meaning of RFA, SBA certifies that this rule will not have a significant economic impact on a substantial number of small entities. Consequently, this rule does not meet the substantial number of small businesses criterion anticipated by the Regulatory Flexibility Act.

List of Subjects

13 CFR Part 102

Record Disclosure and Privacy.

13 CFR Part 134

Administrative practice and procedure, organization and functions (Government agencies).

■ For the reasons stated in the preamble, the U.S. Small Business Administration amends 13 CFR parts 102 and 134 as set forth below:

PART 102—RECORD DISCLOSURE AND PRIVACY

■ 1. The authority citation for part 102 continues to read as follows:

Authority: 5 U.S.C. 552 and 552a; 31 U.S.C. 1 *et seq.* and 67 *et seq.*; 44 U.S.C. 3501 *et seq.*; E.O. 12600, 3 CFR, 1987 Comp., p. 235.

§ 102.30 [Amended]

■ 2. Section 102.30 is amended by revising the address to read ''409 3rd Street, SW., Washington, DC 20416.''

PART 134—RULES OF PROCEDURE GOVERNING CASES BEFORE THE OFFICE OF HEARINGS AND APPEALS

■ 3. The authority citation for part 134 continues to read as follows:

Authority: 5 U.S.C. 504; 15 U.S.C. 632, 634(b)(6), 637(a), 648(l), 656(i) and 687(c); E.O. 12549, 51 FR 6370, 3 CFR, 1986 Comp., p. 189.

§ 134.204 [Amended]

■ 4. Section 134.204(b)(1) is amended by revising the address to read ''409 3rd Street, SW., Washington, DC 20416.''

Dated: May 19, 2005.

Hector V. Barreto,

Administrator.

[FR Doc. 05–10384 Filed 5–24–05; 8:45 am]

BILLING CODE 8025–01–P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 25

[Docket No. NM303; Special Conditions No. 25–288–SC]

Special Conditions: Bombardier Aerospace Models BD–700–1A10 and BD–700–1A11 Global Express Airplanes, Enhanced Flight Visibility System (EFVS)

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final special conditions.

SUMMARY: These special conditions are issued for the Bombardier Aerospace Models BD–700–1A10 and BD–700–1A11 Global Express airplanes. These airplanes, as modified by Bombardier Aerospace Corporation, will have an Enhanced Flight Visibility System (EFVS). The EFVS is a novel or unusual design feature which consists of a head up display (HUD) system modified to display forward-looking infrared (FLIR) imagery. The regulations applicable to pilot compartment view do not contain adequate or appropriate safety standards for this design feature. These proposed special conditions contain the additional safety standards that the Administrator considers necessary to establish a level of safety equivalent to that provided by the existing airworthiness standards.

DATES: *Effective Date:* May 12, 2005.

FOR FURTHER INFORMATION CONTACT: Dale Dunford, FAA, ANM–111, Airplane and Flight Crew Interface, Transport Airplane Directorate, Aircraft Certification Service, 1601 Lind Avenue SW., Renton, Washington 98055–4056; telephone (425) 227–2239; fax (425) 227–1320; e-mail: *dale.dunford@faa.gov.*

SUPPLEMENTARY INFORMATION:

Background

On February 26, 2003, Bombardier Aerospace, applied for an amendment to the type certificate to modify Bombardier Model BD–700–1A10 and BD–700–1A11 Global Express airplanes. The Model BD–700–1A10 is a transport category airplane certified to carry a maximum of 19 passengers and a minimum of 2 crew members. The Model BD–700–1A11 is a smaller version of the BD–700–1A10. The modification involves the installation of an Enhanced Flight Vision System (EFVS). This system consists of a Thales HUD system, modified to display FLIR imagery, and a FLIR camera.

The electronic infrared image displayed between the pilot and the forward windshield represents a novel or unusual design feature in the context of 14 CFR 25.773. Section 25.773 was not written in anticipation of such technology. The electronic image has the potential to enhance the pilot's awareness of the terrain, hazards, and airport features. At the same time, the image may partially obscure the pilot's direct outside compartment view. Therefore, the FAA needs adequate safety standards to evaluate the EFVS to determine that the imagery provides the intended visual enhancements without undue interference with the pilot's outside compartment view. The FAA's intent is that the pilot will be able to use the combination of information seen in the image and the natural view of the outside seen through the image as safely and effectively as a § 25.773-compliant pilot compartment view without an EVS image.

