



**PA-30 Multi-Engine Training
Emergency Operations Checklist**

SIMULATE ENGINE FAILURE AS FOLLOWS*

Engine Failure on Take-off Roll: Mixture

Engine Failure below 3K ft AGL: Throttle

Engine Failure above 3K ft AGL: Mixture

*Fuel selector to "off" will not be and should not be used for training purposes

**Engine Failure During Takeoff
BEFORE ROTATION SPEED**

TAKEOFF.....ABORT
THROTTLES.....CLOSE
MAINTAIN DIRECTIONAL CONTROL
BRAKES.....STOP STRAIGHT AHEAD

INSUFFICIENT RUNWAY FOR FULL STOP

MIXTURES.....CUTOFF
FUEL SELECTORS.....OFF
MAGNETOS.....OFF
MASTER SWITCH.....OFF

**AFTER ROTATION WITH SUFFICIENT RUNWAY
FOR A COMPLETE STOP**

MAINTAIN DIRECTIONAL CONTROL
THROTTLES.....CLOSE
LAND AND STOP STRAIGHT AHEAD

**AFTER ROTATION WITH DECISION MADE
TO CONTINUE**

PERFORM IN-FLIGHT ENGINE FAILURE
CHECKLIST

In-Flight Engine Failure

MAINTAIN DIRECTIONAL CONTROL/PITCH
ATTITUDE/AIRSPEED (**BLUE LINE**)
MIXTURES.....FULL FORWARD
PROPS.....FULL FORWARD
THROTTLES.....FULL FORWARD
FLAPS.....UP
GEAR.....UP
IDENTIFY....."DEAD FOOT, DEAD ENGINE"
VERIFY.....CLOSE THROTTLE

FIX (TROUBLESHOOT) OR FEATHER

ABOVE 3000 FT AGL.....TROUBLESHOOT
THROTTLE.....1 INCH
FUEL SELECTORS.....ON
MAGNETOS.....ON/CHECK
FUEL PUMPS.....ON
ALTERNATE AIR.....ON/CHECK/OFF
FUEL QTY/PRESSURE.....CHECK
OIL PRESS/TEMP.....CHECK

**IF TROUBLE SHOOT DOESN'T WORK OR
BELOW 3000FT AGL**

INOP ENG PROP.....(SIM) FEATHER
INOP ENG MIXTURE.....(SIM) CUTOFF
CLIMB.....**BLUE LINE**

*CLIMB AT VYSE/**BLUE LINE** (91KT/105MPH) OR VXSE/**RED LINE** (82KT/94MPH) FOR OBSTACLE CLEARANCE. CLIMB TO PATTERN ALTITUDE OR AS REQUIRED.*

DECLARE AN EMERGENCY WITH ATC LAND AT
NEAREST SUITABLE AIRPORT

Engine Failure Secure

INOP ENG FUEL SELECTOR.....(SIM)OFF
INOP ENG MAGNETOS.....(SIM)OFF
INOP ENG FUEL PUMP.....OFF
INOP ENG ALTERNATOR.....OFF
INOP ENG PROP.....FEATHER
INOP ENG COWL FLAP.....CLOSED
PERFORM CRUISE CHECKLIST
ON OPERATING ENGINE

Airstart

INOP ENG FUEL SELECTOR.....ON
INOP ENG MIXTURE.....RICH
INOP ENG PROP.....FULL FORWARD
INOP ENG THROTTLE.....FULL FORWARD
INOP ENG MAGNETOS.....ON
RADIO MASTER.....OFF
INOP ENG FUEL PUMP.....PRIME
INOP ENG MIXTURE.....CUTOFF
INOP ENG STARTER.....ENGAGE
If engine does not start, prime and repeat steps
When engine catches:
INOP ENG MIXTURE.....FULL RICH
INOP ENG THROTTLE.....15" MP
INOP ENG ALTERNATOR.....ON
COWL FLAPS.....CLOSED

*KEEP THROTTLE AT/BELOW 15' MP UNTIL
CHT IS AT 200/IN THE GREEN



**PA-30 Multi-Engine Training
Normal Operations Checklist**

BEFORE STARTING ENGINES

1. Seats.....POSITION AND LOCK
2. Brakes.....TEST AND SET
3. Fuel Strainers.....DRAIN 5 SECONDS
4. Circuit Breakers.....IN
5. Controls.....FREE AND CORRECT
6. Door.....LATCHED
7. Beacon.....ON
8. Cowl Flaps.....OPEN

STARTING ENGINES

1. Throttles.....1/2" OPEN
2. Propellers.....HIGH RPM
3. Mixture.....FULL RICH
4. Master Switch.....ON

Starting Left Engine

1. Fuel Pump.....ON 5-sec, THEN OFF
2. Magnetos.....ON
3. Starter.....ENGAGE
4. Alternators.....ON
5. Oil Pressure.....CHECK

Starting Right Engine

1. Fuel Pump.....ON 5-sec, THEN OFF
2. Magnetos.....ON
3. Starter.....ENGAGE
4. Alternators.....ON
5. Oil Pressure.....CHECK

BEFORE TAXI

1. Radio/EFIS/AP.....ON
2. Fuel Pumps.....VERIFY OFF
3. Mixture.....GROUND LEAN TO "X"
4. Flaps.....UP/CENTER POSITION
5. ATIS/ Squawk/Taxi Clearance.....OBTAIN

RUN UP

1. Brakes.....SET
2. Mixtures.....RICH
3. Propellers.....HIGH RPM
4. Throttles.....1500 RPM
5. Propellers.....CHECK FEATHER (L/R)
6. Throttles.....2000 RPM
7. Magnetos.....CHECK
8. Suction/Vacuum/Ammeter.....VERIFY
9. Oil Press/Temp.....VERIFY

TAKE OFF

Before Entering Runway

1. Fuel Selector.....MAIN TANKS
2. Mixture.....RICH
3. Fuel Pumps.....ON
4. Flaps.....SET
5. Trim.....TAKE OFF
6. Transponder.....ALT

Takeoff

- Airspeed.....ESTABLISH
 Vr.....90 MPH/(70-80 MPH SHORT FIELD)
 Vy.....112 MPH
 Vx.....90 MPH
 Vyse.....105 MPH
 Gear.....RETRACT/CENTER
 Flaps.....RETRACT CENTER

Climbing through 1,000 AGL

- Power.....25" MP/2500 RPM

CRUISE

1. L/R Fuel Pumps.....OFF
2. Power.....23'/2300 RPM
3. Cowl Flaps.....CLOSED
4. Mixture.....1450 EGT
5. Props.....SYNC

APPROACH/LANDING

1. Fuel Selector.....MAIN TANKS
2. Fuel PumpsON
3. Gear.....DOWN (Vle 150 MPH)
4. Flaps.....DOWN (Vfe 125 MPH)
5. Propellers.....HIGH RPM
6. Mixture.....RICH
7. Airspeed....95-100 MPH (90 MPH SHRT FLD)

AFTER LANDING

1. Flaps.....RETRACT/CENTER
2. Cowl Flaps.....OPEN
3. Fuel Pumps.....OFF
4. Mixture.....GROUND LEAN

SHUT DOWN

1. Throttles1000 RPM
2. Radio/EFIS/AP.....OFF
3. Mixture.....OFF
4. Alternators.....OFF
5. Magnetos.....OFF
6. Master.....OFF