

EMERGENCY PROCEDURES

Section includes checklists and detailed procedures for coping with various types of emergency conditions that could arise after a system failure. Before operating the aircraft, the pilot should become thoroughly familiar with

this manual and, in particular, with this Section. Further on a continued and appropriate training and self study should be done.

In any case, as a failure or abnormal behavior is detected pilots should act as follows:

- **1**. Keep self-control and maintain aircraft flight attitude and parameters
- **2**. Analyze the situation identifying, if required, the area for a possible emergency landing
- **3**. Apply the pertinent procedure
- **4.** Inform the Air Traffic Control as applicable

For the safe conduct of later flights, any anomaly and/or failure must be communicated to the National Authorities in charge, in order to put the aircraft in a fully operational and safe condition.

In this Chapter, following definitions apply:

Land as soon as possible:

land without delay at the nearest suitable area at which a safe approach and landing is assured.

Land as soon as practical:

land at the nearest approved landing area where suitable repairs can be made.

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AIRPLANE ALERTS

SINGLE ALTERNATOR FAILURE / OVERVOLTAGE	
1. FIELD LH (or RH)	OFF
2. FIELD LH (or RH)	ON
If the LH (or RH) ALT caution stays displayed	
3. FIELD LH (or RH)	OFF
4 . Avionic LH	OFF
5. ADF	OFF

Switching OFF avionic LH and ADF will permit to shed nonessential electrical power. The battery and a single generator are able to supply the electrical power necessary for flight, but redundancy is lost.

If conditions permit:

Switching CROSS BUS OFF will further reduce alternator load; the decision mainly depends on weather conditions.

6. CROSS BUS LH (or RH)

OFF

LH Gen Bus	LH Avionic Bus	RH Avionic Bus	RH Gen Bus
Pitot Heat	DME	ADF	NAV Lights
Landing Light	Transponder	COM 2	Rudder Trim
Taxi Light	A/P	NAV 2	Stall Warning
	A/P Pitch Trim	MFD	
		AHRS/ADC*	

7. Land as soon as practicable

BOTH ALTERNATORS FAILURE		
In event of both L and R ALT FAIL caution alerts displayed:		
1. FIELD LH and RH	BOTH OFF	
2. FIELD LH and RH	BOTH ON	
If the LH (or RH) ALT caution stays dis	splayed	
1. Verify good ammeter indications on restored alternator		
2. Refer to Single alternator failure / overvolt	age drill	
If both LH and RH ALT cautions stay displayed		
3. FIELD LH and RH	BOTH OFF	
4. CROSS BUS LH and RH	BOTH OFF	
If engine starting battery modification is applied		
5. EMERG BATT switch	ON	
6. Land as soon as possible.		
If engine starting battery modification is not applied		
5. Land as soon as possible.		
The battery can supply electrical power for at least 30 minutes		



