**Preflight**

**Cabin**
- Control Lock: REMOVE
- AROW: CHECK
- Hobbs & Tach: CHECK
- Parking Brake: SET
- All Switches: OFF/Safe/NORMAL
- Landing Gear Selector: DOWN
- Master Switch: ON
- Annunciator Lights: TEST
- Fuel Quantity: CHECK
- Lights/Pilot Heat: ON
- Check Lights/Pilot: WORKING
- Electrical Switches (Exp Beacon): OFF
- Master Switch: OFF
- Flaps: DOWN

**Right Wing**
- Baggage Door: SECURE
- Flap: CHECK
- Alleron: CHECK
- Wing Tip: CHECK LIGHT
- Main Wheel: CHECK
- Fuel Tank Sump: CHECK
- Fuel Quantity: CHECK VISUALLY
- Fuel Cap: SECURE

**Nose**
- Engine Oil: CHECK
- Nose Wheel & Strut: CHECK
- Engine Cooling Vents: CHECK
- Propeller & Spinner: CHECK
- Landing Light: CHECK
- Fuel Sump: CHECK

**Left Wing**
- Fuel Sump: CHECK
- Fuel Quantity: CHECK
- Fuel Cap: SECURE
- Main Wheel: CHECK
- Fuel Vent: CHECK
- Stall Warning: CHECK
- Wing Tip Down: UNTIE
- Pilot Tube Cover: REMOVE
- Pilot Tube: CHECK
- Wing Tip: CHECK LIGHTS
- Static Source: CHECK
- Alleron: CHECK Flap

**Empennage**
- Antennas: CHECK
- Control Surfaces: CHECK
- Rudder Gust Lock: REMOVE
- Tail Tie Down: REMOVE
- Trim Tab: CHECK

**Before Start**
- Preflight Inspection: COMPLETE
- Passenger Brief: COMPLETE
- Seats & Seatbelts: LOCK
- Doors: CLOSED
- Brakes: TEST FOR PRESSURE
- Circuit Breakers: CHECK
- All Switches: OFF/Safe/NORMAL
- Landing Gear Selector: DOWN

**Engine Start**
- Throttle: 1/4 OPEN
- Mixture: IDLE CUT OFF
- Propeller Area: CLEAR
- Master Switch: ON
- Beacon: ON
- Fuel Pump: ON, CHK PRESSURE
- Fuel Pump: OFF

**Cold Start Only**
- Fuel Pump: ON
- Mixture: FULL RICH
- Note Fuel Flow
- Mixture: IDLE CUT OFF
- Fuel Pump: OFF

**After Start**
- Throttle: 1000 RPM
- Oil Pressure: GREEN
- Lights: AS REQUIRED
- Avionics Master: ON

**Before Taxi**
- Flaps: UP (VERIFY)
- Radios: SET
- Transponder: SET
- Flight Instruments: ON
- Flight Controls: FREE & CORRECT

**Taxi**
- Brakes: TEST

**Run-Up**
- Flight Instruments: CHECK

**Descent**
- Throttle: SET
- Mixture: SET
- Altimeter: SET
- Seats & Seatbelts: SECURE
- Lights: ON

**Before Landing**
- Fuel Selector: FULLEST TANK
- Mixture: RICH
- Landing Gear: DOWN
- Prop: FORWARD

**After Landing**
- Flaps: RETRACT
- Transponder: ON
- Elevator Trim: SET
- Lights: AS REQUIRED

**Shutdown**
- Brakes: SET
- Throttle: 1000
- Transponder: STANDBY
- Avionic Master: OFF
- Mixture: IDLE CUT OFF
- Ignition Switch: OFF
- Master Switch: OFF
- Electrical Switches: OFF
- Control Lock: (except beacon)

**V-Speeds --- MPH**
- Vx: 85 (Gr Dn) VA
- Vx: 96 (Gr Up) 2600 131
- Vy: 95 (Gr Dn) 1800 96
- Vy: 100 (Gr Up) Vle 125
- Vs1: 64 Vlo 125
- Vs0: 71 Vle 150

