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Gulfstream GIV-X, GV, GV-SP GIV-X (G350/G450), GV, GV-SP (G500/G550)

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HIGHLIGHTS OF CHANGE

Revision 9: Documented FSB evaluations of, and training/checking/currency requirements for Honeywell NZ-200 FMS 6.1 software in Appendix 15. Clarified non-requirement for paper charts with DU-885 modification in Appendix 14. Updated “Acronyms”.

Revision 8: Documented FSB evaluations of, and training/checking/currency requirements for Display Unit DU-885 modification to the G-V.

Revision 7: Documented FSB evaluations of, and training/checking/currency requirements for PlaneView avionics software versions “G”. Clarified Honeywell Head Up Guidance Display Model 2020 (HUD) System training requirements in Appendix 6 and the Enhanced Vision System (EVS) training requirements in Appendix 7

HIGHLIGHTS OF CHANGE
(Continued)

Revision 6: Documented FSB evaluations of, and training/checking/currency requirements for PlaneView avionics software versions “F” and “HUD II”.

Revision 5: Documented FSB evaluations of, and training/checking/currency requirements for, Category II capability, PlaneView avionics software versions “C”, “D”, and “E” and EVS II.. Updated “Acronyms”, identified “EFVS” in paragraphs 1.9.3 and Appendix 7, and corrected some typographical errors.

Revision 4: Added the GIV-X model and its associated MCR, MDR and ODR tables

Revision 3: Added the GV-SP model and its associated MCR, MDR and ODR tables

Revision 2: Revised Appendix 6 - FSB evaluations of the Enhanced Vision System (EVS).

Revision 1: Added Appendices 5 and 6. Removed references to AFM Limitations from Section 13 that existed at the time of certification but had subsequently been removed.

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1 PURPOSE AND APPLICABILITY

- 1.1 The primary purpose of this report is to specify Federal Aviation Administration (FAA) master training, checking, and currency requirements applicable to crews operating GIV-X, G-V, and GV-SP model airplanes. The GV-SP is a variant of the G-V. Major changes from the GV to the GV-SP are the addition of a Honeywell Primus Epic avionics suite, which consists of 4 multi-function 14-inch Flat Panel liquid crystal displays (LCD) units, 2 cockpit side mounted Cursor Control Devices (CCD), triple MC-850 Multi-Function Control Display Units (MCDU), main entry door relocation approximately 2 feet forward, additional 7th cabin window, new cockpit observer's seat, drag reduction modifications on the airframe, increased engine thrust, and a 500 pound increase in maximum ramp and takeoff weights.
- 1.2 The Gulfstream GIV-X, G-V, and GV-SP are listed on FAA Type Certificate Data Sheet A12EA, and are hereafter referred to as the "GIV-X", "GV", and "GV-SP". The GIV-X may be modified by Gulfstream Aerospace Corp. (GAC) through Aircraft Service Changes (ASC) to be identified as either a "G450" (ASC 005) or a "G350" (ASC 004). The G450 ASC is simply a change of the aircraft data plate. The G350 ASC changes the data plate, reduces the amount of fuel the aircraft will carry, and makes the VGS (HUD) and EVS optional equipment. The GV-SP may be modified by GAC through ASCs to be identified as either a "G550" (ASC 011) or a "G500" (ASC 010). The G550 ASC is simply a change of the aircraft data plate. The G500 ASC changes the data plate and reduces the amount of fuel the aircraft will carry, and makes the VGS (HUD) and EVS optional equipment.
- 1.3 The GIV-X is essentially a G-IV airframe with a GV-SP cockpit. It has a Honeywell Primus Epic avionics suite, which consists of 4 multi-function 14-inch Flat Panel LCD units, 2 cockpit side mounted CCD, triple MCU-850 MCDUs, Visual Guidance System (VGS), Enhanced Vision System (EVS), Tay 611-8C FADEC engines, a Honeywell 36-150 APU, a cockpit observer's seat, and drag reduction modifications on the airframe. The flight control hydraulic boost ratios have been modified to replicate the handling characteristics of the GV and GV-SP.
- 1.4 This report will aid Title 14 of the Code of Federal Regulations (14 CFR) part 135 Operators, FAA Principal Operations Inspectors (POIs), and 14 CFR part 142 training centers and their FAA Training Center Program Managers (TCPMs) in the development and approval of 14 CFR part 135 and 142 training programs. Provisions of this report are effective until amended, superseded, or withdrawn by subsequent Flight Standardization Board (FSB) determinations.

- 1.5 This report also addresses certain issues regarding the operation of the GIV-X, G-V, and GV-SP other than under the regulatory requirements of 14 CFR part 135. Provisions of the report include:
 - 1.5.1 Defining pilot "type rating",
 - 1.5.2 Description of "Master Common Requirements" (MCR),
 - 1.5.3 Description of "Master Differences Requirements" (MDR) for crews requiring differences qualification for mixed-fleet-flying or transition,
 - 1.5.4 Examples of acceptable "Operator Difference Requirement (ODR)" Tables,
 - 1.5.5 Description of an acceptable training program, special emphasis items, and training device characteristics when necessary to establish compliance with pertinent MDRs,
 - 1.5.6 Setting checking and currency standards, including specification of those checks that must be administered by FAA or operators, and
 - 1.5.7 A listing of regulatory compliance status (compliance checklist) for 14 CFR part 91 and 135, Advisory Circulars, and other operationally related criteria that was reviewed and evaluated by the Aircraft Evaluation Group (AEG) or FSB.
- 1.6 This report also provides:
 - 1.6.1 Minimum pilot training, checking and currency requirement that must be applied by: FAA field offices (i.e. MCRs, MDRs, ODRs, etc.), FAA Aviation Safety Inspectors, 14 CFR part 135 Air Carrier Check Airmen and Instructors, Airline Transport Pilots instructing in air transportation service, Certificated Flight Instructors, Certificated Ground Instructors, Designated Pilot Examiners, Pilot Proficiency Examiners, and Training Center Evaluators.
 - 1.6.2 Information which is advisory in nature, but may be mandatory for particular operators if the designated configurations apply and if approved for that operator (e.g., MDR footnotes and acceptable ODR Tables).
 - 1.6.3 Information which is used to facilitate FAA review of an airplane type proposed for use by an operator. Various sections of this report are qualified as to whether compliance (considering the provisions of FAA Advisory Circular

(AC) 120-53, Guidance for Conducting and Use of Flight Standardization Board Evaluations, is required or is advisory in nature.

1.7 Acronyms are defined as follows:

AC	Advisory Circular
ACO	Aircraft Certification Office
AEG	Aircraft Evaluation Group
AFCS	Automatic Flight Control System
AFM	Airplane Flight Manual
AP	Autopilot
APU	Auxiliary Power Unit
ASC	Aircraft Service Change
ATP	Airline Transport Pilot
AQP	Advanced Qualification Program
CCD	Cursor Control Device
CFR	Code of Federal Regulations
CHDO	Certificate Holding District Office
CMO	Certificate Management Office
CVR	Cockpit Voice Recorder
DA	Decision Altitude
DAU	Data Acquisition Unit
DC	Display Controller
DU	Display Unit
DMU	Data Management Unit
EDM	Emergency Descent Maneuver
EEC	Emergency Evacuation Crewmember
EFB	Electronic Flight Bag
EFIS	Electronic Flight Instrument System
EFVS	Enhanced Flight Vision System
EGPWS	Enhanced Ground Proximity Warning System
EICAS	Engine Indicating and Crew Alerting System
EPU	Estimated Position Uncertainty
EVS	Enhanced Vision System
EVS II	Enhanced Vision System (Second Generation EVS)
FAA	Federal Aviation Administration
FADEC	Full Authority Digital Engine Control
FGS	Flight Guidance System
FMA	Flight Mode Annunciator
FMS	Flight Management System
FSB	Flight Standardization Board
FTD	Flight Training Device
FWC	Fault Warning Computer
GAC	Gulfstream Aerospace Corporation
HSI	Horizontal Situation Indicator

HUD	Honeywell Head Up Guidance Display (Model 2020).
HUD II	Rockwell-Collins Head Up Guidance System (HGS Model 6250)
I-NAV	Integrated Navigation Display
IMC	Instrument Meteorological Conditions
IRS	Inertial Reference System
ITF	Integration Test Facility
LAN	Local Area Network
LCD	Liquid Crystal Display
LOF	Line Oriented Flight
LPV	Localizer Performance with Vertical Guidance
MAU	Modular Avionics Unit
MMEL	Master Minimum Equipment List
MCDU	Multi-Function Control Display Units
MCR	Master Common Requirements
MDA	Minimum Descent Altitude
MDR	Master Differences Requirements
ND	Navigation Display
ODR	Operator Differences Requirements
PDB	Power Distribution Box
PFD	Primary Flight Display
POI	Principal Operations Inspector
PTS	Practical Test Standards
QRH	Quick Reference Handbook
RAAS	Runway Awareness Advisory System
RFMU	Radio Frequency Management Unit
RNP SAAR	Required Navigation Performance – Special Aircraft and Aircrew Authorization Required.
SV PFD	Synthetic Vision Primary Flight Display
TAWS	Terrain Awareness and Warning System
TCAS	Traffic Alert and Collision Avoidance System
TCE	Training Center Evaluator
TCPM	Training Center Program Manager
T.O.	Take Off
TO/GA	Take Off / Go Around
VGS	Visual Guidance System
VMC	Visual Meteorological Conditions
VNAV	Vertical Navigation
WOW	Weight on Wheels

1.8 Terminology

The term "must" is used in this report, even though it is recognized that this report, and the Advisory Circular AC 120-53, on which it is based, provides one acceptable means, but not necessarily the only means, of compliance with 14 CFR part 135 Subpart H requirements. The term "must" acknowledges the need for operators to fully comply with the FSB report provisions if AC-120-53 is to be used by the operator as its means of complying with 14 CFR part 135, Subpart H.

1.9 Background

1.9.1 In August-September, 1996 and January-February 1997, the G-V FSB received a G-V initial pilot ground school utilizing the training facilities of Flight Safety International and Gulfstream located in Savannah, GA. Training was conducted in classrooms, and an Integration Test Facility (ITF). The ITF was not designed as a training device. It was an engineering mockup of the G-V cockpit used to validate aircraft hardware interface. In addition a newly manufactured simulator, which was under development, but not qualified by the FAA, was utilized. The FSB then received aircraft training in the G-V (N505GV) in Savannah, GA. It then conducted AC 120-53 test T5, which is essentially an evaluation of the maneuvers listed in the FAA Airline Transport Pilot (ATP) Practical Test Standards (PTS) for a pilot type rating. It also participated in four Function and Reliability Test flights to validate proposed airplane flight manual (AFM) normal, abnormal, and emergency procedures.

1.9.2 In September 1997 the G-V FSB participated in an in-flight evaluation of the Honeywell Head Up Guidance Display (Model 2020), during its development, using Gulfstream's G-V aircraft. In November 1997, the FSB conducted certification flight tests, along with the Los Angeles Aircraft Certification Office (ACO), in Gulfstream's G-V aircraft in Savannah, GA. Flight testing consisted of approximately 30 HUD approaches at 3 different airports, using CAT 1 and CAT II procedures, during day, night, Visual Meteorological Conditions (VMC) and Instrument Meteorological Conditions (IMC). The FSB also evaluated Gulfstream's proposed G-V AFM Supplement for HUD Operations and Gulfstream's proposed HUD CAT II appendix to the G-V AFM Supplement for Category II Operations. The FSB found the HUD operationally suitable for all phases of flight and for U.S. CAT I and CAT II operations. HUD Training, checking and currency requirements are listed in Appendix 6.

- 1.9.3 From February 1998 to August 2001 the G-V FSB Chair participated with the FAA Los Angeles Aircraft Certification Office in EVS development, proof of concept, and certification flight tests. Those flights included over 50 EVS approaches conducted at approximately 15 different airports during day, night, VMC and IMC. Gulfstream's G-V EVS Airplane Flight Manual Supplement was evaluated and found acceptable during the certification flight tests. In September 2001 two G-V FSB members received EVS ground school, simulator, and airplane training from Gulfstream Aerospace Corp. (GAC), in Savannah, GA. It was found to be operationally suitable. EVS meets the requirements of EFVS (Enhanced Flight Vision System) as defined in 14 CFR section 91.175. EVS Training, checking and currency requirements are listed in Appendix 7.
- 1.9.4 In January-February, 2003, the GV-SP FSB conducted an evaluation of the GV-SP in accordance with the process outlined in AC 120-53. One group of 3 pilots received a GV-SP initial pilot ground school utilizing the training facilities of Flight Safety International and a GV-SP aircraft owned by Gulfstream, both located in Savannah, GA. Another group of 4 previously qualified G-V pilots received G-V refresher training. One group then performed handling qualities comparison flight-testing in the GV-SP. The test was successfully passed. Each group of pilots then received differences training in the variant airplane and underwent pilot proficiency checks in that airplane. Both groups then participated in two days of GV-SP flights to determine operational suitability, validate proposed AFM normal, abnormal, and emergency procedures, and evaluate the proposed new forward observer seat.
- 1.9.5 In March-May 2004 the GIV-X FSB conducted an evaluation of the GIV-X in accordance with the process outlined in AC 120-53. The purpose was to determine if Gulfstream's proposal to allow the GV, GV-SP and GIV-X to have the same pilot type rating was valid. One group of 2 previously qualified G-V pilots received G-V refresher training. Another group of 2 previously qualified GV-SP pilots received GV-SP refresher training. Both groups then performed handling qualities comparison flight-testing (T-2) in the GIV-X. The test was successfully passed.

Another group of 4 pilots then received a GIV-X initial pilot ground school utilizing the training facilities of Flight Safety International and a GIV-X aircraft owned by Gulfstream, both located in Savannah, GA. Two of those pilots then received differences training in the GV and underwent pilot proficiency checks and Line Oriented Flights (LOF) in a GV simulator. The other two pilots then received differences training in the GV-SP and underwent pilot proficiency checks and LOF in a GV-SP simulator.

All 8 pilots then participated in two days of GIV-X flights to determine 14

CFR part 91 and 135 operational suitability, validate proposed AFM normal, abnormal, and emergency procedures.

- 1.9.6 In June 2005 the FSB conducted flight evaluations of GV-SP Category II capability, and found it, as well as the associated AFM CAT II supplement to be operationally suitable.
- 1.9.7 In August 2005 the FSB conducted flight evaluations of PlaneView Avionics Software version “C” in a GIV-X. This software added features such as charts, graphical flight planning, uplinked weather, video, enhanced envelope protection system and vertical situation display with terrain. It, as well as the associated AFM change, was found to be operationally suitable. Training, checking and currency requirements are listed in Appendix 9.
- 1.9.8 In February 2007 the FSB conducted a flight evaluation of PlaneView Avionics Software version “D” in a GV-SP. This software added FMS features such as Vertical Glide Path (VGP), RNP SAAR, performance step climb, takeoff obstacle clearance calculations, and graphical radio tuning. It also added RAAS. It, as well as the associated AFM change, was found to be operationally suitable. Training, checking and currency requirements are listed in Appendix 10.
- 1.9.9 In April and November 2007 the FSB conducted flight evaluations of PlaneView Avionics Software version “E” in a GIV-X. This software added Synthetic Vision Primary Flight Display (SV PFD). It, as well as the associated AFM change, was found to be operationally suitable. Training checking and currency requirements are listed in Appendix 11.
- 1.9.10 In November and December 2007 the FSB conducted an evaluation of EVS II. It was found to be functionally equivalent to EVS. All training, checking and currency requirements for EVS apply to EVS II, and are listed in Appendix 7.
- 1.9.11 In June 2009 the FSB conducted flight evaluations of PlaneView Avionics Software version “F” in a GIV-X. This software added map functionality and 3 other options for operators to purchase: 1) Enhanced Navigation 2) Enhanced SV PFD, and 3) XM Weather. Software version “F”, as well as the associated AFM change, was found to be operationally suitable. Training checking and currency requirements are listed in Appendix 12.

- 1.9.12 In June 2009 the FSB conducted flight evaluations of HUD II which is the Rockwell-Collins Head Up Guidance System (HGS Model 6250). It was found to be functionally equivalent to HUD which is the Honeywell Head Up Display (Model 2020). All training, checking and currency requirements for HUD apply to HUD II, and are listed in Appendix 6.
- 1.9.13 In April 2011 the FSB conducted flight evaluations of PlaneView Avionics Software version "G" in a GIV-X. This software added the following features: Early Missed Approach activation with the MCDU and Take Off / Go Around (TO/GA), LPV Approach capture from above, Maximum descent angle improvements, Datalink recording on the Cockpit Voice Recorder, Path-based TCAS Guidance on the SV PFD, listing of multiple localizer approaches to the same runway, and update to Fuel Tank Temperature CAS message and related Synoptics for the GIV-X only. Software version "G", as well as the associated AFM change, was found to be operationally suitable. Training checking and currency requirements are listed in Appendix 13.
- 1.9.14 In November 2011 the FSB conducted flight evaluations of the Display Unit DU-885 modification to the G-V. This modification includes: 1) replacement of six Honeywell DU-880 cathode ray tubes (CRT) with six Honeywell Primus Elite Display Units (DU)-885 LCD 2) installation of two CCD, and, 3) new associated functions. The functions include: charts, maps, video, database and DU maintenance. The LCDs, CCDs and associated functions, as well as the associated AFM change, was found to be operationally suitable. Training checking and currency requirements are listed in Appendix 14.
- 1.9.15 In August 2012 and October 2012, the Gulfstream G-IV FSB evaluated the Honeywell NZ-2000 FMS 6.1 Software with SBAS/LPV GPS, and found the installation to be operationally suitable. The G-V FSB determined that the functionality of the NZ-2000 FMS 6.1 in the G-IV was the same as in the G-V aircraft, and applied the G-IV FSB findings to the G-V. Training checking and currency requirements are listed in Appendix 15.

2 PILOT "TYPE RATING" REQUIREMENTS

- 2.1 In accordance with the provisions of 14 CFR part 1, 61, and 135, the same pilot type rating is assigned to the GIV-X (G350/G450), G-V, and the GV-SP (G500/G550), and is designated "G-V".
- 2.2 The Gulfstream GIV-X, G-V, and GV-SP have not been issued a new Type Certificate (TC) Data Sheet. They were all added to the existing G-II through G-IV TC Data Sheet issued by the Atlanta ACO. The GIV-X, G-V, and GV-SP aircraft however, are not considered variants or derivatives of the Gulfstream G-IV aircraft for pilot type rating purposes. The FSB did not conduct a comparison between the G-IV and any other model aircraft for pilot type rating purposes; therefore, no

credit may be given between the G-IV and any other model aircraft for training, checking, or currency.

3 “MASTER COMMON REQUIREMENTS” (MCR)

3.1 Master Common Requirement for all GIV-X, G-V and GV-SP airplanes:

3.1.2 Normal ‘Final’ Landing Flap Setting:

The normal ‘final’ landing flap is 39 degrees for the GIV-X, G-V, and the GV-SP.

3.1.3 Automatic Flight Control System (AFCS):

The AFCS pilot/machine interface is the same for the GIV-X, G-V and GV-SP.

3.1.4 Electronic Flight Instrument System (EFIS):

The EFIS/pilot interface is essentially the same for the GIV-X, GV and GV-SP aircraft. All three airplanes use the EFIS display controller as the initial interface.

3.1.5 Engine Indicating and Crew Alerting System (EICAS):

The EICAS philosophy is the same in the GV and the GV-SP aircraft. Only minor changes to crew alerting messages and the “look and feel” of the synoptic and system pages have been made.

3.1.6 Navigation and Communication:

All three aircraft share the same navigation and communication equipment. Pilot operation of the equipment is the same for the GIV-X, GV, and GV-SP aircraft.

3.1.7 Primary and Secondary Flight Controls:

Pilot operation of the primary and secondary flight controls is the same for the GIV-X, G-V and the GV-SP under normal conditions.

3.1.8 Procedure Knowledge:

Takeoff Climb and Descent Profiles:

The takeoff, climb, and descent Profiles for the GIV-X, G-V and GV-SP are identical.

3.1.9 Landing Minima Category (14 CFR section 97.3)

The following straight-in approach minima (based on Maximum Landing Weight (MLW) and 1.3 times V_{so}) for the GIV-X, G-V, and the GV-SP are as follows:

Aircraft	Landing Flap	Category
GIV-X	39 degrees	D
G-V	39 degrees	C
GV-SP	39 degrees	C

For the purpose of determining circling approach minima, the minimums are based on the highest speed used during a circling maneuver. As depicted in the table below, the highest speed to be flown (speed category) during the circling maneuver must be used to determine the appropriate minimums. This will ensure that the aircraft will remain within the designated maneuver area and assure obstacle clearance.

3.1.10 Approach Profiles and Speed:

Speed Category	Visibility in Statute Miles
Less than 91 Kts.	1 Mile
91 to 120 Kts.	1 Mile
121 to 140 Kts.	1 ½ Miles
141 to 165 Kts.	2 Miles
Above 165 Kts.	3 Miles

The approach profiles are the same for the GIV-X, G-V, and the GV-SP.

Approach speeds are dependent upon aircraft weight. All critical speeds are automatically presented to the pilot in a standardized manner for the GIV-X, G-V, and the GV-SP aircraft.

3.1.11 Abnormal & Emergency Procedures:

Abnormal and emergency procedures are presented in Quick Reference Handbooks of an identical format for all three aircraft. Although some individual steps may differ or use different acronyms, these steps are carried out under the guidance of the handbook in a logical decision-making manner.

There are no memory items in the AFM for the GIV-X, GV, or the GV-SP.

4 "MASTER DIFFERENCE REQUIREMENTS" (MDR)

- 4.1 Master Difference Requirements for the GIV-X, G-V, and GV-SP are shown in Appendix 1. Appendix 1 provisions apply when differences between variants exist which affect crew knowledge, skills, or abilities related to flight safety (e.g. Level A or greater differences).

5 ACCEPTABLE "OPERATOR DIFFERENCE REQUIREMENTS" (ODR) TABLES

- 5.1 Operator Difference Requirement (ODR) tables are used to show an operator's compliance method. ODR tables for operators conducting mixed fleet operations, using the GIV-X, G-V, and GV-SP are shown in Appendix 2. The ODR tables represent an acceptable means to comply with MDR provisions based on those differences and compliance methods shown. The tables do not necessarily represent the only acceptable means of compliance for operators with airplanes having other differences, where compliance methods (e.g., devices, simulators, etc.) are different. For operators flying the GIV-X, G-V, and the GV-SP the ODR tables in Appendix 2 have been found acceptable, and therefore, may be approved by a Principal Operations Inspector (POI) for a particular operator.

5.2 Operator Preparation of ODR Tables:

Operators seeking different means of compliance must prepare and seek FAA approval from their POI of specific ODR tables pertinent to their fleet. The POI should coordinate this with the FSB Chair and the FAA Flight Standards Air Transportation Division, AFS-200.

5.3 ODR Table Coordination:

New ODR tables proposed by operators should be coordinated with the FSB prior to FAA approval and implementation. Through this coordination, the FSB can ensure consistent treatment of variants between various operators' ODR tables and compatibility of the MDR table with MDR provisions

5.4 ODR Table Distribution:

Originally approved ODR tables are retained by the operator. Copies of approved GIV-X, G-V, and GV-SP tables are retained by the Certificate Management Office (CMO). Copies of all approved ODR tables should be forwarded to the FSB Chair, Long Beach AEG.

6 FSB SPECIFICATIONS FOR TRAINING

- 6.1 General:

- 6.1.1 The provisions of this training section apply to the GIV-X, G-V, and GV-SP, to programs for airmen having previous experience in 14 CFR part 91 or 14 CFR part 135 air carrier operations, and multi-engine turbojet or turboprop aircraft. Additional requirements, as determined by the operator's POI, the FSB, and AFS-200, may be necessary for airmen not having such experience. Appendix 3 contains a list of special emphasis items to be included in an approved training program.
- 6.2 Initial, Transition and Upgrade Training:
 - 6.2.1 Pilot Initial, Transition, and Upgrade Ground Training is accomplished in accordance with 14 CFR sections 135.343, 135.345, and AC 120-54, Advanced Qualification Program.
 - 6.2.2 Pilot Initial, Transition, and Upgrade Flight Training is accomplished in accordance with 14 CFR section 135.347.
- 6.3 Recurrent Training:
 - 6.3.1 Recurrent Ground Training is accomplished in accordance with 14 CFR section 135.351 and AC 120-54.
 - 6.3.2 Recurrent Flight Training is accomplished in accordance with 14 CFR section 135.351 and requires that the pilot be proficient in those maneuvers and procedures that are required for the original issuance of the pilot certificate.
- 6.4 Differences Training:

Differences training is accomplished in accordance with 14 CFR section 135.347. When any combination of the GIV-X, G-V and GV-SP are flown, appropriate instruction in design and systems differences will be required for both airplanes, consistent with MDR provisions listed in Appendix 1.
- 6.5 Other Training:
 - 6.5.1 Flight Attendant Training is accomplished in accordance with 14 CFR section 135.341 if a flight attendant is utilized. The GIV-X, G-V, and GV-SP have a maximum seating capacity of 19 seats and therefore, do not require a Flight Attendant.
 - 6.5.2 Aircraft Dispatcher Training, Flight Engineer Training, and Flight Navigator Training are not applicable.
 - 6.5.3 Emergency Evacuation Crewmember (EEC) Training – During the GV-SP certification process Gulfstream asked the FAA to make an equivalent safety finding on the overwing exits because they did not meet current FAA

certification standards. Gulfstream requested, and the FAA accepted, that anytime more than 9 passengers are carried, an additional crewmember trained in Emergency Evacuation for the Gulfstream elliptical exits be required onboard. The FAA found that this provides an equivalent level of safety to overwing emergency exits that would meet current FAA certification standards. Therefore, the GV-SP will require an Emergency Evacuation Crewmember on the aircraft any time more than 9 passengers are carried. The specific training that EEC is required to undergo is specified in Gulfstream Operating Manual Supplements numbers G550-OMS-1 for the G550 and G500-OMS-1 for the G500.

The GIV-X does not require an EEC. The FAA certified the GIV-X overwing exits at an earlier certification rule amendment level, based on the G-IV certification.

7 FSB SPECIFICATIONS FOR CHECKING

7.1 General 7.1.1 The provisions of this checking section apply to the GIV-X, G-V, and GV-SP. Testing, Checking and Evaluations specified by 14 CFR sections 61.57, 61.58, 61.63, 61.67, 61.157, 61.159, 135.293, 135.297, AC 120-54, and FAA PTSs apply.

7.1.2 The following areas of emphasis must be demonstrated during checking:

- a. Proficiency in manual and automatic (including FMS) flight in normal, abnormal, and emergency situations must be demonstrated at each proficiency/competency check by all crewmembers.
- b. The use of manual modes to operate systems such as electrical, hydraulic, pressurization, environmental, etc. and emergency equipment must be demonstrated at each proficiency/competency check by all crewmembers.
- c. Demonstration of a no flap approach and landing during a pilot type rating or 14 CFR part 135 check is required per the Airline Transport Pilot and/or Type Rating Practical Test Standards - FAA-S-8081 Area of Operation VI, Task F. In accordance with Order 8900.1, Volume 5, Chapter 3, Section 2, paragraph 5-382, when the flight demonstration is conducted in an airplane, versus a simulator, touchdown from a no flap approach is not required. The approach should be flown to the point where the inspector or examiner can determine whether a touchdown at an acceptable point on the runway and a safe landing to a full-stop could be made.

7.2 Type Ratings:

Type rating Practical Tests are administered in accordance with 14 CFR section 61.63, 61.157, 61.159, AC 120-54, Advanced Qualification Program, and the PTSs.

7.3 Competency/Proficiency Checks and Evaluations:

Competency/Proficiency checks and evaluations are administered in accordance with 14 CFR sections 61.58, 135.293, 135.297 and AC 120-54.

8 FSB SPECIFICATIONS FOR CURRENCY

8.1 Currency (Recency of Experience):

Currency is considered to be common for the GIV-X, G-V and GV-SP. Separate tracking of currency for the GIV-X, G-V and GV-SP is not necessary or applicable. Currency will be maintained, or re-established, in accordance with 14 CFR section 61.57, 61.58, 135.247 and/or 135.351.

9 AIRCRAFT REGULATORY COMPLIANCE CHECKLIST

9.1 Operating Rules Compliance Checklist:

The Operating Rules Compliance Checklists are provided as an aid to FAA Certificate Holding District Offices (CHDOs) to identify those specific rules or policies for which compliance has already been demonstrated to the FAA for a particular aircraft. The checklist also notes rules or policies, which must be demonstrated to CHDOs by the operator. Not all rules or policies are necessarily listed or addressed. It continues to be the responsibility of the CHDO to review compliance with pertinent rules or policies not already satisfactorily addressed in the Operating Rules Compliance Checklist, prior to 14 CFR part 135 approval for an operator to use the GIV-X, G-V, or GV-SP in service. The Operating Rules Compliance Checklist in Appendix 4 reflects the status of the first production G-V aircraft flown by the FSB on February 6, 1997. The aircraft serial number was 505 and bore U.S. Registration number N505GV.

The Operating Rules Compliance Checklist in Appendix 5 reflects the status of a GV-SP flight test aircraft flown by the FSB on February 18, 2003. The aircraft serial number was 5001 and bore U.S. Registration number N5SP.

The Operating Rules Compliance Checklist in Appendix 8 reflects the status of a GIV-X flight test aircraft flown by the FSB on May 3-4, 2004. The aircraft serial number was 4003 and bore U.S. Registration number N403SR.

9.2 Aircraft Proving Tests:

Proving tests in accordance with 14 CFR section 135.145 and FAA Order 8900.1, Volume 3, Chapter 29, are appropriate when the GIV-X, G-V, or GV-SP is new to a particular operator. When an operator is currently operating the G-IV, GIV-X, G-V or GV-SP, and the operator introduces the G-IV, GIV-X, G-V, or GV-SP into the same operations, proving tests are not required. The G-IV, GIV-X, G-V, and GV-SP have similar type powerplants, and alterations between the G-IV, GIV-X, G-V, and GV-SP do not materially affect flight characteristics for purposes of proving tests.

9.3 Forward Observer's Seat:

14 CFR section 135.75(b) requires that a forward observer's seat on the flight deck be provided for use by the Administrator while conducting enroute inspections. It is also required for conducting airman certification (checkrides).

G-V aircraft produced in accordance with Gulfstream V product specification, Rev. C, dated 12/19/96, have a forward observer's seat installed that the FSB found operationally acceptable for conducting cockpit enroute inspections.

The FSB evaluated the GIV-X and GV-SP observer seats for compliance with AC 120-83, Flight Deck Observer Seat and Associated Equipment, and found them to be operationally acceptable for conducting cockpit enroute inspections.

10 FSB SPECIFICATIONS FOR DEVICES AND SIMULATORS

10.1 Device and Simulator Characteristics:

10.1.1 Device and simulator characteristics are designated in AC 120-40, Airplane Simulator and Visual System Evaluation, and AC 120-45, Airplane Flight Training Device Qualification (as amended).

