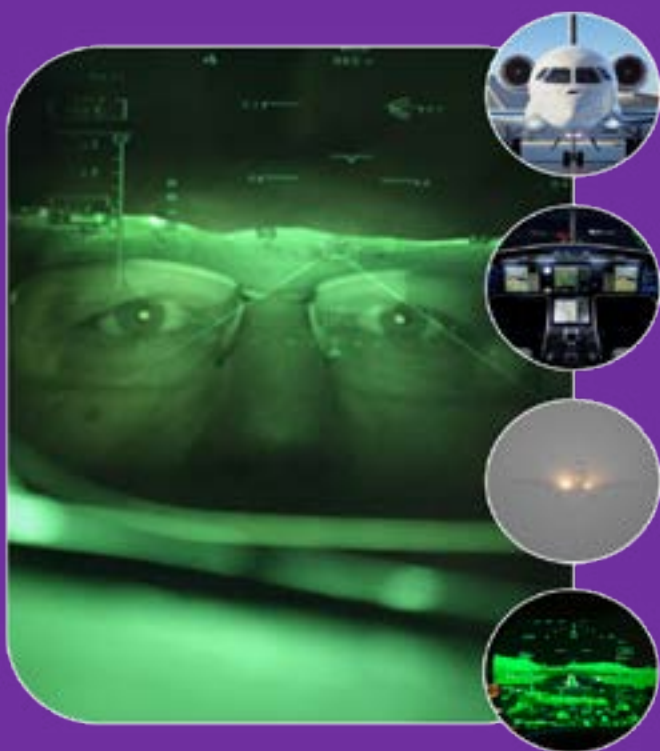


FLIGHT TECHNOLOGIES AND PROCEDURES DIVISION



Part 121 OpSpec C048 EFVS Application Guide

Revision 3 (10/19/2022)

This guide was developed by the Federal Aviation Administration, Flight Technologies and Procedures Division. Please submit any questions regarding EFVS policy to: 9-AVS-AFS-EFVS@faa.gov

Inspectors:

FAA inspector guidance is located in FAA Order
8900.1, Volume 4, Chapter 17, Section 4

NextGEN



Section 1 | Overview

1.1 Purpose

This guide can be used to prepare an application for OpSpec C048 in accordance with the recommendations found in AC 90-106.

1.2 Applicability

This guide can be used by part 121 operators to request an FAA authorization OpSpec C048 for EFVS operations to touchdown and rollout under § 91.176(a), OpSpec C048 for EFVS operations to 100 feet above the touchdown zone elevation under § 91.176(b), or both operations on the same authorization.

1.3 Instructions

1. Schedule a pre-application meeting with an aviation safety inspector at your FAA Safety Assurance Office. The purpose of this meeting is to clarify the process and to identify the appropriate documentation that should be submitted.

Note: EFVS resources and guidance can be found on the [FAA's EFVS webpage](#).

2. Complete Section 2 of this EFVS Application Guide.

3. Attach supporting documents identified in Section 3.

4. This application guide contains the items specified in AC 90-106 and, when completed, may be used as an application for OpSpec C048. Forward the completed application guide to the Principal Inspector. It is preferred to submit the completed application guide electronically utilizing the Operations Approval Portal System (OAPS) or email.





Section 2 | Application Form

Date:

2.1 Point Of Contact Information:

This is the person to contact for questions about the application.

Contact Name:

Contact Phone:

Contact Email:

2.2 Operator Information:

Operator Name:

Operator Four Letter Designation (*if known*):

Business Address:

Suite:

City:

State:

Zip Code:

Region:

Country:

2.3 Aircraft Location:

Airport Name:

Airport Identifier:

2.4 Aircraft Information:

Make:

Registration Number(s):

Model:

Series:

Serial Number(s):



2.5 Installed EFVS Equipment:

Sensor Manufacturer (Check System(s))	Sensor Model (Check Model(s))
Collins Aerospace	EVS-3000 EVS-3600
Universal Avionics	EVS-5000 (Falcon Eye, ClearVision)
Esterline Electronics	CMA-2600 CMA-2700
Kollsman	EVS-I EVS-II EVS III (SP)
Other	

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 Enhanced 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.

