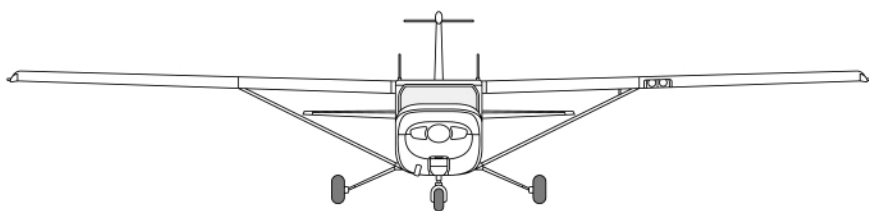




Quick Reference Handbook (QRH)



 **Cessna**
C172SP G1000

ABOUT THE QRC & QRH

General

Checklists may be found in two resources: the Quick Reference Checklist (QRC) and the Quick Reference Handbook (QRH). Most checklists correspond to a light, alert or other indication. In many cases, the G1000 will provide alert to indicate the non-normal condition. These lights, alerts and other indications are the cues to select and follow the associated checklist.

Emergency checklists can have both memory (recall) and reference items. Actions designated as recall items (bold print) are considered time-critical steps that must be done before reading the checklist. Reference items are actions to be done while reading the checklist (read and do).

Quick Reference Checklist (QRC)

The QRC is a double-sided checklist including normal and emergency procedures. Normal procedures should be completed as a flow pattern followed by checklist use to verify all items completed correctly. The emergency checklists do not appear in entirety on the QRC. The beginning of the checklist is presented in the QRC and should be used to stabilize the situation. If indicated, the checklist should be continued in QRH as conditions allow. After transition to the QRH it is not necessary to repeat steps already performed.

Quick Reference Handbook (QRH)

All emergency and abnormal checklists are divided into sections by similar condition. After all recall items have been accomplished, the checklist should be used to verify all items have been completed.



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1 | PREFLIGHT

INTERIOR PREFLIGHT CHECKLIST

- | | |
|--------------------------------|-------------------------------|
| 1. POH/G1000 Pilot Guide | 11. Check Avionics Fan |
| 2. Emergency Kit | 12. Avionics Master OFF |
| 3. ARROW Documents | 13. Check Annunciator Panel |
| 4. Parking Brake Set | 14. Check Exterior Lights |
| 5. Remove Control & Gust Locks | 15. Check Pitot Heat |
| 6. Mags OFF | 16. Flaps DOWN |
| 7. Avionics Switch OFF | 17. Master Switch OFF |
| 8. Master Switch ON | 18. Trim Set for Takeoff |
| 9. Fuel Qty. Check | 19. Fuel Selector Switch BOTH |
| 10. Avionics Master ON | 20. Check ALT Static Air |

EXTERIOR PREFLIGHT CHECKLIST

START

- | | |
|------------------------|---------------------------|
| 1. Cabin Door | 18. Trim Tab |
| 2. Main Tire | 19. Antennas |
| 3. Brake Line | 20. Flap |
| 4. Pitot Tube Cover | 21. Aileron |
| 5. Fresh Air Vent | 22. Strobe/NAV Light |
| 6. Fuel Quantity | 23. Main Tire |
| 7. Fuel Filler Cap | 24. Brake Line |
| 8. Fuel Sump Drains | 25. Cabin Door |
| 9. Fuel Tank Vent | 26. Fresh Air Vent |
| 10. Tie Downs Removed | 27. Nose Wheel |
| 11. Stall Warning Vent | 28. Engine Exhaust |
| 12. Landing Light | 29. Engine Oil |
| 13. Strobe/NAV Light | 30. ALT Belt |
| 14. Aileron | 31. Engine Cooling Inlets |
| 15. Flap | 32. Prop/Spinner |
| 16. Com Antenna | 33. Air Filter |
| 17. Control Surfaces | 34. Static Port |

FINISH

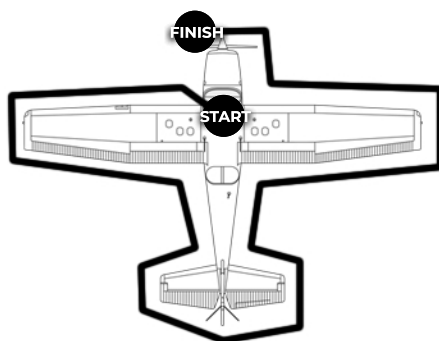


Figure 1-1 Exterior Preflight Flow



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2 | LIMITATIONS

AIRSPEEDS FOR EMERGENCY OPERATIONS

ENGINE FAILURE AFTER TAKEOFF

Wing Flaps UP	. . . . .	70 KIAS
Wing Flaps 10° - FULL	. . . . .	65 KIAS

MANEUVERING SPEED

2550 POUNDS	. . . . .	105 KIAS
2200 POUNDS	. . . . .	98 KIAS
1900 POUNDS.	. . . . .	90 KIAS

MAXIMUM GLIDE 68 KIAS

PRECAUTIONARY LANDING W/ ENGINE POWER 68 KIAS

LANDING WITHOUT ENGINE POWER

Wing Flaps UP	70 KIAS
Wing Flaps 10° - FULL	65 KIAS



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3 | ENGINE FAILURE

ENGINE FAILURE DURING TAKEOFF ROLL

1. **Throttle Control - IDLE (pull full out)**
2. **Brakes - APPLY**
3. Wing Flaps - RETRACT
4. Mixture Control - IDLE CUTOFF (pull full out)
5. MAGNETOS Switch - OFF
6. STBY BATT Switch - OFF
7. MASTER Switch (ALT and BAT) - OFF

CHECKLIST COMPLETE

ENGINE FAILURE IMMEDIATELY AFTER TAKEOFF

1. **Airspeed - 70 KIAS - Flaps UP**
65 KIAS - Flaps 10° - FULL
2. Mixture Control - IDLE CUTOFF (pull full out)
3. FUEL SHUTOFF Valve - OFF (pull full out)
4. MAGNETOS Switch - OFF
5. Wing Flaps - AS REQUIRED (FULL recommended)
6. STBY BATT Switch - OFF
7. MASTER Switch (ALT and BAT) - OFF
8. Cabin Door - UNLATCH
9. Land - STRAIGHT AHEAD

CHECKLIST COMPLETE

ENGINE FAILURE DURING FLIGHT (Restart Procedures)

1. **Airspeed - 68 KIAS (best glide speed)**
2. **FUEL SHUTOFF Valve - ON (push full in)**
3. **FUEL SELECTOR Valve - BOTH**
4. **FUEL PUMP Switch - ON**
5. **Mixture Control - RICH (if restart has not occurred)**
6. MAGNETOS Switch - BOTH (or START if propeller is stopped)

NOTE

If the propeller is windmilling, engine will restart automatically within a few seconds. If propeller has stopped (possible at low speeds), turn MAGNETOS switch to START, advance throttle slowly from idle and lean the mixture from full rich as required to obtain smooth operation.

7. FUEL PUMP Switch - OFF

NOTE

If the indicated fuel flow (FFLOW GPH) immediately drops to zero, a sign of failure of the engine-driven fuel pump, return the FUEL PUMP switch to the ON position.

CHECKLIST COMPLETE



3 | ENGINE FAILURE

EXCESSIVE FUEL VAPOR

FUEL FLOW STABILIZATION PROCEDURES

(If flow fluctuations of 1 GPH or more, or power surges occur.)

1. FUEL PUMP Switch - ON
2. Mixture Control - ADJUST (as necessary for smooth engine operation)
3. Fuel Selector Valve - SELECT OPPOSITE TANK (if vapor symptoms continue)
4. FUEL PUMP Switch - OFF (after fuel flow has stabilized)

CHECKLIST COMPLETE



4 | FORCED LANDING

EMERGENCY LANDING WITHOUT ENGINE POWER

1. Pilot and Passenger Seat Backs - MOST UPRIGHT POSITION
2. Seats and Seat Belts - SECURE
3. Airspeed - 70 KIAS - Flaps UP
65 KIAS - Flaps 10° - FULL
4. Mixture Control - IDLE CUTOFF (pull full out)
5. FUEL SHUTOFF Valve - OFF (pull full out)
6. MAGNETOS Switch - OFF
7. Wing Flaps - AS REQUIRED (FULL recommended)
8. STBY BATT Switch - OFF
9. MASTER Switch (ALT and BAT) - OFF (when landing is assured)
10. Doors - UNLATCH PRIOR TO TOUCHDOWN
11. Touchdown - SLIGHTLY TAIL LOW
12. Brakes - APPLY HEAVILY

