

JAX NAVY FLYING CLUB
 PA30 TWIN COMANCHE
 NORMAL PROCEDURES CHECKLIST



April 2023

AIRSPEEDS FOR SAFE OPERATION	<u>MPH</u>
Never Exceed	230
Maximum Structural Cruising	194
Design Maneuvering	162
Maximum Flap Extended	125
Maximum Landing Gear Extended	150
Maximum Landing Gear Operating	150
Minimum Control Speed VMC	90
Twin Engine Best Rate of Climb	112
Twin Engine Best Angle of climb	90
Single Engine Best Rate of Climb	105
Recommended Safe Single Engine Speed	97
Enroute Climb	130
Stalling Speeds	
Gear and Flaps Down – Power Off	69
Gear and Flaps Up – Power Off	76
Normal Approach Speeds Gear Down, Flaps Down	
Downwind	115
Base	110
Final	100
Maximum Demonstrated Crosswind Component	20
Single Engine Approach Speed	105
(Gear Down, Flaps – half)	
Manual Landing Gear Extension – Maximum Speed	100
To Close Door Reduce Below	100

N7119Y NORMAL PROCEDURES CHECKLIST

CHECK OUT

1. COVENANT NOT TO SUE..... COMPLETED (IF REQ'D)
2. FLIGHT CIRCLE..... CHECKOUT
3. MAINTENANCE DISCREPANCIES REVIEW
4. PREVIOUS FLIGHT HOBBS NUMBERS NOTED
5. AIRCRAFT FLIGHT BAG INVENTORY
 - Keys
 - NORMAL AND EMERGENCY CHECKLISTS

PRE-FLIGHT PLANNING

1. WEATHER AND NOTAMS..... REVIEW
2. CLUB MINIMUMS REVIEW (AS REQ'D)
3. CROSSWIND & GUST LIMIT..... REVIEW (AS REQ'D)
4. DENSITY ALTITUDE..... DETERMINE
5. TAKEOFF & LANDING PERFORMANCE... DETERMINE
6. RUNWAY MINIMUM LENGTH..... DETERMINE
7. FUEL REQUIREMENTS DETERMINE
8. WEIGHT AND BALANCE..... IN LIMITS
9. CHART SUPPLEMENT (A/FD) REVIEW (AS REQ'D)
10. FLIGHT PLAN FILE

INTERIOR

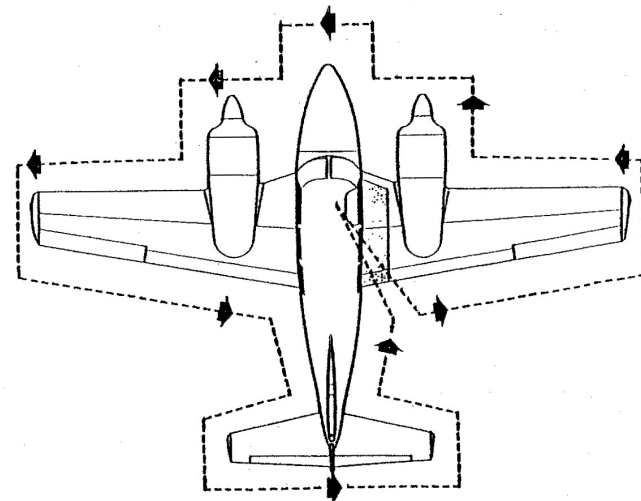
1. CONTROL LOCK (seat belt) REMOVED
2. HOBBS METERS VERIFY
NOTE: If there is in an error in the HOBBS reading, do not start until informing a BOD member.
3. AIRCRAFT BINDER (UNDER RIGHT SEAT)... PRESENT
4. REQUIRED DOCUMENTS (AROW)..... PRESENT
5. ELT..... CENTER POSITION—ARM/OFF
6. PITOT HEAT OFF
7. PFD SWITCH OFF
8. FUEL PUMPS..... OFF
9. GEAR SELECTOR DOWN
- 10. MAGNETO SWITCHES OFF**
11. ALTERNATOR SWITCHES..... OFF
12. THROTTLES CLOSED
13. PROP CONTROLS FULL INCREASE
14. MIXTURES IDLE CUTOFF
15. ALTERNATE AIR CLOSED

16. COWL FLAPS..... OPEN
17. ELEVATOR AND RUDDER TRIM NEUTRAL
18. EMERGENCY GEAR HANDLE STOWED
19. CIRCUIT BREAKERS AND FUSES CHECK
20. MASTER SWITCH..... ON
21. GEAR LIGHT CHECK GREEN
22. FLAPS CHECK OPERATION & INDICATOR; LEAVE UP
23. FUEL QUANTITY (gauge readings) . CHECK MAIN&AUX
24. EXTERIOR LIGHTS, PITOT HEAT, STALL WARNING INDICATOR ON AND CHECK
25. ELECTRICAL SWITCHES AND LIGHTS OFF
26. MASTER SWITCH..... OFF

