

REVISION TRANSMITTAL

This sheet transmits Revision 1 to SEB-34-16, which:

- A. Adds additional instructions to clear user settings when an airplane shows slow screen update rates at certain zoom levels.
- B. Adds additional instructions to check the LRU's status on the system status page.
- C. Adds additional information to the REASON section.
- D. Adds a NOTE to the DESCRIPTION section to show the GDU and GIA software version levels.

REVISION COMPLIANCE

Informational. Airplanes previously modified by this service bulletin and are experiencing slow screen update rates at certain zoom levels can use the updated instructions to clear the user settings. The clearing of the user settings has shown to alleviate the slow screen update rates. It will not be necessary to reload the software.

No Effect: Airplanes previously modified by this service bulletin and are not experiencing slow screen updates are not affected by this revision.

LOG OF REVISIONS

Original Issue	February 1, 2017
Revision 1	November 13, 2018

TITLE

NAVIGATION - GARMIN G1000 SYSTEM SOFTWARE UPGRADE TO VERSION 0563.35 FOR AIRPLANES EQUIPPED WITH NAV III (WAAS-ENABLED INSTALLATIONS ONLY)

EFFECTIVITY

Group A Airplanes

The airplanes that follow that are equipped with the Garmin G1000 Nav III Avionics Option and the Wide Area Augmentation System (WAAS):

MODEL	SERIAL NUMBERS
172R	17281357 thru 17281622
172S	172S10432 thru 172S11435, 172S11577 thru 172S11758
182T	18281869, 18281876 thru 18282468
T182T	T18208354, T18208665, T18208669 thru T18209100
206H	20608279, 20608284 thru 20608353
T206H	T20608682, T20608705 thru T20609132, T20609176 thru T20609249

EFFECTIVITY

Group B Airplanes

The airplanes that follow that have incorporated SB07-34-07 (or latest revision) GARMIN G1000 GPS/WAAS Installations:

MODEL	SERIAL NUMBERS
172R	17281241 thru 17281356
172S	172S9810 thru 172S10431
182T	18281228, 18281318 thru 18281868, 18281870 thru 18281875
T182T	T18208232 thru T18208353, T18208355 thru T18208664, T18208666 thru T18208668
206H	20608216 thru 20608278, 20608280 thru 20608283
T206H	T20608450 thru T20608681, T20608683 thru T20608704

NOTE: Before installing this service bulletin, the airplane must have software 563.26 or later installed. Service Bulletin SEB-34-02 installs software 563.26.

REASON

This version 0563.35 software service bulletin provides an upgrade that includes the changes that follow:

- **GPS/WAAS Updates:** GPS/WAAS software has been updated to satisfy new requirements associated with RTCA/DO-229D.
- **User Defined Holding Patterns:** This new feature is designed to allow the pilot to define his own holding patterns in the flight plan. This feature does not remove the system's capability to fly existing pre-defined holding patterns.
- **Geo-Reference Garmin Flight Charts:** This update will allow the default electronic departure chart provided by Garmin (FliteCharts) to also provide a GPS derived aircraft ownership overlay above the currently selected chart similar to Chartview. This feature only applies to Approach Charts that are to scale.
- **Localizer Performance (LP) Approach Support:** This update adds software support to display and fly Localizer Performance (LP) approaches on the G1000 system.
- **LNAV/VNAV and LNAV+V Approaches:** Previously, CDI (Course Deviation Indicator)/HSI (Horizontal Situation Indicator) scaling was incorrect on a limited number of LNAV/VNAV and LNAV+V approaches. As a result Garmin removed the capability of selecting these affected approaches starting Database cycles 1013 and 1103. Phase 14 restores these approaches that were suppressed in compliance with Service Advisory 1047.
- **ADS-B Out Support:** Supports ADS-B Out functionality when installed by SEB-34-14.
- **Temperature Compensation:** Temperature Compensation allows the pilot to compensate the approach minimum altitude, the altitudes associated with waypoints in an approach, or both for the effects of nonstandard temperature.
- **Slip/Skid Indicator Red X:** New fail flags apply to the CDI indication and the slip/skid indication. The CDI indication will be displayed as failed when the currently selected CDI source is failed. The slip/skid indicator will be displayed as failed in the event the pitch and roll angles are both valid but the Y-axis acceleration is invalid.

DESCRIPTION

This service bulletin provides parts and instructions to upgrade the G1000 software to version 0563.35 from version 0563.26 or later.

NOTE: The GDU and GIA software versions will be as follows:

- GDU - 13.11
- GIA - 7.14

COMPLIANCE

OPTIONAL. This service bulletin can be accomplished at the discretion of the owner.

A service bulletin published by Cessna Aircraft Company may be recorded as "completed" in an aircraft log only when the following requirements are satisfied:

- 1) The mechanic must complete all of the instructions in the service bulletin, including the intent therein.
- 2) The mechanic must correctly use and install all applicable parts supplied with the service bulletin kit. Only with written authorization from Cessna Aircraft Company can substitute parts or rebuilt parts be used to replace new parts.
- 3) The mechanic or airplane owner must use the technical data in the service bulletin only as approved and published.
- 4) The mechanic or airplane owner must apply the information in the service bulletin only to aircraft serial numbers identified in the "Effectivity" section of the bulletin.
- 5) The mechanic or airplane owner must use maintenance practices that are identified as acceptable standard practices in the aviation industry and governmental regulations.

No individual or corporate organization other than Cessna Aircraft Company is authorized to make or apply any changes to a Cessna-issued service bulletin, service letter, or flight manual supplement without prior written consent from Cessna Aircraft Company.

APPROVAL

Cessna received FAA approval for the technical data in this publication that changes the airplane type design.