CHECKLIST COMPLETE

PRECAUTIONARY LANDING WITH ENGINE POWER

1. Pilot and Passenger Seat Backs - MOST UPRIGHT POSITION
2. Seats and Seat Belts - SECURE
3. Airspeed - 65 KIAS
4. Wing Flaps - 20°
5. Selected Field - FLY OVER (noting terrain and obstructions)
6. Wing Flaps - FULL (on final approach)
7. Airspeed - 65 KIAS
8. STBY BATT Switch - OFF
9. MASTER Switch (ALT and BAT) - OFF (when landing assured)
10. Doors - UNLATCHED PRIOR TO TOUCHDOWN
11. Touchdown - SLIGHTLY TAIL LOW
12. Mixture Control - IDLE CUTOFF (pull full out)
13. MAGNETOS Switch - OFF
14. Brakes - APPLY HEAVILY

CHECKLIST COMPLETE

WATER DITCHING

1. Radio - TRANSMIT MAYDAY on 121.5 MHz, (give location, intentions and SQUAWK 7700)
2. Heavy Objects (in baggage area) - SECURE OR JETTISON (if possible)
3. Pilot and Passenger Seat Backs - MOST UPRIGHT POSITION
4. Seats and Seat Belts - SECURE
5. Wing Flaps - 20° - FULL
6. Power - ESTABLISH 300 FT/MIN DESCENT AT 55 KIAS

(Continued Next Page)



4 | FORCED LANDING

WATER DITCHING (Continued)

NOTE

If no power is available, approach at 70 KIAS with Flaps UP or at 65 KIAS with Flaps 10°

7. Approach

High Winds, Heavy Seas - INTO THE WIND

Light Winds, Heavy Swells - PARALLEL TO SWELLS

8. Cabin Doors - UNLATCH

9. Touchdown

LEVEL ATTITUDE AT ESTABLISHED RATE OF DESCENT

10. Face - CUSHION AT TOUCHDOWN (with folded coat)

11. ELT - ACTIVATE

12. Airplane - EVACUATE THROUGH CABIN DOORS

NOTE

If necessary, open window and flood cabin to equalize pressure so doors can be opened.

13. Life Vests and Raft - INFLATE WHEN CLEAR OF AIRPLANE

CHECKLIST COMPLETE



5 | FIRE

DURING START ON GROUND

1. MAGNETOS Switch - START (continue cranking to start the engine)

IF ENGINE STARTS

2. Power - 1800 RPM (for a few minutes)
3. Engine - SHUTDOWN (inspect for damage)

IF ENGINE FAILS TO START

- 2. Throttle Control - FULL (push full in)**
- 3. Mixture Control - IDLE CUTOFF (pull full out)**
- 4. MAGNETOS Switch - START (continue cranking)**
- 5. FUEL SHUTOFF Valve - OFF (pull full out)**
- 6. FUEL PUMP Switch _ OFF**
- 7. MAGNETOS Switch - OFF**
- 8. STBY BATT Switch - OFF**
- 9. MASTER Switch (ALT and BAT) - OFF**
10. Engine - SECURE
11. Parking Brake - RELEASE
12. Fire Extinguisher - OBTAIN (have ground attendants obtain if not installed)
13. Airplane - EVACUATE
14. Fire - EXTINGUISH (using fire extinguisher, wool blanket, or dirt)
15. Fire Damage - INSPECT (repair or replace damaged components and/or wiring before conducting another flight)



CHECKLIST COMPLETE

ENGINE FIRE IN FLIGHT

- 1. Mixture Control - IDLE CUTOFF (pull full out)**
- 2. FUEL SHUTOFF Valve - OFF (pull full out)**
- 3. FUEL PUMP Switch - OFF**
- 4. MASTER Switch (ALT and BAT) - OFF**
5. Cabin Vents - OPEN (as needed)
6. CABIN HT and CABIN AIR Control Knobs - OFF (push full in to avoid drafts)
7. Airspeed - 100 KAIS (If fire is not extinguished, increase glide speed to find an airspeed, within airspeed limitations, which will provide an incombustible mixture)

CHECKLIST COMPLETE

ELECTRICAL FIRE IN FLIGHT

- 1. STBY BATT Switch - OFF**
- 2. MASTER Switch (ALT and BAT) - OFF**
- 3. Cabin Vents - CLOSED (to avoid drafts)**

(Continued Next Page)



5 | FIRE

ELECTRICAL FIRE IN FLIGHT (Continued)

4. CABIN HT and CABIN AIR Control Knobs - OFF (push full in to avoid drafts)
5. Fire Extinguisher - ACTIVATE (if available)
6. AVIONICS Switch (BUS 1 and BUS 2) - OFF
7. All Other Switches (except MAGNETOS switch) - OFF

WARNING

AFTER THE FIRE EXTINGUISHER HAS BEEN USED, MAKE SURE THAT THE FIRE IS EXTINGUISHED BEFORE EXTERIOR AIR IS USED TO REMOVE SMOKE FROM THE CABIN.

8. Cabin Vents - OPEN (when sure that fire is completely extinguished)
9. CABIN HT and CABIN AIR Control Knobs - ON (pull full out) (when sure that fire is completely extinguished)

IF FIRE HAS BEEN EXTINGUISHED AND ELECTRICAL POWER IS NECESSARY FOR CONTINUED FLIGHT TO NEAREST SUITABLE AIRPORT OR LANDING AREA

10. Circuit Breakers - CHECK (for OPEN circuit(s), do not reset)
11. MASTER Switch (ALT and BAT) - ON
12. STBY BATT Switch - ARM
13. AVIONICS Switch (BUS 1) - ON
14. AVIONICS Switch (Bus 2) - ON

CHECKLIST COMPLETE

CABIN FIRE

1. STBY BATT Switch - OFF
2. MASTER Switch (ALT and BAT) - OFF
3. Cabin Vents - CLOSED (to avoid drafts)
4. CABIN HT and CABIN AIR Control Knobs - OFF (push full in) (to avoid drafts)
5. Fire Extinguisher - ACTIVATE (if available)

WARNING

AFTER THE FIRE EXTINGUISHER HAS BEEN USED, MAKE SURE THAT THE FIRE IS EXTINGUISHED BEFORE EXTERIOR AIR IS USED TO REMOVE SMOKE FROM THE CABIN.

6. Cabin Vents - OPEN (when sure that fire is completely extinguished)
7. CABIN HT and CABIN AIR Control Knobs - ON (pull full out) (when sure that fire is completely extinguished)
8. Land the airplane as soon as possible to inspect for damage.

CHECKLIST COMPLETE

(Continued Next Page)



5 | FIRE

WING FIRE

1. LAND and TAXI Light Switches - OFF
2. NAV Light Switch - OFF
3. STROBE Light Switch - OFF
4. PITOT HEAT Switch - OFF

NOTE

Perform a slideslip to keep the flames away from the fuel tank and cabin. Land as soon as possible using flaps only as required for final approach and touchdown.

CHECKLIST COMPLETE



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6 | ELECTRICAL

HIGH VOLTS ANNUNCIATOR COMES ON OR M BATT AMPS MORE THAN 40

- 1. MASTER Switch (ALT Only) - OFF
- 2. Electrical Load - REDUCE IMMEDIATELY as follows:
 - a. AVIONICS Switch (BUS 1) - OFF
 - b. PITOT HEAT Switch - OFF
 - c. BEACON Light Switch - OFF
 - d. LAND Light Switch - OFF (use as required for landing)
 - e. TAXI Light Switch - OFF
 - f. NAV Light Switch - OFF
 - g. STROBE Light Switch - OFF
 - h. CABIN PWR 12V Switch - OFF

CONTINUED FROM QRC

NOTE

- The main battery supplies electrical power to the main and essential buses until M BUS VOLTS decreases below 20 volts. When M BUS VOLTS falls below 20 volts, the standby battery system will automatically supply electrical power to the essential bus for at least 30 minutes.
- Select COM1 MIC and NAV1 on the audio panel and tune to the active frequency before setting AVIONICS BUS 2 to OFF. If COM2 MIC and NAV2 are selected when AVIONICS BUS 2 is set to OFF, the COM and NAV radios cannot be tuned.
 - i. COM1 and NAV1 - TUNE TO ACTIVE FREQUENCY
 - j. COM1 MIC and NAV1 - SELECT (COM2 MIC and NAV2 will be inoperative once AVIONICS BUS 2 is selected to OFF)

NOTE

When AVIONICS BUS 2 is set to OFF, the following items will not operate:

Autopilot	Audio Panel
COMM 2	NAV 2
Transponder	MFD

- k. AVIONICS Switch (BUS 2) - OFF (KEEP ON if in clouds)
- 3. Land as soon as practical

NOTE

Make sure a successful landing is possible before extending flaps. The flap motor is a large electrical load during operation.

