

### ENGINE FAILURES

#### ENGINE FAILURE DURING TAKEOFF ROLL

1. Throttle .....IDLE
2. Brakes .....APPLY
3. Mixture .....IDLE CUTOFF

#### ENGINE FAILURE AFTER TAKEOFF

1. Airspeed (V<sub>G</sub>) .....87 MPH
2. Power-Off / Forced Ldg .....EXECUTE

#### IF TIME & ALTITUDE ALLOW

3. Fuel Selector Valve .....PROPER TANK
4. Fuel Pump .....ON
5. Mixture .....RICH
6. Carb Heat .....ON
7. Ignition Switch .....BOTH/START
8. Power-Off / Forced Ldg .....EXECUTE

#### ENGINE FAILURE DURING FLIGHT

1. Airspeed (V<sub>G</sub>) .....87 MPH
2. Fuel Selector Valve .....PROPER TANK
3. Fuel Pump .....ON
4. Mixture .....RICH
5. Carb Heat .....ON
6. Engine Instruments .....CHECKED
7. Ignition Switch .....BOTH/START
8. Power-Off / Forced Ldg .....EXECUTE

#### POWER-OFF / FORCED LANDING

1. Airspeed (V<sub>G</sub>) .....87 MPH
2. Landing Area .....SELECTED/DIRECT

#### WHEN COMMITTED TO LANDING

3. Fuel Selector Valve .....OFF
4. Mixture .....IDLE CUTOFF
5. Master Switch .....OFF
6. Mags (Ignition) .....OFF
7. Seatbelts .....TIGHT
8. Flaps .....AS REQ'D

#### ABNORMAL OIL PRESSURE / TEMPERATURE

1. Power .....MINIMUM REQUIRED
2. Engine Instruments .....MONITOR
3. Power-Off / Forced Ldg .....EXECUTE

#### LOSS OF FUEL PRESSURE

1. Fuel Pump .....ON
2. Fuel Selector Valve .....FULLEST TANK

### FIRES

#### ENGINE FIRE DURING START

1. Starter .....CONTINUE TO CRANK
2. Mixture .....IDLE CUTOFF
3. Throttle .....OPEN
4. Fuel Pump .....OFF
5. Fuel Selector .....OFF
6. EGRESS AIRCRAFT

#### ENGINE FIRE DURING FLIGHT

1. Fuel Selector Valve .....OFF
2. Throttle .....IDLE
3. Mixture .....IDLE CUTOFF
4. Fuel Pump .....OFF
5. Heater/Defroster .....OFF
6. Power-Off / Forced Ldg .....EXECUTE

#### ELECTRICAL FIRE / SMOKE IN CABIN

1. Master Switch .....OFF
2. Vents .....OPEN
3. Cabin Heat .....OFF
4. All Electrical Equipment .....OFF

#### IF FIRE APPEARS OUT & PWR REQUIRED

5. Master.....ON
6. Circuit Breakers .....CHECKED
7. Critical Equip .....ON (1 at a time)

### ELECTRICAL

#### ALTERNATOR FAIL (0 Amps / Alt Light ON)

1. Ammeter .....TEST / APPLY LOAD
2. Electrical Load .....REDUCE
3. Alt Circuit Breaker .....CHECK
4. Alternator Switch .....RECYCLE 1 SEC

#### IF ANNUNCIATOR ON, OR ZERO AMPS

5. Alternator Switch .....OFF
6. Non-Essential Elec Equip .....OFF
7. Flight .....TERMINATE

### SPIN RECOVERY

1. Power (Throttle) .....IDLE
2. Ailerons .....NEUTRAL

### WHILE SIMULTANEOUSLY

3. Rudder .....FULL OPPOSITE OF SPIN
4. Elevator .....FWD OF NEUTRAL

### WHEN ROTATION STOPS

5. Rudder .....NEUTRAL
6. Elevator .....AS REQ'D FOR LVL FLT

### INADVERTENT ICING ENCOUNTER

1. Pitot Heat .....ON
2. Cabin Heat / Defrost .....MAX
3. Icing Conditions .....EXIT
4. Power .....INCREASE
5. Carb Heat .....ON
6. Mixture .....LEAN
7. No-Flap Landing .....EXECUTE

### LOST COMMUNICATIONS (NORDO)

1. Flight .....FIND/MAINTAIN VMC
2. Radio(s) .....CHECK VOLUME
3. Headset(s) .....CHECK
4. Circuit Breakers .....CHECK
5. Alternator Switch .....RECYCLE

### ENGINE ROUGHNESS

1. Carb Heat .....ON
2. Mixture .....ADJUST FOR SMOOTH OPER
3. Fuel Pump .....ON
4. Fuel Selector Valve .....SWITCH
5. Engine Instruments .....MONITOR
6. Magnetos .....CHECK L/R/BOTH

### CLEANING FOULED SPARK PLUGS

1. Throttle .....2300 RPM
2. Mixture .....LEAN FOR SLIGHT RPM DROP
3. MAINTAIN FOR 60 SECONDS
4. Mixture .....FULL RICH
5. Magnetos (RUN-UP) .....CHECKED

### OPEN DOOR

1. Airspeed .....BELOW 100 MPH
2. Cabin Vents .....CLOSED
3. Storm Window .....OPEN
4. If Lower/Upper Latches Open .....LATCH

### PERFORMANCE DATA

V SPEEDS (MPH)		
Stall, Flaps DOWN	V <sub>SO</sub>	61
Stall, Flaps UP	V <sub>S1</sub>	68
Rotation	V <sub>R</sub>	60
Best Angle	V <sub>X</sub>	74
Best Rate	V <sub>Y</sub>	87
<b>Best Glide</b>	<b>V<sub>G</sub></b>	<b>87</b>
Max Flap Extend	V <sub>FE</sub>	115
Maneuvering	V <sub>A</sub>	124
Max Structural Cruise	V <sub>NO</sub>	140
Never Exceed	V <sub>NE</sub>	171
Max Demo Crosswind (KTS)		17 KT

Source: PA28-181 POH

### PA28-181 SPECIFICATIONS

	SPECIFICATION	
WEIGHTS	MAX T/O WEIGHT (NORM)	2550#
	MAX T/O WEIGHT (UTIL)	2130#
	MAX BAGGAGE	200#
	MAX USEFUL LOAD	1160#
FUEL AND OIL	USEABLE / TOTAL	48 / 50 GAL
	FUEL TYPE	100LL
	75% BEST PWR	10.5 GAL/HR
	65% BEST PWR	9.0 GAL/HR
	55% BEST PWR	7.8 GAL/HR
	OIL CAPACITY (QT)	8 (6 USEABLE)
AIRCRAFT	TIRE PSI (NOSE/MAIN)	24 / 24
	BATTERY	12 VDC / 25 Ah
	ALTERNATOR	14 VDC / 60 Ah

Source: PA28-181 POH