EXTERIOR

1. FUEL TANK DRAINS..... SAMPLE & INSPECT

RIGHT WING



1. WINGS & CONTROL SURFACES .. UNCONTAMINATED
2. FLAP..... SECURE & UNDAMAGED
3. AILERON..... FREE & UNDAMAGED
4. WINGTIP, NAV, STROBE AND LDG LTS. UNDAMAGED
5. WING TOP & BOTTOM SURFACE..... UNDAMAGED
6. LEADING EDGE..... UNDAMAGED
7. FUEL QUANTITIES CHECK
8. FUEL CAPS..... SECURED

9. OIL LEVEL (normal 5-6 quarts)..... CHECK
10. FUEL VENTS AND DRAINS UNOBSTRUCTED
11. TIE-DOWN REMOVED
12. PROPELLER..... UNDAMAGED
13. SPINNER SECURE & UNDAMAGED
14. COWL PLUGS REMOVED
15. LANDING GEAR STRUT ..PROPER EXTENSION (2.75")
16. MAIN GEAR TIRE & BRAKE..... CONDITION
17. GEAR SWITCHES UNDAMAGED
18. CHOCKS..... REMOVED

NOSE

1. WINDSHIELD..... CLEAN & UNDAMAGED
2. NOSE GEAR STRUTPROPER EXTENSION (2.75")
3. NOSE WHEEL TIRE CONDITION
4. GEAR SWITCHES UNDAMAGED
5. TOW BAR REMOVED
6. CHOCKS..... REMOVED

LEFT WING

1. PROPELLER..... UNDAMAGED
2. SPINNER SECURE & UNDAMAGED
3. COWL PLUGS REMOVED
4. FUEL QUANTITIES..... CHECK
5. FUEL CAPS SECURED
6. OIL LEVEL (normal 5-6 quarts)..... CHECK
7. FUEL VENTS AND DRAINS UNOBSTRUCTED
8. LANDING GEAR STRUT ..PROPER EXTENSION (2.75")
9. MAIN GEAR TIRE & BRAKE..... CONDITION
10. CHOCKS..... REMOVED
11. TIE-DOWN REMOVED
12. LEADING EDGE UNDAMAGED
13. PITOT TUBE COVER REMOVED
14. PITOT TUBE UNDAMAGED & UNOBSTRUCTED
15. WINGTIP, NAV, STROBE AND LDG LTS .. UNDAMAGED
16. WINGS & CONTROL SURFACES.. UNCONTAMINATED
17. WING TOP & BOTTOM SURFACE UNDAMAGED
18. AILERON FREE AND UNDAMAGED
19. FLAP SECURE AND UNDAMAGED

EMPENNAGE

1. ANTENNAS..... UNDAMAGED & SECURE
2. EMPENNAGE STRUCTURE UNDAMAGED
3. EMPENNAGE SURFACES UNCONTAMINATED
4. HORIZONTAL STABILATOR..... FREE & UNDAMAGED
5. ANTI-SERVO TAB FREE & UNDAMAGED
6. VERTICAL STABILIZER UNDAMAGED
7. RUDDER..... UNDAMAGED
8. TAIL CONE UNDAMAGED
9. TAIL LIGHT UNDAMAGED
10. TIE-DOWN REMOVED
11. FINAL WALK AROUND COMPLETE

S

Seat belts fastened for taxi, takeoff, landing.
Shoulder harnesses fastened for takeoff, landing.
Seat position adjusted and locked in place.

A

Air vents (*location and operation*).
All environmental controls (*discussed*).
Action in case of any passenger discomfort.

F

Fire extinguisher (*location and operation*)

E

Exit doors (*how to secure; how to open*)
Emergency evacuation plan.
Emergency/survival kit (*location and contents*).
Equipment (*location and operation*).

T

Traffic (*scanning, spotting, notifying pilot*).
Talking ("*sterile cockpit*" expectations).