Although the FAA has determined that the existing regulations are not adequate for certification of EFVSs, it believes that EFVSs could be certified through application of appropriate safety criteria. Therefore, the FAA has determined that special conditions should be issued for certification of EFVS to provide a level of safety equivalent to that provided by the standard in § 25.773.

Note: The term ''enhanced vision system (EVS)'' has been commonly used to refer to a system comprised of a head up display, imaging sensor(s), and avionics interfaces that displayed the sensor imagery on the HUD and overlaid it with alpha-numeric and symbolic flight information. However, the term has also been commonly used in reference to systems which displayed the sensor imagery, with or without other flight information, on a head down display. To avoid confusion, the FAA created the term ''enhanced flight visibility system (EFVS)'' to refer to certain EVS systems that meet the requirements of the new operational rules'in particular the requirement for a HUD and specified flight information'and can be used to determine ''enhanced flight visibility.'' EFVSs can be considered a subset of systems otherwise labeled EVSs.

On January 9, 2004, the FAA published revisions to operational rules in 14 CFR parts 1, 91, 121, 125, and 135 to allow aircraft to operate below certain altitudes during a straight-in instrument approach while using an EFVS to meet visibility requirements.

Prior to this rule change, the FAA issued Special Conditions 25–180–SC, which approved the use of an EVS on Gulfstream Model G–V airplanes. These special conditions addressed the requirements for the pilot compartment view and limited the scope of the

intended functions permissible under the operational rules at the time. The intended function of the EVS imagery was to aid the pilot during the approach and allow the pilot to detect and identify the visual references for the intended runway down to 100 feet above the touchdown zone. However, the EVS imagery alone was not to be used as a means to satisfy visibility requirements below 100 feet.

The recent operational rule change expands the permissible application of certain EVSs that are certified to meet the new EFVS standards. The new rule will allow the use of EFVSs for operation below the Minimum Descent Altitude (MDA) or Decision Height (DH) to meet new visibility requirements of § 91.175(l). The purpose of this special condition is not only to address the issue of the ''pilot compartment view'' as was done by 25–180–SC, but also to define the scope of intended function consistent with § 91.175(l) and (m).

Type Certification Basis

Under the provisions of 14 CFR 21.101, Bombardier Aerospace must show that the Bombardier Aerospace Model BD–700–1A10 and BD–700–1A11 Global Express airplanes, as modified, comply with the regulations in the U.S. type certification basis established for those airplanes. The U.S. type certificate basis for the airplanes is established in accordance with 14 CFR 21.21, 14 CFR 21.17, and the type certification application date. The U.S. type certification basis for these model airplanes is listed in Type Certificate Data Sheet No. T00003NY.

If the Administrator finds that the applicable airworthiness regulations (*i.e.*, part 25, as amended) do not contain adequate or appropriate safety standards for the Bombardier Global Express airplanes modified by Bombardier Aerospace because of a novel or unusual design feature, special conditions are prescribed under the provisions of 14 CFR 21.16.

Special conditions, as appropriate, are issued in accordance with 14 CFR 11.19 after public notice, as required by 14 CFR 11.38, and become part of the type certification basis in accordance with 14 CFR 21.101(b)(2).

Special conditions are initially applicable to the model for which they are issued. Should Bombardier Aerospace apply at a later date for a supplemental type certificate to modify any other model included on the same type certificate to incorporate the same novel or unusual design feature, these special conditions would also apply to the other model under the provisions of 14 CFR 21.101(a)(1).

Novel or Unusual Design Features

The EFVS is a novel or unusual design feature, because it projects a video image derived from a FLIR camera through the HUD. The EFVS image is projected in the center of the ''pilot compartment view,'' which is governed by § 25.773. The image is displayed with HUD symbology and overlays the forward outside view. Therefore, § 25.773 does not contain appropriate safety standards for the EFVS display.

Operationally, during an instrument approach, the EFVS image is intended to enhance the pilot's ability to detect and identify ''visual references for the intended runway'' [see § 91.175(l)(3)] to continue the approach below decision height or minimum descent altitude. Depending on atmospheric conditions and the strength of infrared energy emitted and/or reflected from the scene, the pilot can see these visual references in the image better than he or she can see them through the window without EFVS.

Scene contrast detected by infrared sensors can be much different from that detected by natural pilot vision. On a dark night, thermal differences of objects which are not detectable by the naked eye will be easily detected by many imaging infrared systems. On the other hand, contrasting colors in visual wavelengths may be distinguished by the naked eye but not by an imaging infrared system. Where thermal contrast in the scene is sufficiently detectable, the pilot can recognize shapes and patterns of certain visual references in the infrared image. However, depending on conditions, those shapes and patterns in the infrared image can appear significantly different than they would with normal vision. Considering these factors, the EFVS image needs to be evaluated to determine that it can be accurately interpreted by the pilot.

