

PA-28-161
WARRIOR

PA-28-161 OPS LIMITS

AIRSPEEDS (@ MAX GROSS WT 2325) KIAS

V _{S0}	44
V _{S1}	50
V _R	50
V _X	63
V _{MAX} GLIDE	73
V _Y @ S/L	79
V _{FE}	103
V _A	111
V _{NO}	126
V _{NE}	160

X WIND KTS

MAX DEMONSTRATED	17
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ENGINE LIMITS

MAXIMUM CONTINUOUS	2700 RPM
MAX OIL TEMP.	245° F
OIL PRESSURE MIN / MAX	25 / 90 PSI
FUEL PRESSURE MIN / MAX	0.5 / 8 PSI

MAX GROSS T/O & LDG LBS

MAXIMUM (Normal)	2325
(Utility)	2020
MAXIMUM BAGGAGE	200

MAX ACCELERATION Gs

LOAD LIMITS (NORMAL / UTILITY)	+3.8 / +4.4
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PA-28-161 NORMAL PROCEDURES

PREFLIGHT

1. W_x & DENSITY ALT. DETERMINE
2. WEIGHT AND BALANCE CALC
3. PERFORMANCE REQUIREMENTS. CALC
4. FLIGHT PLAN / NOTAMs FILE AS REQ / REVIEW

FRONT COCKPIT

1. AROW / FLIPS CHECK / STOW
2. KEYS ON DASH
3. COCKPIT FOD REMOVE
4. ELEC. FUEL PUMP OFF
5. FUEL SHUTOFF VALVE HANDLE OFF
6. TRIM TABS CORRECT
7. FLAPS 40°
8. THROTTLE CLOSED
9. MIXTURE IDLE CUTOFF
10. MAGS OFF
11. MASTER OFF
12. CONTROLS UNLOCKED
13. AVIONICS OFF
14. ELT ARMED
15. RADIO MASTER OFF
16. CIRCUIT BREAKERS IN
17. PROP. CLEAR
18. BATTERY ON
19. FUEL GAUGES. TRUE
20. LIGHTS INTERIOR / EXTERIOR
21. PITOT HEAT TEST
22. STALL WARNING CHECK
23. BATTERY OFF
24. PARKING BRAKE OFF
25. WINDSHIELD CHECK
26. PITOT STATIC DRAINS DRAIN / CLOSE

PA-28-161 NORMAL PROCEDURES

FUEL SAMPLES & ENGINE COMPARTMENT

- 1. RIGHT WING QUICK DRAIN SAMPLE
- 2. LEFT WING QUICK DRAIN SAMPLE
- 3. FUEL SELECTOR RT TANK
- 4. FUEL STRAINER SAMPLE
- 5. FUEL SELECTOR LT TANK
- 6. FUEL STRAINER SAMPLE
- 7. RIGHT ENGINE COMPARTMENT COWL . . . OPEN
- 8. ENGINE & ACCESSORIES CHECK
- 9. OIL LEVEL (MIN / MAX). 6-8 QTS
- 10. RIGHT ENGINE COMPARTMENT COWL . . . LATCHED
- 11. PORT ENGINE COMPARTMENT COWL OPEN
- 12. ENGINE & ACCESSORIES CHECK
- 13. BATTERY CHECK
- 14. LEFT ENGINE COMPARTMENT COWL LATCHED

LEFT WING

- 1. AIR INLET CLEAR
- 2. LANDING GEAR / TIRE CHECK (24 PSI)
- 3. STRUT EXPOSURE 4. 5"
- 4. FUEL VENT CLEAR
- 5. FUEL QUANTITY CHECK VISUALLY
- 6. FUEL FILLER CAP SECURE
- 7. LEADING EDGE CLEAN
- 8. NAVIGATION LIGHT CHECK
- 9. AILERON CHECK
- 10. PITOT STATIC MAST CHECK
- 11. AILERON CHECK
- 12. FLAP CHECK
- 13. TIEDOWN DISCONNECT
- 14. CHOCK REMOVE

FUSELAGE & EMPENNAGE

- 1. ANTENNAS CHECK
- 2. STABILATOR / TRIM CHECK
- 3. TIEDOWN DISCONNECT
- 4. RUDDER CHECK
- 5. NAVIGATION LIGHT SECURE
- 6. AIR INLET CHECK
- 7. BAGGAGE DOOR LATCHED

