TITLE

NAVIGATION - DISABLE FMS TEMPERATURE COMPENSATION AND IMPLEMENT AIRPLANE FLIGHT MANUAL (AFM) CHANGES FOR LNAV/VNAV

EFFECTIVITY

MODEL	SERIAL NUMBERS
525 (CJ1+)	-0600 thru -0684, and -0686 thru -0701 incorporating CIB-34-03

NOTE: Incorporation of this Service Letter complies with Federal Aviation Airworthiness Directive AD 2020-10-05.

NOTE: CIB-34-03, Navigation - Temperature Compensation for LNAV, activates the FMS for temperature compensation for LNAV and VNAV approaches.

REASON

To prevent the FMS from turning in the wrong direction after sequencing a “Climb To” altitude that was manually edited or temperature compensated.

DESCRIPTION

This service document provides instructions to make a logbook entry to comply with Federal Aviation Airworthiness Directive AD 2020-10-05.

COMPLIANCE

MANDATORY. This service document must be accomplished prior to June 24, 2021.

A service document published by Textron Aviation 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 document, including the intent therein.
2) The mechanic must correctly use and install all applicable parts supplied with the service document kit. Only with written authorization from Textron Aviation 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 document only as approved and published.
4) The mechanic or airplane owner must apply the information in the service document only to aircraft serial numbers identified in the *Effectivity* section of the document.
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 Textron Aviation is authorized to make or apply any changes to a Textron Aviation-issued service document or flight manual supplement without prior written consent from Textron Aviation.

Textron Aviation is not responsible for the quality of maintenance performed to comply with this document, unless the maintenance is accomplished at a Textron Aviation-owned Service Center.

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

FLIGHT CREW OPERATIONS

Refer to the attached *Flight Crew Operations Summary*.

CONSUMABLE MATERIAL

No specialized consumable materials are required to complete this service document.

TOOLING

No specialized tooling is required to complete this service document.

REFERENCES

Federal Aviation Administration Airworthiness Directive AD 2020-10-05

Rockwell Collins Service Information Letter CSU-XX00-18-1

Rockwell Collins Service Information Letter FMC-XX00-18-1, Revision 1

Cessna Model 525 Maintenance Manual

PUBLICATIONS AFFECTED

Cessna Citation FAA Approved Airplane Flight Manual (525FMB)

ACCOMPLISHMENT INSTRUCTIONS

1. Disable the temperature compensation feature and insert the applicable FAA Approved Airplane Flight Manual supplements into the AFM. (Refer to the Federal Aviation Administration Airworthiness Directive AD 2020-10-05 @ www.faa.gov/aircraft/safety/alerts.)

   A. To disable the temperature compensation feature, do the attached Rockwell Collins Service Information Letter CSU-XX00-18-1.

      (1) Refer to the Model 525 Maintenance Manual, Chapter 34, Collins Pro Line 21 Integrated Avionics Processor System - Maintenance Practices (Airplanes -0600 and On) for instructions to do the modifications outlined in the Collins Service Letter.

   B. Update the FAA Approved Airplane Flight Manual.

      NOTE: The AFM supplements satisfy text required by Federal Aviation Administration Airworthiness Directive AD 2020-10-05. Refer to the attached Rockwell Collins Service Information Letter FMC-XX00-18-1, Revision 1 for AFM content.

      NOTE: Look at the configuration codes listed in the applicable supplement and/or in Section 1 of the FAA Approved Airplane Flight Manual to make sure all changed crew procedures or limitations are complied with.

      (1) Make sure that Supplement 8, Revision 8 or later is inserted into the CJ1+ FAA Approved Airplane Flight Manual (525FMB).

      (2) Make sure that Supplement 22, Revision 7 or later is inserted into the CJ1+ FAA Approved Airplane Flight Manual (525FMB).

2. Make sure the flight crew receives the *Flight Crew Operations Summary*, which shows the operational changes that are a result of the accomplishment of this service letter.

3. Make an entry in the airplane logbook that states compliance and method of compliance with Federal Aviation Airworthiness Directive AD 2020-10-05.

   NOTE: Textron Aviation recommends that compliance with all service documents is reported to a maintenance tracking system provider.
   - Complete a record of compliance. (Maintenance Transaction Report, Log Book Entry, or other record of compliance.)
   - Put a copy of the completed record of compliance in the airplane logbook.
   - Send a copy of the completed record of compliance to the maintenance tracking system provider used.

