

Preflight Cessna 172R 160hp/180hp		
1. Fuel Level	VISUAL CHECK	
2. Hobbs Book	CHECK #'s	
3. Paperwork	ARROW-AV1ATE	
4. Seat Height	SET UP	
5. Control Lock	REMOVE	
6. Fuel Selector	BOTH, shutoff IN	
7. Trim	SET "TAKEOFF"	
8. Instruments	0's, INOP FLAGS	
9. Master	ON	
10. Fuel Qty	CHECK	
11. Turn Coordinator	LISTEN	
12. Flaps	DOWN	
13. Beacon/Nav/Lights	CHECK LIGHTS	
14. Annunciator Switch	TEST LIGHTS	
15. Pitot Heat	CHECK	
16. Master	OFF	
17. Preflight	WALK AROUND	
<input type="checkbox"/> Fuel Level	VISUAL CHECK	
<input type="checkbox"/> Fuel Sumps	DRAIN 13 SUMPS	
<input type="checkbox"/> Oil	6-8 Qts	
<input type="checkbox"/> Static Port	CHECK	
<input type="checkbox"/> 360 Walk	TIE-DOWNS	

Passenger Briefing Checklist

1. Seat Belts	EXPLAIN and ON
2. Door / Exiting Plane	EXPLAIN
3. First Aid/Fire Ext	LOCATE
4. Scanning for Traffic	ASSIST
5. Exchange Controls	EXPLAIN
6. Seat Rail Locks	CHECK

Engine Start Checklist

1. Brakes	SET
2. Electrical	ALL OFF
3. Circuit Breakers	ALL IN
4. Mixture	IDLE CUT OFF
5. Alternate Air	OFF
6. Master Switch	ON
7. Beacon	ON
8. Fuel Pump	OFF
9. Throttle	1/4 Inch Open
10. Mixture	FULL RICH
11. Fuel Pump	ON 3-5 seconds
12. Fuel Pump	OFF (don't flood)
13. Area	*****"CLEAR"*****
14. Magnetos/Starter	CRANK ENGINE
15. Throttle	800-1000 RPM
16. Mixture	LEAN for TAXI
17. Oil Pressure	30 Sec. GREEN
18. Flaps	UP
19. Avionics Master	ON
20. Instruments	DG to Compass
21. Transponder	1200 "STANDBY"
22. ATIS	SET Altimeter

Contact GROUND for Taxi to Runway

While Taxi Checklist

Brakes	TEST both sides
Verify Instruments	6 PACK CHECK
Position at Run-up	Compass/TC/DG INTO WIND

Run-Up Checklist

1. Brakes	SET
2. Doors/Windows	CLOSED
3. Belts/Harness	SECURED
4. Controls	CHECK
5. Trim	SET TAKEOFF
6. Instruments	SET AI / DG
7. Alt Static	PULL CHECK VSI
8. Fuel Selector	ON BOTH
9. Blast Area	CLEAR BEHIND
10. Throttle	1800 RPM
11. Engine Instruments	ALL GREEN
12. Mixture	Rich then LEAN
13. Magnetos	150 Max, 50 Diff
14. Alternate Air	CHECK then OFF
15. Ammeter Check	+CHARGING
16. Vac/OilPress/Temp	ALL GREEN
17. Throttle	800-1000 RPM
18. IFR: Pitot Heat	Turn On for IFR

Ready for Takeoff Checklist

Lights	STROBE/ NAV / LANDING
Camera	TRANSPONDER "Alt"
Action	Note TAKEOFF TIME
Review	Vspeeds
Review	Take Off Engine Loss
Review	WINDS

Contact Ground or Tower

Airspeeds C172R

V1 abort takeoff	39 KIAS (50% Rwy)
Vs0 stall w/Flaps	33 KIAS
Vs1 stall clean	44 KIAS
Vr rotate	55 KIAS
Takeoff Climb	70-80 KIAS
Vy best rate	75 KIAS (79-71)
Vx best angle	62 KIAS (60-65)
Vbest glide	65 (160hp) / 70 (180hp)
Vfe flaps extend	85 KIAS full flaps
Va maneuvering	99 KIAS- 2450 lbs
Vno max cruise	129 KIAS
Vne never exceed	163 KIAS
Landing: 1900RPM	70 base/final - 65 over #'s

Takeoff Checklist (Normal Takeoff)

Trim	SET TAKEOFF
Flaps	SET 0-10 Degrees
Vrotate	55 KIAS Vrotate
Climb Out	70-80 KIAS

Short Field Takeoff

Flaps	10 DEGS
Vrotate	55 KIAS Vrotate
Vx	62 KIAS

Cruise/Climb Checklist

1. Climb Airspeed	70-85 KIAS
2. Landing Light	OFF
3. Power	As RQD
4. Mixture	Lean As RQD

Descent Checklist

1. Power	Reduce as RQD
2. Mixture	Enrichen as RQD

Pre Landing Checklist

G - Gas	Selector BOTH
U - Undercarriage	GEAR DOWN
M - Mixture	RICH if Necessary
S - Switches	Landing Light ON
S - Safety	Seat Belts ON

Landing

Downwind	80 KIAS @ 2100rpm
Abeam #'s	75 KIAS @ 1900rpm (10°)
Over the #'s	60-70 KIAS FULL FLAPS
Over the #'s	65-75 KIAS NO FLAPS
Short Field	62 KIAS over numbers
** Gusty or Cross Winds	No Flaps, SLIP

Go Around (ABORTED LANDING)

