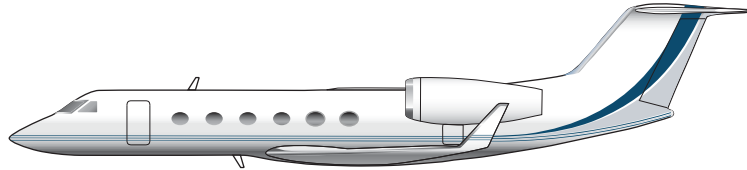


Gulfstream G450



AIRCRAFT SERVICE CHANGE

NUMBER 077

SUBJECT

NAVIGATION (ATA 34)

TCAS 7.1 INSTALLATION

JUNE 12, 2012

“June 12, 2012”

PILOTS INFORMATION SHEET

TCAS 7.1 INSTALLATION

This service change upgrades TCAS 2000 or 3000SP systems to TCAS 7.1.

Aircraft operating under FAA regulations will require FAA Airplane Flight Manual (AFM) Revision 31, or later approved version, as a result of this service change.

Aircraft operating under EASA / JAA regulations will require JAA Airplane Flight Manual (AFM) Revision 17, or later approved version, as a result of this service change.

PLEASE DETACH AND GIVE TO FLIGHT DEPARTMENT PERSONNEL

Aircraft Service Change prepared by Gulfstream Aerospace, Savannah International Airport, PO Box 2206, Savannah Georgia, 31402-2206, USA. © 2012, Gulfstream Aerospace. All rights reserved, including the right to reproduce this publication. No part may be reproduced, stored in any retrieval system or transmitted in any part or form or by any means electronic, photocopying, microfilm, microfiche, mechanical or otherwise, without prior written permission of Gulfstream Aerospace.

This technical data is controlled under the Export Administration Regulations by General License TSU. It may not be transferred to a third party without the prior written approval of the U.S. Department of Commerce.

“June 12, 2012”

PILOTS INFORMATION SHEET

TCAS 7.1 INSTALLATION

This service change upgrades TCAS 2000 or 3000SP systems to TCAS 7.1.

Aircraft operating under FAA regulations will require FAA Airplane Flight Manual (AFM) Revision 31, or later approved version, as a result of this service change.

Aircraft operating under EASA / JAA regulations will require JAA Airplane Flight Manual (AFM) Revision 17, or later approved version, as a result of this service change.

PLEASE RETAIN THIS COPY WITH THE ASC BOOKLET

Aircraft Service Change prepared by Gulfstream Aerospace, Savannah International Airport, PO Box 2206, Savannah Georgia, 31402-2206, USA. © 2012, Gulfstream Aerospace. All rights reserved, including the right to reproduce this publication. No part may be reproduced, stored in any retrieval system or transmitted in any part or form or by any means electronic, photocopying, microfilm, microfiche, mechanical or otherwise, without prior written permission of Gulfstream Aerospace.

This technical data is controlled under the Export Administration Regulations by General License TSU. It may not be transferred to a third party without the prior written approval of the U.S. Department of Commerce.

“June 12, 2012”

The design change effected by this Aircraft Service Change (ASC) has been classified as Major/Not Significant by the United States Federal Aviation Administration (FAA) and Level 2 Major/Not Significant by the European Aviation Safety Agency (EASA). The design change data contained here-in and effected by this document is approved and accepted by the FAA and EASA under Gulfstream Organization Delegation Authorization Project No. TG-01-2012-0001.

The design of this ASC is approved by aircraft type design data for installation on aircraft registered for operation in accordance with applicable regulations of the FAA and EASA.

The design of an ASC is configured to a standard (“green”) production aircraft. If spare wires, pin connections or locations called out have been used for another modification, the installing agency must ensure the development, documentation and approval of any required deviations.

The following instructions, in step-by-step form, are written as a guide to perform this ASC. Compliance with safe maintenance practices, as defined in the Aircraft Maintenance Manual and FAA regulations, is required. It is the responsibility of the installing facility to read all instructions contained in this service change and refer to all associated documents, drawings and manuals for applicable actions.

Gulfstream considers this ASC a means to enhance aircraft capabilities to meet individual operator requirements. The modification is not related to any safety or airworthiness condition.