10.1.2 The acceptability of differences between devices, simulators, and aircraft must be addressed by the POI.

10.2 Device Approval:

10.2.1 Requests for device approval should be made to the POI. The POI may approve these devices for that operator if their characteristics clearly meet the established FAA criteria and have been approved by the National Simulator Program (NSP).

11 APPLICATION OF FSB REPORT

11.1 All relevant parts of this report are applicable to operators on the effective date of this report.

12 ALTERNATE MEANS OF COMPLIANCE TO THIS REPORT

12.1 Approval Level and Criteria

12.1.1 The FSB Chair should be consulted by the POI when alternate means of compliance, other than those specified in this report, are proposed. Alternate means of compliance must be approved AFS-200. If an alternate means of compliance is sought, operators will be required to submit a proposed alternate

means for approval that provides an equivalent level of safety to the provisions of AC 120-53 and this FSB report. Analysis, demonstrations, proof of concept testing, differences documentation, and/or other evidence may be required.

- 12.1.2 In the event that alternate compliance is sought, training program hour reductions, simulator approvals, and device approvals may be significantly limited and reporting requirements may be increased to ensure an equivalent level of training, checking, and currency. FAA will generally not consider relief through alternate compliance means unless sufficient lead-time has been planned by an operator to allow for any necessary testing and evaluation

13 MISCELLANEOUS

Reserved

14 SUPPLEMENTAL BOARD REPORT - PART II

- 14.1 Part II of the FSB report contains historical development information used to develop Part I. This information is kept on file at the Long Beach Aircraft Evaluation Group, (LGB AEG), 3960 Paramount Boulevard, Suite 100, Lakewood, CA 90712-4137.

Documents kept on file are as follows:

GIV-X / G-V / GV-SP Master Minimum Equipment List
GIV-X / G-V / GV-SP Operational Manuals
GIV-X / G-V / GV-SP Training syllabus of FSB members
GIV-X / G-V / GV-SP Original Aircraft Flight Manual
GIV-X / G-V / GV-SP FAA FSB Order (FSB member list)
GIV-X / G-V / GV-SP Operational Issue Papers

Appendix 1 - MDR TABLE

Master Differences Requirements				
Airplane Type Rating: GV		From Airplane		
		GV-SP	GV	GIV-X
To Airplane	GIV-X	C/B/A	C/B/A	NOT APPLICABLE
	GV	C/B/A	NOT APPLICABLE	C/B/A
	GV-SP	NOT APPLICABLE	C/B/A	C/B/A

Appendix 2 - ACCEPTABLE ODR TABLES

DIFFERENCE AIRCRAFT: GV-SP BASE AIRCRAFT: GIV-X APPROVED BY (POI)_____				COMPLIANCE METHOD					
				TRAINING				CHK / CURR	
DESIGN	REMARKS	FLT CHAR	PROC CHNG	LVL A	LVL B	LVL C	LVL D	CHK	CURR
20 Aircraft General	<u>Performance</u> Max Takeoff (T.O.) Weight 91,000 lb. Increase of 17,100 lbs.	No	No	X				A	A
23 Communications	Selcal Test and CVR Test switches relocated	No	Minor	X				A	A
27 Flight Controls	Split flight controls added	Yes	Minor			CSS or CPT or PTT or FTD 5		A	A
27 Flight Controls	Trailing edge contours (TECs) added to inboard trailing edge of flaps	No	No	X				A	A
27 Flight Controls	No Alternate Flap Switch	No	Minor	X				A	A
27 Flight Controls	Standby rudder and nose wheel steering on AUX pump capability	No	Minor		X			A	A
27 Flight Controls	Spoiler Control switch added. Lateral Control Switch deleted.	Yes	Minor		X			B	A
27 Flight Controls	Vortex generators added to lower horizontal stabilizer surfaces and upper elevator surfaces	No	Minor	X				A	A
28 Fuel	Heated Fuel Return System	No	Minor		X			A	A
29 Hydraulic Power	Aux Hydraulic Boost Pump added	No	No	X				A	A
30 Ice and Rain	Pitot Probe Heat System changed.	No	Minor	X				A	A
32 Landing Gear	4 brake wear indicator pins vs. 2 and WOW switches	No	Minor	X				A	A
49 APU	Different APU installed. RE220 vs. 36-150 both supplied by Honeywell.	No	Minor		X			A	A
49 APU	Bleeds off takeoff capability added.	No	Major		X			A	A

DIFFERENCE AIRCRAFT: GV-SP BASE AIRCRAFT: GIV-X APPROVED BY (POI)_____				COMPLIANCE METHOD					
				TRAINING				CHK / CURR	
DESIGN	REMARKS	FLT CHAR	PROC CHNG	LVL A	LVL B	LVL C	LVL D	CHK	CURR
70 Powerplant	BR710 installed vs. Tay 611-8C	No	Minor		X			A	A
78 Engine Exhaust	Thrust Reverser Manual Stow switches (2) installed	No	Minor		X			A	A
Limitations	Max Takeoff Weight increased to 91,000 lbs. from 73,900 lb. Max Landing Weight increased to 75,300 lbs. from 66,000 lb. Fuel quantity 41,300 lbs. vs. 29,500 lbs. APU and Engine limitations differences.	No	No	X				A	A

DIFFERENCE AIRCRAFT: GV-SP BASE AIRCRAFT: GIV-X APPROVED BY (POI)_____				COMPLIANCE METHOD					
				TRAINING				CHK / CURR	
MANEUVER	REMARKS	FLT CHAR	PROC CHNG	LVL A	LVL B	LVL C	LVL D	CHK	CURR
Normal Takeoff	Bleeds Off	No	Minor	X				A	A

DIFFERENCE AIRCRAFT: GV-SP BASE AIRCRAFT: GIV-X APPROVED BY (POI)_____				COMPLIANCE METHOD					
				TRAINING				CHK / CURR	
SYSTEM	REMARKS	FLT CHAR	PROC CHNG	LVL A	LVL B	LVL C	LVL D	CHK	CURR
23 Communications	Selcal and CVR test switches different test methodology	No	Minor	X				A	A
27 Flight Controls	Spoiler Control switch added. Lateral Control Switch deleted.	Yes	Minor		X			B	A
30 Ice and Rain	Pitot Probe Heat System changed.	No	Minor	X				A	A
49 APU	Different APU installed. RE220 vs. 36-150 both supplied by Honeywell.	No	Minor		X			A	A

DIFFERENCE AIRCRAFT: GV-SP BASE AIRCRAFT: GIV-X APPROVED BY (POI)_____				COMPLIANCE METHOD					
SYSTEM	REMARKS	FLT CHAR	PROC CHNG	TRAINING				CHK / CURR	
				LVL A	LVL B	LVL C	LVL D	CHK	CURR
49 APU	Starter assisted airstart capability for main engines	No	Major		X			A	A
49 APU	Bleeds off takeoff capability added	No	No		X			A	A
70 Powerplant	Thrust increased by 1,535 lbs. to 15,385 lbs.	No	No	X				A	A

DIFFERENCE AIRCRAFT: GIV-X BASE AIRCRAFT: GV-SP APPROVED BY (POI)_____				COMPLIANCE METHOD					
DESIGN	REMARKS	FLT CHAR	PROC CHNG	TRAINING				CHK / CURR	
				LVL A	LVL B	LVL C	LVL D	CHK	CURR
20 Aircraft General	<u>Performance</u> Max T.O. Weight 17,100 lbs. decrease to 73,900 lbs.	No	No	X				A	A
23 Communications	Selcal Test and CVR Test switches relocated	No	Minor	X				A	A
27 Flight Controls	Alternate Flap Control switch added	No	Minor		X			A	A
27 Flight Controls	No split flight controls	Yes	Minor		X			A	A
27 Flight Controls	Trailing Edge Contours not installed	No	No	X				A	A
27 Flight Controls	No standby rudder and no nose wheel steering on AUX pump capability	Yes	Minor		X			A	A
27 Flight Controls	Lateral Control switch added. Spoiler Control Switch deleted.	Yes	Minor		X			B	A
27 Flight Controls	Vortex generators deleted from lower horizontal stabilizer surfaces and upper elevator surfaces	No	Minor	X				A	A
28 Fuel	No Heated Fuel Return System installed	No	Minor	X				A	A
29 Hydraulic Power	Aux Hydraulic Boost Pump deleted	No	No	X				A	A
30 Ice and Rain	Pitot Probe Heat System changed.	No	Minor	X				A	A

DIFFERENCE AIRCRAFT: GIV-X BASE AIRCRAFT: GV-SP APPROVED BY (POI)_____				COMPLIANCE METHOD					
				TRAINING				CHK / CURR	
DESIGN	REMARKS	FLT CHAR	PROC CHNG	LVL A	LVL B	LVL C	LVL D	CHK	CURR
32 Landing Gear	2 brake wear indicator pins vs. 4	No	Minor	X				A	A
49 APU	Different APU installed. RE220 vs. 36-150 both supplied by Honeywell.	No	Minor		X			A	A
49 APU	No Bleeds Off takeoff capability	No	No	X				A	A
70 Powerplant	Tay 611-8C installed vs. BR710.	No	Minor		X			A	A
78 Engine Exhaust	No Manual Thrust Reverser Stow switches installed.	No	Minor	X				A	A
Limitations	Max T.O. Weight decreased by 17,100 lbs. to 73,900 lb. Max landing weight decreased to 66,000 lb. Fuel quantity 29,500 lbs. vs. 41,300 lbs. APU and engine limitations differences.	No	No	X				A	A

DIFFERENCE AIRCRAFT: GIV-X BASE AIRCRAFT: GV-SP APPROVED BY (POI)_____				COMPLIANCE METHOD					
				TRAINING				CHK / CURR	
MANEUVER	REMARKS	FLT CHAR	PROC CHNG	LVL A	LVL B	LVL C	LVL D	CHK	CURR
None	None	No	No						

DIFFERENCE AIRCRAFT: GIV-X BASE AIRCRAFT: GV-SP APPROVED BY (POI)_____				COMPLIANCE METHOD					
SYSTEM	REMARKS	FLT CHAR	PROC CHNG	TRAINING				CHK / CURR	
				LVL A	LVL B	LVL C	LVL D	CHK	CURR
23 Communications	Selcal and CVR test switches different test methodology	No	Minor	X				A	A
27 Flight Controls	Lateral Control switch added. Spoiler Control Switch deleted.	Yes	Minor		X			B	A
30 Ice and Rain	Pitot Probe Heat System changed.	No	Minor	X				A	A
49 APU	Different APU installed. RE220 vs. 36-150 both supplied by Honeywell.	No	Minor		X			A	A
49 APU	No Bleeds Off takeoff capability	No	Minor	X				A	A
70 Powerplant	Thrust decreased 1,535 lbs. to 13,850 lbs.	No	No	X				A	A

DIFFERENCE AIRCRAFT: GV BASE AIRCRAFT: GIV-X APPROVED BY (POI)_____				COMPLIANCE METHOD					
DESIGN	REMARKS	FLT CHAR	PROC CHNG	TRAINING				CHK / CURR	
				LVL A	LVL B	LVL C	LVL D	CHK	CURR
20 Aircraft General	<u>Performance</u> Max T.O. Weight 90,500 lbs. Increase of 16,600 lbs.	No	No	X				A	A
20 Aircraft General	Observer seat and location changed.	No	No		VT			A	A
21 ECS	Outflow valve changed to butterfly valve.	No	Minor	X				A	A
24 Electrical Power	Revised Location of PDB circuit breaker panels	No	Minor	X				A	A
27 Flight Controls	Split flight controls added	Yes	Minor			CSS or CPT or PTT or FTD 5		A	A
27 Flight Controls	No Alternate Flap Switch	No	Minor	X				A	A
27 Flight Controls	Standby Rudder installed with nose wheel steering on the AUX pump capability (including AUX PUMP ground spoiler pressure)	Yes	Minor		X			A	A

DIFFERENCE AIRCRAFT: GV BASE AIRCRAFT: GIV-X APPROVED BY (POI)_____				COMPLIANCE METHOD					
				TRAINING				CHK / CURR	
DESIGN	REMARKS	FLT CHAR	PROC CHNG	LVL A	LVL B	LVL C	LVL D	CHK	CURR
27 Flight Controls	Spoiler Control switch added. Lateral Control Switch deleted.	Yes	Minor		X			B	A
27 Flight Controls	Vortex generators added to lower horizontal stabilizer surfaces and upper elevator surfaces	No	Minor	X				A	A
28 Fuel	Heated Fuel Return System added	No	Minor		X			A	A
29 Hydraulic Power	Aux Hydraulic Boost Pump added	No	No	X				A	A
30 Ice and Rain	Pitot Probe Heat System changed.	No	Minor	X				A	A
32 Landing Gear	4 brake wear indicator pins vs. 2 and WOW switches	No	Minor	X				A	A
49 APU	Different APU installed with capability for APU assisted main engine airstart and different electrical load capabilities.	No	Minor		X			A	A
52 Doors	Main Door moved aft 24 inches	No	No	X				A	A
52 Doors	Aft Lav Dump Door relocated	No	No	X				A	A
70 Powerplant	BR710 vs. Tay 611-8C Installed	No	Minor		X			A	A
78 Engine Exhaust	Thrust Reverser Manual Stow Switches (2) installed.	No	Minor		X			A	A
Limitations	Max Takeoff Weight increased to 90,500 lbs. from 73,900 lb.	No	No	X				A	A

DIFFERENCE AIRCRAFT: GV BASE AIRCRAFT: GIV-X APPROVED BY (POI)_____				COMPLIANCE METHOD					
				TRAINING				CHK / CURR	
MANEUVER	REMARKS	FLT CHAR	PROC CHNG	LVL A	LVL B	LVL C	LVL D	CHK	CURR
None	None	No	No						

DIFFERENCE AIRCRAFT: GV BASE AIRCRAFT: GIV-X APPROVED BY (POI)_____				COMPLIANCE METHOD					
				TRAINING				CHK / CURR	
SYSTEM	REMARKS	FLT CHAR	PROC CHNG	LVL A	LVL B	LVL C	LVL D	CHK	CURR
22 Autoflight	TOGA Flight Director Command Bars initiate at 12 degrees vs. 8 degrees on GIV-X.	No	No	X				A	A
23 Communications	New Audio System	No	No			X		A	A
23 Communications	Radio Tuning Through RFMU	No	Yes			X		A	A
27 Flight Controls	Spoiler Control switch added. Lateral Control Switch deleted.	Yes	Minor		X			B	A
30 Ice and Rain	Pitot Probe Heat System changed.	No	Minor	X				A	A
31 Indicating / Recording Systems	Standby Engine Instrument on RFMU	No	Minor	X				A	A
31 Indicating / Recording Systems	DAU (Data Acquisition Unit) and FWC (Fault Warning Computer) replaces MAU (Modular Avionics Unit)	No	Minor	X				A	A
31 Indicating / Recording Systems	Display Controller	No	Minor			X		A	A
31 Indicating / Recording Systems	Electronic Checklist Auto Pop-up Feature enabled	No	Minor		ST, TCBI or VT			A	A
34 Navigation	IRS ON/OFF switches deleted and replaced with MSU switches	No	Minor		X			A	A
34 Navigation	EICAS FMS Joystick Panel	No	None		X			A	A
34 Navigation	6 Display Units vs. 4 Display Units	No	Minor			X		B	A
34 Navigation	No CCDs Used in Conjunction with Displays	No	Minor			X		B	A
34 Navigation	HSI on RFMU	No	Minor		X			A	A
34 Navigation	LaserTrack	No	Minor			X		B	A
34 Navigation	Standby Flight instruments have different design and location	No	Minor	X				A	A
49 APU	Different APU installed with capability for APU assisted main engine airstart and different electrical load capabilities.	No	Minor		X			A	A
70 Powerplant	Thrust increased by 900 lbs. to 14,750 lbs.	No	No	X				A	A

DIFFERENCE AIRCRAFT: GIV-X BASE AIRCRAFT: GV APPROVED BY (POI)_____				COMPLIANCE METHOD					
				TRAINING				CHK / CURR	
DESIGN	REMARKS	FLT CHAR	PROC CHNG	LVL A	LVL B	LVL C	LVL D	CHK	CURR
20 Aircraft General	<u>Performance</u> Max T.O. Weight 73,900 lbs. Decrease of 16,600 lbs.	No	No	X				A	A
20 Aircraft General	Observer seat and location changed.	No	No		VT			A	A
21 ECS	Outflow valve changed to thrust recovery outflow valve.	No	Minor	X				A	A
23 Communications	Selcal test and CVR test switches relocated	No	Minor	X				A	A
24 Electrical Power	Revised Location of PDB circuit breaker panels	No	Minor	X				A	A
27 Flight Controls	No Standby Rudder installed or nose wheel steering on the AUX pump capability	Yes	Minor		X			A	A
27 Flight Controls	No split flight controls	Yes	Minor	X				A	A
27 Flight Controls	Lateral Control switch added. Spoiler Control Switch deleted.	Yes	Minor		X			B	A
27 Flight Controls	Vortex generators deleted from lower horizontal stabilizer surfaces and upper elevator surfaces	No	Minor	X				A	A
27 Flight Controls	Alternate Flap Switch added	No	Minor		X			A	A
28 Fuel	No Heated Fuel Return System	No	Minor	X				A	A
29 Hydraulic Power	No Aux Hydraulic Boost Pump	No	No	X				A	A
30 Ice and Rain	Pitot Probe Heat System changed.	No	Minor	X				A	A
49 APU	Different APU installed with no capability for APU assisted main engine airstart and different electrical load capabilities.	No	Minor		X			A	A
52 Doors	Main Door moved forward 24 inches	No	No	X				A	A
52 Doors	Aft Lav Dump Door relocated	No	No	X				A	A
Limitations	Max Takeoff Weight decreased to 73,900 lbs. from 90,500 lb. Fuel Quantity 29,500 lbs. vs. 41,300 lbs. APU and engine limitations differences	No	Minor	X				A	A

DIFFERENCE AIRCRAFT: GIV-X BASE AIRCRAFT: GV APPROVED BY (POI) _____				COMPLIANCE METHOD					
				TRAINING				CHK / CURR	
MANEUVER	REMARKS	FLT CHAR	PROC CHNG	LVL A	LVL B	LVL C	LVL D	CHK	CURR
None	None	No	No						

DIFFERENCE AIRCRAFT: GIV-X BASE AIRCRAFT: GV APPROVED BY (POI) _____				COMPLIANCE METHOD					
				TRAINING				CHK / CURR	
SYSTEM	REMARKS	FLT CHAR	PROC CHNG	LVL A	LVL B	LVL C	LVL D	CHK	CURR
22 Autoflight	TOGA Flight Director Command Bars initiate at 8 degrees vs. 12 degrees on GV.	No	No	X				A	A
23 Communications	New Audio System	No	Minor			X		A	A
23 Communications	Radio Tuning Through MCDU and graphically	No	Minor		X			A	A
27 Flight Controls	Lateral Control switch added. Spoiler Control Switch deleted.	Yes	Minor		X			B	A
30 Ice and Rain	Pitot Probe Heat System changed.	No	Minor	X				A	A
31 Indicating / Recording Systems	Electronic Checklist Auto Pop-up Feature deleted	No	Minor	X				A	A
31 Indicating / Recording Systems	Standby Engine Instruments on MCDU	No	Minor	X				A	A
31 Indicating / Recording Systems	DAU (Data Acquisition Unit) and FWC (Fault Warning Computer) replaced by MAU (Modular Avionics Unit)	No	Minor	X				A	A
31 Indicating / Recording Systems	Display Controller	No	Minor			X		A	A
34 Navigation	IRS MSU switches deleted and replaced with ON/OFF switches	No	Minor	X				A	A
34 Navigation	4 Display Units vs. 6 Display Units	No	Minor			X		B	A
34 Navigation	Added Dual CCDs used in Conjunction with Displays	No	Minor			X		B	A
34 Navigation	LaserTrack removed	No	Minor	X				A	A
34 Navigation	Standby Flight instruments have different design and location	No	Minor		X			A	A
34 Navigation	MCDU on Emergency Power	No	Minor		X			B	A

DIFFERENCE AIRCRAFT: GIV-X BASE AIRCRAFT: GV APPROVED BY (POI)_____				COMPLIANCE METHOD					
				TRAINING				CHK / CURR	
SYSTEM	REMARKS	FLT CHAR	PROC CHNG	LVL A	LVL B	LVL C	LVL D	CHK	CURR
49 APU	Different APU installed with no capability for APU assisted main engine airstart and different electrical load capabilities.	No	Minor		X			A	A
70 Powerplant	Thrust decreased by 900 lbs. to 13,850 lbs.	No	No	X				A	A

DIFFERENCE AIRCRAFT: GV-SP BASE AIRCRAFT: G-V APPROVED BY (POI)_____				COMPLIANCE METHOD					
				TRAINING				CHKG/CURR	
DESIGN	REMARKS	FLT CHAR	PROC CHNG	LVL A	LVL B	LVL C	LVL D	CHK	CURR
20 Aircraft General	Performance Max T.O. Weight 91,000 lbs. Increase of 500 lbs.	No	No	X				A	A
21 ECS	Outflow valve changed to thrust recovery outflow valve.	No	No	X				A	A
24 Electrical Power	Revised Location of PDB circuit breaker panels	No	Minor	X				A	A
25 Equipment / Furnishings	Redesign and relocation of cockpit observer's seat to behind Co-Pilot's seat	No	No		X			A	A
27 Flight Controls	Trailing edge contours (TECs) added to inboard trailing edge of flaps	No	No	X				A	A
38 Water & Waste	Fuselage conformal fresh water tank	No	Minor	X				A	A
38 Water & Waste	Relocation of vacuum lavatory waste tank from baggage compartment to above APU	No	No	X				A	A
49 APU	Bleeds off takeoff capability added	No	Major		X			A	A
52 Doors	Main Door moved forward 24 inches	No	No	X				A	A
52 Doors	Aft Lav Dump Door relocated	No	No	X				A	A
53 Fuselage	27Boundary Layer Energizers added above the canopy	No	No	X				A	A
56 Windows	Addition of 7 th cabin window	No	No	X				A	A

DIFFERENCE AIRCRAFT: GV-SP BASE AIRCRAFT: G-V APPROVED BY (POI) _____				COMPLIANCE METHOD					
				TRAINING				CHKG/CURR	
DESIGN	REMARKS	FLT CHAR	PROC CHNG	LVL A	LVL B	LVL C	LVL D	CHK	CURR
57 Wings	7 Vortex Generators relocated outboard on each wing	No	No	X				A	A
Limitations	Max Takeoff Weight increased to 91,000 lbs. from 90,500 lb.	No	No	X				A	A

DIFFERENCE AIRCRAFT: GV-SP BASE AIRCRAFT: G-V APPROVED BY (POI) _____				COMPLIANCE METHOD					
				TRAINING				CHKG/CURR	
MANEUVER	REMARKS	FLT CHAR	PROC CHNG	LVL A	LVL B	LVL C	LVL D	CHK	CURR
Normal Takeoff	Bleeds Off	No	Minor	X				A	A

DIFFERENCE AIRCRAFT: GV-SP BASE AIRCRAFT: G-V APPROVED BY (POI) _____				COMPLIANCE METHOD					
				TRAINING				CHKG/CURR	
SYSTEM	REMARKS	FLT CHAR	PROC CHNG	LVL A	LVL B	LVL C	LVL D	CHK	CURR
22 Autoflight	TOGA Flight Director Command Bars initiate at 8 degrees vs. 12 degrees on GV.	No	No	X				A	A
23 Communications	New Audio System	No	Minor			X		A	A
23 Communications	Radio Tuning Through MCDU and graphically	No	No		X			A	A
31 Indicating/Recording Systems	Electronic Checklist Auto Pop-up Feature deleted	No	Minor Non Normal	X				A	A
31 Indicating/Recording Systems	DAU (Data Acquisition Unit) and FWC (Fault Warning Computer) replaced by MAU (Modular Avionics Unit)	No	Minor	X				A	A
31 Indicating/Recording Systems	Standby Engine Parameters available on #1 MCDU only	No	Minor	X				A	A
31 Indicating/Recording Systems	Different formatting on some synoptic displays	No	Minor		X			A	A

DIFFERENCE AIRCRAFT: GV-SP BASE AIRCRAFT: G-V APPROVED BY (POI) _____				COMPLIANCE METHOD					
SYSTEM	REMARKS	FLT CHAR	PROC CHNG	TRAINING				CHKG/CURR	
				LVL A	LVL B	LVL C	LVL D	CHK	CURR
34 Navigation	IRS MSU switches deleted and replaced with ON/OFF switches	No	Minor	X				A	A
34 Navigation	4 Display Units Vs. 6 Display Units with different formatting.	No	Major			X		B	A
34 Navigation	Added Dual CCD's Used in Conjunction with Displays	No	Minor			X		B	A
34 Navigation	Display controllers have different menus.	No	Minor			X		A	A
34 Navigation	Standby Flight instruments have different design and location	No	Major		X			B	A
34 Navigation	Display Unit Controller has 4 overhead switches instead of 3	No	Major		X			B	A
34 Navigation	RNP and Estimated Position Uncertainty (EPU) is displayed on PFD	No	Minor		X			A	A
34 Navigation	MCDU on Emergency Power	No	Minor		X			B	A
49 APU	Bleeds off takeoff capability added	No	Minor		ST, TCBI, SU, VT			A	A
70 Powerplant	Thrust increased by 635 lbs. to 15,385 lbs.	No	No	HO				A	A

DIFFERENCE AIRCRAFT: G-V BASE AIRCRAFT: GV-SP APPROVED BY (POI) _____				COMPLIANCE METHOD					
				TRAINING				CHKG/CURR	
DESIGN	REMARKS	FLT CHAR	PROC CHNG	LVL A	LVL B	LVL C	LVL D	CHK	CURR
20 Aircraft General	<u>Performance</u> Max T.O. Weight 500 lb. decrease to 90,500 lbs.	No	No	X				A	A
21 ECS	Outflow valve changed to butterfly style.	No	No	X				A	A
24 Electrical Power	Revised location of PDB's and associated circuit breakers.	No	Minor	X				A	A
25 Furnishings	Redesign and relocation of cockpit observer's seat to behind Captain's seat	No	No		X			A	A
27 Flight Controls	Trailing Edge Contours not installed	No	No	X				A	A
38 Water & Waste	Non-fuselage conformal fresh water tank	No	No	X				A	A
38 Water "& Waste	Relocation of vacuum lavatory waste tank from above APU to baggage compartment	No	No	X				A	A
49 APU	No Bleeds Off takeoff capability	No	Minor	X				A	A
52 Doors	Main Door moved aft 24 inches	No	No	X				A	A
52 Doors	Aft Lav Dump Door relocated	No	No	X				A	A
53 Fuselage	27 Boundary Layer Energizers removed from the canopy	No	No	X				A	A
56 Windows	Removal of 7 th cabin window	No	No	X				A	A
57 Wings	7 Vortex generators relocated inboard on each wing	No	No	X				A	A
Limitations	Max T.O. Weight decreased by 500 lbs. to 90,500 lbs.	No	No	X				A	A

DIFFERENCE AIRCRAFT: G-V BASE AIRCRAFT: GV-SP APPROVED BY (POI) _____				COMPLIANCE METHOD					
				TRAINING				CHKG/CURR	
MANEUVER	REMARKS	FLT CHAR	PROC CHNG	LVL A	LVL B	LVL C	LVL D	CHK	CURR
None		No	No						

DIFFERENCE AIRCRAFT: G-V BASE AIRCRAFT: GV-SP APPROVED BY (POI) _____				COMPLIANCE METHOD					
				TRAINING				CHKG/CURR	
SYSTEM	REMARKS	FLT CHAR	PROC CHNG	LVL A	LVL B	LVL C	LVL D	CHK	CURR
22 Autoflight	TOGA Flight Director Command Bars initiate at 12 degrees vs. 8 degrees on GV-SP.	No	No	X				A	A
23 Communications	New audio system	No	Minor			X		A	A
23 Communications	Radio tuning accomplished through RFMU's	No	Minor			X		A	A
31 Indicating/ Recording Systems	Electronic Checklist has Auto pop-up Feature vs. passive checklist on GV-SP	No	Minor		X			A	A
31 Indicating/ Recording	MAU replaced by DAU and FWC	No	Minor			X		B	A
31 Indicating/ Recording Systems	Engine Parameters available on either RFMU	No	Minor	X				A	A
31 Indicating/ Recording Systems	Different formatting on some synoptic displays	No	Minor		X			A	A
34 Navigation	EICAS FMS Joystick Panel	No	None		X			A	A
34 Navigation	LaserTrack	No	Minor			X		B	A
34 Navigation	IRS ON/OFF switches replaced with IRS MSU switches	No	Minor		X			A	A
34 Navigation	6 Display Units Vs. 4 Display Units with different formatting	No	Minor			X		B	A
34 Navigation	No CCD's installed	No	Minor			X		B	A

DIFFERENCE AIRCRAFT: GV-SP BASE AIRCRAFT: G-V APPROVED BY (POI) _____				COMPLIANCE METHOD					
SYSTEM	REMARKS	FLT CHAR	PROC CHNG	LVL A	LVL B	LVL C	LVL D	CHK	CURR
34 Navigation	Display controllers have different menus	No	Minor			x		B	A
34 Navigation	Standby Flight instruments have different design and location	No	Minor	X				A	A
34 Navigation	Display Unit Controller has 3 overhead switches instead of 4	No	Minor			X		B	A
34 Navigation	RNP and Estimated Position Uncertainty (EPU) are not displayed on PFD	No	Minor		X			B	A
49 APU	No bleeds off takeoff capability	No	Minor	X				A	A
70 Powerplant	Thrust reduced 635 lbs. to 14,750 lbs.	No	No	X				A	A

Appendix 3 - TRAINING PROGRAM SPECIAL EMPHASIS ITEMS

The FSB has identified several aircraft systems and/or procedures that should receive special emphasis in a GIV-X, G-V or GV-SP Training Program:

Ground Training:

- 1) EGPWS
- 2) Flight Management System (FMS)
- 3) Traffic Collision and Avoidance System (TCAS)
- 4) Automatic mode of wing and cowl anti-ice systems
- 5) Head-Up Display System (HUD) (See Appendix 6)
- 6) Enhanced Vision System (EVS) (See Appendix 7)
- 7) PlaneView System (GIV-X and GV-SP)
- 8) Cursor Control Device (GIV-X and GV-SP)

Systems Integration Training:

- 1) Flight Guidance System (FGS)
- 2) Primary Flight Display mode annunciators
- 3) Flight Management System (FMS)
- 4) Display Controllers (DC)
- 5) Head-Up Display System (HUD) (See Appendix 6)
- 6) Enhanced Vision System (EVS) (See Appendix 7)
- 7) PlaneView System (GIV-X and GV-SP)
- 8) Cursor Control Device (CCD) (GIV-X and GV-SP)

Flight Training (Full Flight Simulator - Level C or D and/or aircraft):

- 1) Dual hydraulic system malfunctions
- 2) Aileron/elevator disconnect (jammed controls in each axis)
- 3) ILS approach on standby instruments
- 4) Primary Flight Display (PFD), Navigation Display (ND), EICAS reversionary modes.
- 5) Integrated use of EICAS messages, switch positions and synoptic pages to determine aircraft system status.
- 6) Using autopilot for completion of the emergency descent maneuver (EDM)
- 7) Delayed engine response to full power applications at various altitudes (especially high altitude stalls, touch and go landings, and any maneuvers with flaps less than 22 degrees.)
- 8) Head-Up Display System (HUD) (See Appendix 6)
- 9) Enhanced Vision System (EVS) (See Appendix 7)
- 10) PlaneView System (GIV-X and GV-SP)
- 11) Lateral Control Switch Function (GIV-X)

The FSB also found that early exposure to the FGS and FMS is important, especially for pilots with no previous EFIS or FMS experience. Establishing early confidence in manually flying the aircraft, converting from manual to automatic (FMS controlled) flight mode and back is equally important due to heavy reliance on the FGS. In the event of a flight path deviation due to input error or system malfunction, the flight crew must be able to comfortably transition from automatic to manual mode and back in an orderly fashion. Crew awareness and understanding of the flight mode(s) annunciated on the FMA is important during all phases of flight.