WEIGHT AND BALANCE INFORMATION

No Change

REFERENCES

Model 172R/172S Maintenance Manual

Model 182S/182T/T182T Maintenance Manual

Model 206H/T206H Maintenance Manual

Garmin G1000 Cockpit Reference Guide for Cessna NAV III, Part Number 190-00384-13 Rev. B. (or latest revision)

Garmin G1000 Pilot's Guide for Cessna NAV III, Part Number 190-00498-08 Rev. A. (or latest revision)

The following documents can be viewed by Cessna Authorized Service Facilities by going to www.garmin.com:

Garmin G1000 System Installation Manual, Part Number 190-00303-00, Revision H (or latest revision)

Garmin GDU 104X Installation Manual, Part Number 190-00303-01, Revision AA (or latest revision)

Garmin GMA 1347 Installation Manual, Part Number 190-00303-20, Revision E (or latest revision)

Garmin GIA 63 Installation Manual, Part Number 190-00303-05, Revision AD (or latest revision)

Garmin GRS 77/GMU 44 Installation Manual, Part Number 190-00303-10, Revision Q (or latest revision)

Garmin GDC 74A Installation Manual, Part Number 190-00303-15, Revision H (or latest revision)

Garmin GEA 71 Installation Manual, Part Number 190-00303-40, Revision H (or latest revision)

Garmin GTX 33 Installation Manual, Part Number 190-00303-61, Revision J (or latest revision)

Garmin G1000 NAV III Line Maintenance Manual, Part Number 190-00352-00, Revision T (or latest revision)

Cessna Service Bulletin number SB06-34-03

Cessna Service Bulletin number SB07-34-07

Cessna Service Bulletin number SB07-34-01

Cessna Service Bulletin number SB07-34-05

Cessna Service Bulletin number SB09-34-07

Cessna Service Bulletin number SEB-34-01

Cessna Service Bulletin number SEB-34-04

Cessna Service Bulletin number SEB-34-14

PUBLICATIONS AFFECTED

Model 172R/172S Illustrated Parts Catalog

Model 182S/182T/T182T Illustrated Parts Catalog

Model 206H/T206H Illustrated Parts Catalog

ACCOMPLISHMENT INSTRUCTIONS

General Information

NOTE 1: If the system software or configuration fails to upload correctly during accomplishment of this Service Bulletin, do the upload again. Do not try to upload more than **five times**. If the system does not upload after the fifth attempt, refer to the Garmin Line Maintenance Manual, Revision T or later, Appendix B.4 Software / Configuration Troubleshooting. If the system still does not upload, contact Cessna Propeller Aircraft Product Support: Telephone 316-517-5800 or FAX 316-517-7271. **Do not cancel a software or configuration upload that is in progress. Let the system either successfully load or fail.**

NOTE 2: If the alert chime comes on at any time during the accomplishment of this Service Bulletin, you can go to the Alert Configuration page in the GDU page group, push the ACK softkey, this should make the chime stop.

1. Prepare the airplane for maintenance.

- A. Make sure that the airplane is electrically grounded.
- B. Remove the gust lock.
- C. Make sure that all switches are in the OFF/NORM position.
- D. Pull the circuit breakers as follows:
 - PFD Circuit Breaker on ESS BUS
 - PFD Circuit Breaker on AVN BUS 1
 - MFD Circuit Breaker on AVN BUS 2

2. Clear user settings as follows:

NOTE: Clearing user settings will remove user data including user waypoints, pilot selections, and stored flight plans. If desired, stored flight plans (not user waypoints or pilot selections) can be saved to an SD card. Refer to the G1000 Pilot's Guide for instructions.

- A. Connect external electrical power to the airplane.
- B. Put the BAT MASTER switch to the ON position.
- C. Put the AVIONICS BUS 1 and BUS 2 switches to the ON position.
- D. Put the STDBY BATT switch to the ARM position.
- E. Hold the CLR key on the PFD and at the same time, push in the PFD circuit breakers on the ESS BUS and AVN BUS 1.
- F. Hold the CLR key on the MFD and at the same time, push in the MFD circuit breaker on AVN BUS 2.
- G. When prompted to clear user setting, push the YES softkey.

NOTE: The USER SETTINGS CLEARED will be displayed on each GDU to verify that all user data has been cleared.

- H. Put the AVIONICS Bus 1 and Bus 2, BAT MASTER, and STDBY BATT switches in the OFF position.
- I. Pull the circuit breakers as follows:
 - PFD Circuit Breaker on ESS BUS
 - PFD Circuit Breaker on AVN BUS 1
 - MFD Circuit Breaker on AVN BUS 2

3. Turn on the G1000 in configuration mode to verify existing options.

- A. Put the BAT MASTER switch to the ON position.
- B. Put the AVIONICS BUS 1 and BUS 2 switches to the ON position.
- C. Put the STDBY BATT switch to the ARM position.

- D. Push and hold the ENT key on the PFD and at the same time, push in the PFD Circuit Breaker on the ESS BUS and AVN BUS 1.
 - (1) When INITIALIZING SYSTEM message appears, release the ENT key.
- E. Push and hold the ENT key on the MFD and at the same time, push in the MFD Circuit Breaker on AVN BUS 2.
 - (1) When INITIALIZING SYSTEM message appears, release the ENT key.
- F. (Aircraft equipped with 563.34 SW.) On the PFD, turn the large FMS knob to go to the SYSTEM Page group. Turn the small FMS knob to go to the AIRCRAFT CONFIGURATION page and record the current ICAO address and VFR CODE.

NOTE: If the aircraft is equipped with 563.26 or 563.27 SW, the SYSTEM - AIRCRAFT CONFIGURATION page will not be available. ICAO ADDRESS and VFR CODE will be displayed in the same GTX - TRANSPONDER CONFIGURATION page in step 2.H.

ICAO ADDRESS	VFR CODE

- G. On the PFD, turn the large FMS knob to go to the GTX Page group. Turn the small FMS knob to go to the TRANSPONDER CONFIGURATION page and record the current ADDRESS TYPE.

ADDRESS TYPE

- H. On the PFD, turn the large FMS knob to go to the GDU page group. Turn the small FMS knob to go to the AIRFRAME CONFIGURATION page. OEM Tags are displayed in the AIRFRAME window. Use the FMS knobs to activate the cursor and scroll to the AIRFRAME window. Only five OEM tags are shown at once. Use the FMS knob to scroll through all available tags

NOTE: On the PFD, turn the large FMS knob to go to the GDU page group. Turn the small FMS knob to go to the AIRFRAME CONFIGURATION page. OEM Tags are displayed in the AIRFRAME window. Use the FMS knobs to activate the cursor and scroll to the AIRFRAME window. Only five OEM tags are shown at once. Use the FMS knob to scroll through all available tags

NOTE: To stop the alert chime in configuration mode, on the Alert Configuration page in the GDU page group, push the ACK softkey.

