

Visually check airplane for general condition during walk-around inspection.

In cold weather, remove even small accumulations of frost, ice or snow from wing, tail and control surfaces. Also make sure that control surfaces contain no internal accumulations of ice or debris. Prior to flight, check that pitot heat (if installed) is warm to touch within 30 seconds with battery and pitot heat switches on. If a night flight is planned, check operation of all lights and make sure a flashlight is available.

1 – Cabin

- Documents (AROW) – ON BOARD
- Hobbs & tach – RECORD
- Control wheel lock – REMOVE
- Ignition switch – OFF
- Avionics – OFF
- Master switch – ON
- Fuel quantity – CHECK
- Flaps – DOWN
- Lights & pitot heat – ON & CHECK
- Ammeter – verify NEGATIVE
- Master switch – OFF

2 - Empennage

- Baggage door – CHECK SECURE
- Tail tiedown – REMOVE
- Control surfaces – CHECK

3 – Right Wing Trailing Edge

- Aileron – CHECK MOVEMENT
- Flap – INSPECT
- Inspection covers – SECURE

4- Right Wing

- Wing tiedown – REMOVE
- Main tire – CHECK INFLATION
- Main gear – CHECK BRAKES & LINES
- Wing fuel sump – DRAIN & CHECK for color, sediment & water
- Fuel quantity – CHECK
- Fuel cap – SECURE

5 - Nose

- Oil – CHECK QUANTITY (5-7 qts)
- Oil dipstick – SECURE
- Engine fuel sump – CHECK QUALITY
- Prop & spinner – CHECK
- Engine air inlets - CLEAR
- Air filter – CHECK
- Nose strut & tire – CHECK
- Static source – CHECK CLEAR (but do not touch)

6 – Left Wing

- Wing fuel sump – DRAIN & CHECK
- Fuel quantity – CHECK
- Fuel cap – SECURE
- Main tire – CHECK INFLATION
- Main gear – CHECK BRAKES & LINES

7 – Left Wing Leading Edge

- Pitot cover – REMOVE
- Pitot tube – CLEAR OF DEBRIS
- Fuel tank vent – CHECK
- Stall warning – CHECK
- Wing tiedown - REMOVE

8 – Left Wing Trailing Edge

- Aileron – CHECK MOVEMENT
- Flap – INSPECT
- Inspection covers – SECURE

Operating Data

Engine – Lycoming O-320-D2J
 Horsepower – 160 HP at 2700 RPM
 Battery – 24 volt
 Alternator – 28 volt, 60 amps

Max demonstrated crosswind – 15 kts
 Max T/O & Landing weight – 2400 pounds
 Max baggage weight – 120 pounds
 Service ceiling – 13,000 feet

Tire pressure

Nose wheel – 31 PSI on 5.00-5, 4-ply tires
 Main wheel – 29 PSI on 6.00-6, 4-ply tires

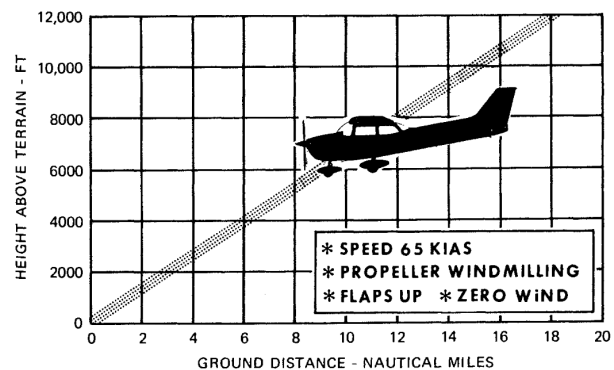


Figure 3-1. Maximum Glide

ENGINE FAILURE (after takeoff)

Airspeed V_{BG} – 65 KIAS flaps up
 60 KIAS flaps down
 Landing site – SELECT
 Mixture – IDLE CUTOFF
 Fuel selector – OFF
 Ignition switch – OFF
 Flaps – AS REQUIRED
 Master switch – OFF

