

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
- 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
- Low voltage light – ON
- Master switch – OFF
- Hobbs & tach – RECORD

### 2 - Emennage

- 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

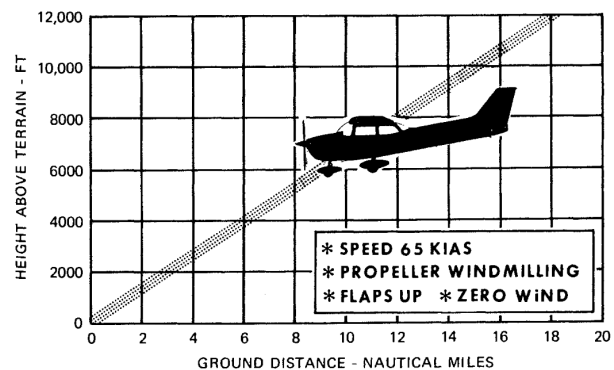


Figure 3-1. Maximum Glide

**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  
 Radios – “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 the 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 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