

NOTICE

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

N 8900.482

National Policy

Effective Date:
9/11/18

Cancellation Date:
9/11/19

SUBJ: OpSpec/MSpec/LOA C048/MC048, Enhanced Flight Vision System (EFVS) Operations

1. Purpose of This Notice. This notice provides notification of a nonmandatory revision to operations specification (OpSpec), management specification (MSpec), and letter of authorization (LOA) C048/MC048, applicable to Title 14 of the Code of Federal Regulations (14 CFR) parts 91, 91 subpart K (91K), 121, 125 (including part 125 Letter of Deviation Authority (LODA) holders), 129, and 135, and provides revised guidance for the completion and issuance of this authorization.

2. Audience. The primary audience for this notice is certificate-holding district offices (CHDO), Flight Standards District Offices (FSDO), International Field Offices (IFO), certificate management offices (CMO), principal inspectors (PI), and aviation safety inspectors (ASI). The secondary audience includes Flight Standards Service policy divisions and branches.

3. Where You Can Find This Notice. You can find this notice on the MyFAA employee website at https://employees.faa.gov/tools_resources/orders_notices. Inspectors can access this notice through the Flight Standards Information Management System (FSIMS) at <http://fsims.avs.faa.gov>. Operators can find this notice on the Federal Aviation Administration's (FAA) website at <http://fsims.faa.gov>. This notice is available to the public at http://www.faa.gov/regulations_policies/orders_notices.

4. Background. Enhanced Flight Vision System (EFVS) operations are conducted under part 91, § 91.176 and authorized through issuance of OpSpec/MSpec/LOA C048/MC048. The Aircraft Certification Service (AIR) and Flight Standards are evaluating demonstrated performance of an EFVS to determine eligibility for operational credit. Operational credit is the ability to use a lower visibility than that prescribed by the instrument approach procedure (IAP) to be flown. Flight Standards adjusted the templates to accommodate a means of authorizing that capability. PIs must contact the EFVS Focal Point in the Flight Technologies and Procedures Division when issuing C048. In addition, inspector guidance for filling out the C048 authorization currently in FAA Order 8900.1, Volume 3, Chapter 18, Section 5, Part C Operations Specifications—Airplane Terminal Instrument Procedures and Airport Authorizations and Limitations, was moved to Order 8900.1, Volume 4, Chapter 17, Enhanced Flight Vision Systems (EFVS) Operations.

5. Guidance. The Flight Technologies and Procedures Division developed this guidance in cooperation with the International Program Division, the Air Transportation Division, and the General Aviation and Commercial Division.

a. FAA Order 8900.1. The following Order 8900.1 sections provide instructions on EFVS application evaluations and correctly completing the OpSpec/MSpec/LOA C048/MC048 template in the Web-based Operations Safety System (WebOPSS):

(1) Volume 4, Chapter 17:

- Section 1, Safety Assurance System: Evaluating an Application for OpSpec/MSpec/LOA C048, Enhanced Flight Vision System (EFVS) Operations; and
- Section 2, Safety Assurance System: Instructions to Complete OpSpec/MSpec/LOA C048, Enhanced Flight Vision System (EFVS) Operations.

(2) Volume 12, Chapter 2, Section 5, Part 129 Part C Operations Specifications—Airplane Terminal Instrument Procedures and Airport Authorizations and Limitations.

Note: Volume 3, Chapter 18, Section 5 now refers the inspector to Volume 4, Chapter 17 for all EFVS guidance. Section 1 contains the inspector procedures for evaluating the operator's application, and Section 2 contains instructions for completing the templates.

b. Templates. This notice contains the following:

- The sample OpSpec C048 template in Appendix A applies to part 121.
- The sample OpSpec C048 template in Appendix B applies to part 125.
- The sample OpSpec C048 template in Appendix C applies to part 129.
- The sample OpSpec C048 template in Appendix D applies to part 135.
- The sample OpSpec C048 template in Appendix E applies to part 121/135.
- The sample MSpec MC048 template in Appendix F applies to part 91K.
- The sample LOA C048 template in Appendix G applies to part 91 operators (other than part 91K) operating under § 91.176(a).
- The sample LOA C048 template in Appendix H applies to part 125 A125 LODA holders.

6. Action. This is a nonmandatory template change. PIs should review the revised guidance along with their operators' issued OpSpecs, MSpecs, or LOAs and reissue if applicable. Any initial issuance of this authorization or amendments to existing authorizations must be issued in compliance with these adjusted templates and guidance.

7. Disposition. Inspector guidance for issuing these authorizations will be incorporated into Order 8900.1 before this notice expires. Direct questions concerning the information in this notice to the Flight Technologies and Procedures Division, Flight Operations Branch (AFS-410) at 202-267-4743.

A handwritten signature in black ink, appearing to read "Rick Domingo", with a stylized flourish at the end.

