



# PACIFIC UNION COLLEGE

**ANGWIN (203): 1848' 1E. 38°34. 71'N 122°26. 12'W.**

The Angwin Airport, Angwin-Parrett Field (203) on the San Francisco sectional, is located in the scenic upper Napa Valley of California. The Angwin Airport serves as the home of the PUC aviation program in addition to being a community airport. Attended Mon-Thurs 8-5pm and Friday 8-4pm. Closed Saturday & Sundays; other on request (707) 965-6219.

The Aviation program offers a four-year bachelor of science degree in aviation and a two year associates degree, preparing Christ-centered pilots for lives of service throughout the aviation industry and in the mission field. The program also offers ground schools and flight instruction to community members.



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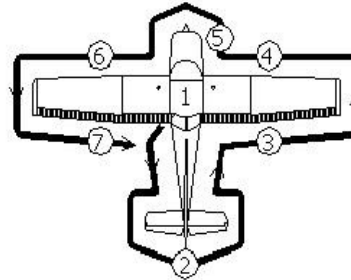
# Cessna 152 Checklist

## Preflight



### CABIN

1. Check Discrepancies and Inspections
2. Required Papers in Airplane (AROW)
2. Enter HOBBS Reading on TACH Sheet
3. Control Wheel Lock . . . . . REMOVE
4. Ignition Switch . . . . . OFF
5. Master Switch . . . . . ON
6. Fuel Gauges . . . . . QUANTITY
7. Flaps . . . . . 30°
8. Master Switch . . . . . OFF
9. Fuel Shutoff Valve . . . . . ON



### 2) FUSELAGE AND EMPENNAGE

1. Fuel Drain . . . . . DRAIN
2. Fuselage/Empennage . . . . . CHECK CONDITION
3. Rudder Gust Lock . . . . . REMOVE
4. Tail Tie-down . . . . . DISCONNECT
5. Control Surfaces . . . . . CHECK Attachment and Movement
6. Empennage/Fuselage . . . . . CHECK CONDITION

### 3) RIGHT WING TRAILING EDGE

1. Flap . . . . . CHECK Attachment and Movement
2. Aileron . . . . . CHECK Attachment, Movement, and Counterweights

### 4) RIGHT WING

1. Wing Tie Down . . . . . DISCONNECT
2. Undercarriage/Tire . . . . . CHECK Condition, Inflation, and Brakes
3. Fuel Drain . . . . . DRAIN
4. Fuel Quantity . . . . . DIP/MEASURE
5. Fuel Filler Cap . . . . . SECURE (Check Vent)
6. Wing Surface . . . . . CHECK CONDITION
7. Windshield . . . . . CLEAN

### 5) NOSE

1. Engine Oil Level . . . . . 4-6 QUARTS
2. Fuel Sump . . . . . DRAIN
3. Prop/Spinner . . . . . CONDITION
4. Alternator Belt . . . . . TIGHT
5. Oil Cooler . . . . . UNOBSTRUCTED
6. Landing Light . . . . . CLEAN
7. Air Filter . . . . . UNOBSTRUCTED
8. Wheel Strut/Tire . . . . . CHECK Condition and Inflation
9. Static Port . . . . . UNRESTRICTED

### 6) LEFT WING

1. Fuel Quantity . . . . . DIP/MEASURE
2. Fuel Filler Cap . . . . . SECURE (Check Vent)
3. Pitot Tube . . . . . UNRESTRICTED/CLEAR
4. Fuel Tank Vent . . . . . CLEAR
5. Wing Tie Down . . . . . DISCONNECT
6. Stall Warning . . . . . OPERATION
7. Wing Surface . . . . . CHECK CONDITION

### 7) LEFT WING TRAILING EDGE

1. Aileron . . . . . CHECK Attachment, Movement, and Counterweights
2. Flap . . . . . CHECK Attachment and Movement
3. Undercarriage/Tire . . . . . CHECK Condition, Inflation, and Brakes
4. Remove Chalks . . . . . SECURE TOW BAR

