



PA28-181 Quick Reference Handbook

Revision 0 – 16 Jul 2013

Q-Pulse Ref No: PTR-TRM-47



QRH CONCEPT & LEGEND

NORMAL CHECKLISTS (blue headers)

Checklists are performed in read-and-do when aircraft is not moving.

Double boxed checklists (performed whilst the aircraft is in motion) are to be performed from memory, and crosschecked with the checklist if/when required.



After takeoff and landing checklist: the items with a bullet • in front do not need to be performed when remaining in the circuit/pattern.

EMERGENCY & ABNORMAL CHECKLISTS

CAS annunciated failures (warnings, cautions and advisory messages) have titles with solid colored boxes left and right. Unannunciated failures have no such solid boxes.

Warnings and emergencies are RED. Cautions and abnormal are AMBER. CAS advisory messages are indicated in BLACK in the checklist layout (but are displayed as white messages on the G1000).



The end of a checklist is indicated with 4 black squares:



The memory items of a checklist have a dashed red box around them.



PRELIMINARY EXTERIOR INSP

NEARBY AREA & OBSTACLES CHECK
TAXI PATH UNOBSTRUCTED
GENERAL AIRCRAFT CONDITION CHECK
AIRCRAFT SURFACES CHECK
AIRCRAFT COVER..... REMOVE & STOW
PITOT COVER REMOVE & STOW

COCKPIT PREPARATION

CONTROL LOCKS REMOVE & STOW
AIRCRAFT EQUIPMENT AVAILABLE
PARKING BRAKE..... RESET TO ON
INST PANEL & OVERHEAD SWITCHES... OFF
MIXTURE IDLE CUTOFF
MAG SWITCHES OFF
BATT MASTR SWITCH ON
INTERIOR LIGHTS..... AS REQUIRED
FUEL GAUGES.....
.... CHECK QUANTITY & IMBALANCE
PITOT HEAT ON
PITOT HEAT OFF CAS MESSAGE
..... EXTINGUISHED
EXTERIOR LIGHTS ON

EXTERIOR (MAX 3 MINS)

EXTERIOR LIGHTS ... CHECK OPERATION
PITOT HEAT WARM
STALL WARNING SYSTEM.....
..... CHECK OPERATION

COCKPIT

EXTERIOR LIGHTS OFF
PITOT HEAT OFF

PITOT HEAT CAS MESSAGE
..... ILLUMINATED
STBY FLT INSTR .. SELF-TEST COMPLETE
BATT MASTR SWITCH..... OFF
FLAPS CYCLE, SET 10
PRIMARY FLIGHT CONTROLS
FULL, FREE & CORRECT MOVEMENT
STABILATOR & RUDDER TRIM
..... EXERCISE, SET NEUTRAL
PITOT & STATIC SYSTEMS DRAIN
SUNSCREENS..... REMOVED & STOWED
WINDOWS INTERIOR CLEAN
REQ AIRCRAFT DOCUMENTS ... ON BOARD
HOBBS METER CHECK
TOW BAR STOWED
BAGGAGE STOWED

EXTERIOR INSPECTION

RIGHT WING

SURFACE CONDITION..... CHECK
FLAP & HINGES CHECK
AILERON & HINGES CHECK
STATIC WICKS CHECK & SECURE
WING TIP & LIGHTS..... CHECK
FUEL TANK..... CHECK
FUEL TANK VENT CHECK
FUEL TANK SUMPS DRAIN & CHECK
CHOCK & TIE-DOWN REMOVE
LANDING GEAR CHECK
TYRE CHECK
BRAKES..... CHECK