Subject: Navigation (ATA 34) – TCAS 7.1 Installation

Purpose / Discussion: This service change installs new operating software to the Traffic Alert and Collision Avoidance System (TCAS) 2000 and 3000SP units. The new operating software incorporates the following functionalities:

- TCAS Change 7.1
- TCAS Interference Limiting
- Compliance to DO-260B
- Compliance with DO-317

Description / Man-Hours
Required Per Aircraft:

This service change provides instructions for the installation of new operating software to the TCAS unit via incorporation of Aviation Communication & Surveillance Systems (ACSS) service bulletins (SBs). This software only change may be completed on or off the aircraft at an approved test station.

Approximately 4 man-hours will be required for this installation.

“June 12, 2012”

Approved Engineering Data: The source data for this aircraft service change is:
1159ASC47077 Rev. “-” Top Drawing ASC 077 – TCAS 7.1

Prerequisites: ACSS Service Bulletin 8006949-001 for TCAS 2000 units without mod “B” (aircraft 4001 - 4188)
Incorporation of ACSS SB 8006949-001 requires the unit to be returned to ACSS for modification. Approximate turn-time is 14 days.

Associated Documents: G450 Aircraft Maintenance Manual (AMM)

Flight Manual Revision / Supplement Required: Aircraft operating under FAA regulations will require FAA Airplane Flight Manual (AFM) Revision 31, or later approved version, as a result of this service change.
Aircraft operating under EASA / JAA regulations will require JAA Airplane Flight Manual (AFM) Revision 17, or later approved version, as a result of this service change.

Publications Data: Data concerning this service change will be published in a future revision of the affected manual(s). This booklet will provide technical data until the revision(s) is published.

Effectivity: This service change is applicable to aircraft serial numbers 4001 - 4255.
This or a similar change will be installed during initial phase manufacturing on aircraft, serial number 4256 and subsequent.

Effect on Spares: None

Special Equipment / Tools Required: None

Skill Type Required: Knowledge of the G450 TCAS system will be required for this installation.

“June 12, 2012”

Price: Prices are subject to change without notice.

Installed Price: Installed price is subject to the prevailing labor rate of the installing facility.

Kit Price only: Domestic: \$ 16,124.00

International: \$ 16,446.48

NOTE:	This ASC may only be installed at Gulfstream Aerospace or Gulfstream-approved facilities. This ASC is managed by Product Support Program Management (PSPM). Incorporation must be coordinated through Gulfstream Aircraft Scheduling at 800-810-GULF (4853) or 912-965-4178. If not scheduled, aircraft downtime could increase significantly.
-------	--

*“June 12, 2012”***MODIFICATION INSTRUCTIONS:**

CAUTION:	PROTECT WIRE BUNDLES, CONNECTORS AND SURROUNDING STRUCTURE DURING ANY MAINTENANCE PROCEDURE FROM SHAVINGS, DEBRIS AND CONTAMINATION. MAINTAIN A PROPERLY CLEANED WORK AREA THROUGHOUT THE PROCEDURE TO ENSURE THE INTEGRITY OF THE AFFECTED COMPONENT / SYSTEM. VISUALLY INSPECT WORK AREA USING ADDITIONAL LIGHT AS NECESSARY TO VERIFY ABSENCE OF ANY DEBRIS PRIOR TO COMPLETION OF PROCEDURE. FAILURE TO COMPLY MAY RESULT IN DAMAGE TO COMPONENTS AND / OR SYSTEMS.
-----------------	---

A. Prepare aircraft for safe maintenance as follows:

1. Remove all electrical power, turn all cockpit switches off and disconnect battery quick disconnects. Refer to G450 AMM, Chapter 20.
2. On aircraft 4001 – 4188, verify TCAS unit has mod “B”. If the unit does not have mod “B” it must be removed and returned to ACSS for incorporation of ACSS SB 8006949-001. If mod level is correct then proceed to the next step.
3. If performing modification off the aircraft, remove the TCAS unit in accordance with G450 AMM, Chapter 34.
4. If performing modification on the aircraft, prepare for safe application of electrical power in accordance with G450 AMM, Chapter 20.