PA-28-161 NORMAL PROCEDURES

NOSE

1. CHOCK REMOVE
2. NOSE TIRE. CHECK (30 PSI)
3. STRUT EXPOSURE 3.25"
4. ENGINE AIR INLETS CLEAR
5. PROP/SPINNER. CHECK
6. ALTERNATOR BELT CHECK
7. LANDING / TAXI LIGHT CHECK

RIGHT WING

1. AIR INLET CLEAR
2. LANDING GEAR / TIRE CHECK (24 PSI)
3. STRUT EXPOSURE 4. 5"
4. FUEL VENT CLEAR
5. FUEL QUANTITY CHECK VISUALLY
6. FUEL FILLER CAP SECURE
7. LEADING EDGE. CLEAN
8. NAVIGATION LIGHT CHECK
9. AILERON CHECK
10. PITOT STATIC MAST CHECK
11. AILERON CHECK
12. FLAP. CHECK
13. TIEDOWN DISCONNECT
14. CHOCK REMOVE

PA-28-161 NORMAL PROCEDURES

PRESTART

- 1. HOBBS/TACH TIME. RECORDED
- 2. PASSENGER BRIEF COMPLETE
- 3. SEATS ADJUST
- 4. HARNESS FASTEN
- 5. WING FLAP LEVER. RAISE
- 6. LANDING LIGHTS. OFF
- 7. CARBURETOR HEAT. OFF
- 8. ANTI-COLLISION LIGHTS CHECK ON
- 9. CIRCUIT BREAKERS. IN
- 10. FUEL SELECTOR. LOWEST TANK

START

IF ENGINE COLD:

- a. THROTTLE SET ¼" OPEN
- b. PERFORM STEPS 2-9
- c. IF NO START, PRIME ENGINE
- d. REPEAT START STEP 9-11

ENGINE WARM:

- 2. THROTTLE SET 1/2" OPEN
- 3. MASTER ON (OFF if external
power is used)
- 4. ELEC. FUEL PUMP ON
- 5. FUEL PRESSURE. CHECK
- 6. MIXTURE RICH
- 7. BRAKES HOLD
- 8. PROP AREA. CLEAR
- 9. MAGS BOTH
- 10. STARTER ENGAGE (10 SEC MAX)
- 11. STARTER RELEASE (WHEN ENG FIRES)
- 12. THROTTLE 1000 RPM
- 13. OIL PRESSURE. CHECK (if no pressure w/in
30 seconds, shutdown)
- 14. EXTERNAL POWER (if used) DISCONNECT
BATTERY -- ON
- 15. RADIO MASTER ON
- 16. ELEC. FUEL PUMP OFF
- 17. MIXTURE LEAN

PA-28-161 NORMAL PROCEDURES

PRE-TAXI

1. FLAPS. UP
2. TRIM TABS. SET
3. FUEL QUANTITY NOTED
4. FUEL SELECTOR. SWITCH OPPOSITE
5. COMM / NAV / XPNDR ON / ON / STBY
6. ATIS / AWOS COPY
7. CLOCK SET
8. GYROS SET
9. AIRSPEED INDICATOR CHECK
10. VSI. CHECK
11. ALTIMETER SET / CHECK
12. TAXI CLNC. CNTC GND
13. PARKING BRAKE. CHECK OFF
14. PNL / NAV / TAXI LIGHT. AS REQUIRED

TAXI

1. BRAKES TEST
2. ATTITUDE INDICATOR CHECK
3. TURN-AND-SLIP INDICATOR CHECK
4. HEADING INDICATOR. CHECK
5. MAGNETIC COMPASS CHECK

PA-28-161 NORMAL PROCEDURES

RUN-UP

- 1. BRAKES HOLD
- 2. OIL TEMP. CHECK
- 3. MIXTURE RICH

IGNITION SYSTEM CHECK:

- 4. THROTTLE 2000 RPM
- 5. ENGINE INSTRUMENTS CHECK
- 6. MAGS (R & L) CHECK
(175 RPM MAX DROP, 50 RPM MAX DIFFERENTIAL)