The image may improve the pilot's ability to detect and identify items of interest. However, the EFVS needs to be evaluated to determine that the imagery allows the pilot to perform the normal duties of the flight crew and adequately see outside the window through the image, consistent with the safety intent of § 25.773(a)(2).

Compared to a HUD displaying the EFVS image and symbology, a HUD that only displays stroke-written symbols is easier to see through. Stroke symbology illuminates a small fraction of the total display area of the HUD, leaving much of that area free of reflected light that could interfere with the pilot's view out the window through the display. However, unlike stroke symbology, the video image illuminates most of the total display area of the HUD (approximately 30 degrees horizontally and 25 degrees vertically) which is a significant fraction of the pilot compartment view. The pilot cannot see around the larger illuminated portions of the video image, but must see the outside scene through it.

Unlike the pilot's external view, the EFVS image is a monochrome, two-dimensional display. Many, but not all, of the depth cues found in the natural view are also found in the image. The quality of the EFVS image and the level of EFVS infrared sensor performance could depend significantly on conditions of the atmospheric and external light sources. The pilot needs adequate control of sensor gain and image brightness, which can significantly affect image quality and transparency (*i.e.*, the ability see the outside view through the image). Certain system characteristics could create distracting and confusing display artifacts. Finally, because this is a sensor-based system that is intended to provide a conformal perspective corresponding with the outside scene, the system must be able to ensure accurate alignment.

Hence, there need to be safety standards for each of the following factors:

- An acceptable degree of image transparency;
- Image alignment;
- Lack of significant distortion; and
- The potential for pilot confusion or misleading information.

Section 25.773—Pilot Compartment View, specifies that ''Each pilot compartment must be free of glare and reflection that could interfere with the normal duties of the minimum flight crew * * *.'' In issuing § 25.773, the FAA did not anticipate the development of EFVSs and does not consider § 25.773 to be adequate to address the specific issues related to such a system. Therefore, the FAA has determined that special conditions are needed to address the specific issues particular to the installation and use of an EFVS.

Discussion

The EFVS is intended to function by presenting an enhanced view during the approach. This enhanced view would help the pilot to see and recognize external visual references, as required by § 91.175(l), and to visually monitor the integrity of the approach, as described in FAA Order 6750.24D (''Instrument Landing System and Ancillary Electronic Component Configuration and Performance Requirements,'' dated March 1, 2000).

Based on this approved functionality, users would seek to obtain operational approval to conduct approaches—including approaches to Type I runways—in visibility conditions much lower than those for conventional Category I.

The purpose of these special conditions is to ensure that the EFVS to be installed can perform the following functions:

- Present an enhanced view that would aid the pilot during the approach.
- Provide enhanced flight visibility to the pilot that is no less than the visibility prescribed in the standard instrument approach procedure.
- Display an image that the pilot can use to detect and identify the ''visual references for the intended runway'' required by § 91.175(l)(3) to continue the approach with vertical guidance to 100 feet height above the touchdown zone elevation.

Depending on the atmospheric conditions and the particular visual references that happen to be distinctly visible and detectable in the EFVS image, these functions would support its use by the pilot to visually monitor the integrity of the approach path.

Compliance with these special conditions does not affect the applicability of any of the requirements of the operating regulations (*i.e.*, 14 CFR parts 91, 121, and 135). Furthermore, use of the EFVS does not change the approach minima prescribed in the standard instrument approach procedure being used; published minima still apply.

The FAA certification of this EFVS is limited as follows:

- The infrared-based EFVS image will not be certified as a means to satisfy the requirements for descent below 100 feet height above touchdown (HAT).
- The EFVS may be used as a supplemental device to enhance the pilot's situational awareness during any phase of flight or operation in which its safe use has been established.

An EFVS image may provide an enhanced image of the scene that may compensate for any reduction in the clear outside view of the visual field framed by the HUD combiner. The pilot must be able to use this combination of information seen in the image and the natural view of the outside scene seen through the image as safely and effectively as the pilot would use a § 25.773-compliant pilot compartment view without an EVS image. This is the fundamental objective of the special conditions.

The FAA will also apply additional certification criteria, not as special conditions, for compliance with related regulatory requirements, such as 14 CFR 25.1301 and 14 CFR 25.1309. These additional criteria address certain image characteristics, installation, demonstration, and system safety.