The FSB found only one Special Flight Characteristic; the engine “spool-up” time is longer than most transport category jet aircraft. It can range from 8 seconds at sea level to 30 seconds at 51,000 ft. to move from idle thrust to maximum continuous thrust. At low altitudes, i.e. circling, the spool-up time will be considerably longer than 8 seconds if flaps are less than 22 degrees. Training should emphasize this.

The FSB strongly recommends that a thorough preflight briefing, highlighting engine spool-up time, is accomplished prior to conducting training or checking in the following areas: stalls, touch & go landings, and simulated one-engine inoperative maneuvers. Also, touch and go landings at flaps zero are not recommended.

Appendix 4 – G-V OPERATING RULES COMPLIANCE CHECKLIST

The first production aircraft, serial number 505, was utilized by the FSB to conduct its evaluation on February 7, 1997. This aircraft was, except for a few items, representative of an aircraft that could be issued a U.S. Airworthiness Certificate. It enabled the FSB to determine compliance with the appropriate 14 CFR part 91 and 135 operating requirements. The attached checklist provides the FSB's findings on those operating requirements. A 14 CFR part 125 compliance checklist was not developed for this aircraft. Gulfstream has designed this aircraft to operate with less than 6,000 pounds payload. Since the aircraft are delivered "green" from the factory, the completion center will determine final payload capacity of the airplane. It may be possible that individual aircraft may be outfitted to operate in excess of 6,000 pound payload. That operator would then have to show compliance with 14 CFR part 125 requirements, unless a deviation is obtained.

Any U.S. operator wishing to operate the G-V aircraft will have to demonstrate to the FAA that the aircraft fully complies with all applicable 14 CFRs prior to that aircraft entering service. This checklist may be used by the operator to show compliance with those items listed in it.

FAA OPERATIONAL REQUIREMENTS/COMPLIANCE for Gulfstream G-V
14 CFR PART 91 - GENERAL OPERATING AND FLIGHT RULES

14 CFR Section	Requirement	Gulfstream Position	Gulfstream Remark	FSB Finding
SUBPART A – GENERAL				
§ 91.9 Civil Aircraft Flight Manual, Marking and Placard requirements				
(a)	Compliance with Flight Manual, Markings, and Placard Markings	Operator responsibility		N/A
(b)(1)	Availability of current Airplane Flight Manual in Aircraft	Operator responsibility	An approved Airplane Flight Manual complying with 14 CFR § 25.1581 is provided with each aircraft.	Provisional AFM has been issued in December, 1996
(b)(2)	Airplane Flight Manual requirement	An approved Airplane Flight Manual complying with 14 CFR §25.1581 is provided with each aircraft		COMPLIES
(c)	Identification of Aircraft in Accordance with 14 CFR part 45	Aircraft are delivered “green” by Gulfstream. Registration numbers meet requirements when delivered.	Completion center will be responsible for compliance with all other required exterior and interior markings.	Could not determine full compliance.
(d)	Helicopters: operation outside of height/speed envelope	N/A		N/A
SUBPART B - FLIGHT RULES				
	§ 91.191 Category II Manual	Operator responsibility	The aircraft systems have not been proved capable of Category II operations.	Gulfstream will seek Cat II equipment approval at a later date
SUBPART C - EQUIPMENT, INSTRUMENT AND CERTIFICATE REQUIREMENTS				
§ 91.203 Civil Aircraft: Certifications required				
(a)	Valid C of A, Flight Permit, Registration Certificate	Airworthiness certificate will be issued for each aircraft delivered from production. Registration Certificate is owners responsibility	Aircraft are issued Provisional A/W Certificates at the time of this report	COMPLIES
(b)	Display of C of A Flight Permit	Operator responsibility	Completion Center will furnish holder and determine location	Could not determine compliance

(c)	Fuel Tanks in the Passenger Compartment	N/A	N/A
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**FAA OPERATIONAL REQUIREMENTS/COMPLIANCE for Gulfstream G-V
 14 CFR PART 91 - GENERAL OPERATING AND FLIGHT RULES**

14 CFR Section	Requirement	Gulfstream Position	Gulfstream Remark	FSB Finding
SUBPART C - EQUIPMENT, INSTRUMENT AND CERTIFICATE REQUIREMENTS				
(d)	Compliance with 14 CFR part 34 (fuel venting and emissions)	Compliance with 14 CFR part 34 has been demonstrated during Type Certification		COMPLIES
§ 91.205 Instrument and Equipment requirements				
(a)	General	Operator responsibility		N/A
(b)	Day VFR	All equipment specified for Day VFR, as applicable to a turbine engine aircraft is included in aircraft produced under G-V Product Specification REV-C, except for: Item (12) – Pyrotechnic signal devices are not provided. Flotation gear for crew only is provided. Item (13) - Crew Seats only Item (14) - N/A Item (15) - N/A Item (16) - N/A	Exceptions are operator responsibility	COMPLIES
(c)	Night VFR	All equipment specified for Night VFR, Items (2) thru (6) are included in aircraft produced under G-V Product Specification REV-C, except for: Item (6) - Spare fuses are not provided since all re-settable circuits are protected by circuit breakers.	Exceptions are operator responsibility	COMPLIES
(d)	IFR	All equipment specified for IFR flight, Items (2) thru (9) are included in aircraft produced under G-V Product Specification REV-C.		COMPLIES
(e)	Flight at and above FL240	DME equipment is included in aircraft produced under G-V Product Specification REV-C.		COMPLIES

**FAA OPERATIONAL REQUIREMENTS/COMPLIANCE for Gulfstream G-V
 14 CFR PART 91 - GENERAL OPERATING AND FLIGHT RULES**

14 CFR Section	Requirement	Gulfstream Position	Gulfstream Remark	FSB Finding
SUBPART C - EQUIPMENT, INSTRUMENT AND CERTIFICATE REQUIREMENTS				
(f)	Category II Operations	All equipment as prescribed in paragraph (d) and Appendix A are provided included in aircraft produced under G-V Product Specification REV-C ,		COMPLIANCE NOT DETERMINED
§ 91.215 ATC Transponder and Altitude reporting Equipment and Use				
(a)	Transponder performance and environmental requirements	Two Collins TDR94d Mode S Transponders conforming to TSO-C112 is included in aircraft produced under G-V Product Specification REV-C		COMPLIES
(b)(c) (d)	Transponder operations	Transponder operation is an operator responsibility		N/A
§ 91.217 Data Correspondence between Automatically-Reported pressure Altitude Data and Pilot's Reference				
(a)	ATC-directed deactivation	Operator responsibility		N/A
(b)	Encoded altitude accuracy	Mode C altitude-encoding equipment capable of transmitting altitude with at least 125-foot accuracy is included in aircraft produced under G-V Product Specification REV-C	Periodic testing and calibration is an operator responsibility	COMPLIES
(c)	Altimeter-encoding equipment specifications	Altimeters conform to TSO-C10b and transponders meet TSO-C112 which addresses the comments of TSO-C88		COMPLIES

**FAA OPERATIONAL REQUIREMENTS/COMPLIANCE for Gulfstream G-V
 14 CFR PART 91 - GENERAL OPERATING AND FLIGHT RULES**

14 CFR Section	Requirement	Gulfstream Position	Gulfstream Remark	FSB Finding
§ 91.219 Altitude Alerting System or Device: Turbo-Jet Powered Civil Airplanes				
(a)	Operational requirement for system	Operator responsibility		N/A
(b)	Altitude alerting system Requirements	An altitude alerting system which complies with Requirements (1) thru (5) is included in aircraft produced under G-V Product Specification REV-C		COMPLIES
(c)(d)	Operational procedures	Operator responsibility		N/A
(b)(c)	Transponder operations	Transponder operation is an operator responsibility		N/A
(d)				
SUBPART E - MAINTENANCE, PREVENTIVE MAINTENANCE, AND ALTERATIONS				
§ 91.409 Inspections				
		An maintenance schedule is contained in the Gulfstream G-V Maintenance Program (derived from the MSG-3 process) was FAA accepted in August, 1996	Operator responsible for accomplishing required maintenance	MAINTENANCE DOCUMENTS COMPLETED BY GULFSTREAM
§ 91.411 Altimeter System and Altitude Reporting Equipment Tests and Inspections				
		The Maintenance Manuals includes the tests and inspections required by 14 CFR part 43 and Appendices. The 14 CFR part 43 tests and inspections are conducted by Gulfstream prior to delivery of the aircraft..	Operator responsible for conducting test and inspections	COMPLIES
§ 91.413 ATC Transponder Tests and Inspections				
		*** As above for § 91.411 ***	(as above)	AS ABOVE

**FAA OPERATIONAL REQUIREMENTS/COMPLIANCE for Gulfstream G-V
14 CFR PART 91 - GENERAL OPERATING AND FLIGHT RULES**

14 CFR Section	Requirement	Gulfstream Position	Gulfstream Remark	FSB Finding
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**SUBPART F - LARGE AND TURBINE-POWERED
MULTI-ENGINE AIRPLANES**

§ 91.503 Flying Equipment and Operating Information

(a)(1)	Flashlights	Operator responsibility		N/A
(a)(2)	Cockpit checklist	Checklists are provided in the Airplane Flight Manual/Operating Manual.		COMPLIES-BASED ON PROVISIONAL AFM DATA ONLY
(a)(3)(4)	Aeronautical charts	Operator responsibility		N/A
(a)(5)	One engine inoperative climb performance data	The Airplane Flight Manual and Operating Manual contain the required data.		COMPLIES -PERFORMANCE DATA BASED ON PROVISIONAL AFM
(b)(c)	Cockpit checklist contents			SAME AS (A)(2)
(d)	Use of data by crew	Operator responsibility		N/A

SUBPART G - ADDITIONAL EQUIPMENT AND OPERATING REQUIREMENTS FOR LARGE AND TRANSPORT CATEGORY AIRCRAFT

§ 91.603	Aural Speed Warning Device	Speed warning devices which comply with 14 CFR §25.1303(c)(1) are included in aircraft produced under G-V Product Specification REV-C		COMPLIES
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§ 91.609 Flight Recorders and Cockpit voice Recorders

(a)	Operation with inactive flight recorder or cockpit voice recorder	Operator responsibility		N/A
(b)	Operation by other than older of air carrier or commercial certificate	Operator responsibility		N/A
(c)	Requirements for flight recorder	An Flight Data Recorder is included with aircraft produced under G-V Product Specification REV C		COMPLIES
(d)	Flight recorder operation	Operator responsibility		N/A

**FAA OPERATIONAL REQUIREMENTS/COMPLIANCE for Gulfstream G-V
 14 CFR PART 91 - GENERAL OPERATING AND FLIGHT RULES**

14 CFR Section	Requirement	Gulfstream Position	Gulfstream Remark	FSB Finding
(e)	Requirement for cockpit voice recorder	An approved Cockpit Voice Recorder is included in aircraft produced under G-V Product Specification REV-C. Operation is continuous from starting (before starting engine) until the final checklist at the termination of the flight.		COMPLIES
(f)	Erasure feature	At least 30 minutes of CVR recording will be retained		COMPLIES
(g)	Erasure of flight recorder data or cockpit voice recording	Operator responsibility		N/A

**APPENDIX C
 SUBPART A - GENERAL**

§ 135.21 Manual Requirements		Operator responsibility		N/A
§ 135.23 Manual Contents				
(a)	Authorized management	Operator responsibility		N/A
(b)	Weight & balance	Operator responsibility	An approved weight and balance manual, is provided with each aircraft. Completion center will supply additional information upon completion of interior/exterior.	COMPLIES for “green” aircraft
(c)	Operations Spec	Operator responsibility		N/A
(d)	Accident notification	Operator responsibility		N/A
(e)	Return to service approved	Operator responsibility		N/A
(f)	Defects	Operator responsibility		N/A
(g)	Defect rectification	Operator responsibility		N/A
(h)	Pilots maintenance, request procedures	Operator responsibility		N/A
(i)	M.E.L.	Operator responsibility	A Master Minimum Equipment List has been developed by the FAA	Compliance not determined

**FAA OPERATIONAL REQUIREMENTS/COMPLIANCE for Gulfstream G-V
 14 CFR PART 135 – COMMUTER AND ONDEMAND OPERATIONS**

14 CFR Section	Requirement	Gulfstream Position	Gulfstream Remark	FSB Finding
(j)	Re-fueling procedures	Operator responsibility		N/A
(k)	Pilots briefing	Operator responsibility		N/A
(l)	Flight locating procedures	Operator responsibility		N/A
(m)	Emergency procedures compliance	Operator responsibility		N/A
(n)	On route qualification procedures	Operator responsibility		N/A
(o)	Approved aircraft inspection program	Operator responsibility	A G-V Maintenance Program was developed by Gulfstream and accepted by the FAA. This program meets this requirement.	Compliance to be determined for each operator
(p)	Procedures for hazardous materiel	Operator responsibility		N/A
(q)	Procedures for evacuation	Operator responsibility		N/A
(r)	Other procedures & policies	Operator responsibility		N/A
SUBPART C - AIRCRAFT AND EQUIPMENT				
(a)	Regulations	Noted		N/A
(b)	Approved/Operable instruments and equipment	Operator responsibility	All equipment and instruments included in aircraft produced under G-V Product Specification REV-C	COMPLIES
(c)	ATC transponder performance and environmental conditions	ATC transponders included in aircraft produced under G-V Product Specification REV-C meet applicable TSO conditions		COMPLIES
§ 135.149 Equipment Requirements: General				
(a)	Altimeter	Sensitive altimeter is included in aircraft produced under G-V Product Specification REV-C		COMPLIES
(b)	Carburetor deicing	N/A		N/A
(c)	Third artificial horizon	Third artificial horizon is included in aircraft produced under G-V Product Specification REV-C		COMPLIES - Powered by Emergency Electrical Power upon complete generator failure
(d)	(Reserved)			
(e)	Any other equipment	Noted		

**FAA OPERATIONAL REQUIREMENTS/COMPLIANCE for Gulfstream G-V
 14 CFR PART 135 – COMMUTER AND ONDEMAND OPERATIONS**

14 CFR Section	Requirement	Gulfstream Position	Gulfstream Remark	FSB Finding
§ 135.151 Cockpit Voice Recorders				
(a)	Requirement effectivity	An approved cockpit voice recorder is included in aircraft produced under G-V Product Specification REV-C. Operation is continuous from starting the crew checklist, (before starting engine) until after final check list at the termination of the flight.		COMPLIES
(b)	Requirement effectivity	N/A		
(c)	Recorded information	Operator responsibility		N/A
(d)	Use of boom microphone	Operator responsibility		N/A
(e)	Erasure Feature	At least 30 minutes of CVR. Recording will be retained		COMPLIES
§ 135.152 Flight Recorders				
		Operator responsibility	Flight Data Recorder meeting all relevant parts of 14 CFR § 135.152 is included in aircraft produced under G-V Product Specification REV-C	COMPLIES
(a)	Requirement effectivity	Operator responsibility		N/A
(b)	Requirement effectivity	Operator responsibility		N/A
(c)	Continuous operation	Operator responsibility		N/A
(d)	Retention of recorded data	Operator responsibility		N/A
(e)	Recorded information	Operator responsibility		N/A
(f)	Installation requirements	Operator responsibility		N/A
(g)	Recorder locator	Operator responsibility		N/A
§ 135.153 Ground Proximity Warning System				
(a)	Approved G.P.W.S. equipment	Operator responsibility	Enhanced G.P.W.S. is included in aircraft produced under G-V Product Specification REV-C	COMPLIES
(b)	Alternate system	N/A		

**FAA OPERATIONAL REQUIREMENTS/COMPLIANCE for Gulfstream G-V
 14 CFR PART 135 – COMMUTER AND ONDEMAND OPERATIONS**

14 CFR Section	Requirement	Gulfstream Position	Gulfstream Remark	FSB Finding
(c)	Airplane flight manual	The G-V Airplane Flight Manual (Provisional) did not contain the necessary information. The G-V Operating Manual contains the necessary information		COMPLIES
(d)	Deactivation of G.P.W.S.	Operator responsibility		N/A
(e)	Recording deactivation	Operator responsibility		N/A
§ 135.155 Fire Extinguishers: Passenger Carrying Aircraft				
(a)	Type and suitability of agent	Operator responsibility	Extinguishing agent in flight deck extinguisher is suitable for use in compartments	COMPLIES
(b)	Flight deck	Operator responsibility	A flight deck fire extinguisher (halon) is included in aircraft produced under G-V Product Specification REV-C	COMPLIES
(c)	Passenger compartment	Operator responsibility		N/A
§ 135.157 Oxygen Equipment Requirements				
(a)	Unpressurized aircraft	Owners responsibility	Oxygen supply in passenger compartment is operators responsibility	N/A
(b)	Pressurized aircraft	Operator responsibility	A flight crew oxygen system with sufficient quantity for operations up to 51,000 FT certified in accordance with applicable requirements of 14 CFR §§ 25.1441 thru 1453 is provided. Oxygen supply for passengers is a responsibility of the completion center	COMPLIES for Crew Oxygen Compliance for passenger oxygen could not be determined
(c)	Equipment required	Operator responsibility	Indication of flight crew oxygen supply and pilots use of undiluted oxygen is provided as part of aircraft produced under G-V Product Specification REV-C	COMPLIES

**FAA OPERATIONAL REQUIREMENTS/COMPLIANCE for Gulfstream G-V
 14 CFR PART 135 – COMMUTER AND ONDEMAND OPERATIONS**

14 CFR Section	Requirement	Gulfstream Position	Gulfstream Remark	FSB Finding
§ 135.158 Pitot Heat Indication Systems				
(a)	Compliance date 12/04/81	A pitot heat system with indications certified in accordance with 14 CFR part 25 is included in aircraft produced under G-V Product Specification REV-C		COMPLIES
(b)	Compliance extension	N/A		
§ 135.159 Equipment requirements: Passengers under VFR at Night or under VFR Over-the-top				
		All equipment required by this section, with exception of (f)(3) (Flashlight) are provided as part of the aircraft produced under G-V Product Specification REV-C. Note: With the exception of standby instruments, gyroscopic instruments are replaced by electronic equivalent	Flashlight: Per § 135.159(f)(3) is an operator responsibility Oxygen supply in passenger compartment is operators responsibility	COMPLIES
§ 135.161 Radio and Navigational Equipment: Carrying Passengers under VFR at Night or under VFR over-the-top				
		All radio and navigation equipment required by this section is provided as part of aircraft produced under G-V Product Specification REV-C		COMPLIES
§ 135.163 Equipment requirements: Aircraft Carrying Passengers under IFR				
		All equipment and applicable requirements of this section are included and provided for as part of the aircraft produced under G-V Product Specification REV-C, with the exception of sub section (e).		Compliance was not able to be fully determined. at the time of this report
§ 135.165 Radio and Navigational Equipment: Extended overwater or IFR Operations				
		All dual radio and navigation equipment required by this section is provided as part of aircraft produced under G-V Product Specification REV-C, with the exception of headsets	Headsets are an operator responsibility	COMPLIES
§ 135.167 Emergency Equipment: Extended overwater Operation				
		Operator responsibility		N/A

**FAA OPERATIONAL REQUIREMENTS/COMPLIANCE for Gulfstream G-V
 14 CFR PART 135 – COMMUTER AND ONDEMAND OPERATIONS**

14 CFR Section	Requirement	Gulfstream Position	Gulfstream Remark	FSB Finding
§ 135.169 Additional Airworthiness Requirements				
(a1)	121.213 through 283. Special airworthiness requirements	N/A	Aircraft certified to 14 CFR part 25 requirements	COMPLIES
(a2)	121.307 Engine instruments			COMPLIES
121.307 (a)	Piston engine/propeller aircraft	N/A		N/A
(b) (f) (h) (l)				
121.307 (c)	Fuel pressure	Indication of these parameters required		COMPLIES - direct indicator of fuel pressure not provided to crew
121.307 (d)	Fuel flowmeter	by (c) (d) (e) (g) (i) (j) (k) is provided for		
121.307 (e)	Fuel quantity	in the aircraft produced under G-V		
121.307 (g)	Oil pressure	Product Specification REV-C, together		
121.307 (i)	Oil temperature	with other engine parameters required by		
121.307 (j)	Tachometer	14 CFR part 25		
121.307 (k)	Fuel pressure warning			
(a3)	121.309 Emergency equipment	Operator responsibility		N/A
(b)	Reciprocating or turbo prop	N/A		N/A
(c)	Small airplane	N/A		N/A
(d)	Cargo of baggage compartments	Operator responsibility		N/A
§ 135.170 Materials for Compartment Interiors		Materials for compartment interiors per an STC are operators responsibility	Interior materials used in flight deck are certified to 14 CFR § 25.853 standards	COMPLIES
§ 135.171 Shoulder Harness Installation at Flight Crew Stations				
(a)	Approved shoulder harness	Approved shoulder harness for each flight crew member is provided as part of the aircraft produced under G-V Product Specification REV-C		COMPLIES
(b)	Use of shoulder harness	Operator responsibility		N/A

**FAA OPERATIONAL REQUIREMENTS/COMPLIANCE for Gulfstream G-V
 14 CFR PART 135 – COMMUTER AND ONDEMAND OPERATIONS**

14 CFR Section	Requirement	Gulfstream Position	Gulfstream Remark	FSB Finding
§ 135.173 Airborne Thunderstorm Detection Requirements				
(a)	Airborne thunderstorm detection equipment	Digital airborne weather radar equipment is provided as part of aircraft produced under G-V Product Specification REV-C		COMPLIES
(b)	Helicopter requirements	N/A		N/A
(c)	Flight under IFR or night VFR	N/A		N/A
(d)	Equipment inoperative en route	Operator responsibility		N/A
(e)	Applicability	Noted		N/A
(f)	Power supply	Noted		N/A

**FAA OPERATIONAL REQUIREMENTS/COMPLIANCE for Gulfstream G-V
 14 CFR PART 135 – COMMUTER AND ONDEMAND OPERATIONS**

14 CFR Section	Requirement	Gulfstream Position	Gulfstream Remark	FSB Finding
§ 135.175 Airborne Weather Radar Equipment Requirements				
(a)	Airborne weather radar equipment	Digital airborne weather radar equipment is provided as part of aircraft produced under G-V Product Specification REV-C		COMPLIES
(b)	Flight under IFR or night VFR	Operator responsibility		N/A
(c)	Equipment inoperative on route	Operator responsibility		N/A
(d)	Applicability	Noted		
(e)	Power supply	Noted		
§ 135.177 Emergency Equipment Requirements for aircraft Having a Passenger Seating Configuration of More than 19 Passengers		N/A	Aircraft is not certified for passenger seating of more than 19	N/A
§ 135.180 Traffic Alert and Collision Avoidance System				
(a)	Effectivity	Operator responsibility		COMPLIES
(b)	Flight manual requirements	G-V Airplane Flight Manual (Provisional) does not contain this information. Operating Manual contain required information		COMPLIES
§ 135.181 Performance Requirements: Aircraft Operated over-the-top or in IFR Conditions				
(a)	Climb requirements	Operator responsibility	Aircraft climb performance data is provided in aircraft flight manual	Compliance based on data in G-V Provisional Airplane Flight Manual
(b)	Helicopters	N/A		N/A
(c)	Weather considerations	Operator responsibility		N/A
(d)	Continued flight VFR	Operator responsibility		N/A

**FAA OPERATIONAL REQUIREMENTS/COMPLIANCE for Gulfstream G-V
 14 CFR PART 135 – COMMUTER AND ONDEMAND OPERATIONS**

14 CFR Section	Requirement	Gulfstream Position	Gulfstream Remark	FSB Finding
§ 135.183 Performance Requirements: Land Aircraft Operated Overwater				
(a)	Engine failure	Operator responsibility		N/A
(b)	Take-off or landing	Operator responsibility		N/A
(c)	Climb requirements	Operator responsibility	Aircraft climb performance data is provided in aircraft flight manual	Compliance based on data in G-V Provisional Airplane Flight Manual
(d)	Helicopters	N/A		N/A
§ 135.185 Empty weight and center of gravity: Currency Requirement				
(a)	Aircraft weighing	Operator responsibility	Actual weight and balance manual provided with each aircraft. Final weight and balance information is provided by the completion center.	Compliance determined for “green” aircraft only delivered from the manufacturer
(b)	Applicability	Operator responsibility		N/A
SUBPART F - FLIGHT CREWMEMBER FLIGHT TIME LIMITATIONS AND REST REQUIREMENTS				
	§ 135.269 (b)(5) Flight Time Limitations and Rest Requirements: Unscheduled Three and Four Pilot Crews	Operator responsibility	Aircraft is designed to have crew rest facilities. Completion center will determine configuration. Compliance must be done on individual aircraft basis.	Compliance not determined
SUBPART J - MAINTENANCE, PREVENTATIVE MAINTENANCE, AND ALTERATIONS				
	§ 135.419 Approved Aircraft Inspection Program	Operator responsibility	A G-V Maintenance Program was developed by Gulfstream and accepted by the FAA . This program meets this requirement	Compliance to be determined for each operator

**FAA OPERATIONAL REQUIREMENTS/COMPLIANCE for Gulfstream G-V
 14 CFR PART 135 – COMMUTER AND ONDEMAND OPERATIONS**

14 CFR Section	Requirement	Gulfstream Position	Gulfstream Remark	FSB Finding
§ 135.421 Additional Maintenance Requirements				
(a)	Nine seat or less	Operator responsibility (dependent on interior seating capacity)	A G-V Maintenance Program was developed by Gulfstream and accepted by the FAA. This program meets this requirement	Compliance to be determined upon individual aircraft configuration
(b)	Definition	Noted		
§ 135.427 Manual Requirements				
(a)	Certificate holders organization	Operator responsibility	Operator responsible for accomplishing required maintenance	N/A
(b)	Manual requirements for maintenance and inspection	Operator responsibility		N/A

Appendix 5 – GV-SP OPERATING RULES COMPLIANCE CHECKLIST

Serial number 5001, was utilized by the FSB to conduct its evaluation on February 17, 2003. 5001 was a GV-SP flight test aircraft. It enabled the FSB to determine compliance with the appropriate 14 CFR part 91 and 135 operating requirements. The attached checklist provides the FSB's findings on those operating requirements. A 14 CFR part 125 compliance checklist was not developed for this aircraft since Gulfstream has designed this aircraft to operate with less than 6,000 pounds payload. Since the aircraft are delivered "green" from the factory, the completion center will determine final payload capacity of the airplane. It may be possible that individual aircraft may be outfitted to operate in excess of 6,000 pound payload. That operator would then have to show compliance with 14 CFR part 125 requirements, unless a deviation is obtained.

Any U.S. operator wishing to operate the GV-SP aircraft will have to demonstrate to the FAA that the aircraft fully complies with all applicable 14 CFR parts prior to that aircraft entering service. This checklist may be used by the operator to show compliance with those items listed in it.

