(6) Bell Helicopter Textron Model 430;(7) MD Helicopters, Inc. Model MD900; and

(8) Sikorsky Aircraft Corporation Model S– 76B, S–76C, S–76D, and S–92A.

# (b) Unsafe Condition

This AD defines the unsafe condition as failure of an EGPWS to generate a terrain warning, which could result in flight into terrain.

### (c) Comments Due Date

We must receive comments by August 7, 2017.

#### (d) Compliance

You are responsible for performing each action required by this AD within the specified compliance time unless it has already been accomplished prior to that time.

#### (e) Required Actions

Within 1,080 hours time-in-service: (1) Install terrain database version 437 if not already installed.

(2) For helicopters with an MK XXI EGPWS P/N 965–1227–005:

(i) Update the software by following the Accomplishment Instructions, paragraphs 3.B.(1)(a) through 3.B.(1)(j), of Honeywell Service Bulletin (SB) 965–1227–34–0001, Revision 0, dated May 4, 2015 (SB 965–1227– 34–0001).

(ii) Determine whether the software updated by following paragraphs 3.B.(2)(a) through 3.B.(2)(d) of SB 965–1227–34–0001.

(iii) Install a new software version label on the EGPWS by following paragraph 3.D.(1) or 3.D.(2), as appropriate for your model EGPWS, of SB 965–1227–34–0001.

(3) For helicopters with an MK XXII EGPWS P/N 965–1595–020, P/N 965–1595– 021, or P/N 965–1595–022:

(i) Update the software by following the Accomplishment Instructions, paragraphs 3.C.(1)(a) through (h), of Honeywell SB 965–1595–34–0035, Revision 0, dated March 25, 2015 (SB 965–1595–34–0035).

(ii) Determine whether the software updated by following paragraphs 3.C.(2)(a) through 3.C.(2)(d)6 or 3.C.(3)(a) through (g) of SB 965–1595–34–0035.

(iii) Install a new software version label on the EGPWS by following paragraph 3.E.(1) or 3.E.(2), as appropriate for your model EGPWS, of SB 965–1595–34–0035.

(4) For helicopters with an MK XXII EGPWS P/N 965–1595–024, P/N 965–1595– 026, P/N 965–1595–028, or P/N 965–1595– 030:

(i) Update the software by following the Accomplishment Instructions, paragraphs 3.C.(1)(a) through 3.C.(1)(h), of Honeywell Service Bulletin 965–1595–34–0034, Revision 0, dated February 18, 2015 (SB 965– 1595–34–0034).

(ii) Determine whether the software updated by following paragraphs 3.C.(2)(a) through 3.C.(2)(d)6 or 3.C.(3)(a) through 3.C.(3)(g) of SB 965–1595–34–0034.

(iii) Install a new software version label on the EGPWS by following paragraph 3.E.(1) or 3.E.(2), as appropriate for your model EGPWS, of SB 965–1595–34–0034. (5) Do not install an EGPWS on any helicopter unless you have complied with the requirements in this AD.

# (f) Alternative Methods of Compliance (AMOC)

(1) The Manager, Los Angeles Aircraft Certification Office, FAA, may approve AMOCs for this AD. Send your proposal to: Judy Heredia, Aviation Safety Engineer, Los Angeles Aircraft Certification Office, Transport Airplane Directorate, FAA, 3960 Paramount Blvd., Lakewood, California 90712; telephone (562) 627–5335; email 9-ANM-LAACO-AMOC-REQUESTS@faa.gov.

(2) For operations conducted under a 14 CFR part 119 operating certificate or under 14 CFR part 91, subpart K, we suggest that you notify your principal inspector, or lacking a principal inspector, the manager of the local flight standards district office or certificate holding district office before operating any aircraft complying with this AD through an AMOC.

# (g) Additional Information

Honeywell SB ATA No. 965–1590/1595– 34–18, dated July 30, 2004, which is not incorporated by reference, contains additional information about the subject of this AD. For service information identified in this AD, contact Honeywell International Inc., 15001 NE. 36 Street, Redmond, Washington, 98052–5317; telephone (800) 601–3099; internet address *www.myaerospace.com.* You may review a copy of information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy, Room 6N–321, Fort Worth, TX 76177.

# (h) Subject

Joint Aircraft Service Component (JASC) Code: 3444 Ground Proximity System.