Image characteristics criteria include the following:

- Resolution,
- Luminance,
- Luminance uniformity,
- Low level luminance,
- Contrast variation,
- Display quality,
- Display dynamics (*e.g.,* jitter, flicker, update rate, and lag), and
- Brightness controls.

Installation criteria address visibility and access to EFVS controls and integration of EFVS in the cockpit.

The EFVS demonstration criteria address the flight and environmental conditions that need to be covered.

The FAA also intends to apply certification criteria relevant to high intensity radiated fields (HIRF) and lightning protection.

Discussion of Comments

Notice of proposed special conditions No. 25–05–02 for the Bombardier Aerospace Models BD–700–1A10 and BD–700–1A11 Global Express Airplanes was published in the **Federal Register** dated March 30, 2005 (70 FR 16161). Three public comments were received, one of which indicated full agreement with the special conditions.

Two commenters disagreed with the sentence in the Discussion section of the NPRM which states, ''Based on this functionality, users would seek to obtain operational approval to conduct approaches—including approaches to Type I runways—when the Runway Visual Range is as low as 1,200 feet.'' Both commenters recommended that the FAA delete this sentence, because a visibility limit of 1200 feet RVR is inconsistent with the recent change to 14 CFR 91.175 for EFVS. For part 91 operators, there are no explicit reported visibility limitations. The FAA agrees with this suggestion.

The sentence was meant to describe the visibility conditions in which EFVS could be used for an approach. In other words, 1,200 feet RVR was intended not as an operational limit, but as an example of the low visibilities that might be encountered during Category I approaches while using EVFS. These visibility conditions could be much lower than those for conventional Category I approaches.

The FAA has revised the sentence to avoid the interpretation that it is meant to establish operational limitations or restrictions. This sentence now states:

''Based on this approved equipment functionality, users would seek to obtain operational approval to conduct approaches—including approaches to Type I runways—in visibility conditions much lower than for conventional Category I.''

Because none of the comments suggested any changes to the special conditions themselves, they remain unchanged.

Applicability

As discussed above, these special conditions are applicable to Bombardier Aerospace Models BD–700–1A10 and BD–700–1A11 Global Express airplanes. Should Bombardier Aerospace apply at a later date for a supplemental type certificate to modify any other model included on the same type certificate to incorporate the same novel or unusual design feature, these special conditions would apply to that model as well.

Under standard practice, the effective date of final special conditions would be 30 days after the date of publication in the **Federal Register**. However, as the certification date for the Bombardier Aerospace Models BD–700–1A10 and BD–700–1A11 Global Express airplanes is imminent, the FAA finds that good cause exists to make these special conditions effective upon issuance.

Conclusion

This action affects only certain novel or unusual design features on the Bombardier Aerospace Models BD–700–1A10 and BD–700–1A11 Global Express airplane, as modified by Bombardier Aerospace. It is not a rule of general applicability and affects only the applicant which applied to the FAA for approval of these features on the airplane.

List of Subjects in 14 CFR Part 25

Aircraft, Aviation safety, Reporting and recordkeeping requirements.

■ The authority citation for these special conditions is as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701, 44702, 44704.

The Special Conditions

■ Accordingly, pursuant to the authority delegated to me by the Administrator, the following special conditions are issued as part of the amended type certification basis for Bombardier Aerospace Models BD–700–1A10 and BD–700–1A11 Global Express airplanes, modified by Bombardier Aerospace:

1. The EFVS imagery on the HUD must not degrade the safety of flight or interfere with the effective use of outside visual references for required

pilot tasks during any phase of flight in which it is to be used.

2. To avoid unacceptable interference with the safe and effective use of the pilot compartment view, the EFVS device must meet the following requirements:

a. The EFVS design must minimize unacceptable display characteristics or artifacts (*e.g.* noise, ''burlap'' overlay, running water droplets) that obscure the desired image of the scene, impair the pilot's ability to detect and identify visual references, mask flight hazards, distract the pilot, or otherwise degrade task performance or safety.

b. Control of EFVS display brightness must be sufficiently effective in dynamically changing background (ambient) lighting conditions to prevent full or partial blooming of the display that would distract the pilot, impair the pilot's ability to detect and identify visual references, mask flight hazards, or otherwise degrade task performance or safety. If automatic control for image brightness is not provided, it must be shown that a single manual setting is satisfactory for the range of lighting conditions encountered during a time-critical, high workload phase of flight (*e.g.*, low visibility instrument approach).

