

January 17, 2020

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Federal Aviation Administration  
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Peter J. Bunce  
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Dear Mr. Domingo and Mr. Bunce,

The appended document contains the Letter of Authorization (LOA) Process Improvement Working group's recommendations for modernizing the policy mechanism and information the Federal Aviation Administration (FAA), aircraft manufacturers, training providers, and operators use to allow Part 91 operators to conduct certain operations that require authorization for communications, navigation, and surveillance.

The working group was established jointly between the FAA and the General Aviation Manufacturers Association (GAMA) in September 2018. To develop the recommendations, the working group received input and support from across the aviation community, including participants from different FAA lines of business and representatives of the agency's workforce.

The FAA has committed to implementing the recommendations in this report during calendar year 2020, including the required policy updates and workforce training. Industry is committed to support the work needed to achieve the successful implementation with the objective of realizing efficiencies while maintaining safety.

Sincerely,



Merrill "Jazz" Armstrong  
FAA Co-Chair, AFS-410



Justin Maas  
Industry Co-Chair, Gulfstream Aerospace Corp.

CC:

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GAMA Flight Operations Policy Committee

**Letter of Authorization Process Improvement Working Group**

**Final Report**

**January 17, 2020**

## Executive Summary

This report provides recommended changes for how the FAA and industry can work together to improve the process for issuing Letters of Authorization (LOA) for Part 91 operators.

The recommendations were developed jointly over the past 15 months and address FAA process, manufacturer documentation of aircraft capabilities, training provider documentation of course compliance, and operators obtaining manuals through an improved alternative process.

The report contains six recommendations and is addressed to both the FAA and industry. The recommendations are intended to be implemented jointly during calendar year 2020 with the objective of achieving a more efficient alternative process that effectively uses FAA and industry resources, while maintaining safety. The recommendations of this report are complementary to direction provided to the FAA by Congress in the 2018 reauthorization.

## 1.0 Background

The current process for FAA issuance of Part 91 LOAs is inadequate to meet the continually increasing industry demand. To enable the operational implementation of NextGen and new Communication, Navigation, and Surveillance (CNS) capabilities in the U.S. National Airspace System (NAS), it is necessary to improve the process through which authorizations are issued to general aviation operators.

In 2009, RTCA Task Force 5 identified “five areas of concern” that included the application process for certain NextGen LOAs for Part 91, Operator/OEM Packet Submission Tool(s), and Avionics Equipment and Installation approvals.<sup>1</sup>

In 2012, the FAA established a Performance-based Aviation Rulemaking Committee (PARC) Action Team specifically to review the process for Reduced Vertical Separation Minima (RVSM) authorization. The RVSM LOA Process Enhancement Team (PET) issued its recommendations to the FAA in April 2013, which resulted in the agency updating various guidance, including Advisory Circular 91-85 and the associated process job aid. This resulted in a discrete, risk-based approach to the RVSM authorization process.

In 2018, the FAA, jointly with industry, established the LOA Process Improvement Working Group, which was tasked with investigating how to better leverage FAA approvals and certification documents as part of individual operators’ requests for authorizations to conduct certain operations.

The LOA Process Improvement working group was tasked specifically to focus on NextGen technologies including Communications (Data Comm, ADS-C, and PBCS); Navigation (PBN); and Surveillance (ADS-B Out outside the United States) authorization, as well as other aircraft capabilities such as Enhanced Flight Vision Systems (EFVS).

In October 2018, the Congress reauthorized the FAA. This authorization directed the FAA to conduct an assessment<sup>2</sup> of the FAA oversight, authorization process, and requirements for aircraft under Part 91 and to make recommendations to streamline the applicable approval process, improve safety, and reduce the regulatory cost burdens and delays. The joint activity described in this report supports this objective. The FAA, on August 1, 2019 chartered the Flight Standards Transparency, Performance, Accountability, Efficiency Aviation Rulemaking Committee for which includes Sec. 513 of the reauthorization. This report will be provided to the ARC for its awareness and consideration as part of its responsibilities and tasks.

### 1.1 Problem Statement and Scoping

Along with the numerous recent revisions to FAA authorization requirements (and those of other regulatory authorities) for operations in various Special Areas of Operations, the aviation industry is seeing an increasingly rapid introduction of technologically advanced avionics. This has created a situation wherein the authorizing inspector at the local Flight Standards District Office (FSDO) often does not have the specialized technical background to conduct a proper, detailed review to authorize these

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<sup>1</sup> RTCA NextGen Mid-Term Implementation Task Force Report, Appendix K, September 9, 2009

<sup>2</sup> Public Law 115-524, Section 513

operations. Increasingly, some authorizations underwent in-depth reviews above the FSDO level, adding additional time to the process. This slows the process significantly. The repetitive nature of the review also consequently requires increased demand on FAA resources.

Additionally, the recent upturn in the world economy has created a large increase in new operators, as well as existing operators acquiring new aircraft. This increases the volume and complexity of authorizations the FAA must process.

Delays in issuing authorization when the aircraft are manufactured capable, the pilots are trained, and procedures are in place creates a situation in which operators have limited access to navigational tools that facilitate greater flexibility to reduce fuel consumption and/or provide safer routes. This also places a greater workload on air traffic control (ATC) as controllers attempt to mix authorized and unauthorized aircraft. Restricting operators for three, six, or sometimes twelve months while applications for brand-new aircraft are being reviewed by a limited number of inspectors is counter-productive and unnecessarily reduces safety.

Finally, the burgeoning pilot shortage is resulting in substantial turnover in pilots employed by Part 91 operators. This affects authorizations that are tied to completion of adequate training by a specific pilot.

Although the requirements for applications for the various authorizations are described in FAA Order 8900.1 Volume 3, Chapter 18, there are additional Job Aids and Compliance Guides that have been created to meet the complexity of the material to review.

The applications driven by these requirements have become excessively complex. Further, there is not yet standardization across authorizations. For example, there currently exists an RVSM Job Aid for LOA B046 - RVSM, and a separate Compliance Guide for each LOA A056 – Datalink and LOA B036 – RNP-2/-4/-10. Several other authorizations have no Job Aids or Compliance Guides.

The working group has looked at examples of applications that show the depth and complexity of the information requested by the FAA from operators. As an example, a recent EFVS application was 167 pages and included extracted material from the Flight Standardization Board (FSB) report, the Aircraft Flight Manual (AFM) supplement, FAA AC 90-106, and various aircraft Original Equipment Manufacturer (OEM) engineering reports. The review by the working group also found a lack of standardization between required documentation for authorizations.

These factors have resulted in a situation in which the FAA workload far exceeds the man-hours available, evidenced by the dramatic extension to operators' authorization timelines.

## 2.0 Overview of Solutions

The Working Group focused on the Part 91 LOAs that require review and / or concurrence and that are typically issued on a newly manufactured business jet. These LOAs include:

- A056 – Datalink

- B034 – B-RNAV and P-RNAV<sup>3</sup>
- B036 – RNP-2/-4/-10
- B039 – NAT HLA
- B046 – RVSM
- B054 -- Oceanic and Remote Airspace Navigation Using a Single Long-Range Navigation System
- C048 – EFVS
- C052 – LPV
- C063 – RNP-1
- C073 -- Vertical Navigation (VNAV) Instrument Approach Procedures (IAP) Using Minimum Descent Altitude (MDA) as a Decision Altitude (DA)/Decision Height (DH)
- D095 – MMEL

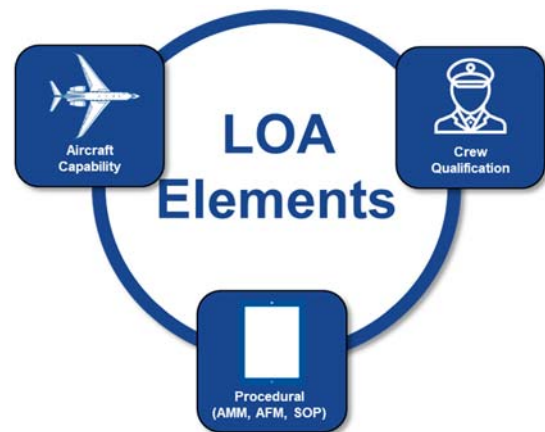
Examples of highly specialized Part 91 LOAs, which were not included in this Working Group’s activities due to the complex nature of the required training, procedures, and validation, include:

- C060 – Category II/III Operations
- C081 – Specialized Instrument Procedures
- C381 – Special Non-Part 97 Instrument Procedures
- C384 – RNP-AR Operations

The Working Group approached the possibility of streamlining the selected LOAs since these are the most commonly requested authorizations, and any resulting streamlining would produce the largest return in industry turnaround as well as reduced demand on FAA resources while maintaining safety. The intent of the recommendations is to offer authorizing Inspectors an alternate, streamlined method to review and issue Part 91 LOAs.

The Working group initially recognized that there are essentially three items that need review and approval for the FAA to issue Part 91 LOAs:

- **Aircraft Capability (see Section 2.1)**
- **Pilot Training (see Section 2.2)**
- **Operator’s Procedures (see Section 2.3)**



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<sup>3</sup> B034 is in the process of being decommissioned by the FAA, but maintained in the list in 1.2 because it was originally part of the working group’s scope of work.

## 2.1 Aircraft Capability

Currently, aircraft capability is determined by various means; such as an entry in the AFM, Airplane Flight Manual Supplement (AFMS) for post-production upgrades, or other manufacturer documentation.

Newly manufactured business jets are produced “off the line” with LOA-required equipment. As such, the Type Certificate Data Sheets (TCDS) and AFM reflect such equipment on delivery. Both the TCDS and AFM are FAA-approved well prior to any delivery of the aircraft.

Unfortunately, there is no standard for documenting an aircraft’s capability in the AFM or AFMS. Due to the variety of AFM formats and dynamic nature of LOA designations, there can be confusion as to whether an aircraft is explicitly capable of an LOA requirement based on installed equipment. The AFMs generally refer to industry standards and specifications rather than FAA LOA designations.

When individual operators apply for their LOAs, they depend heavily on the OEM documentation. For example, the OEM publishes “LOA workbooks” for the operator to use depending on the type of aircraft. When issues arise with the Principal Operations Inspector’s (POI), the operator generally calls the OEM to get the details and help answer the POI’s queries, most of which already have been addressed “upstream” within the FAA during aircraft certification.

This requires redundant analysis and interpretation of existing documentation, which use additional man-hours and possibly induces erroneous interpretations of requirements that further adds time to the approval process.

Additionally, any revision to the AFM describing aircraft capability (via equipment upgrade or additional equipment installation) must be created by the design approval holder, reviewed and approved by the FAA, then published and distributed to affected operators. This process can be very lengthy, and in the case of errors in documentation, can create a logjam as operators and the FAA await the corrections to go through this process.

### 2.1.1 Use of Aircraft Statement of Capability

The Working Group proposes the adoption by aircraft manufacturers of a standardized “Aircraft Statement of Capability” that identifies the aircraft’s capabilities, and any remarks (e.g., required Service Bulletins).

The Aircraft Statement of Capability (ASOC) is designed to collect this information in a uniform “one-stop-shop” for the line FAA Inspector, relating all capability with associated LOA designations. The operator/inspector would no longer have to “scrapbook” through the TCDS, AFM, Aircraft Maintenance Manual AMM, and other publications to deduce capability that has already received an FAA design approval.

Inherently, nothing on the ASOC needs its own formal approval, as all information stems from FAA approved documentation. The ASOC will be issued at time of production. Any third-party Supplemental Type Certificates (STCs) applied to the aircraft may invalidate the ASOC. Seeing that the LOAs in focus are all accounted for at production, minimal upkeep is forecasted. Any post-production Service Bulletins and or STC that may be required to upgrade aircraft capability to the requested level (e.g., PBCS) must be referenced as remarks on the ASOC. Lastly, the Airworthiness Directive process will act as a back stop

should any equipment issue arise. This ASOC, however, can be revised quickly and efficiently by the manufacturer as aircraft capabilities are upgraded and determined applicable to specific aircraft.