14 CFR Section	Amdt.	Requirement	Gulfstream Position	Gulfstream Remark	FSB Finding
* SUBPART A - GENERAL *					
91.1	91-257	Applicability	Noted		
91.3		Responsibility and Authority of the Pilot in Command	Not applicable	Operator Responsibility	Operator Responsibility
91.5		Pilot in Command Requiring More than One Required Pilot	Not applicable	Operator Responsibility	Operator Responsibility
91.7		Civil Aircraft Airworthiness		Operator Responsibility	
(a)		Airworthy Conditions	Noted		Operator Responsibility
(b)		Determination	---		Operator Responsibility
91.9		Civil Aircraft Flight Manual, Marking, and Placard Requirements			
(a)		Operating Limitations	An FAA-approved Airplane Flight Manual complying with 14 CFR § 25.1581 is provided with each aircraft. Additional compliance with operational requirements recorded herein.	Operator Responsibility	Operator Responsibility
(b)(1)		Availability of current Airplane Flight in aircraft	An FAA-approved Airplane Flight Manual complying with 14 CFR § 25.1581 is provided with each aircraft.	Operator Responsibility	Operator Responsibility
(b)(2)		Airplane Flight Manual not required	Not applicable		Not Applicable
(c)		Identification of aircraft in accordance with 14 CFR part 45	A fireproof identification plate complying with 14 CFR part 45 is included in the production airplane. Aircraft are delivered "green" by Gulfstream and meet Registration Number requirements when delivered.	Operator responsibility at outfitting after paint.	Not Applicable
(d)		Compliance with part 29	Not applicable		Not Applicable
91.11		Prohibition on Interference with Crewmembers	---	Operator Responsibility	Operator Responsibility
91.13		Careless or Reckless Operation	---	Operator Responsibility	Operator Responsibility
91.15		Dropping Objects	---	Operator Responsibility	Operator Responsibility
91.17		Alcohol or Drugs	---	Operator Responsibility	Operator Responsibility
91.19		Carriage of Narcotic Drugs, Marihuana, and Depressant or Stimulant Drugs or Substances	---	Operator Responsibility	Operator Responsibility
91.21		Portable Electronic Devices	---	Operator Responsibility	Operator Responsibility
91.23	91-267	Truth-in-Leasing Clause Requirement in Leases and Conditional Sales Contracts		Operator Responsibility	

14 CFR Section	Amdt.	Requirement	Gulfstream Position	Gulfstream Remark	FSB Finding
(a)		Contract Content	Noted		Operator Responsibility
(b)		Exclusion	Noted		Operator Responsibility
(c)		Requirements for Contract	---		Operator Responsibility
(d)		Public inspection	---		Operator Responsibility
(e)		Lease description	---		Operator Responsibility
91. 25		Aviation Safety Reporting Program: Prohibition Against Use of Reports for Enforcement Purposes		Operator Responsibility	Operator Responsibility
91. 27 - 91. 99		[Reserved]			-----
* SUBPART B - FLIGHT RULES *					
91.101		Applicability	Noted		-----
91.103		Preflight Action		Operator Responsibility	
(a)		Flight under IFR	---		Operator Responsibility
(b)		Take-off and landing distances	An FAA-approved Airplane Flight Manual complying with 14 CFR § 25.1581 is provided with each aircraft		Complies
91.105	91-231	Flight Crewmembers at Stations	---	Operator Responsibility	Operator Responsibility
91.107	91-250	Use of Safety Belts, Shoulder Harnesses, and Child Restraint Systems	No change to the shoulder harness installation from G-V. Certified as a 16 'g' installation.	Proper use of the equipment is operator Responsibility	Operator Responsibility
91.109		Flight Instruction; Simulated Instrument Flight and Certain Flight Tests	---	Operator Responsibility	Operator Responsibility
91.111		Operating near Other Aircraft	---	Operator Responsibility	Operator Responsibility
91.113		Right-of-Way Rules: Except Water Operations	---	Operator Responsibility	Operator Responsibility
91.115		Right-of-Way: Water Operations	---	Operator Responsibility	Operator Responsibility
91.117	91-233	Aircraft Speed	The information on minimum safe speed is provided in FAA-approved Airplane Flight Manual	Operator Responsibility	(a)(b)(c)Operator Responsibility (d) complies
91.119		Minimum Safe Altitudes: General	---	Operator Responsibility	Operator Responsibility
91.121		Altimeter Settings	---	Operator Responsibility	Operator Responsibility
91.123	91-244	Compliance with ATC Clearances and Instructions	---	Operator Responsibility	Operator Responsibility
91.125		ATC Light Signals	---	Operator Responsibility	Operator Responsibility

14 CFR Section	Amdt.	Requirement	Gulfstream Position	Gulfstream Remark	FSB Finding
91.126	91-239	Operating On or In the Vicinity of an Airport in Class G Airspace	---	Operator Responsibility	Operator Responsibility
91.127	91-239	Operating On or In Vicinity of an Airport in Class E Airspace	---	Operator Responsibility	Operator Responsibility
91.129	91-234	Operation in Class D Airspace	---	Operator Responsibility	Operator Responsibility
91.130	91-239	Operations in Class C Airspace	---	Operator Responsibility	Operator Responsibility
(a), (b), (c), (e)		General; Deviations	---		Operator Responsibility
(d)		Equipment requirements	Compliance with § 91.215 is outlined below		Operator Responsibility
91.131		Operations in Class B Airspace	---	Operator Responsibility	Operator Responsibility
91.133		Restricted and Prohibited Areas	---	Operator Responsibility	Operator Responsibility
91.135		Operations in Class A Airspace	---	Operator Responsibility	Operator Responsibility
91.137		Temporary Flight Restrictions	---	Operator Responsibility	Operator Responsibility
91.138	91-270	Temporary Flight Restrictions in National Disaster Areas in the State of Hawaii	---	Operator Responsibility	Operator Responsibility
91.139		Emergency Air Traffic Rules	---	Operator Responsibility	Operator Responsibility
91.141		Flight Restrictions in the Proximity of the Presidential and Other Parties	---	Operator Responsibility	Operator Responsibility
91.143		Flight Limitation in the Proximity of Space Flight Operations	---	Operator Responsibility	Operator Responsibility
91.144	91-240	Temporary Restriction on Flight Operations During Abnormally High Barometric Pressure Conditions	---	Operator Responsibility	Operator Responsibility
91.145		Management of aircraft operations in the vicinity of aerial demonstrations and major sporting events	---	Operator Responsibility	Operator Responsibility
91.146-91.149		[Reserved]	---		-----
91.151		Fuel Requirements or Flight in VFR Conditions	---	Operator Responsibility	Operator Responsibility
91.153		VFR Flight Plan: Information Required	---	Operator Responsibility	Operator Responsibility
91.155	91-235	Basic VFR Weather Minimums	---	Operator Responsibility	Operator Responsibility
91.157	91-262	Special VFR Weather Minimums	---	Operator Responsibility	Operator Responsibility
91.159		VFR Cruising altitude or Flight Level	---	Operator Responsibility	Operator Responsibility
91.161 - 91.165		[Reserved]			-----
91.167		Fuel Requirements for Flight in IFR Conditions	---	Operator Responsibility	Operator Responsibility
91.169	91.259	IFR Flight Plan: Information Required	---	Operator Responsibility	Operator Responsibility
91.171		VOR Equipment Check For IFR Operations	Dual VOR installation meets the requirement when delivered	Operator Responsibility	Operator Responsibility
91.173		ATC Clearance and Flight Plan Required	---	Operator Responsibility	Operator Responsibility

14 CFR Section	Amdt.	Requirement	Gulfstream Position	Gulfstream Remark	FSB Finding
91.175	91.267	Take-off and Landing Under IFR	---	Operator Responsibility	Operator Responsibility
91.177		Minimum Altitudes for IFR Operations	---	Operator Responsibility	Operator Responsibility
91.179		IFR Cruising Altitude or Flight Level	---	Operator Responsibility	Operator Responsibility
91.181		Course to be Flown	---	Operator Responsibility	Operator Responsibility
91.183		IFR Radio Communications	---	Operator Responsibility	Operator Responsibility
91.185	91-211	IFR Operations: Two-way Radio Communication Failure	---	Operator Responsibility	Operator Responsibility
91.187		Operations under IFR In Controlled Airspace: Malfunction reports	---	Operator Responsibility	Operator Responsibility
91.189		Category II and III Operations	The aircraft is not certified for Category II operations. This will occur in a follow-on certification. The FAA-approved Airplane Flight Manual will be updated at that time.		Not Demonstrated
(a)(1). (a)(2)		Appropriate authorization & adequate knowledge of crewmembers	---	Operator Responsibility	Operator Responsibility
(a)(3)		Instrument panel and equipment installed	Instrument panel meets the requirements of the section.	This will be demonstrated during the Category II certification effort.	Not demonstrated
91.189 (b)		Airborne equipment	Noted.	Operator Responsibility	Operator Responsibility
(c)-(g)		Approaches, Landing, Exceptions	---		Operator Responsibility
91.191		Category II Manual	Gulfstream will provide a Category II FAA-approved Airplane Flight Manual Supplement as a template for Category II Manual	Operator Responsibility	Not Demonstrated
91.193		Certificate of Authorization for Certain Category II Operations	---	Operator Responsibility	Not Applicable
91.195 - 91.199		[Reserved]	---		-----
* SUBPART C - EQUIPMENT, INSTRUMENT, and CERTIFICATE REQUIREMENTS*					
91.201		[Reserved]			-----
91.203	91-218	Civil Aircraft: Certifications Required			
(a)		Valid C of A, Registration Certificate.	C of A is issued for each aircraft delivered from production. At the time of this report, it is a Provisional C of A.	Operator Responsibility	Operator Responsibility
(b)		C of A displayed	---	Operator	Operator

14 CFR Section	Amdt.	Requirement	Gulfstream Position	Gulfstream Remark	FSB Finding
(c)		Fuel Tanks in the passenger compartment	Not applicable	Responsibility	Responsibility
(d)		Compliance with part 34	Compliance with 14 CFR part 34 has been demonstrated during Type Certification		Not Applicable Complies
91.205	91-251	Instrument and Equipment Requirements			
(a)		General	See Below	Operator Responsibility	Operator Responsibility
(b)		Day VFR	All equipment specified for Day VFR, as applicable to a turbine engine aircraft is included in the production airplane, except for Item (12) – Pyrotechnic signal devices are not provided. Item (13) – Crew seats only. Passenger seats to be complied with during outfitting Item (16) - Not applicable Item (17) - Not applicable		Complies
(c)		Night VFR	All equipment specified for Night VFR, Items (2) thru (6) are included in the production airplane, except for: Item (6) - Spare fuses are not provided since all re-settable circuits are protected by circuit breakers.		Complies
(d)		IFR	All equipment specified for IFR flight, Items (2) thru (9) are included per GV-SP Product Specification. DME equipment is included per the GV-SP Product Specification.		Complies
(e)		Flight at and above FL240	All equipment as prescribed in Paragraph (d) and Appendix A are provided per the GV-SP Product Specification.		Complies
(f)		Category II Operations		Category II is a follow-on certification activity.	Not Demonstrated

14 CFR Section	Amdt.	Requirement	Gulfstream Position	Gulfstream Remark	FSB Finding
91.207	91-265	Emergency Locator Transmitters			
(a)		General	An emergency locator transmitter conforming to TSO-C91A is provided as part of the production airplane.	Operating condition, para. (a)(1) is an operator responsibility	Operator Responsibility
(b)		Location	The ELT is mounted on primary structure in the aft compartment of the fuselage in order to minimize the probability of damage in the event of crash impact.		Complies
(c)		Battery condition	---	Operator Responsibility	Operator Responsibility
(d)		Periodic inspections	---	Operator Responsibility	Operator Responsibility
(e)		Ferrying with inoperative ELT	---	Operator Responsibility	Operator Responsibility
(f)		Exceptions to paragraph § 91.207(a)	ELT is installed in production and flight test airplanes prior to first flight	Operator Responsibility	Operator Responsibility
91.209		Aircraft Lights			
(a), (b),		Position and anti-collision lights	Position lights and anti-collision lights complying with 14 CFR §§ 25.1381 through 25.1397 and 25.1401 respectively are included in the production airplane.	Use of these lights is an Operator responsibility.	Operator Responsibility
(c)		Anchor Lights	Not applicable		Not applicable
91.211		Supplemental Oxygen			
(a),(b) (1)		General	A flight crew supplemental oxygen system is included in the production airplane. Crew oxygen masks are provided for both pilots and observer. Passenger oxygen system to be installed during outfitting.	Operator Responsibility to use equipment as required.	Operator Responsibility
(b)(2)		Pilot at Controls	---	Operator Responsibility	Operator Responsibility
91.213		Inoperative Instruments and Equipment	Gulfstream has an approved MMEL for the baseline airplane. GV-SP specific items have been submitted for the next FOEB meeting.	MEL LOA is Operator Responsibility	Complies
91.215	91-267	ATC Transponder and Altitude Reporting Equipment and Use			
(a)		Transponder performance and environmental requirements	Two Honeywell Mode S Transponders with ATC Modes A and C conforming to TSO-C112 are provided in the production airplane		Complies
(b), (c),		Transponder operations	---	Transponder	Operator

14 CFR Section	Amdt.	Requirement	Gulfstream Position	Gulfstream Remark	FSB Finding
(d)				operation is an operator responsibility	Responsibility
91.217		Data Correspondence between Automatically - Reported Pressure Altitude Data and Pilot's Reference			
(a)		Deactivation directed	---	Operator Responsibility	Operator Responsibility
(b)		Encoded altitude accuracy	Mode C altitude – production airplane is delivered with a recent (within last 30 days) air data calibration IAW 14 CFR §§ 91.411 and 14 CFR part 43	Periodic testing and calibration is an operator responsibility	Complies
(c)		Altimeter-encoding equipment specifications	Conform to TSO-C10 and C88		Complies
91.219		Altitude alerting system or device: Turbo-Jet Powered Civil Airplanes			
(a)		Operational Requirement for system	---	Operator Responsibility	Complies
(b)		Altitude Alerting System Requirements	The production airplane is delivered with an approved altitude alerting system meeting the requirements of (b)		Complies
(c),(d)		Operational Procedures	---	Operator Responsibility	Operator Responsibility
91.221		Traffic Alert and Collision Avoidance System Equipment and Use			
(a)		Requirement for an approved TCAS	A Traffic Alert and Collision Avoidance System (TCAS II/ACAS II) is provided in the production airplane.		Complies
(b)		TCAS: operation required	---	Operator Responsibility	Operator Responsibility
91.223		Terrain Awareness and Warning System			
(a)		A/C manufactured after March 29, 2002	A Class A TAWS (compliant with TSO C151) is provided in the production airplane.		Complies
(b)		A/C manufactured on or before March 29, 2002	Not applicable		Not Applicable
(c)		AFM	All applicable information is provided in the FAA-approved Airplane Flight Manual		Complies
(d)		Exceptions	Not applicable		Not Applicable
91.224 - 91.299		[Reserved]	---		-----

14 CFR Section	Amdt.	Requirement	Gulfstream Position	Gulfstream Remark	FSB Finding
* SUBPART D - SPECIAL FLIGHT OPERATIONS*					
91.301		[Reserved]	---		-----
91.303	91-227	Aerobatics Flight	---	Operator Responsibility	Operator Responsibility
91.305		Flight Test Areas	---	Operator Responsibility	Operator Responsibility
91.307	91-268	Parachutes and Parachuting	Not applicable		-----
91.309	91-227	Towing: Gliders	---	Operator Responsibility	Operator Responsibility
91.311		Towing: Other than under § 91.309	---	Operator Responsibility	Operator Responsibility
91.313		Restricted Category Civil Aircraft: Operating Limitations			Not Applicable
(a); (b); (c); (d); (e); (f)		General	---	Operator Responsibility	Operator Responsibility
(g)		Shoulder harness approval	Not applicable. part 23 airplanes only		Operator Responsibility
91.315		Limited Category Civil Aircraft: Operating Limitations	---	Operator Responsibility	Operator Responsibility
91.317	91-212	Provisionally Certificated Civil Aircraft: Operating Limitations	Provisional AFM issued December, 2002	Operator Responsibility	Operator Responsibility
91.319		Aircraft Having Experimental Certificates: Operating Limitations	---	Operator Responsibility	Operator Responsibility
91.321		Carriage of Candidates in Federal Elections	---	Operator Responsibility	Operator Responsibility
91.323	91-253	Increased Maximum Certificated Weights for Certain Airplanes Operated in Alaska	Not applicable		Not applicable
91.325		Primary Category Aircraft: Operating Limitations	Not applicable		Not applicable
91.326-91.399		[Reserved]	---		-----
* SUBPART E - MAINTENANCE, PREVENTIVE MAINTENANCE, and ALTERATIONS *					
91.401		Applicability	Noted		-----
91.403	91-267	General			
(a) (b)		Airworthy conditions; Maintenance	---	Operator Responsibility	Operator Responsibility
(c)		Required procedures	An approved maintenance schedule derived from the MSG-3 process and an Aircraft Maintenance Manual complying with 14 CFR § 25.1529 and Appendix H is provided to each operator upon delivery of the airplane.		Operator Responsibility
91.405		Maintenance Required			
(a); (b); (d)		Discrepancies; Records		Operator Responsibility	Operator Responsibility
(c)		Inoperative instruments	The aircraft will have an approved MMEL. Approval of applicable MEL is the operator's responsibility.	Operator Responsibility	Operator Responsibility

14 CFR Section	Amdt.	Requirement	Gulfstream Position	Gulfstream Remark	FSB Finding
91.407		Operation after Maintenance, Preventive Maintenance, rebuilding, or alteration	---	Operator Responsibility	Operator Responsibility
91.409	91-267	Inspections	An approved maintenance schedule derived from the MSG-3 process and an Aircraft Maintenance Manual complying with 14 CFR § 25.1529 and Appendix H is provided to each operator.	Operator responsible for accomplishing required maintenance	Operator Responsibility
91.410	91.266	Special maintenance program requirements	Not applicable		Not Applicable
91.411		Altimeter System and Altitude Reporting Equipment Tests and Inspections	The Airplane Maintenance Manual includes the tests and inspections required by 14 CFR part 43 and appendices. The 14 CFR part 43 tests and inspections are conducted for each aircraft prior to C of A.	Operator Responsibility	Operator Responsibility
91.413	91-267	ATC Transponder Tests and Inspections	The Airplane Maintenance Manual includes the tests and inspections required by 14 CFR part 43 and appendices. The 14 CFR part 43 tests and inspections are conducted for each aircraft prior to C of A.	Operator responsibility after airplane is in service.	Operator Responsibility
91.415		Changes to aircraft inspection program	---	Operator Responsibility	Operator Responsibility
91.417		Maintenance records			
(a), (b), (c)		Documents requirements	An approved maintenance schedule derived from the MSG-3 process and the Airplane Maintenance Manual complying with 14 CFR § 25.1529 and Appendix H is provided to each operator.	Operator Responsibility	Operator Responsibility
(d)		Fuel tank installation	Not applicable, since the fuel tank is not installed within the passenger compartment/baggage compartment		Not Applicable
91.419		Transfer of maintenance records	---	Operator Responsibility	Operator Responsibility
91.421		Rebuilt engine maintenance records	Not applicable		Not applicable
91.423 - 91.499		[Reserved]	---		-----
* SUBPART F - LARGE AND TURBINE-POWERED MULTIENGINE AIRPLANES*					
91.501		Applicability	Noted.	Operator Responsibility	Operator Responsibility
91.503		Flying Equipment and Operating Information			
(a)(1)		Flashlights	Two rechargeable Maglite flashlights are provided as basic aircraft equipment, one for each pilot's station.	Working condition is responsibility of operator.	Complies
(a)(2)		Cockpit checklist	Checklists are provided in the FAA-approved Airplane Flight Manual / Operating Manual / QRH	Operator Responsibility	Operator Responsibility

14 CFR Section	Amdt.	Requirement	Gulfstream Position	Gulfstream Remark	FSB Finding
(a)(3) & (a)(4)		Aeronautical charts	---	Operator Responsibility	Operator Responsibility
(a)(5)		One engine inoperative climb performance data	The FAA-approved Airplane Flight Manual and Operating Manual include the required data.	Operator responsibility to use the data	Complies
(b), (c)		Cockpit checklist contents	The FAA-approved Airplane Flight Manual contains all required checklists.	Operator responsibility	Complies
(d)		Use of data by crew	---	Operator Responsibility	Operator Responsibility
91.505		Familiarity with operating limitations and emergency equipment	An FAA-approved Airplane Flight Manual complying with 14 CFR § 25.1581 is provided with the airplane at delivery.	Operator Responsibility	Operator Responsibility
91.507		Equipment requirements: Over-the-top or night VFR operations	All equipment specified for IFR flight and Night VFR is included in the production airplane.	Operator responsible for operable equipment	Complies
91.509		Survival equipment for overwater operations	The aircraft is equipped for Extended Over Water Operations for the crew only as a production airplane. The airplane is equipped for passengers during outfitting.	Operator Responsibility	Operator Responsibility
91.511	91-249	Radio equipment for overwater operations	---	Noted	
(a)(b)		Equipment requirements	The production airplane meets the equipment requirements.		Complies
(c)(d)		Equipment exclusions	---	Operator Responsibility	Operator Responsibility
(e)		Definition of "shore"	---	Noted	-----
(f)		Equipment requirements in specific remote oceanic areas	---	Operator Responsibility	Operator Responsibility

14 CFR Section	Amdt.	Requirement	Gulfstream Position	Gulfstream Remark	FSB Finding
91.513		Emergency Equipment			
(a)		General	Noted		-----
(b)		Equipment requirements	The production airplane is equipped with a fire extinguisher in the cockpit, smoke goggles and life jackets for the 2 pilots and observers, and a portable oxygen bottle with full face mask. The equipment meets this paragraph.		Operator Responsibility
(c)(1)(2)		Fire extinguishers	A HALON fire extinguisher is installed in the cockpit as part of the production airplane.		Complies
(c)(3)(4)		Fire extinguishers	Cabin fire extinguishers are installed during outfitting.	Operator Responsibility	Operator Responsibility
(d)		First Aid kit	First Aid Kits are installed during the outfitting process	The emergency medical kit is operator responsibility	Operator Responsibility
(e)		Crash axe	Not applicable	Operator option	Complies
(f)		Megaphones	Not applicable	Operator option	Not Applicable
91.515		Flight altitude rules	---	Operator Responsibility	Operator Responsibility
91.517		Passenger Information			
(a)		Smoking and seat-belt signs	Smoking and seat-belt signs are installed during the outfitting process	Operator Responsibility	Operator Responsibility
(b)		Oral notification if no signs provided	---	Operator responsibility	Operator Responsibility
(c)		No smoking allowed while "No Smoking" signs lighted	---	Operator responsibility	Operator Responsibility
(d)(e)		Passenger compliance with signs and instructions	---	Operator Responsibility	Operator Responsibility
91.519	91-231	Passenger briefing	The applicable placards and lighted passenger information signs are installed during outfitting. A video with printed cards are also provided to the operator at delivery.	Oral briefing is Operator Responsibility	Complies
91.521		Shoulder Harness			
(a)(1)(2)		Shoulder Harness – Flight Deck	The 2 pilot seats and observer seat installed in the production airplane meet these requirements.		Complies
(b)(1)(2)		Shoulder Harness – Flight Attendant Seat in Cabin	If an operator chooses to install such a seat(s), it will be installed during	Operator Option and	Operator Responsibility

14 CFR Section	Amdt.	Requirement	Gulfstream Position	Gulfstream Remark	FSB Finding
			outfitting and comply.	Responsibility	
91.523		Carry-on baggage	Not applicable		-----
91.525		Carriage of Cargo			
(a)		Carriage of cargo - Requirements	The baggage compartment is a Class B compartment and meets the requirements of (a)(i) thru (v)		Complies
(b)		Accessibility of compartments for fire extinguishing	The aft baggage compartment is classified as a Class B cargo compartment	AFM Emergency procedures meet this requirement	Complies
91.527		Operating in Icing Conditions			
(a)		Take-off with contaminated surfaces	---	Operator Responsibility	Operator Responsibility
(b), (c)		IFR/VFR flight into known or forecasted icing conditions	The GV-SP is a transport airplane and is certified for FIKI	Operator responsibility	Complies
(d)		Forecast icing conditions relief	---	Operator Responsibility	Operator Responsibility
91.529		Flight Engineer requirements	---	Operator Responsibility	Not Applicable
91.531		Second in command requirements	---	Operator Responsibility	Operator Responsibility
91.533		Flight attendant requirements	Not applicable with 9 or fewer passengers. With 10 or more passengers, a trained evacuation crewmember is required per the Equivalent Safety Finding.	Operator Responsibility	Operator Responsibility
91.535		Stowage of food, beverage, and passenger service equipment during aircraft movement on the surface, takeoff, and landing	---	Operator Responsibility	Operator Responsibility
91.536 - 91.599		[Reserved]	---		-----
*SUBPART G - ADDITIONAL EQUIPMENT and OPERATING REQUIREMENTS FOR LARGE and TRANSPORT CATEGORY AIRCRAFT *					
91.601		Applicability	Noted		-----
91.603		Aural Speed Warning Device	The production airplane complies.		Complies
91.605	91-256	Transport Category Civil Airplane Weight Limitations			
(a)		Conditions for aircraft certificated before October 1, 1958	Not applicable		Not Applicable
(b)		Maximum take-off and landing weights for airfield elevation, ambient temperature, wind and runway gradient.	The FAA-approved Airplane Flight Manual and Weight and Balance Manual contain all data necessary to enable the operator to comply with this requirement. The Operating Manual contains flight-planning data to enable computation of fuel burned from departure to destination or alternate airport. Additionally, the production airplane is equipped with an on-board	Operator Responsibility	Complies

14 CFR Section	Amdt.	Requirement	Gulfstream Position	Gulfstream Remark	FSB Finding
91.607 (a) (b) (c)		Emergency exits for airplanes carrying passengers for hire.	flight-planning computer for takeoff, en route, and landing computations to assist the crew in performing these calculations. The aircraft is equipped with four Type IV over wing exits (two on each side). See Equivalent Safety Finding from the Transport Airplane Directorate.		Not Applicable Complies Operator Responsibility
91.609 (a)-(b) (c) (d) (e), (f) (g)	91-228	Flight Recorders and Cockpit Voice Recorders General Requirement for flight recorder Flight recorder operation Requirement for cockpit voice recorder Action required following accident or incident – NTSB report and records	--- The airplane is equipped with a digital flight data recorder meeting the requirements of 14 CFR part 91 in production. The 14 CFR part 135 eighty-eight (88) parameter DFDR will be certified as a follow-on certification effort. The flight recorder installed in the production airplane meets this requirement. The cockpit voice recorder installed in the production airplane meets these requirements. ---	Operator Responsibility Operator Responsibility	Operator Responsibility Complies Complies Complies Operator Responsibility
91.611		Authorization for ferry flight with one engine inoperative	Not applicable		Not Applicable
91.613		Materials For Compartment Interiors	To be addressed during the outfitting by STC		Operator Responsibility
91.615 - 91.699		[Reserved]			-----
SUBPART H - FOREIGN AIRCRAFT OPERATIONS AND OPERATIONS OF US REGISTERED CIVIL AIRCRAFT OUTSIDE OF THE UNITED STATES; AND RULES GOVERNING PERSONS ON BOARD SUCH AIRCRAFT					
91.701		Applicability	Noted	Operator Responsibility	Operator Responsibility
91.702		Persons on board	---	Operator Responsibility	Operator Responsibility
91.703		Operations of civil aircraft of U.S. registry outside of the United States	---	Operator Responsibility	Operator Responsibility
91.705		Operations within airspace designated as Minimum Navigation Performance Specification Airspace	---	Operator Responsibility	Operator Responsibility
91.706		Operations within airspace designated	---	Operator	Operator

14 CFR Section	Amdt.	Requirement	Gulfstream Position	Gulfstream Remark	FSB Finding
		as Reduced Vertical Separation Minimum Airspace		Responsibility	Responsibility
91.707		Flights between Mexico or Canada and the United States	---	Operator Responsibility	Operator Responsibility
91.709		Operations to Cuba	---	Operator Responsibility	Operator Responsibility
91.711		Special rules for foreign civil aircraft	---	Operator Responsibility	Operator Responsibility
91.713		Operation of civil aircraft of Cuban registry	---	Operator Responsibility	Operator Responsibility
91.715		Special flight authorizations for foreign civil aircraft	---	Operator Responsibility	Operator Responsibility
91.717 - 91.799		[Reserved]	---		-----
* SUBPART I - OPERATING NOISE LIMITS*					
91.801		Applicability: Relation to Part 36	Noted		-----
91.803		part 125 operations: Designation of applicable regulations	Noted		Not Applicable
91.805		Final compliance	The production airplane is certified to 14 CFR part 36 Stage 3 requirements as noted in the FAA-approved Airplane Flight Manual.		Complies
91.807		Phased compliance under part 121, 125, and 135: Subsonic airplanes			
(a)		General	Noted		-----
(b)		Compliance schedules	The production airplane is certified to 14 CFR part 36 Stage 3 requirements as noted in the FAA-approved Airplane Flight Manual.		Complies
(c)		Apportionment of airplanes	---	Operator Responsibility	Operator Responsibility
91.809		Replacement airplanes	---	Operator Responsibility	Not Applicable
91.811		Service to small communities exemption: Two engine, subsonic airplanes	---	Operator Responsibility	Not Applicable
91.813		Compliance plans and status: US operations of subsonic airplanes	The production airplane is certified to 14 CFR part 36 Stage 3 requirements as noted in the FAA-approved Airplane Flight Manual.		Complies
91.815		Agricultural and fire fighting airplanes: Noise operating limitations	Not applicable		Not Applicable
91.817		Civil aircraft sonic boom	Not applicable		Not Applicable
91.819		Civil supersonic airplanes that do not comply with 14 CFR part 36	Not applicable		Not Applicable
91.821		Civil supersonic airplanes: noise limits	Not applicable		Not Applicable
91.823 - 91.849		[Reserved]	---		-----
91.851		Definitions	Noted		-----
91.853		Final compliance: civil subsonic airplanes	The production airplane is certified to 14 CFR part 36 Stage 3 requirements as noted in the FAA-approved Airplane Flight Manual.		Complies
91.855		Entry and non-additional rule	The production airplane is certified to		Complies

14 CFR Section	Amdt.	Requirement	Gulfstream Position	Gulfstream Remark	FSB Finding
			14 CFR part 36 Stage 3 requirements as noted in the FAA-approved Airplane Flight Manual.		
91.857		Stage 2 operations outside of the 48 contiguous United States and authorization for maintenance	The production airplane is certified to 14 CFR part 36 Stage 3 requirements as noted in the FAA-approved Airplane Flight Manual.		Not Applicable
91.859		Modification to meet Stage 3 noise levels	The production airplane is certified to 14 CFR part 36 Stage 3 requirements as noted in the FAA-approved Airplane Flight Manual.		Not Applicable
91.861		Base level	---	Operator Responsibility	Not Applicable
91.863		Transfers of Stage 2 airplanes with base level	---	Operator Responsibility	Not Applicable
91.865		Phased compliance for operators with base level	---	Operator Responsibility	Not Applicable
91.867	91-252	Phased compliance for new entrants	---	Operator Responsibility	Not Applicable
91.869		Carry-forward compliance	---	Operator Responsibility	Not Applicable
91.871		Waivers from interim compliance requirements	---	Operator Responsibility	Not Applicable
91.873		Waivers from final compliance	---	Operator Responsibility	Not Applicable
91.875		Annual progress reports	---	Operator Responsibility	Not Applicable
91.877		Annual reporting of Hawaiian operations	---	Operator Responsibility	Not Applicable
91.879 - 91.899		[Reserved]	---		-----
* SUBPART J - WAIVERS *					
91.901		[Reserved]	---		-----
91.903		Policy and procedures	Noted	Operator Responsibility	Operator Responsibility
91.905	91-227	List of rules subject to waivers	Noted	Operator Responsibility	Operator Responsibility
91.907 - 91.999		[Reserved]	---		-----

14 CFR Section	Amdt.	Requirement	Gulfstream Position	Gulfstream Remark	FSB Finding
* SUBPART A - GENERAL *					
135.1	135-58	Applicability	Noted	Operator Responsibility	
(a)		General	---		Operator Responsibility
(b)		[Reserved]	---		-----
(c)		Sightseeing operator defined	---		Operator Responsibility
(d)		Unscheduled repair requirements	---		Operator Responsibility
135.2	135-66	Compliance schedule for operators that transition to part 121 of this chapter; certain new entrant operators	---	Operator Responsibility	Not Applicable
135.3	135-65	Rules applicable to operations subject to this part	---	Operator Responsibility	Operator Responsibility
135.7	135-58	Applicability of rules to unauthorized operators	---	Operator Responsibility	Operator Responsibility
135.12		Previously trained crewmembers	---	Operator Responsibility	Not Applicable
135.19		Emergency operations	---	Operator Responsibility	Operator Responsibility
135.21	135-66	Manual requirements	---	Operator Responsibility	Operator Responsibility
135.23	135-58	Manual contents		Operator Responsibility	Operator Responsibility
(a)		Personnel roster	---		Operator Responsibility
(b)		Weight and balance	A FAA-approved weight and balance manual is provided with each aircraft		Operator Responsibility
(c)		Operations specifications	---		Operator Responsibility
(d)		Accident notification procedures	---		Operator Responsibility
(e)		Aircraft airworthiness notification to pilot in command	---		Operator Responsibility
(f)		Procedures for reporting inflight maintenance irregularities	---		Operator Responsibility
(g)		Notification of corrective actions to maintenance irregularities	---		Operator Responsibility
(h)		Pilot in command procedures to obtain unscheduled maintenance	---		Operator Responsibility
(i)		Minimum Equipment List	A GV-SP Master Minimum Equipment List has been submitted to the FAA		Operator Responsibility
(j)		Refueling procedures	---		Operator