- I. Tables 1, 2, and 3 represent applicable options available in the software loader card pull down menu. Use these tables to help create a list of installed options in the aircraft.

NOTE: Use tables that follow to identify the configuration uploads for the specified airplane installation.

TABLE 1 - Model 172R/172S

INSTALLED OPTIONS	172R/172S AIRPLANE MODEL CONFIGURATION FILE SELECTIONS - PULL-DOWN MENU
	<p>Cessna 172R/172S - 006-B0563-35 Full Configuration (WAAS)</p> <p>NOTE: Applies to all aircraft in serial range.</p> <p>NOTE: Load this option if "Baseline 172R/172S WAAS" appears in the Airframe window.</p>
	<p>Cessna 172R/172S - GFC-700 Installation Option (if applicable)</p> <p>NOTE: Factory Kits FK172-604, FK172S604, FK172-604E, FK172S604E, FK172-604F, FK271S604F, FK172-604G, and FK172S604G are not equipped with the GFC-700 option. All other 172S and 172R NAV III 2008 and on airplanes are equipped with the GFC-700.</p> <p>NOTE: Load this option if "GFC 700 172R/172S GFC" appears in the Airframe window.</p>
	<p>Cessna NAV III CO Guardian Installation Option</p> <p>NOTE: Load this option if "CO Guardian 172R/172S CO" appears in the Airframe window.</p>
	<p>Cessna NAV III CAN BUS FUEL LEVEL SENSORS</p> <p>NOTE: Load this option if "Fuel Sensor CAN" appears in the Airframe window.</p>
	<p>Cessna 172R/172S – INITIALIZE FUEL CAL DATA (only for CAN Bus sensors before fuel cal)</p> <p>NOTE: Only use if CAN Bus fuel sensors are installed and you do a full fuel calibration for the airplane. Do not select this option unless a fuel calibration is necessary. Loss of fuel calibration data will result, and you will have to do a full fuel calibration.</p>
	<p>Cessna NAV III GTS 800 Install Option</p> <p>NOTE: All airplanes equipped with the Cessna NAV III GTS 800 TAS have a TAS circuit breaker installed on the circuit breaker panel.</p> <p>NOTE: Load this option if "GTS 800 TAS Loaded" appears in the Airframe window.</p>
	<p>Cessna NAV III GDL90 TIS-B Installation Option</p> <p>NOTE: The GDL90 is not the same equipment as the GDL69.</p> <p>NOTE: Load this option if "GDL90 TISB" appears in the Airframe window.</p>
	<p>Cessna NAV III GDL90 TIS-B & FIS-B Installation Option</p> <p>NOTE: The GDL90 is not the same equipment as the GDL69.</p> <p>NOTE: Load this option if "GDL90 TISB FISB" appears in the Airframe window.</p>
	<p>Cessna NAV III GDL69 Installation Option</p> <p>NOTE: Load this option if "XM Weather GDL69" appears in the Airframe window.</p> <p>NOTE: In some versions of software, there will be no OEM tag available for the GDL69 option. While in configuration mode, use the FMS knobs to check if a page group titled "GDL" is available. Load this option if the page group is present.</p>
	<p>Cessna NAV III KAP 140 Installation Option</p> <p>NOTE: Use only if a Honeywell KAP 140 AFCS is installed. A KC140 controller is installed in the instrument panel. All 2008 and later Models only installed the Garmin GFC-700 AFCS autopilot.</p> <p>NOTE: Load this option if "KAP 140 Loaded" appears in the Airframe window.</p>

INSTALLED OPTIONS	172R/172S AIRPLANE MODEL CONFIGURATION FILE SELECTIONS - PULL-DOWN MENU
	<p>Cessna NAV III KN 63 DME Installation Option (if applicable)</p> <p>NOTE: All airplanes equipped with the Cessna NAV III KN 63 DME installation option have a DME antenna installed on the bottom of the fuselage below the cabin.</p> <p>NOTE: Load this option if "KN63 DME Loaded" appears in the Airframe window.</p>
	<p>Cessna NAV III KR 87 ADF Installation Option (if applicable)</p> <p>NOTE: Airplanes equipped with the NAV III KR 87 ADF installation option have a receiver installed on the instrument panel.</p> <p>NOTE: Load this option if "KR87 ADF Loaded" appears in the Airframe window.</p>
	<p>Cessna NAV III BP 2007 Comant CI 2580-410 Antenna Configuration</p> <p>NOTE: For WAAS equipped airplanes without a stand alone XM Antenna (CI 420-10).</p> <p>NOTE: Load this option if "Comant Ant 2580-410" appears in the Airframe window.</p>
	<p>Cessna NAV III (Pre 2007 Model Year Airplanes) Comant CI 2480-400 Antenna Configuration</p> <p>NOTE: All Pre 2007 Model Year Airplanes not equipped with WAAS are equipped with the Comant CI 2480-400 antenna.</p> <p>NOTE: Load this option if "Comant Ant 2480-400" appears in the Airframe window.</p>
	<p>Cessna NAV III Delete CAN Fuel Sensor Fuel Calibration</p> <p>NOTE: Only use if you do a full fuel calibration for the airplane. Do not select this option unless a fuel calibration is necessary. Loss of fuel calibration data will result, and you will have to do a full fuel calibration.</p>

TABLE 2 - Model 182T/T182T

INSTALLED OPTIONS	182T/T182T AIRPLANE MODEL CONFIGURATION FILE SELECTIONS - PULL-DOWN MENU
	<p>Cessna 182T/T182T - 006-B0563-35 Full Configuration (WAAS)</p> <p>NOTE: All GFC-700-equipped 182T/T182T airplanes are WAAS airplanes.</p> <p>NOTE: Load this option if "Baseline 182T/T182T WAAS" appears in the Airframe window.</p> <p>NOTE: Applies to all aircraft in serial range.</p>
	<p>Cessna 182T/T182T- GFC-700 Installation Option (if applicable)</p> <p>NOTE: All 182T and T182T NAV III 2007 and on airplanes are equipped with the GFC-700.</p> <p>NOTE: Load this option if "GFC 700 182T/T182T GFC" appears in the Airframe window.</p>
	<p>Cessna NAV III - CO Guardian Installation Option</p> <p>NOTE: All NAV III 2006 and on Model Year airplanes have the CO Guardian installed.</p> <p>NOTE: Load this option if "CO Guardian 182T/T182T CO" appears in the Airframe window.</p>
	<p>Cessna NAV III CAN BUS FUEL LEVEL SENSORS</p> <p>NOTE: All NAV III 2008 and on Model Year airplanes have the CAN BUS FUEL LEVEL SENSORS installed.</p> <p>NOTE: Load this option if "Fuel Sensor CAN" appears in the Airframe window.</p>