Rick Domingo
Executive Director, Flight Standards Service

**Appendix A. Sample OpSpec C048 Enhanced Flight Vision System (EFVS)
Operations: 14 CFR Part 121**

- a. The certificate holder is authorized to conduct the Enhanced Flight Vision System (EFVS) operations under 14 CFR part 91, § 91.176 specified in this operations specification.
- b. Authorized Airplanes, Equipment, and EFVS Operations. The certificate holder is authorized to conduct the EFVS operations using the airplanes and equipment listed in Table 1.

Table 1 – Authorized Airplanes, Equipment, and EFVS Operations

Airplane (M/M/S)	EFVS System/Sensor	EFVS Operation(s)	EFVS Operational Credit
(With sub-list attribute)	(Drop Down)	(Drop Down)	(Drop Down)

- c. Provisions: Minimum Visibility for Use with EFVS.

(1) (SELECTABLE) The certificate holder is authorized to reduce the visibility minimums required to dispatch or release an airplane to destination airports under 14 CFR part 121, § 121.613 and, in accordance with § 121.651, to begin the Final Approach Segment (FAS) of an instrument approach procedure (IAP), or continue an IAP past the final approach fix (FAF), at an airport, in accordance with the EFVS Operational Credit in Table 1. Reducing minimums for use with EFVS:

(a) Is not authorized until the requirements of § 121.652 are met.

(b) Is not authorized for the dispatch or flight release of an airplane to destination airports unless personnel assigned to dispatch/flight release duties have successfully completed the certificate holder's approved EFVS training.

(c) Is not authorized for meeting alternate airport weather requirements for dispatch or flight release purposes.

**Table 2A – Determining IAP Visibility Minimums with EFVS (Runway Visual
Range (RVR))**

Visibility Required Without the Use of EFVS	25% Reduction Minimum Visibility with the Use of EFVS	33% Reduction Minimum Visibility with the Use of EFVS	50% Reduction Minimum Visibility with the Use of EFVS
1400	1100	1000	1000
1800	1400	1200	1000
2000	1500	1300	1000
2200	1700	1500	1100
2400	1800	1600	1200
2600	2000	1700	1300
3000	2300	2000	1500

3500	2600	2300	1800
4000	3000	2700	2000
4500	3400	3000	2300
5000	3800	3400	2500
5500	4100	3700	2800
6000	4500	4000	3000

Table 2B – Determining IAP Visibility Minimums with EFVS (Statute Mile)

Visibility Required Without the Use of EFVS	25% Reduction Minimum Visibility with the Use of EFVS	33% Reduction Minimum Visibility with the Use of EFVS	50% Reduction Minimum Visibility with the Use of EFVS
1/2	3/8	1/4	1/4
5/8	1/2	3/8	3/8
3/4	1/2	1/2	3/8
7/8	5/8	1/2	1/2
1	3/4	5/8	1/2
1 1/8	1	3/4	5/8
1 1/4	1	3/4	5/8
1 3/8	1	1	3/4
1 1/2	1 1/8	1	3/4
1 5/8	1 1/4	1	3/4
1 3/4	1 3/8	1 1/8	7/8
1 7/8	1 3/8	1 1/4	1
2	1 1/2	1 3/8	1
2 1/2	1 7/8	1 1/2	1 1/4
3	2 1/4	2	1 1/2

(1) (ALTERNATE) The certificate holder is not authorized to use an EFVS to reduce the visibility minimums required to dispatch or release an airplane to destination airports under § 121.613 or to begin the Final Approach Segment (FAS) of an instrument approach procedure (IAP), or continue an IAP past the final approach fix (FAF), at an airport in accordance with § 121.651.

[Check this box if you are entering Conditions and Limitations in the text box below per coordination with the AFS-400 EFVS Focal Point.]

d. Conditions and Limitations:

[Text Box]

**Appendix B. Sample OpSpec C048, Enhanced Flight Vision System (EFVS)
Operations: 14 CFR Part 125**

- a. The certificate holder is authorized to conduct the Enhanced Flight Vision System (EFVS) operations under 14 CFR part 91, § 91.176 specified in this operations specification.
- b. Authorized Airplanes, Equipment, and EFVS Operations. The certificate holder is authorized to conduct the EFVS operations using the airplanes and equipment listed in Table 1.

Table 1 – Authorized Airplanes, Equipment, and EFVS Operations

Airplane (M/M/S)	EFVS System/Sensor	EFVS Operation(s)	EFVS Operational Credit
(With sub-list attribute)	(Drop Down)	(Drop Down)	(Drop Down)

- c. Provisions: Minimum Visibility for Use with EFVS.

