

# Cessna 172R Checklist

## N3504P

### Preflight

#### Cabin

1. **AROW** ----- ON BOARD
2. Control Lock ----- REMOVE
3. Ignition Switch ----- OFF
4. Avionics & Electrical Switches ----- OFF
5. Master Switch ----- ON
6. Avionics Cooling Fan ----- CHECK
7. Fuel Quantity ----- CHECK
8. A/C Lights ----- CHECK BEACON/STROBES  
(CHECK ALL FOR NIGHT FLIGHT)

9. Flaps ----- DOWN
10. Annunciator Panel ----- TEST
11. Master ----- OFF
12. Fire Extinguisher ----- CHECK
13. Hobbs Time ----- RECORD

#### Empenage

1. Left Fuel Tank Sumps (5) ----- DRAIN & CHECK
2. Baggage Door ----- CHECK
3. Left Side of Fuselage ----- CHECK
4. Autopilot Static Port ----- CHECK
5. Left Horizontal Stabilizer ----- CHECK SECURE
6. Left Elevator ----- CHECK FREE AND SECURE
7. Vertical Stabilizer ----- CHECK SECURE
8. Rudder ----- CHECK FREE AND SECURE
9. Tail Tie-down ----- REMOVE
10. Nav Light and Beacon ----- CHECK
11. Right Horizontal Stabilizer ----- CHECK SECURE
12. Right Elevator, Trim Tab ----- FREE AND SECURE
13. Right Side of Fuselage ----- CHECK
14. Antennas ----- CHECK SECURE

#### Right Wing

1. Right Fuel Sumps (5) ----- DRAIN & CHECK
2. Flaps ----- CHECK
3. Aileron ----- CHECK
4. Wing Tip ----- CHECK
5. Leading Edge ----- CHECK
6. Right Wing Tie-down ----- REMOVE
7. Right Wheel, Tire, Brake Lines ----- CHECK
8. Right Fuel Tank ----- QUANTITY, SECURE CAP

#### Nose

1. Oil ----- CHECK (N3504P 5-8 Qts)
2. Fuel Drains (3) ----- DRAIN & CHECK
3. Nose Wheel Strut ----- EXTENSION 2". 4"  
----- LINKS SECURE
4. Shimmy Damper ----- CHECK
5. Tire ----- CHECK INFLATION & WEAR
6. Air Filter ----- CHECK CLEAN
7. Propeller and Spinner ----- CHECK
8. Alternator Belt ----- CHECK
9. Cowling, Windshield ----- CHECK
10. Static Port ----- CHECK CLEAR

#### Left Wing

1. Left Fuel Tank ----- QUANTITY, SECURE CAP
2. Leading Edge ----- CHECK
3. Pitot Tube ----- CHECK CLEAR
4. Stall Warning Horn ----- CHECK CLEAR
5. Fuel Vent ----- CHECK CLEAR
6. Left Wing Tie-down ----- REMOVE
7. Wing Tip ----- CHECK
8. Aileron ----- CHECK FREE & SECURE
9. Flaps ----- CHECK FREE & SECURE
10. Left Wheel, Tire, Brake Lines ----- CHECK

## Engine Start

1. Seats & Seatbelts ----- ADJUST & SECURE
2. Brakes ----- SET
3. Passengers ----- BRIEF
4. Fuel Selector ----- BOTH
5. Fuel shutoff valve ----- CHECK "ON"
6. Mixture ----- IDLE CUT-OFF
7. Throttle ----- OPEN ¼ INCH
8. Lights and Avionics ----- OFF
9. Beacon ----- ON
10. Circuit Breakers ----- CHECK ALL IN
11. Master Switch ----- ON

**NOTE: For hot start, omit steps 12 and 13.**

12. Aux. Fuel Pump ----- ON
13. Mixture ----- RICH UNTIL FUEL FLOW RISES,  
THEN IDLE CUT-OFF
14. Aux. Fuel Pump ----- OFF
15. Propeller Area ----- CHECK & CALL CLEAR
16. Ignition Switch ----- START

**NOTE: Do not crank starter for more than 10 seconds**

17. Mixture --- FULL RICH WHEN ENGINE FIRES
18. Throttle ----- 1000 RPM
19. Oil Pressure ----- CHECK in GREEN
20. Ammeter ----- CHECK NORMAL CHARGE
21. Mixture ----- LEAN FOR TAXI (1 inch)
22. Flaps ----- UP
23. Avionics Switches ----- ON
24. Transponder ----- STANDBY / SQUAWK 1200
25. ATIS ----- CHECK (KSAF 128:55)
26. Altimeter ----- SET
27. Ground Control ----- REQUEST TAXI
28. Brakes ----- RELEASE & TEST