INSTALLED OPTIONS	182T/T182T AIRPLANE MODEL CONFIGURATION FILE SELECTIONS - PULL-DOWN MENU
	<p>Cessna 182T/T182T – INITIALIZE FUEL CAL DATA (only for CAN Bus sensors before fuel cal)</p> <p>NOTE: Only use if CAN Bus fuel sensors are installed and a full fuel calibration must be performed on the aircraft. Do not select this option unless a fuel calibration is required, otherwise loss of fuel calibration data will result and a full fuel calibration must be performed.</p>
	<p>Cessna NAV III GTS 800 Install Option</p> <p>NOTE: All airplanes equipped with the Cessna NAV III GTS 800 TAS have a TAS circuit breaker installed on the circuit breaker panel.</p> <p>NOTE: All aircraft equipped with the GTS 800 will include a GTS page group in configuration mode.</p> <p>NOTE: Load this option if "GTS 800 TAS Loaded" appears in the Airframe window.</p>
	<p>Cessna NAV III KTA870 TAS Installation Option</p> <p>NOTE: All airplanes equipped with the Cessna NAV III KTA 870 TAS have a TAS circuit breaker installed on the circuit breaker panel.</p> <p>NOTE: Load this option if "KT870 TAS Loaded" appears in the Airframe window.</p>
	<p>NAV III WX500 Installation Option</p> <p>NOTE: Load this option if "Lightning BFG WX-500" appears in the Airframe window.</p> <p>NOTE: In some versions of software, there will be no OEM tag available for the WX500 option. While in configuration mode, use the FMS knobs to check if a page group titled "OTHER" contains a page titled "STORMSCOPE". Load this option if the page is present.</p>
	<p>Cessna NAV III GDL69 Installation Option</p> <p>NOTE: Load this option if "XM Weather GDL69" appears in the Airframe window.</p> <p>NOTE: In some versions of software, there will be no OEM tag available for the GDL69 option. While in configuration mode, use the FMS knobs to check if a page group titled "GDL" is available. Load this option if the page group is present.</p>
	<p>Cessna NAV III KAP 140 Installation Option</p> <p>NOTE: Use only if a Honeywell KAP 140 AFCS is installed. A KC140 controller is installed in the instrument panel. All 2007 and later Models only installed the Garmin GFC-700 AFCS autopilot.</p> <p>NOTE: Load this option if "KAP 140 Loaded" appears in the Airframe window.</p>
	<p>Cessna NAV III KN 63 DME Installation Option (if applicable)</p> <p>NOTE: All airplanes equipped with the Cessna NAV III KN 63 DME installation option have a DME antenna installed on the bottom of the fuselage below the cabin.</p> <p>NOTE: Load this option if "KN63 DME Loaded" appears in the Airframe window.</p>
	<p>Cessna NAV III KR 87 ADF Installation Option (if applicable)</p> <p>NOTE: Airplanes equipped with the NAV III KR 87 ADF installation option have a receiver installed on the instrument panel.</p> <p>NOTE: Load this option if "KR87 ADF Loaded" appears in the Airframe window.</p>

INSTALLED OPTIONS	182T/T182T AIRPLANE MODEL CONFIGURATION FILE SELECTIONS - PULL-DOWN MENU
	Cessna NAV III BP 2007 Comant CI 2580-410 Antenna Configuration NOTE: For WAAS equipped airplanes without a stand alone XM Antenna (CI 420-10). NOTE: Load this option if "Comant Ant 2580-410" appears in the Airframe window.
	Cessna NAV III (Pre 2007 Model Year Airplanes) Comant CI 2480-400 Antenna Configuration NOTE: All Pre 2007 Model Year Airplanes not equipped with WAAS are equipped with the Comant CI 2480-400 antenna. NOTE: Load this option if "Comant Ant 2480-400" appears in the Airframe window.
	Cessna NAV III Delete CAN Fuel Sensor Fuel Calibration NOTE: Only use if you do a full fuel calibration for the airplane. Do not select this option unless a fuel calibration is necessary. Loss of fuel calibration data will result, and you will have to do a full fuel calibration.

TABLE 3 - Models 206H/T206H

INSTALLED OPTIONS	206H/T206H AIRPLANE MODEL CONFIGURATION FILE SELECTIONS - PULL-DOWN MENU
	Cessna 206H/T206H - 006-B0563-35 Full Configuration (WAAS) NOTE: All GFC-700 equipped 206H/T206H airplanes are WAAS airplanes. NOTE: Load this option if "Baseline 206H/T206H WAAS" appears in the Airframe window.
	Cessna 206H/T206H GFC-700 Installation Option NOTE: All 206H/T206H NAV III 2007 and on Model Year airplanes are equipped with the GFC-700. NOTE: Load this option if "GFC 700 T206H GFC" appears in the Airframe window.
	Cessna NAV III CO Guardian Installation Option NOTE: All NAV III 2006 and on Model Year airplanes have the CO Guardian installed. NOTE: Load this option if "CO Guardian 206H/T206H CO" appears in the Airframe window.
	Cessna NAV III CAN BUS FUEL LEVEL SENSORS NOTE: All NAV III 2008 and on Model Year airplanes have the CAN BUS FUEL LEVEL SENSORS installed. NOTE: Load this option if "Fuel Sensor CAN" appears in the Airframe window.
	Cessna NAV III – INITIALIZE FUEL CAL DATA (only for CAN Bus sensors before fuel cal) NOTE: Only use if CAN Bus fuel sensors are installed and a full fuel calibration must be performed on the aircraft. Do not select this option unless a fuel calibration is required, otherwise loss of fuel calibration data will result and a full fuel calibration must be performed.

