

Revision Update #8, January 1, 2020

SPEEDS FOR NORMAL OPERATION

C-172N (w/Flap STC)

TAKEOFF, FLAPS UP:

Normal Climb Out.....70-80 KIAS
Max Performance Takeoff Speed.....56 KIAS

ENROUTE CLIMB, FLAP UP:

Normal, Sea Level.....75-85 KIAS
Normal, 10,000 Feet.....70-80 KIAS
Vy Best Rate of Climb, Sea Level.....76 KIAS
Best Rate of Climb, 10,000 Feet.....68 KIAS
Vx Best Angle of Climb, Sea Level60 KIAS
Best Angle of Climb, 10,000 Feet.....61 KIAS

LANDING APPROACH:

Normal Approach, Flaps Up.....65-75 KIAS
Normal Approach, Flaps 30.....60-70 KIAS
Short Field Approach, Flaps 30.....61 KIAS

BALKED LANDING:

Maximum Power, Flaps 20.....55 KIAS

MAXIMUM RECOMMENDED TURBULENT AIR

Va PENETRATION SPEED:

2400 lbs.....99 KIAS
2000 lbs.....92 KIAS
1600 lbs.....81 KIAS

MAXIMUM DEMONSTRATED CROSSWIND

COMPONENT:

15 KNOTS

V _{S0}	41 KIAS	V _X	60 KIAS	V _Y	76 KIAS
V _{S1}	47 KIAS	V _{FE}	85 KIAS	V _{REF}	61 KIAS
V _{NO}	128 KIAS	V _{NE}	160 KIAS	V _A	81-99 KIAS

PREFLIGHT INSPECTION

0. PREP

- 1) Airworthiness Documentation “VERIFY AIRWORTHY”
- 2) Weight & C.G. “WITHIN ENVELOPE”
- 3) Performance (Takeoff & Landing) “COMPUTED”

1. CABIN

- 1) Keys – Not in Ignition
- 2) Hobbs Time “VERIFIED”
- 3) Registration Cert “ON BOARD”
- 4) Airworthiness Cert “ON BOARD”
- 5) Flight Manual/Operating Limitation “ON BOARD”
- 6) Control Wheel Lock and Throttle Lock—REMOVE.
- 7) Avionics Master Switch - OFF
- 8) Electrical Switches (Except Beacon) — OFF
- 9) Master Switch—ON.
 - Fuel Indicators—CHECK QUANTITY.
 - Flaps—DOWN (except in cold Wx, temp below 40°F)
 - Lights Operational (beacon, nav, taxi, landing)-VERIFY
 - Alternator side OFF, check overvoltage red light ON
- 10) Master Switch—OFF
- 11) Alt Static Knob— Pull and verify ALT and VSI flux
- 12) Trim Tab—Check and Verify direction of rotation

2. FUSELAGE AND EMPENNAGE

- 1) Baggage Door—LOCKED.
- 2) Left side Fuselage—Check for dents, popping rivets, stress
- 3) Antennas—CHECK VHF Comms, Transponder, GPS, ELT, VOR, LOC, Glideslope and any others that are applicable.
- 4) Tail Tie Down—DISCONNECT
- 5) Control Surfaces—CHECK freedom of movement and security. Balance weights, nuts, pins, safety wires, trailing edges.
- 6) Right side Fuselage—Same as Left side above

3. RIGHT WING

- 1) Flap—CHECK for binding, rollers, bolts, push rod play.
- 2) Aileron—CHECK freedom of movement and security. Check hinges, bolts and pins, flutter weights, trailing edges.
- 3) Wing tip lights and leading edge—CHECK.
- 4) Wing Tie Down—DISCONNECT.
- 5) Main Wheel Tire—remove chock, CHECK for proper inflation (29 PSI). CHECK pin, bolts, valve cap, rim, sidewalls, tread, brake rotor, brake line, safety wires, wheel strut and wing strut.
- 6) Fuel Sample Wing—CHECK for water, sediment and proper grade (100LL – Blue), safety wire on drain.
- 7) Fuel Sample Belly Drain
- 8) Fuel Sample Fuel Strainer—CHECK for water, sediment and proper grade (100LL – Blue), reseal handle.
- 9) Fuel Quantity—CHECK VISUALLY for desired level, rubber grommet, vent hole rubber cover.
- 10) Fuel Filler Cap—SECURE.

