



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.

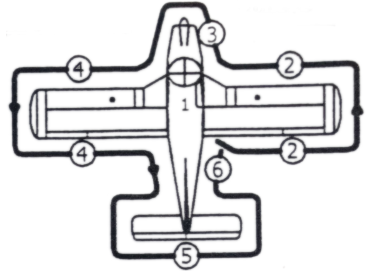


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PREFLIGHT

1) CABIN

1. Check Discrepancies and Inspections
2. Required Papers in Airplane (AROW)
3. Enter HOBBS Reading on TACH Sheet
4. Ignition Switch.....OFF
5. Master Switch.....ON
6. Fuel Gauges.....QUANTITY
7. Master Switch.....OFF
8. Flaps.....40°
9. Fuel Shutoff Valve.....RIGHT



2) RIGHT WING

1. Flap.....ATTACHMENT, ACTUATOR
2. Aileron.....ATTACHMENT, ACTUATOR, WEIGHTS, FREEDOM
3. Wing Surface.....CONDITION
4. Tie-down.....REMOVE
5. Fuel Quantity.....DIP and CHECK
6. Fuel Filler Cap.....SECURED
7. Fuel Vent.....CLEAR/UNOBSTRUCTED
8. Fuel Tank Sump.....DRAIN
9. Undercarriage/Tire.....CONDITION, INFLATION, SCISSORS/STRUT, BRAKES

3) NOSE

1. Cowling.....SECURED
2. Oil Level.....5-8 QUARTS
3. Prop and Spinner.....CONDITION and SECURITY
4. Cowl Plugs.....REMOVED
5. Alternator Belt.....TIGHT
6. Landing Light.....CONDITION
7. Wheel Strut and Tire.....CONDITION, INFLATION, SCISSORS/STRUT
8. Main Fuel Sump.....DRAIN

4) LEFT WING

1. Undercarriage/Tire.....CONDITION, INFLATION, BRAKES, SCISSORS/STRUT
2. Fuel Tank Sump.....DRAIN
3. Fuel Vent.....CLEAR/UNOBSTRUCTED
4. Fuel Quantity.....DIP and CHECK
5. Fuel Filler Cap.....SECURED
6. Tiedown.....REMOVE
7. Pitot Mast.....CLEAR/UNOBSTRUCTED
8. Stall Warning.....CHECK MOVEMENT
9. Wing Surface.....CONDITION
10. Aileron.....ATTACHMENT, ACTUATOR, WEIGHTS, FREEDOM
11. Flap.....ATTACHMENT, ACTUATOR

5) EMPENNAGE

1. Stabilator.....CONDITION, ATTACHMENT, MOVEMENT
2. AntiServo Tab.....CHECK MOVEMENT
3. Rudder.....CONDITION, ATTACHMENT (do not move)
4. Tail Tie Down.....REMOVE

6) FUSELAGE

1. Antennas.....SECURE
2. Baggage Door.....SECURE/LOCK
3. Wheel Chocks.....REMOVE

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

Normal Operating Procedures

1) BEFORE STARTING ENGINE

1. Preflight Inspection.....COMPLETE
2. Passenger Briefing.....COMPLETE
3. Seat, Seatbelts.....ADJUSTED and LOCKED
4. Brakes.....TEST and SET
5. Avionics.....OFF
6. Autopilot.....OFF
7. Circuit Breakers.....CHECK IN
8. Fuel Selector.....FULLEST TANK
9. Carburetor Heat.....COLD
10. Master BAT Switch.....ON
11. Beacon and Strobes.....ON

2) STARTING ENGINE

A) COLD START

1. Mixture.....RICH
2. Fuel Pump.....ON
3. Prime.....AS REQUIRED (6)
4. Throttle.....OPEN ¼ INCH

B) HOT START

1. Mixture.....IDLE/OFF
2. Fuel Pump.....ON
3. Prime.....NO PRIME
4. Throttle.....OPEN ½”

5. Propeller Area.....CLEAR
6. Brakes.....ON
7. Ignition Switch.....START(Both after Engine Starts)
8. Throttle.....ADJUST for 1000 RPM
9. Oil Pressure.....SUFFICIENT
10. Digital AMP Meter.....CHECK (HIGH VOLTS not Illuminated)
11. Master ALT switch.....ON/VERIFY OUTPUT
12. Fuel Pump.....OFF
13. Fuel Pressure.....SUFFICIENT
14. Flaps.....UP
15. Avionics.....ON
16. Radios.....ON and Frequency Set
17. Transponders.....ON/ALT (including NAV lights/ADS-B)
18. Brakes.....TEST
19. Mixture.....LEAN FOR TAXI

