Emergency Procedures

Carenado®
TBM850

REJECTED TAKEOFF PROCEDURE

TABLE OF CONTENTS

REJECTED TAKEOFF PROCEDURE

"ENGINE FAILURE AT TAKEOFF BEFORE ROTATION".

For any other reason :

1.- Power lever _____ **IDLE**
2.- Reverse _____ **AS REQUIRED**
3.- Braking _____ **AS REQUIRED**

If the airplane cannot be stopped on the remaining runway :

4.- Power lever _____ **IDLE**
5.- Condition lever _____ **CUT OFF**
6.- Tank selector _____ **OFF**
7.- CRASH lever _____ **PUSH DOWN**

Evacuate if necessary, after the airplane has come to a stop.

ENGINE FAILURES

TABLE OF CONTENTS

ENGINE FAILURES

ENGINE FAILURE AT TAKEOFF
BEFORE ROTATION

1.- Power lever ..... **IDLE**
2.- Braking ..... **AS REQUIRED**

If the airplane cannot be stopped on the remaining runway :

3.- Condition lever ..... **CUT OFF**
4.- Tank selector ..... **OFF**
5.- CRASH lever ..... **PUSH DOWN**

ENGINE FAILURES
ENGINE FAILURE AFTER ROTATION (1/2)

If altitude does not allowto choose a favourable runway or field :
Land straight ahead keeping flaps at TO and without changing landing gear position.

Before touch-down :

1.- Maintain :

Weight < 6579 lbs (2984 kg)	Weight ≥ 6579 lbs (2984 kg)
IAS > 80 KIAS	IAS > 85 KIAS

2.- Power lever ..... **IDLE**
3.- Condition lever ..... **CUT OFF**
4.- Tank selector ..... **OFF**
5.- CRASH lever ..... **PUSH DOWN**

If altitude allows to reach a favourable runway or ground :

1.- LDG ..... **DOWN**
2.- Flaps ..... **AS REQUIRED**
3.- Maintain :

Weight < 6579 lbs (2984 kg)	Weight ≥ 6579 lbs (2984 kg)
IAS > 100 KIAS, Flaps UP	IAS > 105 KIAS, Flaps UP
IAS > 90 KIAS, Flaps TO	IAS > 95 KIAS, Flaps TO

4.- Power lever ..... **IDLE**
5.- Propeller governor lever ..... **FEATHER**

ENGINE FAILURES
ENGINE FAILURE AFTER ROTATION (2/2)

Before touch-down :

6.- Condition lever ..... **CUT OFF**

7.- Tank selector ..... **OFF**

8.- CRASH lever ..... **PUSH DOWN**

ENGINE FAILURES

ENGINE FAILURE DURING FLIGHT

1.- If AP engaged :
"AP / TRIM DISC INT" push-button _____ **PRESSED**
2.- Power lever _____ **IDLE**
3.- Propeller governor lever _____ **FEATHER**
4.- Condition lever _____ **CUT OFF**
5.- Remaining fuel _____ **CHECK**
6.- Tank selector _____ **SWITCH TANKS**
7.- "AUX BP" switch and fuel pressure _____ **CHECK / CORRECT**
8.- Air start
9.- In case of high altitude (above 12000 ft), undertake an **EMERGENCY DESCENT**
10.- If air start not successful, perform a **FORCED LANDING**

ENGINE FAILURES
OIL PRESSURE DROP

RED WARNING CAS MESSAGE **"OIL PRESS"** ON
OR
AMBER CAS MESSAGE **"OIL PRESS"** ON
Indicates that oil pressure is below 60 psi

1.- Oil pressure indicator _____ **CHECK**

If the indicated pressure is in the green sector :

2.- Shorten the flight and monitor

If the indicated pressure is not in the green sector :

3.- Failure is confirmed

Due to the oil pressure drop, the propeller blade angle may go towards high pitch and therefore lead to a Np propeller rotation speed decrease.

CAUTION
PREPARE FOR AN ENGINE STOP, SHORTLY ; REDUCE POWER TO THE MINIMUM NECESSARY, LAND AS SOON AS PRACTICAL

If engine looses power :

4.- Power lever _____ **IDLE**
5.- Propeller governor lever _____ **FEATHER**
6.- Condition lever _____ **CUT OFF**

Perform a FORCED LANDING

ENGINE FAILURES
ENGINE REGULATION DISCREPANCY, POWER LOSS, POWER LEVER CONTROL LOSS (1/2)

1.- If circumstances allow :

Power lever _____ **IDLE**

2.- Confirm engine still running

3.- Tank selector _____ **SWITCH TANKS**

4.- Check that no parameter exceeds allowed values

5.- ”MAN OVRD” control _____ **CTUATED progressively forward (Adjust power necessary to continue flight)**

If the available power is weak, extend the landing gear only on a glide path in final approach and extend full flaps only in short final.

Do not perform a go--around.

CAUTION

IN ”MANUAL OVERRIDE” ENGINE IS NEITHER PROTECTED AGAINST SLAM ACCELERATIONS, NOR AGAINST MAXIMUM SPEED OVERSHOOTING. AVOID RAPID CONTROL MOVEMENTS AND MANAGE ENGINE PARAMETERS

CAUTION

IN SOME CASES, WHEN ”MANUAL OVERRIDE” CONTROL IS USED, THE AVAILABLE POWER MAY NOT BE SUFFICIENT TO ENSURE A GO--AROUND IN LANDING CONFIGURATION, IN PARTICULAR IF THE WEIGHT IS NEAR THE MAXIMUM WEIGHT

6.- Continue flight, SHORTEN if possible

ENGINE FAILURES
ENGINE REGULATION DISCREPANCY, POWER LOSS, POWER LEVER CONTROL LOSS (2/2)

7.- Perform a normal landing WITHOUT REVERSE
8.- Braking _ **AS REQUIRED**

If minimum power obtained is excessive :

1.- Reduce airspeed by setting airplane in nose--up attitude at IAS < 178 KIAS
2.- ”INERT SEP” switch _ **ON**
3.- If ITT > 840°C :
”INERT SEP” switch _ **OFF**
4.- Landing gear control _ **DN**
5.- Flaps _ **TO**
6.- Establish a long final or an ILS approach respecting IAS < 178 KIAS
7.- When runway is assured :
Condition lever _ **CUT OFF**
8.- Propeller governor lever _ **FEATHER**
if necessary to extend trajectory
9.- Flaps _ **LDG as required (at IAS < 122 KIAS)**
10.- Land normally WITHOUT REVERSE
11.- Braking _ **AS REQUIRED**

ENGINE FAILURES
GOVERNOR REGULATION CONTROL NOT OPERATING

May indicate a rupture of the linkage of the governor control.