FRESH AIR INLET	CLEAR
NOSE SECTION	
GENERAL CONDITION	CHECK
COWLING.....	SECURE
WINDSHIELD.....	CLEAN
ENGINE	CHECK
EXHAUST PIPE	VISUAL CHECK
OIL CONTENTS.....	CHECK
PROPELLER & SPINNER	CHECK
AIR INLETS.....	CLEAR
ENGINE BAFFLE SEALS.....	CHECK
CHOCK	REMOVE
NOSE LANDING GEAR	CHECK
FUEL DRAIN	DRAIN
LEFT WING	
SURFACE CONDITION	CHECK
FRESH AIR INLET	CLEAR
FUEL TANK SUMPS.....	DRAIN & CHECK
FUEL TANK VENT.....	CHECK
CHOCK & TIE-DOWN.....	REMOVE
LANDING GEAR.....	CHECK
TYRE.....	CHECK
BRAKES	CHECK
FUEL TANK	CHECK
PITOT/STATIC HEAD.....	CHECK
OAT PROBE	CHECK
WING TIP & LIGHTS	CHECK
AILERON & HINGES	CHECK
FLAP & HINGES	CHECK
STATIC WICKS.....	CHECK & SECURE
FUSELAGE & TAIL SECTION	

ANTENNAS.....	CHECK
FUSELAGE, SKIN & WINDOWS.....	CHECK
STABILATOR SURFACES & TRIM TAB	CHECK
FIN & RUDDER.....	CHECK
LIGHTS.....	CHECK
STATIC WICKS	CHECK & SECURE
EXTERNAL POWER DOOR	
.....	SECURE IF NOT REQUIRED
CHOCKS & TIE DOWNS.....	
.....	ALL REMOVED, STOWED AS REQ
BAGGAGE DOOR.....	CLOSED & SECURE
CABIN DOOR	CHECK

BEFORE START	
FLAPS.....	UP
PASSENGER SAFETY BRIEF	COMPLETE
DOOR.....	CLOSED & SECURE
SEATS.....	UPRIGHT & ADJUSTED
SEAT BELTS & SHOULDER STRAPS.....	
.....	FASTENED & ADJUSTED
FUEL SELECTOR .	SET TO DESIRED TANK
PARKING BRAKE	CONFIRMED SET
CIRCUIT BREAKERS	IN
CARB HEAT	FULL COLD
ALTERNATE STATIC SOURCE	OFF
ELECTRICAL SWITCHES	OFF
DAY/NIGHT SWITCH	AS REQUIRED
BATT MASTR SWITCH.....	OFF
AVION MASTER	OFF
EMERG BATT SWITCH	ARM
E VOLTS	23.3V MINIMUM
FUEL	SUFFICIENT & IN BALANCE

NORMAL ENGINE START	
THROTTLE	SET
BATT MASTR SWITCH	ON
ALTR SWITCH	ON
LEFT MAG SWITCH.....	ON
FUEL PUMP	ON
FIN STROBE SWITCH.....	ON
MIXTURE	FULL RICH
CAS ALERTS	RESET
PFD ANNUNCIATORS.....	CHECKED
PROPELLER.....	CLEAR
TOE BRAKES.....	COVERED
START SWITCH	ENGAGE
THROTTLE	SET 1000 RPM
RIGHT MAG SWITCH.....	ON
OIL PRESSURE	CHECK

FLOODED ENGINE START	
THROTTLE	FULLY OPEN
BATT MASTR SWITCH	ON
ALTR SWITCH	ON
LEFT MAG SWITCH.....	ON
FUEL PUMP	OFF
FIN STROBE SWITCH.....	ON
MIXTURE	IDLE CUTOFF
CAS ALERTS	RESET
PFD ANNUNCIATORS.....	CHECKED
PROPELLER.....	CLEAR
TOE BRAKES.....	COVERED
START SWITCH	ENGAGE

WHEN ENGINE STARTS	
MIXTURE	FULL RICH
THROTTLE.....	SET 1000 RPM
RIGHT MAG SWITCH	ON
OIL PRESSURE	CHECK

START USING EXT POWER	
BATT MASTR SWITCH.....	OFF
ALTR SWITCH.....	OFF
LEFT MAG SWITCH	ON
EMERG BATT SWITCH	ARM
ALL ELECTRICAL EQUIPMENT.....	OFF
EXTERNAL POWER	APPLY
THROTTLE.....	¼ INCH OPEN
FUEL PUMP.....	ON
MIXTURE.....	FULL RICH
CAS ALERTS.....	RESET
PFD ANNUNCIATORS	CHECKED
PROPELLER	CLEAR
TOE BRAKES	COVERED
START SWITCH	ENGAGE