(1) (SELECTABLE) The certificate holder is authorized to reduce the visibility minimums required to release an airplane to destination airports under 14 CFR part 125, § 125.361 and, in accordance with § 125.381, to execute an instrument approach procedure (IAP), or continue an approach, at an airport in accordance with the EFVS Operational Credit in Table 1. Reducing minimums for use with EFVS:

(a) Is not authorized until the requirements of § 125.287 are met when conducting turbine-powered aircraft operations under this authorization.

(b) Is not authorized for flight release of an airplane to destination airports unless personnel assigned to operational control duties have successfully completed the certificate holder's EFVS training.

(c) Is not authorized for meeting alternate airport weather requirements for flight release purposes.

**Table 2A – Determining IAP Visibility Minimums with EFVS (Runway Visual
Range (RVR))**

Visibility Required Without the Use of EFVS	25% Reduction Minimum Visibility with the Use of EFVS	33% Reduction Minimum Visibility with the Use of EFVS	50% Reduction Minimum Visibility with the Use of EFVS
1400	1100	1000	1000
1800	1400	1200	1000
2000	1500	1300	1000
2200	1700	1500	1100
2400	1800	1600	1200
2600	2000	1700	1300
3000	2300	2000	1500

3500	2600	2300	1800
4000	3000	2700	2000
4500	3400	3000	2300
5000	3800	3400	2500
5500	4100	3700	2800
6000	4500	4000	3000

Table 2B – Determining IAP Visibility Minimums with EFVS (Statute Mile)

Visibility Required Without the Use of EFVS	25% Reduction Minimum Visibility with the Use of EFVS	33% Reduction Minimum Visibility with the Use of EFVS	50% Reduction Minimum Visibility with the Use of EFVS
1/2	3/8	1/4	1/4
5/8	1/2	3/8	3/8
3/4	1/2	1/2	3/8
7/8	5/8	1/2	1/2
1	3/4	5/8	1/2
1 1/8	1	3/4	5/8
1 1/4	1	3/4	5/8
1 3/8	1	1	3/4
1 1/2	1 1/8	1	3/4
1 5/8	1 1/4	1	3/4
1 3/4	1 3/8	1 1/8	7/8
1 7/8	1 3/8	1 1/4	1
2	1 1/2	1 3/8	1
2 1/2	1 7/8	1 1/2	1 1/4
3	2 1/4	2	1 1/2

(1) (ALTERNATE) The certificate holder is not authorized to use an EFVS to reduce the visibility minimums required to release an airplane to destination airports under § 125.361 or to execute an instrument approach procedure (IAP), or continue an approach, at an airport in accordance with § 125.381.

[Check this box if you are entering Conditions and Limitations in the text box below per coordination with the AFS-400 EFVS Focal Point.]

d. Conditions and Limitations:

[Text Box]

**Appendix C. Sample OpSpec C048, Enhanced Flight Vision System (EFVS)
Operations: 14 CFR Part 129**

- a. The foreign air carrier is authorized to conduct the Enhanced Flight Vision System (EFVS) operations under 14 CFR part 91, § 91.176 specified in this operations specification.
- b. Authorized Airplanes, Equipment, and EFVS Operations. The foreign air carrier is authorized to conduct the EFVS operations using the airplanes and equipment listed in Table 1. The foreign air carrier’s airplane must be equipped with an EFVS that has either an FAA type design approval or, for a foreign-registered airplane, the EFVS complies with all of the EFVS requirements of § 91.176(a)(1) or (b)(1) applicable to the operation to be conducted and is approved by the State of the Operator or State of Registry.

Table 1 – Authorized Airplanes, Equipment, and EFVS Operations

Airplane (M/M/S)	EFVS System/Sensor	EFVS Operation(s)	EFVS Operational Credit
(With sub-list attribute)	(Drop Down)	(Drop Down)	(Drop Down)

c. Provisions: Minimum Visibility for Use with EFVS.

(1) (SELECTABLE) The foreign air carrier is authorized to reduce the visibility minimums required to begin the Final Approach Segment (FAS), or continue an instrument approach procedure (IAP) past the final approach fix (FAF), at an airport in accordance with the EFVS Operational Credit in Table 1. Reducing minimums for use with EFVS:

(a) Is not authorized to be less restrictive than the EFVS operational credit authorized by the State of the Operator or State of Registry.

(b) Is not authorized for meeting alternate airport weather requirements for dispatch or flight release purposes.

(c) Is not authorized for use unless authorized by the State of the Operator or State of Registry and by this operations specification.