14 CFR Section	Amdt.	Requirement	Gulfstream Position	Gulfstream Remark	FSB Finding
(k)		Passenger briefing procedures	---		Responsibility Operator Responsibility
(l)		Flight locating procedures	---		Operator Responsibility
(m)		Compliance with emergency procedures	---		Operator Responsibility
(n)		Pilot enroute qualification procedures	---		Operator Responsibility
(o)		Approved aircraft inspection program	An MSG 3 Maintenance Program has been developed by Gulfstream and approved by the FAA		Operator Responsibility
(p)		Procedures for hazardous material handling	---		Operator Responsibility
(q)		Evacuation procedures for assisting another person to an exit during an emergency	---		Operator Responsibility
(r)		Other procedure and policy instructions	---		Operator Responsibility
135. 25	135-66	Aircraft requirements			
(a)		Registration and airworthiness certificate	Aircraft is delivered with appropriate documentation	Operator Responsibility	Operator Responsibility
(b)		Aircraft usage	---		Operator Responsibility
(c)		Aircraft usage duration	---		Operator Responsibility
(d)		Operation in common carriage	---		Operator Responsibility
135. 41		Carriage of narcotic drugs, marihuana, and depressant or stimulant drugs or substances	---	Operator Responsibility	Operator Responsibility
135. 43		Crewmember certificates: International operations	---	Operator Responsibility	Operator Responsibility
* SUBPART B – FLIGHT OPERATIONS *					
135. 61		General	Noted		-----
135. 63	135-52	Record keeping requirements	---	Operator Responsibility	Operator Responsibility
135.64	135-66	Retention of contracts and amendments: Commercial operators who conduct intrastate operations for compensation or hire	---	Operator Responsibility	Operator Responsibility
135.65		Reporting mechanical irregularities	---	Operator Responsibility	Operator Responsibility
135.67	135-1	Reporting potentially hazardous meteorological conditions and irregularities of communications or	---	Operator Responsibility	Operator Responsibility

14 CFR Section	Amdt.	Requirement	Gulfstream Position	Gulfstream Remark	FSB Finding
		navigation facilities			
135.69		Restriction or suspension of operations: Continuation of flight in an emergency	---	Operator Responsibility	Operator Responsibility
135.71	135-32	Airworthiness check	---	Operator Responsibility	Operator Responsibility
135.73		Inspections and tests	---	Operator Responsibility	Operator Responsibility
135.75		Inspectors credentials: admission to pilots' compartment: Forward observer's seat	---	Operator Responsibility	Operator Responsibility
135.77		Responsibility for operational control	---	Operator Responsibility	Operator Responsibility
135.79		Flight locating requirements	---	Operator Responsibility	Operator Responsibility
135.81		Informing personnel of operational information and appropriate changes	---	Operator Responsibility	
(a)		Certificate holder must make available:	---		Operator Responsibility
(b)		Airman's Information Manual or equivalent	Installed-equipment manuals and FAA-approved Airplane Flight Manual provided with aircraft		Operator Responsibility
(c)		14 CFR part 135 and 91	---		Operator Responsibility
(d)		Aircraft equipment manuals and Aircraft Flight Manual			Operator Responsibility
		For foreign operations, the International Flight Information Manual or equivalent			Operator Responsibility
135.83		Operating information required	A normal, abnormal, and emergency procedures checklists and the information on one-engine-inoperative climb performance is provided in FAA-approved Airplane Flight Manual		
(a)		Publications accessible in cockpit		Operator Responsibility	Operator Responsibility
(b)		Cockpit checklist requirements		Operator Responsibility	Operator Responsibility
(c)		Emergency procedures checklist		Operator Responsibility	Operator Responsibility
135.85		Carriage of persons without compliance with the passenger-carrying provisions of this part	---	Operator Responsibility	Operator Responsibility
135.87		Carriage of cargo including carry-on baggage	A Class B baggage compartment is located at the aft portion of the pressure vessel and additional storage compartments are provided during outfitting using customer's specifications	Operator Responsibility	
(a)		Approved cargo rack or bin			Operator Responsibility
(b)		Secured by approved means			Operator Responsibility
(c)		Specifications			Operator Responsibility

14 CFR Section	Amdt.	Requirement	Gulfstream Position	Gulfstream Remark	FSB Finding
(d)		Under-seat stowage			Operator Responsibility
(e)		Cargo compartment fire extinguishing requirements			Operator Responsibility
135.89		Pilot requirements: Use of oxygen	The normally pressurized aircraft is equipped with two 115 cubic feet oxygen cylinders plumbed into the supplemental oxygen system	Operator Responsibility	Operator Responsibility
(a)	Unpressurized aircraft				
(b)	Pressurized aircraft				
135.91	135-60	Oxygen for medical use by passengers	A medical oxygen system may be installed in the aircraft during outfitting at customer's request	Operator Responsibility	Operator Responsibility
(a)	Installation and maintenance requirements				
(b)	Smoking restrictions				
(c)	Personnel qualifications				
(d)	Exception				
(e)	Exception reporting				
135.93	135-68	Autopilot: Minimum altitudes for use	Minimum altitude for autopilot usage is defined in limitations section of FAA-approved Airplane Flight Manual	Operator Responsibility	Operator Responsibility
(a)	Minimum enroute altitude				
(b)	During ILS approach				
(c)	ILS in degraded weather				
(d)	Use to touchdown				
(e)	Use during takeoff and initial climb				
(f)	Not applicable to rotorcraft				
135.95		Airmen: Limitations on use of services	---	Operator Responsibility	Operator Responsibility
135.97		Aircraft and facilities for recent flight experience	---	Operator Responsibility	Operator Responsibility
135.99		Composition of flight crew	FAA-approved Airplane Flight Manual specifies a minimum of two flight crewmembers: pilot and copilot	Operator Responsibility	Operator Responsibility
(a)	Minimum flight crew per Aircraft Flight Manual and 14 CFR part 135				

14 CFR Section	Amdt.	Requirement	Gulfstream Position	Gulfstream Remark	FSB Finding
(b)		Second in command requirement			Operator Responsibility
135.100		Flight crewmember duties	---	Operator Responsibility	Operator Responsibility
135.101		Second in command required under IFR	---	Operator Responsibility	Operator Responsibility
135.103		[Reserved]			-----
135.105	135-58	Exception to second in command requirement: Approval for use of autopilot system	FAA-approved Airplane Flight Manual specifies a minimum of two flight crewmembers: pilot and copilot	Operator Responsibility	
(a)		Operations during VFR			Operator Responsibility
(b)		Request for amendment			Operator Responsibility
(c)		Specifications for amendment			Operator Responsibility
135.107		Flight attendant crewmember requirement	FAA-approved Airplane Flight Manual requires a flight attendant when 10 or more passengers are on board.	Operator Responsibility	Operator Responsibility
135.109		Pilot in command or second in command: Designation required	---	Operator Responsibility	Operator Responsibility
135.111		Second in command required in Category II operations	---	Operator Responsibility	Not Demonstrated
135.113		Passenger occupancy of pilot seat	FAA-approved Airplane Flight Manual specifies a minimum of two flight crewmembers: pilot and copilot	Operator Responsibility	Operator Responsibility
135.115		Manipulation of controls	---	Operator Responsibility	Operator Responsibility
135.117	135-44	Briefing of passengers before flight	---	Operator Responsibility	Operator Responsibility
135.119		Prohibition against carriage of weapons	---	Operator Responsibility	Operator Responsibility
135.120	135-73	Prohibition on interference with crewmembers	---	Operator Responsibility	Operator Responsibility
135.121		Alcoholic beverages	---	Operator Responsibility	Operator Responsibility
135.122		Stowage of food, beverage, and passenger service equipment during aircraft movement on the surface, takeoff, and landing	---	Operator Responsibility	Operator Responsibility
135.123		Emergency and emergency evacuation duties	---	Operator Responsibility	Operator Responsibility
135.125		Airplane security	---	Operator Responsibility	Operator Responsibility
135.127	135-76	Passenger information requirements and smoking prohibitions	---	Operator Responsibility	Operator Responsibility
135.128	135-62	Use of safety belts and child restraining systems	---	Operator Responsibility	Operator Responsibility
135.129	135-60	Exit seating	---	Operator Responsibility	Operator Responsibility
* SUBPART C – AIRCRAFT AND EQUIPMENT *					
135.141		Applicability	Noted		Operator Responsibility

14 CFR Section	Amdt.	Requirement	Gulfstream Position	Gulfstream Remark	FSB Finding
135.143	135-22	General requirements		Operator Responsibility	
(a)		General	Noted		Operator Responsibility
(b)		Required instruments and equipment in operable condition	All instruments and equipment included as part of the production airplane		Operator Responsibility
(c)		ATC transponder equipment	Two ATC transponders included as part of the production airplane and meet applicable TSO conditions		Operator Responsibility
135.144	135-73	Portable electronic devices	---	Operator Responsibility	Operator Responsibility
135.145		Aircraft proving tests	---	Operator Responsibility	Operators of the G-IV, G-V, or GV-SP need not conduct proving flights if the G-IV, G-V or GV-SP are added to their fleet.
135.47		Dual controls required	Airplane is produced with dual flight controls under 14 CFR part 25	Operator Responsibility	Complies
135.149	135-38	Equipment requirements: General		Operator Responsibility	
(a)		Sensitive altimeter	Sensitive altimeter is included as part of the production airplane		Complies
(b)		Carburetor heating or deicing equipment	Not applicable		Not Applicable
(c)		A third gyroscopic bank-and-pitch indicator	Third gyroscopic bank-and-pitch indicator is included as part of the production airplane		Complies
(d)		[Reserved]	---		-----
(e)		Any other equipment FAA requires	Noted		-----
135.150		Public address and crewmember interphone systems	FAA-approved Airplane Flight Manual limits passenger load to 19 people	Not Applicable	Not Applicable
135.151	135-60	Cockpit voice recorders			
(a)		Applicability	A FAA-approved cockpit voice recorder is included as part of the production airplane	Operator Responsibility	Complies
135.151(b)		Multi-engine, turbine-powered airplane having 20 to 30 passenger seats	FAA-approved Airplane Flight Manual limits passenger load to 19 people		Not Applicable
(c)		Procedures following accident or incident	---		Operator Responsibility
(d)		Requirements for recording from boom or mask microphone	Installed CVR records the uninterrupted audio signal from a boom or mask microphone in accordance with 14 CFR § 25.1457(c)(5)		Complies

14 CFR Section	Amdt.	Requirement	Gulfstream Position	Gulfstream Remark	FSB Finding
(e)		Recording duration requirements	Installed CVR retains at least 30 minutes of audio recording		Complies
135.152	135-69	Flight recorders			
(a)		Applicability	A FAA-approved Flight Data Recorder meeting the eighty-eight parameter requirement of 14 CFR § 135.152 will be a follow-on certification effort.		Complies GV ASC 100 / GV-SP ASC 002
(b)		Multi-engine, turbine-powered airplane having 20 to 30 passenger seats	FAA-approved Airplane Flight Manual limits passenger load to 19 people See note for (a)		Not Applicable
(c)		Continuous operation requirements	See note for (a)		Not Demonstrated
(d)		Recorded data retention requirements	See note for (a)		Not Demonstrated
(e)		Procedures following accident	See note for (a)		Not Demonstrated
(f)		Requirements with respect to aircraft manufacture date	See note for (a)		Not Demonstrated
(g)		Device to assist in underwater locating	See note for (a)		Not Demonstrated
(h)		Operational parameters	FAA-approved Airplane Flight Manual limits passenger load to 19 people		Not Demonstrated
(i)		Parameters for turbine-powered airplanes having 20 to 30 passenger seats and manufactured after August 18, 2000	FAA-approved Airplane Flight Manual limits passenger load to 19 people		Not Demonstrated
(j)		Parameters for turbine-powered airplanes having 20 to 30 passenger seats and manufactured after August 19, 2000	Not applicable		Not Applicable
(k)		Exception to requirements for deHavilland DHC-6			Not Applicable
135.153	135-75	Ground proximity warning system			
(a)		Applicability	A FAA-approved enhanced ground proximity warning system is included as part of the production airplane	Operator Responsibility	Complies
(b)		[Reserved]	---		-----
135.153(c)		Airplane Flight Manual requirements	FAA-approved Airplane Flight Manual includes operational procedures for		Complies

14 CFR Section	Amdt.	Requirement	Gulfstream Position	Gulfstream Remark	FSB Finding
(d)		Operation requirements	enhanced ground proximity warning system ---		
(e)		Deactivation requirements	---		
(f)		Expiration of requirement	Noted		
135.154		Terrain awareness and warning system		Operator Responsibility	
(a)		Airplanes manufactured after March 29, 2002	A FAA-approved terrain awareness warning system meeting the requirements for Class A equipment in TSO-C151 is included as part of the production airplane		Complies
(b)		Airplanes manufactured on or before March 29, 2002	---		Not Applicable
(c)		Airplane Flight Manual	FAA-approved Airplane Flight Manual includes operational procedures for enhanced ground proximity warning system		Complies
135.155		Fire extinguishers: Passenger-carrying aircraft		Operator Responsibility	
(a)		Type and quantity of hand fire extinguisher extinguishing agent	Extinguishing agent (halon) in flight deck hand fire extinguisher is suitable for all fires likely to occur		Operator Responsibility
(b)		One hand fire extinguisher convenient and located on flight deck	A flight deck hand fire extinguisher is included as part of the production airplane.		Operator Responsibility
(c)		One hand fire extinguisher convenient and located in passenger compartment	At least one hand fire extinguisher is mounted in the passenger compartment at a convenient location during outfitting		Operator Responsibility
135.157		Oxygen equipment requirements		Operator Responsibility	
(a)		Unpressurized aircraft	The normally pressurized aircraft is equipped with two 115 cubic feet oxygen cylinders plumbed into the supplemental oxygen system, providing oxygen to crew and, upon aircraft outfitting, passengers		Operator Responsibility
(b)		Pressurized aircraft	See note for (a)		Not demonstrated
(c)		System operation	Oxygen system quantity monitoring is through gauges on flight deck, three flight deck oxygen regulating systems readily allow monitoring and adjustments		Complies

14 CFR Section	Amdt.	Requirement	Gulfstream Position	Gulfstream Remark	FSB Finding
135.158	135-33	Pitot heat indication systems		Operator Responsibility	
(a)		Applicability	A pitot heat system with indications certified in accordance with 14 CFR part 25 is included as part of the production airplane		Complies
(b)		Extension	---		-----
135.159	135-38	Equipment requirements: Carrying passengers under VFR at night or under VFR over-the-top conditions	All equipment required by this section are included as part of the aircraft produced under GV-SP Product Specification	Operator Responsibility	
(a)		Gyroscopic rate-of-turn indicator			Complies
(b)		Slip skid indicator			Complies
(c)		Gyroscopic bank-and-pitch indicator			Complies
(d)		Gyroscopic direction indicator			Complies
(e)		Generator			Complies
(f)		Night flight requirements			Complies
(g)		Continuous in-flight electrical load defined			Complies
(h)		Helicopter requirements	Not applicable		Not Applicable
135.161		Radio and navigational equipment: Carrying passengers under VFR at night or under VFR over-the-top	All radio and navigation equipment required by this section are included as part of the aircraft produced under GV-SP Product Specification	Operator Responsibility	
(a)		Two-way radio communication with ground facilities 25 miles away			Complies
(b)		VFR over-the-top requires ability to receive radio signals from ground facility			Complies
(c)		VFR at night requires ability to receive radio signals from ground facility			Complies
135.163	135-73	Equipment requirements: Aircraft carrying passengers under IFR	All equipment and applicable requirements of this section are included as part of the aircraft produced under GV-SP Product Specification	Operator Responsibility	
(a)		Vertical speed indicator			Complies
(b)		Free-air temperature indicator			Complies
(c)		Heated pitot tube for each airspeed indicator			Complies
(d)		Power failure warning device for gyroscopic instruments			Complies
e)		Alternate source of static pressure			
(f)		Single-engine aircraft requirements			Complies
(g)		Multi-engine aircraft requirements			Complies

14 CFR Section	Amdt.	Requirement	Gulfstream Position	Gulfstream Remark	FSB Finding
(h)		Two independent sources of energy, each of which is able to drive all required gyroscopic instruments			Complies
(i)		Continuous inflight electrical load defined			Complies
135.165	135-61	Radio and navigational equipment: Extended overwater or IFR operations	All radio and navigation equipment required by this section are included as part of the aircraft produced under GV-SP Product Specification, with the exception of headsets	Operator Responsibility	Complies
(a)		Specifications, 10 passenger seats or more			
135.165(b)		Specifications, other aircraft than specified in (a)			
(c)		Independent receiver defined			
(d)		FAA consideration of long-range communications and navigation equipment			
135.167	135-49	Emergency equipment: Extended overwater operations	---	Operator Responsibility	Operator Responsibility
135.169	135-55	Additional airworthiness requirements	Aircraft certified to 14 CFR part 25 requirements, equipment required by this section are included as part of the aircraft produced under GV-SP Product Specification	Operator Responsibility	Operator Responsibility
135.170	135-56	Materials for compartment interiors	Materials used in flight deck are certified to 14 CFR § 25.853 standards, compartment materials are per an STC and resolved during outfitting	Operator Responsibility	Operator Responsibility
135.171		Shoulder harness installation at flight crewmember stations	FAA-approved shoulder harness for each flight crewmember station is installed as part of the aircraft produced under GV-SP Product Specification	Operator Responsibility	Complies
(a)		Approved shoulder harness			
(b)		Use of shoulder harness	---		Operator Responsibility
135.173	135-60	Airborne thunderstorm detection equipment requirements	Digital airborne weather radar equipment is standard equipment	Operator Responsibility	Complies
(a)		Applicability			
(b)		Helicopter operations			
(c)		Flight under IFR or night VFR			
(d)		Procedures for Equipment failure enroute			
(e)		Exceptions for certain locations	---		Operator Responsibility

14 CFR Section	Amdt.	Requirement	Gulfstream Position	Gulfstream Remark	FSB Finding
(f)		Alternate electrical power supply not required	Noted		Operator Responsibility
135.175		Airborne weather radar equipment requirements Applicability	Digital airborne weather radar is equipment is standard equipment	Operator Responsibility	Complies
(b)		Flight under IFR or night VFR	---		Operator Responsibility
(c)		Procedures for Equipment failure enroute	---		Operator Responsibility
(d)		Exceptions for certain locations	---		Operator Responsibility
(e)		Alternate power supply not required	Noted		Operator Responsibility
135.177	135-80	Emergency equipment requirements for aircraft having a passenger seating configuration of more than 19 passengers	FAA-approved Airplane Flight Manual limits passenger load to 19 people	Operator Responsibility	Not Applicable
135.178		Additional emergency equipment	FAA-approved Airplane Flight Manual limits passenger load to 19 people	Operator Responsibility	Not Applicable
135.179	135-60	Inoperable instruments and equipment	A Master Minimum Equipment List has been developed by the FAA	Operator Responsibility	Operator Responsibility
135.180	135-54	Traffic Alert and Collision Avoidance System Applicability	A FAA-approved TCAS II/ACAS II system is included as part of the production airplane	Operator Responsibility	Complies
(b)		Airplane Flight Manual requirements	FAA-approved Airplane Flight Manual includes operational procedures for traffic alert and collision avoidance system		Complies
135.181	135-70	Performance requirements: Aircraft operated over-the-top or in IFR conditions	FAA-approved Airplane Flight Manual includes applicable performance data	Operator Responsibility	Complies
135.183		Performance requirements: Land aircraft operated over water	FAA-approved Airplane Flight Manual includes applicable performance data	Operator Responsibility	Complies
135.185		Empty weight and center of gravity: Currency requirement	A FAA-approved weight and balance manual is provided with each aircraft, final weight and balance information provided upon completion of outfitting	Operator Responsibility	Operator Responsibility
* SUBPART D – VFR/IFR OPERATING LIMITATIONS AND WEATHER REQUIREMENTS *					
135.201		Applicability	Noted		-----
135.203		VFR: Minimum altitudes	---	Operator Responsibility	Operator Responsibility
135.205	135-41	VFR: Visibility requirements	---	Operator Responsibility	Operator Responsibility
135.207		VFR Helicopter surface reference requirements	Not applicable	Operator Responsibility	Operator Responsibility
135.209		VFR: Fuel supply	---	Operator	Operator

14 CFR Section	Amdt.	Requirement	Gulfstream Position	Gulfstream Remark	FSB Finding
				Responsibility	Responsibility
135.211	135-32	VFR: Over-the-top carrying passengers: Operating limitations	---	Operator Responsibility	Operator Responsibility
135.213	135-60	Weather reports and forecasts	---	Operator Responsibility	Operator Responsibility
135.215		IFR: Operating limitations	---	Operator Responsibility	Operator Responsibility
135.217		IFR: Takeoff limitations	---	Operator Responsibility	Operator Responsibility
135.219		IFR: Destination airport weather minimums	---	Operator Responsibility	Operator Responsibility
135.221		IFR: Alternate airport weather minimums	---	Operator Responsibility	Operator Responsibility
135.223	135-20	IFR: Alternate airport requirements	---	Operator Responsibility	Operator Responsibility
135.225		IFR: Takeoff, approach and landing minimums	---	Operator Responsibility	Operator Responsibility
135.227	135-60	Icing conditions: Operating limitations	GV-SP is transport airplane certified for FIKI. AFM has operating limitations for icing conditions.	Operator Responsibility	Operator Responsibility
135.229		Airport requirements	---	Operator Responsibility	Operator Responsibility
* SUBPART E – FLIGHT CREWMEMBER REQUIREMENTS *					
135.241	135-57	Applicability	Noted		-----
135.243	135-58	Pilot in command qualifications	---	Operator Responsibility	Operator Responsibility
135.244	135-58	Operating experience	---	Operator Responsibility	Operator Responsibility
135.245		Second in command qualifications	---	Operator Responsibility	Operator Responsibility
135.247		Pilot qualifications: Recent experience	---	Operator Responsibility	Operator Responsibility
135.249	135-51	Use of prohibited drugs	---	Operator Responsibility	Operator Responsibility
135.251		Resting for prohibited drugs	---	Operator Responsibility	Operator Responsibility
135.253	135-48	Misuse of alcohol	---	Operator Responsibility	Operator Responsibility
135.255	135-48	Testing for alcohol	---	Operator Responsibility	Operator Responsibility
* SUBPART F – CREWMEMBER FLIGHT TIME AND DUTY PERIOD LIMITATIONS AND REST REQUIREMENTS *					
135.261	135-52	Applicability	Noted		-----
135.263		Flight time limitations and rest requirements: All certificate holders	---	Operator Responsibility	Operator Responsibility
135.265		Flight time limitations and rest requirements: Scheduled operations	---	Operator Responsibility	Operator Responsibility
135.267	135-60	Flight time limitations and rest requirements: Unscheduled one- and two-pilot crews	---	Operator Responsibility	Operator Responsibility
135.269		Flight time limitations and rest requirements: Unscheduled three- and four-pilot crews	---	Operator Responsibility	Operator Responsibility
135.271		Helicopter hospital emergency medical evacuation service (HEMES)	---	Operator Responsibility	Not Applicable
135.273	135-60	Duty period limitations and rest time requirements	---	Operator Responsibility	Operator Responsibility
* SUBPART G – CREWMEMBER TESTING REQUIREMENTS *					
135.291		Applicability	Noted		-----

14 CFR Section	Amdt.	Requirement	Gulfstream Position	Gulfstream Remark	FSB Finding
135.293	135-27	Initial and recurrent pilot testing requirements	---	Operator Responsibility	Operator Responsibility
135.295		Initial and recurrent flight attendant crewmember testing requirements	---	Operator Responsibility	Operator Responsibility
135.297	135-15	Pilot in command: Instrument proficiency check requirements	---	Operator Responsibility	Operator Responsibility
135.299		Pilot in command: Line checks: Routes and airports	---	Operator Responsibility	Operator Responsibility
135.301		Crewmember: Tests and checks, grace provisions, training to accepted standards	---	Operator Responsibility	Operator Responsibility
* SUBPART H – TRAINING *					
135.321	135-63	Applicability and terms used	Noted		-----
135.323		Training program: General	---	Operator Responsibility	Operator Responsibility
135.324	135-67	Training program: Special rules	---	Operator Responsibility	Operator Responsibility
135.325		Training program and revision: Initial and final approval	---	Operator Responsibility	Operator Responsibility
135.327		Training program: Curriculum	---	Operator Responsibility	Operator Responsibility
135.329		Crewmember training requirements	---	Operator Responsibility	Operator Responsibility
135.331		Crewmember emergency training	---	Operator Responsibility	Operator Responsibility
135.333		Training requirements: Handling and carriage of hazardous materials	---	Operator Responsibility	Operator Responsibility
135.335	135-1	Approval of aircraft simulators and other training devices	---	Operator Responsibility	Operator Responsibility
135.337		Qualifications: Check airmen (aircraft) and check airmen (simulator)	---	Operator Responsibility	Operator Responsibility
135.338	135-64	Qualifications: Flight instructors (aircraft) and flight instructors (simulator)	---	Operator Responsibility	Operator Responsibility
135.339	135-64	Initial and transition training and checking: Check airmen (aircraft), check airmen (simulator)	---	Operator Responsibility	Operator Responsibility
135.340	135-64	Initial and transition training and checking: Flight instructors (aircraft), flight instructors (simulator)	---	Operator Responsibility	Operator Responsibility
135.341	135-18	Pilot and flight attendant crewmember training programs	---	Operator Responsibility	Operator Responsibility
135.343	135-18	Crewmember initial and recurrent training requirements	---	Operator Responsibility	Operator Responsibility
135.345	135-46	Pilots: Initial, transition, and upgrade ground training	---	Operator Responsibility	Operator Responsibility
135.347		Pilots: Initial, transition, upgrade, and differences flight training	---	Operator Responsibility	Operator Responsibility
135.349		Flight attendants: Initial and transition ground training	---	Operator Responsibility	Operator Responsibility
135.351	135-46	Recurrent training	---	Operator Responsibility	Operator Responsibility
135.353		Prohibited drugs	---	Operator Responsibility	Operator Responsibility
* SUBPART I – AIRPLANE PERFORMANCE OPERATING LIMITATIONS *					
135.361		Applicability	Noted		
135.363	135-21	General	---	Operator	

14 CFR Section	Amdt.	Requirement	Gulfstream Position	Gulfstream Remark	FSB Finding
(b)		Each certificate holder operating a turbine engine powered large transport category airplane	Aircraft performance data is provided in the FAA approved Airplane Flight Manual	Responsibility	Operator Responsibility
(f)		Performance data in the Airplane Flight Manual	Aircraft performance data is provided in the FAA approved Airplane Flight Manual		Operator Responsibility
135.365		Large transport category airplanes: Reciprocating engine powered: Weight limitations	Not applicable		Not applicable
135.367		Large transport category airplanes: Reciprocating engine powered: Takeoff limitations	Not applicable		Not applicable
135.369		Large transport category airplanes: Reciprocating engine powered: En route limitations: All engines operating	Not applicable		Not applicable
135.371		Large transport category airplanes: Reciprocating engine powered: En route limitations: One engine inoperative	Not applicable		Not applicable
135.373		Large transport category airplanes: Reciprocating engine powered: En route limitations: Two engines inoperative	Not applicable		Not applicable
135.375		Large transport category airplanes: Reciprocating engine powered: Landing limitations: Destination airports	Not applicable		Not applicable
135.377		Large transport category airplanes: Reciprocating engine powered: Landing limitations: Alternate airports	Not applicable		Not applicable
135.379	135-71	Large transport category airplanes: Turbine engine powered: Takeoff limitations	---	Operator Responsibility	
(a)		Takeoff weights exceeding Airplane Flight Manual limitations	---	Operator Responsibility	Operator Responsibility
135.379(b)		Minimum distance required for takeoff	The FAA-approved Airplane Flight Manual contains all data necessary to enable the operator to comply with this requirement to include clearway computation data.		Not applicable
(c)		Maximum takeoff weight calculation variables	The FAA-approved Airplane Flight Manual contains all data necessary to enable the operator to comply with this requirement.		Operator Responsibility
(d)(2)		Maximum takeoff weight net takeoff flight path	The FAA-approved Airplane Flight Manual contains all data necessary to enable the operator to comply with this requirement to include net takeoff flight path data.		Operator Responsibility

14 CFR Section	Amdt.	Requirement	Gulfstream Position	Gulfstream Remark	FSB Finding
(e)		Maximum takeoff weight environmental conditions	The FAA-approved Airplane Flight Manual contains all data necessary to enable the operator to comply with this requirement to include environmental variables.		Operator Responsibility
(f)		Aircraft bank angles on takeoff	The FAA-approved Airplane Flight Manual complies with this paragraph.		Operator Responsibility
(g)		Performance terms	The performance terms are the same as certified under 14 CFR part 25		Operator Responsibility
135.381		Large transport category airplanes: Turbine engine powered: En route limitations: One engine inoperative	The FAA-approved Airplane Flight Manual and the Operating Manual contains all data necessary to enable the operator to comply with this requirement.	Operator Responsibility	Operator Responsibility
135.383		Large transport category airplanes: Turbine engine powered: En route limitations: Two engines inoperative	Not applicable		Not applicable
135.385		Large transport category airplanes: Turbine engine powered: Landing limitations: Destination airports		Operator Responsibility	
(a)		Landing weight limitations	The airplane FAA-approved Flight Manual contains all data necessary to enable the operator to comply with this requirement. The Operating Manual contains flight planning data to enable computation of fuel and oil burned from departure to destination or alternate airport to compute landing weight.		Operator Responsibility
(b)		Destination landing requirements	See note for (a)		Operator Responsibility
(c)		Turbopropeller landing requirements	---		Operator Responsibility
(d)		Wet runway landing requirements	---		Operator Responsibility
(e)		Alternate requirements to comply with paragraph (b)	See note for (a)		Operator Responsibility
135.387		Large transport category airplanes: Turbine engine powered: Landing limitations: Alternate airports	The FAA-approved Airplane Flight Manual contains all data necessary to enable the operator to comply with this requirement. The Operating Manual	Operator Responsibility	Operator Responsibility

14 CFR Section	Amdt.	Requirement	Gulfstream Position	Gulfstream Remark	FSB Finding
			contains flight planning data to enable computation of fuel and oil burned from departure to destination or alternate airport to compute landing weight. On board flight planning computer available to assist crew in mission calculations.		
135.389		Large nontransport category airplanes: Takeoff limitations	Not applicable		Not applicable
135.391		Large nontransport category airplanes: En route limitations: One engine inoperative	Not applicable		Not applicable
135.393		Large nontransport category airplanes: Landing limitations: Destination airports	Not applicable		Not applicable
135.395		Large nontransport category airplanes: Landing limitations: Alternate airports	Not applicable		Not applicable
135.397		Small transport category airplane performance operating limitations	Not applicable		Not applicable
135.398		Commuter category airplanes performance operating limitations	Not applicable		Not applicable
135.399		Small non transport category airplane performance operating limitations	Not applicable		Not applicable
Subpart J – Maintenance, Preventive Maintenance, and Alterations*					
135.411	135-78	Applicability	Noted		-----
135.413	135-81	Responsibility for airworthiness			
(a)		Airworthiness conditions; Maintenance	---	Operator Responsibility	Operator Responsibility
(b)		Required procedures for maintenance	An approved maintenance schedule derived from the MSG-3 process and the Aircraft Maintenance Manual complying with 14 CFR § 25.1529 and Appendix H is provided to each operator.	Operator Responsibility	Operator Responsibility
135.415	135-81	Service difficulty reports (operational)	---	Operator Responsibility	Operator Responsibility
135.416	135-81	Service difficulty reports (structural)	---	Operator Responsibility	Operator Responsibility
135.417	135-81	Mechanical interruption summary report	---	Operator Responsibility	Operator Responsibility
135.419		Approved aircraft inspection program	An approved maintenance schedule derived from the MSG-3 process and the Aircraft Maintenance Manual complying with 14 CFR § 25.1529 and Appendix H is provided to each operator.	Operator Responsibility	Operator Responsibility
135.421	135-70	Additional maintenance requirements			
(a)		Compliance with manufacturer’s recommended maintenance programs	An approved maintenance schedule derived from the MSG-3 process and the Aircraft Maintenance Manual	Operator Responsibility	Operator Responsibility

14 CFR Section	Amdt.	Requirement	Gulfstream Position	Gulfstream Remark	FSB Finding
(b)		Manufacturer's maintenance program definition	complying with 14 CFR § 25.1529 and Appendix H is provided to each operator. See note for (a)		Operator Responsibility
(c)		Single engine aircraft engine monitoring requirements	Not applicable		Not Applicable
(d)		Single engine aircraft methods, techniques, and practices	Not applicable		Not Applicable
(e)		Single engine aircraft engine maintenance records	Not applicable		Not Applicable
135.423		Maintenance, preventive maintenance, and alteration organization	---	Operator Responsibility	Operator Responsibility
135.425		Maintenance, preventive maintenance, and alteration programs	---	Operator Responsibility	Operator Responsibility
135.427	135-66	Manual requirements	An approved maintenance schedule derived from the MSG-3 process and the Aircraft Maintenance Manual complying with 14 CFR § 25.1529 and Appendix H is provided to each operator.	Operator Responsibility	Operator Responsibility
135.429	135-20	Required inspection personnel	---	Operator Responsibility	Operator Responsibility
135.431	135-60	Continuing analysis and surveillance	---	Operator Responsibility	Operator Responsibility
135.433		Maintenance and preventive maintenance training program	---	Operator Responsibility	Operator Responsibility
135.435	135-82	Certificate requirements	---	Operator Responsibility	Operator Responsibility
135.437		Authority to perform and approve maintenance, preventive maintenance, and alterations	---	Operator Responsibility	Operator Responsibility
135.439		Maintenance recording requirements	An approved maintenance schedule derived from the MSG-3 process and the Aircraft Maintenance Manual complying with 14 CFR § 25.1529 and Appendix H is provided to each operator.	Operator Responsibility	Operator Responsibility
135.441		Transfer of maintenance records	---	Operator Responsibility	Operator Responsibility
135.443	135-82	Airworthiness release or aircraft maintenance log entry	---	Operator Responsibility	Operator Responsibility

Appendix 6 - HEAD-UP DISPLAY (HUD) SYSTEMS

Flight crewmember training must be accomplished using a level 'C' simulator, with a daylight visual display, or a level 'D' simulator. The FSB has determined that each pilot in command of an aircraft equipped with a HUD system should receive a minimum of 3 hours of ground school training followed by a minimum of 4 hours of simulator training in the left seat of a level 'C', with a daylight visual display, or level 'D' simulator. A HUD equipped aircraft may also be used for in-flight training. In-flight training should consist of a minimum of 4 hours of flying in the left seat of the HUD equipped aircraft.