BOTH ALTERNATORS OVERVOLTAGE	
In event of both L and R BUS VOLT HIGH warning	alerts displayed:
1. FIELD LH and RH	BOTH OFF
2. FIELD LH and RH	BOTH ON (one at a time)
If the LH (or RH) BUS VOLT HIGH warning is still d	isplayed:
3. Verify good ammeter indications on restored alternato	r
4. Refer to Single alternator failure / overvoltage drill	
If both LH and RH BUS VOLT HIGH warning are sti	ll displayed:
3. CROSS BUS LH and RH	BOTH OFF
4. FIELD LH and RH	BOTH OFF
5. FIELD LH and RH	BOTH ON (one at a time)
If LH (or RH) BUS VOLT HIGH warning is still displa	ayed:
6. Verify good ammeter indications on restored alternato	r
7. Switch CROSS BUS	ON the restored alternator side
8. Refer to Single alternator failure / overvoltage drill	
If both LH and RH BUS VOLT HIGH warning are sti	ll displayed:
6. FIELD LH and RH	BOTH OFF
If engine starting battery modification is applied	
7. EMERG BATT switch	ON
8. Land as soon as possible.	
If engine starting battery modification is not appl	ied
7. Land as soon as possible	
The battery can supply electrical power for at leas	t 30 minutes
FAILED DOOR CLOSURE	
In case of door opening / unlocking, related PILOT	or REAR DR OPEN alert is
displayed. In this case, apply following procedure:	
ON THE GROUND	5 · · · · · · ·
ON THE GROUND 1. Passengers and crew seat belts	Fasten and tighten
ON THE GROUND 1. Passengers and crew seat belts 2. Affected door	Fasten and tighten Verify correctly closed
ON THE GROUND 1. Passengers and crew seat belts 2. Affected door If door is open	Fasten and tighten Verify correctly closed
ON THE GROUND 1. Passengers and crew seat belts 2. Affected door If door is open 3. Relevant engine	Fasten and tighten Verify correctly closed Shut down
ON THE GROUND 1. Passengers and crew seat belts 2. Affected door If door is open 3. Relevant engine 4. Affected door	Fasten and tighten Verify correctly closed Shut down Close and check
ON THE GROUND 1. Passengers and crew seat belts 2. Affected door If door is open 3. Relevant engine 4. Affected door If door is closed	Fasten and tighten Verify correctly closed Shut down Close and check
ON THE GROUND 1. Passengers and crew seat belts 2. Affected door If door is open 3. Relevant engine 4. Affected door If door is closed 3. Locking device	Fasten and tighten Verify correctly closed Shut down Close and check Check
ON THE GROUND 1. Passengers and crew seat belts 2. Affected door If door is open 3. Relevant engine 4. Affected door If door is closed 3. Locking device If down in unlocked position	Fasten and tighten Verify correctly closed Shut down Close and check Check
ON THE GROUND 1. Passengers and crew seat belts 2. Affected door If door is open 3. Relevant engine 4. Affected door If door is closed 3. Locking device If down in unlocked position 4. Abort mission.	Fasten and tighten Verify correctly closed Shut down Close and check Check
ON THE GROUND 1. Passengers and crew seat belts 2. Affected door If door is open 3. Relevant engine 4. Affected door If door is closed 3. Locking device If down in unlocked position 4. Abort mission. IN FLIGHT	Fasten and tighten Verify correctly closed Shut down Close and check Check
ON THE GROUND 1. Passengers and crew seat belts 2. Affected door If door is open 3. Relevant engine 4. Affected door If door is closed 3. Locking device If down in unlocked position 4. Abort mission. IN FLIGHT 1. Passengers and crew seat belts 2. Affected belts 3. Locking belts 3. Docking belts 3. Dock	Fasten and tighten Verify correctly closed Shut down Close and check Check Fasten and tighten
ON THE GROUND 1. Passengers and crew seat belts 2. Affected door If door is open 3. Relevant engine 4. Affected door If door is closed 3. Locking device If down in unlocked position 4. Abort mission. IN FLIGHT 1. Passengers and crew seat belts 2. Affected door and locked device	Fasten and tighten Verify correctly closed Shut down Close and check Check Fasten and tighten Verify correctly closed
ON THE GROUND 1. Passengers and crew seat belts 2. Affected door If door is open 3. Relevant engine 4. Affected door If door is closed 3. Locking device If down in unlocked position 4. Abort mission. IN FLIGHT 1. Passengers and crew seat belts 2. Affected door and locked device If door is open or locking device is unlocked	Fasten and tighten Verify correctly closed Shut down Close and check Check Fasten and tighten Verify correctly closed



PITOT HEATING SYSTEM FAILURE

When the Pitot Heating system is activated, the green PITOT HEAT advisory light is turned ON. If the amber PITOT HEAT caution light turns OFF, then the Pitot Heating system is functioning properly. Anytime the amber PITOT HEAT caution light is ON at the same time the green PITOT HEAT light is ON, then the Pitot Heating system is not functioning properly.

- **1.** Pitot heat switch OFF
- 2. Verify Pitot Heating circuit breaker is IN3. Pitot heat switch ON
- 4. Check PITOT HEAT caution light:

If the amber light stays ON, assume a failure in the pitot heating system. Avoid visible moisture and OATs below 10 deg C.

COOLANT LIQUID LOW LEVEL

When the engine coolant liquid level goes under the lower limit, the related L or R COOLANT LOW warning alert is displayed. Low coolant level condition may lead to high CHT/CT. When the warning is displayed, apply following procedure:

1. Check affected engine CHT/CT

If CHT is above 135°C or CT is above 120°C

2. Affected engine *Reduce power setting to reduce CHT/CT up to the minimum practical*

SECURE

3. Land as soon as practical

If CH/CT continues to rise and engine shows roughness or power loss

- 4. Affected engine
- 5. Land as soon as possible applying ONE ENGINE INOPERATIVE LANDING procedure.

GEAR PUMP FAILURE

The GEAR PUMP ON caution light turns ON when the landing gear hydraulic pump is electrically supplied. After the landing gear retraction, if the red TRANS light turns OFF and the GEAR PUMP ON caution stays turned ON, this could indicate a gear pump relay failure to ON.

If TRANS light is OFF

1. Continue the mission monitoring the caution light.

If TRANS light is ON

2. Landing gear is not locked in UP position

The electrical gear pump, continuously supplied, causes a current absorption which does not affect the mission unless this failure is coupled with the overall electrical failure. In this case, the residual battery endurance may be consistently lower than 30 minutes.



LOST OF INFORMATION DISPLAYED

When a LRU or a LRU function fails, a large red 'X' is typically displayed on the display field associated with the failed data.

In most of cases, the red "X" annunciation is accompanied by a message advisory alert issuing a flashing ADVISORY Softkey annunciation which, once selected, acknowledges the presence of the message advisory alert and displays the alert text message in the Alerts Window.

DISPLAY FAILURE

In the event of a display failure, the G950 System automatically switches to reversionary(backup) mode.