Table 2A – Determining IAP Visibility Minimums with EFVS (Runway Visual Range (RVR))

Visibility Required Without the Use of EFVS	25% Reduction Minimum Visibility with the Use of EFVS	33% Reduction Minimum Visibility with the Use of EFVS	50% Reduction Minimum Visibility with the Use of EFVS
1400	1100	1000	1000
1800	1400	1200	1000
2000	1500	1300	1000
2200	1700	1500	1100
2400	1800	1600	1200
2600	2000	1700	1300
3000	2300	2000	1500
3500	2600	2300	1800
4000	3000	2700	2000
4500	3400	3000	2300
5000	3800	3400	2500
5500	4100	3700	2800
6000	4500	4000	3000

Table 2B – Determining IAP Visibility Minimums with EFVS (Statute Mile)

Visibility Required Without the Use of EFVS	25% Reduction Minimum Visibility with the Use of EFVS	33% Reduction Minimum Visibility with the Use of EFVS	50% Reduction Minimum Visibility with the Use of EFVS
$\frac{1}{2}$	$\frac{3}{8}$	$\frac{1}{4}$	$\frac{1}{4}$
$\frac{5}{8}$	$\frac{1}{2}$	$\frac{3}{8}$	$\frac{3}{8}$
$\frac{3}{4}$	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{3}{8}$
$\frac{7}{8}$	$\frac{5}{8}$	$\frac{1}{2}$	$\frac{1}{2}$
1	$\frac{3}{4}$	$\frac{5}{8}$	$\frac{1}{2}$
$1 \frac{1}{8}$	1	$\frac{3}{4}$	$\frac{5}{8}$
$1 \frac{1}{4}$	1	$\frac{3}{4}$	$\frac{5}{8}$
$1 \frac{3}{8}$	1	1	$\frac{3}{4}$
$1 \frac{1}{2}$	$1 \frac{1}{8}$	1	$\frac{3}{4}$
$1 \frac{5}{8}$	$1 \frac{1}{4}$	1	$\frac{3}{4}$
$1 \frac{3}{4}$	$1 \frac{3}{8}$	$1 \frac{1}{8}$	$\frac{7}{8}$
$1 \frac{7}{8}$	$1 \frac{3}{8}$	$1 \frac{1}{4}$	1
2	$1 \frac{1}{2}$	$1 \frac{3}{8}$	1
$2 \frac{1}{2}$	$1 \frac{7}{8}$	$1 \frac{1}{2}$	$1 \frac{1}{4}$
3	$2 \frac{1}{4}$	2	$1 \frac{1}{2}$

(1) (ALTERNATE) The foreign air carrier is not authorized to use an EFVS to reduce the visibility minimums required to begin the Final Approach Segment (FAS), or continue an instrument approach procedure (IAP) past the final approach fix (FAF), at an airport.

d. Pilot Training and Qualification Requirements. The use of EFVS as prescribed in this operations specification is authorized only for those pilots in command (PIC) and seconds in command (SIC) who have:

(1) Completed the foreign air carrier's approved EFVS training; and

(2) Been qualified for EFVS operations by one of the foreign air carrier's check pilots or a Civil Aviation Authority (CAA) inspector from the State of the Operator.

e. Airplane Maintenance Requirements. The foreign air carrier must maintain the airplane and equipment listed in Table 1 of this operations specification in accordance with its maintenance program approved by the State of the Operator.

[Check this box if you are entering Conditions and Limitations in the text box below per coordination with the AFS-400 EFVS Focal Point.]

f. Conditions and Limitations:

[Text Box]

**Appendix D. Sample OpSpec C048, Enhanced Flight Vision System (EFVS)
Operations: 14 CFR Part 135**

- a. The certificate holder is authorized to conduct the Enhanced Flight Vision System (EFVS) operations under 14 CFR part 91, § 91.176 specified in this operations specification.
- b. Authorized Airplanes, Equipment, and EFVS Operations. The certificate holder is authorized to conduct the EFVS operations using the airplanes and equipment listed in Table 1.

Table 1 – Authorized Airplanes, Equipment, and EFVS Operations

Airplane (M/M/S)	EFVS System/Sensor	EFVS Operation(s)	EFVS Operational Credit
(With sub-list attribute)	(Drop Down)	(Drop Down)	(Drop Down)

- c. Provisions: Minimum Visibility for Use with EFVS.

(1) (SELECTABLE) The certificate holder is authorized to reduce the visibility minimums required to takeoff an airplane under instrument flight rules (IFR) or begin an IFR or over-the-top operation to destination airports under 14 CFR part 135, § 135.219 and, in accordance with § 135.225, to begin the Final Approach Segment (FAS), or continue an instrument approach procedure (IAP), at an airport in accordance with the EFVS Operational Credit in Table 1. Reducing minimums for use with EFVS:

(a) Is not authorized until the requirements of § 135.225(e) are met when conducting turbine-powered aircraft operations under this authorization.

(b) Is not authorized for flight release of an airplane to destination airports unless personnel assigned to operational control duties have successfully completed the certificate holder’s EFVS training.

(c) Is not authorized for meeting alternate airport weather requirements for flight release purposes.