1.- Continue the flight.

2.- If Np < 2000 RPM, do not perform a go--around and do not use the reverse.
In that case, the go--around performance and the reverse efficiency might be lower than expected. The airplane repair is mandatory before any other flight.

ENGINE FAILURES
EXCESSIVE PROPELLER ROTATION SPEED

Indicates :

- a propeller governor failure

In that case, the propeller overspeed limiter will limit initially the rotation speed to 2100 RPM approximately.

- or a propeller governor and overspeed limiter failure

In that case, only the torque limiter operates to limit the power.

However, the pilot intervention is necessary to maintain. Np ≤ 2000 RPM. The propeller reducer is designed for a max. Np of 2200 RPM.

1.- Reduce the power and the aircraft speed to avoid propeller rotation speeds higher than 2000 RPM.

2.- Land as soon as possible.

3.- Do not perform a go--around.

A go--around would damage the engine reduction gearbox

The airplane repair is mandatory before any other flight.

ENGINE FAILURES
RED WARNING CAS MESSAGE “ITT” ON

A.- During engine start :

Indicates :

ITT > 1000°C

1000°C > ITT > 870°C for more than 5 seconds

870°C > ITT > 840°C for more than 20 seconds

If the limits previously mentioned are exceeded :

1.- Stop the starting procedure.

2.- Record the engine parameters displayed in case of overtemperature, as well as OAT conditions.

3.- Cancel the flight, inform maintenance department.

B.- After engine start :

Indicates that ITT has been higher than 840°C more than 2 seconds :

1.- Reduce power

If ITT remains higher than 840°C :

1.- Reduce power to maintain ITT < 840°C.

2.- Shorten the flight.

3.- Record the airplane and engine parameters displayed in case of overtemperature.

4.- Inform maintenance department at the end of the flight.

ENGINE FAILURES
RED WARNING CAS MESSAGE “TORQUE” ON

Indicates that the torque is above 124.5 %.

1.- Reduce power
2.- Shorten the flight.
3.- Record the airplane and engine parameters read in case of overtorque.
4.- Inform maintenance department at the end of the flight.

ENGINE FAILURES
ENGINE DOES NOT STOP ON GROUND

If the engine does not stop when the condition lever is set to CUT OFF, proceed as follows :

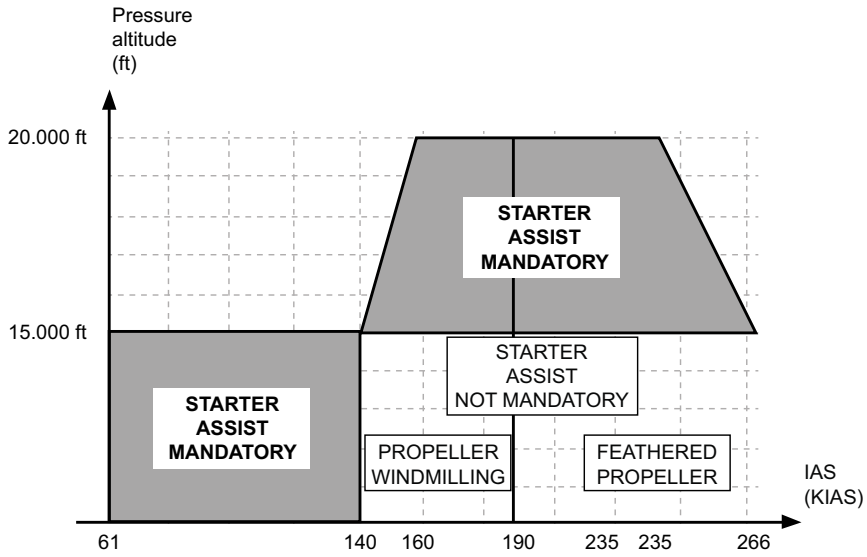
1.- ”AP TRIMS” MASTER switch ..... **OFF**
2.- ”AVIONICS” MASTER switch ..... **OFF**
3.- ”INT LIGHTS” panel
    All switches ..... **OFF**
4.- ”EXT LIGHTS” panel
    All switches ..... **OFF**
5.- ”ECS” panel
    All switches ..... **OFF**
6.- Tank selector ..... **OFF**
    Wait for engine stop due to lack of fuel in the pipes
7.- ”GENERATOR” selector ..... **OFF**
8.- ”SOURCE” selector ..... **OFF**
9.- CRASH lever ..... **PUSH DOWN**
10.- Inform the maintenance department

AIR START

TABLE OF CONTENTS

AIR START

AIR START ENVELOPE



Air start may be attempted at all speeds and all altitudes. However, above 20000 ft or with Ng < 13%, ITT tends to increase during start and prudence is recommended.

AIR START

AIR START WITH STARTER (1/2)

CAUTION
THE STARTER CANNOT OPERATE IF THE ”GENERATOR” SELECTOR IS ON ”ST-BY”

CAUTION
IGNITION IS NOT AVAILABLE IF THE ”ESS BUS TIE” SWITCH IS KEPT “EMER”

NOTE :
The “AVIONICS MASTER” switch may be ON.