Y

Your questions? (*Speak up!*)

BEFORE START

1. PAX BRIEF..... COMPLETE
2. SEATS ADJUSTED AND LOCKED
3. SEATBELTS..... FASTENED
4. BRAKES..... TEST
5. FUEL SELECTORS **AUX TANKS**
6. ALTERNATORS..... OFF
7. FLAPS..... UP
8. HEATER..... OFF

STARTING ENGINES

NORMALLY LEFT ENGINE FIRST

1. THROTTLE..... HALF OPEN (3)
2. PROP CONTROL.....FULL FORWARD
3. MIXTURE FULL RICH
4. MASTER SWITCH ON
5. BEACON ON
6. FUEL PUMP..... ON UNTIL FUEL FLOW OBSERVED
7. FUEL PUMPOFF
8. MIXTURE IDLE CUTOFF
9. THROTTLE..... CRACKED OPEN – ¼”
10. MAGNETO SWITCHES ON
11. PROP CLEAR
12. STARTER..... ENGAGE
13. MIXTURE ADVANCE AS ENGINE STARTS
14. OIL PRESSURE CHECK
15. VACUUM..... CHECK
16. MIXTURE LEANED
17. THROTTLE..... 1000 RPM

REPEAT FOR OTHER ENGINE

BEFORE TAXI

1. ALTERNATOR SWITCHES..... ON
2. AMMETER..... CHECK
3. ALTERNATOR INOP LIGHTS..... CHECKED OFF
4. AVIONICS MASTER, PFD, TRANSPONDER..... ON/ALT
5. AUDIO PANEL SET
6. RADIOS..... SET
7. GPS..... SET
8. TRANSPONDER..... ON, 1200, ALT
9. ATIS OBTAIN
10. FLIGHT INSTRUMENTS CHECK AND SET
11. PFD ALT BUG SET (If Desired)
12. CDI NAV SOURCE..... SELECT (If Desired)
13. HSI HDG BUG..... SET (If Desired)
14. CROSSFEED CHECKS COMPLETED
15. AUTOPILOT OFF

TAXI PROCEDURE

1. LIGHTS.....AS REQUIRED
2. PARKING BRAKE RELEASE
During initial taxi:
3. BRAKES TEST
4. FLIGHT INSTRUMENTS CHECK

RUN-UP

1. COWL FLAPS..... OPEN
2. **FUEL SELECTORS..... MAINS**
3. MIXTURE CONTROLS..... FULL RICH
4. PROP CONTROLS..... FULL INCREASE
5. ENGINE INSTRUMENTS CHECK
6. THROTTLES SET FOR 1500 RPM
7. ALTERNATE AIR..... CHECK, THEN OFF
8. PROP FEATHER CHECKS COMPLETED
9. THROTTLES SET FOR 2200 RPM
10. PROPELLERS..... EXERCISE
11. PROPELLER GOVERNOR CHECKS..... COMPLETED
12. MAGNETO CHECKS.....
.....Max. Drop —175 RPM, - Max. Diff. L to R - 50 RPM
13. ALTERNATOR OUTPUTS..... CHECKED
14. VACUUM 4.8” TO 5.1”
15. THROTTLESCHECK IDLE; THEN SET 1000 RPM
16. MIXTURES LEANED
17. AUTOPILOT CHECKED

BEFORE TAKEOFF / HOLD SHORT

1. CONTROLS..... FREE & CORRECT
2. FLAPS UP
3. TRIM TABS..... SET
4. FLIGHT INSTRUMENTS CHECKED
5. FUEL SELECTORS MAINS
6. CLOCK SET
7. PITOT HEAT..... AS REQUIRED
8. PARKING BRAKE OFF
9. SHOULDER HARNESS..... FASTENED
10. COWL FLAPS..... OPEN
11. DOOR..... LATCHED
12. FLIGHT PLAN..... ACTIVATE (as req'd)
13. DEPARTURE BRIEF COMPLETE

IF ANYTHING ABNORMAL HAPPENS PRIOR TO Vr, I WILL ABORT THE TAKEOFF BY BRINGING BOTH THROTTLES TO IDLE. IF I HAVE AN ENGINE FAILURE AFTER Vr AND THERE IS STILL RUNWAY LEFT TO LAND ON, I WILL REDUCE POWER AND LAND ON THE AVAILABLE RUNWAY. IF I HAVE AN ENGINE FAILURE AFTER Vr AND THERE IS NO RUNWAY LEFT TO LAND ON, I WILL MAINTAIN AIRCRAFT CONTROL AND EXECUTE SINGLE ENGINE EMERGENCY PROCEDURES.

TAKEOFF GROUND ROLL DISTANCE IS _____
 TAKEOFF DISTANCE OVER 50' IS _____
 SINGLE ENGINE ROC IS _____
 ACCELERATE / STOP DISTANCE IS _____
 ANY QUESTIONS?