Issued in Fort Worth, Texas, on May 15, 2017.

# Scott A. Horn,

Acting Manager, Rotorcraft Directorate, Aircraft Certification Service.

[FR Doc. 2017–11174 Filed 6–5–17; 8:45 am] BILLING CODE 4910–13–P

# DEPARTMENT OF TRANSPORTATION

# **Federal Aviation Administration**

# 14 CFR Part 39

[Docket No. FAA-2017-0525; Directorate Identifier 2016-NM-121-AD]

# RIN 2120-AA64

# Airworthiness Directives; Dassault Aviation Airplanes

**AGENCY:** Federal Aviation Administration (FAA), DOT. **ACTION:** Notice of proposed rulemaking (NPRM).

**SUMMARY:** We propose to adopt a new airworthiness directive (AD) for all Dassault Aviation Model MYSTERE–

FALCON 900 airplanes. This proposed AD was prompted by a determination that new or more restrictive maintenance requirements and/or airworthiness limitations are necessary. This proposed AD would require revising the maintenance or inspection program, as applicable, to incorporate new or more restrictive maintenance requirements and/or airworthiness limitations. We are proposing this AD to address the unsafe condition on these products.

**DATES:** We must receive comments on this proposed AD by July 21, 2017.

**ADDRESSES:** You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

• *Federal eRulemaking Portal:* Go to *http://www.regulations.gov.* Follow the instructions for submitting comments.

• *Fax:* 202–493–2251.

• *Mail:* U.S. Department of Transportation, Docket Operations, M– 30, West Building Ground Floor, Room W12–140, 1200 New Jersey Avenue SE., Washington, DC 20590.

• *Hand Delivery:* Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this NPRM, contact Dassault Falcon Jet Corporation, Teterboro Airport, P.O. Box 2000, South Hackensack, NJ 07606; telephone 201–440–6700; Internet *http://www.dassaultfalcon.com*. You may view this referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425–227–1221.

### **Examining the AD Docket**

You may examine the AD docket on the Internet at http:// www.regulations.gov by searching for and locating Docket No. FAA-2017-0525; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Operations office (telephone 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Tom Rodriguez, Aerospace Engineer, International Branch, ANM–116, Transport Airplane Directorate, FAA, 1601 Lind Avenue SW., Renton, WA 98057–3356; telephone 425–227–1137; fax 425–227–1149.

# SUPPLEMENTARY INFORMATION:

# **Comments Invited**

We invite you to send any written relevant data, views, or arguments about this proposed AD. Send your comments to an address listed under the **ADDRESSES** section. Include "Docket No. FAA–2017–0525; Directorate Identifier 2016–NM–121–AD" at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD based on those comments.

We will post all comments we receive, without change, to *http:// www.regulations.gov*, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this proposed AD.

### Discussion

The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Union, has issued EASA Airworthiness Directive 2016–0127, dated June 23, 2016 (referred to after this as the Mandatory Continuing Airworthiness Information, or "the MCAI"), to correct an unsafe condition for all Dassault Aviation Model MYSTERE–FALCON 900 airplanes. The MCAI states:

The airworthiness limitations and maintenance requirements for the DA [Dassault Aviation] Mystère-Falcon 900 type design are included in Aircraft Maintenance Manual (AMM) chapter 5–40 and are approved by the European Aviation Safety Agency (EASA). These instructions have been identified as mandatory for continued airworthiness.

Failure to accomplish these instructions could result in an unsafe condition.

Consequently, EASA issued AD 2013–0053 [which corresponds with AD 2016–01–16, Amendment 39–18376 (81 FR 3320, January 21, 2016) ("AD 2016–01–16")] to require accomplishment of the maintenance tasks, and implementation of the airworthiness limitations, as specified in DA Mystère-Falcon 900 AMM chapter 5–40 (DGT 113873) at revision 20.

Since that [EASA] AD was issued, DA issued revision 22 of Mystère-Falcon 900 AMM chapter 5–40 (DGT 113873) (hereafter referred to as "the ALS" in this [EASA] AD), which contains new or more restrictive maintenance requirements and/or airworthiness limitations. The ALS introduces, among others, the following new tasks:

—Task 53–40–07–280–803 "Special detailed inspection of the repaired areas on centrewing lower panel"; -Task 53-50-00-220-803 "Detailed inspection of the baggage compartment"; -Task 53-50-00-220-807 "Detailed inspection of the upper part of frame 30."