One of the key benefits of the ASOC document is industry-wide standardization: *inspectors can be trained on and become familiar with one format, as opposed to variety that is submitted today*. The use of an ASOC also will standardize the presentation of required information and data to the authorizing FAA Inspector, dramatically reducing the need for in-depth analysis while reducing opportunities for error.

Additional pages of the ASOC are included to provide the authorizing Inspector with templates for the information required for the LOA Tables. An example of the proposed Aircraft Statement of Capability is included in Appendix D.

Industry will enable the use of the ASOC document by undertaking three activities:

- **Recommendation 1: GAMA will develop an industry-held Aircraft Statement of Capability template and make it available online for use by aircraft manufacturers free of charge.**
- **Recommendation 2: Aircraft manufacturers will develop Aircraft Statement of Capability documents using the industry template for aircraft models, as each manufacturer deems appropriate. The Aircraft Statement of Capability document will not require a separate approval by the FAA, as all capabilities are sourced from previously-approved documentation (e.g., AFM, TCDS).**
- **Recommendation 3: Each manufacturer that elects to provide the Aircraft Statement of Capability will also establish a process for how the Aircraft Statement of Capability document will be maintained (e.g., included in company Quality Management System (QMS)). Additionally, a notional process should be identified in the industry standard template to ensure that the Aircraft Statement of Capability is updated when appropriate (e.g., revision to FAA Advisory Circular, model production cut ins, AFM changes, Amended Type Certificates (ATC, and STC).**

#### 2.1.2 Utilization of Aircraft Serial Number

The working group determined that the FAA does not consistently utilize aircraft designations when issuing LOAs. Although most LOA templates have migrated to serial number, model/make/series (M/M/S) or operator name in lieu of requiring registration number, several LOAs still require aircraft registration number.

The use of the aircraft registration number significantly increases workload: a simple N-number change potentially requires a completely new LOA submission. Using more persistent designations such as serial number, M/M/S, or operator name reduces workload without compromising safety. Table 1 provides an overview of how serial versus registration numbers are used today.



Table 1: Aircraft capability, LOA designation, and use of serial or registration number:

Capability	LOA Designation	Designation
Reduced Vertical Separation Minima ( <b>RVSM</b> )	B046 (improved guidance)	Serial Number and Registration Number
Enroute Required Navigational Performance ( <b>RNP</b> )	B036	M/M/S
Terminal Required Navigational Performance ( <b>RNP</b> )	C063	M/M/S
Controller Pilot Datalink Communications, Automatic Surveillance – Contract, Performance Based Communication and Surveillance ( <b>CPDLC, ADS-C, PBCS</b> )	A056	M/M/S
Enhanced Flight Vision System 91.176(b) ( <b>EFVS</b> )	C048	M/M/S
Minimum Equipment List ( <b>MEL</b> )	D095 or D195	Serial Number and Registration Number
High Level Airspace ( <b>HLA</b> )	B039	Operator
Lateral Precision with Vertical Guidance ( <b>LPV</b> ) – International	C052	Operator
Vertical Navigation (VNAV) Instrument Approach Procedures (IAP) Using Minimum Descent Altitudes (MDA) as a Decision Altitude (DA)/Decision Height (DH)	C073	M/M/S
Oceanic and Remote Airspace Navigation Using a Single Long-Range Navigation System	B054	M/M/S

- **Recommendation 4:** To realize administrative efficiencies while maintaining safety, the FAA should review the LOAs identified in Table 1 with the objective of shifting all aircraft capability LOAs to using the aircraft make/model/series, serial number, or operator name instead of registration number.

## 2.2 Pilot Training Statement of Compliance

Currently, pilot training standards and requirements for Part 91 operators for communication, navigation, and surveillance (CNS) authorizations are not centrally codified and remain subject to varying interpretations by authorizing inspectors.

The issuance of LOAs authorizing the use of certain aircraft equipment requires an operator to show that the crew has been trained appropriately. Although training providers make a variety of courses available to meet all the training requirements for a particular LOA, there currently is no standardized or efficient method by which FAA inspectors can determine which courses will meet the specific training requirements for a requested authorization. Due to the technical nature of the material, only a limited number of vendors provide training, causing inspectors to review the same courses repeatedly but to varying standards.

The Working Group proposes to enable the submission of a “Training Statement of Compliance” for the training program the operator intends to use to meet the standards and requirements for qualifying its flight crews. The objective of this shift in process would be to then adhere to the FAA-issued LOA by ensuring that all pilots employed by the operator for the operation are qualified in accordance with the training identified in the LOA as reference to the Training Statement of Compliance.

The objective of creating a Training Statement of Compliance aligns with the objective of the Aircraft Statement of Capability in that the FAA would issue the approval and authorization at a national level and the local FAA office would recognize the training approval or authorization. The associated process, however, is different for training providers compared to aircraft manufacturers.

### 2.2.1 Justification for Change, Rationale and Discussion

The aircraft specific training required for various LOAs may be met through approved Part 142 training programs or through other standalone enrichment courses provided by specialized training vendors. In either case, a pilot who completes the appropriate training in a Part 142 course will have met all the FAA training requirements for the LOA being sought.

Unfortunately, there is currently no standardized way for FAA inspectors to know which courses are appropriate to the LOA or even what training documentation is needed to verify completion of the appropriate training course. This often results in operators submitting course syllabus information and individual FAA inspectors reevaluating courses to verify that they meet all the training requirements of a particular LOA.

To help alleviate this issue and to streamline the LOA approval process, it should be possible for each training provider to obtain a Training Statement of Compliance (TSOC), which indicates the exact course(s) that can be used to meet the FAA training requirements of a particular LOA.

Operators will have a menu of available courses to choose from, and POIs will have an easy-to-understand form to help them determine which course(s) meet the LOA training requirements. POIs will no longer need to reevaluate each course to verify required content. Eliminating this redundant and extremely burdensome course evaluation requirement for FAA Inspectors would greatly increase efficiency for both the FAA and Industry.

The Training Statement of Compliance will provide an efficient method for both FAA Inspectors and operators to verify if appropriate courses were conducted and documented for Initial and/or recurrent pilot training. A simple comparison of the course completion records against an approved TSOC is all that is needed.

Each TSOC should be issued with an expiration date. This expiration date will require the training provider to renew its TSOC on a regular basis, which will allow the FAA to ensure that the training program is updated in accordance with regulatory and safety changes. The holder of the TSOC will be responsible to monitor relevant policy changes and, as applicable, make updates to the document (*e.g.*, a Quality Management System (QMS)) process for each entity).

- **Recommendation 5: The FAA should create and/or revise all guidance material necessary to create a new LOA Training Statement of Compliance form (see Appendix E). The completed form should be approved at the national level, and then subsequently accepted by POIs as proof that various training center courses do comply with all FAA training requirements of a particular LOA.**

## 2.3 Operator Procedures

Currently, the requirements for operator's procedures are extremely detailed, complex, and frequently revised. This creates a situation in which many Part 91 operator struggles to maintain the internal expertise to adequately create, maintain, and revise these procedures manuals.

An example of the proposed "Manual Statement of Compliance" is included in Appendix F.

Operators flying under Part 91 are not required to have an International Operations Manual (IOM) for operations outside of the United States, and the working group recommends against imposing any new regulatory requirements on these operators. These operators must be able to demonstrate to inspectors the ability to safely operate in remote/oceanic airspace. The General Aviation International Authorizations and Tabletop Exercises Working Group (GIATE WG) recognized this issue and proposed that one method for demonstrating this ability is to document procedures, such as in an IOM. An operator that does not document its procedures may be asked to demonstrate its ability for safe operations through a validation exercise.

Many operators choose to use an IOM to ensure all operations are conducted safely and consistently across crews and fleet types. While some operators choose to develop their own manual, others choose to purchase a manual from a vendor.

Because developing an IOM requires a unique set of technical and operational knowledge, a limited number of vendors exist leading many operators to use the same vendors. Current guidance requires FAA's specialists in the Flight Operations Group of the Flight Technologies and Procedures Division to evaluate each operator's application separately and completely. This often leads to the Flight Operations Group specialist reading the manual developed by a popular vendor multiple times as subsequent applicants submit the same manual. Although inefficient, it results in the Flight Operations Group specialist becoming very familiar with the content. Because it is easier to evaluate a manual when already familiar with the content, the Flight Operations Group specialist has, on occasion, encouraged operators to use manuals from popular vendors rather than manuals from unfamiliar sources. Since the FAA reorganization placing the former SAO Specialists under one management team, this practice has been, and will continue to be, discouraged.

**Recommendation 6: The LOA Process Improvement Working Group recommends developing an additional process to provide a statement of compliance for IOMs developed and sold by vendors at the source. If a specialist in the Flight Operations Group of the Flight Technologies and Procedures Division evaluates and accepts a manual being sold by a vendor, inspectors will not have to reevaluate it every time an operator applies for LOA A056, B036, or B046 using the same product. The vendor's statement of compliance could be issued for a set period, requiring reevaluation of the manual every 24 months or as required based on changing regulatory or procedural requirements and written notification by the FAA. Such an expiration date only should apply to the vendor's statement of compliance, not to operators who already have submitted and been authorized to use the vendor's manual, as FAA does not have capacity to ensure that all Part 91 operators have complied with every update. The process for receiving a statement of compliance should be available and open to all vendors, as to avoid displaying preference by inspectors.**

After receiving the LOA, it will be the operator's responsibility to revise the IOM to reflect current international operating requirements and best practices.

It will be the responsibility of the vendor to revise the IOM template document no less than every 24 months. The FAA Flight Standards Service's Flight Technologies Procedures Division will then issue an updated statement of compliance for the IOM template document to the vendor.

The role of the IOM Template document, when populated by the manual provider, is to provide a guide for the International Operations Manual document. This document would not be an industry-held standard, but rather an FAA template that would take the role of the Job Aid documents.

The IOM Statement of Compliance document should be updated with a frequency of no less than every 24 months. The manual vendor and the operator should have a change management process to manage interim updates (*e.g.*, ICAO NAT bulletin updates).

The FAA should maintain the current processes for accepting operator-developed IOMs. Some operators choose not to purchase an IOM and develop their own instead. This may be financially motivated or culturally motivated, as an IOM developed with input from the flight department may result in greater buy-in and compliance. Maintaining this option will also leave room for new vendors to enter the market.

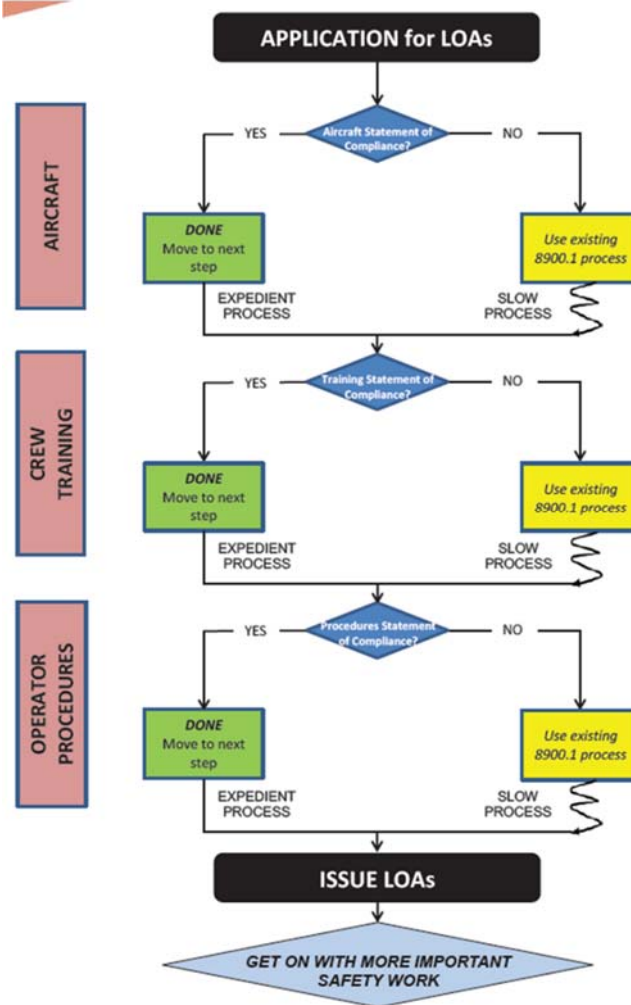
## 2.4 Implementation of Alternative Solution

**This revised process for issuing LOAs would not replace the existing Part 91 Letter of Authorization process; rather, it will provide an alternate, streamlined process as a tool for authorizing Inspectors to review and issue authorizations.**

The Working Group has produced suggested language to be added to the 8900.1 Volume 3, Chapter 18 to authorize use of this streamlined process ("Alternative Approval Method for Part 91 Operators"). An example of the proposed 8900.1 changes is included in Appendix G based on OPSPEC/MSPEC/LOA C063, Area Navigation (RNAV) and Required Navigation Performance (RNP) Terminal Operations.