MATERIAL INFORMATION

No parts are required to complete this service document.

FLIGHT CREW OPERATIONS SUMMARY

This summary provides additional information for the flight crew regarding operational changes as a result of accomplishment of this service letter. Please remove this summary from the service letter and give it to the flight crew. This summary is *informational only* and does not supersede any information in the FAA-approved airplane flight manual.

- Refer to the airplane flight manual FMS supplement 525FMB-S08-08 or later revision and 525FMB-S22-07 or later revision for operational changes.

TITLE

NAVIGATION - DISABLE FMS TEMPERATURE COMPENSATION AND IMPLEMENT AIRPLANE FLIGHT MANUAL (AFM) CHANGES FOR LNAV/VNAV

TO:

Citation CJ1+ Owner

REASON

To prevent the FMS from turning in the wrong direction after sequencing a “Climb To” altitude that was manually edited or temperature compensated.

COMPLIANCE

MANDATORY. This service document must be accomplished prior to June 24, 2021.

LABOR HOURS

WORK PHASE	LABOR-HOURS
Modification	0.5

WARRANTY

This service document is *mandatory*. Eligible airplanes may qualify for parts and labor coverage to the extent noted in the *Labor Hours* and *Material Availability* sections of this document.

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

Eligibility: Airplanes identified within the serial number effectivity of this service document must have active Airframe warranty coverage on the original issue date of this document and the coverage must be active on the day the work is accomplished.

Parts Coverage: Textron Aviation-owned and Textron Aviation-authorized Service Facilities, operators, or other maintenance facilities may submit a claim for the parts required to accomplish this service document as defined in the *Material Availability* section of this document.

Labor Coverage: Textron Aviation-owned and Textron Aviation-authorized Service Facilities rated to perform maintenance on the specific model of Cessna Aircraft may submit a claim for the labor necessary to accomplish this service document as defined in the *Labor Hours* section of this document.

Credit Application: After this service document has been accomplished, a claim must be submitted to Textron Aviation within 30 days of the service document completion. Claims for compliance of this service document are to be filed as a W3 type claim.

Please submit your claim form online at *ww2.txtav.com/Parts* or email the completed Textron Aviation Claim Form to *warranty@txtav.com*. If submitted on-line a Return Authorization will be provided. If a paper claim is submitted your claim will be entered into the system and a Return Authorization will be sent to you.

The Return Authorization must accompany any required return parts (see *Material Availability*), to the point of purchase.

Parts to be returned to Textron Aviation Parts Distribution should be forwarded to:

Textron Aviation Parts Distribution
Warranty Administration
285 South Greenwich Road
Bldg B89, Docks 1-4
Wichita, KS 67206
USA

Expiration: June 24, 2021 (after this date the owner/operator assumes the responsibility for compliance costs)

Textron Aviation reserves the right to void continued airplane warranty coverage for the parts affected by this service document until the service document is accomplished.

NOTE: As a convenience, service documents are now available online to all our customers through a simple, free-of-charge registration process. If you would like to sign up, please visit the Customer Access link at www.txtavsupport.com to register.

Service Information Letter

Rockwell Collins

523-0825521-001000

CSU-3100 CONFIGURATION STRAPPING UNIT
ROCKWELL COLLINS PART NUMBER (RCPN) 822-1363-002
CSU-4000 CONFIGURATION STRAPPING UNIT RCPN 822-0049-002
CSU-4100 CONFIGURATION STRAPPING UNIT RCPN 822-1364-002

Service Information Letter CSU-XX00-18-1

INSTRUCTIONS FOR DISABLING OF AUTOMATIC TEMPERATURE COMPENSATION OPTION IN PRO LINE 4 AND PRO LINE 21 SYSTEMS

TRANSMITTAL INFORMATION SUMMARY

Summary

This is the initial release of Service Information Letter (SIL) CSU-XX00-18-1 for the CSU-3100, CSU-4000, and CSU-4100 Configuration Strapping Unit.

Service Information Letter Revision History

REVISION	DATE OF RELEASE
Initial Release	June 27, 2018

A. Purpose

(1) Aircraft configured with specific Rockwell Collins Pro Line 4™ and Pro Line 21™ systems Flight Management Systems must disable the Automatic Temperature Compensation feature via the Configuration Strapping Unit modules installed in the Integrated Avionics Processing System (IAPS) Integrated Card Cage (ICC).

(2) This SIL documents the means to disable the Automatic Temperature Compensation feature to ensure that the "TEMP COMP" selections will not be available on the CDU INDEX and DEFAULTS pages.

