

AeroDynamic Aviation

Twin Comanche PA30

Engine Failure

During Takeoff < 90 MPH

Throttles	Both Closed
Braking	As Required

~ If insufficient runway remaining:

Fuel Selector	Off
Master Switch	Off

During Takeoff 90-105 MPH

Decision area based on runway remaining, weight density altitude, obstacles, weather, and capability

During Takeoff > 105 MPH

If sufficient runway remains, land straight ahead

~ If insufficient runway remains:

Landing Gear	Retract
Flaps	Retract
Airspeed	Maintain V_{YSE}

Initiate Engine Power Loss During Climb ✓

Engine Power Loss During Climb/Flight

Airspeed	Establish V_{YSE}
Inoperative Engine	Identify & Verify
Rudder toward operating engine	Apply
Aileron toward operating engine	Bank 5°
Turn Coordinator	Ball halfway
Operative Engine	Full Power

Initiate Engine Securing Procedure ✓

**** Zero Thrust = 10" MP 2200RPM ****

Engine Securing Procedure

~ Attempt to restore power:

Fuel Selector	Switch Tanks
Crossfeed	As Required
Fuel Pump	On
Magnetos	Check On
Mixture	Full Rich
Alternate Air	On
Engine Gauges	Check

~ If power is restored:

Fuel Pump	Off
Alternate Air	Off

Engine Failure

~ If power cannot be restored (feathering):

Mixture	Idle Cut-Off
Fuel Selector	Off
Fuel Pump	Off
Magneto Switch	Off
Cowl Flap	Closed
Propeller	Verify & Feather
Alternator	Off
Electrical Load (as required)	Reduce

Initiate Single Engine Operation on Crossfeed ✓

Single Engine Operation on Crossfeed

Only during emergency in level flight

Inop Engine Fuel Selector	Main or Aux
Operative Engine Fuel Selector	Crossfeed On

~ Before landing, take off crossfeed:

Operative Engine Fuel Selector	Main Tank
Inoperative Engine Fuel Selector	Fuel Valve Off
Operative Engine Fuel Pump	On

Air Start (Unfeathering Procedure)

Magneto Switches	On
Fuel Selector	On
Fuel Pump	On
Throttle	1/4" Open
Propeller Control	Fwd to Cruise
Starter (until windmilling)	Engage
Mixture	Slowly Advance
~ Once started, adjust throttle, prop, mixture ~	
Oil Pressure	Check
Fuel Pump	Off
Cowl Flap	As Required
Alternator	On

Warm engine at 15"MP and 2000 RPM

Single Engine Landing

~ On final, landing assured:

Landing Gear	Extend
Flaps	Extend 15°
Airspeed	Blue Line

AeroDynamic Aviation

Twin Comanche PA30

Engine Fire During Start

~ Affected Engine:

Starter	Cont. Cranking
Mixture	Idle Cut-Off
Throttle	Open
Fuel Pump	Off
Fuel Selector	Off

* If fire continues, extinguish as able *

Engine Fire In Flight

~ Affected Engine:

Throttle	Close
Mixture	Idle Cut-Off
Fuel Selector	Off
Fuel Pump	Check Off

Initiate Power Loss During Flight ✓
and/or Emergency Descent Procedures ✓

Electrical Fire In Flight

or Smoke in Cabin

Master Switch	Off
Vents	Open
Door	Open if Nec.
Cabin Heater	Off
Oxygen (if equipped)	As Required

Land as soon as possible w/o flaps - V_{APP} 100 MPH
Initiate Manual Gear Extension Procedure ✓

High Oil Temp or CHT

Cowl Flaps	Open
Mixture	Enrichen
Power	Reduce if Nec.
Airspeed	Above 130 MPH
Engine Instruments	Monitor

Land as soon as possible
Prepare for Power Loss During Flight Procedure ✓

Loss of Fuel Pressure

Fuel Selector	Fullest Tank
Fuel Pump	On
Mixture	Enrichen

~ If pressure is not restored:

Fuel Pump	Off
-----------	-----

Prepare for Power Loss During Flight Procedure ✓

Landing Gear Fault

Master Switch	Check On
Landing Gear Circuit Breaker	Check

* Reset breaker once if open

If gear operates, but no Green light

Light Rheostat	Check
Navigation Lights	Check Off
Gear Indicator Light	Replace as Nec.

* Gear light inop during electrical failure

Manual Gear Extension

Airspeed	Below 100 MPH
Gear Handle	Down

* Gear motor release arm - disengage and
push forward through full travel *

Gear Extension Handle	Remove
-----------------------	--------

* If left socket is not in clear position,
place handle in right socket *

Gear Ext. Handle	Twist Clockwise
------------------	-----------------

* Extend handle and rotate forward until
left socket is in clear position *

Gear Ext. Handle	Left Socket
------------------	-------------

* Extend handle and rotate FULL forward to extend gear

* Handle locked in forward position indicates gear down

* Check GREEN gear down light illuminated

Emergency Descent

Oxygen Failure, Engine Fire, etc.

Seatbelt & Harness	Secure
Throttles	Idle
Props	Full Forward
Landing Gear	Down <150 MPH
Airspeed	Max <150 MPH

* Terrain awareness is critical*

~ Oxygen Failure, recover at 10,000 MSL or 2,000 AGL:

Landing Gear	As needed
Mixtures	Enrichen
Throttles	Increase slowly
Props	Cruise

~ Engine Fire:

Bank Angle	40-45° as nec.
------------	----------------

Prepare for Power-Off Landing Procedure ✓