For the reason described above, this [EASA] AD retains the requirements of EASA AD 2013–0053, which is superseded, and requires accomplishment of the actions specified in the ALS.

You may examine the MCAI in the AD docket on the Internet at *http://www.regulations.gov* by searching for and locating Docket No. FAA–2017–0525.

# Related Service Information Under 1 CFR Part 51

Dassault issued Chapter 5–40, Airworthiness Limitations, Revision 22, dated December 2015, of the Dassault Aviation Falcon 900 Maintenance Manual. The service information describes procedures, maintenance tasks, and airworthiness limitations specified in the Airworthiness Limitations section (ALS) of the AMM. This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the **ADDRESSES** section.

# FAA's Determination and Requirements of This Proposed AD

This product has been approved by the aviation authority of another country, and is approved for operation in the United States. Pursuant to our bilateral agreement with the State of Design Authority, we have been notified of the unsafe condition described in the MCAI and service information referenced above. We are proposing this AD because we evaluated all pertinent information and determined an unsafe condition exists and is likely to exist or develop on other products of the same type design.

This proposed AD would require revisions to certain operator maintenance documents to include new actions (e.g., inspections). Compliance with these actions is required by 14 CFR 91.403(c). For airplanes that have been previously modified, altered, or repaired in the areas addressed by this proposed AD, the operator may not be able to accomplish the actions described in the revisions. In this situation, to comply with 14 CFR 91.403(c), the operator must request approval for an alternative method of compliance according to paragraph (j)(1) of this proposed AD. The request should include a description of changes to the required actions that will ensure the continued operational safety of the airplane.

This proposed AD would not supersede AD 2016–01–16. Rather, we

have determined that a stand-alone AD would be more appropriate to address the changes in the MCAI. This proposed AD would require revising the maintenance or inspection program, as applicable, to incorporate new or more restrictive maintenance requirements and/or airworthiness limitations than those required by AD 2016–01–16. Accomplishment of the proposed actions would then terminate all the requirements of AD 2016–01–16.

# Airworthiness Limitations Based on Type Design

The FAA recently became aware of an issue related to the applicability of ADs that require incorporation of an ALS revision into an operator's maintenance or inspection program.

Typically, when these types of ADs are issued by civil aviation authorities of other countries, they apply to all airplanes covered under an identified type certificate (TC). The corresponding FAA AD typically retains applicability to all of those airplanes.

In addition, U.S. operators must operate their airplanes in an airworthy condition, in accordance with 14 CFR 91.7(a). Included in this obligation is the requirement to perform any maintenance or inspections specified in the ALS, and in accordance with the ALS as specified in 14 CFR 43.16 and 91.403(c), unless an alternative has been approved by the FAA.

When a type certificate is issued for a type design, the specific ALS, including revisions, is a part of that type design, as specified in 14 CFR 21.31(c).

The sum effect of these operational and maintenance requirements is an obligation to comply with the ALS defined in the type design referenced in the manufacturer's conformity statement. This obligation may introduce a conflict with an AD that requires a specific ALS revision if new airplanes are delivered with a later revision as part of their type design.

To address this conflict, the FAA has approved alternative methods of compliance (AMOCs) that allow operators to incorporate the most recent ALS revision into their maintenance/ inspection programs, in lieu of the ALS revision required by the AD. This eliminates the conflict and enables the operator to comply with both the AD and the type design.

However, compliance with AMOCs is normally optional, and we recently became aware that some operators choose to retain the AD-mandated ALS revision in their fleet-wide maintenance/inspection programs, including those for new airplanes delivered with later ALS revisions, to help standardize the maintenance of the fleet. To ensure that operators comply with the applicable ALS revision for newly delivered airplanes containing a later revision than that specified in an AD, we plan to limit the applicability of ADs that mandate ALS revisions to those airplanes that are subject to an earlier revision of the ALS, either as part of the type design or as mandated by an earlier AD. This proposed AD therefore

applies Dassault Aviation Model MYSTERE–FALCON 900 airplanes with an original certificate of airworthiness or original export certificate of airworthiness that was issued on or before the date of approval of the ALS revision identified in this proposed AD. Operators of airplanes with an original certificate of airworthiness or original export certificate of airworthiness issued after that date must comply with

ESTIMATED COSTS

the airworthiness limitations specified as part of the approved type design and referenced on the type certificate data sheet.