INSTALLED OPTIONS	206H/T206H AIRPLANE MODEL CONFIGURATION FILE SELECTIONS - PULL-DOWN MENU
	<p>Cessna NAV III GTS 800 Installation Option</p> <p>NOTE: All airplanes equipped with the Cessna NAV III GTS 800 TAS have a TAS circuit breaker installed on the circuit breaker panel.</p> <p>NOTE: All aircraft equipped with the GTS 800 will include a GTS page group in configuration mode.</p> <p>NOTE: Load this option if "GTS 800 TAS Loaded" appears in the Airframe window.</p>
	<p>Cessna NAV III KTA 870 TAS Installation Option</p> <p>NOTE: All airplanes equipped with the Cessna NAV III KTA 870 TAS have a TAS circuit breaker installed on the circuit breaker panel.</p> <p>NOTE: Load this option if "KTA 870 TAS Loaded" appears in the Airframe window.</p>
	<p>Cessna NAV III WX500 Installation Option</p> <p>NOTE: Load this option if "Lightning BFG WX-500" appears in the Airframe window.</p> <p>NOTE: In some versions of software, there will be no OEM tag available for the WX500 option. While in configuration mode, use the FMS knobs to check if a page group titled "OTHER" contains a page titled "STORMSCOPE (R)". Load this option if the page is present.</p>
	<p>Cessna NAV III GDL69 Installation Option</p> <p>NOTE: Load this option if "XM Weather GDL69" appears in the Airframe window.</p> <p>NOTE: In some versions of software, there will be no OEM tag available for the GDL69 option. While in configuration mode, use the FMS knobs to check if a page group titled "GDL" is available. Load this option if the page group is present.</p>
	<p>Cessna NAV III KAP 140 Installation Option</p> <p>NOTE: Only use if a Honeywell KAP 140 AFCS is installed. A KC140 controller is installed in the instrument panel. All 2007 and later Models only installed the Garmin GFC-700 AFCS autopilot.</p> <p>NOTE: Load this option if "KAP 140 Loaded" appears in the Airframe window.</p>
	<p>Cessna NAV III KN63 DME Installation Option</p> <p>NOTE: All airplanes equipped with the Cessna NAV III KN 63 DME installation option have a DME antenna installed on the bottom of the fuselage below the cabin.</p> <p>NOTE: Load this option if "KN63 DME Loaded" appears in the Airframe window.</p>
	<p>Cessna NAV III KR 87 ADF Installation Option</p> <p>NOTE: Airplanes equipped with the NAV III KR 87 ADF installation option have a receiver installed on the instrument panel.</p> <p>NOTE: Load this option if "KR87 ADF Loaded" appears in the Airframe window.</p>
	<p>Cessna NAV III BP 2007 Comant CI 2580-410 Antenna Configuration</p> <p>NOTE: For WAAS equipped airplanes without a stand alone XM Antenna (CI 420-10).</p> <p>NOTE: Load this option if "Comant Ant 2580-410" appears in the Airframe window.</p>

INSTALLED OPTIONS	206H/T206H AIRPLANE MODEL CONFIGURATION FILE SELECTIONS - PULL-DOWN MENU
	Cessna NAV III Pre 2007 Model Year Airplanes Comant CI 2480-400 Antenna Configuration NOTE: Load this option if "Comant Ant 2480-400" appears in the Airframe window. NOTE: All Pre 2007 Model Year Airplanes not equipped with WAAS are equipped with the Comant CI 2480-400 antenna.
	Cessna NAV III Delete CAN Fuel Sensor Fuel Calibration NOTE: Only use if you do a full fuel calibration for the airplane. Do not select this option unless a fuel calibration is necessary. Loss of fuel calibration data will result, and you will have to do a full fuel calibration.

4. Load the GDU (PFD and MFD) software as follows:

CAUTION: Failure to follow the instructions in exact step-by-step order could result in damage to the GDU SUPPLEMENTAL database and/or SD cards.

- A. Make sure that all switches are in the OFF/NORM position.
- B. Connect the airplane to an external power unit.
- C. Make sure there is not an SD card installed in the PFD and MFD slots.
 - (1) Remove the GDU Supplemental Data SD Cards from the bottom slot of the PFD and the MFD units.
 - (2) Mark the SD Cards PFD or MFD.
 - (3) If an SD card is installed in the top slot of the MFD, remove the SD card.
- D. Pull the circuit breakers as follows:
 - PFD Circuit Breaker on ESS BUS
 - PFD Circuit Breaker on AVN BUS 1
 - MFD Circuit Breaker on AVN BUS 2.
- E. Insert the 3931531-1 SD Card, with the 006-B0563-35 Garmin Software, into the top card slot of the MFD.
- F. Put the BAT MASTER switch to the ON position.
- G. Put the AVIONICS BUS 1 and BUS 2 switches to the ON position.
- H. Put the STDBY BATT switch to the ARM position.
- I. Hold the ENT key on the MFD and at the same time, push in the MFD circuit breaker on AVN BUS 2.
- J. Release the ENT key after the INITIALIZING SYSTEM message appears.
- K. Push the YES softkey to upload GDU system files when the message *DO YOU WANT TO UPDATE SYSTEM FILES?* is displayed.
- L. If the message *DO YOU WANT TO UPDATE THE CUSTOM GRAPHIC FILES (EG, SPLASH SCREEN)?* is displayed, push the YES softkey.

- M. Push the ENT key when the splash screen update is complete and you are asked to *PRESS ANY SOFTKEY TO CONTINUE*.

NOTE: If, in a yellow text, the message *PROCESS 1 SOFTWARE VERSION 13.11 OR PART NR 006-0319-BD DOES NOT MATCH CURRENT VERSION*, is displayed, push and hold the ENT key as the display power cycles to reboot the display back into configuration mode. If the ENT key is not held during the automatic power cycle following the preceding error message, a different error message may be displayed when the display powers up. The display will then begin to power cycle repeatedly and display an error message. Push and hold the ENT key as the display power cycles to reboot the display back into configuration mode and repeat steps 3.I. through 3.L. again.