4. NOSE

- 1) Engine Oil Level—CHECK. NOT LESS THAN 4 QUARTS.
- 2) Cowling Cover for Security—CHECK cowl fasteners on both sides by pressing on cowling. Re-tighten loose fasteners.
- 3) Propeller and Spinner—VERIFY KEYS ON DASH FIRST!! CHECK for blade nicks and cone security. Remove Plugs.
- 4) Alternator Belt/Alternator Bracket—CHECK for less than half inch play, alt brace safety wires, flywheel chips, bird nests.
- 5) Landing/Taxi Light—CHECK for condition, cleanliness and operation.
- 6) Carburetor Air Filter—CHECK for restrictions, excessive dust, or foreign matter.
- 7) Check engine mounts by lightly pulling on exhaust stack.
- 8) Anti-shimmy dampener—CHECK for bending piston, leaking seals and pins.

- 9) Rudder Rods to Nose Gear—CHECK for ball joint motion and pins.
- 10) Firewall Strut Braces to Nose Gear—CHECK for cracks and pins.
- 11) Nose Wheel Strut and Tire—CHECK for proper inflation. Four fingers on the strut, 31 psi, tread, sidewall, rim, bolts, valve cap and pins.
- 12) Excessive Fuel or Oil Leaks--CHECKED
- 13) Static Source Opening (left side fuselage)—CHECK for stoppage.

5. LEFT WING

- 1) Wing Tie Down—DISCONNECT.
- 2) Main Wheel Tire—remove chock, CHECK for proper inflation (29 PSI). CHECK pin, bolts, valve cap, rim, sidewalls, tread, brake rotor, brake line, safety wires, wheel strut and wing strut.
- 3) Fuel Sample Wing—CHECK for water, sediment and proper grade (100LL – Blue), safety wire on drain.
- 4) Fuel Quantity—CHECK VISUALLY for desired level, rubber grommet, vent hole.
- 5) Fuel Filler Cap—SECURE.
- 6) Pitot Tube Cover—REMOVE and check main opening and drain hole for stoppage. Check pitot heat if installed.
- 7) Stall Warning Opening—CHECK for stoppage.
- 8) Fuel Tank Vent Opening—CHECK for stoppage.
- 9) Wing leading edge and wing tip lights—CHECK.
- 11) Aileron—CHECK freedom of movement and security. Check hinges, bolts and pins, security of flutter weights, trailing edges.
- 12) Flap—CHECK for binding, rollers, bolts, push rod play.

6. **Final Walk Around Airplane: stand back at 10 and 4 o'clock positions- verify removal of tie downs, chocks, plugs, covers, obstructions, fuel caps, or anything that does not look correct.**

PREFLIGHT INSPECTION COMPLETED

BEFORE STARTING ENGINE

CONDUCT PASSENGER BRIEFING

FOR ALL PASSENGERS

- Establish who is PIC and transfer of controls
- Operation of Seatbelts and Shoulder Harness
- Operation of Doors and Windows
- No smoking policy in aircraft
- Emergency and survival equipment on board
- Emergency Procedures (on takeoff roll, immediately after takeoff, and enroute)
- Normal /Emergency Exits and Egress Procedures
- Crew duties (scanning for traffic, obstacles, etc)

FOR NON-FLYING PASSENGERS

- Passenger Discomfort, location of airsick bags
- Use of heating and air vents
- Use of headsets, intercom
- Non interference with controls

1. Seats, Belts, Shoulder Harnesses—ADJUST and LOCK.
2. Fuel Selector Valve—BOTH Check in Detent.
3. Avionics Power/Electrical Switches—OFF (**Except Beacon**)
4. Circuit Breakers—CHECK IN.
5. Brakes—HOLD BRAKES.
6. Before Starting Checklist--COMPLETED

STARTING ENGINE

(Temperature Above Freezing)