(3) This work can be performed at a properly authorized repair facility.

(4) Refer to SIL FMC-XX00-18-1 for the list of the affected Flight Management Systems.

(5) Refer to Operational Service Bulletin 0166-17 for detailed background information.

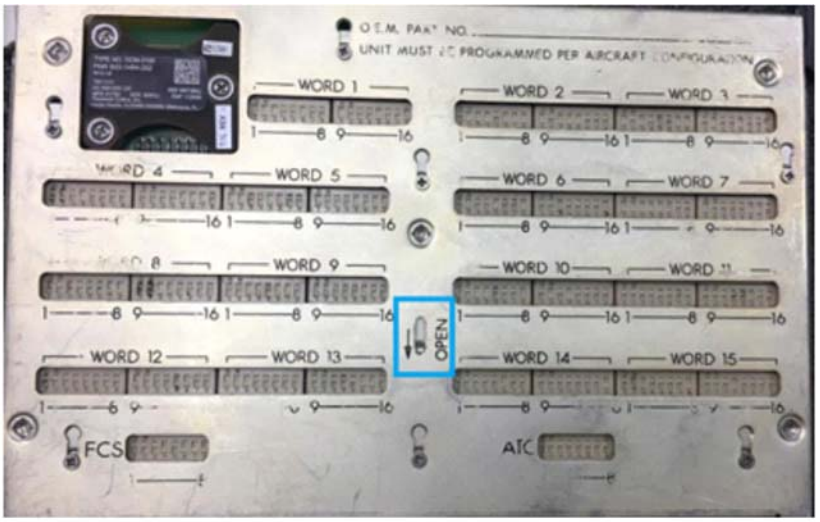
B. Instructions

(1) This change is to be made by Rockwell Collins authorized dealers only, in accordance with model specific OEM Aircraft Maintenance Manual instructions. Do not return the units to Rockwell Collins.

(2) Remove electrical power from the airplane. Follow the instructions within the Aircraft Maintenance Manual for removal of the CSU-XX00 from the ICC. Each ICC contains two CSU units, this operation must be performed on both units.

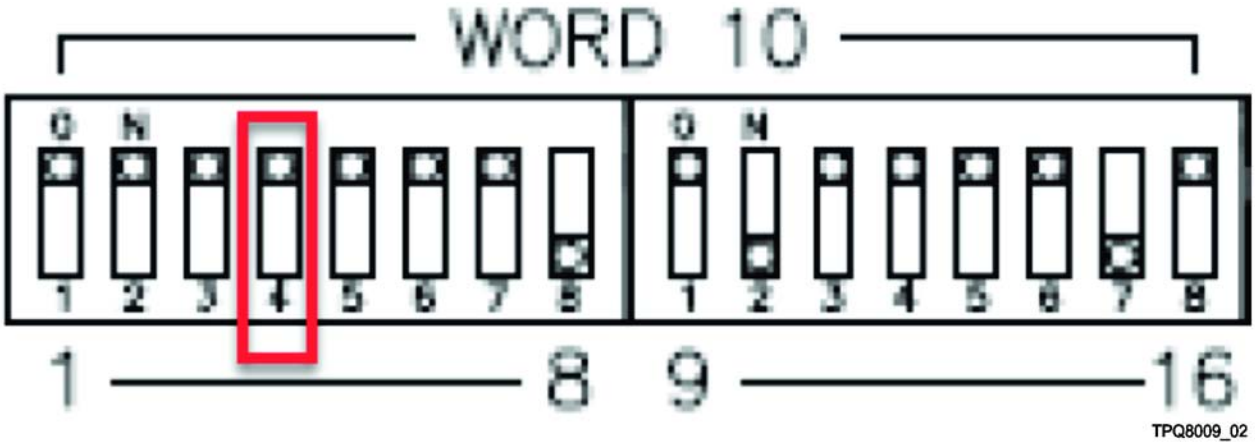
(3) The CSU-XX00 consists of 256 strapping options organized in a 16x16 array of switches. Each word (row) of the array contains 16 straps.

(a) Refer to Figure 1. Loosen the screws and slide the cover in the direction of the OPEN arrow. This will allow access to the switches. Further information regarding the CSU-XX00 may be found within the applicable Rockwell Collins Avionics Systems Manual for the aircraft.