### NIGHT PREFLIGHT

1. Master Switch . . . . . ON
2. Beacon/Strobes . . . . . TEST
3. NAV Lights . . . . . TEST
4. Landing Light . . . . . TEST
5. Interior Lights . . . . . TEST
6. Master Switch . . . . . OFF

# Cessna 152 Checklist

## Normal Operating Procedures



### BEFORE STARTING ENGINE

1. Preflight Inspection . . . . . COMPLETE
2. Passenger Briefing . . . . . COMPLETE
3. Seats, Seatbelts . . . . . ADJUSTED/FASTENED
4. Brakes . . . . . TEST and SET
5. Avionics . . . . . OFF
6. Circuit Breakers . . . . . CHECK IN
7. Fuel Shutoff Valve . . . . . ON

### STARTING ENGINE

1. Mixture . . . . . RICH
2. Carburetor Heat . . . . . COLD
3. Master Switch . . . . . ON
4. Beacon/Strobes . . . . . ON
5. Key . . . . . IN IGNITION
6. Throttle . . . . . OPEN 1/4 - 1/8 Inch
7. Brakes . . . . . ON
8. Prime . . . . . AS REQUIRED (Verify In and Locked)
9. Propeller Area . . . . . CLEAR
10. Ignition Switch . . . . . START (Release When Engine Starts)
11. Throttle . . . . . IDLE (1000 RPM or Below)
12. Oil Pressure . . . . . RISING
13. Ammeter . . . . . STARTER DISENGAGED (Charging)
14. Flaps . . . . . UP
15. Radios/Avionics . . . . . ON and Frequency Set
16. Transponder . . . . . STANDBY (Set 1200 or Assigned Squawk)
17. Taxi to Run-Up Area
18. Brakes . . . . . TEST

### RUNUP BEFORE TAKEOFF

1. Cabin Doors . . . . . CLOSED and LATCHED
2. Flight Controls . . . . . FREE and CORRECT
3. Elevator Trim . . . . . TAKEOFF
4. Flight Instruments . . . . . CHECK and SET
5. Brakes . . . . . ON/SET
6. Throttle . . . . . 1700 RPM
  - A. Magnetos . . . . . CHECK RIGHT, then LEFT
  - B. Carburetor Heat . . . . . TEST
  - C. Ammeter . . . . . CHARGING
  - D. Engine Instruments . . . . . TEMP & PRESSURE
  - E. Suction Gauge . . . . . CHECK
7. Throttle . . . . . IDLE
8. Throttle Friction Lock . . . . . ADJUST
9. Lights . . . . . AS REQUIRED
10. Radios/Avionics . . . . . SET
11. Transponder . . . . . ALTITUDE
12. Mixture . . . . . RICH

### ROUGH MAG PROCEDURE

1. Throttle . . . . . 2000 RPM
2. Mixture . . . . . LEAN PK RPM
3. Time . . . . . 30 SECONDS
4. Mixture . . . . . RICH
5. Throttle . . . . . 1700 RPM
6. Continue RUNUP

# Cessna 152 Checklist

## Normal Operating Procedures



### NORMAL TAKEOFF

1. Wing Flaps ..... 0°-10°
2. Carburetor Heat ..... COLD
3. Throttle ..... FULL/OPEN
4. Elevator Control ..... ROTATE @ 50 KIAS
5. Climb Speed ..... 65-75 KIAS

### SHORT FIELD TAKEOFF

1. Wing Flaps ..... 10°
2. Carburetor Heat ..... Cold
3. Brakes ..... APPLY
4. Mixture ..... RICH
5. Throttle ..... FULL/OPEN
6. Brakes ..... RELEASE
7. Elevator Control ..... ROTATE @ 50 KIAS
8. Climb Speed ..... 54 KIAS (Until Obstacles Cleared)
9. Wing Flaps ..... RETRACT @ 60+ KIAS

### AIRSPEEDS (KIAS)

V <sub>NE</sub> .....	149
V <sub>NO</sub> .....	111
V <sub>A</sub> .....	93-104
V <sub>FE</sub> .....	85
V <sub>Y</sub> .....	67 @ S.L.
V <sub>X</sub> .....	54 @ S.L.
V <sub>S1</sub> .....	40
V <sub>S0</sub> .....	35