WHEN ENGINE STARTS	
THROTTLE.....	LOWEST POSSIBLE RPM
RIGHT MAG SWITCH	ON
OIL PRESSURE	CHECK
BATT MASTR SWITCH.....	ON
EXTERNAL POWER	DISCONNECT
ALTR SWITCH..	ON, ALTR AMPS GREEN
THROTTLE.....	SET 1000 RPM
FIN STROBE SWITCH	ON

AFTER START

AVIONICS MASTER..... ON
EMERG BATT SWITCH ARMED
MFD INITIALISED & SET
CAS MESSAGES CHECKED
INTERN & EXTERN LIGHTS AS REQ
ENVIRONMENTAL CONTROLSSET
COMMS & NAV SYSTEMS .. TESTED & SET
MASTER CAUTION/WARNING TEST
ATIS OBTAIN
STANDBY FLIGHT INSTRS ON & CHECKED
PFDSET
FLIGHT INSTRUMENTS ... CHECKED & SET
CLEARANCE OBTAIN
TAXI BRIEF..... PERFORM

TAXI

BRAKESCHECK
FLIGHT INSTRUMENTSCHECK
RUDDERCHECK

ENGINE RUN-UP

PARKING BRAKE.....SET
FUEL TIMERRESET
FUEL SELECTOR..... FULLEST TANK
ENGINE INSTRUMENTSCHECK
AREA BEHIND AIRCRAFT CLEAR
THROTTLE SET 2000 RPM
MAGNETOSCHECK
ENGINE OILCHECK
ELECTRICAL SYSTEM.....CHECK
CARB HEAT CHECK OPERATION

FUEL PUMP.....OFF
THROTTLE.. IDLE, THEN SET 1000 RPM

BEFORE TAKE OFF

BATT MASTR SWITCH..... ON
ALTR SWITCH ON
MAGNETOS..... BOTH ON
DEPARTURE DETAILS..... OBTAIN
NAV AIDS SET
PFD ALTITUDE SELECT SET
TRANSPONDER SET
FLIGHT INSTRUMENTS..... CHECK
STANDBY FLIGHT INSTRUMENTS CHECK
CAS ALERTS..... CHECK
PFD ANNUNCIATORS CHECK
FUEL SELECTOR FULLEST TANK
FUEL PUMP..... ON
ENGINE INDICATIONS..... CHECK
CARBURETOR HEAT OFF
MIXTURE..... SET
SEATS..... UPRIGHT & ADJUSTED
SEAT BELTS & SHOULDER STRAPS..... FASTENED & ADJUSTED
FLAPS SET
TRIMS SET
CONTROLS..... FULL & FREE
DOOR..... CLOSED & LATCHED
TAKE OFF BRIEFING PERFORM
AIR CONDITIONING OFF
AC DOOR OPEN CAPTION EXTINGUISHED

RUNWAY	
APPROACH	CLEAR
STROBE & LANDING LIGHTS	ON
PITOT HEAT	AS REQUIRED

AFTER TAKEOFF	
FLAPS (ABOVE 200 FT).....	UP
ENGINE TEMPERATURES & PRESSURES	CHECK
TRANSPONDER	ALT MODE
LEAVING THE CIRCUIT	
● FUEL PUMP (ABOVE 1000 FT AGL) ...	OFF
● LANDING LIGHTS	AS REQUIRED
● ALTIMETERS.....	SET

● WHEN REMAINING IN CIRCUIT/PATTERN, THE BULLETED ITEMS DO NOT NEED TO BE PERFORMED.