In reversionary mode, all important flight information is presented on the remaining display in the same format as in normal operating mode. The change to backup paths is completely automated for all LRUs and no pilot action is required.

if the system fails to detect a display problem

1 DISPLAY BACKUP button

PUSH



POWERPLANT EMERGENCIES

PROPELLER OVERSPEEDING

The aircraft is fitted with propeller/governor set by MT-Propeller such a way that the maximum propeller rpm exceedance is prevented. In case of propeller over speeding in flight, apply following procedure:

- 1. Throttle Lever
- 2. Propeller Lever
- **3**. RPM indicator

REDUCE power to minimum practical REDUCE as practical (not in feathering) CHECK

If it is not possible to decrease propeller rpm, apply **ENGINE SECURING PROCEDURE** and land as soon as possible applying **ONE ENGINE INOPERATIVE LANDING** procedure.

CAUTION

Maximum propeller rpm exceedance may cause the engine components damage. Propeller and engine shall be inspected in accordance with related Operators Manuals.

CHT LIMIT EXCEEDANCE

If CHT/CT exceeds its limit, apply following procedure:

1. Check affected engine CHT/CT

If CHT is above 135°C or CT is above 120°C

2. Affected engine *Reduce power setting to reduce CHT/CT up to the minimum practical*

3. Land as soon as practical

If CHT/CT continues to rise and engine shows roughness or power loss

4. Affected engine

5. Land as soon as possible applying one engine inoperative landing procedure.

OIL TEMPERATURE LIMIT EXCEEDANCE

If oil temperature exceeds maximum limit (130°C):

1. OIL PRESS

If oil pressure is within limits

Affected engine
 Affected engine

Reduce power setting to minimum applicable Keep propeller speed higher than 2000 RPM

If oil pressure does not decrease

4. Airspeed

INCREASE

SECURE

SECURE

CHECK

If oil temperature does not come back within limits, the thermostatic valve, regulating the oil flow to the heat exchangers, could be damaged or an oil leakage can be present in the oil supply line.

- 5. Land as soon as practical keeping the affected engine to the minimum necessary power
- 6. Monitor OIL PRESS and CHT/CT

if engine roughness / vibrations or erratic behaviour is detected:

- 7. Affected engine
- **8. Land as soon as possible** applying *one engine inoperative landing* procedure. WARNING

Excessive oil pressure drop leads to a high pitch propeller configuration with consequent propeller feathering and engine stopping.



OIL PRESSURE LIMITS EXCEEDANCE

If oil pressure exceeds its lower or upper limit (0.8 – 7 bar), apply following procedure: WARNING

Excessive oil pressure drop leads to a high pitch propeller configuration with consequent propeller feathering and engine stopping. An excessive oil pressure value can be counteracted by decreasing propeller rpm.

1. OIL PRESS CHECK

If oil pressure exceeds	upper limit	(7 bar)
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- 2. Throttle Lever
- 3. Propeller Lever
- 4. OIL PRESS

first REDUCE affected engine power by 10% Keep low rpm

CHECK (verify if came back within the limits)

5. Land as soon as practical

If oil pressure is under the lower limit (0.8 bar)

- **2**. Land as soon as practical
 - If oil pressure is continuously decreasing
- **3**. Affected engine

SECURE

4. Land as soon as possible applying *one engine inoperative landing* procedure.

LOW FUEL PRESSURE	
If fuel pressure decreases below the lower limit (2.2 psi), apply for	ollowing procedure:
1. Fuel press	СНЕСК
2. Fuel quantity	СНЕСК
3. Fuel consumption	MONITOR
If a fuel leakage is deemed likely	
5. Land as soon as possible.	
If a fuel leakage can be excluded:	
4. Electrical fuel pump	ON
5. Feed the affected engine by means of opposite side fuel tank	
If pressure does not come back within the limits	
6 Land as soon as practical	

6. Land as soon as practical



OTHER EMERGENCIES

EMERGENCY DESCENT

Descent with airspeed at VLE, idle power and gear down will provide high descent rates and pitch attitudes up to -15°. Anticipate altitude capture and return to level flight during emergency descent in order to assure a safe and smooth recovery from maneuver.

> IDLE UP

DOWN

OFF

ON

BOTH OFF

BOTH ON

Up to VLE

below VLO/VLE

ON if necessary

1. Power levers

- 2. Flaps
- **3.** IAS
- 4. Landing gear
- 5. Airspeed

TOTAL ELECTRICAL FAILURE

In case of electrical system overall failure, apply following procedure:

- 1. Emergency light
- **2**. MASTER SWITCH
- 3. FIELD LH and RH

4. MASTER SWITCH

5. FIELD LH and RH

If failure persists

6. EMERG BATT switch

ON (if engine starting battery installed)

OFF (hot and cold air)

OPEN

BOTH ON

ON

7. Land as soon as possible applying *emergency landing gear extension* procedure WARNING

An electrical system overall failure prevents flaps operation: landing distance without flaps increases of about 25%.

CAUTION

A fully charged battery can supply electrical power for at least 30 minutes.