### CRUISE

1. Pitch ..... LEVEL FLIGHT
2. Power ..... SET TO CRUISE
3. Trim ..... SET
4. Mixture ..... LEANED

Pressure Altitude	RPM	20° C Below Standard	Standard Temperature	20° C Above Standard
2,000 ft	2200	65% BHP 91 KTAS 5.4 GPH	62% BHP 90 KTAS 5.1 GPH	58% BHP 89 KTAS 4.9 GPH
4,000 ft	2200	62% BHP 90 KTAS 5.1 GPH	59% BHP 89 KTAS 4.9 GPH	55% BHP 88 KTAS 4.7 GPH
6,000 ft	2200	59% BHP 89 KTAS 5.0 GPH	56% BHP 88 KTAS 4.7 GPH	53% BHP 87 KTAS 4.6 GPH
8,000 ft	2300	64% BHP 94 KTAS 5.3 GPH	60% BHP 93 KTAS 5.0 GPH	56% BHP 92 KTAS 4.8 GPH
10,000 ft	2300	60% BHP 93 KTAS 5.1 GPH	57% BHP 92 KTAS 4.8 GPH	54% BHP 90 KTAS 4.6 GPH
12,000 ft	2300	57% BHP 92 KTAS 4.9 GPH	54% BHP 90 KTAS 4.6 GPH	51% BHP 87 KTAS 4.5 GPH

*Note: Refer to POH for further details or precise numbers. Speeds shown are for a 1984 Cessna 152 with fairings removed.*



# Cessna 152 Checklist

## Normal Operating Procedures



### DESCENT

1. Power . . . . . AS REQUIRED
2. Mixture . . . . . AS REQUIRED
3. Carburetor heat . . . . . AS REQUIRED

### APPROACH

1. Gas . . . . . SELECTOR ON
2. Undercarriage . . . . . GOOD TIRE INFLATION
3. Mixture . . . . . ENRICHEN AS APPROPRIATE
4. Prop . . . . . FIXED
5. Flaps . . . . . AS REQUIRED
7. Seatbelts . . . . . FASTENED
8. Switches . . . . . LIGHTS AS REQUIRED

### NORMAL LANDING

1. Airspeed . . . . . 60-70 KIAS (Flaps Up) or 55-65 KIAS (Flaps 30°)
2. Wing Flaps . . . . . AS DESIRED (Below 85 KIAS)
3. Airspeed . . . . . 55-65 KIAS FINAL APPROACH

### SHORT FIELD LANDING

1. Airspeed . . . . . 60-70 KIAS (Flaps Up)
2. Wing Flaps . . . . . 30° (Below 85 KIAS)
3. Airspeed . . . . . MAINTAIN 55 KIAS FINAL APPROACH
4. Power . . . . . IDLE (After Obstacle Clearance)
5. Touchdown . . . . . MAIN GEAR FIRST
6. Brake . . . . . APPLY HEAVILY
7. Wing Flaps . . . . . RETRACT

### AFTER LANDING

1. Carburetor Heat . . . . . COLD
2. Wing Flaps . . . . . UP
3. Transponder . . . . . STANDBY

### SECURING AIRCRAFT

1. Radios, Electrical . . . . . OFF
2. Transponder . . . . . 1200/OFF
3. Magnetos . . . . . CHECK GROUND
4. Throttle . . . . . 1200 RPM
5. Mixture . . . . . IDLE/CUT-OFF
6. Ignition Switch . . . . . OFF
7. Master Switch . . . . . OFF
8. Control Lock . . . . . ON
9. Fuel . . . . . CHECK QUANTITY
10. Secure . . . . . TIE DOWN and LOCK
11. Flight Plan . . . . . CLOSE

# Cessna 152 Checklist



## EMERGENCY PROCEDURES

### ENGINE FAILURE

#### DURING TAKEOFF RUN

1. Throttle ..... IDLE
2. Brakes ..... APPLY
3. Flaps ..... RETRACT
4. Mixture ..... IDLE/CUT-OFF
5. Ignition Switch ..... OFF
6. Master Switch ..... OFF