CAUTION: IF MAGS ARE INADVERTENTLY TURNED OFF:

- THROTTLE CLOSE*
- MIXTURE IDLE / CUTOFF*
- NORMAL START. PERFORM*

- 7. ANNUNCIATORS CHECK
- 8. VACUUM SYSTEM 5.0" ± 0.1
- 9. AMMETER CHECK

IDLE MIXTURE:

- 10. OIL PRESSURE CHECK
- 11. OIL TEMPERATURE CHECK
- 12. CARBURETOR HEAT ON, CHECK FOR RPM DROP
- 13. THROTTLE CLOSED (600-750 RPM)
- 14. CARBURETOR HEAT OFF
- 15. THROTTLE 1000 RPM

PA-28-161 NORMAL PROCEDURES

PRE TAKEOFF

- 1. MASTER ON
- 2. CARBURETOR HEAT OFF
- 3. SEAT BACKS ERECT
- 4. ANTI-COLLISION LIGHTS. ON
- 5. FUEL SHUTOFF VALVE HANDLE. FULLEST TANK
- 6. FUEL PRESSURE NORMAL
- 7. FUEL QUANTITY CHECK
- 8. PRIMER. LOCKED
- 9. FLIGHT CONTROLS FREE & CORRECT
- 10. TRIM TABS. SET
- 11. INSTRUMENTS CHECKED & SET
- 12. MIXTURE BEST POWER ABOVE S/L
- 13. MAGS BOTH
- 14. FLAPS. SET (0-25°)
- 15. HARNESS LOCKED
- 16. CABIN DOOR SECURE
- 17. COMM / NAV / XPNDR. ON / ON / SET

TAKE OFF BRIEF

- 1. PIC. IDENTIFY
- 2. XFR OF CONTROLS. POSITIVE 3 WAY
- 3. EMERGENCY OPS. **BRIEF**
 - a. This will be a [Normal, Short or Soft Field] takeoff.
The wind is _____, computed T/O distance is _____ FT,
T/O PWR is **2350-2450** RPM and V_R is **45-55** KIAS.
 - b. Any problem before rotation, takeoff will be aborted.
 - c. Engine Failure prior to _____ FT MSL, we will maintain
73 / 63 KIAS (flaps up/down), then land straight ahead.
 - d. Engine Failure above _____ FT MSL, we will
[discuss options] and maintain **73** KIAS.
- 4. T/O CLNC CNTC TWR

PA-28-161 NORMAL PROCEDURES

AIRSPEEDS	KIAS
V _R	50
V _X	63
V _Y	79
CRUISE CLIMB.	87

CLEARED FOR TAKEOFF:

1. LANDING LIGHTS ON
2. ELEC. FUEL PUMP. ON
3. TRANSPONDER ON / ALT
4. HEADING INDICATOR. SET
5. NOSE WHEEL. CTRD
6. TAKE OFF TIME. NOTE

SHORT FIELD TAKEOFF

1. FLAPS 25° (2nd notch)
2. BRAKES HOLD
3. THROTTLE. FULL PWR
4. A/S. 52 KIAS (ROTATE)
5. A/S. . (Until Obstacle Clear) 52 KIAS
6. OBSTACLE. CLEAR
7. ACCELERATE. 79 KIAS
8. FLAPS. RETRACT SLOWLY
9. CLIMB. 87 KIAS

AFTER TAKEOFF

1. FLAPS. UP
2. ELEC. FUEL PUMP. OFF
3. FUEL CAPS SECURE
4. ENGINE INSTS CHECK
5. LANDING LIGHTS AS DESIRED
6. FLIGHT PLAN OPEN

PA-28-161 NORMAL PROCEDURES

CRUISE

1. THROTTLE <= 75% PWR
2. MIXTURE LEAN
3. ENGINE INSTS CHECK
4. HEADING INDICATOR SET
5. FUEL QUANTITY CHECK
6. FUEL TANKS. . (USE FUEL PUMP) . . SWITCH (1 HR)
7. LOCATION DETERMINE
8. W_x (WHEN EN ROUTE) . . CHECK