1.- ”BLEED” switch _____ **OFF**

CAUTION
“BLEED” SWITCH SET TO “AUTO” MAY CAUSE OVER TEMPERATURE OR ABNORMAL ACCELERATION

2.- ”AIR COND” switch _____ **OFF**
3.- Air start envelope _____ **CHECKED**
4.- Electric consumption _____ **REDUCE**
5.- Power lever _____ **IDLE**
6.- Propeller governor lever _____ **FEATHER**
7.- Condition lever _____ **CUT OFF**
8.- Tank selector _____ **CHECK**
9.- ”AUX BP” fuel switch _____ **ON**

AIR START

AIR START WITH STARTER (2/2)

10.- “IGNITION” switch	**AUTO or ON**
11.- “STARTER” switch	**ON**
12.- Condition lever	**LO / IDLE**
	when Ng ~ 13 %
13.- ITT and Ng	**MONITOR**
14.- When Ng ~ 50 % steady	**STARTER OFF**
	IGNITION AUTO or ON
15.- Condition lever	**HI / IDLE**
16.- Propeller governor lever	**MAX. RPM**
17.- Power lever	**AS REQUIRED**
18.- Electrical equipment	**AS REQUIRED**
19.- “AUX BP” fuel switch	**AUTO**
20.- “BLEED” switch	**AS REQUIRED**

AIR START
AIR START WITHOUT STARTER
(STARTER ASSIST NOT MANDATORY) (1/2)

CAUTION
THE STARTER CANNOT OPERATE IF THE ”GENERATOR” SELECTOR IS ON ”ST-BY”

CAUTION
IGNITION IS NOT AVAILABLE IF THE ”ESS BUS TIE” SWITCH IS KEPT ”EMER”

NOTE :

The “AVIONICS MASTER” switch may be ON.

1.- ”BLEED” switch _____ **OFF**

CAUTION
”BLEED” SWITCH SET TO “AUTO” MAY CAUSE OVER TEMPERATURE OR ABNORMAL ACCELERATION

2.- ”AIR COND” switch _____ **OFF**
3.- Air start envelope _____ **CHECKED**
Speedwith propeller windmilling _____ **140 < IAS< 190 KIAS**
with feathered propeller _____ **IAS > 190 KIAS**
4.- Electrical consumption _____ **REDUCE**
5.- Power lever _____ **IDLE**
6.- Condition lever _____ **CUT OFF**
7.- Tank selector _____ **CHECK**

AIR START

AIR START WITHOUT STARTER

(STARTER ASSIST NOT MANDATORY) (2/2)

8.- ”AUX BP” fuel switch _____ **ON**
9.- ”IGNITION” switch _____ **ON**
10.- Condition lever _____ **LO / IDLE**
11.- ITT and Ng _____ **MONITOR**
12.- When Ng ~ 50 % steady _____ **IGNITION AUTO or ON**
13.- Condition lever _____ **HI / IDLE**
14.- Propeller governor lever _____ **MAX. RPM**
15.- Power lever _____ **AS REQUIRED**
16.- Electrical equipment _____ **AS REQUIRED**
17.- ”AUX BP” fuel selector _____ **AUTO**
18.- ”BLEED” switch _____ **AS REQUIRED**

FIRE AND SMOKE

TABLE OF CONTENTS

FIRE AND SMOKE

ENGINE FIRE ON GROUND

Symptoms : ITT increasing, red warning CAS message
“ITT” ON, smoke, ...

1.- Power lever _____ **IDLE**
2.- Condition lever _____ **CUT OFF**
3.- ”BLEED” switch _____ **OFF**
4.- ”AIR COND” switch _____ **OFF**
5 .- Brakes _____ **AS REQUIRED**
6.- Tank selector _____ **OFF**
7.- Warn for ground assistance, if necessary
8.- CRASH lever _____ **PUSH DOWN**
9.- EVACUATE as soon as possible

CABIN FIRE ON GROUND

1.- Power lever _____ **IDLE**
2.- Condition lever _____ **CUT OFF**
3.- Brakes _____ **AS REQUIRED**
4.- Warn for ground assistance, if necessary
5.- CRASH lever _____ **PUSH DOWN**
6.- Cabin extinguisher _____ **AS REQUIRED**
7.- EVACUATE as soon as possible

FIRE AND SMOKE
ENGINE FIRE IN FLIGHT

Symptoms: ITT increasing, red warning CAS message
"ITT" ON, smoke

1.- Power lever _____ **IDLE**
2.- Propeller governor lever _____ **FEATHER**
3.- Condition lever _____ **CUT OFF**
4.- "AUX BP" fuel switch _____ **OFF**
5.- Tank selector _____ **OFF**
6.- "BLEED" switch _____ **OFF**
7.- "AIR COND" switch _____ **OFF**
8.- In case of high altitude (above 12000 ft), undertake an EMERGENCY DESCENT
9.- Perform a FORCED LANDING (ENGINE CUT OFF)

WARNING
AFTER ENGINE FIRE, DO NOT ATTEMPT AN AIR START

FIRE AND SMOKE
CABIN ELECTRICAL FIRE OR

SMOKE DURING FLIGHT (1/2)

If the origin is known :

1.- Oxygen and goggles _____ **USE AS REQUIRED (pilot and passengers)**

2.- Defective equipment

Corresponding circuit breaker _____ **PULL**

Descend quickly below 12000 ft

3.- Using the on board extinguisher, EXTINGUISH fire if necessary

4.- Smoke elimination

(if necessary) _____ **UNDERTAKE PROCEDURE**

5.- LAND as soon as possible

If the origin is unknown :

1.- Oxygen and goggles _____ **USE AS REQUIRED** (pilot and passengers)

2.- ”AIR COND” switch _____ **OFF**

3.- Not necessary equipment _____ **OFF**

4.- Smoke elimination

(if necessary) _____ **UNDERTAKE PROCEDURE**

If smoke or fire stops :

LAND as soon as possible.

