

Enhanced Flight Vision System (EFVS) Application Guide (Revision 3: 3/8/2021)

Purpose. This guide consolidates the items specified in Advisory Circular 90-106 (current version) necessary for Flight Standards to process a part 91 LOA C048 application for operations under § 91.176(a) or (b), as applicable. This includes pilot requirements specified under § 61.66. This guide is intended to aid Flight Standards personnel in determining the acceptability of an operator's application for EFVS operation and provide for an efficient and timely review. Operators should refer to AC 90-106, current version, for the explanation of what is recommended versus what is a regulatory requirement. This guide provides a companion to that AC but does not constitute the only way to comply with recommended items. An inspector and an applicant might find using this guide useful in the application and evaluation process.

Guidance for Principal Inspectors. Prior to accepting an applicant's EFVS application, the Principal Inspector must ensure the proposal contains documentation that demonstrates compliance with each applicable requirement.

1. To assist applicants with organizing their application, provide them with a copy of this guide during the initial meeting and advise them to complete the checklist and include it as part of their application.
2. For Part 91 operators, the AFM(S) provides operating procedures for using EFVS and an EFVS operating manual is not required, however, if the operator chooses to provide additional procedures, they should be included as an exhibit.
3. When the operator's application is received, complete your review of the exhibits using their checklist as reference.

Note: Resolve any items in this checklist missing from the application with the applicant prior to authorizing C048. Contact Flight Technologies and Procedures Division, EFVS Policy Point of Contact (POC) for assistance.

Guidance for Part 91 Applicants. An application is required to gain FAA authorization LOA C048 for operations to be conducted under § 91.176(a). To assist in processing the authorization this guide may be used to prepare acceptable exhibits for the LOA application. Part 91 operators may request an optional LOA C048 for EFVS Operations to 100 feet Above the Touchdown Zone Elevation under § 91.176(b), and are not required to do an operational demonstration but are encouraged to participate in the voluntary data collection program (see information provided below).

1. Review AC 90-106 EFVS current version and, if applicable, EFVS OSR.
2. Complete Parts 1 & 2 of the *EFVS Operator Application Guide*.
3. Include supporting documents.
4. Forward application to the Principal Inspector.
5. Complete the checklist for each Make/Model/Series aircraft to be used during EFVS operations.

EFVS Operator Application Guide Part 1: Basic Information

Date of Application: ____/____/____

Point of contact information?

POC Name	E-mail Address	Telephone Number

“Responsible Person” designated on the authorization (if different from the responsible person)

Name	E-mail Address	Telephone Number

Aircraft information

Make	Model	Series

EFVS Information

Sensor Manufacturer	Sensor Model
<input type="checkbox"/> Collins	<input type="checkbox"/> EVS-3000 <input type="checkbox"/> EVS-3600
<input type="checkbox"/> Universal Avionics	<input type="checkbox"/> EVS-5000 (FalconEye, ClearVision)
<input type="checkbox"/> Esterline CMC Electronics	<input type="checkbox"/> CMA-2600 <input type="checkbox"/> CMA-2700
<input type="checkbox"/> Kollsman	<input type="checkbox"/> EVS-I <input type="checkbox"/> EVS-II <input type="checkbox"/> EVS-III(SP)
<input type="checkbox"/> Other _____	<input type="checkbox"/> _____

Note: EFVS information may not be in the airplane flight manual, or the aircraft manufacturer may have branded the original sensor differently. The Operational Suitability Report, *EFVS Operational Credit for Enhance Flight Vision Systems (EFVS)* includes an appendix that may help identify Aircraft-EFVS combinations. The applicant may have to contact the aircraft manufacturer to properly identify the installed sensor if there is any uncertainty.

Which EFVS Operation(s) are you applying for? (Check all that apply)

- EFVS Operations to Touchdown and Rollout - § 91.176(a)
- EFVS Operation to 100 Feet Above the Touchdown Zone Elevation - § 91.176(b)

Are you interested in participating in a voluntary pilot feedback program?