The Working Group concludes that by using this streamlined process, the FAA can maintain proper oversight of Part 91 authorizations, while dramatically freeing FAA man-hours for other important safety work.

Figure 1: Notional overview of current and alternative application process for Part 91 LOAs



### 3.0 Standardized Application

As stated previously, there is currently significant variability in the appearance and structure of LOA applications from operator to operator. Additionally, FSDO Inspectors each have developed their own personal expectations for LOA submissions, based on the lack of standardization. One mechanism by which the process and workload for the FAA and industry can be simplified is to transition to a standardized application for LOAs.

The proposed structure of the standardized application is shown in Appendix H. It aligns with what the most modern FAA-created applications look like (*e.g.*, A056). It begins with entry fields for all the data required for WebOpss, providing the Inspector with a smooth workflow. The remaining sections are attachments of the documents discussed above:

- (1) Aircraft Statement of Capability
- (2) Training Statement of Compliance
- (3) IOM Statement of Compliance

Lastly, a field requesting MMEL use is available. Currently there is no job aid no additional work for this LOA (D095), so this the only field required to obtain this authorization.

A copy of the alternative LOA application is included in Appendix H.

## 4.0 Implementation Activities

The deployment of the new process for Part 91 LOA issuance will require several activities to be undertaken by both the FAA and industry to ensure success.

### 4.1 FAA Change Management and Training of Workforce

In order to implement this streamlined process, FAA Flight Standards Service will need to undertake changes to orders and directives to empower the workforce to use new processes to enable timely authorization reviews. The new LOA review and approval process must be shared with all parts of the authorization chain, from policy offices to FSDOs, to achieve full awareness of the streamlined options available to inspectors considering LOAs for approval.

This outreach action will be accomplished through various activities available to the Flight Standards Service including direct communications, telephone and video meetings with General Aviation Safety Assurance (GASA) Office leadership and FSDO division and office sessions, written policy, and any other means as deemed appropriate to advertise and highlight the new processes available to the inspector force.

Lastly, the Flight Standards Service, will continually take into account feedback from stakeholders, both internal and external to the organization, including through direct engagement with industry, operators, and OEMs to find best practices and or to make effective changes that will allow a sustainable process improvement into the future.

### 4.2 Industry Implementation Activities

#### **Association Implementation Activities**

NBAA and GAMA will incorporate briefings on this initiative during normal industry events such as the NBAA International Operator's Conference, Regional Forums, and the NBAA Business Aviation Convention and Exhibition. NBAA and GAMA also will electronically distribute information via extensive e-mail distribution lists.

OEMs will hold regional forums and operator conferences where this information will be disseminated. Operator bulletins will also be issued via OEM distribution to raise awareness on this alternative method.

#### **OEM Implementation Activities**

A key factor for successful operator/customer application for an LOA is a good understanding of the process by both customers as well as key OEM customer-facing representatives. Additionally, timely submittal of the LOA application by the customer to the local FSDO will help the process. To achieve that, each OEM must ensure that ASOC document is issued and updated periodically, resources are available to help customer understand the process, training is provided, and a good communication mechanism exist with the pertinent guidance material.



1) Resources

- a. Identify internal resources and responsible department for preparing and maintaining the Aircraft SOC
- b. Identify internal customer facing employees to be trained and get familiar with the process
  - i. Field Service Representative (FSR)
  - ii. Delivery center account managers
- c. Identify communication medium
  - i. location via the Customer Portal
  - ii. Advisory Wires and other service letters communicate

2) Aircraft Specification

- a. Aircraft Statement of Capability (ASOC)
  - i. Write the Aircraft Statement of Capability (ASOC) for all pertinent aircraft platforms
  - ii. Use internal formal report process with required approval and ownership by functional department
  - iii. Use internal established release process
  - iv. Establish process for periodic review and validation of the ASOC
- b. LOA Guidance Material
  - i. Update the current LOA guidance material to reflect the new process

3) Processes

- a. Develop internal Process at OEM delivery center with checklist to prompt customer to start filling up LOA requests and have him initiate discussion and plans with FSDO
  - i. First prompt to customer at 6 months before delivery
  - ii. Second prompt to customer at 3 months before delivery
  - iii. Last prompt to customer during the Final delivery of the aircraft
- b. Equip customer with pertinent communication material for the LOA

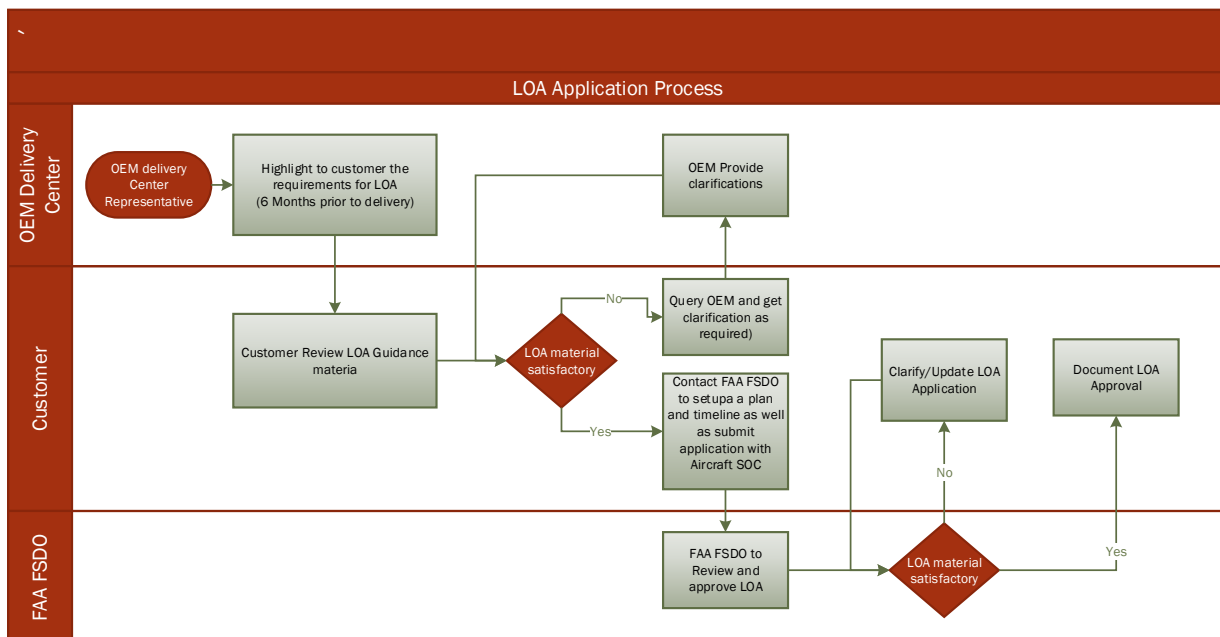
4) Training

- a. Train OEM Field Service Representative and other internal customer facing representative on the LOA new process
- b. Train OEM Delivery Center Customer Facing Representative on LOA process and equip them with pertinent communication

5) Communication

- a. Communicate the Aircraft SOC to customer using existing communication medium such as Advisory Wires or any publication via service letters articles
- b. Provide pertinent communication via the OEM Customer Portal
- c. Communicate information training center facilities, both Operation and Maintenance training
- d. Communicate LOA requirements to customer early enough during the delivery process
  - i. First prompt to customer at 6 months before delivery
  - ii. Second prompt to customer at 3 months before delivery
  - iii. Last prompt to customer during the Final delivery of the aircraft

Figure 2: A notional LOA process to be adapted by OEM



**Training Provider Implementation Activities**

Assuring that training providers and training program developers are fully briefed and understand the implications and need for the proper development and continuing maintenance of these programs, both industry and the FAA should participate in joint outreach activities.

These activities should include and be incorporated in, but should not be limited to, interactive webinars, workshops and industry/FAA planned roadshows, as an integral part of the above-mentioned activities. As an example, the Part 142 consortium will meet in February 2020 and would lend itself to a discussion about implementation of the TSOC.

## 5.0 Other Considerations

The General Aviation International Authorization and Tabletop Exercises (GIATE) Working Group, cosponsored by the National Business Aviation Association and the FAA's Flight Standards Service, Flight Technologies and Procedures Division, recently submitted recommendations to standardize and expedite the review of LOAs.

The GIATE working group recommendations include the use of a risk analysis matrix to improve efficiency and reduce inconsistencies among operators being evaluated for the same LOA in different geographic locations. Other GIATE recommendations address the following:

- Communication Delays
- Unclear Guidance
- Inconsistent Tabletop Evaluations
- Preparing for Tabletop Exercises
- Delayed Use of New Aircraft

It is important to note that the two groups worked closely together, with some participants contributing to both working groups. The recommendations of the LOA Process Improvement Working Group complement and reinforce the recommendations of the GIATE working group, as well as vice-versa.

## Appendix A – Committee Charter

**Task Name:** LOA Process Improvement

**Date Accepted:** June 22, 2018

**Sponsors:** The working group is sponsored by the General Aviation Manufacturers Association (GAMA) and the FAA Flight Standards Service, Flight Technologies and Procedures Division.

**Tasking Statement:** The Letter of Authorization (LOA) Process Improvement working group will investigate how to better leverage Federal Aviation Administration (FAA) approvals and certification documents as part of individual operator's requests for authorization to conduct certain operations.

Modern transport category airplanes have a set of mostly standard communications, navigation, surveillance, and other capabilities including:

- Reduced Vertical Separation Minima (RVSM)
- Enroute Required Navigational Performance (RNP)
- Terminal Required Navigational Performance
- Controller Pilot Datalink Communications, Automatic Surveillance Contract, Performance Based Communication and Surveillance (CPDLC, ADS-C, PBCS),
- Automatic Dependent Surveillance – Broadcast Out (ADS-B Out) Outside U.S. designated airspace
- Enhanced Flight Vision System (EFVS)<sup>4</sup>
- High Level Airspace (HLA)
- Basic RNAV and Precision RNAV (B-RNAV/P-RNAV) Europe and RNAV 5
- RNP Approaches - Lateral Performance with Vertical Guidance (LPV) International

The working group should consider the following in this tasking:

- (1) How do original equipment manufacturers (OEMs) document relevant aircraft capabilities as part of type certification?
- (2) How do OEMs document continued airworthiness instructions to ensure the validity of aircraft CNS capabilities?
- (3) What mechanisms should operators, in coordination with the FAA, use to document aircraft compliance for new and recent production airplanes for which documentation has been accepted by the FAA as part of type certification?
- (4) How do training providers document compliance with advisory circulars concerning LOAs and FSB reports?

The group should determine the opportunities to improve the process for different cohorts of new airplanes (i.e., current production) where the configuration is standardized. The group should focus on Part 91 operators in the near-term, but also determine if any of the recommended processes are

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<sup>4</sup> EFVS capability in line with 14 Code of Federal Regulations (CFR) 91.176b

applicable to commercial operators such as Part 135. The group should consider implementation of at least one pilot project involving one OEM and one operator.

**Output:** The group will provide recommendations to the FAA about how to improve the process for LOA issuance. The group will also provide recommendations to aircraft and avionics OEMs about how to document aircraft capabilities in support of FAA processes. The group will also develop a plan for and support outreach and education as part of implementation of the recommendations.

**Related Activities:** The group should review results of the PARC RVSM AT (*i.e.*, AC 91-85) and lessons learned from its implementation and the GA International Authorizations and Tabletop Exercises Working Group.

**Scheduled of Activities:** The first meeting will occur in July-August 2018. The group will complete its work by September 2019.