CHECKLIST COMPLETE

(Continued Next Page)



6 | ELECTRICAL

LOW VOLTS ANNUNCIATOR COMES ON BELOW 1000 RPM

1. Throttle Control - 1000 RPM
2. LOW VOLTS Annunciator - CHECK OFF

LOW VOLTS ANNUNCIATOR REMAINS ON AT 1000 RPM

3. Authorized maintenance personnel must do electrical system inspection prior to next flight.

CHECKLIST COMPLETE

LOW VOLTS ANNUNCIATOR COMES ON OR DOES NOT GO OFF AT HIGHER RPM

1. MASTER Switch (ALT Only) - OFF
2. ALT FIELD Circuit Breaker - CHECK IN
3. MASTER Switch (ALT and BAT) - ON
3. LOW VOLTS Annunciator - CHECK OFF
5. M BUS VOLTS - CHECK 27.5 V (minimum)
6. M BATT AMPS - CHECK CHARGING (+)

IF LOW VOLTS ANNUNCIATOR REMAINS ON

7. MASTER Switch (ALT Only) - OFF
8. Electrical Load - REDUCE IMMEDIATELY as follows:
 - a. AVIONICS Switch (BUS 1) - OFF
 - b. PITOT HEAT Switch - OFF
 - c. BEACON Light Switch - OFF
 - d. LAND Light Switch - OFF (use as required for landing)
 - e. TAXI Light Switch - OFF
 - f. NAV Light Switch - OFF
 - g. STROBE Light Switch - OFF
 - h. CABIN PWR 12V Switch - OFF

NOTE

• The main battery supplies electrical power to the main and essential buses until M BUS VOLTS decreases below 20 volts. When M BUS VOLTS falls below 20 volts, the standby battery system will automatically supply electrical power to the essential bus for at least 30 minutes.

• Select COM1 MIC and NAV1 on the audio panel and tune to the active frequency before setting AVIONICS BUS 2 to OFF. If COM2 MIC and NAV2 are selected when AVIONICS BUS 2 is set to OFF, the COM and NAV radios cannot be tuned.

- i. COM1 and NAV1 - TUNE TO ACTIVE FREQUENCY
- j. COM1 MIC and NAV1 - SELECT (COM2 MIC and NAV2 will be inoperative once AVIONICS BUS 2 is selected to OFF)

(Continued Next Page)



6 | ELECTRICAL

LOW VOLTS ANNUNCIATOR COMES ON OR DOES NOT GO OFF AT HIGHER RPM (Continued)

NOTE

When AVIONICS BUS 2 is set to OFF, the following items will not operate:

Autopilot	Audio Panel
COMM2	NAV2
Transponder	MFD

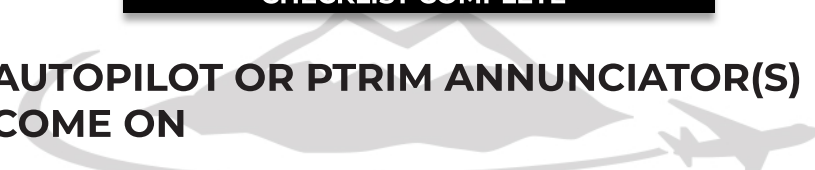
- k. AVIONICS Switch (BUS 2) - OFF (KEEP ON if in clouds)
9. Land as soon as practical.

NOTE

Make sure a successful landing is possible before extending flaps. The flap motor is a large electrical load during operation.

CHECKLIST COMPLETE

AUTOPILOT OR PTRIM ANNUNCIATOR(S) COME ON

- 
1. Control Wheel - GRASP FIRMLY (regain control of airplane)
 2. A/P TRIM DISC Button - PRESS and HOLD (throughout recover)
 3. Elevator Trim Control - ADJUST MANUALLY (as necessary)
 4. AUTO PILOT Circuit Breaker - OPEN (pull out)
 5. A/P TRIM DISC Button - RELEASE

WARNING

FOLLOWING AN AUTOPILOT, AUTOTRIM OR MANUAL ELECTRIC TRIM SYSTEM MALFUNCTION, DO NOT ENGAGE THE AUTOPILOT UNTIL THE CAUSE OF THE MALFUNCTION HAS BEEN CORRECTED.

CHECKLIST COMPLETE



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7 | ICING

INADVERTENT ICING ENCOUNTER DURING FLIGHT

1. PITOT HEAT Switch - ON
2. Turn back or change altitude (to obtain an outside air temperature that is less conducive to icing)
3. CABIN HT Control Knob - ON (pull full out)
4. Defroster Control Outlets - OPEN (to obtain maximum windshield defroster airflow)
5. CABIN AIR Control Knob - ADJUST (to obtain maximum defroster heat and airflow)

CONTINUED FROM QRC

6. Watch for signs of induction air filter icing. A loss of engine RPM could be caused by ice blocking the air intake filter. Adjust mixture as necessary to hold engine RPM. Adjust mixture as necessary for any changes in power settings.
7. Plan a landing at the nearest airport. With an extremely rapid ice build-up, select a suitable off airport landing site.
8. With an ice accumulation of 0.25 inch or more on the wing leading edges, be prepared for significantly higher power requirements, higher approach and stall speeds and a longer landing roll.
9. Leave wing flaps retracted. With a severe ice build-up on the horizontal tail, the change in wing wake airflow direction caused by wing flap extension could result in a loss of elevator effectiveness.
10. Open left window and, if practical, scrape ice from a portion of the windshield for visibility in the landing approach.
11. Perform a landing approach using a forward slip, if necessary, for improved visibility.
12. Approach at 65 or 75 KIAS depending upon the amount of ice accumulation.
13. Perform landing in level attitude.
14. Missed approaches should be avoided whenever possible because of severely reduced climb capability.

CHECKLIST COMPLETE

(Continued Next Page)



STATIC SOURCE BLOCKAGE
(ERRONEOUS INSTRUMENT READING SUSPECTED)

- 1. ALT STATIC AIR Valve - PULL ON
- 2. CABIN HT and CABIN AIR Knobs - PULL ON
- 3. Vents - CLOSED

CONTINUED FROM QRC

- 4. Airspeed - Refer to table below

FLAPS UP												
KIAS	50	60	70	80	90	100	110	120	130	140	150	160
KCAS	56	62	68	76	85	95	105	115	125	134	144	154
FLAPS 10°												
KIAS	40	50	60	70	80	90	100	110				
KCAS	51	55	60	68	77	86	96	105				
FLAPS FULL												
KIAS	40	50	60	70	80	85						
KCAS	49	54	61	69	78	83						

CHECKLIST COMPLETE



8 | ABNORMAL LANDING

LANDING WITH A FLAT MAIN TIRE

1. Approach - NORMAL
2. Wing Flaps - FULL
3. Touchdown - GOOD MAIN TIRE FIRST (hold airplane off flat tire as long as possible with aileron control)
4. Directional Control - MAINTAIN (using brake on good wheel as required)

CHECKLIST COMPLETE

LANDING WITH A FLAT NOSE TIRE

1. Approach - NORMAL
2. Wing Flaps - AS REQUIRED
 - 85 to 110 KIAS - Flaps UP - 10°
 - Below 85 KIAS - Flaps 10° - FULL
3. Touchdown - ON MAINS (hold nosewheel off the ground as long as possible)
4. When nosewheel touches down, maintain full up elevator as airplane slows to stop.

CHECKLIST COMPLETE



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9 | ADC/AHRS

AIR DATA SYSTEM FAILURE

RED X - PFD AIRSPEED INDICATOR

1. ADC/AHRS Circuit Breakers - CHECK IN (ESS BUS and AVN BUS 1). If open, reset (close) circuit breaker. If circuit breaker opens again, do not reset.
2. Standby Airspeed Indicator - USE FOR AIRSPEED INFORMATION

CHECKLIST COMPLETE

RED X - PFD ALTITUDE INDICATOR

1. ADC/AHRS Circuit Breakers - CHECK IN (ESS BUS and AVN BUS 1). If open, reset (close) circuit breaker. If circuit breaker opens again, do not reset.
2. Standby Altimeter - CHECK current barometric pressure SET. USE FOR ALTITUDE INFORMATION.