- N. Software load to the MFD is complete if the display starts in configuration mode.
- O. Leave the MFD display powered on.
- P. Remove the 3931531-1 SD Card, with the 006-B0563-35 Garmin Software, from the MFD and insert it into the top PFD slot.
- Q. Push and hold the ENT key on the PFD and push in the PFD (ESS BUS and AVN BUS 1) circuit breakers.
- R. Release the ENT key after the INITIALIZING SYSTEM message appears.
- S. Push the YES softkey to upload GDU system files when the message *DO YOU WANT TO UPDATE SYSTEM FILES?* is displayed.
- T. If the message *DO YOU WANT TO UPDATE THE CUSTOM GRAPHIC FILES (EG, SPLASH SCREEN)?* is displayed, push the YES softkey.
- U. Push the ENT key when the splash screen update is complete and you are asked to *PRESS ANY SOFTKEY TO CONTINUE*.

NOTE: If, in a yellow text, the message *PROCESS 1 SOFTWARE VERSION 13.11 OR PART NR 006-0319-BD DOES NOT MATCH CURRENT VERSION*, is displayed, hold the ENT key as the display power cycles to reboot the display back into configuration mode. If the ENT key is not held during the automatic power cycle following the preceding error message, a different error message may be displayed when the display powers up. The display will then begin to power cycle repeatedly and display an error message. Hold the ENT key as the display power cycles to reboot the display back into configuration mode and repeat steps 3.Q. through 3.T. again.

- V. Software load to the PFD is complete if the display starts in configuration mode.
- W. Leave the PFD display powered on.
5. Initial software load and configuration upload.
- A. Turn the small FMS knob on the PFD to go to the system group SYSTEM UPLOAD page.
- B. Push the small FMS knob to start the cursor.
- C. Turn the small FMS knob to highlight the applicable airplane model from the group menu option and push the ENT key.
- D. Turn the small FMS knob, select the applicable Cessna (Model Number) 006-B0563-35 Full Configuration (WAAS) item menu option and push the ENT key.

NOTE: The software included in the 3931531-1 SD Card, with the 006-B0563-35 Garmin Software, will automatically determine which files must be loaded.

- E. Press the LOAD softkey to load selected software/config items.
- NOTE:** Periodically monitor the loading process for failures. A green PASS message is shown beside software and configuration items that pass.
- NOTE:** If the upload to a unit is unsuccessful, an UPLOAD FAIL message will be posted and the upload will stop. A red FAIL message will show beside the software that failed. Press ENT key to acknowledge the fail message and to continue the same software load. If unable to load the software after several attempts, uncheck the software and configuration boxes using the ENT key and press the LOAD softkey to continue with the rest of the software load before troubleshooting the cause of failure.
- F. When the UPLOAD COMPLETE message is shown, push the ENT key to select OK.
- NOTE:** The upload can take up to 60 minutes.
6. (Airplanes equipped with identified items in TABLES 1, 2, or 3.) Do the necessary uploads as follows:
- NOTE:** This can take several minutes for each option.
- WARNING: Do not configure an option that is not installed on the airplane. Configuring an option not installed on the airplane requires restarting the software load at Step 2.**
- A. Turn the large FMS knob counterclockwise to go to the ITEM menu.
- B. Turn the small FMS knob to expand the ITEM pull down menu field and highlight one of the Cessna Nav III software uploads that is applicable for your airplane.
- C. Push the ENT key.
- D. Push the LOAD softkey to install the software.
- E. Monitor the upload status. When the UPLOAD COMPLETE message is shown, push the ENT key to select OK.
- F. Do Steps 6A thru 6E again until all software uploads identified in TABLES 1, 2, or 3 are complete.
- G. Press the FMS knob to unselect the cursor.
7. Configure the transponder as follows:
- A. On the PFD, turn the large FMS knob to go to the SYSTEM page group. Turn the small FMS knob to go to the AIRCRAFT CONFIGURATION page.
- B. Verify aircraft registration, ICAO address, and VFR code are correct in the aircraft configuration window. Verify that GTX1 and GTS (if installed) are checked green in the LRU configuration window. If all are correct, go to Step 7.E.
- C. Activate the cursor to highlight and enter the aircraft registration, ICAO address, and VFR code using the FMS knob. Press the ENT key after each entry.
- D. Press, one at a time, the "SET GTX1" and "SET GTS" (if installed) softkeys, then select "OK".
- (1) Make sure GTX1 and GTS (if installed) are checked green.
- E. Turn the large FMS knob to go to the GTX page group. Turn the small FMS knob to go to the TRANSPONDER CONFIGURATION page.
- F. Make sure the address type is correct in the aircraft configuration field window.
- (1) (If the address type is correct.) Go to Step 8.
- (2) (If the address type is not correct.) Do Steps 7.G. and 7.H.
- G. Activate the cursor to highlight and enter the address type with the FMS knob. Press the ENT key after each entry.
- H. Press the "SET>ACTV" softkey.

8. Turn the large FMS knob to go to the SYSTEM page group, turn the small FMS knob to go to the SYSTEM UPLOAD page, push the UPDT CFG softkey and then the ENT key to select YES to update the PFD Config module, and push the ENT key to select OK when complete.

9. Cycle electrical power as follows:

NOTE: You do not need to disconnect external electrical power.

A. Put the AVIONICS Bus 1 and Bus 2, BAT MASTER, and STDBY BATT switches in the OFF position.

B. Remove the SD Card from the top slot of the displays.

C. Pull the circuit breakers as follows:

- PFD Circuit Breaker on ESS BUS
- PFD Circuit Breaker on AVN BUS 1
- MFD Circuit Breaker on AVN BUS 2.

D. Put the BAT MASTER switch to the ON position.

E. Put the AVIONICS BUS 1 and BUS 2 switches to the ON position.

F. Put the STDBY BATT switch to the ARM position.

G. Push and hold the ENT key on the PFD and at the same time, push in the PFD Circuit Breaker on AVN BUS 1 and ESS BUS.

(1) When INITIALIZING SYSTEM message appears, release the ENT key.

H. Push and hold the ENT key on the MFD and at the same time, push in the MFD Circuit Breaker on AVN BUS 2.

(1) When INITIALIZING SYSTEM message appears, release the ENT key.

NOTE: To stop the alert chime in configuration mode, on the Alert Configuration page in the GDU page group, push the ACK softkey.

10. Complete the basic software load and system verification procedures as follows:

A. Do the manifest configuration verification as follows:

(1) On the PFD, turn the large FMS knob to go to the SYSTEM group. Turn the small FMS knob to go to the MANIFEST CONFIGURATION page.

(2) Make sure that the data file and file version shown in TABLE 4 are shown in the SYSTEM field window.