ENGINE FAILURE / LOSS OF POWER

Airspeed – 65 KIAS
 Landing site – SELECT & FLY TO
 Mixture – RICH
 Fuel selector – BOTH
 Primer – IN & LOCKED
 Carb heat – ON
 Ignition – BOTH (if prop stops windmilling,
 move ignition to START)
 ** If engine fails to start
 Perform Forced Landing checklist

FORCED LANDING

Airspeed V_{BG} – 65 KIAS flaps up
 60 KIAS flaps down
 Mixture – IDLE CUTOFF
 Fuel selector – OFF
 Ignition switch – OFF
 Flaps – AS REQUIRED
 Radio call – “MAYDAY, MAYDAY”
 Transponder – SQUAWK 7700
 Master switch – OFF
 Doors – UNLATCH PRIOR TO TOUCHDOWN
 Touchdown – SLIGHTLY TAIL LOW
 Brakes – APPLY AS NEEDED

ENGINE FIRE (in flight)

Mixture – IDLE CUTOFF
 Fuel selector – OFF
 Master & Ignition switches – OFF
 Cabin heat & air – OFF
 Airspeed – 100+ KIAS
 ** Once fire extinguished or landing imminent
 Perform Forced Landing checklist

ENGINE FIRE (during start)

Continue cranking engine to attempt start
 ** If engine starts
 Throttle – 1700 RPM for a few minutes, then
 shut down and have maintenance inspect
 ** If engine fails to start
 Throttle – FULL OPEN
 Mixture – IDLE CUTOFF
 Cranking – CONTINUE
 Fire extinguisher – OBTAIN
 Master switch – OFF
 Ignition switch – OFF
 Fuel selector – OFF
 Fire - EXTINGUISH

ELECTRICAL FIRE

Master switch – OFF
 Avionics & electrical switches – ALL OFF
 Vents, cabin air & heat – CLOSED
 Fire extinguisher – USE AS NEEDED
 ** If fire appears out
 Master switch – ON
 Circuit breakers – CHECK FOR FAULT, do not reset
 Radios & electrical – ONE AT A TIME, with a delay
 between, turn on necessary items to isolate source of fire
 Vents, cabin air & heat – OPEN

LOW OIL PRESSURE

Oil temperature – MONITOR
 ** If oil temp is normal, land at nearest airport
 ** If oil temperature is rising, engine failure
 may be imminent
 Throttle – REDUCE
 Landing site – SELECT
 - Leave engine running at low power during the approach
 - Use minimum power to reach touchdown spot

ELECTRICAL MALFUNCTION

(ammeter indicating insufficient or excessive charge)
 Avionics switch – OFF
 Alternator circuit breaker – CHECK IN
 Master/Alt switch – OFF, then ON
 Ammeter – CHECK INDICATION
 Low-/over-voltage light – CHECK OUT
 ** If charge is normal on ammeter
 Avionics switch – ON
 Ammeter – CONTINUE TO MONITOR
 ** If ammeter shows insufficient rate of charge or
 if low-voltage light illuminates again
 Alternator switch – OFF
 Avionics & electrical – ONLY ESSENTIALS
 Land – AS SOON AS PRACTICAL
 ** If ammeter shows excessive rate of charge or
 if over-voltage light illuminates again
 Alternator switch – OFF
 Alternator circuit breaker – PULL
 Avionics & electrical – ONLY ESSENTIALS
 Land – AS SOON AS POSSIBLE

- Be prepared for lost communications
 - At night, conserve the battery for lights and flaps
 during landing by reducing the electrical load

SPIN RECOVERY

Power – IDLE
 Ailerons – NEUTRAL
 Rudder – FULL OPPOSITE
 Elevator – FORWARD TO BREAK STALL
 ** Once spin stops
 Neutralize rudder & recover from dive