2.6 EFVS Operation(s)

Check the EFVS Operation(s) you plan to conduct with this aircraft (Check all that apply)

Check Box	EFVS Operation(s)
<input type="checkbox"/>	EFVS Operations to Touchdown and Rollout - § 91.176 (a)
<input type="checkbox"/>	EFVS Operation to 100 Feet Above the Touchdown Zone Elevation - § 91.176 (b)

2.7 EFVS Operational Credit

Are you applying to use EFVS operational credit? (Check all that apply)

Check Box	EFVS Operational Credit
<input type="checkbox"/>	No, I am not applying to use EFVS operational credit. (Proceed to Section 2.8)
<input type="checkbox"/>	Yes, ground personnel responsible for dispatching flights will use EFVS operational credit to determine the minimum forecast visibility for dispatching a flight to the destination airport. (§ 121.613)
<input type="checkbox"/>	Yes, pilots will use EFVS operational credit to determine the minimum reported visibility to execute an approach using an EFVS. (§ 121.651)

The Flight Technologies and Procedures Division evaluates available performance data from numerous sources to determine a recommends a standard credit for the EFVS sensor. An operator applying for EFVS operational credit that elects to use the standard credit recommended in the Operational Suitability Report (OSR), Operational Credit for Enhanced Flight Vision Systems would avoid the burden of demonstrating system performance in the application process and would also ease the burden of the issuing FAA office which may expedite the processing time and issuance of OPSpec C048. Select the EFVS operational credit are you applying for.

Requested EFVS Operational Credit		
25%	33%	50%
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



2.8 EFVS User Feedback



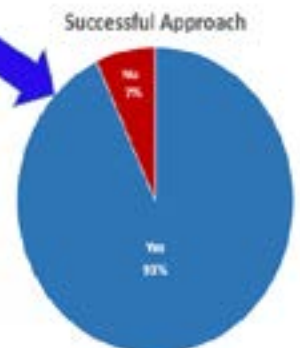
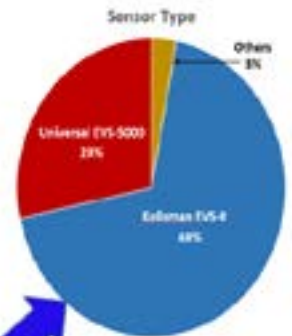
The Flight Technologies and Procedures Division EFVS specialist collects information from willing pilots via a web-form found on the FAA's EFVS webpage. There are no user names, passwords, or agreements to sign. The data submitted is anonymous and will help inform future EFVS operational credit and policy.

EFVS User Feedback web-form is located at: www.faa.gov/efvs/feedback

Do your pilots plan to use the EFVS Pilot Feedback Program? YES NO



EFVS Operations						
Date	EFVS Sensor	Airport	IAP Visibility Minimums	Actual Visibility	Obscuration Type	Did the Pilot See the Visual References
11/6/2018	Kollsman EVS II	KSLN	1/2 mi	1/4 mi		No
11/6/2018	Kollsman EVS II	KHPG	1800 ft	1200 ft	FG	Yes
11/8/2018	Kollsman EVS II	KSLN	1/2 mi		FZFG	No
11/9/2018	Kollsman EVS II	ETLH	1/2 mi	1/4 mi		Yes
12/11/2018	Kollsman EVS II	KHTS	3400 ft	2200 ft		Yes
12/14/2018	Kollsman EVS II	KRST	1800 ft	1200 ft	FZFG	Yes
12/26/2018	Kollsman EVS II	KHTS	4000 ft	1000 ft	FZFG	Yes
2/12/2019	Kollsman EVS II	KRSW	1800 ft	1400 ft	FG	Yes
6/7/2019	Kollsman EVS II	KBUF	1800 ft	1200 ft		Yes
7/6/2019	Kollsman EVS II	KSGF	1800 ft	1200 ft	FG	Yes



Section 3 | Attachments

This section is for attachments. Only provide the necessary page(s)/paragraph(s) to establish compliance and any additional documents the inspector identified during the pre-application meeting. Providing extraneous material will slow down the processing time.