CRUISE	
FUEL STATUS.....	CHECK
ENGINE INSTRUMENTS	CHECK
FLIGHT INSTRUMENTS	CHECK
LOCATION.....	MONITOR/REPORT

FUEL BALANCING	
FUEL PUMP	ON
FUEL SELECTOR.....	SWITCH TANK
FUEL PUMP	OFF

DESCENT	
ATIS.....	OBTAINED
AIDS (COM, NAV, AVIONICS)	SET
BRIEFING.....	COMPLETE
PFD & STANDBY ALTIMETERS.....	____ SET
SAFETY ALTITUDE	STATE
SEATS.....	UPRIGHT & ADJUSTED
BELTS & HARNESSSES	FASTENED & ADJUSTED
FUEL PUMP	ON
FUEL SELECTOR	FULLEST TANK

INITIAL APPROACH	
APPROACH AIDS.....	SET
APPROACH MINIMA	SET
MISSED APPROACH LEVEL OFF ALTITUDE.....	SET

LANDING	
FLAPS.....	____ SET
MIXTURE.....	FULL RICH
CARBURETOR HEAT	OFF
● AIR CONDITIONING	OFF
● AC DOOR OPEN CAPTION	EXTINGUISHED
● LANDING LIGHT	ON
● PARKING BRAKES	OFF
TOE BRAKES	CHECK
VREF	STATE

● WHEN REMAINING IN CIRCUIT/PATTERN, THE BULLETED ITEMS DO NOT NEED TO BE PERFORMED.

FINAL

APPROACHSTABLE

FLAPS SET

BRAKES TOES CLEAR

LANDING CLEARANCEOBTAINED

300FT AGL.....CALL "300 FT, STABLE"
..... OR "300 FT, GO AROUND"

AFTER LANDING

FLAPS UP

AIR CONDITIONING AS REQUIRED

FUEL PUMP OFF

PITOT HEAT OFF

LIGHTS AS REQUIRED

TRANSPONDER CODE & GND

THROTTLE FRICTION..... LOOSEN

SHUTDOWN

PARKING BRAKE SET

THROTTLE.....1000 RPM

FLAPS UP

FUEL PUMP.....OFF

EMERGENCY BATTERYOFF

AVIONICS MASTEROFF

AIR CONDITIONINGOFF

ELECTRICAL SWITCHES ALL OFF

MAGNETOS DEAD CUT CHECK

THROTTLE..... CLOSED

MIXTURE.....IDLE CUTOFF

MAGNETOS (ONCE ENGINE STOPPED) ..OFF

ALL LIGHTS.....OFF

ALTR SWITCH.....OFF

BATT MASTR SWITCH.....OFF

FUEL SELECTOROFF

SECURING THE AIRCRAFT

TIE DOWNS (LAST FLIGHT) SECURE

CHOCKS (LAST FLIGHT)..... INSTALL

TOWBARSTOWED

PITOT COVER (LAST FLIGHT) INSTALL

HOBBS METER NOTE

FLIGHT CONTROL LOCK..... INSTALL

SUNSCREENS INSTALL AS REQ

DOOR..... CLOSED & LATCHED

AIRCRAFT COVERS (LAST FLIGHT) ... FITTED

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ENGINE FIRE DURING START

START SWITCH..... CONTINUE TO CRANK ENGINE
MIXTURE IDLE CUT OFF
THROTTLE..... OPEN
FUEL PUMP OFF
FUEL SELECTOR OFF

If fire continues carry out FIRE ON THE GROUND checklist.



FIRE ON THE GROUND

FUEL SELECTOR OFF
THROTTLE..... CLOSED
MIXTURE IDLE CUTOFF
FUEL PUMP OFF
MAGNETOS BOTH OFF
BATT MASTR..... OFF
EMERG BATT OFF
PARKING BRAKE SET

Evacuate the aircraft as soon as possible.



ENGINE FIRE IN FLIGHT

- FUEL SELECTOR OFF
- THROTTLE..... CLOSED
- MIXTURE IDLE CUT OFF
- FUEL PUMP OFF
- HEAT/DEF OFF

IF FIRE PERSISTS:

AIRSPPEED..... INCREASE IN ATTEMPT TO BLOW OUT FIRE
Proceed with FORCED LANDING procedure.