**Resources Required:** The working group will be co-chaired by industry (Gulfstream) and FAA Flight Technologies and Procedures Division.

The FAA will support the working group with representation from Flight Standards Service, Air Transportation, Aircraft Maintenance, Flight Technologies and Procedures, and General Aviation and Commercial Operations Divisions, as well as and participants from Safety Assurance offices that have direct experience with issuing authorizations.

Industry participants will include aircraft OEMs, avionics vendors, and operators including representatives from associations, and training providers.

## Appendix B – Membership

Name	Title	Organization	Email Address
Fred “Jazz” Armstrong FAA Lead	Section Manager, Flight Operations Group	FAA, Flight Standards Service, Flight Technologies & Procedures Division	<a href="mailto:merrill.armstrong@faa.gov">merrill.armstrong@faa.gov</a>
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Isaac Messallem	Supervisor, Avionics Systems	Bombardier	<a href="mailto:isaac.messallem@aero.bombardier.com">isaac.messallem@aero.bombardier.com</a>
Aimee Hein	Head of Regulatory Affairs-Americas	CAE, Inc.	<a href="mailto:Aimee.hein@cae.com">Aimee.hein@cae.com</a>
Itash Samani	Head of Global FSTD Regulations	CAE, Inc.	<a href="mailto:ltash.samani@cae.com">ltash.samani@cae.com</a>
Chris Mitchell	Executive Director, Airworthiness	Cirrus Aircraft	<a href="mailto:cmitchell@cirrusaircraft.com">cmitchell@cirrusaircraft.com</a>
Alexandre Juliano Bianchi	Regulations & Flight Standards Director	Embraer	<a href="mailto:Alexander.bianchi@embraer.com.br">Alexander.bianchi@embraer.com.br</a>
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	Services, Flight Operations Group	Technologies & Procedures Division	
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Steven Davidson	Principal Avionics Inspector	FAA, Atlanta FSDO	<a href="mailto:Steven.L.Davidson@faa.gov">Steven.L.Davidson@faa.gov</a>
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Charles Fellows	Aviation Safety Inspector	FAA, Flight Standards Service, Aircraft Maintenance	<a href="mailto:Charles.Fellows@faa.gov">Charles.Fellows@faa.gov</a>
Scott Economy	Principal Aviation Safety Inspector, Certification Program Manager	FAA, Technical Aircraft Maintenance Branch	<a href="mailto:Scott.Economy@faa.gov">Scott.Economy@faa.gov</a>

## Appendix C – List of Meetings and External Briefings

September 12-13, 2018	Hosted by National Business Aviation Association
<ul style="list-style-type: none"><li>- General Aviation International Authorization and Tabletop Exercise Working Group, Brian Koester, NBAA</li><li>- Reduced Vertical Separation LOA Process, Steve Smoot, FAA</li></ul>	
October 31, 2018	Conference Call
January through March 2019 (No Meeting Due to Partial U.S. government shutdown.)	
April 15, 2019	Conference Call
May 22, 2019	Conference Call
June 24, 2019	Conference Call
July 10, 2019	Conference Call about IOM
July 15, 2019	Meeting with FAA Leadership for Update Briefing
<ul style="list-style-type: none"><li>- Rick Domingo, AFX-1</li><li>- Mark Steinbicker, AFS-400</li><li>- Everette Rochon, AFS-800</li></ul>	
July 18, 2019	Conference Call
August 26, 2019	Conference Call
September 23, 2019	Final Report Drafting Team Meeting, NBAA
October 16, 2019	Final Report Drafting Team, Conference Call
November 15, 2019	Conference Call about Training Statement of Compliance
December 10, 2019	Final Working Group Report Review – Part 1
December 17, 2019	Final Working Group Report Review – Part 2
January 17, 2020	Final Report Presented to FAA and Industry Sponsors
February 6, 2020	Implementation Kick-Off Meeting (Planned)

## Appendix D – Aircraft Statement of Capability: Example Only



AIRCRAFT STATEMENT OF CAPABILITY	
<b>Make:</b>	Gulfstream
<b>Model:</b>	GVII
<b>Series:</b>	500
<b>Aircraft Common Name:</b>	Gulfstream G500

This aircraft, as manufactured or modified by the listed manufacturer-approved methods, complies with all FAA requirements for the following operations:

Operation	Compliant	Applicability	Remarks	FAA Ref
<b>Datalink FANS</b>	<input checked="" type="checkbox"/>	SN 72001 and subsequent	RCP 240, RCP 180	<b>A056</b>
<b>Datalink ATN</b>	<input type="checkbox"/>	N/A	N/A	<b>A056</b>
<b>A-RNP</b>	<input checked="" type="checkbox"/>	SN 72001 and subsequent	N/A	<b>B036</b>
<b>RNP-2</b>	<input checked="" type="checkbox"/>	SN 72001 and subsequent	N/A	<b>B036</b>
<b>RNP-4</b>	<input checked="" type="checkbox"/>	SN 72001 and subsequent	N/A	<b>B036</b>
<b>RNP-10</b>	<input checked="" type="checkbox"/>	SN 72001 and subsequent	N/A	<b>B036</b>
<b>NAT HLA</b>	<input checked="" type="checkbox"/>	SN 72001 and subsequent	N/A	<b>B039</b>
<b>RVSM</b>	<input checked="" type="checkbox"/>	SN 72001 and subsequent	N/A	<b>B046</b>
<b>S-LRNS</b>	<input checked="" type="checkbox"/>	SN 72001 and subsequent	N/A	<b>B054</b>
<b>EFVS</b>	<input checked="" type="checkbox"/>	SN 72001 and subsequent	N/A	<b>C048</b>
<b>LPV minima</b>	<input checked="" type="checkbox"/>	SN 72001 and subsequent	N/A	<b>C052</b>
<b>TERMINAL RNP</b>	<input checked="" type="checkbox"/>	SN 72001 and subsequent	A-RNP/RNP1/RA/RNAV 1	<b>C063</b>
<b>MDA as DA</b>	<input checked="" type="checkbox"/>	SN 72001 and subsequent	N/A	<b>C073</b>

*Any third-party modifications (non-OEM derived STCs) to the aircraft may negate compliance.*

## A056

**Table 1 – Authorized Aircraft and Equipment for Data Link**

Aircraft M/M/S	Data Link System			Subnetworks	CSP	RCP	RSP	Limitations
	Manufacturer	Model	INTEROP Designator					
Gulfstream Aerospace GVII-500	Honeywell	Honeywell Symmetry	FANS 1/A (+) with push to load	VDL M0/A VDL M2 TSO- 160a or later/equivalent  SATCOM Inmarsat  SATCOM Iridium (if installed)	SITA (Satcom Direct/Hon eywell Go Direct)	RCP 240	RSP 180	N/A

## B036

**Table 1 – Authorized Airplane(s), Equipment**

Airplane M/M/S	Long-Range Navigation Systems (LRNS)			Navigation Specification(s)	Additional Capabilities	Limitations	RNP Time Limits
	Manufacturer	Model/HW Part #	Software Part/Ver#				
Gulfstream Aerospace GVII-500	Honeywell	EPIC EB50001	NGFMS	A-RNP, RNP 1, RNP 4, RNP 10	FRT	IAW AFM	UNL

## B046

**Table 1 – Airplanes Approved for RVSM**

Serial Number	Registration Number	Aircraft M/M/S	Remarks
[Enter S/N]	[Enter Reg #]	Gulfstream Aerospace GVII-500	N/A

## C048

**Table 1—Authorized Airplanes, Equipment, and EFVS operations**

Airplane M/M/S	EVS Sensor	Authorized EFVS Operation	Limitations and Provisions
Gulfstream Aerospace GVII-500	Rockwell Collins EVS3000	91.176(b)	None

**B054**

Airplane M/M/S	Long Range Navigation Systems (LRNS)			Navigation Specification(s)	Additional Capabilities	Limitations and Provisions
	Manufacturer	Model/HW Part #	Software Part/Version #			
Gulfstream Aerospace Corp./GVII- G500	Honeywell	EPIC EB50001034- 0102	NGFMS	RNP10	N/A	UNL

**C052**

**Table 1 – Authorized Instrument Approach Procedures**

Nonprecision Approach Procedures Without Vertical Guidance (LNAV and/or LP)	Approaches With Vertical Guidance (LNAV/VNAV and/or LPV)	Precision Approach Procedures (GLS)
RNAV (GNSS) - LNAV	RNAV (GNSS) – LNAV/VNAV RNAV (GLSS) – LPV	N/A

**C063**

**Table 1 – Airplane(s), RNAV Equipment, Navigation Specification(s)**

Airplane M/M/S	Compliant RNAV System(s) and Software			Navigation Specification(s)	Additional Capabilities	Limitations and Provisions
	Manufacturer	Model/HW Part #	Software Part/Version #			
Gulfstream Aerospace Corp./GVII- G500	Honeywell	EPIC EB50001034- 0102	NGFMS	A-RNP/RNP 1/TA/RNAV 1	N/A	IAW AFM

**C073**

Airplane M/M/S	Area Navigation System (Model/Version)	Remarks
Gulfstream Aerospace Corp./GVII- G500	Honeywell EPIC EB50001034-0102 NGFMS	N/A

FOR THE MANUFACTURER		
Name:	Signature:	Date:
FAA Review Mechanism:		

## Appendix E – Training Statement of Compliance – Draft Template

**[Insert Company Logo]**

### TRAINING STATEMENT OF COMPLIANCE

AIRCRAFT	
<b>Make:</b>	MAKE
<b>Model:</b>	MODEL
<b>Series:</b>	SERIES
<b>Aircraft Common Name:</b>	

The following courses comply with all FAA training requirements for the following operations:

Operation	Compliant (Sponsor Use)	FAR 142 (FAA Use Only)	Training Course(s)	Limitations
A056 Datalink FANS	<input type="checkbox"/>	<input type="checkbox"/>		
A056 Datalink ATN	<input type="checkbox"/>	<input type="checkbox"/>		
	<input type="checkbox"/>	<input type="checkbox"/>		
B036 A-RNP	<input type="checkbox"/>	<input type="checkbox"/>		
B036 RNP-2	<input type="checkbox"/>	<input type="checkbox"/>		
B036 RNP-4	<input type="checkbox"/>	<input type="checkbox"/>		
B036 RNP-10	<input type="checkbox"/>	<input type="checkbox"/>		
B036 and B054- Oceanic				
B039 NAT HLA	<input type="checkbox"/>	<input type="checkbox"/>		
B046 RVSM	<input type="checkbox"/>	<input type="checkbox"/>		
C048 EFVS	<input type="checkbox"/>	<input type="checkbox"/>		
C052 LPV minima	<input type="checkbox"/>	<input type="checkbox"/>		
C060 CAT II/III	<input type="checkbox"/>	<input type="checkbox"/>		

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<b>C063 RNP-1</b>	<input type="checkbox"/>	<input type="checkbox"/>		
	<input type="checkbox"/>	<input type="checkbox"/>		
	<input type="checkbox"/>	<input type="checkbox"/>		

Any modifications to the aircraft beyond those specifically listed on the manufacturers' statement of compliance may negate compliance.

For the training provider		
Name:	Signature:	Date:

For the FAA		
Name:	Signature:	Date:

**Instructions:**

1. It is intended that each approved Training Program have a type rating specific Training Statement of Compliance for satisfying the LOA crew training requirements.
2. **Column 2** is intended for the Training Provider to indicate their ability to meet all requirements for the intended LOA.
3. **Column 3** is intended to indicate courses approved under FAA 14 CFR Part 142 in which the TCPM has determined the training meets the requirement for LOA issuance.
4. Often a specialty or enrichment course, such as *International Procedures* (initial/or recurrent) is required, along with aircraft specific training. The full requirement to meet the entire training obligation should be on each Training Statement of Compliance in the "Training Courses" **column 4** as an "and/or" option.
5. **Column 5** is intended to indicate remarks applicable to the listed training courses (*e.g.*, EFVS training compliant for operations under 14 CFR Part 91.176(b) only)
6. Training Center signature should be that of the 142 Training Center Certificate Head of Training, or her/his designee.
7. FAA signature should be that of the TCPM, or her/his designee, as appropriate.