FIRE AND SMOKE
CABIN ELECTRICAL FIRE OR

SMOKE DURING FLIGHT (2/2)

If smoke or fire persists :

5.- ”SOURCE” selector	**OFF**
6.- ”GENERATOR” selector	**OFF**
7.- Fire	**EXTINGUISH if necessary with the on board extinguisher**
8.- All circuit breakers	**PULL**
9.- All electrical equipment	**CUT OFF**
10.- ”SOURCE” selector	**BAT**
11.- ”GENERATOR” selector	**MAIN**
12.- Necessary circuit breakers	**ENGAGE one after the other checking for possible fire or smoke**
13.- Necessary electrical equipment	**ON one after the other checking for possible fire or smoke**
14.- Defective equipment Corresponding circuit breaker	**PULL**
15.- Not affected necessary equipment	**ON as required**
16.- LAND as soon as possible	

FIRE AND SMOKE
SMOKE ELIMINATION

1.- Smoke origin _____ **IDENTIFY**
2.- Oxygen and goggles _____ **USE AS REQUIRED**
(pilot and passengers)
3.- If smoke persists, undertake an EMERGENCY DESCENT
4.- ”BLEED” switch _____ **OFF**
5.- “AIR COND” switch _____ **OFF**
6.- ”DUMP” switch _____ **ACTUATE**
Wait until the differential pressure drops
7.- ”RAM AIR” control knob _____ **PULL**
If smoke increases _____ **PUSH**
8.- LAND as soon as possible

EMERGENCY DESCENTS

TABLE OF CONTENTS

EMERGENCY DESCENTS

Two types of descent are considered :

1.- Engine running, maximum descent rate, if necessary

The factors to be considered are :

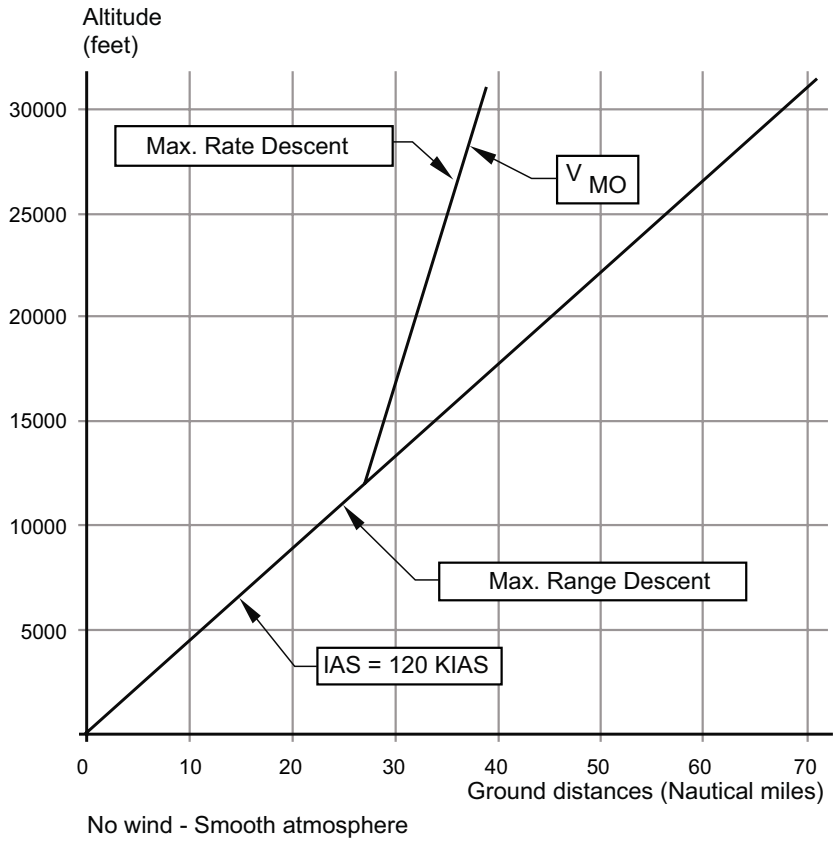
- Cabin altitude and oxygen duration
- Electrical power endurance
- Distance to appropriate landing area
- Flight conditions IMC, VMC, ICING
- Minimum safe altitude
- Fuel reserves

2.- Engine failure, aircraft flown for maximum range

The pilot is in charge of evaluating the situation and priorities.

Refer to “EMERGENCY DESCENT PROFILES” figure.

EMERGENCY DESCENTS



- EMERGENCY DESCENT PROFILES figure.

EMERGENCY DESCENTS
MAXIMUM RATE DESCENT

1.- Power lever _____ **IDLE**
2.- Oxygen _____ **If necessary**
3.- Propeller governor lever _____ **MAX. RPM**

Procedure in smooth air :

4.- Flaps _____ **UP**
5.- Landing gear _____ **UP**
6.- Speed _____ **V_{MO} = 266 KIAS**

Procedure in rough air or in case of structure problem :

7.- Reduce speed _____ **IAS ≤ 178 KIAS**
8.- Landing gear _____ **DN**
9.- Flaps _____ **UP**
10.- Keep _____ **IAS ≤ 178 KIAS**

EMERGENCY DESCENTS
MAXIMUM RANGE DESCENT (1/2)

1.- Power lever _____ **IDLE**
2.- Propeller governor lever _____ **FEATHER**
3.- Condition lever _____ **CUT OFF**
4.- Flaps _____ **UP**
5.- Landing gear _____ **UP**
6.- Speed _____ **IAS = 120 KIAS**
7.- Oxygen _____ **If necessary**
Check oxygen duration before reaching 12000 ft and check flow to passengers
8.- “DUMP” switch _____ **ACTUATED**
9.- “RAM AIR” control knob _____ **PULLED**

If conditions allow : VMC and non icing conditions :

10.- “ESS BUS TIE” reverse switch _____ **Cover up**

EMER position

11.- Prepare a forced landing

If flight conditions do not allow :

12.- “ESS BUS TIE” reverse switch _____ **NORMAL**
13.- Manually disconnect ancillary systems as follows :
- ”AIRFRAME DE ICE” switch _____ **OFF**
- ”ICE LIGHT” switch _____ **OFF**
- ”PROP DE ICE” switch _____ **OFF**
- ”WINDSHIELD” switch _____ **OFF**

EMERGENCY DESCENTS
MAXIMUM RANGE DESCENT (2/2)

- ”PITOT R & STALL HTR” switch _____ **OFF**
- “L.LDG / TAXI / R.LDG / PULSE SYST” switches _____ **OFF**
- ”STROBE” switch _____ **OFF**
- ”BLEED / AIR COND” switches _____ **OFF**
- “AUX BP” switch _____ **OFF**
- “FUEL SEL” switch _____ **MAN**
- “AP TRIMS” MASTER switch _____ **OFF**
- PFD 2 breaker _____ **PULL**
- ADC 2 breaker _____ **PULL**
- “CD” player _____ **OFF**
- “INSTR / CABIN / ACCESS” controls _____ **OFF**
- XPDR 2 breaker _____ **PULL**