STATIC PORTS FAILURE

- 1. Cabin ventilation
- 2. ALTERNATE STATIC PORT VALVE
- 3. Continue the mission

UNINTENTIONAL FLIGHT INTO ICING CONDITIONS

- Carburettor heat
- Pitot heat

3. Fly as soon as practical toward a zone clear of visible moisture, precipitation and with higher temperature, changing altitude and/or direction.

- 4. Control surfaces Move continuously to avoid locking
- 5. Propellers rpm INCREASE to prevent ice build-up on the blades WARNING

In event of ice build-up in correspondence of wing leading edges, stall speed increases. Ice build-up on wing, tail fin or flight control surfaces unexpected sudden roll and/or pitch tendencies can be experienced and may lead to unusual attitude and loss of aircraft control.

Do not use Autopilot when icing formation is suspected or detected.



CARBURETTOR ICING

DURING TAKEOFF

The carburettor icing in "full throttle" mode is unlikely. Take off in known or suspected icing formation is forbidden; in order to dispose of full engine take off power, take-off must be performed with carburettor heating OFF.

IN FLIGHT

Carburettor icing is considered probable when external air temperature is below 15° C and visible air moisture (clouds, mist, haze or fog) or atmospheric precipitation are present.

Generally, an OAT-to-dew point temperature spread lower than 10°C and OAT less than 15°C with visibility lower than 5 km is a positive indication of likely icing formation condition.

Should an inadvertent flight into known or forecast icing condition happen carburettor heating should be selected "ON" as soon as possible: the greater the advance carburettors are warmed the better the chances not to form ice and avoid engine power loss or reduction.

Keep Carb Heating "ON" until engine power is restored and area of possible icing condition is exited.

CAUTION

Carburettor Heating selected to "ON" will cause engine RPM reduction of about 100 RPM causing a sensible available engine power decrease.

FLAPS CONTROL FAILURE

DURING TAKEOFF

CAUTION

Flap UP take off, requires a T/O distance (50 ft height obstacle distance) increased by about 20%.

1. Airspeed

Keep below 93 KIAS

2. Land as soon as practical

DURING APPROACH/LANDING

CAUTION

If the flaps control fails, consider the higher stall speed and an increased landing distance of about 25%.

1. Airspeed

Keep over 75 KIAS

2. Land as soon as practical on a runway of appropriate length

ONE ENGINE INOPERATIVE PROCEDURES

ENGINE SECURING

Following procedure is applicable to shut-down one engine in flight:

1. Throttle Lever	IDLE
2. Ignition	BOTH OFF
3. Propeller Lever	FEATHER
4. Fuel Selector	OFF
5. Electrical fuel pump	OFF

INFLIGHT ENGINE RESTART

WARNING

After: - mechanical engine seizure; - fire; - major propeller damage engine restart is not recommended.

- 1. Carburettor heat
- 2. Electrical fuel pump
- 3. Fuel quantity indicator
- 4. Fuel Selector
- 5. FIELD
- 6. Ignition
- 7. Operating engine Throttle Lever
- 8. Stopped engine Throttle Lever
- 9. Stopped engine Propeller Lever

10. Start push-button

- **11**. Propeller Lever
- 12. FIELD
- 13. Engine throttle levers

PUSH

ON if required

ON

OFF

IDLE

CHECK

BOTH ON

SET as practical

FULL FORWARD

SET at desired rpm ON (check for positive ammeter) SET as required

CHECK (Crossfeed if required)

If engine restart is unsuccessful

14. EMERG BATT switch

ON (if starting battery installed)

15. Repeat engine restart procedure CAUTION

After engine restart, if practical, moderate propeller rpm and throttle increase to allow OIL and CHT/CT temperatures for stabilizing in the green arcs.

If the fuel quantity in the tank which feeds the stopped engine is low, select the opposite side fuel tank by means of the fuel selector.

If engine restart is still unsuccessful:

16. Affected engine

SECURE

17. Land as soon as possible applying one engine inoperative landing procedure



ENGINE FAILURE DURING TAKEOFF RUN		
Before rotation: abort take off		
1. Throttle Lever	BOTH IDLE	
2. Rudder	Keep heading control	
3. Brakes	As required	
When safely stopped:		
4. Failed Engine Ignition	BOTH OFF	
5. Failed Engine Field	OFF	
6. Failed Engine Electrical fuel pump	OFF	
if the decision is taken to continue the	takeoff:	
WARNING		
A take-off abort should always be preferred if a	safe stop can be performed on ground.	
A suggested "GO-NO-GO" criteria is: abort take	e-off until LG is still down and locked.	
Once airborne accelerate to Blue Line Speed (V	YSE) before commanding LG retraction.	
Take-off planning should take into account that	t high density altitude and aircraft mass	
may result in OEI negative climb rate. VYSE with	h flap up shall be flown in order to achieve	
best possible rate of climb after landing gear re	traction and engine feathering.	
1. Operating engine Throttle Lever	FULL POWER	
2. Operating engine Propeller Lever	FULL FORWARD	
3. Heading Keep control using rudder and ailerons		
4. Attitude Reduce as appropriate	e to keep airspeed over 62 KIAS	
5. Inoperative engine Propeller Lever	FEATHER	
6. Landing gear control lever	UP	
7. Airspeed	VXSE/VYSE as required	
8. Flaps	<i>0</i> °	
At safe altitude		
9. Inoperative engine	Confirm and SECURE	
10 . Operative engine Electrical fuel pump	Check ON	
11 . Operating engine	Check engine instruments	
12. Operating engine Fuel Selector	Check correct feeding (crossfeed if needed)	
If engine restart is recommended:		
13. Apply INFLIGHT ENGINE RESTART procedure	re la	
If engine restart is unsuccessful or it is	not recommended:	
13. Land as soon as possible		
14 . One engine inoperative landing procedure		
Following:		
machanical angina caizuras firas majar pro	nellar damaga angina ractart is not	