CABIN/ELECTRICAL FIRE IN FLIGHT

- EMERG BATT VERIFY ARM
- BATT MASTER..... OFF
- ALTERNATOR..... OFF
- VENTS..... OPEN
- HEAT/DEF OFF
- FIRE EXTINGUISH
- EMERGENCY DESCEND (IF NEEDED) TO SAFE ALTITUDE

Consistent with terrain.

Land as soon as possible.



ENGINE POWER LOSS DURING TAKEOFF

IF SUFFICIENT RUNWAY REMAINS FOR A COMPLETE STOP:

- THROTTLE..... CLOSE
- AIRSPEED..... MAINTAIN SAFE AIRSPEED
- LANDING LAND & STOP STRAIGHT AHEAD
- BRAKES..... AS REQUIRED



IF INSUFFICIENT RUNWAY REMAINS

- AIRSPEED..... MAINTAIN SAFE AIRSPEED
- FLAPS..... AS REQUIRED

IF SUFFICIENT HEIGHT HAS BEEN GAINED TO ATTEMPT A RESTART

- AIRSPEED..... MAINTAIN 76 KIAS
- FUEL SELECTORSWITCH TO TANK CONTAINING FUEL
- FUEL PUMP CHECK ON
- MIXTURE RICH
- CARBURETOR HEAT ON

IF RESTART SUCCESSFUL

Land as soon as possible and have the fault investigated.



IF RESTART UNSUCCESSFUL OR INSUFFICIENT HEIGHT TO ATTEMPT A RESTART

If engine power fails below 1000ft AGL, do not attempt to land back on the runway; make only shallow turns, within +/- 30 degrees of the runway heading, preferably into the wind, to avoid obstructions.

Carry out the FORCED LANDING procedure.



ENGINE POWER LOSS IN FLIGHT

AIRSPEED..... MAINTAIN 76 KIAS
FUEL SELECTORSWITCH TO TANK CONTAINING FUEL
FUEL PUMP ON
MIXTURE RICH
CARBURETOR HEAT ON
ENGINE INDICATIONS..... CHECK FOR POWER LOSS INDICATION

IF POWER IS RESTORED

CARBURETOR HEAT OFF
FUEL PUMP OFF
Land as soon as practical and investigate cause of power loss.



IF POWER IS NOT RESTORED

Prepare for FORCED LANDING procedure.



EMERGENCIES

FORCED LANDING

AIRSPEED..... MAINTAIN 76 KIAS
AIR CONDITIONING OFF
LANDING PATTERN.....1000 FT AAL AT DOWNWIND POSITION

WHEN COMMITTED TO LANDING:

AIRSPEED.....66 KIAS
FLAPS..... AS DESIRED
THROTTLE..... CLOSE
MIXTURE IDLE CUTOFF
LEFT/RIGHT MAGNETO..... OFF
BATTERY MASTER..... OFF
ALTERNATOR..... OFF
FUEL SELECTOR OFF
SEAT BELTS & SHOULDER HARNESS..... TIGHTEN



EMERGENCIES

START ENGD

IF ON THE GROUND

THROTTLE.....REDUCE
ENG START CIRCUIT BREAKER (ROW 1, COL 10)PULL
ENGINE.....SHUTDOWN
Have the fault investigated.



IF IN FLIGHT

THROTTLE.....REDUCE
ENG START CIRCUIT BREAKER (ROW 1, COL 10)PULL
Land as soon as possible.



EMERGENCIES

ROUGH RUNNING ENGINE

NOTE

Partial carburetor heat may be worse than no heat at all, since it may melt part of the ice, which will refreeze in the intake system. When using carburetor heat, therefore, always use full heat, and when ice is removed return the control to the full cold position.