Table 2A – Determining IAP Visibility Minimums with EFVS (Runway Visual Range (RVR))

Visibility Required Without the Use of EFVS	25% Reduction Minimum Visibility with the Use of EFVS	33% Reduction Minimum Visibility with the Use of EFVS	50% Reduction Minimum Visibility with the Use of EFVS
1400	1100	1000	1000
1800	1400	1200	1000
2000	1500	1300	1000
2200	1700	1500	1100
2400	1800	1600	1200
2600	2000	1700	1300
3000	2300	2000	1500
3500	2600	2300	1800
4000	3000	2700	2000
4500	3400	3000	2300
5000	3800	3400	2500
5500	4100	3700	2800
6000	4500	4000	3000

Table 2B – Determining IAP Visibility Minimums with EFVS (Statute Mile)

Visibility Required Without the Use of EFVS	25% Reduction Minimum Visibility with the Use of EFVS	33% Reduction Minimum Visibility with the Use of EFVS	50% Reduction Minimum Visibility with the Use of EFVS
$\frac{1}{2}$	$\frac{3}{8}$	$\frac{1}{4}$	$\frac{1}{4}$
$\frac{5}{8}$	$\frac{1}{2}$	$\frac{3}{8}$	$\frac{3}{8}$
$\frac{3}{4}$	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{3}{8}$
$\frac{7}{8}$	$\frac{5}{8}$	$\frac{1}{2}$	$\frac{1}{2}$
1	$\frac{3}{4}$	$\frac{5}{8}$	$\frac{1}{2}$
$1\frac{1}{8}$	1	$\frac{3}{4}$	$\frac{5}{8}$
$1\frac{1}{4}$	1	$\frac{3}{4}$	$\frac{5}{8}$
$1\frac{3}{8}$	1	1	$\frac{3}{4}$
$1\frac{1}{2}$	$1\frac{1}{8}$	1	$\frac{3}{4}$
$1\frac{5}{8}$	$1\frac{1}{4}$	1	$\frac{3}{4}$
$1\frac{3}{4}$	$1\frac{3}{8}$	$1\frac{1}{8}$	$\frac{7}{8}$
$1\frac{7}{8}$	$1\frac{3}{8}$	$1\frac{1}{4}$	1
2	$1\frac{1}{2}$	$1\frac{3}{8}$	1
$2\frac{1}{2}$	$1\frac{7}{8}$	$1\frac{1}{2}$	$1\frac{1}{4}$
3	$2\frac{1}{4}$	2	$1\frac{1}{2}$

(1) (ALTERNATE) The certificate holder is not authorized to use an EFVS to reduce the visibility minimums required to takeoff an airplane under instrument flight rules (IFR) or begin an IFR or over-the-top operation to destination airports under § 135.219 or to begin the Final Approach Segment (FAS), or continue an instrument approach procedure (IAP), at an airport in accordance with § 135.225.

d. Conditions and Limitations:

(1) For EFVS landing system operations under § 91.176(a) if conducting eligible on demand operations, the pilot must only conduct those operations at airports:

a) With a weather reporting facility operated by the U.S. National Weather Service (NWS), a source approved by the U.S. NWS, or a source approved by the Administrator; and

b) When the latest reported visibility is at least RVR 1000 for the runway of intended landing or, if RVR is not reported, at least ¼ statute mile.

[Check this box if you are entering Additional Conditions and Limitations that are identified during the evaluation either by the operator or by the FAA. The principal operations inspector (POI) must contact the AFS-400 EFVS Focal Point for assistance.]

(2) Additional Conditions and Limitations:

[Text Box]

**Appendix E. Sample OpSpec C048, Enhanced Flight Vision System (EFVS)
Operations: 14 CFR Part 121/135**

Section I. Part 121

- a. The certificate holder is authorized to conduct the Enhanced Flight Vision System (EFVS) operations under 14 CFR part 91, § 91.176 specified in this operations specification.
- b. Authorized Airplanes, Equipment, and EFVS Operations. The certificate holder is authorized to conduct the EFVS operations using the airplanes and equipment listed in Table 1 (Section I).

Table 1 – Authorized Airplanes, Equipment, and EFVS Operations

Airplane (M/M/S)	EFVS System/Sensor	EFVS Operation(s)	EFVS Operational Credit
(With sub-list attribute)	(Drop Down)	(Drop Down)	(Drop Down)

- c. Provisions: Minimum Visibility for Use with EFVS.

(1) (SELECTABLE) The certificate holder is authorized to reduce the visibility minimums required to dispatch or release an airplane to destination airports under 14 CFR part 121, § 121.613 and, in accordance with § 121.651, to begin the Final Approach Segment (FAS) of an instrument approach procedure (IAP), or continue an IAP past the final approach fix (FAF), at an airport in accordance with the EFVS Operational Credit in Table 1. Reducing minimums for use with EFVS:

(a) Is not authorized until the requirements of § 121.652 are met.

