
3. Flaps ----- UP
4. Radios / Transponder ----- SET
5. ATIS/ASOS ----- WEATHER / RUNWAY INFO

TAXI

1. Obtain Taxi Clearance or announce on CTAF
2. Toe Brakes ----- CHECK
3. Control Surfaces ----- according to the wind SET
4. Flight Instruments during taxi ----- CHECK

RUNUP

1. Brakes ----- HOLD
2. Throttle ----- 1800 RPM
3. Mixture ----- LEAN FOR MAX POWER
4. Suction / Engine Instruments ----- CHECK
5. Ammeter ----- CHECK
ammeter normal 0 to +2 needle widths
ammeter max for takeoff more than +2 needle widths
6. Magnetos ----- CHECK
check right first, 150 max drop / 50 max diff
7. Throttle ----- IDLE CHECK, THEN 1000 RPM
 - smooth engine operation
 - idle RPM check (650 rpm min)
 - oil pressure
8. Flight Instruments ----- SET
9. Nav Instruments ----- SET COURSE
10. Radios ----- SET FREQUENCIES
11. Transponder ----- ALT
12. Departure Procedure ----- REVIEW
13. Emergency Procedures ----- REVIEW
14. Doors & Windows ----- CLOSED & LOCKED

BEFORE TAKEOFF

1. Obtain takeoff clearance or announce on CTAF
2. Landing Light / Strobe ----- ON

NORMAL TAKE-OFF

1. Flaps ----- UP
2. Throttle (smoothly) ----- FULL OPEN
3. RPM (2270 min) ----- CHECK
4. Oil Pressure / Airspeed Indicator ----- CHECK
5. Rotate ----- 60MPH
6. Normal Climb Speed ----- 95MPH

SHORT FIELD TAKE-OFF

1. Flaps ----- 10°
2. Brakes ----- APPLY
3. Throttle (smoothly) ----- FULL OPEN
4. RPM (2270 min.) / Oil Pressure ----- CHECK
5. Brakes ----- RELEASE
6. Elevator Control ----- SLIGHTLY TAIL LOW
7. Climb Speed ----- 70 MPH
 - until all obstacles are cleared, then climb at V_y-95
8. Flaps ----- RETRACT INCREMENTALLY

SOFT FIELD TAKE-OFF

1. Flaps ----- 10°
2. Brakes ----- DO NOT APPLY
3. Power as necessary to keep rolling.
4. Elevator Control ----- FULL BACK
5. Throttle (smoothly) ----- FULL OPEN
 - when aligned with the runway
6. Elevator Control ----- RELAX
 - after nose wheel is clear off the ground
7. RPM (2300 min) ----- CHECK
8. Oil Pressure / Airspeed indicator ----- CHECK
9. When airborne level off immediately, accelerate using ground effect, climb at V_x-75 until obstacles are cleared, then climb at V_y-90
10. Flaps ----- RETRACT INCREMENTALLY

ENROUTE

CLIMB

1. Throttle ----- **FULL POWER**
2. Normal Climb Speed ----- **90 MPH**
3. Engine Instruments ----- **CHECK**
4. Flaps ----- **UP**
5. Landing Light ----- **OFF**

CRUISE

1. Cruise Power ----- **SET**
2. Fuel Flow ----- **SET TO 10 GPH**
Use the POH Cruise Performance Charts page A 8
3. Engine Instruments ----- **CHECK**
4. Flight Instruments ----- **CHECK**

DESCENT

1. Throttle ----- **AS REQUIRED**
2. Mixture ----- **AS REQUIRED**
3. Fuel Quantity ----- **CHECK**

LANDING

BEFORE LANDING

1. Landing Light ----- **ON**
2. Mixture ----- **AS REQUIRED**
3. Fuel Selector ----- **BOTH**
4. Seat Belt ----- **FASTEN**

NORMAL LANDING

1. Airspeed ----- **85 MPH (flaps up)**
----- **80 MPH (flaps 20)**
----- **75 MPH (flaps 40)**
2. Flaps ----- **AS REQUIRED**
3. Touchdown ----- **MAIN WHEELS FIRST**
4. Landing Roll ----- **LOWER NOSE WHEEL GENTLY**
5. Braking ----- **MINIMUM REQUIRED**

GO-AROUND

1. Throttle (smoothly) ----- **FULL OPEN**
2. Flaps ----- **FLAPS 20**
3. Establish climb attitude for ----- **V_x-70 OR V_y- 95**
4. Flaps ----- **RETRACT INCREMENTALLY**

TOUCH-AND-GO PROCEDURE

1. Flaps ----- **UP**
2. Throttle (smoothly) ----- **FULL OPEN**
3. Rotate ----- **60MPH**
4. Normal Climb Speed ----- **85MPH**

SHORT FIELD LANDING

1. Airspeed ----- **75 MPH (flaps 40)**
2. Throttle ----- **REDUCE TO IDLE**
3. Touchdown ----- **MAIN WHEELS FIRST**
4. Flaps ----- **RETRACT**
5. Brakes ----- **APPLY HEAVILY**

SOFT FIELD LANDING

1. Airspeed ----- **75 (flaps 40)**
2. Throttle ----- **POWER AS NESSESSAY**
To touch down on the main wheels as soft as possible
3. Landing Roll ----- **LOWER NOSE WHEEL GENTLY**
 - as late as possible
4. Elevator Control ----- **FULL BACK (speed permitting)**
5. Brakes ----- **DO NOT APPLY**
6. Flaps ----- **DO NOT RETRACT**
7. Throttle ----- **AS NECESSARY**
 - keep rolling until clear of runway

AFTER LANDING

1. Landing Light / Strobes ----- **OFF**
2. Flaps ----- **UP**
3. Obtain taxi clearance or announce on CTAF

POST FLIGHT

SHUT DOWN

1. Avionics Master Switch ----- OFF
2. Nav Lights (if used) ----- OFF
3. Throttle Idle Check – (650 rpm min)----- IDLE
4. Magneto Grounding ----- CHECK
5. Throttle ----- 1000 – 1200 RPM
7. Mixture ----- IDLE CUT OFF
8. Throttle ----- CLOSE
9. Ignition Switch ----- OFF & KEY REMOVED
10. Master Switch ----- OFF
11. FLIGHT PLAN ----- CLOSE

SECURING AIRCRAFT

1. Control Wheel Lock ----- (after each flight) INSTALL
2. Headsets ----- STOW
3. Cabin Vents, Air & Heat Knobs ----- CLOSED
4. CO Detector Color ----- CHECK
5. Hobbs & Tach Readings / Key ----- RECORD
6. Sun Screen (summer) ----- INSTALL
7. Seat Belt / Shoulder Harness ----- SECURE
8. Fuel Selector ----- LEFT OR RIGHT
9. Personnel belongings and TRASH ----- REMOVE
10. Inspect Tires ----- CHECK FOR TREAD CORD
11. Chocks ----- INSTALL
12. Oil Access Door (summer only) ----- OPEN
13. Windshield ----- CLEAN
14. Tie Downs ----- INSTALL
15. Master Switch ----- RE-CHECK OFF
16. Doors & Windows ----- CLOSE AND LOCK
 - Do not lock doors in hangar
 - Leave windows open (summer only)
17. Pitot Tube Cover – (after each flight) ----- INSTALL
18. Check List ----- STOW BETWEEN PILOT SEATS