Switch Access
Figure 1

(b) To disable the Automatic Temperature Compensation feature, Word 10, Switch 4 must be placed in the "UP" (UP = LOGIC 0) position. If Switch 4 is already in the "UP" position as shown Figure 2, no action is required. The proper orientation of the CSU is as shown in Figure 2.



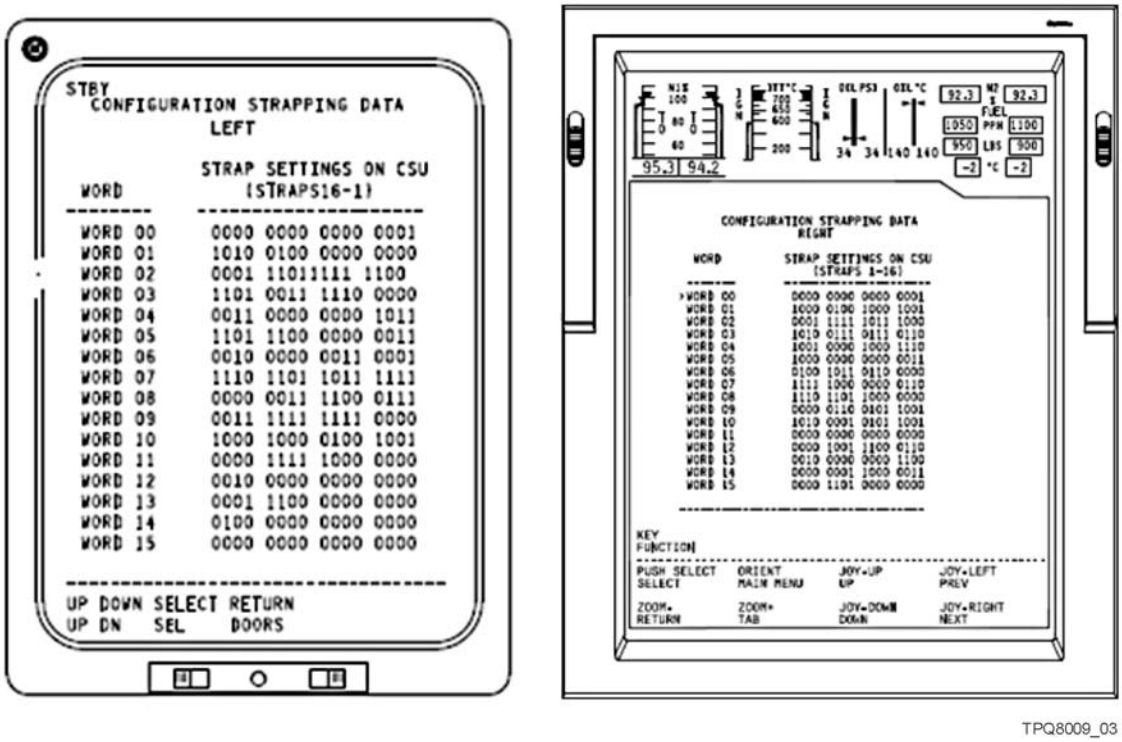
Word 10, Switch 4 "UP" Position
Figure 2

(c) Do NOT change any other switch settings. The settings of other switches may not match what is depicted in Figure 2. This is normal as these settings may vary based on other options within the aircraft.

(d) Slide the CSU cover closed and secure by tightening screws.

(4) Replace the CSU-XX00 units within the IAPS and perform return to service tests per the Aircraft Maintenance Manual instructions.

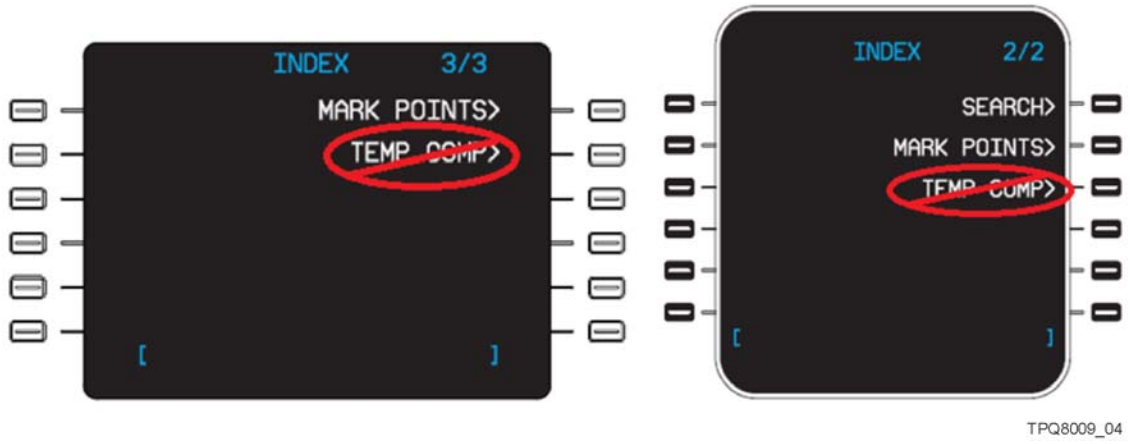
(5) After proper reapplication of aircraft power, refer to the Aircraft Maintenance Manual or aircraft specific Rockwell Collins Diagnostic Guide, for access to the CONFIGURATION STRAPPING DATA Page. View both the Left and Right CSU settings and confirm that they are identical. Refer to Figure 3. Instructions for accessing this data vary by aircraft.