If icing conditions :

- “PITOT L HTR” switch _____ **Checked ON**
- ”WINDSHIELD” switch _____ **ON**
- Maintain minimum recommended speeds

If time permits :

- ”SVC PLUGS” breaker _____ **PULL**
- ”AIR COND” breaker _____ **PULL**

14.- Prepare a forced landing

EMERGENCY LANDINGS

TABLE OF CONTENTS

EMERGENCY LANDINGS

FORCED LANDING (ENGINE CUT OFF)

1.- Power lever _____ **IDLE**
2.- Propeller governor lever _____ **FEATHER**
3.- Condition lever _____ **CUT OFF**
4.- Tank selector _____ **OFF**
5.- ”AUX BP” fuel switch _____ **OFF**
6.- ”BLEED” switch _____ **OFF**
7.- ”AIR COND” switch _____ **OFF**
8.- ”DUMP” switch _____ **ACTUATED**
9.- Glide speed _____ **120 KIAS maintained until favourable ground approach**

If ground allows it :

10.- “ESS BUS TIE” reverse switch _____ **NORMAL in order to have GEAR and FLAPS available**
11.- Landing gear _____ **DN**

If night conditions :

12.- L.LDG / R.LDG _____ **ON**

If ground does not allow it :

13.- Keep landing gear _____ **UP**
14.- When chosen ground is assured _____ **FLAPS LDG**
15.- CRASH lever _____ **PUSH DOWN**
16.- Final approach : Weight < 6250 lbs (2835 kg) : **IAS = 110 KIAS**
Weight ² 6250 lbs (2835 kg) : **IAS = 115 KIAS**
17.- Land flaring out
18.- EVACUATE after stop

EMERGENCY LANDINGS
TIRE BLOWOUT DURING LANDING

1.- Control direction with brakes and nose wheel steering
2.- REVERSE _ **AS REQUIRED**
3.- Stop airplane to minimize damages
4.- Perform engine SHUT-DOWN procedure

EMERGENCY LANDINGS
LANDING WITH UNLOCKED MAIN LANDING GEAR (1/2)

1.- Ask control tower or another airplane to visually check landing gear position

CAUTION
IF ONE MAIN LANDING GEAR IS NOT DOWN, IT IS BETTER TO LAND WITH GEAR UP.

If defective gear is down but unlocked :

2.- ”BLEED” switch _ **OFF**
3.- ”DUMP” switch _ **ACTUATED**
4.- Maintain tank selector on defective landing gear side to lighten corresponding wing [maximum fuel imbalance 15 us gal (57 litres)]
5.- Choose a runway with headwind or crosswind blowing from defective gear side
6.- Align the airplane to land on the runway edge opposite to the defective landing gear
7.- Land and set nose gear immediately on ground to assure lateral control
8.- Use full aileron during roll--out to lift the wing with the defective landing gear
9.- Preferably do not use reverse
10.- Complete taxiing with a slight turn toward defective landing gear

EMERGENCY LANDINGS
LANDING WITH UNLOCKED MAIN LANDING GEAR (2/2)

11.- Condition lever _____ **CUT OFF**
12.- Engine stop procedure _____ **COMPLETE**
13.- EVACUATE

If landing gear drags during landing :

14.- Condition lever _____ **CUT OFF**
15.- CRASH lever _____ **PUSH DOWN**
16.- Tank selector _____ **OFF**
17.- EVACUATE after airplane comes to a stop

EMERGENCY LANDINGS
LANDING WITH DEFECTIVE NOSE LANDING GEAR (DOWN UNLOCKED OR NOT DOWN)

1.- Transfer passengers to the rear, if necessary

2.- Approach _____ **Flaps TO**

Weight < 6250 lbs (2835 kg)	Weight ≥ 6250 lbs (2835 kg)
IAS = 90 KIAS	IAS = 95 KIAS

3.- Land with nose--up attitude, keep nose high

4.- Condition lever _____ **CUT OFF**

5.- Propeller governor lever _____ **FEATHER**

6.- Touch - down slowly with nose wheel and keep elevator at nose - up stop

7.- Moderate braking

8.- CRASH lever _____ **PUSH DOWN**

9.- EVACUATE after airplane comes to a stop

EMERGENCY LANDINGS
LANDING WITH GEAR UP

1.- Final approach ..... **Standard**
2.- Flaps ..... **LDG**

Weight < 6250 lbs (2835 kg)	Weight ≥ 6250 lbs (2835 kg)
IAS = 80 KIAS	IAS = 85 KIAS

3.- ”BLEED” switch ..... **OFF**
4.- ”DUMP” switch ..... **ACTUATED**

When runway is assured :

5.- Power lever ..... **IDLE**
6.- Propeller governor lever ..... **FEATHER**
7.- Condition lever ..... **CUT OFF**
8.- Tank selector ..... **OFF**
9.- Flare out
10.- After touch--down, CRASH lever ..... **PUSH DOWN**
11.- EVACUATE after airplane comes to a stop

EMERGENCY LANDINGS
LANDING WITHOUT ELEVATOR CONTROL

1.- Configuration _____ **LANDING GEAR DN -- FLAPS LDG**
2.- Airspeed _____ **Maintain IAS = 95 KIAS**
3.- Power as necessary to maintain airspeed according to an easy approach slope - 300 ft / min
4.- Adjust elevator by using manual pitch trim wheel
5.- When ground approaches, decrease slope progressively
6.- Reduce power progressively

EMERGENCY LANDINGS
LANDING WITH FLAPS MALFUNCTION

For flaps deflections from “UP” to “TO” position :

Proceed as for a normal landing, maintaining approach airspeed :

Weight < 6250 lbs (2835 kg)	Weight ≥ 6250 lbs (2835 kg)
IAS = 100 KIAS	**IAS = 105 KIAS**

Provide for a landing distance increased up to about 60 %

For flaps deflections greater than “TO” position :

Proceed as for a normal landing, maintaining approach airspeed :

Weight < 6250 lbs (2835 kg)	Weight ≥ 6250 lbs (2835 kg)
IAS = 95 KIAS	**IAS = 100 KIAS**

Provide for a landing distance increased up to about 50 %

EMERGENCY LANDINGS
DITCHING

1.- Landing gear _ **UP**

In heavy swell with light wind, land parallel to the swell (rollers).