CARB HEAT FULL ON

IF ROUGHNESS CONTINUES AFTER ONE MINUTE

CARB HEAT OFF
 MIXTURE ADJUST FOR MAXIMUM SMOOTHNESS
 FUEL PUMP ON
 FUEL SELECTOR SWITCH TANKS
 ENGINE INDICATORS CHECK
 LEFT/RIGHT MAG..... INDIVIDUALLY SELECT OFF AND ON

IF OPERATION IS SATISFACTORY ON EITHER MAG

Continue on that magneto.

MIXTURE FULL RICH
 THROTTLE.....REDUCE POWER

Land as soon as possible.



IF NO IMPROVEMENT

Divert to nearest airport.

Prepare for FORCED LANDING procedure.



EMERGENCIES

OIL PRESSURE

LOW OIL PRESSURE

THROTTLE..... MINIMUM REQUIRED

IF ACCOMPANIED BY HIGH OIL TEMPERATURE

Land as soon as possible.



IF ACCOMPANIED BY NORMAL OIL TEMPERATURE

Land as soon as practical.



HIGH OIL PRESSURE

THROTTLE..... MINIMUM REQUIRED

Land as soon as practical.



OIL TEMPERATURE

THROTTLE..... MINIMUM REQUIRED

MIXTURE FULL RICH

AIRSPED..... INCREASE IF PRACTICAL

Land as soon as possible.

Prepare for FORCED LANDING procedure.



EMERGENCIES

LOSS OF FUEL FLOW

CAUTION

If normal engine operation and fuel flow is not immediately re-established, or if the engine quits, the electric fuel pump should be turned OFF. The lack of fuel flow indication could indicate a leak in the fuel system, or fuel exhaustion. Land at the nearest suitable airport as soon as possible and have the cause investigated.

FUEL PUMP ON
 FUEL SELECTOR SELECT OTHER TANK (FULLEST)
 FUEL PUMP OFF

IF LOSS OF FUEL FLOW IMMEDIATELY RE-OCCURS

Assume loss of engine driven fuel pump.

THROTTLE CLOSE
 FUEL PUMP ON
 THROTTLE AS REQUIRED
 MIXTURE AS REQUIRED

Land as soon as practical.



IF FUEL FLOW RE-ESTABLISHED

Assume depletion of fuel in one tank.

Land as soon as possible.



EMERGENCIES

L FUEL QTY / R FUEL QTY

WARNING

Avoid unusual attitudes such as prolonged slips towards the low quantity tank as this will decrease the time remaining prior to fuel starvation.

IF ONE TANK HAS LOW FUEL QUANTITY:

- FUEL PUMP ON
- FUEL SELECTOR ON FULLEST TANK
- FUEL PUMP OFF

Check overall fuel contents and balance.
Land as soon as practical.



IF BOTH TANKS HAVE LOW FUEL QUANTITY:

- FUEL PUMP ON
- FUEL SELECTOR . FREQUENTLY ALTERNATE TANKS TO MAINTAIN FUEL SUPPLY
- FUEL PUMP OFF

Land as soon as possible.



EMERGENCIES

ALTR FAIL

CAUTION

The ALTR circuit breaker should not be opened manually when the alternator is functioning properly.

VERIFY FAILURE CHECK ALTR AMPS INDICATION
ALTERNATOR OFF
ALTR CIRCUIT BREAKER (ROW 1, COL 13) RESET IF TRIPPED
ALTR FIELD CIRCUIT BREAKER (ROW 2, COL 13)..... RESET
ALTERNATOR ON

IF ALTERNATOR STILL FAILED

ALTERNATOR OFF
ELECTRICAL POWER REMAINING 30 MINUTES OR LESS
ELECTRICAL LOAD SHED IN LESS THAN 3 MINUTES
NON ESSENTIAL BUS CIRCUIT BREAKER (ROW 1, COL 1) PULL
LIGHTING BUS CIRCUIT BREAKER (ROW 1, COL 2) PULL
AVIONICS MASTER OFF

TO ENSURE 30 MINUTES OF BATTERY LIFE:

BATTERY DISCHARGE LIMIT TO -13 AMPS MAX
PITOT HEAT 14 MINUTES USAGE MAX
COM RADIO 3 MINUTES USAGE MAX
FUEL PUMP 2 MINUTES USAGE MAX

Land as soon as possible.