(b) Is not authorized for the dispatch or flight release of an airplane to destination airports unless personnel assigned to dispatch/flight release duties have successfully completed the certificate holder's approved EFVS training.

(c) Is not authorized for meeting alternate airport weather requirements for dispatch or flight release purposes.

**Table 2A – Determining IAP Visibility Minimums with EFVS (Runway Visual
Range (RVR))**

Visibility Required Without the Use of EFVS	25% Reduction Minimum Visibility with the Use of EFVS	33% Reduction Minimum Visibility with the Use of EFVS	50% Reduction Minimum Visibility with the Use of EFVS
1400	1100	1000	1000
1800	1400	1200	1000
2000	1500	1300	1000
2200	1700	1500	1100
2400	1800	1600	1200

2600	2000	1700	1300
3000	2300	2000	1500
3500	2600	2300	1800
4000	3000	2700	2000
4500	3400	3000	2300
5000	3800	3400	2500
5500	4100	3700	2800
6000	4500	4000	3000

Table 2B – Determining IAP Visibility Minimums with EFVS (Statute Mile)

Visibility Required Without the Use of EFVS	25% Reduction Minimum Visibility with the Use of EFVS	33% Reduction Minimum Visibility with the Use of EFVS	50% Reduction Minimum Visibility with the Use of EFVS
1/2	3/8	1/4	1/4
5/8	1/2	3/8	3/8
3/4	1/2	1/2	3/8
7/8	5/8	1/2	1/2
1	3/4	5/8	1/2
1 1/8	1	3/4	5/8
1 1/4	1	3/4	5/8
1 3/8	1	1	3/4
1 1/2	1 1/8	1	3/4
1 5/8	1 1/4	1	3/4
1 3/4	1 3/8	1 1/8	7/8
1 7/8	1 3/8	1 1/4	1
2	1 1/2	1 3/8	1
2 1/2	1 7/8	1 1/2	1 1/4
3	2 1/4	2	1 1/2

(1) (ALTERNATE) The certificate holder is not authorized to use an EFVS to reduce the visibility minimums required to dispatch or release an airplane to destination airports under § 121.613 or to begin the Final Approach Segment (FAS) of an instrument approach procedure (IAP), or continue an IAP past the final approach fix (FAF), at an airport in accordance with § 121.651.

[Check this box if you are entering Conditions and Limitations in the text box below per coordination with the AFS-400 EFVS Focal Point.]

d. Conditions and Limitations:

[Text Box]

Section II. Part 135

- a. The certificate holder is authorized to conduct the Enhanced Flight Vision System (EFVS) operations under § 91.176 specified in this operations specification.
- b. Authorized Airplanes, Equipment, and EFVS Operations. The certificate holder is authorized to conduct the EFVS operations using the airplanes and equipment listed in Table 1 (Section II).

Table 1 – Authorized Airplanes, Equipment, and EFVS Operations

Airplane (M/M/S)	EFVS System/Sensor	EFVS Operation(s)	EFVS Operational Credit
(With sub-list attribute)	(Drop Down)	(Drop Down)	(Drop Down)

- c. Provisions: Minimum Visibility for Use with EFVS.

(1) (SELECTABLE) The certificate holder is authorized to reduce the visibility minimums required to takeoff an airplane under instrument flight rules (IFR) or begin an IFR or over-the-top operation to destination airports under 14 CFR part 135, § 135.219 and, in accordance with § 135.225, to begin the Final Approach Segment (FAS), or continue an instrument approach procedure (IAP), at an airport in accordance with the EFVS Operational Credit in Table 1. Reducing minimums for use with EFVS:

(a) Is not authorized until the requirements of § 135.225(e) are met when conducting turbine-powered aircraft operations under this authorization.

(b) Is not authorized for flight release of an airplane to destination airports unless personnel assigned to operational control duties have successfully completed the certificate holder’s EFVS training.

(c) Is not authorized for meeting alternate airport weather requirements for flight release purposes.

Table 2A – Determining IAP Visibility Minimums with EFVS (Runway Visual Range (RVR))

Visibility Required Without the Use of EFVS	25% Reduction Minimum Visibility with the Use of EFVS	33% Reduction Minimum Visibility with the Use of EFVS	50% Reduction Minimum Visibility with the Use of EFVS
1400	1100	1000	1000
1800	1400	1200	1000
2000	1500	1300	1000
2200	1700	1500	1100
2400	1800	1600	1200
2600	2000	1700	1300
3000	2300	2000	1500
3500	2600	2300	1800
4000	3000	2700	2000
4500	3400	3000	2300
5000	3800	3400	2500
5500	4100	3700	2800
6000	4500	4000	3000

Table 2B – Determining IAP Visibility Minimums with EFVS (Statute Mile)