AEROBATICS / STALLS

1. LOOSE GEAR STOWED
2. ELEC. FUEL PUMP ON
3. HARNESS LOCKED
4. THROTTLE AS REQ
5. CANOPY LOCKED
6. AREA CLEAR

POST AERO / STALL

1. HEADING INDICATOR RESET
2. FUEL SELECTOR FULLEST TANK

DESCENT

1. MIXTURE RICH
2. HEADING INDICATOR SET
3. A/S 126 KIAS
4. POWER 2500 RPM
5. ATIS / AWOS COPY
6. ALTIMETER SET
7. NAVAIDS TUNED / IDENT
8. ENGINE INSTS CHECK
9. FUEL QTY CHECK
10. FUEL SELECTOR FULLEST TANK
11. LANDING LIGHTS ON

PA-28-161 NORMAL PROCEDURES

AIRSPEEDS	KIAS
DOWNWIND	80
PAST ABEAM (10° FLAPS)	75
BASE (25° FLAPS)	70
FINAL (0° FLAPS)	70
NORMAL/SOFT/SHORT FINAL (40° FLAPS).	63

LANDING

1. ELEC. FUEL PUMP / FUEL QTY. ON / CHECK
2. MIXTURE BEST POWER
3. CARBURETOR HEAT AS REQ
4. HARNESS LOCKED
5. FLAPS. AS REQUIRED
6. BRAKES PKG OFF / PUMP
7. A/S. CALC
8. LDG LTS ON

AFTER LANDING

1. MIXTURE LEAN
2. FLAPS. UP
3. ELEC. FUEL PUMP. OFF
4. LANDING LIGHTS OFF
5. TAXI LIGHT AS REQ
6. TRANSPONDER STBY
7. TRIM TABS. SET FOR T/O

PA-28-161 NORMAL PROCEDURES

SHUTDOWN

- 1. THROTTLE 1000 RPM
- 2. NAV / PNL / TAXI LTS OFF
- 3. ENG INSTS. STABLE
- 4. THROTTLE CLOSE
- 5. MAGS GND CHECK
- 6. MIXTURE IDLE CUTOFF

NOTE: IF ENG SHOULD FAIL TO STOP

- THROTTLE OPEN SLIGHTLY*
- FUEL SHUTOFF VALVE OFF*

- 7. ELT CHECK (121.5 MHZ)
- 8. RADIO MASTER SWITCH. OFF
- 9. MAGS OFF
- 10. MASTER OFF
- 11. KEY ON DASH

SECURING

- 1. HOBBS/TACH TIME RECORDED
- 2. FLIGHT CONTROLS LOCKED
- 3. BAGGAGE DOOR. CLOSED
- 4. CABIN DOOR SECURE / LOCKED

POST FLIGHT

- 1. FUEL. RECORD
- 2. WHEELS. CHOCKED
- 3. TIE DOWNS. SECURE
- 4. COVER. INSTALL
- 5. DISCREPANCIES. WRITE UP

CLOSE FLIGHT PLAN

PA-28-161 ABNORMAL PROCEDURES

FLOODED ENGINE (NO START AFTER 10 SEC)

- 1. MIXTURE IDLE / CUTOFF
- 2. THROTTLE FULL OPEN
- 3. ELEC. FUEL PUMP OFF
- 4. STARTER ENGAGE (10 SEC)
- 5. MIXTURE RICH
(WHEN ENGINE FIRES)

NO START AFTER 2ND 10 SEC ATTEMPT

- 1. MIXTURE IDLE / CUTOFF
- 2. ELEC. FUEL PUMP OFF
- 3. BATTERY OFF
- 4. MAGS OFF
- 5. FUEL SHUTOFF HANDLE OFF

ALLOW STARTER TO COOL FOR 2 MINUTES, THEN REPEAT NORMAL START FROM STEP 2. IF THIS FAILS, SECURE ENGINE.

GROUND BURNOUT

- 1. MIXTURE RICH
- 2. THROTTLE 2000 RPM
- 3. MIXTURE LEAN TO 50 RPM DROP
BELOW BEST POWER

AFTER 1 MINUTE:

- 4. MIXTURE RICH
- 5. MAGS RECHECK

RADIO FAILURE

- 1. VOLUME CHECK
- 2. HEADSET CONNECTION CHECK
- 3. AUDIO CONTROLS CHECK
- 4. CIRCUIT BREAKERS CHECK
- 5. FREQUENCY SWITCH

IF IFR (OR VFR IN CLASS B, C, D AIRSPACE):

- 6. SQUAWK 7600

IF FAILURE OCCURS IN VFR CONDITIONS, OR VFR CONDITIONS ARE ENCOUNTERED AFTER FAILURE, CONTINUE FLIGHT UNDER VFR AND LAND AS SOON AS PRACTICABLE.