3.1 EFVS Aircraft Eligibility

Check Box	Airworthiness Documentation
	<p>Attach the documentation that states the EFVS installed on the aircraft is eligible for use in the specific EFVS operation(s) for which you are requesting in 2.6 above. This is typically a specific statement in the AFM or AFMS.</p> <p>Note: Only provide the page or pages of the AFM(S) that contain that specific statement.</p>
	<p>Attach the AFM or AFMS statements that identify any operating limitations. These will be used to verify adequacy of the operating manuals and the training program.</p>

3.2 EFVS Operating Manuals

Check Box	Operating Manuals
	<p>Attach sections of applicable operating manuals (Airplane Operations Manual (AOM), Flight Operations Manual (FOM), pilot's operating handbook (POH), and/or quick reference handbook (QRH)), that contain the operators EFVS procedures. The manual should reflect the EFVS operating limitations from the AFM(S).</p>



3.3 EFVS Curriculum and Crew Qualifications

Check Box	EFVS Curriculum and Crew Qualifications
	<p>Attach information that shows the initial EFVS pilot training curriculum includes the required ground training subjects in § 61.66(a) and flight training tasks in § 61.66(b).</p> <p>Note: Reference AC 90-106B, Appendix A.</p>
	<p>Attach documentation that shows the proficiency check includes the appropriate items listed in Part 121 Appendix F for the EFVS operation(s) the certificate holder is authorized to conduct.</p>
	<p>Pilots conducting EFVS operations must have a compliant logbook or training record endorsement for the operation(s) they have been trained to conduct. Provide an example of a pilot training record endorsement.</p>

3.4 EFVS Provisions in the Minimum Equipment List (MEL)

Check Box	EFVS Provisions in the MEL
	<p>If the applicant is seeking MEL relief for EFVS, attach the proposed MEL that contains the appropriate operations and maintenance procedures that consider all applicable components of the EFVS for MEL submission, review, and approval.</p>

3.5 Request to Use EFVS Operational Credit

Check Box	Request to Use EFVS Operational Credit
	<p>Is the request based on the standard credit published in the Operational Suitability Report (OSR), Operational Credit for Enhanced Flight Vision Systems?</p> <p>Note: If a credit is requested that is greater than what is recommended in the OSR, the application should include proposal to demonstrate sensor performance (visual advantage). AC 20-167 (current edition) and RTCA DO-390 should be referenced for the standard methods used to demonstrate quantified visual advantage.</p>



3.6 EFVS Maintenance Procedures

Check Box	EFVS Maintenance Procedures
	Does the applicant have a means to comply with the EFVS manufacturer’s Instructions for Continued Airworthiness (ICAs)?
	If the applicant is responsible for the training of maintenance personnel, attach the EFVS training curriculum for maintenance personnel as described in AC 90-106 (current edition).

3.7 Draft Operations Specification (OpSpec) C048

Check Box	Draft OpSpec C048
	<p>If possible, the applicant should submit a properly completed draft OpSpec C048 template that correctly reflects the aircraft, EFVS, and EFVS operation. An applicant should coordinate with the responsible Flight Standards Safety Assurance office in order to create a draft authorization that is filled out accurately. All templates are found via WebOPSS at: https://webopss.faa.gov/</p> <p>Note: Is the authorization template filled out correctly to reflect the aircraft, EFVS, EFVS operation(s), and EFVS operational credit (if applicable) specified in the application? Refer to WebOPSS and FAA Order 8900.1, Volume 4, Chapter17, Section1 for guidance.</p>



Section 4 | Demonstration

The FAA's process for approval and acceptance includes observing and evaluating the operator's ability to perform the proposed operation(s) in accordance with the procedures, guidelines, and parameters described in the operator's formal proposal. The means for meeting the operational demonstration objectives and an appropriate timeline are explained in AC 90-106 (current edition).

4.1 Operator Demonstration Proposal

Check Box	Demonstration Items
Be prepared to demonstrate:	
	Amendments to manuals, procedures, and checklists for EFVS operations have been appropriately incorporated and distributed to all applicable personnel?
	EFVS maintenance practices are conducted in accordance with MEL, ICAs, and other manufacturer's guidance?
	EFVS training for flightcrews, maintenance personnel, and persons authorized to exercise operational control provides the knowledge, skills, and competency to safely conduct EFVS operations?
	The ability of flightcrews and persons authorized to exercise operational control of an aircraft (e.g., dispatch, release, etc.) to properly plan and dispatch/release a flight in accordance with the regulations, applicable operating credit, and conditions or limitations in the operator's authorization?
	The ability of qualified flightcrews to conduct EFVS operations in accordance with the regulations, applicable operating credit, and conditions or limitations in the operator's authorization?