CHECKLIST COMPLETE

ATTITUDE AND HEADING REFERENCE SYSTEM (AHRS) FAILURE

RED X - PFD ATTITUDE INDICATOR

1. ADC/AHRS Circuit Breakers - CHECK IN (ESS BUS and AVN BUS 1). If open, reset (close) circuit breaker. If circuit breaker opens again, do not reset.
2. Standby Attitude Indicator - USE FOR ATTITUDE INFORMATION

CHECKLIST COMPLETE

RED X - HORIZONTAL SITUATION INDICATOR (HSI)

1. ADC/AHRS Circuit Breakers - CHECK IN (ESS BUS and AVN BUS 1). If open, reset (close) circuit breaker. If circuit breaker opens again, do not reset.
2. Non-Stabilized Magnetic Compass - USE FOR HEADING INFORMATION

CHECKLIST COMPLETE

(Continued Next Page)



VACUUM SYSTEM FAILURE

LOW VACUUM ANNUNCIATOR COMES ON

1. Vacuum Indicator (VAC) - CHECK EIS ENGINE PAGE (make sure vacuum pointer is in green band limits)

CAUTION

IF VACUUM POINTER IS OUT OF THE GREEN BAND DURING FLIGHT OR THE GYRO FLAG IS SHOWN ON THE STANDBY ATTITUDE INDICATOR, THE STANDBY ATTITUDE INDICATOR MUST NOT BE USED FOR ATTITUDE INFORMATION

CHECKLIST COMPLETE



DISPLAY COOLING ADVISORY

PFD1 COOLING OR MFD1 COOLING ANNUNCIATOR(S) COME ON

1. CABIN HT Control Knob - REDUCE (push in) (minimum preferred)
2. Forward Avionics Fan - CHECK (feel for airflow from screen on glareshield)

IF FORWARD AVIONICS FAN HAS FAILED

3. STBY BATT Switch - OFF (unless needed for emergency power)

NOTE

IF PFD1 COOLING OR MFD1 COOLING ANNUNCIATOR DOES NOT GO OFF WITHIN 3 MINUTES OR IF BOTH PFD1 COOLING AND MFD1 COOLING ANNUNCIATORS COME ON.

4. STBY BATT Switch - OFF (land as soon as practical)



CHECKLIST COMPLETE

HIGH CARBON MONOXIDE (CO) LEVEL ADVISORY

CO LVL HIGH ANNUNCIATOR COMES ON

1. CABIN HT Control Knob - OFF (push full in)
2. CABIN AIR Control Knob - ON (pull full out)
3. Cabin Vents - OPEN
4. Cabin Windows - OPEN (163 KIAS maximum windows open speed)

NOTE

IF CO LVL HIGH ANNUNCIATOR REMAINS ON

1. Land as soon as practical.



CHECKLIST COMPLETE



ALERT LEVEL DEFINITIONS

The G1000 Alerting System, as installed in Cessna Nav III aircraft, uses three alert levels.

- **WARNING:** This level of alert requires immediate pilot attention. A warning alert is annunciated in the Annunciation Window and is accompanied by a continuous aural tone. Text appearing in the Annunciation Window is RED. A warning alert is also accompanied by a flashing **WARNING** Softkey annunciation, as shown in *Figure 10-1*. Pressing the **WARNING** Softkey acknowledges the presence of the warning alert and stops the aural tone, if applicable.

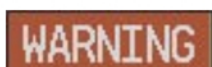


Figure 10-1 WARNING Softkey Annunciation

- **CAUTION:** This level of alert indicates the existence of abnormal conditions on the aircraft that may require pilot intervention. A caution alert is annunciated in the Annunciation Window and is accompanied by a single aural tone. Text appearing in the Annunciation Window is YELLOW. A caution alert is also accompanied by a flashing **CAUTION** Softkey annunciation, as shown in *Figure 10-2*. Pressing the **CAUTION** Softkey acknowledges the presence of the caution alert.



Figure 10-2 CAUTION Softkey Annunciation

- **MESSAGE ADVISORY:** This level of alert provides general information to the pilot. A message advisory alert does not issue annunciations in the Annunciation Window. Instead, message advisory alerts only issue a flashing **ADVISORY** Softkey annunciation, as shown in *Figure 10-3*. Pressing the **ADVISORY** Softkey acknowledges the presence of the message advisory alert and displays the alert text message in the Alert Window.

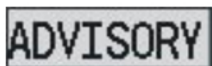


Figure 10-3 ADVISORY Softkey Annunciation

NAV III AIRCRAFT ALERTS

The following alerts are configured specifically for the Cessna Nav III aircraft. See the Cessna Pilot's Operating Handbook (POH) for information regarding pilot responses.

• WARNING ALERTS

Annunciation Window Text	Audio Alert
OIL PRESSURE	Continuous Aural Tone
LOW VOLTS	Continuous Aural Tone*
HIGH VOLTS	Continuous Aural Tone
CO LVL HIGH	Continuous Aural Tone
PITCH TRIM**	No Tone

* Aural tone is inhibited while the aircraft is on the ground

** KAP 140 installations only

• CAUTION ALERTS

Annunciation Window Text	Audio Alert
LOW VACUUM	Single Aural Tone
LOW FUEL L	Single Aural Tone
LOW FUEL R	Single Aural Tone
STBY BATT	Single Aural Tone

CO GUARDIAN MESSAGES

Alerts Window Message	Comments
CO DET SRVC – The carbon monoxide detector needs service.	There is a problem within the CO Guardian that requires services.
CO DET FAIL – The carbon monoxide detector is inoperative.	Loss of communication between the G1000 and the CO Guardian.



AFCS ALERTS

SYSTEM STATUS ANNUNCIATION

The following alert annunciations appear in the AFCS System Status Annunciation on the PFD.



Figure 10-4 AFCS System Status Annunciation

The following alert annunciations appear in the AFCS System Status field on the PFD.

Condition	Annunciation	Description
Pitch Failure		Pitch axis control failure. AP is inoperative.
Roll Failure		Roll axis control failure. AP is inoperative.
MET Switch Stuck, or Pitch Trim Axis Control Failure		If annunciated when AP is engaged, take control of the aircraft and disengage the autopilot. If annunciated when AP is not engaged, move each half of the MET switch separately to check if a stuck switch is causing the annunciation.
System Failure		AP and MET are unavailable. FD may still be available.
Elevator Mistrim Up		A condition has developed causing the pitch servo to provide a sustained force. Be prepared to apply nose up control wheel force upon autopilot disconnect.
Elevator Mistrim Down		A condition has developed causing the pitch servo to provide a sustained force. Be prepared to apply nose down control wheel force upon autopilot disconnect.
Aileron Mistrim Left		A condition has developed causing the roll servo to provide a sustained left force. Ensure the slip/skid indicator is centered and observe any maximum fuel imbalance limits.
Aileron Mistrim Right		A condition has developed causing the roll servo to provide a sustained right force. Ensure the slip/skid indicator is centered and observe any maximum fuel imbalance limits.
Preflight Test		Performing preflight system test. Upon completion of the test, the aural alert is heard.
		Preflight system test has failed.



TERRAIN-SVS ALERTS

The following table shows the possible system status annunciations that may be issued.

Alert Type	PFD/MFD Alert Annunciation	TERRAIN-SVS Page Annunciation	Aural Message
System Test in Progress	TER TEST	TERRAIN TEST	None
System Test Pass	None	None	"Terrain System Test OK"
Terrain Alerting is disabled	TER INH	None	None
MFD Terrain or Obstacle database unavailable or invalid. Terrain-SVS operating with PFD Terrain or Obstacle databases	None	TERRAIN DATABASE FAILURE	None
Terrain System Test Fail	TER FAIL	TERRAIN FAIL	"Terrain System Failure"
Terrain or Obstacle database unavailable or invalid, invalid software configuration, system audio fault	TER FAIL	TERRAIN FAIL	"Terrain System Failure"

TAWS SYSTEM STATUS


Alert Type	PFD/MFD Alert Annunciation	TERRAIN-SVS Page Annunciation	Aural Message
System Test in Progress	TAWS TEST	TAWS TEST	None
System Test Pass	None	None	"TAWS System Test OK"
MFD Terrain or Obstacle database unavailable or invalid. TAWS operating with PFD Terrain or Obstacle databases	None	TERRAIN DATABASE FAILURE	None
TAWS-B System Test Fail	TAWS FAIL	TAWS FAIL	"TAWS System Failure"
Terrain or Obstacle database unavailable or invalid, invalid software configuration, system audio fault	TAWS FAIL	TAWS FAIL	"TAWS System Failure"
No GPS position	TAWS N/A	NO GPS POSITION	"TAWS Not Available"
Excessively degraded GPS signal, Out of database coverage area	TAWS N/A	None	"TAWS Not Available"
Sufficient GPS signal received after loss	None	None	"TAWS Available"

G1000 SYSTEM ANNUNCIATIONS

When an LRU or an LRU function fails, a large red 'X' is typically displayed on areas associated with the failed data. Refer to the POH for additional information regarding pilot responses to these annunciations.













NOTE: Upon power-up of the G1000 system, certain boxes remain invalid as G1000 equipment begins to initialize. All boxes should be operational within one minute of power-up. Should any box continue to remain flagged, the G1000 system should be serviced by a Garmin-authorized repair facility.

System Annunciation	Comment
	Attitude and Heading Reference System is aligning.