- mechanical engine seizure; - fire; - major propeller damage engine restart is not recommended.

ENGINE FAILURE DURING CLIMB

- 1. Autopilot
- 2. Heading
- **3**. Attitude
- 4. Operating engine Throttle Lever
- 5. Operating engine Propeller Lever
- 6. Operative engine Electrical fuel pump
- 7. Inoperative engine Propeller Lever
- 8. Inoperative engine
 - If engine restart is possible:

9. Apply INFLIGHT ENGINE RESTART

If engine restart is unsuccessful or it is not recommended:

9. Land as soon as possible

10. One engine inoperative landing procedure.

Following a mechanical engine seizure, fire or a major propeller damage engine restart is not recommended.

Continuation of flight to a safe landing runway must be planned taking into account maximum operating ceiling in OEI condition. Refer to "One-engine rate of climb".

ENGINE FAILURE IN FLIGHT

- 1. Autopilot
- 2. Heading
- 3. Attitude
- 4. Operating engine
- 5. Operative engine Electrical fuel pump
- 6. Operating engine Fuel Selector

Check ON Check correct feeding (crossfeed if needed)

Adjust as appropriate to keep airspeed over 62 KIAS

Keep control using rudder and ailerons

Monitor engine instruments

- If engine restart is possible:
- 7. Apply INFLIGHT ENGINE RESTART procedure

If engine restart is unsuccessful or it is not recommended:

- 8. Land as soon as possible
- **9**. One engine inoperative landing procedure.

Following a mechanical engine seizure, fire or a major propeller damage engine restart is not recommended.

WARNING

Continuation of flight to a safe landing runway must be planned taking into account maximum operating ceiling in OEI condition. Refer to Rate of climb with One Engine Inoperative.

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FEATHER

OFF

Reduce as appropriate to keep airspeed over 62 KIAS

Keep control using rudder and ailerons

Confirm and SECURE

OFF

ONE ENGINE INOPERATIVE LANDING

WARNING

Thoroughly evaluate residual Single Engine Go-Around capabilities and expected climb gradient should a Missed Approach / balked landing be executed. Autopilot must be kept OFF

1. Seat belts	Tightly fastened
2 . Landing lights	As required
 Operating engine Fuel Selector 	Check correct feeding / crossfeed if needed
4. Inoperative engine Propeller Lever	CHECK FEATHER
5. Inoperative engine	CHECK SECURED
6. Operative engine Electrical fuel pump	ON
When on final leg:	
7 . Flap	Т/О
8. Landing gear	Select DOWN and check three
green lights on	
9. Approach Airspeed	VYSE
10 . Touchdown speed	70 KIAS

LANDING GEAR SYSTEM FAILURES

EMERGENCY LANDING GEAR EXTENSION

Landing gear extension failure is identified by means of the green lights not illuminated: relevant gear leg may not be fully extended and/or locked. Light bulb operating status can be verified by pressing the LDG push-to-test button. Additionally, the red light TRANS indicates that one or more legs are moving and the PUMP ON amber light on the annunciator panel indicates the hydraulic gear pump is operating.

- 1. Airspeedapplicable VLO/VLE2. Landing gear control leverDOWN^XLanding gear breaker^X^XOFF^X3. Emergency gear extension access doorREMOVE4. RH control lever90° counterclockwise
- 5. Wait at least 20 seconds

Main Landing Gear legs green lights may be turned on, thus indicating effective main gear legs blocked in down position by mere effect of gravity force.

- 6. LH control lever rotate 180° counterclockwise
- 7. Land as soon as practical

The emergency landing gear extension operation takes about 20- sec.



COMPLETE GEAR UP OR NOSE GEAR UP LANDING

CAUTION

The following procedure applies if Nose Landing Gear is not extended and locked even after emergency extension procedure.

WARNING

A Nose Landing Gear up leg not down and locked might lead to a hazardous situation, especially on uneven runways.

If landing gear position is not known, perform a tower fly-by at safe speed and altitude to have confirmation about its situation.