#### IMMEDIATELY AFTER TAKEOFF

1. Airspeed ..... 60 KIAS
2. Mixture ..... IDLE/CUT-OFF
3. Fuel Shutoff Valve ..... OFF
4. Ignition Switch ..... OFF
5. Flaps ..... AS REQUIRED
6. Master Switch ..... OFF

#### DURING FLIGHT

1. Airspeed ..... 60 KIAS
2. Carburetor Heat ..... ON
3. Best Field ..... SELECTED
4. Checklist
  - Fuel Shutoff Valve ..... ON
  - Mixture ..... RICH
  - Carburetor Heat ..... ON
  - Ignition Switch ..... BOTH (START if Prop is Stopped)
  - Primer ..... IN and LOCKED

### FORCED LANDING

#### WITHOUT ENGINE POWER

1. Airspeed ..... 65 KIAS (Flaps Up)  
60 KIAS (Flaps Down)
2. Mixture ..... IDLE/CUT-OFF
3. Fuel Shutoff Valve ..... OFF
4. Ignition Switch ..... OFF
5. Flaps ..... AS REQUIRED
6. Master Switch ..... OFF
7. Doors ..... UNLATCH Prior to Touchdown
8. Touchdown ..... SLIGHTLY TAIL LOW
9. Brakes ..... APPLY HEAVILY

#### WITH ENGINE POWER

1. Airspeed ..... 60 KIAS
2. Flaps ..... 30°
3. Final Airspeed ..... 55 KIAS
4. Master Switch ..... OFF
5. Doors ..... UNLATCH Prior to Touchdown
8. Touchdown ..... SLIGHTLY TAIL LOW
9. Ignition Switch ..... OFF
10. Brakes ..... APPLY HEAVILY

# Cessna 152 Checklist



## EMERGENCY PROCEDURES

### DITCHING

1. Radio ..... TRANSMIT MAYDAY on 121.5 MHZ, giving location and intentions and SQUAWK 7700
2. Heavy objects ..... SECURE OR JETTISON
3. Approach ..... High winds, heavy seas INTO THE WIND  
Light winds, heavy swells PARALLEL TO SWELLS
4. Wing flaps ..... 30°
5. Power ..... ESTABLISH 300 FT/MIN DESCENT AT 55 KIAS.
6. Cabin doors ..... UNLATCH
7. Touchdown ..... LEVEL ATTITUDE AT 300 FT/MIN DESCENT
8. Face ..... CUSHION at touchdown with folded coat
9. Airplane. .... EVACUATE through cabin doors. If necessary, open windows and flood cabin to equalize pressure so doors can be opened.
10. Life vests and raft ..... INFLATE

### FIRE DURING START ON GROUND

1. Cranking ..... CONTINUE, to get a start which would suck the flames and accumulated fuel through the carburetor and into the engine.
- If engine starts:
2. Power ..... 1700 RPM for a few minutes.
  3. Engine ..... SHUTDOWN and inspect for damage.
- If engine fails to start:
4. Cranking ..... CONTINUE in an effort to obtain a start.
  5. Fire extinguisher. .... OBTAIN (have ground worker obtain if not installed)
  6. Engine ..... SECURE
    - A. Master switch ..... OFF
    - B. Ignition switch ..... OFF
    - C. Fuel shutoff valve ..... OFF
  7. Fire ..... EXTINGUISH using fire extinguisher, wool blanket, or dirt.
  8. Fire damage ..... INSPECT, repair damage or replace damaged components or wiring before conducting another flight.

### ENGINE FIRE IN FLIGHT

1. Mixture ..... IDLE CUT-OFF
2. Fuel shutoff valve ..... OFF
3. Master switch ..... OFF
4. Cabin heat and air ..... OFF (except wing root vents)
5. Airspeed ..... 85 KIAS (if fire is not extinguished, increase glide speed to find an airspeed which will provide an in combustible mixture)
6. Forced landing ..... EXECUTE (as described in Emergency Landing Without Engine Power)

# Cessna 152 Checklist



## EMERGENCY PROCEDURES

### FIRES (CONT)

#### ELECTRICAL FIRE IN FLIGHT

1. Master Switch . . . . . OFF
2. All other switches . . . . . OFF (except ignition switch)
3. Vents/Cabin Air/Heat . . . . . CLOSED
4. Fire Extinguisher . . . . . ACTIVATE (if available)
5. Aircraft Cabin . . . . . VENTILATE

If fire appears out and electrical power is necessary for continuance of flight:

6. Master Switch . . . . . ON
7. Circuit Breakers. . . . . CHECK for faulty circuit, do not reset.
8. Radio/Electrical Switches . ON one at a time, with delay after each until short circuit is localized.
9. Vents/Cabin Air/Heat. . . . . OPEN when it is ascertained that fire is completely extinguished.

