SECTION 3
EMERGENCY PROCEDURES

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SECTION 3
EMERGENCY PROCEDURES
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All airspeeds quoted in this section are indicated airspeeds (IAS) and assume zero instrument error.

Closed [BRACKETS] in this section denotes Warning, Caution and Advisory annunciations which appear on the PFD and MFD.

NOTE

The following information is presented to enable the pilot to form, in advance, a definite plan of action for coping with the most probable emergency situations which could occur in the operation of the airplane.

In order to supply one safe speed for each type of emergency situation, the airspeeds presented were derived at 5500 lbs (5400 lbs for landing).

Immediate action procedures are delineated by bold type with the remaining procedures following.

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EMERGENCY AIRSPEEDS (5500 LBS)

One-Engine-Inoperative Best Angle-of-Climb (V_{XSE}) . . . 95 kts

One-Engine-Inoperative Best Rate-of-Climb (V_{YSE}) . . . 101 kts

Air Minimum Control Speed (V_{MCA}) . . . . . 84 kts

One-Engine-Inoperative Enroute Climb . . . . . 101 kts

Emergency Descent . . . . . 152 kts

One-Engine-Inoperative Landing (5400 lbs):

Maneuvering to Final Approach . . . . . 107 kts

Final Approach (Flaps Down) (30°) . . . . . 95 kts

Intentional One-Engine-Inoperative Speed (V_{SSE}) . . . . . 88 kts

Maximum Range Glide . . . . . 115 kts

WARNING

The stall warning horn is inoperative when the battery and alternator switches are turned off.

ONE-ENGINE-INOPERATIVE PROCEDURES

CONTROLLABILITY VS. AIRSPEED

Airspeed is the single most important factor in maintaining airplane control during single engine operations. The airplane can be safely maneuvered or trimmed for normal hands-off operation and sustained in this configuration by the operative engine AS LONG AS SUFFICIENT AIRSPEED IS MAINTAINED.

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OBTAINING THE BEST SINGLE-ENGINE CLIMB PERFORMANCE

To obtain best single-engine climb performance with one engine inoperative, the airplane must be banked 3° to 5° into the operative engine while maintaining a constant heading.

DETERMINING INOPERATIVE ENGINE

The following checks will help determine which engine is inoperative:

1. DEAD FOOT - DEAD ENGINE - The rudder pressure required to maintain directional control will be on the side of the operative engine.
2. THROTTLE - Partially retard the throttle for the engine that is believed to be inoperative; there should be no change in control pressures or in the sound of the engine if the correct throttle has been selected. AT LOW ALTITUDE AND AIRSPEED THIS CHECK MUST BE ACCOMPLISHED WITH EXTREME CAUTION.

Do not attempt to determine the inoperative engine by means of the tachometers or the manifold pressure displays. These displays often indicate near normal readings.

ENGINE FAILURE DURING GROUND ROLL

1. **Throttles . . . . . CLOSED**
2. **Braking . . . . . AS REQUIRED TO ACHIEVE STOPPING DISTANCE**

If emergency shutdown is warranted:

3. **Fuel Selectors . . . . . OFF**
4. **Magnetos . . . . . OFF**
5. **Alternators . . . . . OFF**
6. **Batteries . . . . . OFF**

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ENGINE FAILURE AFTER LIFT-OFF AND IN FLIGHT

An immediate landing is advisable regardless of take-off weight. Continued flight cannot be assured if take-off weight exceeds the weight determined from the TAKE-OFF WEIGHT graph. Higher take-off weights will result in a loss of altitude while retracting the landing gear and feathering the propeller. Continued flight requires immediate pilot response to the following procedures.

1. **Landing Gear and Flaps . . . . . UP**
2. **Throttle (inoperative engine) . . . . . CLOSED**
3. **Propeller (inoperative engine) . . . . . FEATHER**
4. **Power (operative engine) . . . . . AS REQUIRED**
5. **Airspeed . . . . . MAINTAIN SPEED AT ENGINE FAILURE (101 kts MAX.) UNTIL OBSTACLES ARE CLEARED**

NOTE

The most important aspect of engine failure is the necessity to maintain lateral and directional control. If airspeed is below V_{MCA} (84 kts), reduce power on the operative engine as required to maintain control. Refer to Section 10, SAFETY INFORMATION for additional information regarding pilot technique.