PA-28-161 ABNORMAL PROCEDURES

VFR LANDING AT A CONTROLLED FIELD:

1. REMAIN OUTSIDE OR ABOVE CLASS D AIRSPACE UNTIL TRAFFIC FLOW DETERMINED.
2. TRANSMIT INTENTIONS "IN THE BLIND" ADVISING TOWER OF AIRCRAFT TYPE, POSITION, ALTITUDE, AND INTENTION TO LAND.
3. ENTER PATTERN, REPORT POSITION "IN THE BLIND", AND WATCH FOR LIGHT SIGNALS FROM TOWER.

IF FAILURE OCCURS IN IFR CONDITIONS, CONTINUE FLIGHT ACCORDING TO THE FOLLOWING:

ROUTE TO FLY (IN ORDER): (AVE F)

- A ASSIGNED
- V VECTORED
- E EXPECTED
- F FILED

ALTITUDE (HIGHEST OF FOR THE ROUTE SEGMENT BEING FLOWN): (MEA)

- M MINIMUM IFR ALTITUDE
- E EXPECTED AS ADVISED BY ATC
- A ASSIGNED BY ATC

DESCENT FOR APPROACH:

FROM EN ROUTE ALTITUDE UPON REACHING THE IAF BUT NOT BEFORE:

1. EXPECT-FURTHER-CLEARANCE TIME (IF GIVEN)
2. ETA AS CALCULATED FROM FILED ETE



EMERGENCY PROCEDURES

Items marked with an asterisk (*) are memory items.

ENGINE FIRE DURING START

- * 1. Mixture IDLE CUTOFF
- * 2. Fuel shutoff valve handle OFF
- * 3. Throttle FULL FWD
- * 4. Elec. Fuel Pump OFF
- * 5. Continue cranking to clear engine, attempting a start.

If no start:

- * 6. Ignition OFF
- * 7. Master OFF
- * 8. ABANDON AIRCRAFT

ENGINE FIRE AFTER START ON GROUND

- * 1. Mixture IDLE CUTOFF
- * 2. Fuel shutoff valve handle OFF
- * 3. Throttle FULL FWD
- * 4. Ignition OFF
- * 5. Master OFF
- * 6. ABANDON AIRCRAFT

ABORTED TAKEOFF

- * 1. Throttle CLOSED
- * 2. Brakes APPLY

If unable to stop on runway:

- * 3. Cabin Door UNLATCH
- * 4. Mixture IDLE CUTOFF
- * 5. Fuel shutoff valve handle OFF
- * 6. Ignition OFF
- * 7. Master OFF
- * 8. ABANDON AIRCRAFT after it stops



EMERGENCY LANDING PATTERN

TO BE USED FOR:

- ENGINE FAILURE OR MALFUNCTION
- PRECAUTIONARY
EMERGENCY LANDING
- SIMULATED ENGINE
FAILURE

1 DESCENT

A/S - 73 KIAS
Flaps - UP
Cabin Door - LATCHED
(unlatch prior to high key)

2 HIGH KEY (1,500 FEET AGL)

73 KIAS over intended point of landing

3 LOW KEY (1,000 FEET AGL)

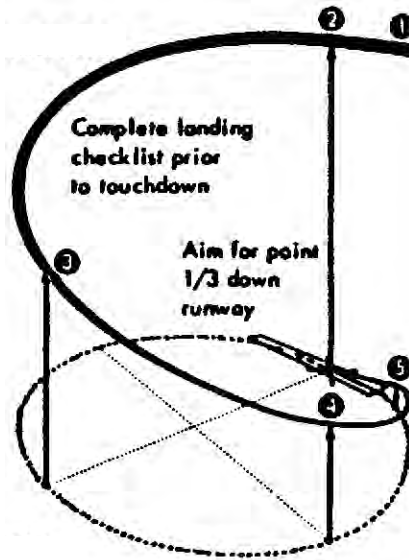
Wingtip distance abeam intended point of landing.