C) FLOODED START

1. Mixture.....IDLE/OFF
2. Fuel Pump.....OFF
3. Prime.....NO PRIME
4. Throttle.....FULL/OPEN

3) RUN UP BEFORE TAKEOFF

1. Cabin Door.....CLOSED and LATCHED
2. Flight Controls.....FREE and CORRECT
3. Flight Instruments.....CHECK and SET
4. Elevator Trim.....SET for Takeoff
5. Brakes.....HOLD/SET
6. RUNUP.....MIXTURE RICH/ 2000 RPM
 - a. Magnetos.....CHECK RIGHT, then LEFT
 - b. Carburetor Heat.....TEST
 - c. Engine Instruments.....SUFFICIENT TEMP and PRESSURE
 - d. Ammeter.....CHECK
 - e. Suction Gauge.....CHECK (~5”HG)
7. Throttle.....CHECK IDLE then 800-1000 RPM
8. Throttle Friction.....ADJUST
9. Strobes.....AS REQUIRED
10. Radios/Avionics/GPS.....SET

ROUGH MAG PROCEDURE

5. Throttle.....2000 RPM
6. Mixture.....LEAN PK RPM
7. Time30 SECONDS
8. Mixture.....RICH
9. Continue RUNUP

Normal Operating Procedures

BEFORE TAKEOFF

1. Fuel Selector.....FULLEST TANK
2. Electric Fuel Pump.....ON
3. Mixture.....RICH/AS REQUIRED
4. Carburetor Heat.....COLD
5. TRIM.....SET for TAKEOFF (Just Forward of Neutral)
6. Lights.....ON
7. Timers.....START Up and Down

NORMAL TAKEOFF

1. Throttle.....FULL/OPEN
2. Elevator Control.....ROTATE @ 50-60 MPH
3. Climb Speed.....74-100 MPH

SHORT FIELD TAKEOFF

1. Flaps.....25°
2. Line up.....FULL LENGTH
3. Brakes.....APPLY
4. Throttle.....FULL/OPEN
5. Gauges.....CHECK
6. Brakes.....RELEASE
7. Elevator Control.....ROTATE @ 50-60 MPH
8. Climb Speed.....74 MPH (until obstacles cleared)
9. Flaps.....RETRACT @ 74 MPH+

CRUISE

1. Pitch.....LEVEL FLIGHT
2. Power.....SET TO CRUISE
3. Trim.....SET
4. Mixture.....LEANED
5. Electric Fuel Pump.....OFF
6. Fuel Pressure.....SUFFICIENT

DESCENT

1. Power.....AS REQUIRED
2. Mixture.....ENRICHEN AS REQUIRED

BEFORE LANDING/APPROACH

1. Gas.....FULLEST TANK
2. Undercarriage.....FIXED
3. Mixture.....ENRICHED AS APPROPRIATE
4. Prop.....FIXED
5. Seats.....FORWARD/ERECT
6. Seatbelts.....ON (incl. Shoulder Harness)
7. Switches.....ELEC. FUEL PUMP and LANDING LIGHT ON

NORMAL LANDING

1. Flaps.....AS DESIRED (below 115 MPH)
2. Airspeed.....76-85 (Dependant on Flap Setting)
3. Touchdown.....MAIN WHEELS FIRST
4. Landing Roll.....LOWER NOSE WHEEL GENTLY
5. Braking.....MINIMUM REQUIRED

(Normal Procedures cont. next page)

AIRSPEEDS

(MPH)

VNE.....171

VNO.....140

VA.....129

VFE.....115

VY.....85 @ S.L.

VX.....74 @ S.L.