After positive control of the airplane is established:

6. Secure inoperative engine:
   a. Mixture Control . . . . . CUT OFF
   b. Fuel Selector . . . . . OFF
   c. Fuel Boost Pump . . . . . OFF
   d. Magnetos . . . . . OFF
   e. Alternator . . . . . OFF

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f. Alt Load . . . . . MONITOR

g. Nonessential Electrical Equipment. . . . . OFF AS REQUIRED
(to reduce load on operative alternator)

h. Alternator . . . . . BUS TIE
(ties the side with the functional alternator to the inoperative side)

i. Alt Load . . . . . MONITOR

j. Nonessential Electrical Equipment. . . . . ON AS REQUIRED
(maintain load limits of operative alternator)

k. Cowl Flap . . . . . CLOSED

ENGINE FIRE

ON THE GROUND

1. **Mixture Controls . . . . . CUT OFF**
2. **Starter (affected engine). . . . . CONTINUE TO CRANK**
3. **Fuel Selector Valves . . . . . OFF**
4. **Magnetos . . . . . OFF**
5. **Alternators . . . . . OFF**
6. **Batteries . . . . . OFF**
7. **Exit airplane and move to a safe distance.**

IN FLIGHT

Shut down the affected engine according to the following procedure and land immediately. Follow the applicable one-engine-inoperative procedures in this section.

1. **Fuel Selector Valve . . . . . OFF**
2. **Mixture Control . . . . . CUT OFF**
3. **Propeller . . . . . FEATHERED**
4. **Fuel Boost Pump . . . . . OFF**
5. **Magnetos . . . . . OFF**
6. **Alternator . . . . . OFF**

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EMERGENCY DESCENT

1. **Throttles . . . . . CLOSED**
2. **Propellers . . . . . 2700 RPM**
3. **Airspeed . . . . . 152 KTS**
4. **Landing Gear . . . . . DOWN**
5. **Flaps . . . . . APPROACH (15°)**

GLIDE

1. **Propellers . . . . . FEATHERED**
2. **Flaps . . . . . UP (0°)**
3. **Landing Gear . . . . . UP**

NOTE

The landing gear will not retract unless one of the throttles is in a position corresponding to approximately 15 in. Hg manifold pressure or above.

4. **Airspeed . . . . . 115 KTS**
5. Glide Ratio. . . . . .2 nautical miles for each 1000 feet of altitude

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LANDING EMERGENCIES

GEAR-UP LANDING

NOTE

The landing gear will not retract unless one of the throttles is in a position corresponding to approximately 15 in. Hg manifold pressure or above.

If possible, choose firm sod. When assured of reaching landing site:

1. Cowl Flaps . . . . . CLOSED
2. Wing Flaps . . . . . AS DESIRED
3. Throttles . . . . . CLOSED
4. Fuel Selectors . . . . . OFF
5. Mixture Controls . . . . . CUT OFF
6. Magnetos . . . . . OFF
7. Alternators . . . . . OFF
8. Batteries . . . . . OFF
9. Wings . . . . . KEEP LEVEL DURING TOUCHDOWN
10. Get clear of the airplane as soon as possible after it stops.

NOTE

The gear up landing procedures are based on the best available information and no actual tests have been conducted.

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SYSTEMS EMERGENCIES

ONE-ENGINE-INOPERATIVE OPERATION ON CROSSFEED

NOTE

The fuel crossfeed system is to be used only during emergency conditions in level flight only.

Left Engine Inoperative:

1. Right Fuel Boost Pump . . . . . LOW
2. Left Fuel Selector . . . . . OFF
3. Right Fuel Selector . . . . . CROSSFEED
   (feel for detent; confirm visually)
4. Right Fuel Boost Pump . . . . . LOW or OFF (as required)

Right Engine Inoperative:

1. Left Fuel Boost Pump . . . . . LOW
2. Right Fuel Selector . . . . . OFF
3. Left Fuel Selector . . . . . CROSSFEED
   (feel for detent; confirm visually)
4. Left Fuel Boost Pump . . . . . LOW or OFF (as required)

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ELECTRICAL SMOKE OR FIRE

Action to be taken must consider existing conditions and equipment installed:

1. **Alternators . . . . . .OFF**
2. **Batteries . . . . . .OFF**
3. **Heading Control . . . . . MAINTAIN USING STANDBY COMPASS IF REQUIRED**

WARNING

The PFD, MFD and Stall Warning will become inoperative with the batteries and alternators off. Only the standby instruments will be available.