## Pre Takeoff

1. Aircraft ----- INTO WIND
2. Nose Wheel ----- STRAIGHT
3. Parking Brake ----- SET
4. Flight Controls --- CHECK FREE & CORRECT
5. Autopilot Check
  - Gyros ----- Turn Coordinator ON
  - Autopilot Self-Test ----- COMPLETE
  - Autopilot (AP button) ----- ON
  - Flight Controls --- VERIFY AUTOPILOT OVERRIDE
  - A/P Disconnect Switch --- VERIFY DISCONNECT
6. Fuel Selector ----- RE-CHECK "BOTH"
7. Elevator Trim ----- SET FOR TAKE-OFF
8. Throttle ----- 1800 RPM
9. Mixture ----- LEAN (ABOVE 3000')
10. Magnetos ----- CHECK (Max Drop 175 - Diff 50)
11. Ammeter ----- CHECK
12. Vacuum Gauge ----- CHECK
13. Engine instruments ----- CHECK
14. Throttle ----- IDLE (575-625 RPM) CHECK  
SMOOTH
15. Throttle ----- 1000 RPM

16. Flight instruments ----- CHECK & SET
17. Radios & Avionics ----- SET
18. Transponder ----- Mode C (ALT)
19. Aircraft Lights ----- ON (As Needed)
20. Flaps ----- AS NEEDED
21. Doors, Windows, Seats & Seat Belts - SECURE
22. Takeoff Checklist ----- REVIEW
23. Parking Brake ----- RELEASE
24. Tower ----- REQUEST TAKEOFF (KSAF 119.50)
25. Traffic ----- CHECK
26. Takeoff Time ----- NOTE

**IN FLIGHT**

**Takeoff**

- 1. Flaps ----- UP (or as needed)
- 2. Throttle ----- FULL OPEN
- 3. Rotate ----- 55 KIAS  
(Short Field) ----- (As planned)  
(Soft Field) ----- (As soon as possible)
- 4. Climb ----- 75 KIAS  
(Short Field) ----- (As planned)  
(Soft Field) ----- (55 KIAS or more)
- 5. **WHAT IF**.....

**Cruise**

- 1. Power ----- AS DESIRED
- 2. Trim ----- LEVEL FLIGHT
- 3. Mixture ----- AS REQUIRED
- 4. Flight instruments ----- CHECK & SET

**Descent**

- 1. Mixture ----- ADJUST FOR SMOOTH OPERATION
- 2. Power ----- AS REQUIRED
- 3. ATIS ----- CHECK (KSAF 128.55)
- 4. ATC or CTAF ----- Contact  
(DISTANCE, DIRECTION, ALTITUDE, ATIS, INTENTIONS)
- 5. Approach / Pattern ----- BRIEF

**Pre-Landing**

- 1. Landing/Taxi Lights----- ON
- 2. Autopilot ----- OFF
- 3. Gas ----- BOTH TANKS, GAS IN THE TANKS
- 4. Undercarriage ----- DOWN
- 5. Mixture ----- AS REQUIRED
- 6. Prop and Power ----- SET
- 7. Seats and Safety Belts ----- SECURE
- 8. Speed ----- TRIMMED

**Landing**

- 1. Approach: Flaps 10° ----- 70 KIAS  
Flaps 20° ----- 65 KIAS  
Flaps 30° ----- 60—65 KIAS
- 2. Touch down ----- MAIN WHEELS FIRST

**After Landing & Shut Down**

## After Landing

1. Runway ----- CLEAR
  2. Flaps ----- UP
  3. Landing Lights / Strobes ----- OFF
  4. Transponder ----- STANDBY
  5. Ground Control ----- CONTACT
- (if required for taxi instructions)

## Shut Down

1. Throttle -----1000 RPM
2. Avionics ----- OFF
3. Mixture ----- IDLE CUT-OFF
4. Electrical Switches ----- OFF
5. Ignition ----- OFF
6. Master Switch ----- OFF
7. Control Lock ----- INSTALL
8. Secure Aircraft ----- TIE DOWN / CHOCKS
9. Hobbs Time ----- RECORD

## Final Check:

- Electrical Switches -----CHECK OFF
- Control Locks -----INSTALLED
- Parking Brake -----SET
- Fuel Selector ----- L or R
- Pitot Cover -----INSTALL
- Clean Aircraft -----TRASH & POSSESSIONS
- Doors -----LOCK
- Key -----IN BOOK