TABLE 4

DATA FILE	FILE VERSION
006-B0563-35	0563.35

(3) For NAV III airplanes equipped with GFC-700 autopilot, make sure that the applicable information shown in TABLE 5 is shown in the MANIFEST field window.

NOTE: This data file is near the bottom of the list.

TABLE 5

MODEL	DATA FILE	FILE VERSION
172R/172S	006-D0887-03	2.03
182T/T182T	006-D0270-16	2.06
206H/T206H	006-D0621-15	2.05

11. Put the AVIONICS, BAT MASTER, and STDBY BATT switches in the OFF position.
12. If the message *DO YOU WANT TO UPDATE THE CUSTOM GRAPHIC FILES (EG, SPLASH SCREEN)* in Step 3K did not display on the MFD or PFD during the software load, do the steps that follow on the MFD or PFD (as applicable) to update the splash screen.
 - A. Make sure the SD loader card is installed in the top slot of the display.
 - B. Make sure the circuit breakers are pushed in as follows:
 - PFD Circuit Breaker on ESS BUS
 - PFD Circuit Breaker on AVN BUS 1
 - MFD Circuit Breaker on AVN BUS 2.
 - C. Put the BAT MASTER switch to the ON position.
 - D. Put the AVIONICS BUS 1 and BUS 2 switches to the ON position.
 - E. Put the STDBY BATT switch to the ARM position.
 - F. Push the NO softkey when the message *DO YOU WANT TO UPDATE SYSTEM FILES* is displayed.
 - G. When the message *DO YOU WANT TO UPDATE THE CUSTOM GRAPHIC FILES (EG, SPLASH SCREEN)* is displayed, push the YES softkey.
 - H. Push the ENT key when the splash screen update is complete and you are asked to *PRESS ANY SOFTKEY TO CONTINUE*.
 - I. When the display splash screen files update is complete, put the AVIONICS and BAT MASTER switches in the OFF position.
 - J. Remove the SD loader card.
13. Do the system checks as follows:
 - A. Install the GDU Supplemental Data SD Cards in to the bottom slot on the PFD and the MFD units.
 - B. If applicable, install the Electronic Checklist SD Card in to the top slot on the MFD.
 - C. Put the BAT MASTER switch to the ON position.
 - D. Put the AVIONICS BUS 1 and BUS 2 switches to the ON position.
 - E. Put the STDBY BATT switch to the ARM position.
 - F. Make sure that no G1000 system messages, alerts, annunciations, or Red X's are shown on the PFD or the MFD on the AUX-SYSTEM STATUS page.

NOTE: Reference Garmin Line Maintenance Manual 190-00352-00 Revision T or latest revision for troubleshooting instructions.

NOTE: Airplanes that do not have the GDL 69A XM Datalink installed, if a FAILED DATA PATH system message is displayed after G1000 system restarts, the error can be cleared with the steps that follow:

 - Start the system in configuration mode.
 - On the PFD, turn the large FMS knob to go to the SYSTEM PAGE group.
 - Turn the small FMS knob to go to the SYSTEM DATA PATH CONFIGURATION page and then push the HSDB softkey.
 - Push the FMS knob to highlight the cursor and use the large FMS knob to select the GDL69 field on the MFD PORT 3 entry.
 - Turn the small FMS knob on the PFD to scroll the drop-down menu to the NONE entry.
 - Push the ENT key to select the NONE entry for the MFD HSDB Port 3.
 - Reboot the system in normal mode and verify the FAILED DATA PATH system message has cleared.
 - G. If GFC-700 autopilot is not installed, go to Step 14.
 - H. (If the gust lock is installed.) Remove the Gust lock.

- I. Do the GFC-700 Autopilot Operation Checks in accordance with Section 4.16 of the Garmin G1000 NAV III Line Maintenance Manual. (Refer to the Garmin G1000 NAV III Line Maintenance Manual, Part Number 190-00352-00, Revision T or latest revision.)
14. Put the AVIONICS, BAT MASTER, and STDBY BATT switches in the OFF position.
15. (After all systems have powered down.) Put the STDBY BATT switch in the ARM position.
16. Put the BAT MASTER switch to the ON position.
17. Put the AVIONICS BUS 1 and BUS 2 switches to the ON position.
18. (After the systems are up.) Check for green boxes on the LRU's on the system status page.
 - A. Push the small FMS knob to start the cursor.
 - B. Turn the small FMS knob to scroll through to the LRU window.
 - C. Scroll through each item in the LRU field to do a check for the green boxes.

NOTE: If any LRU's do not have a green box, the system has not loaded correctly, load the software again. If the software fails to load after five attempts, contact Textron Aviation Propeller Aircraft Customer Service.
 - D. Push the small FMS knob to stop the cursor.
19. Check the Aircraft Software Sleeve in the Pilot's Operating Handbook for feature unlock cards, unlock these features as follows:
 - A. (Airplanes with TAWS-B (enable card 010-00330-51).) Enable the Garmin G1000 Terrain Awareness Warning System Class-B (TAWS-B). (Refer to SB06-34-03, original issue or latest revision).
 - B. (Airplanes with Chartview (enable card 010-00330-53).) Enable the Garmin G1000 NAV III Avionics Chartview Option. (Refer to SB07-34-01, original issue or latest revision).

NOTE: There will be no need to update the chart files on the supplemental database cards as described in SB07-34-01.
 - C. (Airplanes with Garmin Synthetic Vision (enable card 010-00330-54).) Enable the Garmin Synthetic Vision Option. (Refer to SB09-34-07 original issue or latest revision).
 - D. (Airplanes with Garmin Search and Rescue (enable card 010-00330-52).) Enable Garmin G1000 Search and Rescue. (Refer to SB07-34-05 original issue or latest revision).
 - E. (Airplanes with Garmin Enhanced Search and Rescue (enable card 010-00330-59).) Enable Garmin G1000 Enhanced Search and Rescue. (Refer to SEB-34-01 original issue or latest revision).
 - F. (Airplanes with the Max-Viz Enhanced Vision System (EVS) (these airplanes have an EVS camera installed outboard of right WS 100.00) (enable card 010-00330-58).) Enable Garmin G1000 EVS. (Refer to SEB-34-04 original issue or latest revision).
 - G. (Airplanes with ADS-B Out (enable card 010-00905-06).) Enable ADS-B Out. (Refer to SEB-34-14 original issue or latest revision).
 - H. (Model T206 airplanes equipped with a Wipaire Float STC (enable card 010-00905-01 or 010-00905-05). Refer to the STC installation to enable this option.