4. All Electrical Switches . . . . . .OFF
5. Dissipation of smoke may be aided by the following:
   a. Cabin Air and Cabin Heat Controls . . . . . FULL FORWARD
   b. Pilot Air and Copilot Air . . . . . PULL OPEN
   c. Overhead Fresh Air Outlets . . . . . OPEN

If smoke or fire ceases, individually restore electrical equipment to isolate defective equipment.

6. Batteries . . . . . .ON
7. Alternators . . . . . .ON
8. Essential Electrical Equipment . . . . ON ONE AT A TIME
9. Pilot's Storm Window (if required). . . . . OPEN
10. Land as soon as practical.

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ALTERNATOR FAILURE [L ALT INOP] or [R ALT INOP]

Display of either [L ALT INOP] *or* [R ALT INOP] *warning alert on the PFD:*

1. MFD Softkeys . . . . . SELECT ENGINE AND SYSTEM
2. Alt Load (failed side) . . . . CHECK FOR ZERO OUTPUT

If the loadmeter indicates zero load and there is no indication of a bus short (i.e. zero voltage on the battery bus or electrical smoke):

3. Alternator (failed side) . . . . . OFF MOMENTARILY, THEN ON

If the warning alert extinguishes and a positive load is indicated:

4. Continue to use the alternator.

If the warning alert remains displayed:

5. Alternator (failed side) . . . . . OFF
6. Nonessential Electrical Equipment . . . . . OFF AS REQUIRED
   (to reduce load on operative alternator)
7. Alternator (failed side) . . . . . BUS TIE
   (ties the side with the functional alternator to inoperative side)
8. ALT LOAD . . . . . MONITOR
9. Nonessential Electrical Equipment . . . . . ON AS REQUIRED
   (maintain load limits of operative alternator)

If the warning alert for the other alternator displays:

10. Repeat steps 1 thru 5 above for the other alternator.

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If both alternators remain inoperative [L-R ALT INOP]*:*

11. Nonessential Electrical Equipment . . . . . .OFF TO CONSERVE BATTERIES
12. If Icing Conditions Exist . . . . . .EXIT AS SOON AS POSSIBLE
13. Land as soon as practical.

ELECTRICAL LOAD SHEDDING

The battery emergency operating time (30 minutes minimum per battery) is based on the following loads being shed:

1. Left and Right Alternators . . . . . .OFF
2. Avionics Master . . . . . .OFF
3. Prop Sync . . . . . .OFF
4. Fuel Vent Heat . . . . . .OFF
5. Stall Warning Heat . . . . . .OFF
6. Propeller Deice . . . . . .OFF
7. Windshield Anti-Ice . . . . . .OFF
8. Air Conditioner/Blower (if installed). . . . . .OFF
9. Heater/Blower . . . . . .OFF
10. Strobe Lights. . . . . .OFF
11. Beacon . . . . . .OFF
12. Nav LIghts. . . . . .OFF
13. Flood Lights . . . . . .AS REQUIRED
14. Panel Lights . . . . . .OFF
15. Utility Power (if being used) . . . . . .UNPLUG
16. Cabin Lights . . . . . .OFF

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AVIONICS

AUTOPILOT FAILURES

AUTOPILOT MALFUNCTION ALTITUDE LOSSES (FEET)

AUTOPILOT MANUAL DISENGAGEMENT

When the autopilot is manually disengaged normally, the green [AP] in the AFCS Status Bar will change to a black [AP] on a yellow background, flash for 5 seconds, then extinguish, and a 2-second aural alert will sound. The [YD] will also change color and flash if it disconnects.

The autopilot can be manually disengaged by:

1. Pressing the red AP DISC switch on the pilot's control wheel. (Also disconnects the Yaw Damper)
2. Moving the left (outboard) side of the electric trim switch. (Yaw Damper will not disengage.)
3. Pressing the AP key on the MFD. (Yaw Damper will not disengage.)
4. Pressing the GO AROUND switch on the left side of the Throttle. (Yaw Damper will not disengage.)