#### CABIN FIRE

1. Master Switch . . . . . OFF
2. Vents/Cabin Air/Heat . . . . . CLOSED (to avoid drafts).
3. Fire Extinguisher . . . . . ACTIVATE (if available).
4. Aircraft Cabin . . . . . VENTILATE
5. Land the airplane as soon as possible to inspect for damage.

#### WING FIRE

1. Navigation Light Switch . . OFF
2. Strobe Light Switch . . . . . OFF (if installed)
3. Pitot Heat Switch . . . . . OFF (if installed)

**NOTE—Perform a side slip to keep the flames away from the fuel tank and cabin, and land as soon as possible, with flaps retracted.**

### LANDING WITH A FLAT MAIN TIRE

1. Wing Flaps. . . . . AS DESIRED
2. Approach . . . . . NORMAL
3. Touchdown . . . . . GOOD TIRE FIRST, hold airplane off flat tire as long as possible.

### ELECTRICAL POWER SUPPLY SYSTEM MALFUNCTIONS

#### AMMETER SHOWS EXCESSIVE RATE OF CHARGE (full scale deflection)

1. Alternator . . . . . OFF
2. Alternator Circuit Breaker . . . . . PULL
3. Nonessential Electrical Equipment. . . OFF
4. Flight . . . . . TERMINATE as soon as practical.



# Cessna 152 Checklist



## EMERGENCY PROCEDURES

### LOW-VOLTAGE LIGHT ILLUMINATES DURING FLIGHT

(Ammeter Indicates Discharge)

**NOTE—Illumination of the low-voltage light may occur during low RPM conditions with an electrical load on the system such as during a low RPM taxi. Under these conditions, the light will go out at higher RPM. The master switch need not be recycled since an over-voltage condition has not occurred to de-activate the alternator system.**

1. Radios . . . . . OFF
2. Alternator Circuit Breaker . . . . . CHECK IN
3. Master Switch . . . . . OFF (both sides)
4. Master Switch . . . . . ON
5. Low-Voltage Light . . . . . CHECK OFF
6. Radios . . . . . ON

If low-voltage light illuminates again:

7. Alternator . . . . . OFF
8. Nonessential Radio and Electrical Equipment OFF
9. Flight . . . . . TERMINATE as soon as practical.

### ICING ENCOUNTER

1. Turn pitot heat switch ON (if installed).
2. Turn back or change altitude to obtain an outside air temperature that is less conducive to icing.
3. Pull cabin heat control full out to obtain maximum defroster air temperature. For greater air flow at reduced temperatures, adjust the cabin air control as required.
4. Open the throttle to increase engine speed and minimize ice buildup on propeller blades.
5. Watch for signs of carburetor air filter ice and apply carburetor heat as required. An unexpected loss in engine speed could be caused by carburetor ice or air intake filter ice. Lean the mixture for maximum RPM if carburetor heat is used continuously.
6. Plan a landing at the nearest airport. With an extremely rapid ice build-up, select a suitable "off airport" landing site.
7. With an ice accumulation of 1/4 inch or more on the wing leading edges, be prepared for significantly higher stall speed.
8. Leave wing flaps retracted. With a severe ice build-up on the horizontal tail, the change in wing wake airflow direction caused by wing flap extension could result in a loss of elevator effectiveness.
9. Open left window and, if practical, scrape ice from a portion of the windshield for visibility in the landing approach.
10. Perform a landing approach using a forward slip, if necessary, for improved visibility.
11. Approach at 65 to 75 KIAS depending upon the amount of ice accumulation.
12. Perform a landing in level attitude.