NOTE: The enable card 010-00905-01 is not compatible with Garmin software 563.35 installed in this bulletin; enable card 010-00905-05 must be ordered.
 - I. (Model T206 airplanes equipped with Aux Fuel tank STC (enable card 010-00905-02).) Refer to the STC installation to enable this option.
20. Do the Standby Battery Ammeter Calibration Procedure as necessary. (Refer to Section 2.7.2 of the Garmin G1000 NAV III Line Maintenance Manual 190-00352-00 Revision T or latest revision.)

NOTE: GDU software version is 13.11 with version 0563.35 installed.

21. (Airplanes with Dual GMA 1347 Audio Panels (GMA 1347 CAP Configuration Software) (These airplanes have a second GMA 1347 audio panel installed).) Do the configuration of the dual audio panels. (Refer to the Garmin Installation Bulletin No.: 0614 or latest revision.)
NOTE: System software build 0563.35 supports AOPA database display. The database is available for purchase at www.flygarmin.com. Refer to Cessna Service Newsletter 11-1.
22. Put the AVIONICS, BAT MASTER, and STDBY BATT switches in the OFF position.
23. Remove external electrical power.
24. (If the gust lock was removed.) Install the gust lock.
25. (After this service bulletin is complete.) Remove, destroy, and discard the old Cessna NAV III Installation Software CD from the sleeve in the Pilot's Operating Handbook (POH) .
NOTE: This will eliminate the possibility of reloading the incorrect software at a later date.
26. (When not in use.) Put the 3931531-1 SD Card, with the 006-B0563-35 Garmin Software, in the Pilot's Operating Handbook sleeve for the NAV III Garmin Software.
NOTE: The 3931531-1 SD Card, with the 006-B0563-35 Garmin Software can be ordered through Textron Aviation Parts Distribution. **You must use the new SD card when you do the software upgrade on the airplane.**
27. Remove from the airplane the 190-00384-12 or prior version Garmin G1000 Integrated Flight Deck Cockpit Reference Guide and discard.
28. Put the 190-00384-13 REV B Garmin G1000 Integrated Flight Deck Cockpit Reference Guide for Cessna NAV III in the airplane.
29. Make an entry in the airplane logbook that states compliance and method of compliance with this Service Bulletin.

MATERIAL INFORMATION

Order the parts below to install this service bulletin:

NEW P/N	QUAN- TITY	KEY WORD	OLD P/N	INSTRUCTIONS/ DISPOSITION
3931531-1	1	System Software SD Card with Garmin Software 006-B0563-35	NAVIIIGSW00-04 or prior revision	Destroy and Discard Old Install new in POH Sleeve
190-00384-13 REV B	1	Garmin G1000 Integrated Flight Deck Cockpit Reference Guide for Cessna NAV III	190-00384-12 or prior revisions	Remove and Replace

In addition to the above parts, the part that follows is optional and can be ordered at the discretion of the owner/operator.

NEW P/N	QUAN- TITY	KEY WORD	OLD P/N	INSTRUCTIONS/ DISPOSITION
190-00498-08 REV A	1	Garmin G1000 Pilot's Guide for Cessna NAV III	190-00498-07 or prior revisions	(Optional) Remove and Replace

Airplanes that have the Wipaire float STC, and do not have unlock card 010-00905-05, order the part that follows:

NEW P/N	QUAN- TITY	KEY WORD	OLD P/N	INSTRUCTIONS/ DISPOSITION
010-00905-05	1	Garmin 206 Floats Unlock SD Card	010-00905-01	Destroy and Discard old Install new in POH Sleeve

TITLE

NAVIGATION - GARMIN G1000 SYSTEM SOFTWARE UPGRADE TO VERSION 0563.35 FOR AIRPLANES EQUIPPED WITH NAV III (WAAS-ENABLED INSTALLATIONS ONLY)

TO:

Cessna 172R, 172S, 182T, T182T, 206H, and, T206H Aircraft Owner

REASON

This version 0563.35 software service bulletin provides an upgrade that includes the changes that follow:

- **GPS/WAAS Updates:** GPS/WAAS software has been updated to satisfy new requirements associated with RTCA/DO-229D.
- **User Defined Holding Patterns:** This new feature is designed to allow the pilot to define his own holding patterns in the flight plan. This feature does not remove the system's capability to fly existing pre-defined holding patterns.
- **Geo-Reference Garmin Flight Charts:** This update will allow the default electronic departure chart provided by Garmin (FliteCharts) to also provide a GPS derived aircraft ownership overlay above the currently selected chart similar to Chartview. This feature only applies to Approach Charts that are to scale.
- **Localizer Performance (LP) Approach Support:** This update adds software support to display and fly Localizer Performance (LP) approaches on the G1000 system.
- **LNAV/VNAV and LNAV+V Approaches:** Previously, CDI (Course Deviation Indicator)/HSI (Horizontal Situation Indicator) scaling was incorrect on a limited number of LNAV/VNAV and LNAV+V approaches. As a result Garmin removed the capability of selecting these affected approaches starting Database cycles 1013 and 1103. Phase 14 restores these approaches that were suppressed in compliance with Service Advisory 1047.
- **ADS-B Out Support:** Supports ADS-B Out functionality when installed by service bulletin SEB-34-14.
- **Temperature Compensation:** Temperature Compensation allows the pilot to compensate the approach minimum altitude, the altitudes associated with waypoints in an approach, or both for the effects of nonstandard temperature.
- **Slip/Skid Indicator Red X:** New fail flags apply to the CDI indication and the slip/skid indication. The CDI indication will be displayed as failed when the currently selected CDI source is failed. The slip/skid indicator will be displayed as failed in the event the pitch and roll angles are both valid but the Y-axis acceleration is invalid.

COMPLIANCE

OPTIONAL. This service bulletin can be accomplished at the discretion of the owner.

WARRANTY

Not Applicable

February 1, 2017

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Textron Aviation Customer Service, P.O. Box 7706, Wichita, KS 67277, U.S.A. 1-316-517-5800

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