## Appendix E – Example 1 – Training Statement of Compliance

**[Insert Company Logo]**  
**TRAINING STATEMENT OF COMPLIANCE**

AIRCRAFT	
<b>Make:</b>	MAKE
<b>Model:</b>	
<b>Series:</b>	
<b>Aircraft Common Name:</b>	

The following courses comply with all FAA training requirements for the following operations:

Operation	Training Course(s)	Limitations	References
<b>A056 Datalink FANS</b>	Datalink Communications Course (Classroom) <i>Part 142</i> <input type="checkbox"/>		<ul style="list-style-type: none"> <li>AC 90-117</li> <li>AC 90-105</li> <li>AC 91-70</li> </ul>
	CPDLC (eLearning) <i>Part 142</i> <input type="checkbox"/>		
<b>A056 Datalink ATN</b>			
<b>B036 A-RNP</b>		FRT	<ul style="list-style-type: none"> <li>AC 90-105</li> <li>AC 91-70</li> </ul>
<b>B036 RNP-2</b>			<ul style="list-style-type: none"> <li>AC 90-105</li> <li>AC 91-70</li> </ul>
<b>B036 RNP-4</b>	International Procedures <i>Part 142</i> <input type="checkbox"/>		<ul style="list-style-type: none"> <li>AC 90-105A</li> <li>AC 91-70</li> </ul>
<b>B036 RNP-10</b>			<ul style="list-style-type: none"> <li>AC 90-105</li> <li>AC 91-70</li> </ul>
<b>B039 NAT HLA</b>	North Atlantic High altitude approval <i>Part 142</i> <input type="checkbox"/>		<ul style="list-style-type: none"> <li>AC 91-70B</li> </ul>
	International Procedures <i>Part 142</i> <input type="checkbox"/>		
<b>B046 RVSM</b>	Reduced vertical separation minimums <i>Part 142</i> <input type="checkbox"/>		<ul style="list-style-type: none"> <li>AC 91-85B;</li> </ul>



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	International Procedures <i>Part 142</i> <input type="checkbox"/>		
<b>C048 EFVS</b>	EFVS <i>Part 142</i> <input type="checkbox"/>		<ul style="list-style-type: none"> <li>• AC 20-167A</li> </ul>
<b>C052 LPV minima</b>	Localizer performance with vertical guidance <i>Part 142</i> <input type="checkbox"/>		
<b>C063 RNP-1</b>	RNP AR Pilot Training <i>Part 142</i> <input type="checkbox"/>		<ul style="list-style-type: none"> <li>• AMC 20-27</li> <li>• AMC 20-28</li> <li>• CAP773</li> <li>• FODCOM</li> </ul>
	International Procedures <i>Part 142</i> <input type="checkbox"/>		

Any modifications to the aircraft beyond those specifically listed on the manufacturers' statement of compliance may negate compliance.

For the training provider		
Name:	Signature:	Date:

For the FAA		
Name:	Signature:	Date:

## Appendix E – Example 2 – Training Statement of Compliance

**[Insert Company Logo]**

### TRAINING STATEMENT OF COMPLIANCE

AIRCRAFT	
<b>Make:</b>	
<b>Model:</b>	
<b>Series:</b>	
<b>Aircraft Common Name:</b>	

The following courses comply with all FAA training requirements for the following operations:

Operation	Training Course(s)	Compliant (Sponsor Use)	Limitations	References
<b>A056 Datalink FANS</b>	Datalink Communications Course (Classroom)	<input type="checkbox"/>		<ul style="list-style-type: none"> <li>AC 90-117</li> <li>AC 90-105</li> <li>AC 91-70</li> </ul>
	CPDLC (eLearning)	<input type="checkbox"/>	Not Part 142	
<b>A056 Datalink ATN</b>		<input type="checkbox"/>		
<b>B036 A-RNP</b>		<input type="checkbox"/>	FRT	
<b>B036 RNP-2</b>		<input type="checkbox"/>		
<b>B036 RNP-4</b>	International Procedures	<input type="checkbox"/>		<ul style="list-style-type: none"> <li>AC 90-105A</li> </ul>
<b>B036 RNP-10</b>		<input type="checkbox"/>		
<b>B039 NAT HLA</b>	North Atlantic High altitude approval	<input type="checkbox"/>		<ul style="list-style-type: none"> <li>AC 91-70B</li> </ul>
	International Procedures	<input type="checkbox"/>		
<b>B046 RVSM</b>	Reduced vertical separation minimums	<input type="checkbox"/>		<ul style="list-style-type: none"> <li>AC 91-85B;</li> </ul>
	International Procedures	<input type="checkbox"/>		
<b>C048 EFVS</b>	Gulfstream G280 EFVS	<input type="checkbox"/>		<ul style="list-style-type: none"> <li>AC 20-167A</li> </ul>
<b>C052 LPV minima</b>	Localizer performance with vertical guidance	<input type="checkbox"/>		

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<b>C063 RNP-1</b>	Gulfstream RNP AR Pilot Training	<input type="checkbox"/>		<ul style="list-style-type: none"> <li>• AMC 20-27</li> <li>• AMC 20-28</li> <li>• CAP773</li> <li>• FODCOM</li> </ul>
	International Procedures	<input type="checkbox"/>		

Any modifications to the aircraft beyond those specifically listed on the manufacturers' statement of compliance may negate compliance.

For the training provider		
Name:	Signature:	Date:

For the FAA		
Name:	Signature:	Date:
Title:		

## Appendix F – International Operations Manual Statement of Compliance

**[INSERT VENDOR'S NAME]**

### MANUAL STATEMENT OF COMPLIANCE

INTERNATIONAL OPERATIONS MANUAL	
Revision Number:	[insert Rev #]
Complies with requirements for:	A056 DATALINK

This manual revision complies with all FAA requirements for A056.

Procedure Requirement	Source	Compliant	Manual References
Documentation of procedures for establishing and maintaining voice communications (including any required SELCAL check(s)). <b>Note:</b> In-flight publications should include a listing of ATSU identifiers required for international operations.	( <a href="#">AC 90-117</a> , p. 5-5)	<input type="checkbox"/>	
Procedures and limitations applicable to data link communication equipment for both normal and emergency operations in compliance with <a href="#">AC 90-117</a> .	( <a href="#">AC 90-117</a> , p. 7-3 and p. 7-4)	<input type="checkbox"/>	
Documentation of data link monitoring process with procedures to address substandard performance.	( <a href="#">AC 90-117</a> , pp. 6-1 and 6-2)	<input type="checkbox"/>	
Documentation of procedures to report data link communication failures and/or problems. This should include contacting the appropriate Data Link Monitoring Agency (DLMA) for your area of operation.	( <a href="#">AC 90-117</a> , p. 8-1)	<input type="checkbox"/>	
Documentation of demonstrated performance results from: <a href="https://www.faa.gov/air_traffic/separation_standards/PBCS_Monitoring/">https://www.faa.gov/air_traffic/separation_standards/PBCS_Monitoring/</a> <b>Note:</b> If no data or insufficient data, then compliance is based on the SOC.	( <a href="#">AC 90-117</a> , p. 6-2)	<input type="checkbox"/>	

INTERNATIONAL OPERATIONS MANUAL	
Revision Number:	[insert Rev #]
Complies with requirements for:	B036 and B054 OCEANIC

This manual revision complies with all FAA requirements for B036.

Procedure Requirement	Source	Compliant	Manual References
Operational procedures for verifying the RNP value set in the FMS matches the equipment capability and authorizations as annotated in the ATC flight plan prior to entering oceanic and remote continental airspace.	<a href="#">AC 90-105()</a> , Appendices: E, F, and G, paragraphs: E.9.5.5, F.8.3.5, and G.11.3.5	<input type="checkbox"/>	
Established operating procedures for the RNP system and how those procedures are controlled. Checklist for LRNS operation.	<a href="#">AC 90-105()</a> , Chapter 7, paragraph 7.5.1., Item 2 and 3	<input type="checkbox"/>	
If aircraft is equipped with Global Navigation Satellite System (GNSS) only systems, documentation of an approved GNSS availability prediction program ensuring the requisite availability of the GNSS Fault Detection and Exclusion (FDE) function.	<a href="#">AC 90-105()</a> , Appendices: E, F, and G, paragraphs L E.8.2.1, F.4.3.1 and G.7.1	<input type="checkbox"/>	
Pilot procedures for the manual entry of waypoints (i.e., latitude and longitude) for <a href="#">flexible route structures</a> if applicable to the operation. Documentation of how such manually entered points are displayed on the navigation display and in the FMS (i.e., how they are labeled / named).	<a href="#">AC 90-105()</a> , Appendices: E, F, and G, paragraphs: E.9.5, F.8.3, and G.11.3.1	<input type="checkbox"/>	
LRNS preflight procedures and included pilot procedures to confirm the correct route is loaded.	<a href="#">AC 91-105()</a> , Appendix F and G, paragraph: F.8.3.1 and G.11.3.2; <a href="#">AC 91-70()</a> , Chapter 6, paragraph 6.3, Chapter 7, paragraph 7.4.2	<input type="checkbox"/>	
Pilot cross-checking procedures to identify navigation errors in sufficient time to	<a href="#">AC 91-105()</a> , Appendices E and F,	<input type="checkbox"/>	

<p>prevent an inadvertent deviation from ATC-cleared routes. Procedures should include cross-checking aircraft position at a point approximately 10 minutes after oceanic waypoint passage using one of the following methods:</p> <ul style="list-style-type: none"> <li>• Manually plotting on a chart, or</li> <li>• Use of aircraft FMS-driven navigation displays and indications.</li> </ul>	<p><i>paragraphs: E.9.5.6 and F.8.3.5, ; <a href="#">AC 91.70()</a>, Chapter 6, paragraph 6.4.8.2</i></p>		
<p>Checklist used for oceanic operations.</p>	<p><a href="#">AC 91-70()</a>, <i>Appendix D</i></p>	<input type="checkbox"/>	
<p>Emergency and contingency procedures. These procedures may be due to:</p> <ul style="list-style-type: none"> <li>• Inability to comply with assigned clearance due to meteorological conditions, aircraft performance, or pressurization failure.</li> <li>• En route diversion across the prevailing traffic flow.</li> <li>• Loss of, or significant reduction in, the required navigation capability when operating in airspace where the navigation performance accuracy is a prerequisite to the safe conduct of flight operations.</li> </ul> <p>Includes procedures for performing turn back and diversion procedures.</p>	<p><a href="#">AC 91-70()</a>, <i>Appendix F</i></p>	<input type="checkbox"/>	
<p>Operational procedures for performing Strategic Lateral Offset Procedure (SLOP).</p>	<p><a href="#">AC 90-105()</a>, <i>Appendices: E, F, and G: paragraph E.9.5.8 and F.8.3.8; <a href="#">AC 91-70()</a>, paragraph 6.4.3.4.2</i></p>	<input type="checkbox"/>	
<p>For multi-sensor systems, pilot procedures to verify the correct sensor is being used for position computation.</p>	<p><a href="#">AC 90-105()</a>, <i>Appendices: E, F, and G, paragraphs: E.9.6, F.8.3.11, and G.11.3.10</i></p>	<input type="checkbox"/>	

<b>INTERNATIONAL OPERATIONS MANUAL</b>	
<b>Revision Number:</b>	<b>[insert Rev #]</b>
<b>Complies with requirements for:</b>	<b>B046 RVSM</b>