1. Mixture—RICH.
2. Carburetor Heat—COLD.
3. Prime—AS REQUIRED (2 to 3 strokes letting primer tube fully fill; none if engine is still warm)
4. Throttle—OPEN 1/8 INCH.
5. Master Switch and Alternator Switch—ON.
6. Propeller Area—CLEAR—YELL “CLEAR PROP!”
7. Apply toe brakes

8. Ignition Switch—Insert Key and START.
9. Throttle—ADJUST FOR 1000 RPM immediately.
10. Oil Pressure —CHECK in green.
11. Mixture —LEAN 4-6 TURNS(about 1 inch)
12. Rotating Beacon Switch—CHECK ON.
13. STARTING ENGINE CHECKLIST-COMPLETED

BEFORE TAXI

RUNWAY INCURSION PREVENTION – REVIEW

- Read back all runway crossing and/or hold short instructions
- Review airport layout as part of preflight planning and before descending to land, and while taxiing as required
- Know airport signage
- Review NOTAMs for information on runway/taxiway closures and construction areas
- Do not hesitate to request progressive taxi instructions from ATC when unsure of taxi route
- Check traffic before crossing runways or entering a taxiway
- When landing, clear active runway ASAP then wait for taxi instructions before further movement
- Study and use proper radio phraseology as described in AIM to respond to all ground control instructions
- Write down complete taxi instructions at unfamiliar airport

1. Avionics Power Switch--ON & SET FREQUENCIES.
Check GPS database currency date and OBS accuracy
2. ATIS/AWOS/ASOS / ADVISORY – OBTAIN
3. Transponder—SET BEACON CODE
4. Altimeter – SET
5. Flaps—UP.
6. Heading Indicator—SET to COMPASS
7. Nav and Taxi Lights –ON (as required).
8. Taxi Call—CONTACT & COMPLY
 - TOWERED – Ground Control
 - NON-TOWERED – Unicom
9. Brakes—Test on first roll.
10. BEFORE TAXI CHECKLIST-COMPLETED

LOCAL FREQS- EZF

CTAF-122.8
A-128.125

RMN
CTAF- 122.725
A-126.325

BEFORE TAKEOFF- RUNUP AREA

1. Brakes—FEET on pedal brakes.
2. Cabin Doors and windows—CLOSED and LATCHED.
3. Flight Controls—FREE and Correct. (Tops/Bottoms Free)
4. Trims-- SET for takeoff
5. Flight Instruments— **Point -Tell**
 - ASI, AI, ALT, TC, HI, VSI
6. Fuel Selector Valve—BOTH.
7. Mixture—RICH
8. Throttle—1700 RPM.
9. Magnetos—CHECK RPM, drop should not exceed 125 RPM on either magneto or 50 RPM differential between magnetos. Check Key to BOTH
 - **CLEANING PLUGS IF REQUIRED**
 - a. Foot Brakes – **APPLY MAX**
 - b. Yoke – **Neutral**
 - c. RPM – **FULL POWER**
 - d. Mixture – **LEAN to PEAK RPM (lean until RPM drops slightly then richen slightly)**
 - e. Run at **PEAK LEAN - 30 sec – 1 minute**
 - f. Mixture **RICH and RPM back to 1700**
 - g. Magneto Check - **REPEAT**
10. Carburetor Heat—CHECK (slight RPM drop)
11. Engine Instruments and Ammeter
 - a. Oil Temp and Pressure - CHECK in GREEN
 - b. ALT side of Master - OFF
 - c. VERIFY ammeter drop and low voltage light
 - d. ALT Side – ON- VERIFY recharge
12. Suction Gage—CHECK in GREEN
13. IDLE CHECK--Carb Heat-ON and throttle – IDLE
14. Carb Heat-OFF and Throttle—1000 RPM
15. Mixture—Lean 4-6 TURNS(about 1 inch)
16. Throttle Friction Lock—ADJUST
17. Program GPS as needed
18. Radios – RE-CHECK—Call Ground/Traffic to continue.
19. Brakes—RELEASE
20. BEFORE TAKEOFF- RUNUP AREA CHECKLIST—COMPLETED

HOLD SHORT

1. Transponder—Set to ALT
2. Landing Light- ON/(Taxi Light OFF), if required
3. Mixture—RICH
4. Carb Heat - COLD
5. Trims—RE-CHECK for takeoff
6. Windows and Doors—RECHECK CLOSED
7. NON-TOWERED--Clearing 360°/CALL Traffic
8. TOWERED—Contact Tower
9. HOLD SHORT CHECKLIST - COMPLETED

Before Taxing onto Runway (Review one Below)

1. NORMAL TAKEOFF

- a. Verify Heading Indicator matches compass
- b. Mixture--RICH
- c. Carburetor Heat—COLD.
- d. Throttle—FULL OPEN.
- e. Elevator Control—LIFT NOSE WHEEL – 55 KIAS.
- f. Climb Speed—76 KIAS.