The autopilot can also be disengaged in an emergency by turning the Avionics Switch off. If this procedure is used the following will occur:

1. No aural alert will sound.
2. A red flashing [AP] will be displayed in the AFCS Status Bar. The left side of the trim switch must be used to cancel it.

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3. A yellow flashing [YD] will be displayed for 5 seconds then extinguish.
4. The Flight Director will remain displayed but cannot be used.
5. The electric trim will be inoperative.
6. The MFD will be inoperative.

AUTOPILOT AUTOMATIC DISENGAGEMENT

Red Flashing [AP] and Aural Tone

Red [AFCS]

Possible Red [PITCH] and/or [ROLL] to indicate axis failed

Loss of the following items will cause the autopilot to automatically disconnect. The autopilot will remain inoperative and cannot be re-engaged until the inoperative item is restored. AHRS, ADC, PFD, GIA 1 (INTEG AVION 1), and GIA 2 (INTEG AVION 2).

1. AP DISC Switch . . . . . PRESS
(to cancel tone and flashing [AP])

or

2. Left (outboard) Side of Trim Switch . . . . . ACTUATE
(to cancel tone and flashing [AP])
3. Pitch Trim . . . . . RETRIM AS REQD

WARNING

Do not re-engage the autopilot until the cause of the malfunction has been determined.

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AUTOPILOT OVERSPEED RECOVERY [MAXSPD]

If the airspeed or airspeed trend vector reaches approximately 210 KIAS, a flashing yellow [MAXSPD] will be displayed above the airspeed display and the autopilot will command a pitch up in order to decelerate the airplane below 210 KIAS.

1. **Throttle . . . . . REDUCE POWER AS REQUIRED**
2. **Autopilot**
   a. **Disconnect and manually slow the airplane**

   (or)

   b. **Use VS or PIT Mode and NOSE UP key to slow the airplane**
3. [MAXSPD] . . . . . EXTINGUISHED
   (when speed is reduced below approx. 205 KIAS)

CAUTION

If in PIT mode, the flight director will revert to the original pitch attitude when the [MAX-SPD] is cancelled if the pitch attitude is not adjusted with the NOSE UP key.

4. Autopilot Overspeed Recovery is not available in Altitude Hold (ALT) or glideslope (GS) modes.
5. The speed reference cannot be adjusted while in the Overspeed Recovery Mode.

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AUTOPILOT RESPONSE TO ERRONEOUS AHRS INPUT

A failure of the AHRS may cause erroneous autopilot responses and/or electric pitch trim activations.

One or more of the following indications may be present.

Red [AFCS]

Yellow or Red [AP]

Yellow [CHECK ATTITUDE]

Unexpected Roll or Pitch Deviations

Erroneous Attitude Indication

1. **Control Wheel . . . . . HOLD FIRMLY**
2. **Standby Attitude Indicator . . . . . CROSS CHECK FOR PROPER ATTITUDE**
3. **AP DISC Switch . . . . . PRESS AND HOLD**
4. **Pitch Trim . . . . . RETRIM IF REQD**
5. **AP DISC Switch . . . . . RELEASE**

If uncommanded deviation occurs again:

6. AP DISC Switch . . . . . PRESS AND HOLD
7. AP SERVOS Circuit Breaker . . . . . PULL
8. AP DISC Switch . . . . . RELEASE
9. Pitch Trim . . . . . RETRIM IF REQD

ELECTRIC PITCH TRIM FAILURE [PTRM]

Illumination of the red [PTRM] *annunciator on the PFD*:

1. Control Wheel . . . . . HOLD FIRMLY and maintain (be prepared for out-of-trim condition)
2. AP DISC Switch . . . . . PRESS AND RELEASE
3. Manual elevator trim . . . . . AS REQUIRED

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If the red [PTRM] *annunciator extinguishes:*

4. Autopilot (at pilot's discretion) . . . . . ENGAGE

If the red [PTRM] *annunciator does not extinguish:*

5. Autopilot . . . . . DO NOT ENGAGE
6. Manual elevator trim . . . . . AS REQUIRED

NOTE

Reversal of flap travel while the red in-transit light is illuminated may cause a [PTRM] fault.

