

FAA-APPROVED
Airplane Flight Manual Supplement
Appareo Stratus ESG
ADS-B Out Transponder

This supplement must be attached to the FAA-Approved Airplane Flight Manual when the Stratus ESG is installed in accordance with Stratus ESG Installation Instructions 600840-000032 (Revision 1.4) and FAA form 337 dated _____.

The information contained in this document supplements or supersedes the basic manual only in those areas listed. For limitations, procedures, performance, and loading information not contained in this supplement, consult the basic Airplane Flight Manual.

Aircraft Make and Model: _____

Registration Number: _____

Serial Number: _____

FAA Approved: Ref STC No. SA04112CH

Revision: _____
Date: _____

Log of Revisions

Revision	Description	Date

Revision: _____
Date: _____

Related Documentation

Information specific to the normal operation of the Stratus ESG can be found in the Stratus ESG Pilot's Guide (Appareo document number 600890-000049). Additional information about the operation and maintenance of the Stratus ESG can be found in the documents listed below.

Document Number	Title
600840-000032	Stratus ESG Installation Instructions
600845-000025	Stratus ESG Instructions for Continued Airworthiness
601837-000024	Stratus ESG Installation Drawings and Wiring Diagrams



To view the most current version of this document, go to www.appareo.com/dealer-portal.

Revision: _____
Date: _____

Chapter 1. General

Stratus ESG by Appareo is a panel-mounted level 2els Class 1 Extended Squitter transponder. It is a Class B1S transponder that is ADS-B Out compliant. To support the ADS-B Out function, the Stratus ESG contains a Class Beta 1 GPS/WAAS receiver. Stratus ESG responds to legacy Mode A/C interrogations and Mode S interrogations from both ground radar and airborne collision avoidance systems.

Chapter 2. Operating Limitations

- Stratus ESG meets 14 CFR 91.227 ADS-B Out equipment performance requirements. Ensure that the system is functioning properly, including verifying the following items:
 - Stratus ESG transponder display is functional.
 - GPS integrity is assured. The  icon will display if GPS integrity is assured.
 - No built-in-tests (BITs) were detected by the system. If a BIT failure is detected, the  icon will display along with an error message describing the BIT code.
- The Stratus ESG Pilot's Guide (600890-000049) must be immediately available to crew members whenever Stratus ESG is in operation.
- Stratus ESG must operate with current software. Software listed below is current as of the time of publication of this document.

Software	Part number	Revision (or later FAA approved)
Embedded Hardware (FPGA)	501010-000109	R04
Software (DSC)	501010-000113	R04

Chapter 3. Emergency Procedures

No change.

Chapter 4. Normal Procedures

- When directed by ATC to suppress pressure altitude reporting, use Stratus ESG's **ON** key.


Revision: _____
Date: _____

See the Stratus ESG Pilot’s Guide (Appareo document number 600890-000049) for a full description of Stratus ESG’s function.

Chapter 5. Abnormal Operating Procedures

- The location of the circuit breaker will generally be located on the avionics circuit breaker panel. Location of the breaker may vary with each aircraft. The breaker has a rating of 5 amps and is labeled “XPNDR.”
- **If the circuit breaker opens, it may be reset only once.**
- The table below addresses problems that could arise while using Stratus ESG and presents troubleshooting steps that may correct the issue.

Problem	Troubleshooting Steps
GPS information is not being received	Verify that the aircraft has a clear view of the sky. NOTE: Initial GPS fix could take up to 20 minutes.
The power key does not power on Stratus ESG	1. Verify that the power key is not stuck. 2. Verify that the circuit breaker has not tripped. If it has tripped: Reset the circuit breaker switch and try the power key again. NOTE: If the circuit breaker opens it may be reset only once. If it did not trip: Contact your dealer for further assistance.

<p>The screen displays a BIT failure</p> <p>The display screen will display a warning message and degraded state indicator  if any of Stratus ESG's BITs fail.</p>	<p>The Stratus ESG screen might display a warning message with the following instructions. The following is guidance regarding how to assess the failure:</p> <ul style="list-style-type: none">• PRESS FUNC TO CLEAR: A non-critical error has been detected. Stratus ESG will run in a degraded state until the error is resolved. Contact your dealer for further assistance.• PLEASE RESTART UNIT: A critical error has been detected. Restarting the unit might fix the error. If the message returns after restarting, contact your dealer for further assistance.• PLEASE SHUTDOWN UNIT: A critical error has been detected. Power off the unit and do not turn it back on. Contact your dealer for further assistance.• WAITING TO BE UNSTUCK: A key has been depressed for more than 20 seconds. If a key is stuck, try to unstick the key.• WAITING FOR RELEASE: The external suppression input is constantly in a suppressed state. Contact your dealer for further assistance.• ATTEMPTING TO RECOVER: A squitter rate error has been detected. The transponder may recover itself, but if it does not, restart the unit. If the message returns after restarting, contact your dealer for further assistance.
-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Chapter 6. Performance

No change.

Chapter 7. Mass and Balance/Equipment Lists

See aircraft Weight & Balance information for current Basic Empty Weight, Center of Gravity (CG), and Moment.

Revision: _____
Date: _____