2. SHORT FIELD TAKEOFF

- a. Wing Flaps—10°.
- b. Carburetor Heat—COLD.
- c. Brakes—APPLY.
- d. Throttle—FULL
- e. Check Engine Instruments
- f. Brakes—RELEASE.
- g. Elevator Control—SLIGHTY TAIL LOW.
- h. Climb Speed—56 KIAS (until all obstacles cleared).

3. SOFT FIELD TAKEOFF

- a. Wing Flaps - 10°
- b. No stop/Centerline/Full Throttle
- c. Yoke FULL BACK PRESSURE reduce nose wheel weight, liftoff prematurely and allow LEVEL ACCELERATION ground effect to Vx 56kts (STC) until clear then Vy 76kts
- d. Wing Flaps-RETRACT

ENROUTE CLIMB

1. Airspeed—70-85 KIAS.
2. Throttle—FULL (IN)
3. Mixture—RICH (below 3000DA) - LEAN (above 3000DA)
4. Landing Light – OFF (unless needed)
5. ENROUTE CLIMB CHECKLIST—COMPLETED

CRUISE

1. Power—2200-2700 RPM (no more than 75% power).
2. Trims—ADJUST.
3. Landing/Taxi Light--OFF
4. Mixture—LEAN as required
5. Cruise Checklist--COMPLETED

DESCENT

1. Fuel Selector Valve--BOTH
2. Mixture--RICH
3. Power/CH—AS NECESSARY
4. Descent Checklist--COMPLETED

**Close VFR
Flight Plan**

BEFORE-LANDING

1. Landing/Taxi Light—ON as needed
2. Get ATIS/AWOS/Advisory Information
3. Call Tower/Traffic
4. Seat Belts, Harnesses—ADJUST and LOCK.
5. Fuel Selector Valve—BOTH
6. Mixture--RICH
7. Power and Carb Heat—AS NECESSARY

**LOCAL
FREES-
EZE
CTAF-122.8
A-128.125
RMN
CTAF- 122.725
A- 126.325**

LANDINGS

1. NORMAL LANDINGS

- a. Power – REDUCE FOR PATTERN
- b. Wing Flaps—AS DESIRED (below 85 KIAS).
- c. Airspeed—60-70 KIAS (FLAPS DOWN).
- d. Touchdown—MAIN WHEELS FIRST
- e. Landing Roll—LOWER NOSE WHEEL GENTLY.
- f. Braking—AS NECESSARY.

2. SHORT FIELD LANDINGS

- a. Power – REDUCE FOR PATTERN
- b. Wing Flaps—FULL (below 85 KIAS).
- c. Airspeed—MAINTAIN 61 KIAS.
- d. Power—REDUCE as obstacle is cleared.
- e. Touchdown—MAIN WHEELS FIRST.
- f. Braking—APPLY HEAVILY (do NOT skid tires).
- g. Wing Flaps—RETRACT.

3. SOFT FIELD LANDINGS

- a. Wing Flaps—FULL (below 85 KIAS)
- b. Airspeed—MAINTAIN 61 KIAS.
- c. Power—REDUCE to IDLE as obstacle is cleared
- d. Touchdown—MAIN WHEELS with power (1200 RPM)
- e. Landing Roll—Maintain Yoke Backpressure and hold nosewheel off ground
- f. Braking—MINIMUM
- g. Wing Flaps—MAINTAIN (retract if high grass or mud).