4 90-DEGREE (500-600 FEET AGL)

Complete Landing Checklist.
Flaps – AS DESIRED. Adjust to 63 KIAS with flaps down.

5 FINAL

800 feet straightaway.
200 feet AGL
Cabin Door – UNLATCH





LOW ALTITUDE ENGINE FAILURE

If engine fails at or below 1000 feet AGL:

- * 1. Assume safe gliding attitude. 63 KIAS FLAPS DOWN
73 KIAS FLAPS UP
- * 2. Select best available landing area and turn to intercept the emergency landing pattern at the maximum altitude practicable.
- * 3. Flaps AS DESIRED
- * 4. Fuel shutoff valve handle OFF
- * 5. Master OFF
- * 6. Cabin Door UNLATCH
- * 7. Harness LOCKED

LOSS OF OIL PRESSURE / HIGH OIL TEMPERATURE

- * 1. Precautionary Emer. Landing (PEL). . . . PERFORM
TURN TOWARD LDG SITE
CLIMB TO HIGH KEY
CONFIGURATION . . . CLEAN
ENG INTS CHECK
THROTTLE MIN
HIGH / LOW KEY ENTER
AVIONICS MASTER. . OFF
FLAPS (ON FINAL APPR) 40°
A/S **63 KIAS**
MASTER OFF
CABIN DOOR UNLATCH
TOUCHDOWN SLIGHTLY TAIL LOW
MAGS OFF
BRAKES APPLY HEAVILY



HIGH ALTITUDE / PARTIAL ENGINE FAILURE

- * 1. Assume safe gliding attitude. Best glide is 73 KIAS
- * 2. Select best available landing area and turn to intercept the emergency landing pattern at the maximum altitude practicable. If power is available, climb to an altitude from which the aircraft can glide to a high key position.
- * 3. Flaps AS DESIRED
(aircraft clean will extend glide)
- * 4. Elec. Fuel Pump ON
- * 5. Fuel shutoff valve handle FULLEST TANK
- * 6. Mixture FULL RICH
- * 7. Carburetor Heat. ON
- * 8. Primer LOCKED
- * 9. Ignition ON, BOTH

If engine still not running:

- *10. Mixture IDLE CUTOFF
- *11. Fuel shutoff valve handle OFF
- *12. Ignition OFF
- *13. Flaps AS DESIRED
- *14. Transmit appropriate radio call.
- *15. Master OFF
- *16. Cabin Door UNLATCH
- *17. Harness LOCKED

LOSS OF FUEL PRESSURE

- * 1. Elec. Fuel Pump. ON
- * 2. Fuel selector FULLEST TANK



ENGINE ROUGHNESS

- * 1. Carburetor heat ON

If roughness continues after 1 min:

- * 2. Carburetor heat OFF
- * 3. Mixture ADJ FOR MAX
SMOOTHNESS
- * 4. Elec. Fuel Pump ON
- * 5. Fuel Selector SWITCH
- * 6. Engine Instruments CHECK
- * 7. Magnetos SWITCH L/R BOTH

If operation is satisfactory on either one, continue on that magneto at reduced power and full "RICH" mixture to nearest airport. Perform PEL

CARBURETOR ICING

- * 1. Carburetor heat ON
- * 2. Mixture ADJ FOR MAX
SMOOTHNESS

ENGINE FIRE IN FLIGHT

- * 1. Mixture IDLE CUTOFF
- * 2. Fuel shutoff valve handle OFF
- * 3. Throttle CLOSED
- * 4. Ignition OFF
- * 5. Master OFF
- * 6. Heater/Defroster OFF
- 7. Do not attempt restart
- 8. Execute emergency landing



ELECTRICAL FIRE IN FLIGHT

- * 1. Source of fire DETERMINE
- * 2. Master OFF
- 3. All circuit breakers PULL
- 4. All radio / electrical equipment OFF
- 5. Vents OPEN
- 6. Cabin Heat/Defroster OFF

If fire persists:

- 7. Make emergency landing

To isolate faulty circuit:

- 8. Master ON
- 9. Check each necessary circuit one at a time by pushing IN circuit breaker and turning ON radio / electrical equipment it services.
- 10. Secure unnecessary radio / electrical equipment to conserve battery.