The 3 hours of ground school training listed above is intended for pilots receiving “stand alone” training on the HUD system. A pilot who is progressing successfully through an initial training program that has HUD training (including all 3 elements listed below) integrated into the curriculum, is recommended by an instructor, and successfully completes the appropriate HUD proficiency check by a person authorized by the Administrator, need not complete the 3 “stand alone” hours of ground school training.

The 4 hours of simulator or aircraft in-flight training listed above is intended for pilots receiving “stand alone” training on the HUD system. A pilot who is progressing successfully through an initial training program that has HUD training (including all 10 elements listed below) integrated into the curriculum, is recommended by an instructor, and successfully completes the appropriate HUD proficiency check by a person authorized by the Administrator, need not complete the 4 “stand alone” hours of simulator/aircraft in-flight training.

The FSB recommends special training emphasis in the following areas:

Ground Training:

- 1) Crew coordination
- 2) Crew briefings and callouts
- 3) Duties of flying and non-flying pilots

Flight Training:

- 1) Use of caged, uncaged and clear modes (especially in crosswind conditions)
- 2) Use of the pitch limit indicator (PLI) during windshear escape
- 3) Approaches to 'black hole' airports using the FPA
- 4) Use of the acceleration cue as a potential flight path angle (FPA)
- 5) Relationship of the glide path angle to the symbolic runway
- 6) Use of the flare symbol as a cue in the Honeywell Head Up Guidance Display Model 2020 and as guidance in the Rockwell-Collins Head Up Guidance System (HGS Model 6250)
- 7) Approaches into the top of an undercast during daylight and night conditions.
- 8) Recovery from unusual attitudes
- 9) TCAS resolution advisory
- 10) Takeoff using the FPA to meet a required climb gradient. Checking requires a proficiency check conducted in a level 'C' simulator, with a daylight visual display, in a level 'D' simulator, or on a HUD equipped aircraft. The proficiency check will include at least one takeoff and departure procedure and one instrument approach and landing utilizing the HUD. The proficiency check will also include a minimum of one takeoff or missed approach and one instrument approach without utilizing the HUD. This is to ensure proficiency without the use of the HUD.

The GV-SP, and GIV-X Head-Up Displays have been found to be functionally equivalent to the G-V HUD. All requirements listed above apply to the GV-SP and GIV-X HUDs.

HUD II

“HUD II”, Rockwell-Collins Head Up Guidance System (HGS) Model 6250, utilizes an LCD which is different from the raster image on “HUD”, Honeywell Head Up Guidance Display (Model 2020). HUD II also has a larger combiner than HUD. Some of the HUD II symbology differs from HUD such as the caged flight path vector, the non-conformal lateral deviation indicator, and the unusual attitudes. The FSB found HUD II, as well as the associated AFM change, to be operationally suitable. Pilots transitioning from HUD to HUD II or from HUD II to HUD should be trained on the differences using a level “A” handout. HUD II checking requirements are the same as those described above for HUD.

APPENDIX 7 – KOLLSMAN ENHANCED VISION SYSTEM (EVS)

EVS meets the requirements of EFVS (Enhanced Flight Vision System) as defined in 14 CFR section 91.175.

Flight crewmembers may use EVS to meet the visibility requirements of Title 14 CFR section 91.175 provided that vertical guidance with reference to an obstacle-free path is used.

Flight crewmember training must include a review of Title 14 CFR section 91.175 and a review of the associated EVS AFM system description, limitations, and procedures.

Flight crewmember training must be accomplished using a level 'C' simulator, with a daylight visual display, or a level 'D' simulator that has been qualified by the National Simulator Program for EVS, or the aircraft. The FSB has determined that each pilot in command of an aircraft equipped with EVS should receive a minimum of 4 hours of ground school training followed by a minimum of 2 hours of simulator training in the left seat of a level 'C', with a daylight visual display, or level 'D' simulator. An EVS equipped aircraft may also be used in lieu of a simulator for training. In-flight training should consist of a minimum of 2 hours of flying in the left seat of the EVS equipped aircraft. The flight portion of the training should consist of a minimum of two (2) day and two (2) night approaches each with vertical guidance.

The 4 hours of ground school training listed above is intended for pilots receiving “stand alone” training on the EVS system. A pilot who is progressing successfully through an initial training program that has EVS training (including all 9 elements listed below) integrated into the curriculum, is recommended by an instructor, and successfully completes the appropriate EVS proficiency check by a person authorized by the Administrator, need not complete the 4 “stand alone” hours of ground school training.

The 2 hours of simulator or aircraft in-flight training listed above is intended for pilots receiving “stand alone” training on the EVS system. A pilot who is progressing successfully through an initial training program that has EVS training (including all 7 elements listed below) integrated into the curriculum, is recommended by an instructor, and successfully completes the appropriate EVS proficiency check by a person authorized by the Administrator, need not complete the 2 “stand alone” hours of simulator/aircraft in-flight training

The FSB recommends special training emphasis in the following areas:

Ground Training:

- 1) Transition from EVS imagery to non-EVS, visual conditions. Maximum use should be made of videotapes of actual EVS approaches as seen through the combiner.
- 2) Crew briefings and callouts including annunciation of published minima and operation below the DA(H) or MDA(H) with EVS
- 3) Duties of flying and non-flying pilots
- 4) Crew coordination
- 5) Visual anomalies such as “noise” parallax, and “blooming”
- 6) Importance of cross checking the HUD instrumentation presentations against the EVS visual scene presentation to enable the pilot to recognize malfunctions of the ground based ILS equipment and improper presentation of elements in the visual scene during the approach
- 7) Use of barometric altitude and/or radio altitude at low heights, including temperature correction if applicable.
- 8) Importance of vertical guidance to enhance situational awareness with respect to the obstacle environment.
- 9) Importance of ensuring descent on an obstacle-free glide path when operating below the MDA during non-precision approaches.

Flight/Simulator Training:

- 1) Transition from EVS imagery to non-EVS, visual conditions and runway acquisition
- 2) Crew briefings and callouts including annunciation of published minima and operation below the DA(H) or MDA(H) with EVS
- 3) Importance of the “design eye position” in acquiring the proper EVS image
- 4) Use of on/off switch “clear” mode
- 5) Precision and non-precision instrument approaches in both day and night conditions
- 6) Use of caged and uncaged modes in crosswind conditions
- 7) EVS repeater (if installed) – Imagery quality and crew coordination.

Checking requires a proficiency check conducted in a level 'C' simulator, with a daylight visual display, in a level 'D' simulator, that has been qualified by the National Simulator Program for EVS, or on an EVS equipped aircraft. The proficiency check will include at least one instrument approach to published minimums and landing utilizing the EVS. This check can be accomplished concurrently with a proficiency or competency check under §§ 61.57, 61.58, 121.441, 135.293, or 135.297.

Currency: If § 61.57 (c) is being used for currency, at least one of the 6 required instrument approaches must be accomplished using EVS to published minimums.

As a prerequisite for EVS training, pilots should have successfully completed HUD or HUD II training in the Gulfstream G-V Level C or D simulator, or G-V aircraft in accordance with the requirements of Appendices 3 and 6 of this report. These EVS requirements assume that a pilot entering an EVS training program is trained and proficient in the use of the HUD or HUD II.

NOTE 1: This does not preclude the display of the EVS during initial HUD or HUD II training for purposes of EVS familiarization. However, such familiarization is not creditable toward EVS training as specified in this Appendix.

NOTE 2: The EVS is also certified for use as an aid during all phases of flight: taxi, takeoff, climb, cruise, descent and landing.

The GV-SP and GIV-X EVS were evaluated by the FSB and have been found to be functionally equivalent to the G-V EVS. All requirements listed above apply to the GV-SP and GIV-X EVS.

EVS II was evaluated by the FSB and has been found to be functionally equivalent to EVS. All requirements listed above apply to EVS II.

Appendix 8 – GIV-X OPERATING RULES COMPLIANCE CHECKLIST

Serial number 4003, was utilized by the FSB to conduct its evaluation on May 3-4, 2004. 4003 was a GIV-X flight test aircraft. It enabled the FSB to determine compliance with the appropriate 14 CFR part 91 and 135 operating requirements. The attached checklist provides the FSB's findings on those operating requirements. A 14 CFR part 125 compliance checklist was not developed for this aircraft since Gulfstream has designed this aircraft to operate with less than 6,000 pounds payload. Since the aircraft are delivered "green" from the factory, the completion center will determine final payload capacity of the airplane. It may be possible that individual aircraft may be outfitted to operate in excess of 6,000 pound payload. That operator would then have to show compliance with 14 CFR part 125 requirements, unless a deviation is obtained.

Any U.S. operator wishing to operate the GIV-X aircraft will have to demonstrate to the FAA that the aircraft fully complies with all applicable 14 CFR parts prior to that aircraft entering service. This checklist may be used by the operator to show compliance with those items listed in it.

14 CFR Section	Amdt.	Requirement	Gulfstream Position	Gulfstream Remark	FSB Finding
* SUBPART A - GENERAL *					
91.1	91-257	Applicability	Noted		
91.3		Responsibility and Authority of the Pilot in Command	Not applicable	Operator Responsibility	Operator Responsibility
91.5		Pilot in Command Requiring More than One Required Pilot	Not applicable	Operator Responsibility	Operator Responsibility
91.7		Civil Aircraft Airworthiness		Operator Responsibility	Operator Responsibility
(a)		Airworthy Conditions	Noted		
(b)		Determination	---		
91.9		Civil Aircraft Flight Manual, Marking, and Placard Requirements			
(a)		Operating Limitations	An FAA-approved Airplane Flight Manual complying with 14 CFR § 25.1581 is provided with each aircraft. Additional compliance with operational requirements recorded herein.	Operator Responsibility	Operator Responsibility
(b)(1)		Availability of current Airplane Flight in aircraft	An FAA-approved Airplane Flight Manual complying with 14 CFR § 25.1581 is provided with each aircraft.	Operator Responsibility	Operator Responsibility
(b)(2)		Airplane Flight Manual not required	Not applicable		Not Applicable
(c)		Identification of aircraft in accordance with 14 CFR part 45	A fireproof identification plate complying with 14 CFR part 45 is included in the production airplane. Aircraft are delivered "green" by Gulfstream and meet Registration Number requirements when delivered.	Operator responsibility at outfitting after paint.	Not Applicable
(d)		Compliance with Part 29	Not applicable		Not Applicable
91.11		Prohibition on Interference with Crewmembers	---	Operator Responsibility	Operator Responsibility
91.13		Careless or Reckless Operation	---	Operator Responsibility	Operator Responsibility
91.15		Dropping Objects	---	Operator Responsibility	Operator Responsibility
91.17		Alcohol or Drugs	---	Operator Responsibility	Operator Responsibility
91.19		Carriage of Narcotic Drugs, Marihuana, and Depressant or Stimulant Drugs or Substances	---	Operator Responsibility	Operator Responsibility
91.21		Portable Electronic Devices	---	Operator Responsibility	Operator Responsibility

14 CFR Section	Amdt.	Requirement	Gulfstream Position	Gulfstream Remark	FSB Finding
91. 23	91-267	Truth-in-Leasing Clause Requirement in Leases and Conditional Sales Contracts		Operator Responsibility	Operator Responsibility
(a)		Contract Content	Noted		Operator Responsibility
(b)		Exclusion	Noted		Operator Responsibility
(c)		Requirements for Contract	---		Operator Responsibility
(d)		Public inspection	---		Operator Responsibility
(e)		Lease description	---		Operator Responsibility
91. 25		Aviation Safety Reporting Program: Prohibition Against Use of Reports for Enforcement Purposes		Operator Responsibility	Operator Responsibility
91. 27 - 91. 99		[Reserved]			-----
* SUBPART B - FLIGHT RULES *					
91.101		Applicability	Noted		-----
91.103		Preflight Action		Operator Responsibility	Operator Responsibility
(a)		Flight under IFR	---		
(b)		Take-off and landing distances	An FAA-approved Airplane Flight Manual complying with 14 CFR § 25.1581 is provided with each aircraft		Complies
91.105	91-231	Flight Crewmembers at Stations	---	Operator Responsibility	Operator Responsibility
91.107	91-250	Use of Safety Belts, Shoulder Harnesses, and Child Restraint Systems	No change to the shoulder harness installation from GV. Certified as a 16 'g' installation.	Proper use of the equipment is operator responsibility	Operator Responsibility
91.109		Flight Instruction; Simulated Instrument Flight and Certain Flight Tests	---	Operator Responsibility	Operator Responsibility
91.111		Operating near Other Aircraft	---	Operator Responsibility	Operator Responsibility
91.113		Right-of-Way Rules: Except Water Operations	---	Operator Responsibility	Operator Responsibility
91.115		Right-of-Way: Water Operations	---	Operator Responsibility	Operator Responsibility
91.117	91-233	Aircraft Speed	The information on minimum safe speed is provided in FAA-approved Airplane Flight Manual	Operator Responsibility	Operator Responsibility
91.119		Minimum Safe Altitudes: General	---	Operator Responsibility	Operator Responsibility
91.121		Altimeter Settings	---	Operator Responsibility	Operator Responsibility
91.123	91-244	Compliance with ATC Clearances and Instructions	---	Operator Responsibility	Operator Responsibility
91.125		ATC Light Signals	---	Operator Responsibility	Operator Responsibility
91.126	91-239	Operating On or In the Vicinity of an Airport in Class G Airspace	---	Operator Responsibility	Operator Responsibility
91.127	91-239	Operating On or In Vicinity of an Airport	---	Operator	Operator

14 CFR Section	Amdt.	Requirement	Gulfstream Position	Gulfstream Remark	FSB Finding
		in Class E Airspace		Responsibility	Responsibility
91.129	91-234	Operation in Class D Airspace	---	Operator Responsibility	Operator Responsibility
91.130 (a), (b), (c), (e) (d)	91-239	Operations in Class C Airspace General; Deviations Equipment requirements	--- Compliance with § 91.215 is outlined below	Operator Responsibility	Operator Responsibility Operator Responsibility Operator Responsibility
91.131		Operations in Class B Airspace	---	Operator Responsibility	Operator Responsibility
91.133		Restricted and Prohibited Areas	---	Operator Responsibility	Operator Responsibility
91.135		Operations in Class A Airspace	---	Operator Responsibility	Operator Responsibility
91.137		Temporary Flight Restrictions	---	Operator Responsibility	Operator Responsibility
91.138	91-270	Temporary Flight Restrictions in National Disaster Areas in the State of Hawaii	---	Operator Responsibility	Operator Responsibility
91.139		Emergency Air Traffic Rules	---	Operator Responsibility	Operator Responsibility
91.141		Flight Restrictions in the Proximity of the Presidential and Other Parties	---	Operator Responsibility	Operator Responsibility
91.143		Flight Limitation in the Proximity of Space Flight Operations	---	Operator Responsibility	Operator Responsibility
91.144	91-240	Temporary Restriction on Flight Operations During Abnormally High Barometric Pressure Conditions	---	Operator Responsibility	Operator Responsibility
91.145		Management of aircraft operations in the vicinity of aerial demonstrations and major sporting events	---	Operator Responsibility	Operator Responsibility
91.146-91.149		[Reserved]	---		--- ---
91.151		Fuel Requirements or Flight in VFR Conditions	---	Operator Responsibility	Operator Responsibility
91.153		VFR Flight Plan: Information Required	---	Operator Responsibility	Operator Responsibility
91.155	91-235	Basic VFR Weather Minimums	---	Operator Responsibility	Operator Responsibility
91.157	91-262	Special VFR Weather Minimums	---	Operator Responsibility	Operator Responsibility
91.159		VFR Cruising altitude or Flight Level	---	Operator Responsibility	Operator Responsibility
91.161 - 91.165		[Reserved]			-----
91.167		Fuel Requirements for Flight in IFR Conditions	---	Operator Responsibility	Operator Responsibility
91.169	91.259	IFR Flight Plan: Information Required	---	Operator Responsibility	Operator Responsibility
91.171		VOR Equipment Check For IFR Operations	Dual VOR installation meets the requirement when delivered	Operator Responsibility	Operator Responsibility
91.173		ATC Clearance and Flight Plan Required	---	Operator Responsibility	Operator Responsibility

14 CFR Section	Amdt.	Requirement	Gulfstream Position	Gulfstream Remark	FSB Finding
91.175	91.267	Take-off and Landing Under IFR	---	Operator Responsibility	Operator Responsibility
91.177		Minimum Altitudes for IFR Operations	---	Operator Responsibility	Operator Responsibility
91.179		IFR Cruising Altitude or Flight Level	---	Operator Responsibility	Operator Responsibility
91.181		Course to be Flown	---	Operator Responsibility	Operator Responsibility
91.183		IFR Radio Communications	---	Operator Responsibility	Operator Responsibility
91.185	91-211	IFR Operations: Two-way Radio Communication Failure	---	Operator Responsibility	Operator Responsibility
91.187		Operations under IFR In Controlled Airspace: Malfunction reports	---	Operator Responsibility	Operator Responsibility
91.189		Category II and III Operations	The aircraft is not certified for Category II operations. This will occur in a follow-on certification. The FAA-approved Airplane Flight Manual will be updated at that time.		Not Demonstrated
(a)(1). (a)(2)		Appropriate authorization & adequate knowledge of crewmembers	---	Operator Responsibility	Operator Responsibility
(a)(3)		Instrument panel and equipment installed	Instrument panel meets the requirements of the section.	This will be demonstrated during the Category II certification effort.	Not Demonstrated
(b)		Airborne equipment	Noted.	Operator Responsibility	Operator Responsibility
(c)-(g)		Approaches, Landing, Exceptions	---	Operator Responsibility	Operator Responsibility
91.191		Category II Manual	Gulfstream will provide a Category II FAA-approved Airplane Flight Manual Supplement as a template for Category II Manual	Operator Responsibility	Not Demonstrated
91.193		Certificate of Authorization for Certain Category II Operations	---	Operator Responsibility	Not Applicable
91.195 - 91.199		[Reserved]	---		-----

14 CFR Section	Amdt.	Requirement	Gulfstream Position	Gulfstream Remark	FSB Finding
* SUBPART C - EQUIPMENT, INSTRUMENT, and CERTIFICATE REQUIREMENTS*					
91.201		[Reserved]			-----
91.203	91-218	Civil Aircraft: Certifications Required			
(a)		Valid C of A, Registration Certificate.	C of A is issued for each aircraft delivered from production. ---	Registration is Operator Responsibility	Operator Responsibility
(b)		C of A displayed	Not applicable	Operator Responsibility	Operator Responsibility
(c)		Fuel Tanks in the passenger compartment			Not Applicable
(d)		Compliance with Part 34	Compliance with 14 CFR part 34 has been demonstrated during Type Certification		Not Demonstrated
91.205	91-251	Instrument and Equipment Requirements			
(a)		General	See Below	Operator Responsibility	
(b)		Day VFR	All equipment specified for Day VFR, as applicable to a turbine engine aircraft is included in the production airplane, except for Item (12) – Pyrotechnic signal devices are not provided. Item (13) – Crew seats only. Passenger seats to be complied with during outfitting Item (16) - Not applicable Item (17) - Not applicable		SEE: Compliance with 91.513 (B)
(c)		Night VFR	All equipment specified for Night VFR, Items (2) thru (6) are included in the production airplane, except for: Item (6) - Spare fuses are not provided since all re-settable circuits are protected by circuit breakers.		NOTE: This requires fuses for any fused circuits
(d)		IFR	All equipment specified for IFR flight, Items (2) thru (9) are included per GIV-X Product Specification.		Complies
(e)		Flight at and above FL240	DME equipment is included per the GIV-X Product Specification.		Complies
(f)		Category II Operations	All equipment as prescribed in Paragraph (d) and Appendix A are provided per the GIV-X Product Specification.	Category II is a follow-on certification activity.	Not Demonstrated

14 CFR Section	Amdt.	Requirement	Gulfstream Position	Gulfstream Remark	FSB Finding
91.207	91-265	Emergency Locator Transmitters			
(a)		General	An emergency locator transmitter conforming to TSO-C91A is provided as part of the production airplane.	Operating condition, para. (a)(1) is an operator responsibility	Operator Responsibility
(b)		Location	The ELT is mounted on primary structure in the aft compartment of the fuselage in order to minimize the probability of damage in the event of crash impact.		Complies
(c)		Battery condition	---	Operator Responsibility	Operator Responsibility
(d)		Periodic inspections	---	Operator Responsibility	Operator Responsibility
(e)		Ferrying with inoperative ELT	---	Operator Responsibility	Operator Responsibility
(f)		Exceptions to para. 91.207(a)	ELT is installed in production and flight test airplanes prior to first flight	Operator Responsibility	Operator Responsibility
91.209		Aircraft Lights			
(a), (b),		Position and anti-collision lights	Position lights and anti-collision lights complying with 14 CFR §§ 25.1381 through 25.1397 and 25.1401 respectively are included in the production airplane.	Use of these lights is an operator responsibility.	Operator Responsibility
(c)		Anchor Lights	Not applicable		Not Applicable
91.211		Supplemental Oxygen			
(a),(b) (1)		General	A flight crew supplemental oxygen system is included in the production airplane. Crew oxygen masks are provided for both pilots and observer. Passenger oxygen system to be installed during outfitting.	Operator Responsibility to use equipment as required.	Operator Responsibility
(b)(2)		Pilot at Controls	---	Operator Responsibility	Operator Responsibility
91.213		Inoperative Instruments and Equipment	Gulfstream has an approved MMEL for the baseline airplane. GIV-X specific items have been submitted for the next FOEB meeting.	MEL LOA is Operator Responsibility	Operator Responsibility

14 CFR Section	Amdt.	Requirement	Gulfstream Position	Gulfstream Remark	FSB Finding
91.215	91-267	ATC Transponder and Altitude Reporting Equipment and Use			
(a)		Transponder performance and environmental requirements	Two Honeywell Mode S Transponders with ATC Modes A and C conforming to TSO-C112 are provided in the production airplane		Complies
(b), (c), (d)		Transponder operations	---	Transponder operation is an operator responsibility	Operator Responsibility
91.217		Data Correspondence between Automatically - Reported Pressure Altitude Data and Pilot's Reference			
(a)		Deactivation directed	---	Operator Responsibility	Operator Responsibility
(b)		Encoded altitude accuracy	Mode C altitude – production airplane is delivered with a recent (within last 30 days) air data calibration IAW 14 CFR § 91.411 and 14 CFR part 43	Periodic testing and calibration is an operator responsibility	Complies
(c)		Altimeter-encoding equipment specifications	Conform to TSO-C10 and C88		Complies
91.219		Altitude alerting system or device: Turbo-Jet Powered Civil Airplanes			
(a)		Operational Requirement for system	---	Operator Responsibility	Operator Responsibility
(b)		Altitude Alerting System Requirements	The production airplane is delivered with an approved altitude alerting system meeting the requirements of (b)		Complies
(c),(d)		Operational Procedures	---	Operator Responsibility	Operator Responsibility
91.221		Traffic Alert and Collision Avoidance System Equipment and Use			
(a)		Requirement for an approved TCAS	A Traffic Alert and Collision Avoidance System (TCAS II/ACAS II) is provided in the production airplane.		Complies
(b)		TCAS: operation required	---	Operator Responsibility	Operator Responsibility

14 CFR Section	Amdt.	Requirement	Gulfstream Position	Gulfstream Remark	FSB Finding
91.223		Terrain Awareness and Warning System			
(a)		A/C manufactured after March 29, 2002	A Class A TAWS (compliant with TSO C151) is provided in the production airplane.		Complies
(b)		A/C manufactured on or before March 29, 2002	Not applicable		Not Applicable
(c)		AFM			Not Demonstrated
(d)		Exceptions	All applicable information is provided in the FAA-approved Airplane Flight Manual		Not Applicable
91.224 - 91.299		[Reserved]	---		-----
* SUBPART D - SPECIAL FLIGHT OPERATIONS*					
91.301		[Reserved]	---		-----
91.303	91-227	Aerobatics Flight	---	Operator Responsibility	Operator Responsibility
91.305		Flight Test Areas	---	Operator Responsibility	Operator Responsibility
91.307	91-268	Parachutes and Parachuting	Not applicable		Not Applicable
91.309	91-227	Towing: Gliders	---	Operator Responsibility	Operator Responsibility
91.311		Towing: Other than under § 91.309	---	Operator Responsibility	Operator Responsibility
91.313		Restricted Category Civil Aircraft: Operating Limitations			
(a); (b); (c); (d); (e); (f)		General	---	Operator Responsibility	Operator Responsibility
(g)		Shoulder harness approval	Not applicable. Part 23 airplanes only		Not Applicable
91.315		Limited Category Civil Aircraft: Operating Limitations	---	Operator Responsibility	Operator Responsibility
91.317	91-212	Provisionally Certificated Civil Aircraft: Operating Limitations	Not applicable.	Operator Responsibility	Operator Responsibility
91.319		Aircraft Having Experimental Certificates: Operating Limitations	---	Operator Responsibility	Operator Responsibility
91.321		Carriage of Candidates in Federal Elections	---	Operator Responsibility	Operator Responsibility
91.323	91-253	Increased Maximum Certificated Weights for Certain Airplanes Operated in Alaska	Not applicable		-----
91.325		Primary Category Aircraft: Operating Limitations	Not applicable		-----
91.326-91.399		[Reserved]	---		-----
* SUBPART E - MAINTENANCE, PREVENTIVE MAINTENANCE, and ALTERATIONS *					
91.401		Applicability	Noted		-----

14 CFR Section	Amdt.	Requirement	Gulfstream Position	Gulfstream Remark	FSB Finding
91.403 (a) (b) (c)	91-267	General Airworthy conditions; Maintenance Required procedures	--- An approved maintenance schedule derived from the MSG-3 process and an Aircraft Maintenance Manual complying with 14 CFR § 25.1529 and Appendix H is provided to each operator upon delivery of the airplane.	Operator Responsibility	Operator Responsibility Operator Responsibility
91.405 (a); (b); (d) (c)		Maintenance Required Discrepancies; Records Inoperative instruments	The aircraft will have an approved MMEL. Approval of applicable MEL is the operator's responsibility.	Operator Responsibility	Operator Responsibility Operator Responsibility
91.407		Operation after Maintenance, Preventive Maintenance, rebuilding, or alteration	---	Operator Responsibility	Operator Responsibility
91.409	91-267	Inspections	An approved maintenance schedule derived from the MSG-3 process and an Aircraft Maintenance Manual complying with 14 CFR § 25.1529 and Appendix H is provided to each operator.	Operator responsible for accomplishing required maintenance	Operator Responsibility
91.410	91.266	Special maintenance program requirements	Not applicable		Not Applicable
91.411		Altimeter System and Altitude Reporting Equipment Tests and Inspections	The Airplane Maintenance Manual includes the tests and inspections required by 14 CFR part 43 and appendices. The 14 CFR part 43 tests and inspections are conducted for each aircraft prior to C of A.	Operator Responsibility	Operator Responsibility
91.413	91-267	ATC Transponder Tests and Inspections	The Airplane Maintenance Manual includes the tests and inspections required by 14 CFR part 43 and appendices. The 14 CFR part 43 tests and inspections are conducted for each aircraft prior to C of A.	Operator responsibility after airplane is in service.	Operator Responsibility
91.415		Changes to aircraft inspection program	---	Operator Responsibility	Operator Responsibility