TPQ8009_03

CONFIGURATION STRAPPING DATA Page
Figure 3

(6) Access the FMS INDEX format via the CDU IDX button. Refer to Figure 4. Confirm that a TEMP COMP line key selection is not visible on any INDEX 2/2 or INDEX 3/3 page. TEMP COMP when enabled is on the "last" Index page, which varies by aircraft. Refer to Figure 4 reference only, and note that other line key selections will vary by aircraft.



INDEX 2/2 or INDEX 3/3 Page (Reference Only)
Figure 4

C. References

(1) Operational Service Bulletin (OPSB) 0166-17, 523-0824828, The FMS may turn in the wrong direction after sequencing a "Climb to" altitude that was manually edited or Temperature Compensated

(2) SIL FMC-XX00-18-1 titled, "Instructions for Aircraft Flight Manual Limitations for Altitude Edits on Specific Pro Line 4 and Pro Line 21 Flight Management Systems", RCPN 523-0825523

Rockwell Collins

523-0825523-101000

Service Information Letter FMC-XX00-18-1
REVISION NO. 1

INSTRUCTIONS FOR AIRCRAFT FLIGHT MANUAL LIMITATIONS FOR ALTITUDE EDITS ON SPECIFIC PRO LINE 4 AND PRO LINE 21 FLIGHT MANAGEMENT SYSTEMS

TRANSMITTAL INFORMATION SUMMARY

Summary

This is revision 1 of Service Information Letter (SIL) FMC-XX00-18-1 for the FMC-3000, FMC-4200, FMC-5000, and FMC-6000 Flight Management Computer.

This revision updates Steps B.(1), C.(2)(a), and C.(2)(b)3.

Black bars in the margins indicate the changes

The format and content of this service bulletin are updated to current publication standards.

Replace the initial release with this revision.

Service Information Letter Revision History

REVISION	DATE OF RELEASE
Initial Release	June 27, 2018
Revision 1	February 5, 2019

A. Effectivity

The information in this SIL is applicable to the FMC-3000 Flight Management Computer listed in the following table.

UNIT	NOMENCLATURE	ROCKWELL COLLINS PART NUMBER
FMC-3000	Flight Management Computer	822-0883-031
FMC-3000	Flight Management Computer	822-0883-036
FMC-3000	Flight Management Computer	822-0883-038
FMC-3000	Flight Management Computer	822-0883-040
FMC-3000	Flight Management Computer	822-0883-041
FMC-3000	Flight Management Computer	822-0883-053
FMC-3000	Flight Management Computer	822-0883-054
FMC-3000	Flight Management Computer	822-0883-056
FMC-3000	Flight Management Computer	822-0883-057
FMC-3000	Flight Management Computer	822-0883-058
FMC-3000	Flight Management Computer	822-0883-059
FMC-3000	Flight Management Computer	822-0883-060
FMC-3000	Flight Management Computer	822-0883-081
FMC-3000	Flight Management Computer	822-0883-082
FMC-3000	Flight Management Computer	822-0883-083
FMC-3000	Flight Management Computer	822-0883-084
FMC-4200	Flight Management Computer	822-0783-022
FMC-4200	Flight Management Computer	822-0783-025
FMC-4200	Flight Management Computer	822-0783-028
FMC-4200	Flight Management Computer	822-0783-032
FMC-4200	Flight Management Computer	822-0783-036
FMC-4200	Flight Management Computer	822-0783-039
FMC-4200	Flight Management Computer	822-0783-040
FMC-5000	Flight Management Computer	822-0891-021
FMC-5000	Flight Management Computer	822-0891-027
FMC-5000	Flight Management Computer	822-0891-028
FMC-5000	Flight Management Computer	822-0891-034
FMC-5000	Flight Management Computer	822-0891-028
FMC-5000	Flight Management Computer	822-0891-028