Throttle	FULL THROTTLE
Flaps	UP, to 20 Degrees
Airspeed	Establish 70+ KIAS
Flaps	Bring up SLOWLY

Clear Runway Checklist

Trim	SET "TAKEOFF"
Flaps	UP
Landing Light	OFF
Transponder	1200 "STDBY"

Shutdown Checklist

Electrical	AVIONICS OFF
Throttle	IDLE
Mixture	IDLE CUTOFF
Magnetos	OFF
Master	OFF
Control Lock	SECURE
Tiedowns	FASTEN

CLOSE FLIGHT PLAN

Emergency Procedures

Engine Failure C172R

Memory Items ABCDE

- A** Airspeed 65 (160hp) / 70 (180hp)
- B** Best Place to Land (Check Wind Dir)
- C** Checklist TRY RESTART
- D** Declare Emergency 121.5 MAYDAY
7700 IDENT
- E** Execute Landing Doors Open
Belts..

ENGINE RESTART Procedures

- Fuel Selector BOTH
- Aux Fuel Pump ON
- Mixture FULL RICH
- Throttle FULL THROTTLE
- Alternate Air ON
- Magnetos BOTH

Emergency Landing (without power)

- Airspeed 65 (160hp) / 70 (180hp)
- Belts SECURE
- Cushions PROTECT HEAD
- Mixture IDLE CUTOFF
- Fuel Shutoff FUEL OFF
- Magnetos OFF
- Flaps FULL if possible
- Master OFF
- Doors OPEN
- Landing SOFT FIELD

Engine Fire in Flight

- Mixture IDLE CUTOFF
- Fuel Shutoff FUEL OFF
- Cabin Air/Heat CLOSE VENTS
- Flaps FULL FLAPS
- Master OFF
- Airspeed TOP of WHITE 95 KIAS
- Bank Angle 45 DEGREES
- Proceed with "Emergency Landing"**

Electrical Fire in Flight

- Master OFF
- Avionics OFF
- All Switches OFF
- Vents/Cabin Air CLOSED
- Fire Extinguisher ACTIVATE
- Fire EXTINGUISHED
- Vents/Cabin Air VENT CABIN
- If electrical power is necessary, then:
 - Master ON
 - Circuit Breakers CHK, do not reset
 - Radios OFF
 - Avionics Master ON
 - Radios/Switches ONE AT A TIME

Wing Fire

- Navigation Lights OFF
- Pitot Heat OFF
- Strobe Lights OFF
- Side Slip PERFORM

Excessive Rate of Charge

- Alternator OFF
- Alternator Breaker PULL OFF
- Nonessential Equipment OFF
- Flight Terminate ASAP

Low Voltage Light On

- Avionics Master OFF
- Alternator Circuit Breaker CHECK IN
- Master (both sides) OFF
- Master (both sides) ON
- Low Voltage Light CHECK
- Avionics Master ON
- If low-voltage light illuminates again, then
 - Alternator OFF
 - Nonessential Radios/Equip OFF
 - Flight Terminate ASAP

Lost - 'CCCCC'

- Climb (Better radio range)
- Communicate (FSS, 121.5)
- Confess (Ask for help)
- Comply (Follow advice)
- Conserve (Fuel-slow down)

SPIN RECOVERY

- Throttle IDLE
- Ailerons NEUTRAL
- Rudder OPPOSITE Rotation
- Elevator FWD BRISKLY
- Rotation STOPPED
- Controls NEUTRALIZE
- Recover SLOWLY

C172R Performance (180hp)

Fuel Capacity	53/56 Usable Gallons
Fuel Burn	~11 GPH
Range	~550 NM
Endurance	~4.5 Hours

Airport	WX	Twr-CTAF	TPA	Runways
KBJC	126.250	118.6/121.7	6500	30RL/12RL
KEIK	133.825	123.000	6200	34/16rp
KLMO	120.000	122.975	6000	29/11
KFNL	135.075	118.4/121.65	6000	33/15
KBDU	118.825	122.725	6300	8/26rp
KGXY	135.175	122.800	5500	35/17/28/10
KAPA	120.300	118.9/121.8	6900	35RL/17RL
Practice Area Longmont			123.175	
Practice Area Chatfield			122.750	
Emergency		121.500		
Flight Service		122.200		
Den App	(W)126.1	(N)134.85	(E)128.25	(S)128.45
KBJC Fuel Truck		(303) 466-2336	122.950	
KBJC Tower		(303) 633-8600		
IFR Clearance		(888) 766-8267		

Maneuver Configuration (Clearing Turns, Altitude, Landing Area)

Steep Turns	Flaps UP, Gear UP, xx*MP/xxxrpm, xxx KIAS, Add xx in Turn
Slow Flight	Flaps FULL, Gear DOWN, xx*MP then xx*MP Prop FULL, xx KIAS
Power On Stall	Flaps UP, Gear DOWN, xx*MP, Prop FULL, xx KIAS, then Full Power
Power Off Stall	Flaps DOWN, Gear DOWN, xx*MP, Prop FULL, Descend, then IDLE
Emergency Descent	Flaps DOWN, Gear DOWN, Prop FULL, Power IDLE, 30° xxx KIAS
Steep Spiral	Flaps UP, Gear UP, Prop FULL, Power IDLE, <60°, xx KIAS
Ground Ref	Flaps UP, Gear UP, Prop FULL, xx*MP, xxx KIAS
Chandelle	Flaps UP, Gear UP, Prop FULL, xx*MP, xxx KIAS, then Power FULL
Lazy 8	Flaps UP, Gear UP, Prop FULL, xx*MP, xxx KIAS