**This manual revision complies with all FAA requirements for B046.**

<b>Procedure Requirement</b>	<b>Source</b>	<b>Compliant</b>	
Verify aircraft approved for RVSM operations	<i>FAA AC 91-85B, Appendix B, Para. B.3.1.1</i>	<input type="checkbox"/>	
Minimum equipment requirements pertaining to height-keeping systems	<i>FAA AC 91-85B, Appendix B, Para. B.3.1.4</i>	<input type="checkbox"/>	
Reported and forecast weather conditions on the route of flight. Sources of observed and forecast information that can help the pilot ascertain the possibility of MWA or severe turbulence are: Forecast Winds and Temperatures Aloft (FD), Area Forecast (FA), SIGMETs and PIREPS.	<i>FAA AC 91-85B, Appendix B, Para. B.3.1.3</i>	<input type="checkbox"/>	
Annotating the flight plan to be filed with the ATS Provider to show that the aircraft and operator are approved for RVSM operations.	<i>FAA AC 91-85B, Appendix B, Para. B.3.1.2</i>	<input type="checkbox"/>	
If required for the aircraft, accounting for any RVSM required aircraft operating restrictions.	<i>FAA AC 91-85B, Appendix B, Para.B.3.1.6</i>	<input type="checkbox"/>	
Review maintenance logs and forms. Ensure maintenance action has been taken to correct defects of required equipment.	<i>FAA AC 91-85B, Appendix B, Para. B.3.2.1</i>	<input type="checkbox"/>	
During the external inspection of the aircraft, particular attention should be paid to the condition of the static sources etc.	<i>FAA AC 91-85B, Appendix B, Para. B.3.2.2</i>	<input type="checkbox"/>	

Before takeoff, the aircraft altimeters should be set to the local altimeter atmospheric pressure at nautical height (QNH) setting and should display a known elevation (e.g., field elevation) within the limits specified in aircraft operating manuals. The difference between the known elevation and the elevation displayed on the altimeters should not exceed 75 ft. The two primary altimeters should also agree within limits specified by the aircraft operating manual/AFM, as applicable. An alternative procedure using atmospheric pressure at field elevation (QFE) may also be used.	<i>FAA AC 91-85B, Appendix B, Para. B.2.3</i>	<input type="checkbox"/>	
Before takeoff, equipment required for flight into RVSM airspace should be operational and malfunctions resolved.	<i>FAA AC 91-85B, Appendix B, Para. B.3.2.4</i>	<input type="checkbox"/>	
List RVSM equipment that must be operational prior to RVSM airspace entry.	<i>FAA AC 91-85B, Appendix B, Para. B.3.3</i>	<input type="checkbox"/>	
Operating Transponder. The operator should ascertain the requirement for an operating transponder in the airspace where operating.	<i>FAA AC 91-85B, Appendix B, Para. B.3.3</i>	<input type="checkbox"/>	
Flightcrew should comply with aircraft operating restrictions related to RVSM airworthiness approval <b>(if applicable)</b> .	<i>FAA AC 91-85AB, Appendix B, Para. B.3.4.1</i>	<input type="checkbox"/>	
Emphasis should be placed on promptly setting the sub-scale on all primary and standby altimeters to 29.92 in. Hg/1013.2 hPa when passing through the Transition Altitude and rechecking the proper altimeter setting when reaching the initial cleared flight level (CFL).	<i>FAA AC 91-85AB, Appendix B, Para. B.3.4.2</i>	<input type="checkbox"/>	
In level cruise it is essential that the aircraft is flown at the CFL. Clearances must be fully understood and followed.	<i>FAA AC 91-85AB, Appendix B, Para. B.3.4.3</i>	<input type="checkbox"/>	
During cleared transition between levels, the aircraft should not be allowed to overshoot or undershoot the CFL by more than 150 ft. (45m).	<i>FAA AC 91-85AB, Appendix B, Para. B.3.4.4</i>	<input type="checkbox"/>	
Unless circumstances dictate otherwise, an automatic altitude control system should be operative and engaged during cruise, etc.	<i>FAA AC 91-85AB, Appendix B, Para. B.3.4.5</i>	<input type="checkbox"/>	



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An altitude alerting system should be operational.	<i>FAA AC 91-85AB, Appendix B, Para. B.3.4.6</i>	<input type="checkbox"/>	
At intervals of approximately one hour, cross-checks between the primary altimeters and the standby altimeter should be made. A minimum of two primary altimeters must agree within 200 ft. or a lesser value if specified in the aircraft operating manual.	<i>FAA AC 91-85B, Appendix B, Para. B.3.4.7, B.3.4.8</i>	<input type="checkbox"/>	
The difference between the primary and standby altimeters should be noted for use in contingency situations. At least the initial altimeter crosscheck should be recorded.	<i>FAA AC 91-85B, Appendix B, Para. B.3.4.8</i>	<input type="checkbox"/>	
Normally the altimeter system being used to control the aircraft should be selected to provide the input to the altitude reporting transponder that is transmitting the information to ATC.	<i>FAA AC 91-85B, Appendix B, Para. B.3.4.9</i>	<input type="checkbox"/>	
If the pilot is notified by ATC of an assigned altitude deviation error, which exceeds 300 ft., then the pilot should take action to return to the CFL as quickly as possible.	<i>FAA AC 91-85B, Appendix B, Para. B.3.4.9</i>	<input type="checkbox"/>	
Contingency Procedures within RVSM airspace. Pilots should notify ATC of contingencies which affect ability to maintain the CFL and coordinate a plan of action.	<i>FAA AC 91-85B, Appendix B, Para. B.3.6</i>	<input type="checkbox"/>	
In making maintenance log book entries against malfunctions in height keeping systems, the pilot should provide sufficient detail to enable maintenance to effectively troubleshoot and repair the system.	<i>FAA AC 91-85B, Appendix B, Para. B.3.7</i>	<input type="checkbox"/>	

FOR THE MANUAL VENDOR		
Name:	Signature:	Date:
FAA REVIEW AND ACCEPTANCE		
Name:	Signature:	Date:
<p><b><i>Expires at the end of the twenty-fourth month following acceptance.</i></b></p> <p><b><i>The manual vendor must have a change management process acceptable to the FAA for incorporating updated information in a timely manner.</i></b></p>		

## Appendix G – Proposed Amendment to 8900 – Example

*This appendix provides an example of how of OPSPEC/MSPEC/LOA C063 would be updated and includes in red text the proposed changes to enable the use of the alternative process for the issuance of LOAs.*

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### **OPSPEC/MSPEC/LOA C063—AREA NAVIGATION (RNAV) AND REQUIRED NAVIGATION PERFORMANCE (RNP) TERMINAL OPERATIONS.**

- A. General.** The authorization provided by OpSpec/MSpec/LOA C063 is applicable to certificate holders/operators/program managers conducting operations under 14 CFR parts 91 subpart K (part 91K), 121, 125 (including A125 Letter of Deviation Authority (LODA) holders), and 135. (For 14 CFR part 129, see Volume 12, Chapter 2, Section 5.)
- 1) OpSpec/MSpec/LOA C063 authorizes certificate holders/operators/program managers to conduct operations using 14 CFR part 97 U.S. instrument flight rules (IFR) terminal Area Navigation 1 (RNAV 1) and/or Required Navigation Performance 1 (RNP 1) departure procedures (DP) and RNAV 1 and/or RNP 1 Standard Terminal Arrival Routes (STAR) in the National Airspace System (NAS). This guidance addresses RNAV 1, RNP 1, and other RNAV flight operations. It also provides guidance authorization for certificate holders/operators/program managers to conduct RNP 1 procedures that include Radius to Fix (RF) path terminators and Tailored Arrivals (TA). Part 91 operators do not need to obtain an LOA for RNAV 1 or RNP 1 operations.
  - 2) The term “RNAV 1 DP” or “RNP 1 DP” includes Standard Instrument Departures (SID) and Obstacle Departure Procedures (ODP).
  - 3) RNP 1 requires a Global Positioning System (GPS) and additional requirements for operating on procedures that contain RF legs, as outlined in the current edition of Advisory Circular (AC) 90-105, Approval Guidance for RNP Operations and Barometric Vertical Navigation in the U.S. National Airspace System and in Oceanic and Remote Continental Airspace.
  - 4) RF legs are an optional capability rather than a minimum requirement for RNP 1 operations. However, RF capability is required for Advanced RNP (A-RNP) certificate holders. For RNP 1 systems incorporating RF leg capability, the systems must comply with the requirements in AC 90-105, Appendices C, H, and I.
- B. Determining Eligibility for RNP 1 and RNAV 1.**
- 1) RNP Compliance. AC 90-105 provides the minimum criteria for RNP systems to operate on RNP routes and procedures. Manufacturers should evaluate their systems against these criteria and document the RNP capabilities as per guidance in AC 90-105.
  - 2) Certificate holders/operators/program managers and pilots should use the guidance in AC 90-100, U.S. Terminal and En Route Area Navigation (RNAV) Operations, to determine their eligibility for domestic U.S. RNAV 1 terminal procedures. For the purpose of this authorization, “compliance” means meeting operational and functional performance criteria.

NOTE: Per AC 90-100 and AC 90-105, data suppliers and avionics data suppliers must have an LOA in accordance with the current edition of AC 20-153, Acceptance of Aeronautical Data Processes and Associated Databases. Operators must ensure that data supplier(s) are compliant.

Aircraft/equipment with approval under AC 90-100 for use of GPS are approved under AC 90-105 for RNP operations.

- 3) RNAV 1 procedures require distance measuring equipment (DME)/DME/Inertial Reference Unit (IRU) sensors and/or GPS inputs. Due to gaps in the DME infrastructure of the NAS, RNAV 1 procedures require IRU sensor inputs to augment DME/DME, which is often referred to as DME/DME/IRU.
- 4) RNP 1 operations are based on GPS positioning and, if adequate coverage is available, DME/DME/IRU.
- 5) The certificate holder/operator/program manager is responsible for providing equipment eligibility documented by the Airplane Flight Manual (AFM) or other FAA-recognized means. If the operators are unable to determine that the aircraft is eligible, they must provide the following required documentation for RNAV 1 and/or RNP 1 terminal procedures to the certificate-holding district office (CHDO):
  - a) RNAV system make, model, and part number(s);
  - b) Evidence of compliance with AC 90-100 or AC 90-105 criteria;
  - c) Crew operating procedures;
  - d) Evidence of control of operation procedures;
  - e) Crew training program;
  - f) Evidence of control of navigation database processes; and
  - g) Any other pertinent information.
- 6) Based on the information supplied by the operator, the principal operations inspector (POI) must coordinate with the principal avionics inspector (PAI) to determine equipment eligibility. If unable to determine eligibility, contact the FAA Performance-Based Flight Systems Branch (AFS-470).
  - a) As described in the AC 90-100 and AC 90-105, the term “compliance” means meeting the operational and functional performance criteria. For the intended purpose of this policy, “compatible” means equipment and systems that perform their intended function and meet performance requirements for RNAV 1 and RNP 1 operations.
  - b) The PAI determines the proper nomenclature of the equipment manufacturer’s make, model, and software version, and verifies the RNAV equipment and system is installed in accordance with approved data and meets the criteria of the most recent version of AC 90-100 or AC 90-105. To ensure the proper configuration control of the approved RNAV operating system, it is required to list both the hardware and the software part numbers or version/revision numbers in Table 1 of OpSpec C063.
  - c) If the CHDO is unable to determine equipment eligibility for RNAV 1 or RNP 1 DPs and STARs, contact AFS-470 for guidance.
- 7) Based on the information supplied by the certificate holder/operator/program manager, the POI must coordinate with the PAI to determine if the aircraft’s system meets the performance and functionality requirements for RNP 1 operations. The equipment must not permit the flightcrew to select a procedure or route that is not supported by the equipment, either manually or automatically (e.g., a procedure is not supported if it incorporates an RF leg and the equipment does not provide RF leg capability). The system must also restrict pilot access to procedures

requiring RF leg capability if the system can select the procedure, but the aircraft is not otherwise equipped (e.g., the aircraft does not have the required roll steering autopilot or flight director (FD) installed).