(Continued Next Page)



G1000 SYSTEM ANNUNCIATIONS (Continued)

System Annunciation	Comment
	Display system is not receiving attitude information from the AHRS.
	Indicates a configuration module failure.
	This annunciation is only seen when the autopilot is engaged. The annunciation indicates an AHRS monitor has detected an abnormal flight parameter, possibly caused by strong turbulence. In this case, the situation should correct itself within a few seconds. If there is an actual failure, a red "X" soon appears over the Attitude Indicator.
	Display system is not receiving airspeed input from air data computer.
	Display is not receiving altitude input from the air data computer.
	Display is not receiving vertical speed input from the air data computer.
	Display is not receiving valid heading input from AHRS.
	Display is not receiving valid transponder information.
	Different versions of GDU software are installed in the PFD and MFD. This can also indicate different versions of navigation databases are installed in the PFD and MFD. In some circumstances, a cross-talk error between the PFD and MFD can cause this annunciation.
	'LOI' Indicates Loss of Integrity of GPS information. GPS information is either not present or is invalid for navigation use. 'DR' may also be seen indicating that GPS is in Dead Reckoning Mode. Note that AHRS utilizes GPS inputs during normal operation. AHRS operation may be degraded if GPS signals are not present (see AFMS).
Other Various Red X Indications	A red "X" through any other display field, such as engine instrumentation fields, indicates that the field is not receiving valid data.

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G1000 SYSTEM ANNUNCIATIONS
(Continued)

A red 'X' may be the result of an LRU or an LRU function failure. The Figure 10-4 illustrates all possible flags and the responsible LRU's.

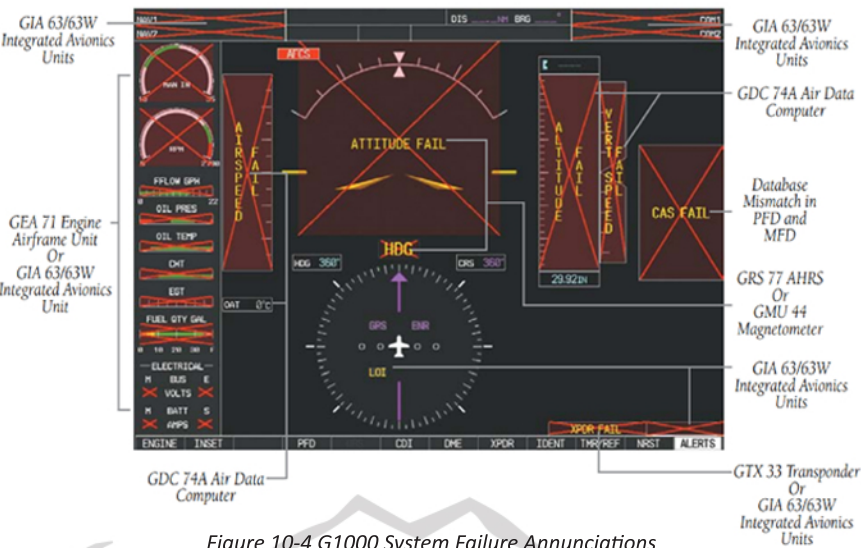


Figure 10-4 G1000 System Failure Annunciations

G1000 SYSTEM MESSAGE ADVISORIES

This section describes various G1000 system message advisories. Certain messages are issued due to an LRU or an LRU function failure. Such messages are normally accomplished by a corresponding red 'X' annunciation.



NOTE: This section provides information regarding G1000 message advisories that may be displayed by the system. Knowledge of the aircraft, systems, flight conditions, and other existing operational priorities must be considered when responding to a message. Always use sound pilot judgment. The Cessna aircraft Pilot's Operating Handbook (POH) takes precedence over any conflicting guidance found in this section.

MFD & PFD MESSAGE ADVISORIES

Message	Comments
DATA LOST – Pilot stored data was lost. Recheck settings.	The pilot profile data was lost. System reverts to default pilot profile and settings. The pilot may reconfigure the MFD & PFDs with preferred settings, if desired.
XTALK ERROR – A flight display crosstalk error has occurred.	The MFD and PFD are not communicating with each other. The system should be serviced.
PFD1 SERVICE – PFD1 needs service. Return unit for repair.	The PFD and/or MFD self-test has detected a problem. The system should be serviced.
MFD1 SERVICE – MFD1 needs service. Return unit for repair.	

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G1000 SYSTEM MESSAGE ADVISORIES (Continued)

MFD & PFD MESSAGE ADVISORIES (Continued)

Message	Comments
DATA LOST – Pilot stored data was lost. Recheck settings.	The pilot profile data was lost. System reverts to default pilot profile and settings. The pilot may reconfigure the MFD & PFDs with preferred settings, if desired.
XTALK ERROR – A flight display crosstalk error has occurred.	The MFD and PFD are not communicating with each other. The system should be serviced.
PFD1 SERVICE – PFD1 needs service. Return unit for repair.	The PFD and/or MFD self-test has detected a problem. The system should be serviced.
MFD1 SERVICE – MFD1 needs service. Return unit for repair.	
MANIFEST – PFD1 software mismatch, communication halted.	The PFD and/or MFD has incorrect software installed. The system should be serviced.
MANIFEST – MFD1 software mismatch, communication halted.	
PFD1 CONFIG – PFD1 config error. Config service req'd.	The PFD configuration settings do not match backup configuration memory. The system should be serviced.
MFD1 CONFIG – MFD1 config error. Config service req'd.	The MFD configuration settings do not match backup configuration memory. The system should be serviced.
SW MISMATCH – GDU software version mismatch. Xtalk is off.	The MFD and PFD have different software versions installed. The system should be serviced.
PFD1 COOLING – PFD1 has poor cooling. Reducing power usage.	The PFD and/or MFD is overheating and is reducing power consumption by dimming the display. If problem persists, the system should be serviced.
MFD1 COOLING – MFD1 has poor cooling. Reducing power usage.	
PFD1 KEYSTK – PFD1 [key name] Key is stuck.	A key is stuck on the PFD and/or MFD bezel. Attempt to free the stuck key by pressing it several times. The system should be serviced if the problem persists.
MFD1 KEYSTK – MFD [key name] Key is stuck.	
CNFG MODULE – PFD1 configuration module is inoperative.	The PFD1 configuration module backup memory has failed. The system should be serviced.
PFD1 VOLTAGE – PFD1 has low voltage. Reducing power usage	The PFD1 voltage is low. The system should be serviced.
MFD1 VOLTAGE – MFD1 has low voltage. Reducing power usage	The MFD voltage is low. The system should be serviced.

DATABASE MESSAGE ADVISORIES

Message	Comments
MFD1 DB ERR – MFD1 navigation database error exists.	The MFD and/or PFD detected a failure in the navigation database. Attempt to reload the navigation database. If problem persists, the system should be serviced.
PFD1 DB ERR – PFD1 navigation database error exists.	
MFD1 DB ERR – MFD1 basemap database error exists.	The MFD and/or PFD detected a failure in the basemap database.
PFD1 DB ERR – PFD1 basemap database error exists.	
MFD1 DB ERR – MFD1 terrain database error exists.	The MFD and/or PFD detected a failure in the terrain database. Ensure that the terrain card is properly inserted in display. Replace terrain card. If problem persists, the system should be serviced.
PFD1 DB ERR – PFD1 terrain database error exists.	
MFD1 DB ERR – MFD1 terrain database missing.	The terrain database is present on another LRU, but is missing on the specified LRU.
PFD1 DB ERR – PFD1 terrain database missing.	

(Continued Next Page)



G1000 SYSTEM MESSAGE ADVISORIES (Continued)

DATABASE MESSAGE ADVISORIES (Continued)