## Aircraft V-speeds

(Sea level, gross weight unless indicated)

$V_{so}$ (Stall Speed Landing)	33 KIAS
$V_s$ (Stall Speed Clean)	44 KIAS
$V_R$ (Rotation for Takeoff)	55 KIAS
$V_x$ (Best Climb Angle)	60 KIAS
$V_y$ (Best Climb Rate)	79 KIAS
$V_{fe}$ (Max Flap Extended) $10^\circ$	110 KIAS
	$>10^\circ$ 85 KIAS
$V_A$ (Maneuvering ) 2450 lb	99 KIAS
	2000 lb 92 KIAS
	1600 lb 81 KIAS
$V_{no}$ (Max Structural Cruise)	129 KIAS
$V_{NE}$ (Never Exceed Speed)	163 KIAS
Best Glide Speed	65 KIAS
Demonstrated Crosswind Velocity	15 Kt

# Engine Failures

## Engine Failure During Flight

1. Glide Speed ----- TRIM TO 65 KIAS
2. Landing Site ----- SELECT  
(Best Spot & Winds)
3. Fuel Shutoff Valve ----- ON
4. Fuel Selector ----- BOTH
5. Aux Fuel Pump ----- ON
6. Mixture ----- FULL RICH
7. Throttle ----- MOVE
8. Ignition ----- L - R - BOTH

## Forced Landing W/O Power

1. Seatbacks ----- UPRIGHT
2. Seatbelts ----- CHECK TIGHT
3. Squawk ----- 7700
4. MayDay ----- CURRENT FREQ.  
or 121.5
5. Passengers ----- BRIEF
6. Fuel Shut-off valve ----- PULL OFF
7. Mixture ----- PULL OFF
8. Ignition ----- OFF
9. Doors ----- UNLATCHED
10. Flaps ----- AS NEEDED  
(30° recommended)
11. Trim ----- TAKEOFF SETTING
12. Master ----- OFF  
(when landing assured)

*Land into wind if possible.*

# Fires

## Engine Fire

1. Mixture ----- IDLE CUT-OFF
2. Fuel Shutoff Valve ----- PULL OFF
3. Master Switch ----- OFF
4. Cabin Heat & Air ----- OFF  
(Except Overhead Vents)
5. Airspeed ----- 100 KIAS  
(If fire is not extinguished, increase glide speed to find airspeed which will provide incombustible mixture.)
6. Forced Landing W/O Power --- EXECUTE

## Electrical Fire In Flight

1. Master Switch ----- OFF
2. All Other Switches (Except Ignition) ----- OFF
3. Cabin Air Vents / Heat ----- CLOSED
4. Fire Extinguisher ----- ACTIVATE

### **WARNING**

After discharging extinguisher, ventilate the cabin.

If fire appears out and electrical power is necessary

5. Master Switch ----- ON
6. Circuit Breakers ----- CHECK
7. Radio/Electrical Switches ----- DO NOT RESET  
ESSENTIAL ON ONLY
8. Cabin Air Vents / Heat ----- OPEN  
WHEN FIRE OUT

Cabin Fire

- 1. Master Switch -----OFF
- 2. Cabin Air Vents / Heat ----- CLOSED
- 3. Fire Extinguisher ----- ACTIVATE

<b>WARNING</b>
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After discharging extinguisher, ventilate the cabin.
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*Land as soon as possible to inspect for damage .*

Wing Fire

- 1. Nav Lights -----OFF
- 2. Pitot Heat ----- OFF
- 3. Strobes -----OFF
- 4. Landing / Taxi Lights -----OFF

*Sideslip to keep the fire away from fuel tanks and cabin. Land as soon as possible using flaps only if necessary.*

**Electrical Problems**

Voltage Annunciator

- 1. Avionics Switch ----- OFF
- 2. Alternator Circuit Breaker ----- CHECK IN
- 3. Master Switch ----- TURN OFF (Both Sides)
- 4. Master Switch ----- ON
- 5. Over Voltage Light ----- CHECK OFF
- 6. Avionics Switch ----- ON

If Volts Annunciator stays on

- 7. Alternator ----- OFF
- 8. Non-essential Equipment ----- OFF
- 9. Flight ----- LAND AS SOON AS PRACTICAL

Ammeter Shows Excessive Charge

- 1. Alternator ----- OFF
- 2. Non-essential Equipment ----- OFF
- 3. Flight ----- LAND AS SOON AS PRACTICAL