# **Costs of Compliance**

We estimate that this proposed AD affects 65 airplanes of U.S. registry.

We estimate the following costs to comply with this proposed AD:

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Maintenance or inspection program revision	1 work-hour $\times$ \$85 per hour = \$85	\$0	\$85	\$5,525

# Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. "Subtitle VII: Aviation Programs," describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in "Subtitle VII, Part A, Subpart III, Section 44701: General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

# **Regulatory Findings**

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

1. Is not a "significant regulatory action" under Executive Order 12866;

2. Is not a "significant rule" under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);

3. Will not affect intrastate aviation in Alaska; and

4. Will not have a significant economic impact, positive or negative, on a substantial number of small entities

under the criteria of the Regulatory Flexibility Act.

# List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

# **The Proposed Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

# PART 39—AIRWORTHINESS DIRECTIVES

■ 1. The authority citation for part 39 continues to read as follows:

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

### §39.13 [Amended]

■ 2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

Dassault Aviation: Docket No. FAA-2017-0525; Directorate Identifier 2016-NM-121-AD.

# (a) Comments Due Date

We must receive comments by July 21, 2017.

#### (b) Affected ADs

This AD affects AD 2016-01-16, Amendment 39-18376 (81 FR 3320, January 21, 2016) ("AD 2016-01-16").

#### (c) Applicability

This AD applies to all Dassault Aviation MYSTERE-FÂLCON 900 airplanes, certificated in any category, with an original certificate of airworthiness or original export certificate of airworthiness issued on or before December 1, 2015.

# (d) Subject

Air Transport Association (ATA) of America Code 05, Time Limits/Maintenance Checks.

#### (e) Reason

This AD was prompted by a determination that new or more restrictive maintenance requirements and/or airworthiness limitations are necessary. We are issuing this AD to prevent reduced structural integrity of the airplane.

### (f) Compliance

Comply with this AD within the compliance times specified, unless already done.

# (g) Revision of Maintenance or Inspection Program

Within 90 days after the effective date of this AD, revise the maintenance or inspection program, as applicable, to incorporate the information specified in Chapter 5–40, Airworthiness Limitations, Revision 22, dated December 2015, of the Dassault Aviation Falcon 900 Maintenance Manual. The initial compliance time for accomplishing the actions specified in Chapter 5–40, Airworthiness Limitations, Revision 22, dated December 2015, of the Dassault Aviation Falcon 900 Maintenance Manual, is within the applicable times specified in the maintenance manual, or within 90 days after the effective date of this AD, whichever occurs later, except as provided by paragraphs (g)(1) through (g)(4) of this AD.

(1) The term "LDG" in the "First Inspection" column of any table in the service information means total airplane landings.

(2) The term "FH" in the "First Inspection" column of any table in the service information means total flight hours.

(3) The term "FC" in the "First Inspection" column of any table in the service information means total flight cycles.

(4) The term "M" in the "First Inspection" column of any table in the service information means months.

#### (h) No Alternative Actions and Intervals

After accomplishing the revision required by paragraph (g) of this AD, no alternative actions (e.g., inspections) or intervals may be used unless the actions or intervals are approved as an alternative method of compliance (AMOC) in accordance with the

procedures specified in paragraph (j)(1) of this AD.

#### (i) Terminating Action

Accomplishing paragraph (g) of this AD terminates all the requirements of AD 2016–01–16.

#### (j) Other FAA AD Provisions

The following provisions also apply to this AD:

(1) Alternative Methods of Compliance (AMOCs): The Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the International Branch, send it to the attention of the person identified in paragraph (k)(2) of this AD. Information may be emailed to: 9-ANM-116-AMOC-REQUEŠTS@faa.gov. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(2) Contacting the Manufacturer: For any requirement in this AD to obtain corrective actions from a manufacturer, the action must be accomplished using a method approved by the Manager, International Branch, ANM– 116, Transport Airplane Directorate, FAA; or the European Aviation Safety Agency (EASA); or Dassault Aviation's EASA Design Organization Approval (DOA). If approved by the DOA, the approval must include the DOA-authorized signature.