Message	Comments
MFD1 DB ERR – MFD1 obstacle database error exists.	The MFD and/or PFD detected a failure in the obstacle database. Ensure that the data card is properly inserted. Replace data card. If problem persists, the system should be serviced.
PFD1 DB ERR – PFD1 obstacle database error exists.	
MFD1 DB ERR – MFD1 obstacle database missing.	The obstacle database is present on another LRU, but is missing on the specified LRU.
PFD1 DB ERR – PFD1 obstacle database missing.	
MFD1 DB ERR – MFD1 airport terrain database error exists.	The MFD and/or PFD detected a failure in the airport terrain database. Ensure that the data card is properly inserted. Replace data card. If problem persists, the system should be serviced.
PFD1 DB ERR – PFD1 airport terrain database error exists.	
MFD1 DB ERR – MFD1 airport terrain database missing.	The airport terrain database is present on another LRU, but is missing on the specified LRU.
PFD1 DB ERR – PFD1 airport terrain database missing.	
MFD1 DB ERR – MFD1 Safe Taxi database error exists.	The MFD and/or PFD detected a failure in the Safe Taxi database. Ensure that the data card is properly inserted. Replace data card. If problem persists, the system should be serviced.
PFD1 DB ERR – PFD1 Safe Taxi database error exists.	
MFD1 DB ERR – MFD1 Chartview database error exists.	The MFD detected a failure in the ChartView database (optional feature). Ensure the data card is properly inserted. Replace data card. If problem persists, system should be serviced.
MFD1 DB ERR – MFD1 FliteCharts database error exists.	The MFD detected a failure in the FliteCharts database (optional feature). Ensure the data card is properly inserted. Replace data card. If problem persists, system should be serviced.
MFD1 DB ERR – MFD1 Airport Directory database error exists.	The MFD detected a failure in the Airport Directory database. Ensure that the data card is properly inserted. Replace data card. If problem persists, the system should be serviced.
DB MISMATCH – Navigation database mismatch. Xtalk is off.	The PFD and MFD have different navigation database versions or regions installed. Crossfill is off. Check the AUX-SYSTEM STATUS Page to determine versions or regions. Also, check the AUX-SYSTEM STATUS Page for a database synchronization function not completed. After synchronization is complete, power must be turned off, then on.
DB MISMATCH – Terrain database mismatch.	The PFD and MFD have different terrain database versions or regions installed. Check the AUX-SYSTEM STATUS Page to determine versions or regions. Also, check the AUX-SYSTEM STATUS Page for a database synchronization function not completed. After synchronization is complete, power must be turned off, then on.
DB MISMATCH – Obstacle database mismatch.	The PFD and MFD have different obstacle database versions or regions installed. Check the AUX-SYSTEM STATUS Page to determine versions or regions. Also, check the AUX-SYSTEM STATUS Page for a database synchronization function not completed. After synchronization is complete, power must be turned off, then on.
DB MISMATCH – Airport Terrain database mismatch.	The PFD and MFD have different airport terrain database versions or regions installed. Check the AUX-SYSTEM STATUS Page to determine versions or regions. Also, check the AUX-SYSTEM STATUS Page for a database synchronization function not completed. After synchronization is complete, power must be turned off, then on.
DB MISMATCH – Standby Navigation database mismatch.	The PFD and MFD have different standby navigation database versions or regions installed. Check the AUX-SYSTEM STATUS Page to determine versions or regions. Also, check the AUX-SYSTEM STATUS Page for a database synchronization function not completed. After synchronization is complete, power must be turned off, then on.

(Continued Next Page)



G1000 SYSTEM MESSAGE ADVISORIES (Continued)

DATABASE MESSAGE ADVISORIES (Continued)

Message	Comments
NAV DB UPDATED – Active navigation database updated.	System has updated the active navigation database from the standby navigation database.
TERRAIN DSP – [PFD1 or MFD1] terrain awareness display unavailable.	One of the terrain, airport terrain, or obstacle databases required for TAWS in the specified PFD or MFD is missing or invalid.

GMA 1347 MESSAGE ADVISORIES

Message	Comments
GMA1 FAIL – GMA1 is inoperative.	The audio panel self-test has detected a failure. The audio panel is unavailable. The system should be serviced.
GMA1 CONFIG – GMA1 config error. Config service req'd.	The audio panel configuration settings do not match backup configuration memory. The system should be serviced.
MANIFEST – GMA1 software mismatch, communication halted.	The audio panel has incorrect software installed. The system should be serviced.
GMA1 SERVICE – GMA1 needs service. Return unit for repair.	The audio panel self-test has detected a problem in the unit. Certain audio functions may still be available, and the audio panel may still be usable. The system should be serviced when possible.

GIA 63 MESSAGE ADVISORIES

Message	Comments
GIA1 CONFIG – GIA1 config error. Config service req'd.	The GIA1 and/or GIA2 configuration settings do not match backup configuration memory. The G1000 system should be serviced.
GIA2 CONFIG – GIA2 config error. Config service req'd.	
GIA1 CONFIG – GIA1 audio config error. Config service req'd.	The GIA1 and/or GIA2 have an error in the audio configuration. The G1000 system should be serviced.
GIA2 CONFIG – GIA2 audio config error. Config service req'd.	
GIA1 COOLING – GIA1 temperature too low.	The GIA1 and/or GIA2 temperature is too low to operate correctly. Allow units to warm up to operating temperature.
GIA2 COOLING – GIA2 temperature too low.	
GIA1 COOLING – GIA1 over temperature.	The GIA1 and/or GIA2 temperature is too high. If problem persists, the G1000 system should be serviced.
GIA2 COOLING – GIA2 over temperature.	
GIA1 SERVICE – GIA1 needs service. Return the unit for repair.	The GIA1 and/or GIA2 self-test has detected a problem in the unit. The G1000 system should be serviced.
GIA2 SERVICE – GIA2 needs service. Return the unit for repair.	
MANIFEST – GIA1 software mismatch, communication halted.	The GIA1 and/or GIA 2 has incorrect software installed. The G1000 system should be serviced.
MANIFEST – GIA2 software mismatch, communication halted.	
COM1 TEMP – COM1 over temp. Reducing transmitter power.	The system has detected an over temperature condition in COM1 and/or COM2. The transmitter is operating at reduced power. If the problem persists, the G1000 system should be serviced.
COM2 TEMP – COM2 over temp. Reducing transmitter power.	

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G1000 SYSTEM MESSAGE ADVISORIES (Continued)

GIA 63 MESSAGE ADVISORIES (Continued)

Message	Comments
COM1 SERVICE – COM1 needs service. Return unit for repair.	The system has detected a failure in COM1 and/or COM2. COM1 and/or COM2 may still be usable. The G1000 system should be serviced when possible.
COM2 SERVICE – COM2 needs service. Return unit for repair.	
COM1 PTT – COM1 push-to-talk key is stuck.	The COM1 and/or COM2 external push-to-talk switch is stuck in the enable (or "pressed") position. Press the PTT switch again to cycle its operation. If the problem persists, the G1000 system should be serviced.
COM2 PTT – COM2 push-to-talk key is stuck.	
COM1 RMT XFR – COM1 remote transfer key is stuck.	The COM1 and/or COM2 transfer switch is stuck in the enabled (or "pressed") position. Press the transfer switch again to cycle its operation. If the problem persists, the G1000 system should be serviced.
COM2 RMT XFR – COM2 remote transfer key is stuck.	
RAIM UNAVAIL – RAIM is not available from FAF to MAP waypoints.	GPS satellite coverage is insufficient to perform Receiver Autonomous Integrity Monitoring (RAIM) from the FAF to the MAP waypoints.
LOI – GPS integrity lost. Crosscheck with other NAVS.	Loss of GPS integrity monitoring.
GPS NAV LOST – Loss of GPS navigation. Insufficient satellites.	Loss of GPS navigation due to insufficient satellites.
GPS NAV LOST – Loss of GPS navigation. Position error.	Loss of GPS navigation due to position error.
GPS NAV LOST – Loss of GPS navigation. GPS fail.	Loss of GPS navigation due to GPS failure.
ABORT APR – Loss of GPS navigation. Abort approach.	Abort approach due to loss of GPS navigation.
TRUE APR – True north approach. Change hdg reference to TRUE.	Displayed after passing the first waypoint of a true north approach when the nav angle is set to 'AUTO'.
GPS1 FAIL – GPS1 is inoperative.	A failure has been detected in the GPS1 and/or GPS2 receiver. The receiver is unavailable. The G1000 system should be serviced.
GPS2 FAIL – GPS2 is inoperative.	
GPS1 SERVICE – GPS1 needs service. Return unit for repair.	A failure has been detected in the GPS1 and/or GPS2 receiver. The receiver may still be available. The G1000 system should be serviced.
GPS2 SERVICE – GPS2 needs service. Return unit for repair.	
NAV1 SERVICE – NAV1 needs service. Return unit for repair.	A failure has been detected in the NAV1 and/or NAV2 receiver. The receiver may still be available. The G1000 system should be serviced.
NAV2 SERVICE – NAV2 needs service. Return unit for repair.	
NAV1 RMT XFR – NAV1 remote transfer key is stuck.	The remote NAV1 and/or NAV2 transfer switch is stuck in the enabled (or "pressed") state. Press the transfer switch again to cycle its operation. If the problem persists, the G1000 system should be serviced.
NAV2 RMT XFR – NAV2 remote transfer key is stuck.	
G/S1 FAIL – G/S1 is inoperative.	A failure has been detected in glideslope receiver 1 and/or receiver 2. The G1000 system should be serviced.
G/S2 FAIL – G/S2 is inoperative.	
G/S1 SERVICE – G/S1 needs service. Return unit for repair.	A failure has been detected in glideslope receiver 1 and/or receiver 2. The receiver may still be available. The G1000 system should be serviced when possible.
G/S2 SERVICE – G/S2 needs service. Return unit for repair.	