UNSCHEDULED ELECTRIC PITCH TRIM

Red Flashing [PTRM]

Possible yellow [↓ELE] or [↑ELE]

1. Airplane Attitude . . . . . MAINTAIN USING ELEVATOR CONTROL (expect residual pitch forces)
2. AP DISC Switch . . . . . DEPRESS AND HOLD (to interrupt the pitch trim)
3. Avionics Switch . . . . . OFF
4. AP DISC Switch . . . . . RELEASE
5. AP SERVOS Circuit Breaker . . . . . PULL
6. Avionics Switch . . . . . ON
7. Pitch Trim . . . . . RETRIM AS REQD

NOTE

Autopilot will not re-engage with a failed electric pitch trim system or with the AP SERVOS circuit breaker pulled.

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AIR DATA COMPUTER (ADC) FAILURE

Yellow [AIRSPEED]

Yellow [ALTITUDE FAIL]

Yellow [VERT SPEED FAIL]

Red X over TAS and OAT Display

1. Refer to the standby airspeed and altimeter.
2. Land as soon as practical.

ATTITUDE AND HEADING REFERENCE SYSTEM (AHRS) FAILURE

Yellow [ATTITUDE FAIL]

Red X over attitude display

Removal of Sky/Ground Display

Yellow [HDG] with red X

Compass Rose Digits Removed

Course Pointer will indicate straight up

Autopilot and Yaw Damper will Disengage

1. AP DISC Switch . . . . . PRESS
   (if required to cancel autopilot tone & flashing [AP])
2. Use Standby Attitude Indicator and Magnetic compass
3. Nav Course. . . . . .SET USING DIGITAL WINDOW
4. Land as soon as practical.

FAILURE OF PFD OR MFD

If the remaining display does not automatically revert to the reversionary mode:

1. DISPLAY BACKUP Button on Audio Panel . . . . PRESS
2. Com 1 and Nav 1 will be lost if the PFD fails.
3. Comm 2 and Nav 2 will be lost if the MFD fails.

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FAILURE OF PFD AND MFD

1. Transition to the Standby Instruments.
2. 121.5 MHZ will automatically be available to the pilot through the pilot's headset.
3. Land as soon as practical.

EMERGENCY COMMUNICATIONS

The 121.5 MHZ Emergency frequency will be automatically loaded in the active frequency field under the following conditions.

1. Pressing and holding the COM Frequency Toggle Key for approximately 2 seconds.
2. When a COM tuning failure is detected by the system.
3. In the event of a failure of the PFD and the MFD, the emergency frequency will be available to the pilot through the headset.

GARMIN TERRAIN AWARENESS AND WARNING SYSTEM (TAWS)

(TH-2138, TH-2141 and after and prior airplanes in compliance with Service Bulletin 34-3774.)

TAWS FORWARD LOOKING TERRAIN WARNING [PULL UP]

Voice Warning Alert: See the following table.

Reduced Required Terrain (or Obstacle) Clearance (RTC or ROC) Warning - Voice warning alerts and annunciators are provided if the airplane flight path is projected to violate a set of terrain and obstacle minimum clearance requirements within approximately 30 seconds.

Imminent Terrain (or Obstacle) Impact (ITI or IOI) Warning - Voice warning alerts and annunciators are provided if the airplane flight path is projected to impact the terrain or an obstacle within approximately 30 seconds.

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In all cases, a red [PULL UP] will be displayed on the PFD and the MFD TAWS page, if selected. One of the following voice alerts will be heard.

REASON	VOICE WARNING ALERT
Violation of Required Terrain Clearance (RTC) Requirements within 30 seconds	"Terrain, Terrain; Pull Up, Pull Up"
Imminent Terrain Impact (ITI) within 30 seconds	"Terrain Ahead, Pull Up; Terrain Ahead, Pull Up"
Violation of Required Obstacle Clearance (ROC) Requirements within 30 seconds	"Obstacle, Obstacle; Pull Up, Pull Up"
Imminent Obstacle Impact (IOI) within 30 seconds	"Obstacle Ahead, Pull Up; Obstacle Ahead, Pull Up"

The above warnings will normally be preceded by similar Cautions which will occur approximately 30 seconds prior to the warning. See Section 3A, ABNORMAL PROCEDURES.

NOTE

When the TAWS Page is not displayed, and a terrain or obstacle warning is issued, a pop-up window is displayed in the lower right corner of the MFD displaying an appropriate annunciator. See Section 7, SYSTEMS DESCRIPTION.