Visibility Required Without the Use of EFVS	25% Reduction Minimum Visibility with the Use of EFVS	33% Reduction Minimum Visibility with the Use of EFVS	50% Reduction Minimum Visibility with the Use of EFVS
$\frac{1}{2}$	$\frac{3}{8}$	$\frac{1}{4}$	$\frac{1}{4}$
$\frac{5}{8}$	$\frac{1}{2}$	$\frac{3}{8}$	$\frac{3}{8}$
$\frac{3}{4}$	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{3}{8}$
$\frac{7}{8}$	$\frac{5}{8}$	$\frac{1}{2}$	$\frac{1}{2}$
1	$\frac{3}{4}$	$\frac{5}{8}$	$\frac{1}{2}$
$1 \frac{1}{8}$	1	$\frac{3}{4}$	$\frac{5}{8}$
$1 \frac{1}{4}$	1	$\frac{3}{4}$	$\frac{5}{8}$
$1 \frac{3}{8}$	1	1	$\frac{3}{4}$
$1 \frac{1}{2}$	$1 \frac{1}{8}$	1	$\frac{3}{4}$
$1 \frac{5}{8}$	$1 \frac{1}{4}$	1	$\frac{3}{4}$
$1 \frac{3}{4}$	$1 \frac{3}{8}$	$1 \frac{1}{8}$	$\frac{7}{8}$
$1 \frac{7}{8}$	$1 \frac{3}{8}$	$1 \frac{1}{4}$	1
2	$1 \frac{1}{2}$	$1 \frac{3}{8}$	1
$2 \frac{1}{2}$	$1 \frac{7}{8}$	$1 \frac{1}{2}$	$1 \frac{1}{4}$
3	$2 \frac{1}{4}$	2	$1 \frac{1}{2}$

(1) (ALTERNATE) The certificate holder is not authorized to use an EFVS to reduce the visibility minimums required to takeoff an airplane under instrument flight rules (IFR) or begin an IFR or over-the-top operation to destination airports under § 135.219 or to begin the Final Approach Segment (FAS), or continue an instrument approach procedure (IAP), at an airport in accordance with § 135.225.

d. Conditions and Limitations:

(1) For EFVS landing system operations under § 91.176(a) if conducting eligible on demand operations, the pilot must only conduct those operations at airports:

a) With a weather reporting facility operated by the U.S. National Weather Service (NWS), a source approved by the U.S. NWS, or a source approved by the Administrator; and

b) When the latest reported visibility is at least RVR 1000 for the runway of intended landing or, if RVR is not reported, at least ¼ statute mile.

[Check this box if you are entering Additional Conditions and Limitations that are identified during the evaluation either by the operator or by the FAA. The principal operations inspector (POI) must contact the AFS-400 EFVS Focal Point for assistance.]

(2) Additional Conditions and Limitations:

[Text Box]

**Appendix F. Sample MSpec MC048, Enhanced Flight Vision System (EFVS)
Operations: 14 CFR Part 91K**

- a. The program manager is authorized to conduct the Enhanced Flight Vision System (EFVS) operations under 14 CFR part 91, § 91.176 specified in this management specification.
- b. Authorized Airplanes, Equipment, and EFVS Operations. The program manager is authorized to conduct the EFVS operations using the airplanes and equipment listed in Table 1.

Table 1 – Authorized Airplanes, Equipment, and EFVS Operations

Airplane (M/M/S)	EFVS System/Sensor	EFVS Operation(s)
(With sub-list attribute)	(Drop Down)	(Drop Down)

- c. Conditions and Limitations.

1) For EFVS landing system operations under § 91.176(a), the program manager must only conduct those operations at airports:

a) With a weather reporting facility operated by the U.S. National Weather Service (NWS), a source approved by the U.S. NWS, or a source approved by the Administrator; and

b) When the latest reported visibility is at least Runway Visual Range (RVR) 1000 for the runway of intended landing or, if RVR is not reported, at least ¼ statute mile.

[Check this box if you are entering Additional Conditions and Limitations if applicable in the text box below per coordination with the AFS-400 EFVS Focal Point.]

- 2) Additional Conditions and Limitations:

[Text Box]

**Appendix G. Sample LOA C048, Enhanced Flight Vision System (EFVS)
Operations: 14 CFR Part 91**

1. The operator is authorized to conduct the Enhanced Flight Vision System (EFVS) operations under 14 CFR part 91, § 91.176 specified in this letter of authorization (LOA).
2. Authorized Airplanes, Equipment, and EFVS Operations. The operator is authorized to conduct the EFVS operations using the airplanes and equipment listed in Table 1.

Table 1 – Authorized Airplanes, Equipment, and EFVS Operations

Airplane (M/M/S)	EFVS System/Sensor	EFVS Operation(s)
(With sub-list attribute)	(Drop Down)	(Drop Down)

3. Conditions and Limitations.

a. EFVS operations under § 91.176(a) may only be conducted on instrument approach procedures (IAP) to airports that have weather reporting facilities reporting the latest visibility of at least Runway Visual Range (RVR) 1000 for the runway of intended landing or at least ¼ statute mile.