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G1000 SYSTEM MESSAGE ADVISORIES (Continued)

GIA 63W MESSAGE ADVISORIES

Message	Comments
GIA1 CONFIG – GIA1 config error. Config service req'd.	The GIA1 and/or GIA2 configuration settings do not match backup configuration memory. The system should be serviced.
GIA2 CONFIG – GIA2 config error. Config service req'd.	
GIA1 CONFIG – GIA1 audio config error. Config service req'd.	The GIA1 and/or GIA2 have an error in the audio configuration. The system should be serviced.
GIA2 CONFIG – GIA2 audio config error. Config service req'd.	
GIA1 COOLING – GIA1 temperature too low.	The GIA1 and/or GIA2 temperature is too low to operate correctly. Allow units to warm up to operating temperature.
GIA2 COOLING – GIA2 temperature too low.	
GIA1 COOLING – GIA1 over temperature.	The GIA1 and/or GIA2 temperature is too high. If problem persists, the system should be serviced.
GIA2 COOLING – GIA2 over temperature.	
GIA1 SERVICE – GIA1 needs service. Return the unit for repair.	The GIA1 and/or GIA2 self-test has detected a problem in the unit. The system should be serviced.
GIA2 SERVICE – GIA2 needs service. Return the unit for repair.	
HW MISMATCH – GIA hardware mismatch. GIA1 communication halted.	A GIA mismatch has been detected, where only one is SBAS capable.
HW MISMATCH – GIA hardware mismatch. GIA2 communication halted.	
MANIFEST – GIA1 software mismatch, communication halted.	The GIA1 and/or GIA 2 has incorrect software installed. The system should be serviced.
MANIFEST – GIA2 software mismatch, communication halted.	
MANIFEST – GFC software mismatch, communication halted.	Incorrect servo software is installed, or gain settings are incorrect.
MANIFEST – COM1 software mismatch, communication halted.	COM1 and/or COM2 software mismatch. The G1000 system should be serviced.
MANIFEST – COM2 software mismatch, communication halted.	
MANIFEST – NAV1 software mismatch, communication halted.	NAV1 and/or NAV2 software mismatch. The G1000 system should be serviced.
MANIFEST – NAV2 software mismatch, communication halted.	
COM1 TEMP – COM1 over temp. Reducing transmitter power.	The system has detected an over temperature condition in COM1 and/or COM2. The transmitter is operating at reduced power. If the problem persists, the system should be serviced.
COM2 TEMP – COM2 over temp. Reducing transmitter power.	
COM1 CONFIG – COM1 config error. Config service req'd.	COM1 and/or COM2 configuration settings do not match backup configuration memory. The G1000 system should be serviced.
COM2 CONFIG – COM2 config error. Config service req'd.	
COM1 TEMP – COM1 over temp. Reducing transmitter power.	The system has detected an over temperature condition in COM1 and/or COM2. The transmitter is operating at reduced power. If the problem persists, the G1000 system should be serviced.
COM2 TEMP – COM2 over temp. Reducing transmitter power.	

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G1000 SYSTEM MESSAGE ADVISORIES (Continued)

GIA 63W MESSAGE ADVISORIES (Continued)

Message	Comments
COM1 SERVICE – COM1 needs service. Return unit for repair.	The system has detected a failure in COM1 and/or COM2. COM1 and/or COM2 may still be usable. The system should be serviced when possible.
COM2 SERVICE – COM2 needs service. Return unit for repair.	
COM1 PTT – COM1 push-to-talk key is stuck.	The COM1 and/or COM2 external push-to-talk switch is stuck in the enable (or "pressed") position. Press the PTT switch again to cycle its operation. If the problem persists, the system should be serviced.
COM2 PTT – COM2 push-to-talk key is stuck.	
COM1 RMT XFR – COM1 remote transfer key is stuck.	The COM1 and/or COM2 transfer switch is stuck in the enabled (or "pressed") position. Press the transfer switch again to cycle its operation. If the problem persists, the system should be serviced.
COM2 RMT XFR – COM2 remote transfer key is stuck.	
LOI – GPS integrity lost. Crosscheck with other NAVS.	GPS integrity is insufficient for the current phase of flight.
GPS NAV LOST – Loss of GPS navigation. Insufficient satellites.	Loss of GPS navigation due to insufficient satellites.
GPS NAV LOST – Loss of GPS navigation. Position error.	Loss of GPS navigation due to position error.
GPS NAV LOST – Loss of GPS navigation. GPS fail.	Loss of GPS navigation due to GPS failure.
ABORT APR – Loss of GPS navigation. Abort approach.	Abort approach due to loss of GPS navigation.
APR DWNGRADE – Approach downgraded.	Vertical guidance generated by SBAS is unavailable, use LNAV only minimums.
TRUE APR – True north approach. Change HDG reference to TRUE.	Displayed after passing the first waypoint of a true north approach when the nav angle is set to 'AUTO'.
GPS1 SERVICE – GPS1 needs service. Return unit for repair.	A failure has been detected in the GPS1 and/or GPS2 receiver. The receiver may still be available. The system should be serviced.
GPS2 SERVICE – GPS2 needs service. Return unit for repair.	
NAV1 SERVICE – NAV1 needs service. Return unit for repair.	A failure has been detected in the NAV1 and/or NAV2 receiver. The receiver may still be available. The system should be serviced.
NAV2 SERVICE – NAV2 needs service. Return unit for repair.	
NAV1 RMT XFR – NAV1 remote transfer key is stuck.	The remote NAV1 and/or NAV2 transfer switch is stuck in the enabled (or "pressed") state. Press the transfer switch again to cycle its operation. If the problem persists, the system should be serviced.
NAV2 RMT XFR – NAV2 remote transfer key is stuck.	
G/S1 FAIL – G/S1 is inoperative.	A failure has been detected in glideslope receiver 1 and/or receiver 2. The system should be serviced.
G/S2 FAIL – G/S2 is inoperative.	
G/S1 SERVICE – G/S1 needs service. Return unit for repair.	A failure has been detected in glideslope receiver 1 and/or receiver 2. The receiver may still be available. The system should be serviced when possible.
G/S2 SERVICE – G/S2 needs service. Return unit for repair.	
FAILED PATH – A data path has failed.	A data path connected to the GDU or the GIA 63W has failed.

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G1000 SYSTEM MESSAGE ADVISORIES (Continued)

GEA 71 MESSAGE ADVISORIES

Message	Comments
GEA1 CONFIG – GEA1 config error. Config service req'd.	The GEA1 configuration settings do not match those of backup configuration memory. The G1000 system should be serviced.
MANIFEST – GEA1 software mismatch, communication halted.	The #1 GEA 71 has incorrect software installed. The G1000 system should be serviced.

GSR 56 MESSAGE ADVISORIES

Message	Comments
GSR1 FAIL – GSR1 has failed.	A failure has been detected in the #1 GSR 56. The system should be serviced.

GDC 74A MESSAGE ADVISORIES

Message	Comments
ADC1 ALT EC – ADC1 altitude error correction is unavailable.	GDC1 is reporting that the altitude error correction is unavailable.
ADC1 AS EC – ADC1 airspeed error correction is unavailable.	GDC1 is reporting that the airspeed error correction is unavailable.
MANIFEST – GDC1 software mismatch, communication halted.	The GDC 74A has incorrect software installed. The G1000 system should be serviced.

GTX 33 MESSAGE ADVISORIES

Message	Comments
XPDR1 CONFIG – XPDR1 config error. Config service req'd.	The transponder configuration settings do not match those of backup configuration memory. The system should be serviced.
MANIFEST – GTX1 software mismatch, communication halted.	The transponder has incorrect software installed. The system should be serviced.
XPDR1 SRVC – XPDR1 needs service. Return unit for repair.	The #1 transponder should be serviced when possible.
XPDR1 FAIL – XPDR1 is inoperative.	There is no communication with the #1 transponder.

GRS 77 MESSAGE ADVISORIES

Message	Comments
AHRS1 TAS – AHRS1 not receiving airspeed.	The #1 AHRS is not receiving true airspeed from the air data computer. The AHRS relies on GPS information to augment the lack of airspeed. The system should be serviced.
AHRS1 GPS – AHRS1 using backup GPS source.	The #1 AHRS is using the backup GPS path. Primary GPS path has failed. The system should be serviced when possible.
AHRS1 GPS – AHRS1 not receiving any GPS information.	The #1 AHRS is not receiving any or any useful GPS information. Check AFMS limitations. The system should be serviced.
AHRS1 GPS – AHRS1 not receiving backup GPS information.	The #1 AHRS is not receiving backup GPS information. The system should be serviced.

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G1000 SYSTEM MESSAGE ADVISORIES (Continued)

GRS 77 MESSAGE ADVISORIES (Continued)

Message	Comments
AHRS1 SRVC – AHRS1 Magnetic-field model needs update.	The #1 AHRS earth magnetic field model is out of date. Update magnetic field model when practical.
GEO LIMITS – AHRS1 too far North/South, no magnetic compass.	The aircraft is outside geographical limits for approved AHRS operation. Heading is flagged as invalid.
MANIFEST – GRS1 software mismatch, communication halted.	The #1 AHRS has incorrect software installed. The system should be serviced.

GMU 44 MESSAGE ADVISORIES

Message	Comments
HDG FAULT – AHRS1 magnetometer fault has occurred.	A fault has occurred in the #1 GMU 44. Heading is flagged as invalid. The AHRS uses GPS for backup mode operation. The G1000 system should be serviced.
MANIFEST – GMU1 software mismatch, communication halted.	The GMU 44 has incorrect software installed. The G1000 system should be serviced.