In heavy wind, land facing wind.

2.- Flaps _ **LDG**

3.- Maintain a descent rate as low as possible when approaching the water

4.- Airspeed :

Weight < 6579 lbs (2984 kg)	Weight ≥ 6579 lbs (2984 kg)
IAS = 80 KIAS	**IAS = 85 KIAS**

5.- ”BLEED” switch _ **OFF**

6.- ”DUMP” switch _ **ACTUATED**

7.- CRASH lever _ **PUSH DOWN**

8.- Maintain attitude without rounding off until touch - down

9.- EVACUATE through EMERGENCY EXIT

FUEL SYSTEM

TABLE OF CONTENTS

FUEL SYSTEM
RED WARNING CAS MESSAGE
“FUEL PRESS” ON

Indicates a fuel pressure drop at ”HP” engine pump inlet

1.- Remaining fuel _ **CHECK**

2.- Tank selector _ **SWITCH TANKS**

3.- Fuel pressure indication _ **CHECK**

4.- ”AUX BP” fuel switch _ **AUTO**

If alarm persists :

5.- ”AUX BP” fuel switch _ **ON**

Warning CAS message ***“AUX BOOST PMP ON”*** ON . CHECK

6.- Fuel pressure _ **CHECK**

If pressure is normal again and warning light is off, mechanical pump has failed.

7.- Maintain ”AUX BP” fuel switch _ **ON**

If pressure remains at 0 (or drops to 0 after ”AUX BP” pump operation)
*and if warning **“FUEL PRESS”** remains ON :*

8.- Tank selector _ **SWITCH TANKS**

If pressure is normal again, a supply problem may have occured from the tank selected first (air vent, fuel icing, etc ...).

*If pressure remains at 0 and if warning **“FUEL PRESS”** remains ON :*

9.- Fullest tank _ **SELECT**

10.- Avoid high power and rapid movements of the power lever.

11.- Descend to an altitude below 18000 ft.

12.- Land as soon as possible.

FUEL SYSTEM
AMBER WARNING CAS MESSAGE
"AUX BOOST PMP ON" ON

(Indication is normal if "AUX BP" fuel switch is in ON position)

If "AUX BP" fuel switch is in AUTO position :

1.- Reset to _____ **ON**

2.- Then to _____ **AUTO**

*If **"AUX BOOST PMP ON"** warning CAS message goes out, continue flight normally*

*If **"AUX BOOST PMP ON"** warning CAS message remains ON, mechanical booster pump has failed*

3.- "AUX BP" fuel switch _____ **ON**

4.- Shorten flight

FUEL SYSTEM
AMBER WARNING CAS MESSAGE
"FUEL LOW L" OR "FUEL LOW R" ON

Indicates level drop in the corresponding tank

1.- Corresponding gage _ **CHECK**

2.- Check the other tank has been automatically selected

If not :

3.- "FUEL SEL" switch _ **MAN**

4.- Select tank manually as required

AMBER WARNING CAS MESSAGE
"AUTO SEL" ON

Indicates there is no more automatic control mode running

1.- "FUEL SEL" switch _ **AUTO**

If it is on "AUTO", failure is confirmed

2.- "FUEL SEL" switch _ **MAN**

3.- Select tanks manually as required

CAUTION
MAXIMUM IMBALANCE IS 15 USG

ELECTRICAL SYSTEM
TABLE OF CONTENTS

ELECTRICAL SYSTEM
AMBER WARNING CAS MESSAGE
“BAT OFF” ON

Indicates that :

- the ”SOURCE” selector has been positioned on OFF or GPU or
- the battery plug is disconnected

1.- If necessary _ **CORRECT**

2.- If warning persists _ **SHORTEN FLIGHT**

3.- Monitor airplane mains voltage

ELECTRICAL SYSTEM
AMBER WARNING CAS MESSAGE
“MAIN GEN” ON

Indicates that ”GENERATOR” selector has been positioned to OFF or ST-BY, or main generator is cut off

1.- If necessary _____ **CORRECT**

2.- If warning persists _____ **”MAIN GEN” switching confirmed**

3.- ”MAIN GENERATOR RESET” push--button _____ **PUSH**

In case of failure :

4.- Disconnect following ancillary electrical systems :

- ”AIR COND” switch _____ **OFF**
- ”STROBE” switch _____ **OFF**
- ”CABIN” lights switch _____ **OFF**
- ”AP TRIMS” MASTER switch _____ **AP OFF**
- Not necessary equipment _____ **OFF**
- ”WINDSHIELD” switch (above 15 000 ft) _____ **OFF**
- ”BLEED” switch (before landing and on ground) _____ **OFF**
- Only use landing lights briefly and if necessary.

5.- ”GENERATOR” selector _____ **ST- BY (RESET if necessary)**

ELECTRICAL SYSTEM
AMBER WARNING CAS MESSAGE

“LOW VOLTAGE” ON
normal functioning on ”MAIN GEN”

1.- Voltmeter voltage _____ **CHECK**
2.- If voltage is < 26 Volts, monitor a possible drop or any indication of battery run--down
In that case :
3.- Disconnect following ancillary electrical systems :
- ”AIR COND” switch _____ **OFF**
- ”STROBE” switch _____ **OFF**
- ”CABIN” lights switch _____ **OFF**
- ”AP TRIMS” MASTER switch _____ **AP OFF**
- Not necessary equipment _____ **OFF**
- ”WINDSHIELD” switch
(above 15 000 ft) _____ **OFF**
- ”BLEED” switch
(before landing and on ground) _____ **OFF**
- Only use landing lights briefly and if necessary.