B. Modify aircraft as follows:

1. Aircraft 4001 – 4188 incorporate ACSS service bulletin 8008559-001.
2. Aircraft 4189 – 4255 incorporate ACSS service bulletin 8008263-001.

C. Follow on:

1. If performing modification off the aircraft, reinstall the TCAS unit in accordance with G450 AMM, Chapter 34. Prepare for safe application of electrical power in accordance with G450 AMM, Chapter 20.
2. If performing modification on the aircraft, prepare for safe application of electrical power in accordance with G450 AMM, Chapter 20.
3. Perform TCAS Operational Check in accordance with G450 AMM, Chapter 34.

D. Ensure work area is clean and clear of foreign objects and debris (FOD).**E.** Record compliance with this aircraft service change in the aircraft permanent maintenance records and return aircraft to flight status.**F.** Report compliance with this aircraft service change to Gulfstream CMP via electronic transmittal or fill out and fax the attached service reply card.

“June 12, 2012”

WEIGHT AND BALANCE DATA:	The effect of this service change with regard to aircraft basic weight and balance is 0.			
	MOD	WEIGHT	HORIZONTAL	MOMENT
	ASC 077	≈ 0.0 lbs	-	-

ELECTRICAL LOAD ANALYSIS DATA:	The effect of this change on the aircraft electrical loading is 0.
--------------------------------	--

Kit Effectivity:	Kit 1: 4001 – 4188 Kit 2: 4189 – 4255
------------------	--

PARTS REQUIRED PER AIRCRAFT:					
Item	Part Number	Nomenclature	Qty.		Notes/Alt./Substitutes
			-1 kit	-2 kit	
1.	8008559-001	ACSS SB for TCAS 2000	1	-	
2.	7000037-907	ACSS Modification Label	1	-	
3.	9000264-526	Product ID Label	1	-	
4.	8008263-001	ACSS SB for TCAS 3000	-	1	
5.	9000359-856	TCAS 3000SP Label	-	1	
6.	9001049-006	ACSS 7.1 Operating Software	*A/R	-	See *Note
7.	9400001-105F	ACSS 7.1 Operating Software	-	*A/R	
8.	9400008-105	ACSS 7.1 Operating Software	-	*A/R	
9.	7517900-55020	TCAS 2000 with 7.1	**1	-	See **Note
10.	9003500-55905	TCAS 3000 with 7.1	-	**1	

*NOTE:	ACSS operating software is not included as a part of the ASC kit. A copy of all operating software will be maintained by the installing facility.
--------	---

**NOTE:	TCAS unit part numbers are the result of the upgrade and are marked appropriately as part of the modification. No units are included as a part of this kit. Existing aircraft unit is replaced or modified to the new part number.
---------	--

“June 12, 2012”

SERVICE REPLY CARD

PLEASE FAX THIS PAGE TO GULFSTREAM AEROSPACE CMP
AT 912-963-0265 OR 800-944-1775.

THE FOLLOWING AIRCRAFT SERVICE CHANGE HAS BEEN COMPLIED WITH:

ASC NUMBER	A/C	AIRCRAFT TYPE	COMPLIANCE DATE
970770		G450	

AIRCRAFT HOURS: _____

AIRCRAFT LANDINGS: _____

PREVIOUSLY COMPLIED WITH (PCW): _____ DATE: _____

NOT APPLICABLE: _____ DATE: _____

NOMENCLATURE	PART NUMBER	SERIAL NUMBER	CMP CODE
	OFF:		
	ON:		
	OFF:		
	ON:		
	OFF:		
	ON:		

SIGNATURE	TITLE / CERTIFICATE NUMBER	COMPANY

COMMENTS / SUGGESTIONS / ACTIONS TAKEN:

Aircraft Service Change prepared by Gulfstream Aerospace, Savannah International Airport, PO Box 2206, Savannah Georgia, 31402-2206, USA. © 2012, Gulfstream Aerospace. All rights reserved, including the right to reproduce this publication. No part may be reproduced, stored in any retrieval system or transmitted in any part or form or by any means electronic, photocopying, microfilm, microfiche, mechanical or otherwise, without prior written permission of Gulfstream Aerospace.

This technical data is controlled under the Export Administration Regulations by General License TSU. It may not be transferred to a third party without the prior written approval of the U.S. Department of Commerce.