EMERGENCIES

EMERG BATT ON

NOTE

The VOLTS indication on the EIS window automatically changes to the emergency bus (E VOLTS) when operating exclusively on the emergency bus.

NOTE

Cooling air for PFD, GAI1 and the transponder will be lost when operating exclusively on the emergency bus as indicated by the PFD FAN FAIL and AV FAN FAIL advisory CAS messages.

- EMERG BATT VERIFY ARM
 - STANDBY FLIGHT INSTRUMENT VERIFY OPERATIONAL
 - AIRCRAFT CONTROL USE PFD & STANDBY INSTRUMENT
 - BATTERY MASTER OFF
 - ALTERNATOR OFF
- Approximately 30 minutes of electrical power is available.**

TO ENSURE 30 MINUTES OF BATTERY LIFE:

- BATTERY DISCHARGE LIMIT TO -13 AMPS MAX
- PITOT HEAT 14 MINUTES USAGE MAX
- COM RADIO 3 MINUTES USAGE MAX
- FUEL PUMP 2 MINUTES USAGE MAX

PRIOR TO LANDING

- LANDING LIGHT INOPERATIVE
- Land as soon as possible.**



EMERGENCY BATTERY VOLTAGE (E VOLTS INDIC FLASHING)

WARNING

Complete electrical failure is imminent.

Land as soon as possible.

NOTE

Standby instruments will continue to operate provided the standby instrument internal battery is charged.



EMERGENCIES

SPIN RECOVERY

RUDDER.....FULL OPPOSITE TO DIRECTION OF ROTATION
CONTROL WHEELFULL FORWARD WHILE NEUTRALIZING AILERONS
THROTTLE..... IDLE
RUDDER..... NEUTRAL (WHEN ROTATION STOPS)
CONTROL WHEEL SMOOTH BACK PRESSURE TO RECOVER FROM DIVE



PFD FAILURE

STANDBY INSTRUMENT VERIFY OPERATIONAL
 AIRCRAFT CONTROL USE STANDBY INSTRUMENT
 DISPLAY BACKUP BUTTON ON AUDIO PANEL PUSH (BUTTON
 EXTENDED)
 AIRCRAFT CONTROL USE MFD & STANDBY INSTRUMENT
 COM2ACTIVATE & TUNE AS NECESSARY
 NAV2ACTIVATE & TUNE AS NECESSARY
 COM2/MIC SELECT ON AUDIO PANEL
 DMESELECT NAV2 IN DME TUNING WINDOW
Exit and avoid IFR conditions as soon as practical.

NOTE

The following features will become inoperative if there is a complete loss of PFD functionality:

- COM1 (red X'd but 121.5 MHz remains available)
- NAV1
- GPS1
- Traffic



MFD FAILURE

DISPLAY BACKUP BUTTON ON AUDIO PANEL PUSH (BUTTON
 EXTENDED)
Exit and avoid IFR conditions as soon as practical.



AHRS FAILURES

ON GROUND

SYSTEM MESSAGES (MSG SOFTKEY) CONSIDER
AHRS CIRCUIT BREAKER (ROW 2, COL 8) RESET

If AHRS data still invalid:

Avoid flight in IFR and icing conditions.

NOTE

For partial AHRS failures, a red X and amber text will appear on the affected parameter.



IN FLIGHT

STANDBY INSTRUMENT VERIFY NO FAILURE INDICATIONS
ATTITUDE & HEADING USE STANDBY INSTRUMENT
COURSE SET USING CRS KNOB ON PFD
SYSTEM MESSAGES (MSG SOFTKEY) CONSIDER
AHRS CIRCUIT BREAKER (ROW 2, COL 8) RESET

If AHRS data still invalid:

Avoid flight in IMC.