Yes

The pilot feedback program is designed to facilitate issuance of authorizations and collect data on EFVS availability and sensor performance. For information on the program and enrolling contact the following:

Daniela Kratchounova, Ph.D.
Federal Aviation Administration
Civil Aerospace Medical Institute
6500 S. MacArthur Blvd.
Oklahoma City, OK 73169
Email: Daniela.Kratchounova@faa.gov
Phone: (405) 954-6841

No

Additional information or comments may be attached.

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Part 2: Operator Exhibits/Documents

Correspondence to the FAA		
Q1	Does the application include correspondence that clearly summarize the aircraft, equipment, and operations for which the applicant is seeking authorization? The information in Part 1 of this guide should be sufficient.	Y N
Q2	Does the correspondence describe the organization of the application in a manner that is intended to help facilitate review of the application?	Y N
Q3	Is the correspondence in a form acceptable to the FAA Office issuing the authorization? FAA Offices may have unique administrative requirements for document processing. Applicants should check with their local office to see what is acceptable.	Y N
Airworthiness Documentation for the EFVS		
Q1	Does the documentation identify the EFVS operations for which the EFVS is eligible? This is typically a specific statement in the AFM or AFMS.	Y N
Pilot Logbook or Training Record Endorsements		
Q1	<p>Do the pilots currently employed have the appropriate documentation of EFVS training?</p> <ul style="list-style-type: none"> • If the pilots received their EFVS training after March 13, 2018, do they have the logbook or training record endorsement meeting the requirements of § 61.66? <p>For example, the endorsement should look similar to: (Pilot Name) has satisfactorily completed the ground training required by § 61.66(a) and has received the flight training required by § 61.66(b) for EFVS operations and is proficient in the use of EFVS in the [appropriate aircraft category in which the ground and flight training was conducted] category of aircraft for EFVS operations conducted under [§ 91.176(a), (b), or both § 91.176(a) and (b)].</p>	Y N

	<ul style="list-style-type: none"> • If a pilot was conducting EFVS operations prior to March 13, 2018 and wishes to continue conducting EFVS operations, can they provide evidence of EFVS training (previously issued LOA C048, logbook entry, type rating certificate showing EFVS training, certificate from the training provider, etc.)? • If a pilot has a logbook or training record endorsement showing satisfactory completion of Supplementary Training for EFVS Operations to Touchdown and Rollout (§ 91.176(a)) in accordance with § 61.66(c), can they provide evidence of training received for EFVS Operations to 100 Feet Above the Touchdown Zone Elevation (§ 91.176(b))? 	
Q2	Do you have a means to ensure that any future pilots conducting EFVS operations in the aircraft meet the training requirements of § 61.66?	Y N
Q3	It is clear who is responsible for ensuring the pilots conducting the EFVS operations are properly trained in accordance with § 61.66?	Y N
EFVS Provisions in the Master Minimum Equipment List		
Q1	Does the MMEL or proposed MEL contain appropriate operator and maintenance procedures that considers all applicable components of the EFVS?	Y N
Letter of Authorization, C048 (DRAFT)		
Q1	Is the authorization template filled out correctly to reflect the aircraft, EFVS, and EFVS operation in the application? (see WebOPSS and FSIM guidance)	Y N

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Part 3: Operator Demonstration Planning

Plans to observe and evaluate the operator's ability to perform EFVS operation in an aircraft or simulator may be impractical. This phase may be conducted through tabletop exercises and/or operational monitoring. The following topics may be covered in this phase at the discretion of the inspector.

Q1	Can you describe any supplemental EFVS procedures developed outside the FAA approved training in the application? Demonstration of these items may be required.	Y N
Q2	Can you describe your procedures for tracking EFVS recent flight experience?	Y N
Q3	Can you identify and explain any EFVS operational limitations included in the EFVS section(s) of the AFM or AFMS?	Y N
Q4	Can you describe how you comply with the EFVS manufacturer's ICAs?	Y N
Q5	Have you signed up to participate in the voluntary FAA pilot feedback program? Participation in the program may assist in completing the evaluation.	Y N