If possible coordinate fire brigade intervention along runway and report number of persons on board and remaining fuel type and quantity.

If a complete Landing Gear up or a Nose Landing Gear up position is reported:

Preparation

1. Reduce fuel load if time and conditions permit

2. Crew and passengers safety belts	Tightly fastened
3. Landing gear control lever	UP
 Green lights and TRANS light 	CHECK OFF
5. Flap setting	plan approach with Flap Land
Before ground contact:	
6. LH and RH Fuel Selector	BOTH OFF
7. LH and RH Electrical fuel pump	BOTH OFF
8. Ignitions	ALL OFF
On touch down:	
9. Landing attitude	slight nose-up and wings levelled,
10. Touchdown speed	as low as 50 KIAS with flap
11. Aircraft nose	gently lower as speed bleeds off
After aircraft stops:	
12. FIELD LH and RH	BOTH OFF
13. MASTER SWITCH	OFF
CAUTION	

Master switch to OFF impairs radio communication and outside aircraft lighting. Consider use of ditching emergency exit to escape in case pilot or passenger doors are blocked, watch for engine hot parts, fuel, hydraulic fluid or oil spills. Leave aircraft in upwind direction.



PARTIAL MAIN LG EXTENSION

CAUTION

The following procedure applies if one or both Main Landing Gear legs are not completely extended and locked even after emergency extension procedure.

WARNING

A partial gear landing (RH and/or LH leg not down and locked) might turn into a hazardous situation, especially on uneven runways. If possible try to obtain a symmetric gear extension (e.g. by trying further landing gear retraction) in order to avoid swerving after touchdown.

A gear up landing is generally considered safer.

If landing gear position is not known, perform a tower fly-by at safe speed and altitude to have confirmation about its situation.

If possible coordinate fire brigade intervention along runway and report number of persons on board and remaining fuel type and quantity.

Preparation	
1. Reduce fuel load if time and conditions	permit
Crew and passengers safety belts	Tightly fastened
 Landing gear control lever 	UP
 Green lights and TRANS light 	CHECK OFF
5. Flap setting	plan approach with Flap Land
If partially extended landing gear i	s confirmed:
Before ground contact:	
6. LH and RH Fuel Selector	BOTH OFF
LH and RH Electrical fuel pump	BOTH OFF
8. Ignitions	ALL OFF
On touch down:	
9 . Align for approach	on the runway centreline
10. Touchdown speed	as low as 50 KIAS
11. Touchdown	on the extended gear only
 Heading and direction 	maintain applying appropriate aileron and
	rudder/steering control
13. Retracted leg	keep off the ground as long as possible
After aircraft stops:	
14. FIELD LH and RH	BOTH OFF
15. MASTER SWITCH	OFF
CAUTION	
Master switch to OFF impairs radio comm	inication and outside aircraft lighting.
 Aircraft Evacuation 	carry out if necessary
WARNING	
Consider use of ditching emergency exit to	escape in case pilot or passenger doors are

blocked, watch for engine hot parts, fuel, hydraulic fluid or oil spills. Leave aircraft in upwind direction.



FAILED RETRACTION

1. Airspeed

2. Landing gear control lever WARNING Keep below applicable VLO/VLE DOWN

A Landing Gear lever recycle (further retraction attempt) may result in a final partial Landing Gear Extension, which may then compromise safe landing aircraft capability. **3**. Landing Gear lights Check

- If a safe landing configuration is obtained (3 greens)
- 4. Land normally

If a safe landing gear configuration is not obtained:

- 4. Emergency LG extension procedure
- 5. Land as soon as practical

UNINTENTIONAL LANDING GEAR EXTENSION

CAUTION

An unwanted landing gear extension, with at least one leg moving downward, may be caused by hydraulic fluid loss and it is signalled by

- significant aerodynamic noise increase;
- light and counteractable nose down pitch moment;
- red TRANS light turned on.
- 1. Airspeed
- 2. Landing gear control lever
- **3**. Landing Gear lights

DOWN Check

Keep below applicable VLO/VLE

- If a safe landing configuration is obtained (3 greens)
- **4**. Land normally

If a safe landing gear configuration is not obtained:

- **4**. Emergency LG extension procedure
- **5**. Land as soon as practical



ADRIANA AVIATION

SMOKE AND FIRE OCCURRENCE

ENGINE FIR	E ON THE GROUND
1. Fuel Selectors	BOTH OFF
2. Ignitions	ALL OFF
3 . Electrical fuel pumps	BOTH OFF
 Cabin heat and defrost 	OFF
5. MASTER SWITCH	OFF
6. Parking Brake	ENGAGED
7. Aircraft Evacuation carry out immediate	ely
ENGINE FIRE DURING TAKEOFF RUN	
Before rotation: abort take off	
1. Throttle Lever	BOTH IDLE
2 . Rudder	Keep heading control
3. Brakes	As required
With aircraft under control	
4. Fuel Selector	BOTH OFF
5. Ignitions	ALL OFF
6 . Electrical fuel pump	BOTH OFF
 Cabin heat and defrost 	OFF
8. MASTER SWITCH	OFF
9 . Parking Brake	ENGAGED
 Aircraft Evacuation 	carry out immediately
WARNING	
Consider use of ditching emergency exit to eso watch for engine hot parts, fuel, hydraulic flu	cape in case pilot or passenger doors are blocked, id or oil spills. Leave aircraft in upwind direction.
if the decision is taken to continue	e the takeoff:
WARNING	
A take-off abort should always be preferred if	a safe stop can be performed on ground.
A suggested "GO-NO-GO" criteria is: abort tal	ke-off until LG is still down and locked. Once airborne