14 CFR Section	Amdt.	Requirement	Gulfstream Position	Gulfstream Remark	FSB Finding
91.417		Maintenance records			
(a), (b), (c)		Documents requirements	An approved maintenance schedule derived from the MSG-3 process and the Airplane Maintenance Manual complying with 14 CFR § 25.1529 and Appendix H is provided to each operator.	Operator Responsibility	Operator Responsibility
(d)		Fuel tank installation	Not applicable, since the fuel tank is not installed within the passenger compartment/baggage compartment		Not Applicable
91.419		Transfer of maintenance records	---	Operator Responsibility	Operator Responsibility
91.421		Rebuilt engine maintenance records	Not applicable		-----
91.423 - 91.499		[Reserved]	---		-----
* SUBPART F - LARGE AND TURBINE-POWERED MULTIENGINE AIRPLANES*					
91.501		Applicability	Noted.	Operator Responsibility	Operator Responsibility
91.503		Flying Equipment and Operating Information			
(a)(1)		Flashlights	Two rechargeable Maglite flashlights are provided as basic aircraft equipment, one for each pilot's station.	Working condition is responsibility of operator.	Operator Responsibility
(a)(2)		Cockpit checklist	Checklists are provided in the FAA-approved Airplane Flight Manual / Operating Manual / QRH	Operator Responsibility	Not Demonstrated
(a)(3) & (a)(4)		Aeronautical charts	---	Operator Responsibility	Operator Responsibility
(a)(5)		One engine inoperative climb performance data	The FAA-approved Airplane Flight Manual and Operating Manual include the required data.	Operator responsibility to use the data	Not Demonstrated
(b), (c)		Cockpit checklist contents	The FAA-approved Airplane Flight Manual contains all required checklists.	Operator responsibility	Not Demonstrated Operator Responsibility
(d)		Use of data by crew	---	Operator Responsibility	
91.505		Familiarity with operating limitations and emergency equipment	An FAA-approved Airplane Flight Manual complying with 14 CFR § 25.1581 is provided with the airplane at delivery.	Operator Responsibility	Operator Responsibility
91.507		Equipment requirements: Over-the-top or night VFR operations	All equipment specified for IFR flight and Night VFR is included in the production airplane.	Operator responsible for operable equipment	Operator Responsibility

14 CFR Section	Amdt.	Requirement	Gulfstream Position	Gulfstream Remark	FSB Finding
91.509		Survival equipment for overwater operations	The aircraft is equipped for Extended Over Water Operations for the crew only as a production airplane. The airplane is equipped for passengers during outfitting.	Operator Responsibility	.509 (b)(3) may be contrary to G/as stated in .205
91.511	91-249	Radio equipment for overwater operations	---	Noted	
(a)(b)		Equipment requirements	The production airplane meets the equipment requirements.		Not Demonstrated
(c)(d)		Equipment exclusions	---	Operator Responsibility	Operator Responsibility
(e)		Definition of "shore"	---	Noted	
(f)		Equipment requirements in specific remote oceanic areas	---	Operator Responsibility	Operator Responsibility
91.513		Emergency Equipment			
(a)		General	Noted		Operator Responsibility
(b)		Equipment requirements	The production airplane is equipped with a fire extinguisher in the cockpit, smoke goggles and life jackets for the 2 pilots and observers, and a portable oxygen bottle with full face mask. The equipment meets this paragraph.		Not Demonstrated Note: If Halon F/E is used for class "A" fires, it must be demonstrated
(c)(1)(2)		Fire extinguishers	A HALON fire extinguisher is installed in the cockpit as Part of the production airplane.		Not Demonstrated
(c)(3)(4)		Fire extinguishers	Cabin fire extinguishers are installed during outfitting.	Operator Responsibility	Not Demonstrated
(d)		First Aid kit	First Aid Kits are installed during the outfitting process	The emergency medical kit is operator responsibility	Not Demonstrated
(e)		Crash axe	Not applicable	Operator option	Not Applicable
(f)		Megaphones	Not applicable	Operator option	Not Applicable
91.515		Flight altitude rules	---	Operator Responsibility	Operator Responsibility

14 CFR Section	Amdt.	Requirement	Gulfstream Position	Gulfstream Remark	FSB Finding
91.517		Passenger Information			
(a)		Smoking and seat-belt signs	Smoking and seat-belt signs are installed during the outfitting process	Operator Responsibility	Operator Responsibility
(b)		Oral notification if no signs provided	---	Operator responsibility	Operator Responsibility
(c)		No smoking allowed while "No Smoking" signs lighted	---	Operator responsibility	Operator Responsibility
(d)(e)		Passenger compliance with signs and instructions	---	Operator Responsibility	Operator Responsibility
91.519	91-231	Passenger briefing	The applicable placards and lighted passenger information signs are installed during outfitting. A video and printed cards are also provided to the operator at delivery.	Oral briefing is Operator Responsibility	Operator Responsibility
91.521		Shoulder Harness			
(a)(1)(2)		Shoulder Harness – Flight Deck	The 2 pilot seats and observer seat installed in the production airplane meet these requirements.		Complies
(b)(1)(2)		Shoulder Harness – Flight Attendant Seat in Cabin	If an operator chooses to install such a seat(s), it will be installed during outfitting and comply.	Operator Option and Responsibility	Not Demonstrated
91.523		Carry-on baggage	Not applicable		-----
91.525		Carriage of Cargo			
(a)		Carriage of cargo - Requirements	The baggage compartment is a Class B compartment and meets the requirements of (a)(i) thru (v)		Operator Responsibility
(b)		Accessibility of compartments for fire extinguishing	The aft baggage compartment is classified as a Class B cargo compartment	AFM Emergency procedures meet this requirement	Not Demonstrated
91.527		Operating in Icing Conditions			
(a)		Take-off with contaminated surfaces	---	Operator Responsibility	Operator Responsibility
(b), (c)		IFR/VFR flight into known or forecasted icing conditions	The GIV-X is a transport airplane and is certified for FIKI	Operator responsibility	Operator Responsibility
(d)		Forecast icing conditions relief	---	Operator Responsibility	Operator Responsibility
91.529		Flight Engineer requirements	---	Operator Responsibility	Not Applicable
91.531		Second in command requirements	---	Operator Responsibility	Operator Responsibility
91.533		Flight attendant requirements	Not applicable.	Operator Responsibility	Operator Responsibility

14 CFR Section	Amdt.	Requirement	Gulfstream Position	Gulfstream Remark	FSB Finding
91.535		Stowage of food, beverage, and passenger service equipment during aircraft movement on the surface, takeoff, and landing	---	Operator Responsibility	Operator Responsibility
91.536 - 91.599		[Reserved]	---		-----
*SUBPART G - ADDITIONAL EQUIPMENT and OPERATING REQUIREMENTS FOR LARGE and TRANSPORT CATEGORY AIRCRAFT *					
91.601		Applicability	Noted		-----
91.603		Aural Speed Warning Device	The production airplane complies.		Operator Responsibility
91.605	91-256	Transport Category Civil Airplane Weight Limitations			
(a)		Conditions for aircraft certificated before October 1, 1958	Not applicable		Not Applicable
(b)		Maximum take-off and landing weights for airfield elevation, ambient temperature, wind and runway gradient.	The FAA-approved Airplane Flight Manual and Weight and Balance Manual contains all data necessary to enable the operator to comply with this requirement. The Operating Manual contains flight-planning data to enable computation of fuel burned from departure to destination or alternate airport. Additionally, the production airplane is equipped with an on-board flight-planning computer for takeoff, en route, and landing computations to assist the crew in performing these calculations.	Operator Responsibility	Operator Responsibility
91.607		Emergency exits for airplanes carrying passengers for hire.	The aircraft is equipped with four Type IV over wing exits (two on each side).		Complies
91.609	91-228	Flight Recorders and Cockpit Voice Recorders			
(a)-(b)		General	---	Operator Responsibility	Operator Responsibility
(c)		Requirement for flight recorder	The airplane is equipped with a digital flight data recorder meeting the requirements of Part 91 in production. The 14 CFR part 135 eighty-eight (88) parameter DFDR will be certified as a follow-on certification effort.		Complies-Part 91/135 Not Demonstrated
(d)		Flight recorder operation	The flight recorder installed in the production airplane meets this requirement.		Complies Part 91/135 Not Demonstrated
(e), (f)		Requirement for cockpit voice recorder	The cockpit voice recorder installed in the production airplane meets these requirements.		Not Demonstrated
(g)		Action required following accident or incident – NTSB report and records	---	Operator Responsibility	Operator Responsibility

14 CFR Section	Amdt.	Requirement	Gulfstream Position	Gulfstream Remark	FSB Finding
91.611		Authorization for ferry flight with one engine inoperative	Not applicable		Not Applicable
91.613		Materials For Compartment Interiors	To be addressed during the outfitting by STC		Operator Responsibility
91.615 - 91.699		[Reserved]			-----
SUBPART H - FOREIGN AIRCRAFT OPERATIONS AND OPERATIONS OF US REGISTERED CIVIL AIRCRAFT OUTSIDE OF THE UNITED STATES; AND RULES GOVERNING PERSONS ON BOARD SUCH AIRCRAFT					
91.701		Applicability	Noted	Operator Responsibility	Operator Responsibility
91.702		Persons on board	---	Operator Responsibility	Operator Responsibility
91.703		Operations of civil aircraft of U.S. registry outside of the United States	---	Operator Responsibility	Operator Responsibility
91.705		Operations within airspace designated as Minimum Navigation Performance Specification Airspace	---	Operator Responsibility	Operator Responsibility
91.706		Operations within airspace designated as Reduced Vertical Separation Minimum Airspace	---	Operator Responsibility	Operator Responsibility
91.707		Flights between Mexico or Canada and the United States	---	Operator Responsibility	Operator Responsibility
91.709		Operations to Cuba	---	Operator Responsibility	Operator Responsibility
91.711		Special rules for foreign civil aircraft	---	Operator Responsibility	Operator Responsibility
91.713		Operation of civil aircraft of Cuban registry	---	Operator Responsibility	Operator Responsibility
91.715		Special flight authorizations for foreign civil aircraft	---	Operator Responsibility	Operator Responsibility
91.717 - 91.799		[Reserved]	---		-----
* SUBPART I - OPERATING NOISE LIMITS*					
91.801		Applicability: Relation to Part 36	Noted		-----
91.803		Part 125 operations: Designation of applicable regulations	Noted		Not Applicable
91.805		Final compliance	The production airplane is certified to 14 CFR part 36 Stage 3 requirements as noted in the FAA-approved Airplane Flight Manual.		Complies
91.807		Phased compliance under Parts 121, 125, and 135: Subsonic airplanes			
(a)		General	Noted		
(b)		Compliance schedules	The production airplane is certified to 14 CFR part 36 Stage 3 requirements as noted in the FAA-approved Airplane Flight Manual.		Complies
(c)		Apportionment of airplanes	---	Operator Responsibility	Operator Responsibility
91.809		Replacement airplanes	---	Operator Responsibility	Not Applicable

14 CFR Section	Amdt.	Requirement	Gulfstream Position	Gulfstream Remark	FSB Finding
91.811		Service to small communities exemption: Two engine, subsonic airplanes	---	Operator Responsibility	Not Applicable
91.813		Compliance plans and status: US operations of subsonic airplanes	The production airplane is certified to 14 CFR part 36 Stage 3 requirements as noted in the FAA-approved Airplane Flight Manual.		Complies
91.815		Agricultural and fire fighting airplanes: Noise operating limitations	Not applicable		-----
91.817		Civil aircraft sonic boom	Not applicable		-----
91.819		Civil supersonic airplanes that do not comply with Part 36	Not applicable		-----
91.821		Civil supersonic airplanes: noise limits	Not applicable		-----
91.823 - 91.849		[Reserved]	---		-----
91.851		Definitions	Noted		-----
91.853		Final compliance: civil subsonic airplanes	The production airplane is certified to 14 CFR part 36 Stage 3 requirements as noted in the FAA-approved Airplane Flight Manual.		Complies
91.855		Entry and non-additional rule	The production airplane is certified to 14 CFR part 36 Stage 3 requirements as noted in the FAA-approved Airplane Flight Manual.		Complies
91.857		Stage 2 operations outside of the 48 contiguous United States and authorization for maintenance	The production airplane is certified to 14 CFR part 36 Stage 3 requirements as noted in the FAA-approved Airplane Flight Manual.		Not Applicable
91.859		Modification to meet Stage 3 noise levels	The production airplane is certified to 14 CFR part 36 Stage 3 requirements as noted in the FAA-approved Airplane Flight Manual.		Not Applicable
91.861		Base level	---	Operator Responsibility	Not Applicable
91.863		Transfers of Stage 2 airplanes with base level	---	Operator Responsibility	Not Applicable
91.865		Phased compliance for operators with base level	---	Operator Responsibility	Not Applicable
91.867	91-252	Phased compliance for new entrants	---	Operator Responsibility	Not Applicable
91.869		Carry-forward compliance	---	Operator Responsibility	Not Applicable
91.871		Waivers from interim compliance requirements	---	Operator Responsibility	Not Applicable
91.873		Waivers from final compliance	---	Operator Responsibility	Not Applicable
91.875		Annual progress reports	---	Operator Responsibility	Not Applicable
91.877		Annual reporting of Hawaiian operations	---	Operator Responsibility	Not Applicable
91.879 - 91.899		[Reserved]	---		-----
* SUBPART J - WAIVERS *					
91.901		[Reserved]	---		-----
91.903		Policy and procedures	Noted	Operator Responsibility	Operator Responsibility

14 CFR Section	Amdt.	Requirement	Gulfstream Position	Gulfstream Remark	FSB Finding
91.905	91-227	List of rules subject to waivers	Noted	Operator Responsibility	Operator Responsibility
91.907 - 91.999		[Reserved]	---		-----
* SUBPART A - GENERAL *					
135.1	135-58	Applicability	Noted	Operator Responsibility	Operator Responsibility
(a)		General	---		
(b)		[Reserved]	---		
(c)		Sightseeing operator defined	---		
(d)		Unscheduled repair requirements	---		
135.2	135-66	Compliance schedule for operators that transition to part 121 of this chapter; certain new entrant operators	---	Operator Responsibility	Operator Responsibility
135.3	135-65	Rules applicable to operations subject to this part	---	Operator Responsibility	Operator Responsibility
135.7	135-58	Applicability of rules to unauthorized operators	---	Operator Responsibility	Operator Responsibility
135.12		Previously trained crewmembers	---	Operator Responsibility	Not Applicable
135.19		Emergency operations	---	Operator Responsibility	Operator Responsibility
135.21	135-66	Manual requirements	---	Operator Responsibility	Operator Responsibility

14 CFR Section	Amdt.	Requirement	Gulfstream Position	Gulfstream Remark	FSB Finding
135.23	135-58	Manual contents		Operator Responsibility	Operator Responsibility
(a)		Personnel roster	---		Operator Responsibility
(b)		Weight and balance	A FAA-approved weight and balance manual is provided with each aircraft		Operator Responsibility
(c)		Operations specifications	---		Operator Responsibility
(d)		Accident notification procedures	---		Operator Responsibility
(e)		Aircraft airworthiness notification to pilot in command	---		Operator Responsibility Operator Responsibility
(f)		Procedures for reporting inflight maintenance irregularities	---		Operator Responsibility
(g)		Notification of corrective actions to maintenance irregularities	---		Operator Responsibility
(h)		Pilot in command procedures to obtain unscheduled maintenance	---		Operator Responsibility
(i)		Minimum Equipment List	A GIV-X Master Minimum Equipment List has been submitted to the FAA		Operator Responsibility Operator Responsibility
(j)		Refueling procedures	---		Operator Responsibility
(k)		Passenger briefing procedures	---		Operator Responsibility
(l)		Flight locating procedures	---		Operator Responsibility
(m)		Compliance with emergency procedures	---		Operator Responsibility
(n)		Pilot enroute qualification procedures	---		Operator Responsibility
(o)		Approved aircraft inspection program	An MSG 3 Maintenance Program has been developed by Gulfstream and approved by the FAA		Operator Responsibility Operator Responsibility
(p)		Procedures for hazardous material handling	---		Operator Responsibility
(q)		Evacuation procedures for assisting another person to an exit during an emergency	---		Operator Responsibility Operator Responsibility
(r)		Other procedure and policy instructions	---		Operator Responsibility

14 CFR Section	Amdt.	Requirement	Gulfstream Position	Gulfstream Remark	FSB Finding
135.25	135-66	Aircraft requirements		Operator Responsibility	
(a)		Registration and airworthiness certificate	Aircraft is delivered with appropriate documentation		Operator Responsibility
(b)		Aircraft usage	---		Operator Responsibility
(c)		Aircraft usage duration	---		Operator Responsibility
(d)		Operation in common carriage	---		Operator Responsibility
135.41		Carriage of narcotic drugs, marihuana, and depressant or stimulant drugs or substances	---	Operator Responsibility	Operator Responsibility
135.43		Crewmember certificates: International operations	---	Operator Responsibility	Operator Responsibility
* SUBPART B – FLIGHT OPERATIONS *					
135.61		General	Noted		-----
135.63	135-52	Record keeping requirements	---	Operator Responsibility	Operator Responsibility
135.64	135-66	Retention of contracts and amendments: Commercial operators who conduct intrastate operations for compensation or hire	---	Operator Responsibility	Operator Responsibility
135.65		Reporting mechanical irregularities	---	Operator Responsibility	Operator Responsibility
135.67	135-1	Reporting potentially hazardous meteorological conditions and irregularities of communications or navigation facilities	---	Operator Responsibility	Operator Responsibility
135.69		Restriction or suspension of operations: Continuation of flight in an emergency	---	Operator Responsibility	Operator Responsibility
135.71	135-32	Airworthiness check	---	Operator Responsibility	Operator Responsibility
135.73		Inspections and tests	---	Operator Responsibility	Operator Responsibility
135.75		Inspectors credentials: admission to pilots' compartment: Forward observer's seat	---	Operator Responsibility	Operator Responsibility
135.77		Responsibility for operational control	---	Operator Responsibility	Operator Responsibility
135.79		Flight locating requirements	---	Operator Responsibility	Operator Responsibility

14 CFR Section	Amdt.	Requirement	Gulfstream Position	Gulfstream Remark	FSB Finding
135.81		Informing personnel of operational information and appropriate changes		Operator Responsibility	Operator Responsibility
(a)		Certificate holder must make available: Airman's Information Manual or equivalent	---		Operator Responsibility
(b)		14 CFR Parts 135 and 91	---		Operator Responsibility
(c)		Aircraft equipment manuals and Aircraft Flight Manual	Installed-equipment manuals and FAA-approved Airplane Flight Manual provided with aircraft		Operator Responsibility
(d)		For foreign operations, the International Flight Information Manual or equivalent	---		Operator Responsibility Operator Responsibility
135.83		Operating information required	A normal, abnormal, and emergency procedures checklists and the information on one-engine-inoperative climb performance is provided in FAA-approved Airplane Flight Manual	Operator Responsibility	Operator Responsibility
(a)		Publications accessible in cockpit			Operator Responsibility
(b)		Cockpit checklist requirements			Operator Responsibility
(c)		Emergency procedures checklist			Operator Responsibility
135.85		Carriage of persons without compliance with the passenger-carrying provisions of this part	---	Operator Responsibility	Operator Responsibility
135.87		Carriage of cargo including carry-on baggage	A Class B baggage compartment is located at the aft portion of the pressure vessel and additional storage compartments are provided during outfitting using customer's specifications	Operator Responsibility	Operator Responsibility
(a)		Approved cargo rack or bin			Operator Responsibility
(b)		Secured by approved means			Operator Responsibility
(c)		Specifications			Operator Responsibility
(d)		Under-seat stowage			Operator Responsibility
(e)		Cargo compartment fire extinguishing requirements			Operator

14 CFR Section	Amdt.	Requirement	Gulfstream Position	Gulfstream Remark	FSB Finding
					Responsibility
135.89 (a) (b)		Pilot requirements: Use of oxygen Unpressurized aircraft Pressurized aircraft	The normally pressurized aircraft is equipped with two 115 cubic feet oxygen cylinders plumbed into the supplemental oxygen system	Operator Responsibility	Operator Responsibility Operator Responsibility
135.91 (a) (b) (c) (d) (e)	135-60	Oxygen for medical use by passengers Installation and maintenance requirements Smoking restrictions Personnel qualifications Exception Exception reporting	A medical oxygen system may be installed in the aircraft during outfitting at customer's request	Operator Responsibility	Operator Responsibility Operator Responsibility Operator Responsibility Operator Responsibility Operator Responsibility Operator Responsibility
135.93 (a) (b) (c) (d) (e) (f)	135-68	Autopilot: Minimum altitudes for use Minimum enroute altitude During ILS approach ILS in degraded weather Use to touchdown Use during takeoff and initial climb Not applicable to rotorcraft	Minimum altitude for autopilot usage is defined in limitations section of FAA-approved Airplane Flight Manual	Operator Responsibility	Operator Responsibility Operator Responsibility Operator Responsibility Operator Responsibility Operator Responsibility Operator Responsibility Not Applicable
135.95		Airmen: Limitations on use of services	---	Operator Responsibility	Operator Responsibility
135.97		Aircraft and facilities for recent flight experience	---	Operator Responsibility	Operator Responsibility
135.99 (a) (b)		Composition of flight crew Minimum flight crew per Aircraft Flight Manual and 14 CFR Part 135 Second in command requirement	FAA-approved Airplane Flight Manual specifies a minimum of two flight crewmembers: pilot and copilot	Operator Responsibility	Operator Responsibility Operator Responsibility Operator Responsibility
135.100		Flight crewmember duties	---	Operator Responsibility	Operator Responsibility
135.101		Second in command required under IFR	---	Operator Responsibility	Operator Responsibility
135.103		[Reserved]			-----
135.105 (a) (b) (c)	135-58	Exception to second in command requirement: Approval for use of autopilot system Operations during VFR Request for amendment Specifications for amendment	FAA-approved Airplane Flight Manual specifies a minimum of two flight crewmembers: pilot and copilot	Operator Responsibility	Operator Responsibility Operator Responsibility Operator Responsibility Operator Responsibility

14 CFR Section	Amdt.	Requirement	Gulfstream Position	Gulfstream Remark	FSB Finding
					Responsibility
135.107		Flight attendant crewmember requirement	---	Operator Responsibility	Operator Responsibility
135.109		Pilot in command or second in command: Designation required	---	Operator Responsibility	Operator Responsibility
135.111		Second in command required in Category II operations	---	Operator Responsibility	Operator Responsibility
135.113		Passenger occupancy of pilot seat	FAA-approved Airplane Flight Manual specifies a minimum of two flight crewmembers: pilot and copilot	Operator Responsibility	Operator Responsibility
135.115		Manipulation of controls	---	Operator Responsibility	Operator Responsibility
135.117	135-44	Briefing of passengers before flight	---	Operator Responsibility	Operator Responsibility
135.119		Prohibition against carriage of weapons	---	Operator Responsibility	Operator Responsibility
135.120	135-73	Prohibition on interference with crewmembers	---	Operator Responsibility	Operator Responsibility
135.121		Alcoholic beverages	---	Operator Responsibility	Operator Responsibility
135.122		Stowage of food, beverage, and passenger service equipment during aircraft movement on the surface, takeoff, and landing	---	Operator Responsibility	Operator Responsibility
135.123		Emergency and emergency evacuation duties	---	Operator Responsibility	Operator Responsibility
135.125		Airplane security	---	Operator Responsibility	Operator Responsibility
135.127	135-76	Passenger information requirements and smoking prohibitions	---	Operator Responsibility	Operator Responsibility
135.128	135-62	Use of safety belts and child restraining systems	---	Operator Responsibility	Operator Responsibility
135.129	135-60	Exit seating	---	Operator Responsibility	Operator Responsibility
* SUBPART C – AIRCRAFT AND EQUIPMENT *					
135.141		Applicability	Noted		Operator Responsibility
135.143	135-22	General requirements		Operator Responsibility	Operator Responsibility
(a)		General	Noted		Operator Responsibility
(b)		Required instruments and equipment in operable condition	All instruments and equipment included as part of the production airplane		Operator Responsibility
(c)		ATC transponder equipment	Two ATC transponders included as part of the production airplane and meet applicable TSO conditions		Operator Responsibility
135.144	135-73	Portable electronic devices	---	Operator Responsibility	Operator Responsibility
135.145		Aircraft proving tests	---	Operator Responsibility	Operator Responsibility
135.47		Dual controls required	Airplane is produced with dual flight controls under 14 CFR part 25	Operator Responsibility	Complies

14 CFR Section	Amdt.	Requirement	Gulfstream Position	Gulfstream Remark	FSB Finding
135.149	135-38	Equipment requirements: General		Operator Responsibility	Operator Responsibility
(a)		Sensitive altimeter	Sensitive altimeter is included as part of the production airplane		
(b)		Carburetor heating or deicing equipment	Not applicable		Not Applicable
(c)		A third gyroscopic bank-and-pitch indicator	Third gyroscopic bank-and-pitch indicator is included as part of the production airplane		Complies
(d)		[Reserved]	---		
(e)		Any other equipment FAA requires	Noted		
135.150		Public address and crewmember interphone systems	FAA-approved Airplane Flight Manual limits passenger load to 19 people	Operator Responsibility	Not Applicable
135.151	135-60	Cockpit voice recorders		Operator Responsibility	Complies Part 91/135
(a)		Applicability	A FAA-approved cockpit voice recorder is included as part of the production airplane		Not Demonstrated
(b)		Multi-engine, turbine-powered airplane having 20 to 30 passenger seats	FAA-approved Airplane Flight Manual limits passenger load to 19 people		Not Applicable
(c)		Procedures following accident or incident	---		Operator Responsibility
(d)		Requirements for recording from boom or mask microphone	Installed CVR records the uninterrupted audio signal from a boom or mask microphone in accordance with 14 CFR § 25.1457(c)(5)		Complies
(e)		Recording duration requirements	Installed CVR retains at least 30 minutes of audio recording		Complies

14 CFR Section	Amdt.	Requirement	Gulfstream Position	Gulfstream Remark	FSB Finding
135.152	135-69	Flight recorders			Complies Part 91/135
(a)		Applicability	A FAA-approved Flight Data Recorder meeting the eighty-eight parameter requirement of 14 CFR § 135.152 will be a follow-on certification effort.		Not Demonstrated
(b)		Multi-engine, turbine-powered airplane having 20 to 30 passenger seats	FAA-approved Airplane Flight Manual limits passenger load to 19 people See note for (a)		Not Demonstrated
(c)		Continuous operation requirements	See note for (a)		Not Demonstrated
(d)		Recorded data retention requirements	See note for (a)		Not Demonstrated
(e)		Procedures following accident	See note for (a)		Not Demonstrated
(f)		Requirements with respect to aircraft manufacture date	See note for (a)		Not Demonstrated
(g)		Device to assist in underwater locating	See note for (a)		Not Demonstrated
(h)		Operational parameters			Not Demonstrated
(i)		Parameters for turbine-powered airplanes having 20 to 30 passenger seats and manufactured after August 18, 2000	FAA-approved Airplane Flight Manual limits passenger load to 19 people		Not Applicable
(j)		Parameters for turbine-powered airplanes having 20 to 30 passenger seats and manufactured after August 19, 2000	FAA-approved Airplane Flight Manual limits passenger load to 19 people		Not Applicable
(k)		Exception to requirements for deHavilland DHC-6	Not applicable		Not Applicable

14 CFR Section	Amdt.	Requirement	Gulfstream Position	Gulfstream Remark	FSB Finding
135.153	135-75	Ground proximity warning system		Operator Responsibility	
(a)		Applicability	A FAA-approved enhanced ground proximity warning system is included as part of the production airplane		Complies
(b)		[Reserved]	---		
(c)		Airplane Flight Manual requirements	FAA-approved Airplane Flight Manual includes operational procedures for enhanced ground proximity warning system		Complies
(d)		Operation requirements	---		
(e)		Deactivation requirements	---		
(f)		Expiration of requirement	Noted		
135.154		Terrain awareness and warning system		Operator Responsibility	
(a)		Airplanes manufactured after March 29, 2002	A FAA-approved terrain awareness warning system meeting the requirements for Class A equipment in TSO-C151 is included as part of the production airplane		Complies
(b)		Airplanes manufactured on or before March 29, 2002	---		
(c)		Airplane Flight Manual	FAA-approved Airplane Flight Manual includes operational procedures for enhanced ground proximity warning system		Complies
135.155		Fire extinguishers: Passenger-carrying aircraft		Operator Responsibility	Note: If HALON F/E is used for class "A" fires, it must be demonstrated Not Demonstrated
(a)		Type and quantity of hand fire extinguisher extinguishing agent	Extinguishing agent (halon) in flight deck hand fire extinguisher is suitable for all fires likely to occur		Not Demonstrated
(b)		One hand fire extinguisher convenient and located on flight deck	A flight deck hand fire extinguisher is included as part of the production airplane.		Not Demonstrated
(c)		One hand fire extinguisher convenient and located in passenger compartment	At least one hand fire extinguisher is mounted in the passenger compartment at a convenient location during outfitting		Not Demonstrated

14 CFR Section	Amdt.	Requirement	Gulfstream Position	Gulfstream Remark	FSB Finding
135.157		Oxygen equipment requirements		Operator Responsibility	
(a)		Unpressurized aircraft	The normally pressurized aircraft is equipped with two 115 cubic feet oxygen cylinders plumbed into the supplemental oxygen system, providing oxygen to crew and, upon aircraft outfitting, passengers		Operators Responsibility
(b)		Pressurized aircraft	See note for (a)		Not Demonstrated
(c)		System operation	Oxygen system quantity monitoring is through gauges on flight deck, three flight deck oxygen regulating systems readily allow monitoring and adjustments		Complies
135.158	135-33	Pitot heat indication systems		Operator Responsibility	
(a)		Applicability	A pitot heat system with indications certified in accordance with 14 CFR part 25 is included as part of the production airplane		Complies
(b)		Extension	---		
135.159	135-38	Equipment requirements: Carrying passengers under VFR at night or under VFR over-the-top conditions	All equipment required by this section are included as part of the aircraft produced under GIV-X Product Specification	Operator Responsibility	
(a)		Gyroscopic rate-of-turn indicator			Complies
(b)		Slip skid indicator			Complies
(c)		Gyroscopic bank-and-pitch indicator			Complies
(d)		Gyroscopic direction indicator			Complies
(e)		Generator			Complies
(f)		Night flight requirements			Complies
(g)		Continuous in-flight electrical load defined			Complies
(h)		Helicopter requirements	Not applicable		Not Applicable