UNIT	NOMENCLATURE	ROCKWELL COLLINS PART NUMBER
FMC-5000	Flight Management Computer	822-0891-040
FMC-6000	Flight Management Computer	822-0868-074
FMC-6000	Flight Management Computer	822-0868-075
FMC-6000	Flight Management Computer	822-0868-082
FMC-6000	Flight Management Computer	822-0868-083
FMC-6000	Flight Management Computer	822-0868-084
FMC-6000	Flight Management Computer	822-0868-085
FMC-6000	Flight Management Computer	822-0868-087
FMC-6000	Flight Management Computer	822-0868-089
FMC-6000	Flight Management Computer	822-0868-090
FMC-6000	Flight Management Computer	822-0868-109
FMC-6000	Flight Management Computer	822-0868-110
FMC-6000	Flight Management Computer	822-0868-111
FMC-6000	Flight Management Computer	822-0868-112
FMC-6000	Flight Management Computer	822-0868-113
FMC-6000	Flight Management Computer	822-0868-114
FMC-6000	Flight Management Computer	822-0868-116
FMC-6000	Flight Management Computer	822-0868-117
FMC-6000	Flight Management Computer	822-0868-122
FMC-6000	Flight Management Computer	822-0868-123
FMC-6000	Flight Management Computer	822-0868-127
FMC-6000	Flight Management Computer	822-0868-130
FMC-6000	Flight Management Computer	822-0868-132
FMC-6000	Flight Management Computer	822-0868-133
FMC-6000	Flight Management Computer	822-0868-134
FMC-6000	Flight Management Computer	822-0868-139

B. Purpose

(1) Aircraft configured with specific Rockwell Collins Pro Line 4™ and Pro Line 21™ Flight Management Computers may not edit altitudes using the Flight Management System on Departure Procedures, and Missed Approach Procedures.

(2) Refer to SIL CSU-XX00-18-1 for the means for disabling Automatic Temperature Compensation on the aircraft.

(3) Refer to Operational Service Bulletin 0166-17 for detailed background information.

C. Aircraft Flight Manual Recommendation

(1) In order to comply with the actions noted in Operational Service Bulletin 0166-17, the following text is provided for use within Aircraft Flight Manuals. Any aircraft which have previously included the optional Automatic Temperature Compensation feature, should also apply SIL CSU-XX00-18-1.

(2) The following limitations apply at any time on ground or in flight if FMS software version FMS X.X (Software Configuration Index Drawing (SCID) XXX-XXXX-XXX) is installed:

(a) Editing altitudes on FMS CONTROL Display Unit (CDU) ACT/MOD/SEC LEGS on departure procedures and missed approach procedures is prohibited at all times for all ground and flight operations.

(b) If temperature compensation is required:

1. Any use of automatic FMS Temperature Compensation Feature is prohibited for all ground and flight operations. A separate action is required to disable the FMS Temperature Compensation Feature in the installation.

2. LNAV/VNAV operations must be accomplished using procedures for uncompensated Baro-VNAV systems. If reported airport temperature is outside published limits for the approach, Baro-VNAV operation is permitted only to the LNAV or circling line of minima, as applicable.

3. Temperature compensation may be accomplished manually without using the FMS by entering temperature-corrected altitudes on the altitude preselect on the Flight Guidance Panel and/or using basic altimetry techniques.

(c) The barometric altimeter(s) shall be referenced to assure compliance with altitude restrictions for all flight operations, including departure, any approach and missed approach segment, stepdown fix and "climb to" restrictions.

NOTE: Step down fixes may not be available in the navigation database for certain approaches and approach segments.

D. References

(1) Operational Service Bulletin (OPSB) 0166-17, 523-0824828, The FMS may turn in the wrong direction after sequencing a "Climb to" altitude that was manually edited or Temperature Compensated

(2) Service Information Letter CSU-XX00-18-1 titled, "Instructions for Disabling of Automatic Temperature Compensation Option in Pro Line 4 and Pro Line 21 Systems", CPN 523-0825521

(3) Service Information Letter FMC-3000/4200/5000/6000-17-1 titled, "Flight Management System (FMS) Version Matrix", CPN 523-0824752