A suggested "GO-NO-GO" criteria is: abort take-off until LG is still down and locked. Once airborne accelerate to Blue Line Speed (VYSE) before commanding LG retraction. Take-off planning should take into account that high density altitude and aircraft mass may result in OEI negative climb rate. VYSE with flap up shall be flown in order to achieve best possible rate of climb after landing gear retraction and engine feathering.

 Operating engine Throttle Lever 	FULL POWER
2. Operating engine Propeller Lever	FULL FORWARD
3 . Heading	Keep control using rudder and ailerons
4. Attitude	Reduce as appropriate to keep
airspeed over 62 KIAS	
5. Fire affected engine Propeller Lever	FEATHER
6. Landing gear control lever	UP
7. Airspeed	VXSE/VYSE as required
8 . Flaps	0°
At safe altitude	
9. Cabin heat and defrost	BOTH OFF
10. Fire affected engine Fuel Selector	Confirm and OFF
11. Fire affected engine Ignitions	Confirm and BOTH OFF
12. Fire affected engine Electrical fuel pump	Confirm and OFF
13. Fire affected engine FIELD	OFF

14. Land as soon as possible applying *one engine inoperative landing* procedure.



ENGINE FIRE IN FLIGHT	
1. Cabin heat and defrost	BOTH OFF
2 . Autopilot	OFF
3. Fire affected engine Fuel Selector	Confirm and OFF
4. Fire affected engine Ignition	Confirm and BOTH OFF
5. Fire affected engine Throttle Lever	Confirm and FULL FORWARD
6. Fire affected engine Propeller Lever	Confirm and FFATHER
7 Fire affected engine Electrical fuel numn	OFF
8 Heading K	een control using rudder and ailerons
9 Attitude Adjust as app	ranriate to keep airspeed over 62 KIAS
10 Fire affected angine Field	OFF
11 Cabin ventilation	OPEN
12 Land as soon as possible applying one engine in	perative landing procedure
	perative fanding procedure.
ELECTRICAL SMOKE IN CABIN ON THE GROUND	
1. MASTER SWITCH	OFF
 Cabin heat and defrost 	OFF
3 . Throttle Lever	BOTH IDLE
4. Ignitions	ALL OFF
5. Fuel Selector	BOTH OFF
6. Parking Brake	ENGAGED
 Aircraft Evacuation carry out immediately 	
ELECTRICAL SMOKE IN CABIN DURING FLIGHT	
1. Cabin ventilation	OPEN
2. Emergency light	ON
3. Standby attitude indicator switch	ON
4 . Gain VMC conditions as soon as possible	
In case of cockpit fire:	
5. Fire extinguisher	use toward base of flames
CAUTION	
A trip p ed circuit breaker should not be reset.	
If smoke persists, shed electrical supply in order to	isolate faulty source by:
6. FIELD LH and RH	OFF
7. AVIONICS LH and RH	OFF
8. CROSS BUS LH and RH	BOTH OFF
CAUTION	
A fully charged battery can supply electrical power fo	or at least 30 minutes.
It faulty source is found:	
9. It may be possible to restore non faulty power sol	urces (one at a time)
Refere total electrical system shutdown consider agi	ning VMC condition at night set
nersonal emergency light on Only emergency light	and emergency ADI will be electrically
nowered All radio COM and NAV Landing Gear leve	er (normal mode) and indication lights
electrical trims and flans will be unserviceable	
	055
11 Land as soon as possible	UFF
When on ground:	
12 Aircraft Evacuation	carry out as necessary
	carry out as necessary

TECNAM P2006T



UNINTENTIONAL SPIN RECOVERY

WARNING

Spin behaviour has not been demonstrated since certification process does not required it for this aircraft category. Intentional spin is forbidden.

Stall with one engine inoperative is forbidden.

Should an unintentional spin occur, the classic recovery manoeuvre is deemed as being the best action to undertake:

- 1. Both engines throttles
- 2. Flight Controls
- 3. Rudder

IDLE Centralize Fully Against Rotation Until It Stops

LANDING EMERGENCIE

LANDING WITHOUT ENGINE POWER

CAUTION

In case of double engine failure both propellers should be feathered to achieve maximum efficiency.

Best glide speed is attained with flap UP and equals VY for current aircraft mass and air density altitude.

Normal landing gear extension requires MASTER switch ON, an efficient battery and takes around 20 seconds.