AFTER CLEARED ONTO RUNWAY

1. FUEL PUMPS..... ON
2. LANDING LIGHTS AND STROBES..... ON
3. TRANSPONDER..... PROPER CODE, ALTITUDE
4. MIXTURES..... **FULL RICH**
5. PROPELLERS..... FULL INCREASE

LINEUP

1. BRAKES..... APPLY
2. THROTTLES..... 20" MP
3. ENGINE INSTRUMENTS..... CHECK
4. BRAKES..... RELEASE
5. THROTTLES..... FULL
 ACCELERATE TO 90 MPH (Vmc+10) PRIOR TO CLIMB OUT OF GROUND EFFECT.
6. ACCELERATE TO Vy 112 MPH

CLIMB

1. LANDING GEAR UP
2. FLAPS UP
3. CLIMB POWER (above 500AGL, 25"MP 2500RPM) .SET
4. FUEL PUMPS (above 1000 AGL) OFF
5. ACCELERATE TO CRUISE CLIMB 130 MPH
6. COWL FLAPS REMAIN OPEN DURING CLIMB
7. ENGINE INSTRUMENTS CHECK
8. CHT MONITOR

CRUISE

1. THROTTLES CRUISE MP SET
2. PROPELLER CONTROLS CRUISE RPM SET
3. MIXTURES LEAN AS REQUIRED
4. FUEL PUMPS..... CHECK OFF
5. EXTERNAL LIGHTS AS REQUIRED
6. COWL FLAPS..... SET FOR PROPER CHT
7. FUEL SELECTORS . AS REQUIRED (start timer for AUX)

FUEL TANK CHANGE PROCEDURE

1. FUEL PUMPS..... ON
2. FUEL SELECTORS..... SWITCH
3. FUEL PUMPS..... OFF
4. FUEL FLOW CHECK

DESCENT

1. THROTTLES RETARDED
2. MIXTURES ENRICH DURING DESCENT
3. GEAR WARNING HORN..... CHECKED
4. COWL FLAPS..... AS REQUIRED
5. SEAT BELTS FASTENED
6. FLIGHT INSTRUMENTS SET
7. CDI NAV SOURCE SELECT

APPROACH

1. APPROACH PROCEDURE LOAD (if desired)
2. APPROACH BRIEFING..... COMPLETE
3. FUEL PUMPS..... ON
4. FUEL SELECTORS..... **ON MAINS**
5. COWL FLAPS..... AS REQUIRED
6. LANDING LIGHT ON

BEFORE LANDING

1. SEATS & SEATBELTS LOCKED/FASTENED
2. LANDING GEAR (below 150 MPH) DOWN
3. MIXTURE CONTROLS..... FULL RICH
4. BRAKES TEST
5. PROPELLERS FULL INCREASE
6. FLAPS (below 125 MPH)..... SET
7. HEATER OFF
8. **GUMPS CHECK**..... MIDFIELD, *and during* BASE TURN
9. FINAL GEAR CHECK BEFORE THRESHOLD

GO-AROUND PROCEDURE

1. MIXTURES..... FULL RICH
2. PROPS..... FULL INCREASE
3. THROTTLES..... FULL
4. PITCH..... UP FOR CLIMB
5. AIRSPEED.....(Vx or Vy) AS APPROPRIATE
6. POSITIVE RATE OF CLIMB..... VERIFY
7. GEAR..... UP
8. FLAPS..... 15 DEG
9. COWL FLAPS..... OPEN

WHEN CLEAR OF OBSTACLES:

10. AIRSPEED..... 112 MPH
11. FLAPS..... UP
12. CLIMB POWER..... SET

AFTER LANDING

1. FLAPS..... UP
2. FUEL PUMPS..... OFF
3. MIXTURES..... LEANED
4. COWL FLAPS..... OPEN
5. HEATER..... OFF
6. LANDING LIGHTS AND STROBES..... OFF
7. PITOT HEAT..... OFF
8. ELEVATOR TRIM..... NEUTRAL
9. RUDDER TRIM..... NEUTRAL

SHUTDOWN

1. PFD SWITCH..... OFF
2. THROTTLES..... IDLE
3. MIXTURES..... IDLE CUTOFF
4. **MAGNETO SWITCHES..... OFF**
5. ALTERNATOR SWITCHES..... OFF
6. MASTER SWITCH..... OFF
7. HOBBS METERS..... RECORD
8. FUEL SELECTORS..... OFF
9. FLIGHT PLAN..... CLOSE (as req'd)

SECURE

1. WINDOW..... CLOSED
2. VENTS..... CLOSED
3. CABIN HEAT..... OFF
4. DEFROST..... OFF
5. CABIN AIR..... OFF
6. CONTROL LOCK (seat belt)..... INSTALLED
7. COWL PLUGS..... INSTALLED
8. NOSE PLUG..... INSTALLED
9. PITOT TUBE COVER..... INSTALLED
10. TIE-DOWNS..... INSTALLED
11. COVER..... INSTALLED
12. POST FLIGHT INSPECTION..... COMPLETE