NOTE

Pilots are authorized to deviate from their current air traffic control (ATC) clearance to the extent necessary to comply with a TAWS warning.

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The following procedures should be followed if any of the preceding warnings occur.

In IMC or at Night:

1. **Wings - Level**
2. **Power - Maximum Allowable**
3. **Pitch - Increase**
   a. **Promptly and smoothly increase pitch towards an initial pitch attitude of 15°.**
   b. **Adjust to maintain 92 KIAS.**
   c. **Adjust as required to avoid a continuous stall warning.**
4. **Gear and Flaps - Retracted**
5. Continue climb at 92 KIAS until terrain clearance is assured. (The voice warning alert will be repeated until the threat no longer exists.)
6. Advise Air Traffic Control as necessary

WARNING

Only vertical maneuvers are recommended unless the pilot, using all available information and instruments, determines that a turn, in addition to the vertical escape maneuver, is the safest course of action.

In Day VMC:

1. Evaluate flight path with respect to terrain or obstacle.
2. Take action as necessary to recover safe terrain or Obstacle Clearance.
3. Advise Air Traffic Control as necessary.

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EXCESSIVE DESCENT RATE WARNING [PULL UP]

Voice Warning Alert: “Pull Up”

Excessive Descent Rate (EDR) Warning - A Voice warning alert and annunciators are provided if the airplane is below 5,000 feet and approaching the terrain at an excessive rate of descent in relation to the altitude above the terrain. The warning will be provided whether or not the TAWS system is inhibited. A red [PULL UP] will be displayed on the PFD and the MFD TAWS page, if selected, and the “PULL UP” voice warning alert will be heard. If the TAWS page is not selected, a red [PULL-UP] will be displayed in a pop-up window on the Map page. This warning will normally be preceded by a caution. See Section 3A, ABNORMAL PROCEDURES.

The following procedure should be followed if the above warning occurs.

- Level wings and reduce rate of descent until visual and aural warnings cease.

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ADDITIONAL WARNING ANNUNCIATIONS

Illumination of a warning annunciation and its associated repeating aural tone:

1. **ALERTS softkey . . . . . PRESS**
(Cancels aural alert and displays message in alerts window.)

NOTE

On some software versions exceeding a specific engine or electrical tolerance will cause the engine display to automatically revert to the default ENGINE page display. Hence, the following warning annunciations are not required. Other software versions require the pilot to manually select the ENGINE page display and necessitate additional warning annunciations. It remains the pilot's responsibility to monitor and operate the airplane within the specified limits.

2. **ENGINE softkey . . . . . PRESS**
(As required to return to primary engine page.)
3. **Appropriate action . . . . . AS REQUIRED**

FUEL FLOW HIGH [FUEL FLOW HI]

1. Fuel Flow. . . . . .CONFIRM > 27.4 gph
2. Boost Pump (if not required) . . . . . VERIFY OFF
3. Mixture. . . . . LEAN AS REQUIRED

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CYLINDER HEAD TEMPERATURE HIGH [CHT HI]

1. CHT . . . . . CONFIRM > 238°C
2. Cowl Flaps . . . . . OPEN
3. Mixture . . . . . ENRICH AS REQUIRED
4. Airspeed . . . . . INCREASE AS REQUIRED
5. Power . . . . . REDUCE AS REQUIRED

If CHT drops below 238°C and annunciation extinguishes:

6. Continue flight to destination at pilot's discretion, while continuing to monitor CHT.

If CHT remains > 238°C and annunciation remains displayed:

7. Perform ENGINE FAILURE AFTER LIFT-OFF AND IN FLIGHT procedures to secure affected engine.

or

8. Land at nearest suitable airport using the minimum power required.

OIL TEMPERATURE HIGH [OIL TEMP HI]

1. Oil Temperature . . . . . CONFIRM > 116°C
2. Cowl Flaps . . . . . OPEN
3. Power . . . . . REDUCE TO LOWEST PRACTICAL
4. Oil Pressure . . . . . CHECK

If oil temperature stabilizes below 116°C and annunciation extinguishes:

5. Continue flight to destination at pilot's discretion, while continuing to monitor oil temperature and oil pressure.

If oil temperature continues to rise > 116°C:

6. Perform ENGINE FAILURE AFTER LIFT-OFF AND IN FLIGHT procedures to secure affected engine.

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or

7. Land at the nearest suitable airport using the minimum power required.

OIL PRESSURE HIGH [OIL PRESS HI]

1. Oil Pressure. . . . . CONFIRM > 100 psi
2. Power . . . . . .REDUCE AS REQUIRED
3. Continue flight to destination at pilot's discretion, while continuing to monitor oil pressure.