4. BALKED LANDING

- a. Throttle—FULL OPEN.
- b. Carburetor Heat—COLD.
- c. Wing Flaps—RETRACT to 20°.
- d. Airspeed—55 KIAS
- e. Wing Flaps-RETRACTED after safe altitude and 60 KIAS

AFTER LANDING – PAST HOLD SHORT

1. Wing Flaps—UP.
2. Carburetor Heat—COLD.
3. Throttle – 1000 RPM
4. Mixture – LEAN 4-6 turns
5. Taxi Light—ON (if needed)
6. Landing Light—OFF
7. Trims—RE-SET for takeoff
8. Radio – SWITCH – Call Ground/Traffic
9. AFTER LANDING CHECKLIST--COMPLETED

SHUT-DOWN for SERVICE

1. RPM—1000.
2. Avionics Master Switch—OFF
3. Taxi/Nav Lights—OFF (**Beacon—ON**)
4. Mixture—IDLE CUT-OFF.
5. Ignition Switch—OFF (Keys on Dash)
6. Master Switch—OFF.
7. SHUT DOWN CHECKLIST--COMPLETED

SECURING AIRPLANE

1. Control Yoke Lock—INSTALL.
2. HOBBS and TACH Meter—RECORD.
3. Rudder Gust and Throttle Lock—INSTALLED
4. Tie Downs and chocks—INSTALLED.
5. Pitot Cover--INSTALLED
6. Cowling Plugs—INSTALLED
7. Clean aircraft of trash, secure seatbelts
8. Aircraft Doors / Windows--LOCKED
9. Final Walk Around—AIRCRAFT SECURED
10. SECURING AIRPLANE CHECKLIST – COMPLETED

**Close VFR
Flight Plan**

EMERGENCY PROCEDURES

ENGINE FAILURES

ENGINE FAILURE DURING TAKEOFF RUN

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

ENGINE FAILURE IMMEDIATELY AFTER TAKEOFF

1. Airspeed—65 KIAS FLAPS UP
60 KIAS FLAPS DOWN
2. Mixture—IDLE CUT-OFF.
3. Fuel Selector Valve—OFF.
4. Ignition Switch—OFF.
5. Wing Flaps—AS REQUIRED
6. Master Switch—OFF.

ENGINE FAILURE DURING FLIGHT

1. Airspeed—65 KIAS
2. Carburetor Heat—ON.
3. Throttle--Open
4. Fuel Shutoff Valve—BOTH.
5. Mixture—RICH.
6. Master Switch—Check ON
7. Primer—IN and LOCKED.
8. Ignition Switch—BOTH (or START if propeller is stopped).

EMERGENCY PROCEDURES

FORCED LANDINGS

EMERGENCY LANDING – WITHOUT ENGINE POWER

1. Airspeed—65 KIAS (flaps up)
60 KIAS (flaps down)
2. Avionics – TRANS – 7700, COMS 121.5
3. Radio – Call location and intentions
4. Mixture—IDLE CUT-OFF.
5. Fuel Selector Valve—OFF.
6. Ignition Switch—OFF.
7. Wing Flaps—AS REQUIRED (30 recommended).
8. Master Switch—OFF.
9. Doors—UNLATCH PRIOR TO TOUCHDOWN.
10. Touchdown—SLIGHTLY TAIL LOW.
11. Brakes—APPLY HEAVILY.

PRECAUTIONARY LANDING – WITH ENGINE POWER

1. Wing Flaps—20
2. Airspeed—60 KIAS.
3. Selected Field—FLY OVER, noting terrain and obstructions, then retract flaps upon reaching safe altitude and airspeed.
4. Avionics Power Switch and Electrical Switches—OFF.
5. Wing Flaps—30 (on final approach).
6. Airspeed—60 KIAS.
7. Master Switch—OFF.
8. Doors—UNLATCH PRIOR TO TOUCHDOWN.
9. Touchdown—SLIGHTLY TAIL LOW.
10. Ignition Switch—OFF.
11. Brakes—APPLY HEAVILY.