4.- ”GENERATOR” selector _____ **ST-BY**
(RESET if necessary)
5.- Voltage and battery charge _____ **MONITOR**

ELECTRICAL SYSTEM
AMBER WARNING CAS MESSAGE
"LOW VOLTAGE" ON

functioning on "ST--BY GENERATOR"
(after "MAIN GEN" failure) (1/3)

Amberwarning CAS messages **"MAINGEN"** and **"LOWVOLTAGE"** ON with "GENERATOR" selector on "ST--BY"

1.- "GENERATOR" selector _ **MAIN**
2.- "MAIN GENERATOR RESET" push--button _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ **PRESS**

If successful :

3.- Disconnect ancillary electrical systems not essential
4.- Monitor voltmeter and ammeter
Prepare to SHORTEN FLIGHT

If not successful :

5.- "GENERATOR" selector _ **ST-BY**
6.- "ST--BY GENERATOR RESET" push--button _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ **PRESS**

If successful :

7.- Disconnect ancillary electrical systems not essential
8.- Monitor voltmeter and ammeter
Prepare to SHORTEN FLIGHT

If not successful, both generators failure is confirmed. If possible, return to VMC conditions

9.- "GENERATOR" selector _ **OFF**

ELECTRICAL SYSTEM
AMBER WARNING CAS MESSAGE
"LOW VOLTAGE" ON

functioning on "ST-BY GENERATOR"
(after "MAIN GEN" failure) (2/3)

If conditions allow : VMC and non icing conditions

10.- If altitude ≥ 12000 ft : "OXYGEN" switch _ **ON**

11.- "ESS BUS TIE" reverse switch _ **Cover up**
EMER position

In this configuration, only both "ESS BUS" bars and "BUS BAT" bar are directly supplied by the battery

12.- LAND as soon as possible

If necessary, it is always possible to use other ancillary systems by selecting :

- "ESS BUS TIE" reverse switch _ **NORMAL**

If flight conditions do not allow :

13.- Manually disconnect ancillary systems as follows :

- "AIRFRAME DE ICE" switch _ **OFF**
- "ICE LIGHT" switch _ **OFF**
- "PROP DE ICE" switch _ **OFF**
- "WINDSHIELD" switch _ **OFF**
- "PITOT R & STALL HTR" switch _ **OFF**
- "L.LDG / TAXI / R.LDG / PULSE SYST" switches _ _ _ _ _ _ _ _ _ _ _ _ _ _ **OFF**
- "STROBE" switch _ **OFF**
- "BLEED / AIR COND" switches _ **OFF**
- "AUX BP" switch _ **OFF**
- "FUEL SEL" switch _ **MAN**
- "AP TRIMS" MASTER switch _ **OFF**
- PFD 2 breaker _ **PULL**

ELECTRICAL SYSTEM
AMBER WARNING CAS MESSAGE
"LOW VOLTAGE" ON

functioning on "ST-BY GENERATOR"
(after "MAIN GEN" failure) (3/3)

- ADC 2 breaker _____ **PULL**
- TAS breaker _____ **PULL**
- DATA LINK breaker _____ **PULL**
- "CD" player _____ **OFF**
- "INSTR / CABIN / ACCESS" controls _____ **OFF**
- XPDR 2 breaker _____ **PULL**

If icing conditions :

- "PITOT L HTR" switch _____ **Checked ON**
- "WINDSHIELD" switch _____ **ON**
- Maintain minimum recommended speeds (Chapter 4.5 -- "Flight into known icing conditions", Paragraph "Ice protection procedures", Point 3)

If time permits :

- "SVC PLUGS" breaker _____ **PULL**
- "AIR COND" breaker _____ **PULL**

14.- LAND as soon as possible

ELECTRICAL SYSTEM
“AVIONICS” MASTER SWITCH FAILURE

In case of ”AVIONICS” MASTER switch misfunction, leading to the impossibility of energizing the radionavigation equipment :

1.- ”AVIONICS MASTER” circuit breaker _ **PULL**

The radionavigation equipment are supplied again and the flight can continue.

LANDING GEAR AND FLAPS

TABLE OF CONTENTS

LANDING GEAR AND FLAPS
LANDING GEAR RETRACTION DISCREPANCY

NOTE :

Symptoms have to be considered at the end of the sequence.

A.- Symptoms :

Steady red warning light ON **and** 0 to 3 green light(s) ON.

- Actions :

Refer to “EMERGENCY GEAR EXTENSION”.

B.- Symptoms :

Red warning light flashing **and** 3 green lights OFF.

- Actions :

1.- ”LDG GEAR” circuit breaker _ **PULL**

If the red warning light goes off:

The flight may be continued without any restriction.

Before extending the landing gear, refer to “EMERGENCYGEAR EXTENSION”.

If the red warning light becomes steady ON :

“LDG GEAR” circuit breaker _ **PUSH**

Refer to “EMERGENCY GEAR EXTENSION”.

LANDING GEAR AND FLAPS
LANDING GEAR EXTENSION DISCREPANCY

NOTE :

Symptoms have to be considered at the end of the sequence.

- Symptoms

Steady red warning light ON and 0 to 3 green light(s) OFF.

or

Red warning light flashing and 0 to 3 green light(s) OFF.

- Actions

Refer to “EMERGENCY GEAR EXTENSION”.

LANDING GEAR AND FLAPS
EMERGENCY GEAR EXTENSION (1/2)

NOTE :

This procedure has to be followed in case of any doubt about the gear extension.

Maintain IAS ≤ 128 KIAS

1.- Landing gear control _____ **DN**

2.- ”LDG GEAR” circuit breaker _____ **PULL**

3.- Floor hatch _____ **OPEN**

4.- By--pass selector _____ **FULLY PULL / LOCKED**

CAUTION

THE ENTIRE EXTENSION OF THE LANDING GEAR MAY TAKE UP TO 110 CYCLES. IT IS MANDATORY TO HAVE A CLEAR HARDENING OF THE MANUAL CONTROL AT THE END OF THE MANEUVER

5.- Hand pump _____ **ACTUATE with maximum amplitude**

If landing gear is down and locked (red light not illuminated, three green lights illuminated) :

Continue flight if necessary at a speed BELOW 178 KIAS, exit and/or remain outside icing conditions.