- 8) Some RNAV equipment and systems may not be able to perform multiple STAR runway transitions, sometimes known as route Type 3, because of database limitations. Operators of such RNAV systems must procure a tailored database and charts to allow the use of multiple runway transitions in order to qualify for RNAV 1 and/or RNP 1 approval.
  - 9) After the POI and PAI agree that the certificate holder's/operator's/program manager's navigation equipment, procedures, and flightcrew training are eligible for authorization(s) in Table 1, the OpSpec/MSpec/LOA C063 template may be issued, indicating the appropriate bundled authorizations as follows:
    - A-RNP, RNP 1, TA, RNAV 1;
    - RNP 1, RF, TA, RNAV 1;
    - RNP 1, RF, RNAV 1;
    - RNP 1, TA, RNAV 1;
    - RNP 1, RNAV 1; or
    - RNAV 1.
  - 10) Every effort should be made to bundle qualifications within the hierarchy of an OpSpec/MSpec/LOA where applicable and also combine other OpSpecs/MSpecs/LOAs as desired by qualified operators. (Refer to AC 90-105).
  - 11) A-RNP Authorization. In paragraph C063, Table 1 provides an option for six bundled options starting with A-RNP, RNP 1 with TA. Lesser bundles are also available with the following options: RNP 1 with RF and TA and RNAV 1; RNP 1 with RF and RNAV 1; RNP 1 with TA and RNAV 1; RNP 1 and RNAV 1; or RNAV 1 only. As a minimum for A-RNP, the certificate holder must be qualified for the following advanced capabilities: scalability, RF, and parallel offset. Operators applying for A-RNP must be functionally and operationally capable of performing the required A-RNP functions and meet the continuity requirements for the operation.
  - 12) Additional Capabilities. A-RNP functions Fix Radius Transition (FRT) and/or Time of Arrival Control (TOAC) may be selected in Table 1 under additional capabilities for those who qualify for A-RNP.
- C. RNAV 1 and/or RNP 1 DPs and STARs.** AC 90-100 provides detailed guidance for certificate holders/operators/program managers regarding operations on RNAV 1 DPs and STARs. AC 90-105 provides guidance for system and operational approval for conducting RNP 1 DPs and STARs.
- 1) For current ACs, policy, guidance, and compliance tables, see [http://www.faa.gov/about/office\\_org/headquarters\\_offices/avs/offices/afs/afs400/afs470/pbn](http://www.faa.gov/about/office_org/headquarters_offices/avs/offices/afs/afs400/afs470/pbn). For further questions, contact the Performance Based Flight Systems Branch (AFS-470) at 202-267-8790. Based on the information supplied by the certificate holder/operator/program manager, the POI must coordinate with the PAI to determine equipment eligibility. For TAs, a Future Air Navigation System (FANS)-1/A is required, as indicated in OpSpec/MSpec/LOA A056.

- 2) Additional information may also be found in the Web-based Operations Safety System (WebOPSS) guidance associated with OpSpec/MSpec/LOA C063 by clicking on “Guidance.”
- D. Outlining Procedures Using This Approval.** Procedures used under this approval should be outlined in the appropriate operations manual or within the OpSpec/MSpec/LOA C063 template for certificate holders/operators/program managers conducting operations under parts 91K, 125 (including A125 LODA holders), and 135 who do not have an operations manual. For part 91 operators, LOAs are optional and may be obtained through the application process.
- E. Designation of RNAV 1 RNP 1.** U.S. RNAV DPs and STARs throughout the NAS are designated as RNAV 1 and published in accordance with part 97.
- F. Definitions Related to This Authorization.** Some important definitions as they relate to this authorization are as follows:
- 1) Instrument Departure Procedure (DP). Instrument DPs are published IFR procedures that provide obstruction clearance from the terminal area to the en route structure. There are two types of DPs: SIDs and ODPs.
    - a) A SID is a published IFR air traffic control (ATC) DP that provides obstacle clearance and a transition from the terminal area to the en route structure. SIDs are primarily designed for air traffic system enhancement to expedite traffic flow and to reduce pilot/controller workload.
    - b) An ODP is a published IFR DP that provides obstruction clearance via the least onerous route from the terminal area to the appropriate en route structure. ODPs are recommended for obstruction clearance unless an alternate DP (such as a SID or radar vector) has been specifically assigned by ATC.
    - c) The RNAV 1 or RNP 1 DP must be retrievable from the flight management system (FMS) database and included in the filed flight plan.
- G. Certificate Holders and Program Managers Authorized European Precision Area Navigation (P-RNAV) Operations.** The criteria in AC 90-100, required for U.S. RNAV procedures, are generally consistent (but there are exceptions) with the criteria for P-RNAV operations in Europe.
- 1) P-RNAV terminal and en route operations require a track-keeping accuracy of  $\pm 1$  NM for 95 percent of the flight time.
  - 2) If an operator has met the requirements for and is authorized P-RNAV (OpSpec/MSpec/LOA B034), that operator may also be eligible for RNAV 1 after consideration of the issues listed below regarding equipment. POIs should still evaluate their operator’s procedures and training to confirm compliance with AC 90-100.
    - a) If approval for the P-RNAV included the use of Very High Frequency omni-directional range station (VOR)/DME, then RNAV system performance must be based on the GNSS, DME/DME, or DME/DME/IRU for RNAV 1. However, VOR/DME inputs do not have to be inhibited or deselected.
    - b) If approval for the P RNAV included the use of DME/DME, the operator can ask the manufacturer or check the FAA website for a list of compliant systems. However, DME/DME-only systems are not authorized to conduct RNAV 1 operations.
    - c) Operators must be able to follow RNAV guidance no later than 500 feet above field elevation (AFE).

- 3) Appropriate P-RNAV references.
  - a) The current edition of AC 90-96, Approval of U.S. Operators and Aircraft to Operate Under Instrument Flight Rules (IFR) in European Airspace Designated for Basic Area Navigation (B-RNAV) and Precision Area Navigation (P-RNAV);
  - b) Joint Aviation Authority (JAA) temporary guidance leaflet (TGL) Number 10, Airworthiness and Operational Approval for Precision RNAV Operations in Designated European Airspace; and
  - c) Volume 3, Chapter 18, Section 4, OpSpec/MSpec/LOA B034.
- H. **TAs.** Currently, the TA model is limited and TAs are preplanned fixed routes received via data link from ATC's Ocean21 system to FANS-1/A-equipped aircraft. Except for the instrument approach portion of the operation, these routes are neither stored in the aircraft navigation database nor published.
  - 1) TAs Consist of Three Elements.
    - Delivery of the TA clearance through the ATC Ocean21 system via data link to FANS-1/A-equipped aircraft;
    - An RNAV lateral, vertical, and speed profile; and
    - Connection to a published instrument approach stored in the aircraft navigation database.
  - 2) TA Clearances. Because TAs are complex clearances, only aircraft with an FMS autoload/uplink function can request a TA. Pilots may not manually enter a TA procedure into the FMS. ATC issues TA clearances. Pilots fly the TA procedure according to the operator's standard operating procedures (SOP).
  - 3) Approval. The POI should contact the Air Transportation Division (AFS-200), General Aviation and Commercial Division (AFS-800), and AFS-470 at FAA headquarters (HQ) for concurrence prior to issuing the appropriate OpSpec, MSpec, or LOA. If the POI, AFS-200, and AFS-470 agree that the operator is authorized to conduct TA operations, authorization should be given by adding TA into the "Authorization" column of Table 1.
  - 4) Certificate holders/operators/program managers must have all the following OpSpecs/MSpecs/LOAs for TA authorization:
    - a) OpSpec A056. OpSpec A056 will include FANS-1/A equipment in Table 1.
    - b) OpSpec B050.
    - c) OpSpec C063. In the "Limitations and Provisions" column of Table 1 add the following phrase: "Operator is authorized to conduct TAs with FANS-1/A-equipped aircraft listed in OpSpec A056." If the POI wishes to restrict the authorization to only specific airports, this may also be added to the "Limitations and Provisions" column of Table 1.
- I. **Alternate Approval Method for Part 91 Operators.** An alternate, streamlined method has been approved for Inspectors to approve Part 91 Letters of Authorization for Part 91 operators. It consists of three items to be reviewed and accepted:
  - 1) **Aircraft.** An OEM "Aircraft Statement of Capability" or AFM pages to show the aircraft is capable of the proposed operation. If subsequent modifications (SB, ASC, etc.) are done to

enable these capabilities, the operator will need to also submit documentation showing the modifications have been applied to that aircraft.

- 2) **Pilot Training.** Operators may submit a Part 142 training provider's "Training Statement of Compliance" or training program syllabus to show that the training that will be used for pilots will meet all applicable requirements of the proposed operation. It remains the operator's responsibility to ensure all pilots are properly trained prior to conducting the proposed operation.
- 3) **Operational Procedures.** Operators may submit a Manual Vendor's "Statement of Compliance" to show the operator has procedures for all proposed operations. It remains the operator's responsibility to ensure that these operations are revised to ensure currency.

Once these three items have been reviewed by the Inspector and found satisfactory, the Inspector may issue a Part 91 Letter of Authorization.

NOTE: An Operator may choose to use either this alternate method or the existing method for approving Part 91 Letters of Authorization. In order to use the alternative method, the Operator must provide all the required information by the alternative method.

**J. References (current editions):**

- Title 14 CFR Part 91, §§ 91.123, 91.205, and 91.503.
- Title 14 CFR Part 95.
- Title 14 CFR Part 121, § 121.349.
- Title 14 CFR Part 125, § 125.203.
- Title 14 CFR Part 135, § 135.165.
- Order 1050.1, Environmental Impacts: Policies and Procedures.
- Order JO 7100.9, Standard Terminal Arrival Program and Procedures.
- Order JO 7110.65, Air Traffic Control.
- Order JO 7400.2, Procedures for Handling Airspace Matters.
- Order 8260.3, United States Standard for Terminal Instrument Procedures (TERPS).
- Order 8260.19, Flight Procedures and Airspace.
- Order 8260.58, United States Standard for Performance Based Navigation (PBN) Instrument Procedure Design.
- AC 20-153, Acceptance of Aeronautical Data Processes and Associated Databases.
- AC 90-45, Approval of Area Navigation Systems for Use in the U.S. National Airspace System.
- AC 90-96, Approval of U.S. Operators and Aircraft to Operate Under Instrument Flight Rules (IFR) In European Airspace Designated for Basic Area Navigation (B-NAV)/RNAV 5 and Precision Area Navigation (P-RNAV).
- AC 90-100, U.S. Terminal and En Route Area Navigation (RNAV) Operations.
- AC 90-105, Approval Guidance for RNP Operations and Barometric Vertical Navigation in the U.S. National Airspace System.

- TSO C-129a, Airborne Supplemental Navigation Equipment Using the Global Positioning System (GPS).
- TSO C-145(), Airborne Navigation Sensors Using the Global Positioning System (GPS) Augmented by the Wide Area Augmentation System (WAAS).
- TSO C-146(), Stand-Alone Airborne Navigation Equipment Using the Global Positioning System (GPS) Augmented by the Wide Area Augmentation System (WAAS).
- TSO C-196(), Airborne Supplemental Navigation Sensors for Global Positioning System Equipment using Aircraft-Based Augmentation.
- ICAO Global Operational Data Link Document (GOLD).



## Appendix H – Standardized LOA Application

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# ***FLIGHT TECHNOLOGIES AND PROCEDURES DIVISION***

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## **Part 91 Letters of Authorization**



## **Streamlined Part 91 LOA Application**

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Version: 01.20



## FLIGHT TECHNOLOGIES AND PROCEDURES DIVISION



Federal Aviation Administration  
Flight Technologies and Procedures Division  
470 L'Enfant Plaza, Suite 4102  
Washington, DC 20024

**Phone: (202) 267-4623**

## Document Changes

Version	Date	Description of Change
01.20	January 1, 2020	Initial Issue of the Streamlined LOA Application

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Section

1

## Section 1: Introduction

This Streamlined LOA Application was developed by the Federal Aviation Administration (FAA) to provide Part 91 operators with a streamlined, organized method for submitting content for Part 91 Letters of Authorization. Use of this streamlined method is optional, but when used, it can expedite the application process.

This document uses the term “Principal Inspector (PI)” which may be a Principal Operations Inspector (POI), Principal Avionics Inspector (PAI) or Principal Maintenance Inspector (PMI).

For new applications, operators should schedule a pre-application meeting or teleconference with the controlling Flight Standards Office (FS).



We appreciate any feedback to improve this application.