EMERGENCY PROCEDURES

EMERGENCY DESCENT – High Drag

1. Carb Heat – ON
2. Power – IDLE
3. White Arc – FULL FLAPS
4. Execute 45° DESCENDING Bank
5. Descend at 80 – 85 Knots
6. Maintain vigilance for traffic
7. Level when appropriate

DITCHING IN WATER

1. Radio—TRANSMIT MAYDAY on 121.5 MHz, giving location and intentions and SQUAK 7700 if transponder installed
2. Heavy Objects (in baggage area)-SECURE or JETTISON
3. Approach – High Winds, Heavy Seas – INTO THE WIND
Light Winds, Heavy Swells- PARALLEL TO SWELLS
4. Wing Flaps —20- 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 window to flood cabin to equalize pressure so doors can be opened.
10. Life Vests and Raft—INFLATE

EMERGENCY PROCEDURES

ENGINE 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

2. Throttle – FULL (In)
3. Mixture – IDLE CUT-OFF
4. Cranking—CONTINUE for two or three minutes
5. Fire Extinguisher—OBTAIN (have ground attendants obtain if not installed).
6. Engine—SECURE.
 - a. Master Switch—OFF.
 - b. Ignition Switch—OFF.
 - c. Fuel Selector Valve—OFF.
7. Fire—EXTINGUISH using fire extinguisher, seat cushion, wool blanket, or dirt.
8. Fire Damage—INSPECT

ENGINE FIRE IN FLIGHT

1. Mixture—IDLE CUT-OFF.
2. Fuel Selector Valve—OFF.
3. Master Switch—OFF.
4. Cabin Heat and Air—OFF (except overhead vents).
5. Airspeed—100 KIAS (If fire is not extinguished, increase glide speed to find an airspeed which will provide an incombustible mixture).
6. Forced Landing—EXECUTE (as described in Emergency Landings Without Engine Power).

EMERGENCY PROCEDURES

ELECTRICAL FIRE IN FLIGHT

1. Master Switch—OFF.
2. Avionics Power Switch - OFF
3. All Other Switches (except ignition switch)—OFF.
4. Vents/Cabin Air/Heat—CLOSED.
5. Fire Extinguisher—ACTIVATE (if available).

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 Switches – OFF
9. Avionics Power Switch - ON
10. Radio/Electrical Switches—ON one at a time, with delay after each until short circuit is localized.
11. 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)

WARNING

After discharging an extinguisher within a closed cabin, ventilate the cabin.

4. Land the airplane as soon as possible to inspect for damage.

WING FIRE

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

NOTE

Perform a sideslip to keep flames away from the fuel tank and cabin, and land as soon as possible, with flaps retracted.

EMERGENCY PROCEDURES

ICING

INADVERTENT ICING ENCOUNTER

1. Turn pitot heat switch—ON.
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.
4. Open the throttle to increase engine speed and minimize ice build-up 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. Be prepared for significantly higher stall speed, with an ice accumulation of ¼ inch or more on the wing leading edges.
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 apportion 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 65-75 KIAS depending on the amount of ice accumulation.
12. Perform a landing in level attitude.

EMERGENCY PROCEDURES

LANDING WITH A FLAT MAIN TIRE

1. Wing Flaps –AS DESIRED
2. Elevator Control—NOSE HIGH.
3. Aileron Control—BANK TOWARD GOOD TIRE.
4. Rudder Control—AS REQUIRED to keep nose straight.
5. Touchdown—GOOD TIRE FIRST, hold airplane off flat tire as long as possible.

STATIC SOURCE BLOCKAGE

(Erroneous Instrument Reading Suspected)

1. Alternate Static Source Valve – PULL ON
2. Airspeed – Consult POH calibration tables

ELECTRICAL SYSTEM MALFUNCTIONS

AMMETER SHOWS EXCESSIVE RATE OF CHARGE (Full Scale Deflection)

1. Alternator—OFF.
2. Nonessential Electrical Equipment—OFF.
3. Flight—TERMINATE as soon as practical.

LOW-VOLTAGE LIGHT ILLUMINATES

(Ammeter indicate discharge)

1. Radios - OFF
 2. Master Switch—OFF (both sides).
 3. Master Switch—ON.
 4. Low-Voltage Light—CHECK OFF.
 5. Radios – ON
- (If low voltage light illuminates again)
6. Alternator – OFF
 7. Communicate Status
 8. Nonessential Radio and Electrical Equipment – OFF
 9. Flight – TERMINATE as soon as practical.