Land.

CAUTION

DO NOT ENTER ICING CONDITIONS (THIS COULD ADVERSELY INCREASE DRAG AND WEIGHT DUE TO ICE ACCUMULATION, AND LOCK WHEELS AND STRUTS). CLIMB PERFORMANCE WILL BE DEGRADED BY 50 %. INDICATED CRUISE AIRSPEED WILL BE REDUCED COMPARED TO A CLEAN AIRCRAFT, BECAUSE OF THE DRAG. THIS SHOULD BE TAKEN INTO ACCOUNT WHEN CALCULATING THE AIRCRAFT RANGE.

LANDING GEAR AND FLAPS
EMERGENCY GEAR EXTENSION (2/2)

If landing gear does not lock (other than 3 green indicator lights illuminated) :

6.- ”LDG GEAR” circuit breaker _ **PUSH**

7.- ”CHECK DN” switch _ **ACTUATE**

If the hardening of the manual lever is marked and if the normal indicating shows 3 green indicator lights or the ”CHECK DN” indicating shows 3 green indicator lights :

8.- LAND.

If manual extension bar remains soft or if one (or more) green indicator light(s) does(do) not illuminate and upon pressing ”CHECK DN”, then a gear unlock condition is confirmed. Recycle the landing gear as follows :

9.- By--pass selector _ **UNLOCK / PUSH**

10.- Wait one minute.

11.- Landing gear control (IAS ≤ 128 KIAS) _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ **UP**

Perform landing gear extension attempts in the NORMAL mode while applying positive load factors during the maneuver as well as skidding.

LANDING GEAR AND FLAPS
RED WARNING CAS MESSAGE
"FLAPS ASYM" ON

Indicates a dissymmetry of flap deflection. This immediately stops the flap motor and prevents further operation of the flaps

1.- "FLAPS" circuit breaker _____ **PULL**
2.- Flap control lever _____ **UP**
3.- SHORTEN flight maintaining airspeeds :
- IAS ≤ 178 KIAS for deflections between "UP" and "TO" positions
- IAS ≤ 122 KIAS for deflections greater than "TO" position

4.- "LANDING WITH FLAPS MALFUNCTION".

FLAPS MALFUNCTION

In case of blockage of flaps or inoperant flap control lever between "UP" and "TO" positions,with no flapswarning light illumination :

1.- "FLAPS" circuit breaker _____ **PULL**
2.- Flap control lever _____ **UP**
3.- SHORTEN flight maintaining airspeeds :
- IAS ≤ 178 KIAS for deflections between "UP" and "TO" positions
- IAS ≤ 122 KIAS for deflections greater than "TO" position

4.- "LANDING WITH FLAPS MALFUNCTION".

DEICING SYSTEM

TABLE OF CONTENTS

DEICING SYSTEM
LEADING EDGES DEICING FAILURE

Symptoms : Failure on one of the two pneumatic deicing pulses :
- Ice on wing outboard sections
- Or ice on wing inboard sections and stabilizers
- One of the two cycling green lights is not lit

1.- LEAVE icing conditions as soon as possible
2.- ”AIRFRAME DE ICE” switch _ **OFF**

PROPELLER DEICING FAILURE

Symptoms :
- Propeller deicing green light is not lit
- Propeller vibrations

1.- REDUCE power
2.- ACTUATE propeller governor lever to vary RPM within operating range
3.- LEAVE icing conditions as soon as possible

DEICING SYSTEM
INERTIAL SEPARATOR FAILURE

Symptoms : - Warning “INERT SEP ON” does not appear within 30 seconds following ”INERT SEP” switch setting ON
- Neither torque drop, nor increase of ITT observed during maneuver LEAVE icing conditions as soon as possible

WINDSHIELD DEICING FAILURE

Symptoms : - Windshield being covered uniformly by ice
- No perception of heat when touching deiced section
- Windshield deicing green light is not lit

Symptoms may result from overheat. In that case :

1.- ”WINDSHIELD” switch _ **OFF / ON when necessary**

In case of total failure :

1.- ”CABIN TEMP/°C” selector (pilot) _ **Maxi warm**

2.- ”AIR FLOW” distributor _ **HOT**

Before landing wait for a sufficient visibility

DEICING SYSTEM
WINDSHIELD MISTING OR INTERNAL ICING

Symptoms : Mist or ice on windshield internal face

1.- ”CABIN TEMP/°C” selector (pilot) _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ **Set to 21°C (12 o’clock position)**

2.- ”AIR FLOW” distributor _ **DEFOG**

3.- ”WINDSHIELD” switch _ **ON**

If not successful, to gain sufficient visibility :

4.- ”AIR FLOW” distributor _ **HOT**

5.- Manually clean a sufficient visibility area.

6.- If necessary, clean L.H. side window and conduct a sideslip approach (rudder pedals to the right) in order to get sufficient landing visual references.

7.- For landing with flaps LDG, maintain :

Weight < 6250 lbs (2835 kg)	Weight ≥ 6250 lbs (2835 kg)
IAS ² 90 KIAS	**IAS ² 95 KIAS**

CAUTION
IN CASE OF SIDESLIP APPROACH WITH PEDAL ON THE RIGHT DURING A LONG PERIOD, SELECT R.H. FUEL TANK

DEICING SYSTEM
AMBER WARNING CAS MESSAGES
"PITOT NO HT L", "PITOT NO HT R"
OR "STALL NO HEAT" ON

Indicates a heating failure of the corresponding probe

"PITOT NO HT L"

Icing conditions may alter L.H. airspeed indications

1.- AVOID icing conditions

If it is not possible :

2.- Perform moderate descent or climb attitudes

VMO overshooting and stall warning lights are always operating

"PITOT NO HT R"

VMO overshoot warning may be altered by icing conditions

Monitor maximum airspeed _ _ _ _ _ _ _ _ _ _ _ _ _ **± 266 KIAS**

"STALL NO HEAT

Correct operation of the aural stall warning may be altered by severe or prolonged icing

MONITOR and MAINTAIN minimum airspeed according to airplane configuration and icing conditions