LG selection should be appropriately anticipated when sure on final.

Flap can be set to T/O or LAND when sure on final to reduce landing ground roll on short field.

Touchdown speed can be as low as 50 kt with flap down.

1. Airspeed	MTOW 1180kg VY = 83 KIAS
2. Flaps	UP
 Emergency landing field 	Select
WARNING	

Emergency landing strip should be chosen considering surface condition, length and obstacles.

Wind can be guessed by smoke plumes direction and tree tops or grass bending. Select touchdown direction according to the furrows of a plowed field, not across

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LANDING WITH A KNOWN MAIN LANDING GEAF	R TIRE DEFLATED
If a main Landing Gear flat tire is confirm	ed:
Preparation	
1. Crew and passengers safety belts	Tightly fastened
2. Flap setting	plan approach with Flap Land
Before ground contact:	
3. Ignitions	ALL OFF
4. LH and RH Fuel Selector	BOTH OFF
5. LH and RH Electrical fuel pump	BOTH OFF
On touch down:	
6 . Align for approach	on the runway centreline
7. Touchdown speed	as low as 50 KIAS
8. Touchdown	on the good tire gear only
9. Heading and direction	maintain applying appropriate
aileron and rudder/steering control	
10. Flattened tire	keep off the ground as long as possible
After aircraft stops (or if runway departu	re is imminent):
11. FIELD LH and RH	BOTH OFF
12. MASTER SWITCH	OFF
CAUTION	
13 . Aircraft Evacuation <i>carry out if necessary</i>	

LANDING WITH NOSE LANDING GEAR TIRE DEFLATED	
If Nose Landing Gear flat tire is confirmed:	
Preparation	
1. Crew and passengers safety belts	Tightly fastened
2. If time permits	Burn fuel to lower landing weight
3. Flap setting	plan approach with Flap Land
Before ground contact:	
4. Fuel Selector	BOTH OFF
5. Electrical fuel pump	BOTH OFF
6. Ignitions	ALL OFF
On touch down:	
7. Landing attitude	slight nose-up and wings levelled,
8. Touchdown speed	as low as 50 KIAS with flap
9. Aircraft nose	gently lower as speed bleeds off
After aircraft stops:	
10. FIELD LH and RH	BOTH OFF
11. MASTER SWITCH	OFF
12. Aircraft Evacuation	carry out if necessary



LANDING WITHOUT BRAKES	
CAUTION	
If possible, select an airport with suitable runway length. Oth	erwise, evaluate the
possibility to perform a gear up landing. In the latter case con	nsider the increasing hazard
of an uneven pavement.	
1. Safety belts FA	STEN
After touch down if runway is deemed insufficient to	o decelerate:
2. Fuel Selector BC	DTH OFF
3 . Electrical fuel pumps BC	DTH OFF
4. Ignitions AL	L OFF
5. FIELD LH and RH BC	DTH OFF
6. MASTER SWITCH OF	F
CAUTION	
Master switch to OFF impairs radio communication and outside aircraft lighting.	
Before end of runway or if runway departure is imm	inent:
7. Landing gear control lever UF	ס
After aircraft stops:	
8. Aircraft Evacuation carr WARNING	ry out if necessary
Consider use of ditching emergency exit to escape in case pilo	ot or passenger doors are

blocked, watch for engine hot parts, fuel, hydraulic fluid or oil spills. Leave aircraft in upwind direction.



AIRCRAFT EVACUATION

WARNING

Leave the aircraft when engines are fully stopped. Watch for engine hot parts and fuel, hydraulic fluid or oil spills when using fuselage doors. If fuselage doors are unserviceable escape through the ditching emergency exit. In case of engine fire escape from opposite or upwind aircraft side.

Verify (if not yet performed):	
1. Fuel Selectors	BOTH OFF
2. Ignitions	ALL OFF
 Electrical fuel pumps 	BOTH OFF
4. MASTER SWITCH	OFF
5. Parking Brake	ENGAGED
6. Leave the aircraft using emergency exits	

DITCHING

WARNING

Contact with water shall happen with aircraft longitudinal axis and direction of motion parallel to the wave at the minimum possible speed. Keep the nose up as long as possible. Once in the water, the aircraft shall be evacuated through the ditching emergency exit, if available put life vest on and set dinghy out first. Inflate them only outside the aircraft. If available, try to approach any existing ship in the vicinity in order to be rapidly located and rescued right after ditching.

1. Landing gear	UP
2. Safety belts	Tighten and fastened
3 . Flaps	FULL
Before water impact	
4. Fuel Selector	BOTH OFF
5. Electrical fuel pump	BOTH OFF
6. Ignitions	ALL OFF
7. MASTER SWITCH	OFF
8. FIELD LH and RH	BOTH OFF
9. Impact speed	50 KIAS
Aircraft evacuation	
10. Emergency exit handle	rotate clockwise
11 . Latch door	push outward
12. Life vests	
13 . Evacuate the aircraft	