ADC FAILURES

ON GROUND

SYSTEM MESSAGES (MSG SOFTKEY) CONSIDER
ADC CIRCUIT BREAKER (ROW 2, COL 7) RESET

If ADC data still invalid:

Avoid flight in IFR conditions.



IN FLIGHT

STBY INSTR VERIFY NO AIR DATA FAILURE INDICATIONS
AIRSPEED, ALT & VERT SPEED USE STANDBY INSTRUMENT
SYSTEM MESSAGES (MSG SOFTKEY) CONSIDER
ADC CIRCUIT BREAKER (ROW 2, COL 7) RESET

NOTE

During failure of ADC, TAS will be inoperative.

If ADC data still invalid:

Avoid flight in IFR conditions.



AC DOOR OPEN

CAUTION

Air conditioning should be turned off during engine failure situations.

AIR COND SWITCH OFF



ERRONEOUS OR LOSS OF ENGINE AND FUEL DISPLAY

IF INDICATIONS FOR ANY OF THE FOLLOWING ARE INVALID

- All engine parameters
- VOLTS
- ALTR AMPS
- BATT AMPS
- Fuel quantity

GEA CIRCUIT BREAKER (ROW 2, COL 3) RESET

IF ERRORS CONTINUE

1. Set power based on throttle lever position
2. Monitor other indications to determine health of the engine
3. Use known power settings from POH setting tables for approximate fuel flow tables
4. Use other system information, such as annunciator messages, fuel totalizer quantity and flow, to safely complete the flight

Land as soon as practical.



ERRONEOUS OR LOSS OF WARNING/CAUTION CAS MESSAGES

If a red-X appears over the CAS message window, land as soon as practical.



COM1 AND COM2 FAILURE

AUDIO MKR CIRCUIT BREAKER (ROW 2, COL 9)PULL

**Comms should be restored to the pilot's headset to COM1.
Exit and avoid IFR conditions as soon as practical.**

IF COMMS NOT RESTORED

**Set 7600 on the transponder and conform to local lost comms
procedures.**



EMERGENCY BATTERY VOLTAGE (E VOLTS INDIC FLASHING)

**30 Minutes of electrical power not available in the event of an
emergency.**

Avoid flight in IMC.

Land as soon as practical.



DUAL GPS FAILURE

NAVIGATION USE ALTERNATE SOURCE OF NAVIGATION
(ILS, LOC, VOR, DME, ADF)

If no alternate navigation sources are available:

Dead Reckoning (DR) Mode – Active when the airplane is greater than 30 NM from the destination airport in flight plan.

NAVIGATIONUSE AIRPLANE SYMBOL & MAGENTA CRS LINE
ON MAP DISPLAY & AMBER CDI ON HSI

Loss of Integrity (LOI) Mode – Active when GPS integrity is insufficient for the current phase of flight.

NAVIGATION ... CROSSCHECK/USE OTHER NAVIGATION SOURCES
AS REQUIRED



AV FAN FAIL

PFD FAN FAIL

MFD FAN FAIL

IF FAILURE OCCURS ON GROUND
Do not fly until issue is resolved.

IF FAILURE OCCURS IN FLIGHT
Fix issue prior next flight.

PITOT HEAT FAIL

- PITOT HEAT OFF
- PITOT HEAT CIRCUIT BREAKER (ROW 2, COL 2) RESET
- PITOT HEAT ON

IF PITOT HEAT IS STILL INOPERATIVE

Exit and avoid instrument meteorological environmental conditions.



AIRCRAFT DOOR OPEN

To close the door in flight:

- AIRSPED REDUCE TO LESS THAN 87 KIAS
- CABIN VENTS CLOSE
- STORM WINDOW OPEN
- UPPER LATCH (IF OPEN) CLOSE LATCH
- SIDE LATCH (IF OPEN) PULL ON ARMREST WHILE CLOSING LATCH
- IF BOTH LATCHES OPEN CLOSE SIDE THEN TOP LATCH



CARBURETOR ICING

- CARB HEAT ON
- MIXTURE ADJUST FOR MAXIMUM SMOOTHNESS





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