OIL PRESSURE LOW [OIL PRESS LO]

1. Oil Pressure. . . . . CONFIRM < 10 psi

If confirmed:

2. Perform ENGINE FAILURE AFTER LIFT-OFF AND IN FLIGHT procedures to secure affected engine.

or

3. Land at the nearest suitable airport using the minimum power required.

FUEL QUANTITY LOW [FUEL QTY LO]

1. Fuel Indicators. . . . . .CONFIRM LO QTY and TANK
2. Land at nearest suitable airport.

EMERGENCY EXITS

The openable windows on the left and right side of the cabin may be used for emergency egress in addition to the cabin door and utility doors. An emergency exit instructions placard is located on each openable Window/Emergency Exit latch cover.

To Open the Emergency Exit:

1. Remove cover as indicated by placard in the center of the openable window emergency exit latch.

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2. Rotate exposed red latch handle up (as indicated by placard) breaking safety wire, and push window out.

NOTE

Anytime the window has been opened by breaking the safety wire on the red emergency latch handle, the window must be reattached and wired by a qualified mechanic using a single strand of QQ-W-343, Type S, .020 diameter copper wire prior to further airplane operation.

For Access Past the 3rd and/or 4th seats:

1. Rotate red handle located on lower inboard side of seat back.
2. Fold seat back over.

SPINS

Intentional spins are prohibited. If an unintentional spin is encountered, perform the following procedure IMMEDIATELY - THE LONGER THE DELAY, THE MORE DIFFICULT RECOVERY WILL BECOME. Steps 1 through 3 should be done AGGRESSIVELY and SIMULTANEOUSLY. The full forward position of the control column may be reduced slightly, if required, to prevent the airplane from exceeding a 90° nose down (inverted) attitude.

1. **Control Column. . . . . FULL FORWARD, AILERONS NEUTRAL**
2. **Full Rudder . . . OPPOSITE THE DIRECTION OF SPIN**
3. **Power Levers . . . . . IDLE**
4. **Controls . . . NEUTRALIZE WHEN ROTATION STOPS**
5. **Execute a smooth pullout.**

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NOTE

Federal Aviation Administration Regulations do not require spin demonstration of airplanes of this class; therefore, no spin tests have been conducted. The recovery technique is based on the best available information.

SEVERE ICING CONDITIONS (ALTERNATE METHOD OF COMPLIANCE WITH FAA AD 98-04-24)

THE FOLLOWING WEATHER CONDITIONS MAY BE CONDUCIVE TO SEVERE IN-FLIGHT ICING:

- Visible rain at temperatures below 0°C ambient air temperature.
- Droplets that splash or splatter on impact at temperatures below 0°C ambient air temperature.

PROCEDURES FOR EXITING THE SEVERE ICING ENVIRONMENT:

These procedures are applicable to all flight phases from takeoff to landing. Monitor the ambient air temperature. While severe icing may form at temperatures as cold as -18°C, increased vigilance is warranted at temperatures around freezing with visible moisture present. If the visual cues specified in Section 2, LIMITATIONS for identifying severe icing conditions are observed, accomplish the following:

1. Immediately request priority handling from Air Traffic Control to facilitate a route or an altitude change to exit the severe icing conditions in order to avoid extended exposure to flight conditions more severe than those for which the airplane has been certificated.
2. Avoid abrupt and excessive maneuvering that may exacerbate control difficulties.

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3. Do not engage the autopilot.
4. If the autopilot is engaged, hold the control wheel firmly and disengage the autopilot.
5. If an unusual roll response or uncommanded roll control movement is observed, reduce the angle-of-attack.
6. Do not extend flaps when holding in icing conditions. Operation with flaps extended can result in a reduced wing angle-of-attack, with the possibility of ice forming on the upper surface further aft on the wing than normal, possibly aft of the protected area.
7. If the flaps are extended, do not retract them until the airframe is clear of ice.
8. Report these weather conditions to Air Traffic Control.

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