[Check this box if you are entering Additional Conditions and Limitations that are identified during the evaluation either by the operator or by the FAA. The principal operations inspector (POI) must contact the AFS-400 EFVS Focal Point for assistance.]

b. Additional Conditions and Limitations:

[Text Box]

4. Responsible Person. This LOA is considered invalid until signed by the responsible person for flight operations listed in Table 2. The responsible person for flight operations may be either a person who is a U.S. citizen or a person who holds a U.S. pilot certificate, and has ongoing knowledge of the operations of the aircraft and legal authority to sign on behalf of the operator. By signing this document, the responsible person for flight operations accepts responsibility for ensuring compliance with the stated regulations, requirements, limitations, and provisions of this LOA.

a. If the responsible person signing this LOA relinquishes responsibility, this LOA becomes invalid.

b. The name, email address, and telephone number of the person responsible for flight operations are listed in Table 2 below.

Table 2 – Responsible Person

Name	Email Address	Telephone Number

**Appendix H. Sample LOA C048, Enhanced Flight Vision System (EFVS)
Operations: 14 CFR Part 125 (A125 LODA Holder)**

1. The operator/company authorized to conduct operations in accordance with the Letter of Deviation Authority (LODA A125) is authorized to conduct the Enhanced Flight Vision System (EFVS) operations under 14 CFR part 91, § 91.176 specified in this letter of authorization (LOA).
2. Authorized Airplanes, Equipment, and EFVS Operations. The operator/company is authorized to conduct the EFVS operations using the airplanes and equipment listed in Table 1.

Table 1 – Authorized Airplanes, Equipment, and EFVS Operations

Airplane (M/M/S)	EFVS System/Sensor	EFVS Operation(s)	EFVS Operational Credit
(With sub-list attribute)	(Drop Down)	(Drop Down)	(Drop Down)

3. Provisions: Minimum Visibility for Use with EFVS.

a. (SELECTABLE) The operator/company is authorized to reduce the visibility minimums required to release an airplane to destination airports under 14 CFR part 125, § 125.361 and, in accordance with § 125.381, to begin an instrument approach procedure (IAP), or continue an approach, at an airport in accordance with the EFVS Operational Credit in Table 1. Reducing minimums for use with EFVS:

(1) Is not authorized until the requirements of § 125.287 are met when conducting turbine-powered aircraft operations under this authorization.

(2) Is not authorized for flight release of an airplane to destination airports unless personnel assigned to operational control duties have successfully completed the certificate holder's EFVS training.

(3) Is not authorized for meeting alternate airport weather requirements for flight release purposes.

Table 2A – Determining IAP Visibility Minimums with EFVS (Runway Visual Range (RVR))

Visibility Required Without the Use of EFVS	25% Reduction Minimum Visibility with the Use of EFVS	33% Reduction Minimum Visibility with the Use of EFVS	50% Reduction Minimum Visibility with the Use of EFVS
1400	1100	1000	1000
1800	1400	1200	1000
2000	1500	1300	1000
2200	1700	1500	1100
2400	1800	1600	1200

2600	2000	1700	1300
3000	2300	2000	1500
3500	2600	2300	1800
4000	3000	2700	2000
4500	3400	3000	2300
5000	3800	3400	2500
5500	4100	3700	2800
6000	4500	4000	3000

Table 2B – Determining IAP Visibility Minimums with EFVS (Statute Mile)

Visibility Required Without the Use of EFVS	25% Reduction Minimum Visibility with the Use of EFVS	33% Reduction Minimum Visibility with the Use of EFVS	50% Reduction Minimum Visibility with the Use of EFVS
1/2	3/8	1/4	1/4
5/8	1/2	3/8	3/8
3/4	1/2	1/2	3/8
7/8	5/8	1/2	1/2
1	3/4	5/8	1/2
1 1/8	1	3/4	5/8
1 1/4	1	3/4	5/8
1 3/8	1	1	3/4
1 1/2	1 1/8	1	3/4
1 5/8	1 1/4	1	3/4
1 3/4	1 3/8	1 1/8	7/8
1 7/8	1 3/8	1 1/4	1
2	1 1/2	1 3/8	1
2 1/2	1 7/8	1 1/2	1 1/4
3	2 1/4	2	1 1/2

a. (ALTERNATE) The operator/company is not authorized to use an EFVS to reduce the visibility minimums required to release an airplane to destination airports under § 125.361 or to execute an instrument approach procedure (IAP), or continue an approach, at an airport in accordance with § 125.381.

[Check this box if you are entering Conditions and Limitations if applicable in the text box below per coordination with the AFS-400 EFVS Focal Point.]

4. Conditions and Limitations:

[Text Box]