14 CFR Section	Amdt.	Requirement	Gulfstream Position	Gulfstream Remark	FSB Finding
135.161		Radio and navigational equipment: Carrying passengers under VFR at night or under VFR over-the-top	All radio and navigation equipment required by this section are included as part of the aircraft produced under GIV-X Product Specification	Operator Responsibility	Complies
(a)	Two-way radio communication with ground facilities 25 miles away	Complies			
(b)	VFR over-the-top requires ability to receive radio signals from ground facility	Complies			
(c)	VFR at night requires ability to receive radio signals from ground facility	Complies			
135.163	135-73	Equipment requirements: Aircraft carrying passengers under IFR	All equipment and applicable requirements of this section are included as part of the aircraft produced under GIV-X Product Specification	Operator Responsibility	
(a)	Vertical speed indicator	Complies			
(b)	Free-air temperature indicator	Complies			
(c)	Heated pitot tube for each airspeed indicator	Complies			
(d)	Power failure warning device for gyroscopic instruments	Complies			
e)	Alternate source of static pressure	Complies			
(f)	Single-engine aircraft requirements	Complies			
(g)	Multi-engine aircraft requirements	Complies			
(h)	Two independent sources of energy, each of which is able to drive all required gyroscopic instruments	Complies			
(i)	Continuous inflight electrical load defined	Complies			
135.165	135-61	Radio and navigational equipment: Extended overwater or IFR operations	All radio and navigation equipment required by this section are included as part of the aircraft produced under GIV-X Product Specification, with the exception of headsets	Operator Responsibility	
(a)	Specifications, 10 passenger seats or more	Complies			
(b)	Specifications, other aircraft than specified in (a)	Complies			
(c)	Independent receiver defined	Complies			
(d)	FAA consideration of long-range communications and navigation equipment	Complies			
135.167	135-49	Emergency equipment: Extended overwater operations	---	Operator Responsibility	Operator Responsibility

14 CFR Section	Amdt.	Requirement	Gulfstream Position	Gulfstream Remark	FSB Finding
135.169	135-55	Additional airworthiness requirements	Aircraft certified to 14 CFR part 25 requirements, equipment required by this section are included as part of the aircraft produced under GIV-X Product Specification	Operator Responsibility	Operator Responsibility
135.170	135-56	Materials for compartment interiors	Materials used in flight deck are certified to 14 CFR § 25.853 standards, compartment materials are per an STC and resolved during outfitting	Operator Responsibility	Operator Responsibility
135.171		Shoulder harness installation at flight crewmember stations		Operator Responsibility	Complies
(a)		Approved shoulder harness	FAA-approved shoulder harness for each flight crewmember station is installed as part of the aircraft produced under GIV-X Product Specification		Operator Responsibility
(b)		Use of shoulder harness	---		Operator Responsibility
135.173	135-60	Airborne thunderstorm detection equipment requirements		Operator Responsibility	
(a)		Applicability	Digital airborne weather radar equipment is standard equipment		Complies
(b)		Helicopter operations	Not applicable		Not Applicable
(c)		Flight under IFR or night VFR	---		Operator Responsibility
(d)		Procedures for Equipment failure enroute	---		Operator Responsibility
(e)		Exceptions for certain locations	---		Operator Responsibility
(f)		Alternate electrical power supply not required	Noted		Operator Responsibility
135.175		Airborne weather radar equipment requirements		Operator Responsibility	
(a)		Applicability	Digital airborne weather radar is equipment is standard equipment		Complies
(b)		Flight under IFR or night VFR	---		Operator Responsibility
(c)		Procedures for Equipment failure enroute	---		Operator Responsibility
(d)		Exceptions for certain locations	---		Operator Responsibility
(e)		Alternate power supply not required	Noted		Operator Responsibility

14 CFR Section	Amdt.	Requirement	Gulfstream Position	Gulfstream Remark	FSB Finding
135.177	135-80	Emergency equipment requirements for aircraft having a passenger seating configuration of more than 19 passengers	FAA-approved Airplane Flight Manual limits passenger load to 19 people	Operator Responsibility	Not Applicable
135.178		Additional emergency equipment	FAA-approved Airplane Flight Manual limits passenger load to 19 people	Operator Responsibility	Operator Responsibility
135.179	135-60	Inoperable instruments and equipment	A Master Minimum Equipment List has been developed by the FAA	Operator Responsibility	Operator Responsibility
135.180	135-54	Traffic Alert and Collision Avoidance System		Operator Responsibility	
(a)		Applicability	A FAA-approved TCAS II/ACAS II system is included as part of the production airplane		Complies
(b)		Airplane Flight Manual requirements	FAA-approved Airplane Flight Manual includes operational procedures for traffic alert and collision avoidance system		Complies
135.181	135-70	Performance requirements: Aircraft operated over-the-top or in IFR conditions	FAA-approved Airplane Flight Manual includes applicable performance data	Operator Responsibility	Complies
135.183		Performance requirements: Land aircraft operated over water	FAA-approved Airplane Flight Manual includes applicable performance data	Operator Responsibility	Complies
135.185		Empty weight and center of gravity: Currency requirement	A FAA-approved weight and balance manual is provided with each aircraft, final weight and balance information provided upon completion of outfitting	Operator Responsibility	Operator Responsibility
* SUBPART D – VFR/IFR OPERATING LIMITATIONS AND WEATHER REQUIREMENTS *					
135.201		Applicability	Noted		-----
135.203		VFR: Minimum altitudes	---	Operator Responsibility	Operator Responsibility
135.205	135-41	VFR: Visibility requirements	---	Operator Responsibility	Operator Responsibility
135.207		VFR Helicopter surface reference requirements	Not applicable	Operator Responsibility	Operator Responsibility
135.209		VFR: Fuel supply	---	Operator Responsibility	Operator Responsibility
135.211	135-32	VFR: Over-the-top carrying passengers: Operating limitations	---	Operator Responsibility	Operator Responsibility
135.213	135-60	Weather reports and forecasts	---	Operator Responsibility	Operator Responsibility
135.215		IFR: Operating limitations	---	Operator Responsibility	Operator Responsibility
135.217		IFR: Takeoff limitations	---	Operator Responsibility	Operator Responsibility
135.219		IFR: Destination airport weather minimums	---	Operator Responsibility	Operator Responsibility
135.221		IFR: Alternate airport weather minimums	---	Operator Responsibility	Operator Responsibility
135.223	135-20	IFR: Alternate airport requirements	---	Operator Responsibility	Operator Responsibility
135.225		IFR: Takeoff, approach and landing minimums	---	Operator Responsibility	Operator Responsibility

14 CFR Section	Amdt.	Requirement	Gulfstream Position	Gulfstream Remark	FSB Finding
135.227	135-60	Icing conditions: Operating limitations	GIV-X is transport airplane certified for FIKI. AFM has operating limitations for icing conditions.	Operator Responsibility	Operator Responsibility
135.229		Airport requirements	---	Operator Responsibility	Operator Responsibility
* SUBPART E – FLIGHT CREWMEMBER REQUIREMENTS *					
135.241	135-57	Applicability	Noted		-----
135.243	135-58	Pilot in command qualifications	---	Operator Responsibility	Operator Responsibility
135.244	135-58	Operating experience	---	Operator Responsibility	Operator Responsibility
135.245		Second in command qualifications	---	Operator Responsibility	Operator Responsibility
135.247		Pilot qualifications: Recent experience	---	Operator Responsibility	Operator Responsibility
135.249	135-51	Use of prohibited drugs	---	Operator Responsibility	Operator Responsibility
135.251		Resting for prohibited drugs	---	Operator Responsibility	Operator Responsibility
135.253	135-48	Misuse of alcohol	---	Operator Responsibility	Operator Responsibility
135.255	135-48	Testing for alcohol	---	Operator Responsibility	Operator Responsibility
* SUBPART F – CREWMEMBER FLIGHT TIME AND DUTY PERIOD LIMITATIONS AND REST REQUIREMENTS *					
135.261	135-52	Applicability	Noted		-----
135.263		Flight time limitations and rest requirements: All certificate holders	---	Operator Responsibility	Operator Responsibility
135.265		Flight time limitations and rest requirements: Scheduled operations	---	Operator Responsibility	Operator Responsibility
135.267	135-60	Flight time limitations and rest requirements: Unscheduled one- and two-pilot crews	---	Operator Responsibility	Operator Responsibility
135.269		Flight time limitations and rest requirements: Unscheduled three- and four-pilot crews	---	Operator Responsibility	Operator Responsibility
135.271		Helicopter hospital emergency medical evacuation service (HEMES)	---	Operator Responsibility	Operator Responsibility
135.273	135-60	Duty period limitations and rest time requirements	---	Operator Responsibility	Operator Responsibility
* SUBPART G – CREWMEMBER TESTING REQUIREMENTS *					
135.291		Applicability	Noted		-----
135.293	135-27	Initial and recurrent pilot testing requirements	---	Operator Responsibility	Operator Responsibility
135.295		Initial and recurrent flight attendant crewmember testing requirements	---	Operator Responsibility	Operator Responsibility
135.297	135-15	Pilot in command: Instrument proficiency check requirements	---	Operator Responsibility	Operator Responsibility
135.299		Pilot in command: Line checks: Routes and airports	---	Operator Responsibility	Operator Responsibility
135.301		Crewmember: Tests and checks, grace provisions, training to accepted standards	---	Operator Responsibility	Operator Responsibility
* SUBPART H – TRAINING *					
135.321	135-63	Applicability and terms used	Noted		-----
135.323		Training program: General	---	Operator Responsibility	Operator Responsibility

14 CFR Section	Amdt.	Requirement	Gulfstream Position	Gulfstream Remark	FSB Finding
135.324	135-67	Training program: Special rules	---	Operator Responsibility	Operator Responsibility
135.325		Training program and revision: Initial and final approval	---	Operator Responsibility	Operator Responsibility
135.327		Training program: Curriculum	---	Operator Responsibility	Operator Responsibility
135.329		Crewmember training requirements	---	Operator Responsibility	Operator Responsibility
135.331		Crewmember emergency training	---	Operator Responsibility	Operator Responsibility
135.333		Training requirements: Handling and carriage of hazardous materials	---	Operator Responsibility	Operator Responsibility
135.335	135-1	Approval of aircraft simulators and other training devices	---	Operator Responsibility	Operator Responsibility
135.337		Qualifications: Check airmen (aircraft) and check airmen (simulator)	---	Operator Responsibility	Operator Responsibility
135.338	135-64	Qualifications: Flight instructors (aircraft) and flight instructors (simulator)	---	Operator Responsibility	Operator Responsibility
135.339	135-64	Initial and transition training and checking: Check airmen (aircraft), check airmen (simulator)	---	Operator Responsibility	Operator Responsibility
135.340	135-64	Initial and transition training and checking: Flight instructors (aircraft), flight instructors (simulator)	---	Operator Responsibility	Operator Responsibility
135.341	135-18	Pilot and flight attendant crewmember training programs	---	Operator Responsibility	Operator Responsibility
135.343	135-18	Crewmember initial and recurrent training requirements	---	Operator Responsibility	Operator Responsibility
135.345	135-46	Pilots: Initial, transition, and upgrade ground training	---	Operator Responsibility	Operator Responsibility
135.347		Pilots: Initial, transition, upgrade, and differences flight training	---	Operator Responsibility	Operator Responsibility
135.349		Flight attendants: Initial and transition ground training	---	Operator Responsibility	Operator Responsibility
135.351	135-46	Recurrent training	---	Operator Responsibility	Operator Responsibility
135.353		Prohibited drugs	---	Operator Responsibility	Operator Responsibility
* SUBPART I – AIRPLANE PERFORMANCE OPERATING LIMITATIONS *					
135.361		Applicability	Noted		
135.363	135-21	General	---	Operator Responsibility	
(b)		Each certificate holder operating a turbine engine powered large transport category airplane	Aircraft performance data is provided in the FAA approved Airplane Flight Manual		Operator Responsibility
(f)		Performance data in the Airplane Flight Manual	Aircraft performance data is provided in the FAA approved Airplane Flight Manual		Operator Responsibility
135.365		Large transport category airplanes: Reciprocating engine powered: Weight limitations	Not applicable		-----
135.367		Large transport category airplanes: Reciprocating engine powered: Takeoff limitations	Not applicable		-----

14 CFR Section	Amdt.	Requirement	Gulfstream Position	Gulfstream Remark	FSB Finding
135.369		Large transport category airplanes: Reciprocating engine powered: En route limitations: All engines operating	Not applicable		-----
135.371		Large transport category airplanes: Reciprocating engine powered: En route limitations: One engine inoperative	Not applicable		-----
135.373		Large transport category airplanes: Reciprocating engine powered: En route limitations: Two engines inoperative	Not applicable		-----
135.375		Large transport category airplanes: Reciprocating engine powered: Landing limitations: Destination airports	Not applicable		-----
135.377		Large transport category airplanes: Reciprocating engine powered: Landing limitations: Alternate airports	Not applicable		-----
135.379	135-71	Large transport category airplanes: Turbine engine powered: Takeoff limitations	---	Operator Responsibility	
(a)		Takeoff weights exceeding Airplane Flight Manual limitations	---		Operator Responsibility
(b)		Minimum distance required for takeoff	The FAA-approved Airplane Flight Manual contains all data necessary to enable the operator to comply with this requirement to include clearway computation data.		Operator Responsibility
(c)		Maximum takeoff weight calculation variables	The FAA-approved Airplane Flight Manual contains all data necessary to enable the operator to comply with this requirement.		Operator Responsibility
(d)(2)		Maximum takeoff weight net takeoff flight path	The FAA-approved Airplane Flight Manual contains all data necessary to enable the operator to comply with this requirement to include net takeoff flight path data.		Operator Responsibility
(e)		Maximum takeoff weight environmental conditions	The FAA-approved Airplane Flight Manual contains all data necessary to enable the operator to comply with this requirement to include environmental variables.		Operator Responsibility
(f)		Aircraft bank angles on takeoff	The FAA-approved Airplane Flight Manual complies with this paragraph.		Operator Responsibility
(g)		Performance terms	The performance terms are the same as certified under 14 CFR part 25		Operator Resp.

14 CFR Section	Amdt.	Requirement	Gulfstream Position	Gulfstream Remark	FSB Finding
135.381		Large transport category airplanes: Turbine engine powered: En route limitations: One engine inoperative	The FAA-approved Airplane Flight Manual and the Operating Manual contains all data necessary to enable the operator to comply with this requirement.	Operator Responsibility	Operator Responsibility
135.383		Large transport category airplanes: Turbine engine powered: En route limitations: Two engines inoperative	Not applicable		-----
135.385		Large transport category airplanes: Turbine engine powered: Landing limitations: Destination airports		Operator Responsibility	
(a)		Landing weight limitations	The airplane FAA-approved Flight Manual contains all data necessary to enable the operator to comply with this requirement. The Operating Manual contains flight planning data to enable computation of fuel and oil burned from departure to destination or alternate airport to compute landing weight.		Operator Responsibility
(b)		Destination landing requirements	See note for (a)		Operator Responsibility
(c)		Turbopropeller landing requirements	---		Not Applicable
(d)		Wet runway landing requirements	---		Operator Responsibility
(e)		Alternate requirements to comply with paragraph (b)	See note for (a)		Operator Responsibility
135.387		Large transport category airplanes: Turbine engine powered: Landing limitations: Alternate airports	The FAA-approved Airplane Flight Manual contains all data necessary to enable the operator to comply with this requirement. The Operating Manual contains flight planning data to enable computation of fuel and oil burned from departure to destination or alternate airport to compute landing weight. On board flight planning computer available to assist crew in mission calculations.	Operator Responsibility	Operator Responsibility
135.389		Large nontransport category airplanes: Takeoff limitations	Not applicable		-----
135.391		Large nontransport category airplanes: En route limitations: One engine inoperative	Not applicable		-----
135.393		Large nontransport category airplanes: Landing limitations: Destination airports	Not applicable		-----
135.395		Large nontransport category airplanes: Landing limitations: Alternate airports	Not applicable		-----
135.397		Small transport category airplane performance operating limitations	Not applicable		-----
135.398		Commuter category airplanes performance	Not applicable		-----

14 CFR Section	Amdt.	Requirement	Gulfstream Position	Gulfstream Remark	FSB Finding
		operating limitations			
135.399		Small non transport category airplane performance operating limitations	Not applicable		-----
Subpart J – Maintenance, Preventive Maintenance, and Alterations*					
135.411	135-78	Applicability	Noted		-----
135.413	135-81	Responsibility for airworthiness			
(a)		Airworthiness conditions; Maintenance	---	Operator Responsibility	Operator Responsibility
(b)		Required procedures for maintenance	An approved maintenance schedule derived from the MSG-3 process and the Aircraft Maintenance Manual complying with 14 CFR § 25.1529 and Appendix H is provided to each operator.	Operator Responsibility	Operator Responsibility
135.415	135-81	Service difficulty reports (operational)	---	Operator Responsibility	Operator Responsibility
135.416	135-81	Service difficulty reports (structural)	---	Operator Responsibility	Operator Responsibility
135.417	135-81	Mechanical interruption summary report	---	Operator Responsibility	Operator Responsibility
135.419		Approved aircraft inspection program	An approved maintenance schedule derived from the MSG-3 process and the Aircraft Maintenance Manual complying with 14 CFR § 25.1529 and Appendix H is provided to each operator.	Operator Responsibility	
135.421	135-70	Additional maintenance requirements			
(a)		Compliance with manufacturer’s recommended maintenance programs	An approved maintenance schedule derived from the MSG-3 process and the Aircraft Maintenance Manual complying with 14 CFR § 25.1529 and Appendix H is provided to each operator.	Operator Responsibility	Operator Responsibility
(b)		Manufacturer’s maintenance program definition	See note for (a)		Operator Responsibility
(c)		Single engine aircraft engine monitoring requirements	Not applicable		Not Applicable
(d)		Single engine aircraft methods, techniques, and practices	Not applicable		Not Applicable
(e)		Single engine aircraft engine maintenance records	Not applicable		Not Applicable
135.423		Maintenance, preventive maintenance, and alteration organization	---	Operator Responsibility	Operator Responsibility
135.425		Maintenance, preventive maintenance, and alteration programs	---	Operator Responsibility	Operator Responsibility

14 CFR Section	Amdt.	Requirement	Gulfstream Position	Gulfstream Remark	FSB Finding
135.427	135-66	Manual requirements	An approved maintenance schedule derived from the MSG-3 process and the Aircraft Maintenance Manual complying with 14 CFR § 25.1529 and Appendix H is provided to each operator.	Operator Responsibility	Operator Responsibility
135.429	135-20	Required inspection personnel	---	Operator Responsibility	Operator Responsibility
135.431	135-60	Continuing analysis and surveillance	---	Operator Responsibility	Operator Responsibility
135.433		Maintenance and preventive maintenance training program	----	Operator Responsibility	Operator Responsibility
135.435	135-82	Certificate requirements	---	Operator Responsibility	Operator Responsibility
135.437		Authority to perform and approve maintenance, preventive maintenance, and alterations	---	Operator Responsibility	Operator Responsibility
135.439		Maintenance recording requirements	An approved maintenance schedule derived from the MSG-3 process and the Aircraft Maintenance Manual complying with 14 CFR § 25.1529 and Appendix H is provided to each operator.	Operator Responsibility	Operator Responsibility Operator Responsibility
135.441		Transfer of maintenance records	---	Operator Responsibility	Operator Responsibility
135.443	135-82	Airworthiness release or aircraft maintenance log entry	---	Operator Responsibility	Operator Responsibility

Appendix 9 - PLANEVIEW AVIONICS SOFTWARE VERSION “C”

PlaneView Avionics Software version “C” includes these functions: charts, graphical flight planning, uplinked weather, video, enhanced envelope protection and vertical situation display with terrain. The FSB found it, as well as the associated AFM change, to be operationally suitable. Pilots transitioning from PlaneView Avionics Software version “B” to “C” in the GIV-X or GV-SP should be trained on the differences using any one of the following level “C” differences training devices: interactive computer based instruction, cockpit system simulators, cockpit procedures trainers, part task trainers, or level 2-5 flight training devices. There are no checking or currency requirements for PlaneView Avionics Software “C”.

The PlaneView Charts function is FAA certified as part of the aircraft's type design. It is functionally equivalent to a Class 3 Electronic Flight Bag (EFB) with Type C software applications. The PlaneView Charts Function may fail if a Data Management Unit (DMU), Local Area Network (LAN) or Personal Computer Memory Card International Association (PCMCIA) card fails, so either paper charts or a Class 1 or Class 2 EFB that is accepted by the FAA and contains Airport Diagrams, Departure, Arrival and Approach Charts must be readily available to the flight crew.

Appendix 10 - PLANEVIEW AVIONICS SOFTWARE VERSION “D”

PlaneView Avionics Software version “D” includes these functions: VGP, RNP SAAR, performance step climb, takeoff obstacle clearance computations, radio tuning and RAAS. The FSB found it, as well as the associated AFM change, to be operationally suitable. Pilots transitioning from PlaneView Avionics Software version “B” to “D” or from version “C” to “D” in the GIV-X or GV-SP should be trained on the differences using any one of the following level “C” differences training devices: interactive computer based instruction, cockpit system simulators, cockpit procedures trainers, part task trainers, or level 2-5 flight training devices. There are no checking or currency requirements for PlaneView Avionics Software “D”. Pilots training RNP SAAR Procedures should use the guidance found in Advisory Circular 90-101, “Approval Guidance for RNP Procedures with AR”.

Appendix 11- PLANEVIEW AVIONICS SOFTWARE VERSION “E”

PlaneView Avionics Software version “E” includes the addition of Synthetic Vision Primary Flight Display (SV PFD). SV PFD depicts terrain, obstacles and airports with texture and colors on the Primary Flight Display. It obtains that data from the TAWS database. The FSB found it, as well as the associated AFM change, to be operationally suitable. Pilots transitioning from PlaneView Avionics Software version C” to “E” or from version “D” to “E” in the GIV-X or GV-SP should be trained on the differences using any one of the following level “C” differences training devices: interactive computer based instruction, cockpit system simulators, cockpit procedures trainers, part task trainers, or level 2-5 flight training devices. There are no checking or currency requirements for PlaneView Avionics Software version “E”.

Appendix 12 - PLANEVIEW AVIONICS SOFTWARE VERSION “F”

The PlaneView Avionics Software version “F” “Basic Load” includes these functions: improved map identifiers declutter logic, improved map airway labeling, improvement on map to graphically join airways, HUD-II interface capability, pilot-controlled CMF selection switch, and improved (table-augmented) performance within FMS. A customer option to enable automatic linking of abnormal and emergency checklists to a defined set of activated Crew Alerting (CAS) messages is an included feature. Additionally, there are customer option packages associated with Cert “F” with the functions grouped into the following packages:

- Enhanced Navigation – FANS-1 CPDLC using existing ACARS Protocol
GPS SBAS reception
LPV approach capability
RNP 0.1 navigation capability
Electronic Terminal Charts stored on each AGM
Terrain elevation displayed on map at pilot-selected locations
Automatic Preview of short-range navigation approach
Automatic transition from short-range navigation source to long-range navigation source and automatic arming of FMS/LNAV flight director mode upon selection of TO/GA feature.
Retention of FMS/LNAV flight director mode upon selection of TO/GA feature when using long-range navigation source
Temperature-compensated waypoint altitude constraints and VNAV performance in terminal area
Circling approach capability
- Enhanced SV PFD – The enhanced SV PFD includes the following improvements to the basic version: terrain-conformal range rings, grid lines oriented north-south and east-west, terrain depicted on the HSI, a frustum depicted on the HSI representing the viewed area of the SV PFD; and the TAWS and TCAS automatic “pop-up” on the HSI.
- XM WX Weather – The map can display the following three weather products, either individually or combined, which are automatically received at specific intervals: NEXRAD Doppler radar, Infrared composite images of clouds, and Winds aloft.

Pilots transitioning from PlaneView Avionics Software version “D” to “F” or from version “E” to “F” in the GIV-X or GV-SP should be trained on the differences using the information provided in Table 1. There are no checking or currency requirements for PlaneView Avionics Software version “F”.

Table 1 – Training Differences

FROM	TO (1)	TRAINING LEVEL
Cert “D” or “E”	Cert “F” (Basic Load)	A
	Cert “F” with Enhanced Navigation	C (2)
	Cert “F” with Enhanced SV PFD	A
	Cert “F” with XM Weather	A

Notes: (1) Any combination of customer option packages will be trained to the highest Training Level.
 (2) Acceptable Level C training devices include: interactive computer-based instruction, cockpit system simulators, cockpit procedures trainers, part task trainers, or level 2-5 flight training devices. The devices must be capable of emulating FMS and cockpit displays performance: allowing pilot entry of appropriate FMS selections and presenting “real-time” information on the displays during the conduct of the flight.

The PlaneView Charts function is FAA certified as part of the aircraft's type design in Cert. “F” as a Class 3 EFB with Type C software applications. The AFM limitation applied during PlaneView Avionics Software Version “C” which required “either paper charts or a Class 1 or Class 2 EFB that is accepted by the FAA and contains Airport Diagrams, Departure, Arrival and Approach Charts must be readily available to the flight crew” does not apply to Cert. “F” equipped aircraft.

Appendix 13 - PLANEVIEW AVIONICS SOFTWARE VERSION “G”

PlaneView Avionics Software version “G” includes the addition of the following features: Early Missed Approach activation with the MCDU and TO/GA, LPV Approach capture from above, Maximum descent angle improvements, Datalink recording on the Cockpit Voice Recorder, Path-based TCAS Guidance on the SV PFD, listing of multiple localizer approaches to the same runway, and update to Fuel Tank Temperature CAS message and related Synoptics for the GIV-X only. The FSB found PlaneView Avionics Software version “G”, as well as the associated AFM change, to be operationally suitable.

Pilots transitioning from PlaneView Avionics Software version “D”, “E”, or “F” to “G” in the GIV-X or GV-SP should be trained using one of the following level “A” differences training methods: PlaneView Pilot Familiarization Guide or PlaneView Pilot Operating Handbook for Cert. G. There are no checking or currency requirements for PlaneView Avionics Software version “G”.

Pilots transitioning to PlaneView Avionics Software Enhanced version “G” who have not received training on Cert. “F” Enhanced Navigation or Enhanced SV PFD should be trained on the differences using the information provided in Table 2.

Table 2 – Training Differences

FROM	TO (1)	TRAINING LEVEL
Cert “D”. “E” or “F” Basic	Cert “G” (Basic Load)	A
	Cert “F” or “G” with Enhanced Navigation	C (2)
	Cert “F” or “G” with XM Weather	A
	Cert “F” or “G” with Enhanced SV PFD	A
Cert. “F” Enhanced	Cert. “G” Enhanced	A

- Notes: (1) Any combination of customer option packages will be trained to the highest Training Level.
 (2) Acceptable Level C training devices include: interactive computer-based instruction, cockpit system simulators, cockpit procedures trainers, part task trainers, or level 2-5 flight training devices. The devices must be capable of emulating FMS and cockpit displays performance: allowing pilot entry of appropriate FMS selections and presenting “real-time” information on the displays during the conduct of the flight.

Appendix 14 - G-V DISPLAY UNIT DU-885 MODIFICATION

The DU-885 modification changes the G-V as follows:

- 1) Replaces six DU-880 cathode ray tubes (CRT) with six DU-885 liquid crystal displays (LCD).
- 2) Adds two Cursor Control Devices, an XM Weather receiver, and a data loader.
- 3) Adds the following functions:
 - a) Charts – Displays approach charts, airport maps, SIDs, STARs and noise procedures on the Enhanced Navigation Display (ND). Airplane position is also displayed on the charts that are geo-referenced.
 - b) Maps – Displays the FMS moving map over geopolitical boundaries augmented with navigational aides and XM weather on the ND.
 - c) Video – Displays multiple video inputs on the ND.
 - d) Database configuration – Displays database status on the ND and permits uploading charts and map data.
 - e) DU maintenance – Continuously tests the DU and displays a list of the failed tests on the ND (ground use maintenance function only).

Pilots transitioning from the DU-880 to the DU-885 system should be trained on the differences using any one of the following level “C” differences training devices: interactive computer based instruction, cockpit system simulators, cockpit procedures trainers, part task trainers, or level 2-5 flight training devices. There are no checking or currency requirements for this transition.

Level C differences training is the minimum training level required for G-V with Display Unit DU-885 Modification equipped aircraft. When flight crews are assigned to the G-V with Display Unit DU-885 Modification, operators and training providers must ensure that the level of training given is adequate for flight crews to fully understand the differences between these aircraft.

It should be noted that this report only addresses training, checking and currency for G-V qualified pilots that are transitioning to the G-V with Display Unit DU-885 Modification equipped aircraft. No training, checking, or currency determinations have been made for pilots transitioning from the G-V with Display Unit DU-885 Modification equipped aircraft to the G-V aircraft.

The Electronic Charts function is functionally equivalent to a Class 3 EFB with Type C software applications. For airplanes having the current terminal charts database loaded on the DU885's and operable on both DU 2 and 5, no additional paper charts, class 1 or class 2 EFB are required.

Appendix 15 - HONEYWELL NZ-2000 FMS 6.1 SOFTWARE

The G-V Flight Management System (FMS) provides lateral and vertical navigation data to the Auto Throttle (AT) system, Automatic Flight Control System (AFCS), and Electronic Display system (EDS). A GPS Landing System Sensor Unit (GLSSU) provides GPS position sensor data to the FMS, and ILS like guidance to the EDS and AFCS to provide Satellite Based Approach System (SBAS) / Localizer Performance with Vertical Guidance (LPV) approach capabilities. The change from a Global Navigation System Sensor Unit (GNSSU) to a GLSSU for the Gulfstream GV aircraft, form the functional differences encompassed in Aircraft Service Change (ASC) 186, and adds the following functions:

- Addition of Cockpit LPV switch/annunciators
- Software upgrade to NZ-2000 computers (NZ 6.1)
- GNSSU receivers and antennas upgraded to SBAS/LPV capable GLSSUs and antennas
- Updated Magnetic Variation Tables
- Vertical Navigation (VNAV) Temperature Compensation (Departure, Approach, and Missed Approach)
- En Route Vektored Operation
- Vectors to Final (VTF) Approaches
- FMS linked chart functionality(for DU-885 equipped aircraft only)
- Automated HA Leg Sequencing
- Approach Procedures Support for Circling and Tactical Air Navigation (TACAN) approaches, and multiple Area Navigation (RNAV) approaches to the same runway (Multi-RNAV) Approaches)
- SBAS/LPV Operations, DO-229D, Class Delta-4 “ILS look alike”
- Software enhancements to Lateral Guidance and flight planning for curved path calculations.
- Software enhancements to Path computation to reduce vertical splits.
- Software enhancements to system speed, quality and robustness

Pilots transitioning to the Honeywell NZ-2000 FMS 6.1 Software with SBAS/LPV GPS should be trained on the differences using Level “C” training. Level C is interactive (full task) computer based instruction (ICBI). There are no checking or currency requirements for this transition.