VSI.....67

Vso.....57

Normal Operating Procedures

SHORT FIELD LANDING

1. Flaps.....40° (below 115 MPH)
2. Airspeed.....MAINTAIN 76 MPH
3. Power.....IDLE (after obstacles cleared)
4. Airspeed.....Reduce during roundout
5. Touchdown.....MAIN FIRST (just above stall speed)
6. Flaps.....RETRACT
7. Brakes.....APPLY HEAVILY

AFTER LANDING

1. Flaps.....RETRACT
2. Electric fuel pump.....OFF
3. Mixture.....LEAN
4. Lights.....OFF as appropriate

SECURING AIRCRAFT

1. Parking Brake.....SET
2. Radios, Electrical.....OFF(incl. NAV Lights/ADS-B) except FIN Beacon
3. Throttle.....IDLE
4. Magnetos.....CHECK GROUND
5. Throttle.....1200
6. Mixture.....IDLE/CUT-OFF
7. Magnetos.....OFF (key on dash)
8. Master Switch.....OFF
9. Fuel Selector.....OFF
10. Hobbs/Tach.....RECORDED
11. Controls.....LOCK with Seat Belt
12. Fuel.....QUANTITY (dip tanks)
13. Secure.....CONTROL LOCKS, CHOCKS, COVERS, PLUGS, TIE DOWNS

Emergency Procedures

- A) ENGINE FAILURES**
- B) FORCED LANDINGS**
- C) DITCHING**
- D) FIRE DURING START ON GROUND**
- E) ENGINE FIRE IN FLIGHT**
- F) ELECTRICAL FIRE IN FLIGHT**
- CABIN FIRE**
- WING FIRE**
- LANDING WITH FLAT MAIN TIRE**
- AMMETER SHOWS EXCESSIVE RATE OF CHARGE**
- LOW VOLTAGE LIGHT ILLUMINATES DURING FLIGHT**
- ICING ENCOUNTER**

A) ENGINE FAILURE

DURING TAKEOFF RUN

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

IMMEDIATELY AFTER TAKEOFF

1. Airspeed.....80 MPH
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.....80 MPH
2. Best Field.....SELECTED
3. Checklist
 - a. Fuel Selector.....SWITCH to FULLEST
 - b. Carburetor Heat.....ON
 - c. Primer.....IN and LOCKED
 - d. Mixture.....RICH
 - e. Ignition Switch.....BOTH (START if Prop is Stopped)
4. Declare.....121.5/7700
5. Execute.....FORCED LANDING

(FORCED LANDING NEXT PAGE)

Emergency Procedures

B) FORCED LANDINGS

WITHOUT ENGINE POWER

1. Airspeed.....85 MPH (Flaps Up)
76 MPH (Flaps Down)
2. Mixture.....IDLE/CUT-OFF
3. Fuel Selector.....OFF
4. Ignition.....OFF
5. Flaps.....AS REQUIRED
6. Master Switch.....OFF
7. Door.....CRACKED
8. Touchdown.....SLIGHTLY TAIL LOW
9. Brakes.....APPLY HEAVILY

WITH ENGINE POWER

1. Airspeed.....80 MPH
2. KIAS Flaps.....40°
3. Final Airspeed.....76 MPH
4. Master Switch.....OFF
5. Door.....CRACKED Prior to Touchdown
6. Touchdown.....SLIGHTLY TAIL LOW
7. Ignition Switch.....OFF
8. Brakes.....APPLY HEAVILY

C) 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.....40°
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

C) FIRE DURING START ON GROUND

11. 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. CrankingCONTINUE 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 selector valve.....OFF
7. Fire.....EXTINGUISH using best available means

Emergency Procedures

E) ENGINE FIRE IN FLIGHT

1. Mixture.....IDLE CUT-OFF
2. Fuel shutoff valve.....OFF
3. Master switch.....OFF
4. Cabin heat and air.....OFF (including defroster)
5. Airspeed.....115 MPH (if fire is not extinguished, increase glide speed to find an airspeed which will provide an in combustible mixture)
6. Forced landing.....EXECUTE IMMEDIATELY

F) ELECTRICAL FIRE IN FLIGHT

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

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

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