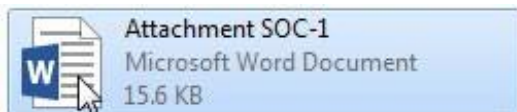
Contact the [Flight Technologies and Procedures Division](#) at: (202) 267-8790

## Instructions

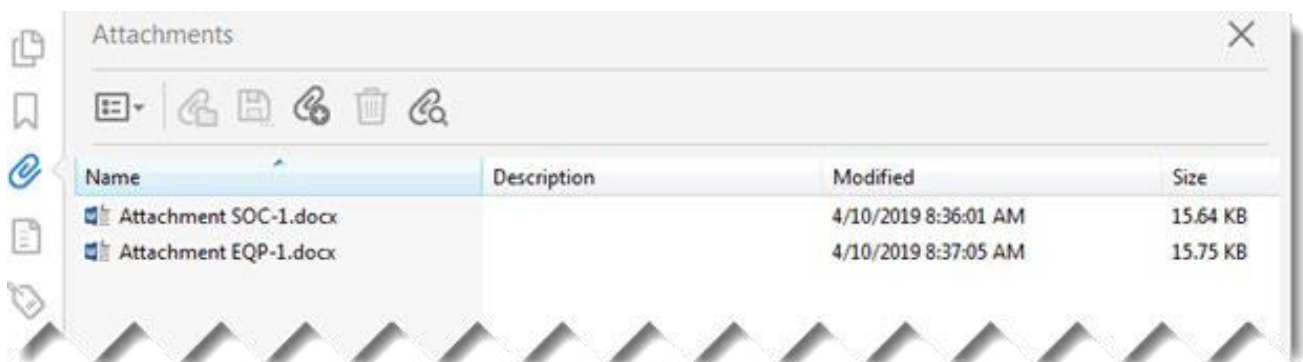
1. Use the fill-in-the-blank portion of this guide ([pages 11-13](#)) which includes a letter of request explaining your intentions.
2. **Supporting Documentation Attachments** - If you have one of the latest versions of Acrobat, we would prefer that you attach files to the compliance guide using the Acrobat attachment feature listing each reference number that is hyperlinked to compliance documentation and highlighted. Send your application with all the attachments in one folder. When using this method, use the naming convention for the folder name and the compliance guide. This method will result in ONE PDF WITH ATTACHMENTS.

To add attachments:

- a. Click the Paper Clip icon  in the left margin
- b. To Add Files click the  and browse for the file attachment on your computer.
- c. Click on file to attach it to the compliance guide.



- d. Use the steps above until all the required attachments are listed with reference numbers.



**Table 1: Summary of Letters of Authorization for which this Streamlined Application may be used:**

LOA	Operation	Remarks
A056	Data Link Communication	
B034	Navigation Equipment Eligibility to Operate in Terminal and En Route Airspace Designated as P-RNAV and/or B-RNAV/RNAV 5 Airspace	P/RNAV (+/- 1NM) or B/RNAV (+/- 5NM)
B036	Oceanic and Remote Continental Navigation Using Multiple Long-Range Navigation Systems (M-LRNS)	Limited to A-RNP/RNP 2/RNP 4/ RNP 10
B039	Operations in North Atlantic High Level Airspace (NAT HLA)	
B046	Operations in Reduced Vertical Separation Minimum (RVSM) Airspace	
B054	Oceanic RNP 10 Operations Using A Single Long-Range Navigation System	
C048	Enhanced Flight Vision System (EFVS) Operations	Limited to 91.176(b) operations only
C052	Straight-in Non-Precision, Approach Procedure with Vertical Guidance (APV), and Category I Precision Approach and Landing Minima - All Airports	Limited to RNAV (GNSS) – LNAV, RNAV (GNSS) – LP, RNAV (GNSS) - LNAV/VNAV RNAV (GNSS) – LPV approaches. No GLS approaches
C063	Area Navigation (RNAV) and Required Navigation Performance (RNP) Terminal Operations	RNP 1 and RNAV 1
C073	Vertical Navigation (VNAV) Instrument Approach Procedures (IAP) Using Minimum Descent Altitude (MDA) as a Decision Altitude (DA) / Decision Height (DH)	
D095	MMEL Used as an MEL	Not for use with customized MELs – must use D195 for these



## Naming Convention

Use the following file naming convention when submitting this document and folder (if using Acrobat option).

**LOA\_Application\_Company/Name\_Date(XX\_XX\_XXXX)\_Version\_Number\_(VX)**

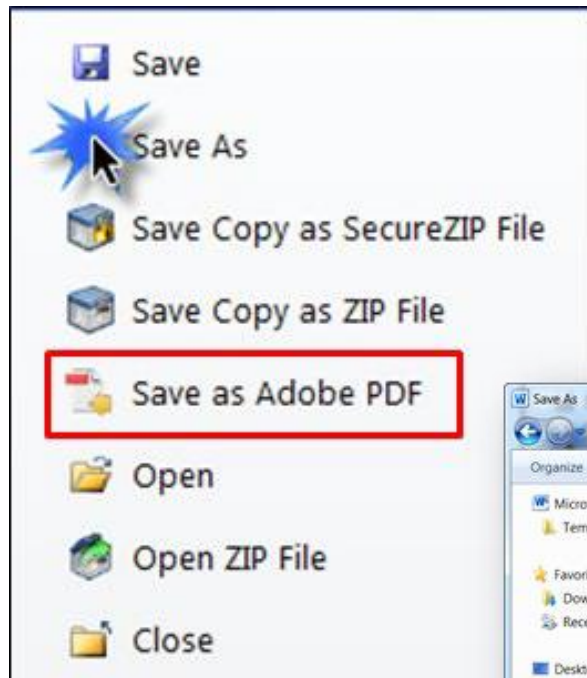
**Example: LOA\_Application\_ABCIndustries\_02\_29\_2016\_V2**

Use the following file naming convention when submitting your attachments.

**LOA\_Attachments\_Company/Name\_Date(XX\_XX\_XXXX)\_Version\_Number\_(VX)**

**Example: LOA\_Attachments\_ABCIndustries\_02\_29\_2016\_V2**

**Note:** Version numbers are used in order for the PI to distinguish between a re-submittal of an application and the original which should be labeled beginning with V1.

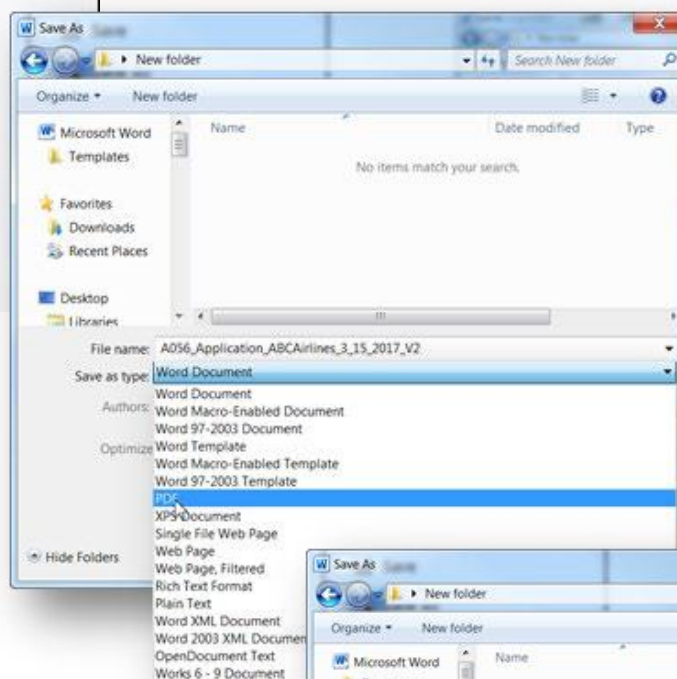


### Step 1:

In MS Word, select “Save As” under File Menu or select “Save as Adobe PDF” and skip Step 2

### Step 2:

Select “PDF” under “Save as type”



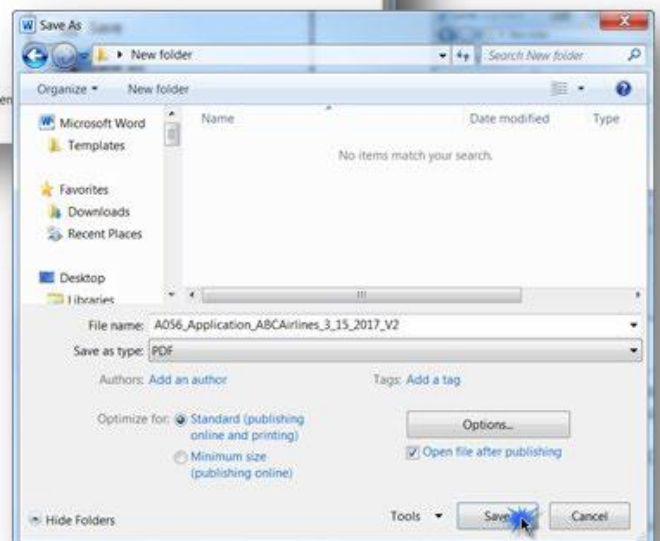
### Step 3: Saving file with naming convention.

Use the following naming convention with underlines “\_” as shown:

**LOA\_Application\_Your\_Company\_Name\_Date\_Version**

**Example:**

**LOA\_Application\_ABCIndustries\_02\_29\_2016\_V2**



## Section 2: Letter of Request

The operator listed below is requesting the following Part 91 Letters of Authorization:

<input type="checkbox"/> A056 Datalink	<input type="checkbox"/> B046 RVSM	<input type="checkbox"/> C063 RNP-1
<input type="checkbox"/> B034 PRNAV	<input type="checkbox"/> B054 RNP10 Single LRNS	<input type="checkbox"/> C073 VNAV MDA as a DA
<input type="checkbox"/> B036 Oceanic / Remote RNP	<input type="checkbox"/> C048 EFVS (91.176(b) only)	<input type="checkbox"/> D095 MMEL
<input type="checkbox"/> B039 NAT HLA	<input type="checkbox"/> C052 LPV	

### Operator Information

- Operator's Official (legal) Name and Primary Business Address

<b>Name:</b>
<b>Address:</b>
<b>City:</b>
<b>State:</b>
<b>Zip Code:</b>
<b>Phone Number:</b>

- Operator's Mailing Address (if applicable)

<b>Name:</b>
<b>Address:</b>
<b>City:</b>
<b>State:</b>
<b>Zip Code:</b>

## Personnel Information

- Agent for Service Name and Address (if applicable)

<b>Name:</b>
<b>Address:</b>
<b>City:</b>
<b>State:</b>
<b>Zip Code:</b>
<b>E-mail:</b>
<b>Phone:</b>

- Responsible Person

<b>Name:</b>
<b>Title:</b>
<b>E-mail:</b>
<b>Phone:</b>

- Point of Contact (where required if not the same as Responsible Person)

<b>Name:</b>
<b>Title:</b>
<b>E-mail:</b>
<b>Phone:</b>

## Aircraft Information

- Aircraft Information

Manufacturer:	
Model/Series:	
Registration Number:	

- General

Nose Number:	
Serial Number:	
Type Section 119:	NOT APPLICABLE
Kind of Operation:	Flight
Configuration:	

- Aircraft Passenger Seats

Certificated Seats:	
Installed Seats:	

- Detail

Noise Stage:	
Class of Operation:	
Enroute Type:	

- Authorizations (Select ALL that apply)

Select ALL Authorizations:	
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The following describes the required supporting documentation for use with this Streamlined Part 91 Letters of Authorization Application:

### Aircraft Statement of Capability:

Check Box	SOC Attachment
<input type="checkbox"/>	Attach the Manufacturer's Statement of Capability showing the aircraft is capable for the requested operations as manufactured or modified by the listed manufacturer-approved methods.

### Training Statement of Compliance:

Check Box	SOC Attachment
<input type="checkbox"/>	Attach the Training Statement of Compliance from your selected Training Provider showing the course(s) meets all FAA training requirements for the requested operations.

### Manual Statement of Compliance:

Check Box	SOC Attachment
<input type="checkbox"/>	Attach the Manual Statement of Compliance from your selected International Operations Manual Provider showing manual revision complies with all FAA requirements for A056, B036, and B046 per the current version of the FAA Data Link Communications Compliance Guide, the FAA Oceanic and Remote Continental Navigation Compliance Guide, and the RVSM LOA Job Aid.