GDL 69/69A MESSAGE ADVISORIES

Message	Comments
GDL69 CONFIG – GDL 69 config error. Config service req'd.	GDL 69 configuration settings do not match those of backup configuration memory. The G1000 system should be serviced.
GDL69 FAIL – GDL 69 has failed.	A failure has been detected in the GDL 69. The receiver is unavailable. The G1000 system should be serviced.
MANIFEST – GDL software mismatch, communication halted.	The GDL 69 has incorrect software installed. The G1000 system should be serviced.

MISCELLANEOUS MESSAGE ADVISORIES

Message	Comments
FPL WPT LOCK – Flight plan waypoint is locked.	Upon power-up, the system detects that a stored flight plan waypoint is locked. This occurs when a navigation database update eliminates an obsolete waypoint. The flight plan cannot find the specified waypoint and flags this message. This can also occur with user waypoints in a flight plan that is deleted. Remove the waypoint from the flight plan if it no longer exists in any database, Or update the waypoint name/identifier to reflect the new information.
FPL WPT MOVE – Flight plan waypoint moved.	The system has detected that a waypoint coordinate has changed due to a new navigation database update. Verify that stored flight plans contain correct waypoint locations.
TIMER EXPIRD – Timer has expired.	The system notifies the pilot that the timer has expired.
DB CHANGE – Database changed. Verify user modified procedures.	This occurs when a stored flight plan contains procedures that have been manually edited. This alert is issued only after a navigation database update. Verify that the user-modified procedures in stored flight plans are correct and up to date.
DB CHANGE – Database changed. Verify stored airways.	This occurs when a stored flight plan contains an airway that is no longer consistent with the navigation database. This alert is issued only after a navigation database update. Verify use of airways in stored flight plans and reload airways as needed.

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G1000 SYSTEM MESSAGE ADVISORIES (Continued)

MISCELLANEOUS MESSAGE ADVISORIES (Continued)

Message	Comments
FPL TRUNC – Flight plan has been truncated.	This occurs when a newly installed navigation database eliminates an obsolete approach or arrival used by a stored flight plan. The obsolete procedure is removed from the flight plan. Update flight plan with current arrival or approach.
LOCKED FPL – Cannot navigate locked flight plan.	This occurs when the pilot attempts to activate a stored flight plan that contains locked waypoint. Remove locked waypoint from flight plan. Update flight plan with current waypoint.
WPT ARRIVAL – Arriving at waypoint -[xxxx]	Arriving at waypoint [xxxx], where [xxxx] is the waypoint name.
STEEP TURN – Steep turn ahead.	A steep turn is 15 seconds ahead. Prepare to turn.
INSIDE ARSPC – Inside airspace.	The aircraft is inside the airspace.
ARSPC AHEAD – Airspace ahead less than 10 minutes.	Special use airspace is ahead of aircraft. The aircraft will penetrate the airspace within 10 minutes.
ARSPC NEAR – Airspace near and ahead.	Special use airspace is near and ahead of the aircraft position.
ARSPC NEAR – Airspace near – less than 2 nm.	Special use airspace is within 2 nm of the aircraft position.
APR INACTV – Approach is not active.	The system notifies the pilot that the loaded approach is not active. Activate approach when required.
SLCT FREQ – Select appropriate frequency for approach.	The system notifies the pilot to load the approach frequency for the appropriate NAV receiver. Select the correct frequency for the approach.
SLCT NAV – Select NAV on CDI for approach.	The system notifies the pilot to set the CDI to the correct NAV receiver. Set the CDI to the correct NAV receiver.
PTK FAIL – Parallel track unavailable: bad geometry.	Bad parallel track geometry.
PTK FAIL – Parallel track unavailable: past IAF.	IAF waypoint for parallel offset has been passed.
PTK FAIL – Parallel track unavailable: past IAF.	IAF waypoint for parallel offset has been passed.
UNABLE V WPT – Can't reach current vertical waypoint.	The current vertical waypoint can not be reached within the maximum flight path angle and vertical speed constraints. The system automatically transitions to the next vertical waypoint.
VNV – Unavailable. Excessive track angle error.	The current track angle error exceeds the limit, causing the vertical deviation to go invalid.
VNV – Unavailable. Unsupported leg type in flight plan.	The lateral flight plan contains a procedure turn, vector, or other unsupported leg type prior to the active vertical waypoint. This prevents vertical guidance to the active vertical waypoint.
VNV – Unavailable. Excessive crosstrack error.	The current crosstrack exceeds the limit, causing vertical deviation to go invalid.
VNV – Unavailable. Parallel course selected.	A parallel course has been selected, causing the vertical deviation to go invalid.
NON WGS84 WPT – Do not use GPS for navigation to -[xxxx]	The position of the selected waypoint [xxxx] is not calculated based on the WGS84 map reference datum and may be positioned in error as displayed. Do not use GPS to navigate to the selected non-WGS84 waypoint.
TRAFFIC FAIL – Traffic device has failed.	The system is no longer receiving data from the traffic system. The traffic device should be serviced.
NON WGS84 WPT – Do not use GPS for navigation to-[xxxx]	The position of the selected waypoint [xxxx] is not calculated based on the WGS84 map reference datum and may be positioned in error as displayed. Do not use GPS to navigate to [xxxx].
STRMSCP FAIL – Stormscope has failed.	Stormscope has failed. The G1000 system should be serviced.
MAG VAR WARN – Large magnetic variance. Verify all course angles.	The GDU's internal model cannot determine the exact magnetic variance for geographic locations near the magnetic poles. Displayed magnetic course angles may differ from the actual magnetic heading by more than 2°.

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G1000 SYSTEM MESSAGE ADVISORIES (Continued)

MISCELLANEOUS MESSAGE ADVISORIES (Continued)

Message	Comments
SVS – SVS DISABLED: Out of available terrain region.	Synthetic Vision is disabled because the aircraft is not within the boundaries of the installed terrain database.
SVS – SVS DISABLED: Terrain DB resolution too low.	Synthetic Vision is disabled because a terrain database of sufficient resolution (9 arc-second or better) is not currently installed.
SCHEDULER [#] – <message>.	Message criteria entered by the user.
CHECK CRS – Database course for LOC1 / [LOC ID] is [CRS]°.	Selected course for LOC1 differs from published localizer course by more than 10 degrees.
CHECK CRS – Database course for LOC2 / [LOC ID] is [CRS]°.	Selected course for LOC2 differs from published localizer course by more than 10 degrees.
[PFD1 or MFD1] CARD 1 REM – Card 1 was removed. Reinsert card.	The SD card was removed from the top card slot of the PFD or MFD. The SD card needs to be reinserted.
[PFD1 or MFD1] CARD 2 REM – Card 2 was removed. Reinsert card.	The SD card was removed from the bottom card slot of the PFD or MFD. The SD card needs to be reinserted.
[PFD1 or MFD1] CARD 1 ERR – Card 1 is invalid.	The SD card in the top card slot of the PFD or MFD contains invalid data.
[PFD1 or MFD1] CARD 2 ERR – Card 2 is invalid.	The SD card in the bottom card slot of the PFD or MFD contains invalid data.
TRN AUD FAIL – Trn Awareness audio source unavailable.	The audio source for terrain awareness is offline. Check GIA1 or GIA 2.
TERRAIN AUD CFG – Trn Awareness audio config error. Service req'd.	Terrain audio alerts are not configured properly. The system should be serviced
REGISTER GFDS – Data services are inoperative, register w/GFDS.	The GSR 56 is not registered with Garmin Flight Data Services, or its current registration data has failed authentication.

FLIGHT PLAN IMPORT/EXPORT MESSAGES

Flight Plan Import/Export Results	Description
'Too many points. Flight plan truncated.'	The flight plan on the SD card contains more waypoints than the system can support. The flight plan was imported with as many waypoints as possible.
'Some waypoints not loaded. Waypoints locked.'	The flight plan on the SD card contains one or more waypoints that the system cannot find in the navigation database. The flight plan has been imported, but must be edited within the system before it can be activated for use.
'User waypoint database full. Not all loaded.'	The flight plan file on the SD card contains user waypoints. The quantity of stored user waypoints has exceeded system capacity, therefore not all the user waypoints on the SD card have been imported. Any flight plan user waypoints that were not imported are locked in the flight plan. The flight plan must be edited within the system before it can be activated for use.
'One or more user waypoints renamed.'	One or more imported user waypoints were renamed when imported due to naming conflicts with waypoints already existing in the system.
'Flight plan successfully exported.'	The stored flight plan was successfully exported to the SD card.
'Flight plan export failed.'	The stored flight plan was not successfully exported to the SD card. The SD card may not have sufficient available memory or the card may have been removed prematurely.