WING FIRE IN FLIGHT

A fire in the wing could be caused by fuel leakage and / or defective electrical wiring. Perform the following procedure:

- * 1. Master OFF
- * 2. Attempt to extinguish the fire by slipping aircraft away from fire.
- * 3. If fire does not extinguish or is obviously fed by fuel LAND ASAP



ELIMINATION OF SMOKE

- * 1. Vents. OPEN

CARBON MONOXIDE FUMES

If carbon monoxide contamination is suspected:

- * 1. Vents. OPEN

ELECTRICAL FAILURE

- 1. ALT annunciator illum., Ammeter. CHECK
- 2. If Ammeter zero, ALT OFF
- 3. Electrical Load REDUCE
- 4. ALT C/B CHECK / RESET
- 5. ALT ON

If no output:

- 6. Alternator OFF
- 7. LAND ASAP

ELECTRICAL OVERLOAD

- 1. ALT / BATT ON / OFF

If loads are reduced:

- 2. Electrical Load REDUCE

If load not reduced:

- 3. ALT / BATT OFF / AS REQ
- 4. LAND ASAP



DAMAGED AIRCRAFT AIRBORNE

1. If aircraft is controllable, climb to at least 5000 feet.
2. Communicate – state difficulty, request visual inspection.
3. Check flight characteristics:
 - a. Flaps down 63 KIAS
 - b. Flaps up 73 KIAS
4. Fly a wide approach maintaining 10 knots above Minimums obtained during flight tests.

LOST PLANE

1. Climb
2. Confess
3. Communicate
4. Conserve
5. Comply with en route procedures
6. Know any peculiar local area procedures



FLAT TIRE

1. Touch down well over opposite side of runway to allow room for a swerve and hold directional control with opposite brake.
2. Avoid hard applications of brake.
3. After landing with a flat tire, perform the Secure Checklist when the aircraft comes to a complete stop and have the aircraft towed clear of the landing area.
4. Do not taxi in with a flat tire.

BRAKE FAILURE

If no brake pressure was evident during landing pattern brake check, land aircraft as short as possible using full flaps to shorten landing roll. After touchdown, secure the engine. When the aircraft comes to a complete stop, complete the remaining items on the Secure Checklist and have the aircraft towed clear of the landing area.

HARD LANDINGS

If on the runway:

1. Runway permitting, execute a full stop.
2. Do not attempt to taxi the aircraft.

If airborne:

3. Have landing gear checked visually by another pilot or by tower on a flyby, if possible.
4. If the check reveals no visible damage, execute a normal full flap landing and proceed as in steps 1 and 2.
5. If visual damage is confirmed, execute appropriate emergency procedure.



OPEN DOOR

If both upper and side latches are open, the door will trail slightly open and airspeeds will be reduced slightly.

To close in flight:

1. Airspeed 80 KIAS
2. Cabin Vents CLOSE
3. Storm Window OPEN
4. Harness LOCK
5. If upper latch is open LATCH
6. If side latch is open LATCH
Pull on armrest while moving latch to latched position.
7. If both latches are open. SECURE SIDE,
THEN TOP



DITCHING

1. Plan to touch down before all fuel is exhausted to have power for controlled approach.
2. Make radio distress call.
3. Squawk 7700
4. Radio cords DISCONNECT
5. Harness LOCK
6. Cabin Door UNLATCH
7. Flaps DOWN
8. Master OFF
9. Make normal approach with power, if possible.
Approach stall attitude at a speed under which full control of aircraft can be maintained. Plan landing direction as follows:
 Calm sea – Into wind
 Moderate swells – Parallel to swells
 High swells (25 knots of wind or more) – Into wind, attempting to land on upwind side of swell.
10. Release safety belt ONLY after aircraft has come to a full stop.
11. ABANDON AIRCRAFT



SPIN RECOVERY

1. Ailerons NEUTRAL
2. Throttle IDLE
3. Rudder FULL OPPOSITE
DIRECTION OF SPIN
(OPPOSITE TURN NEEDLE)
4. Control Stick FULL FWD
5. Rudder NEUTRAL WHEN
ROTATION STOPS
6. Control Stick RECOVER