**Best Glide: 105**

**Climb**
- Flaps: UP
- Power: SET
- Mixture: SET

**Cruise**
- Power: SET
- Mixture: LEAN
# ENGINE FAILURES

**DURING TAKE OFF ROLL**
- Throttle: IDLE
- Brakes: APPLY
- Wing Flaps: RETRACT
- Mixture: IDLE CUTOFF
- Ignition Switch: OFF
- Master Switch: OFF

**IMMEDIATELY AFTER TAKEOFF**
- Airspeed: 65 (Flaps UP), 60 (Flaps DOWN)
- Mixture: IDLE CUTOFF
- Fuel Shutoff: OFF
- Ignition Switch: OFF
- Wing Flaps: AS REQUIRED
- Master Switch: OFF
- Cabin Door: UNLATCH
- Land: STRAIGHT AHEAD

**DURING FLIGHT (Restart)**
- Airspeed: 65
- Fuel Pump: ON
- Fuel Selector: BOTH
- Fuel Shutoff: ON
- Mixture: RICH
- Ignition Switch: BOTH

**FORCED LANDINGS**
- Seat Backs: UPRIGHT
- Seat Belts: SECURE
- Airspeed: 65 (Flaps UP), 60 (Flaps DOWN)
- Fuel Pump: OFF
- Mixture: IDLE CUTOFF
- Shutoff Valve: OFF
- Ignition Switch: OFF
- Wing Flaps: AS REQUIRED
- Master Switch: OFF
- Doors: UNLATCH
- Touchdown: TAIL LOW
- Brakes: APPLY HEAVILY

# FIRES

**DURING START**
- Ignition Switch: START
- If Engine Starts-
  - Power: 1700 for a few min
  - Engine: SHUTDOWN
- If Engine Fails to Start-
  - Throttle: FULL OPEN
  - Mixture: IDLE CUTOFF
  - Cranking: CONTINUE
  - Shutoff Valve: OFF
  - Fuel Pump: OFF
  - Fire Extinguisher: OBTAIN
  - Engine: SECURE
  - A. Master SW: OFF
  - B. Ignition SW: OFF
  - Parking Brake: RELEASE
  - Airplane: EVACUATE
  - Fire: EXTINGUISH
  - Fire Damage: INSPECT

**ENGINE FIRE INFLIGHT**
- Mixture: IDLE CUTOFF
- Shutoff Valve: OFF
- Fuel Pump: OFF
- Master Switch: OFF
- Cabin Heat & Air: OFF
- Airspeed: 100 KTS
- Forced Landing: EXECUTE

**WING FIRE**
- Master Switch: OFF
- Vents/Cabin Air/Heat: CLOSED
- Fire Extinguisher: ACTIVATE
- Avionics Master: OFF
- All Switches: OFF
- Vents/Cabin Air/Heat: OPEN
- Master SW: ON
- Circuit Breakers: CHECK
- Radio Switches: OFF
- Avionics Master SW: ON
- Radio/Electrical SW: ON

**ELECTRICAL FIRE**
- Master Switch: OFF
- Vents/Cabin Air/Heat: CLOSED
- Fire Extinguisher: ACTIVATE
- Vents/Cabin Air/Heat: OPEN
- Land: ASAP

**ELECTRICAL POWER SUPPLY**

**SYSTEM MALFUNCTIONS**

**EXCESSIVE RATE OF CHARGE**
- Alternator: OFF
- Nonessential Elec Equip: OFF
- Flight: LAND ASAP

**LOW VOLT ILLUMINATES**

**IN FLIGHT**
- Avionics Master: OFF
- Alternator CB: CHECK IN
- Master Switch: OFF
- Master Switch: ON
- Low Volts ANN: CHECK OFF
- Avionics Master: ON

**VACUUM SYSTEM FAILURE**

- Check Guage: CHECK

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12/6/2013 (REV V) Arrow (PA28R) Normal Checklist