#### (k) Related Information

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) EASA Airworthiness Directive 2016–0127, dated June 23, 2016, for related information. This MCAI may be found in the AD docket on the Internet at *http://www.regulations.gov* by searching for and locating Docket No. FAA– 2017–0525.

(2) For more information about this AD, contact Tom Rodriguez, Aerospace Engineer, International Branch, ANM–116, Transport Airplane Directorate, FAA, 1601 Lind Avenue SW., Renton, WA 98057–3356; telephone 425–227–1137; fax 425–227–1149.

(3) For service information identified in this AD, contact Dassault Falcon Jet Corporation, Teterboro Airport, P.O. Box 2000, South Hackensack, NJ 07606; telephone 201–440–6700; Internet *http:// www.dassaultfalcon.com.* You may view this service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425–227–1221.

Issued in Renton, Washington, on May 23, 2017.

# Michael Kaszycki,

Acting Manager, Transport Airplane Directorate, Aircraft Certification Service. [FR Doc. 2017–11261 Filed 6–5–17; 8:45 am] BILLING CODE 4910–13–P

# DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

# 14 CFR Part 39

[Docket No. FAA-2017-0527; Directorate Identifier 2017-NM-015-AD]

# RIN 2120-AA64

# Airworthiness Directives; The Boeing Company Airplanes

**AGENCY:** Federal Aviation Administration (FAA), DOT. **ACTION:** Notice of proposed rulemaking (NPRM).

**SUMMARY:** We propose to supersede Airworthiness Directive (AD) 2016-09-12, which applies to certain The Boeing Company Model 787-8 and 787-9 airplanes. AD 2016-09-12 currently requires repetitive inspections of the bilge barriers located in the forward and aft cargo compartments for disengaged decompression panels, and reinstalling any disengaged panels. Since we issued AD 2016-09-12, a terminating modification has been developed to address the unsafe condition. This proposed AD would retain the actions required by AD 2016–09–12 and require replacing the existing decompression panels with new panels and straps, which would terminate the repetitive inspections. This proposed AD also removes airplanes from the effectivity. We are proposing this AD to address the unsafe condition on these products.

**DATES:** We must receive comments on this proposed AD by July 21, 2017. **ADDRESSES:** You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

 Federal eRulemaking Portal: Go to http://www.regulations.gov. Follow the instructions for submitting comments.
Fax: 202-493-2251.

• *Fux*, 202–495–2251,

• *Mail:* U.S. Department of Transportation, Docket Operations, M– 30, West Building Ground Floor, Room W12–140, 1200 New Jersey Avenue SE., Washington, DC 20590.

• *Hand Delivery:* Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this NPRM, contact Boeing Commercial Airplanes, Attention: Contractual & Data Services (C&DS), 2600 Westminster Blvd., MC 110–SK57, Seal Beach, CA 90740; telephone 562–797–1717; Internet *https://* 

*www.myboeingfleet.com.* You may view this referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425–227–1221. It is also available on the Internet at *http:// www.regulations.gov* by searching for and locating Docket No. FAA–2017– 0527.

# **Examining the AD Docket**

You may examine the AD docket on the Internet at http:// www.regulations.gov by searching for and locating Docket No. FAA-2017-0527; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Office (phone: 800-647-5527) is in the **ADDRESSES** section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT:

Caspar Wang, Aerospace Engineer, Cabin Safety and Environmental Systems Branch, ANM–150S, FAA, Seattle Aircraft Certification Office (ACO), 1601 Lind Avenue SW., Renton, WA 98057–3356; phone: 425–917–6414; fax: 425–917–6590; email: caspar.wang@faa.gov.

# SUPPLEMENTARY INFORMATION:

#### **Comments Invited**

We invite you to send any written relevant data, views, or arguments about this proposed AD. Send your comments to an address listed under the **ADDRESSES** section. Include "Docket No. FAA–2017–0527; Directorate Identifier 2017–NM–015–AD" at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD because of those comments.

We will post all comments we receive, without change, to *http:// www.regulations.gov*, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this proposed AD.

#### Discussion

On April 25, 2016, we issued AD 2016–09–12, Amendment 39–18510 (81 FR 27300, May 6, 2016) ("AD 2016–09–12"), for certain The Boeing Company Model 787–8 and 787–9 airplanes. AD 2016–09–12 requires repetitive inspections of the bilge barriers located