c. A readily accessible control must be provided that permits the pilot to immediately deactivate and reactivate display of the EFVS image on demand.

d. The EFVS image on the HUD must not impair the pilot's use of guidance information or degrade the presentation and pilot awareness of essential flight information displayed on the HUD, such as alerts, airspeed, attitude, altitude and direction, approach guidance, windshear guidance, TCAS resolution advisories, or unusual attitude recovery cues.

e. The EFVS image and the HUD symbols—which are spatially referenced to the pitch scale, outside view and image—must be scaled and aligned (*i.e.*, conformal) to the external scene. In addition, the EFVS image and the HUD symbols—when considered singly or in combination—must not be misleading, cause pilot confusion, or increase workload. There may be airplane attitudes or cross-wind conditions which cause certain symbols (*e.g.*, the zero-pitch line or flight path vector) to reach field of view limits, such that they cannot be positioned conformally with the image and external scene. In such cases, these symbols may be displayed but with an altered appearance which makes the pilot aware that they are no longer displayed conformally (for example, ''ghosting'').

f. A HUD system used to display EFVS images must, if previously certified, continue to meet all of the requirements of the original approval.

3. The safety and performance of the pilot tasks associated with the use of the pilot compartment view must be not be degraded by the display of the EFVS image. These tasks include the following:

a. Detection, accurate identification and maneuvering, as necessary, to avoid traffic, terrain, obstacles, and other hazards of flight.

b. Accurate identification and utilization of visual references required for every task relevant to the phase of flight.

4. Compliance with these special conditions will enable the EFVS to be used during instrument approaches in accordance with 14 CFR 91.175(l) such that it may be found acceptable for the following intended functions:

a. Presenting an image that would aid the pilot during a straight-in instrument approach.

b. Enabling the pilot to determine that the ''enhanced flight visibility,'' as required by § 91.175(l)(2) for descent and operation below minimum descent altitude/decision height (MDA)/(DH).

c. Enabling the pilot to use the EFVS imagery to detect and identify the ''visual references for the intended runway,'' required by 14 CFR 91.175(l)(3), to continue the approach with vertical guidance to 100 feet height above touchdown zone elevation.

5. Use of EFVS for instrument approach operations must be in accordance with the provisions of 14 CFR 91.175(l) and (m). Appropriate limitations must be stated in the Operating Limitations section of the Airplane Flight Manual to prohibit the use of the EFVS for functions that have not been found to be acceptable.

Issued in Renton, Washington, on May 12, 2005.

Jeffrey Duven,

Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. 05–10412 Filed 5–24–05; 8:45 am]

BILLING CODE 4910–13–P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA–2005–21027; Directorate Identifier 2005–NM–048–AD; Amendment 39–14070; AD 2005–09–02]

RIN 2120–AA64

Airworthiness Directives; Boeing Model 747 Series Airplanes

AGENCY: Federal Aviation Administration (FAA), Department of Transportation (DOT).

ACTION: Final rule; correction.

SUMMARY: The FAA is correcting a typographical error in an existing airworthiness directive (AD) that was published in the **Federal Register** on April 25, 2005 (70 FR 21141). The error resulted in omission of a reference to an inspection area. This AD applies to all Boeing Model 747 series airplanes. This AD requires repetitive inspections for cracking of the top and side panel webs and panel stiffeners of the nose wheel well (NWW), and corrective actions if necessary.

DATES: Effective May 10, 2005.

ADDRESSES: The AD docket contains the proposed AD, comments, and any final disposition. You can examine the AD docket on the Internet at *http://dms.dot.gov*, or in person at the Docket Management Facility office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The Docket Management Facility office (telephone (800) 647–5227) is located on the plaza level of the Nassif Building at the U.S. Department of Transportation, 400 Seventh Street SW., room PL–401, Washington, DC. This docket number is FAA–2005–21027; the directorate identifier for this docket is 2005–NM–048–AD.

FOR FURTHER INFORMATION CONTACT: Nick Kusz, Airframe Branch, ANM–120S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW., Renton, Washington 98055–4056; telephone (425) 917–6432; fax (425) 917–6590.

SUPPLEMENTARY INFORMATION: On April 13, 2005, the FAA issued AD 2005–09–02, amendment 39–14070 (70 FR 21141, April 25, 2005), for all Boeing Model 747 series airplanes. This AD requires repetitive inspections for cracking of the top and side panel webs and panel stiffeners of the nose wheel well (NWW), and corrective actions if necessary.

As published, we inadvertently did not specify a certain area for a required