Proposed Rules

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This section of the FEDERAL REGISTER contains notices to the public of the proposed issuance of rules and regulations. The purpose of these notices is to give interested persons an opportunity to participate in the rule making prior to the adoption of the final rules.

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Parts 91, 135, and 136

[Docket No. FAA–2023–2250; Notice No. 24–02]

RIN 2120–AL37

Use of Supplemental Restraint Systems

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

ACTION: Notice of proposed rulemaking.

SUMMARY: This proposed rule would prohibit civil aircraft operations conducted with supplemental restraint systems (SRS) unless operators meet certain requirements for ensuring passenger safety during all phases of the operation. The FAA expects these proposed requirements would increase the safety of passengers during civil aircraft operations conducted with SRS. This proposal addresses recommendations from the National Transportation Safety Board and the Department of Transportation Office of Inspector General. Additionally, this proposed rule would codify, with updates, an Emergency Order currently in effect addressing safety concerns regarding the use of supplemental restraints. The proposed rule would apply to all civil aircraft operations conducted with use of SRS. The rule as proposed would not apply to parachute operations or rotorcraft external-load operations. Additionally, the proposed rule would not apply to operations conducted as public aircraft operations.

DATES: Send comments on or before January 22, 2024.

ADDRESSES: Send comments identified by docket number FAA–2023–2250 using any of the following methods:

- *Federal eRulemaking Portal:* Go to *http://www.regulations.gov* and follow the online instructions for sending your comments electronically.
- *Mail:* Send comments to Docket Operations, M–30; U.S. Department of Transportation (DOT), 1200 New Jersey Avenue SE, Room W12–140, West Building Ground Floor, Washington, DC 20590–0001.
- *Hand Delivery or Courier:* Take comments to Docket Operations in Room W12–140 of the West Building Ground Floor at 1200 New Jersey Avenue SE, Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.
- *Fax:* Fax comments to Docket Operations at (202) 493–2251.

Docket: Background documents or comments received may be read at *https://www.regulations.gov* at any time. Follow the online instructions for accessing the docket or go to the Docket Operations in Room W12–140 of the West Building Ground Floor at 1200 New Jersey Avenue SE, Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

FOR FURTHER INFORMATION CONTACT: Raymond Plessinger, General Aviation and Commercial Division, Flight Standards Service, AFS–830, Federal Aviation Administration, 800 Independence Avenue SW, Washington, DC 20591; Telephone: (202) 267–1100; email *Raymond.Plessinger@faa.gov.*

SUPPLEMENTARY INFORMATION:

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List of Abbreviations and Acronyms Frequently Used in This Document

AAIB—Danish Accident Investigation Board
FMVSS—Federal Motor Vehicle Safety Standards
FOIA—Freedom of Information Act
FSOL—Fuel Shutoff Lever
ICR—Information Collection Request
InFO—Information for Operators
IRFA—Initial Regulatory Flexibility Analysis
LOA—Letter of Authorization
NAICS—North American Industry Classification System
NPRM—Notice of Proposed Rulemaking
NTSB—National Transportation Safety Board
OMB—Office of Management and Budget
PIC—Pilot in Command
RFA—Regulatory Flexibility Act
SBA—Small Business Administration
SOPs—Standard Operating Procedures
SPRS—Supplemental Passenger Restraint System(s)
SRS—Supplemental Restraint System(s)

I. Executive Summary

This proposed rule addresses the use of supplemental restraint systems (SRS) in civil aircraft operations. On March 22, 2018, the FAA issued an Emergency Order of Prohibition titled ''Operators and Pilots of 'Doors Off' Flights for Compensation or Hire'' [1] to all operators and pilots of flights for compensation or hire with the doors open or removed in the United States or using aircraft registered in the United States for doors-off flights. The Emergency Order of Prohibition prohibits the use of supplemental passenger restraint systems (SPRS) that cannot be released quickly in an emergency.[2] This was in

[1] Emergency Order of Prohibition, ''*Operators and Pilots of* ''*Doors Off*'' *Flights for Compensation or Hire*'' available at *https://www.regulations.gov/document/FAA-2018-0243-0001.*

[2] The term ''supplemental passenger restraint system,'' as defined in the March 22, 2018,

Continued

response to an open door helicopter accident on March 11, 2018, in which passengers were secured with SPRS and were unable to exit the aircraft before they drowned. At the time of the accident, no rules specifically addressed civil aircraft operations conducted with the use of SRS,[3] including during operations with doors opened or removed. As a result of preliminary information discovered during the investigation of this accident, on March 19, 2018, the National Transportation Safety Board (NTSB) issued Urgent Safety Recommendation A–18–012, which recommended that the FAA prohibit all open-door aircraft operations using passenger harness systems, unless the harness system allows passengers to rapidly release the harness with minimal difficulty and without having to cut or forcefully remove the harness.[4]

An SRS is a device used to secure an individual inside an aircraft when that person is not properly secured by an FAA-approved seat belt and, if installed, shoulder harness or an approved child restraint system. SRS are not installed on the aircraft pursuant to a Type Certificate, Supplemental Type Certificate, approved major alteration (FAA Form 337), or other FAA approval. An SRS consists of a harness secured around the torso of the individual using the SRS and a lanyard that connects the harness to an approved airframe attachment point inside the aircraft.

To mitigate identified risks and ultimately prevent future fatalities, the FAA proposes to issue regulations regarding the use of SRS, including during operations with doors opened or removed. This proposed rule would establish requirements for use of SRS. This proposed rule would also prohibit flight operations with doors opened or removed except under two scenarios. The first scenario is when each individual [5] occupies an FAA-approved seat or berth with a safety belt and, if installed, shoulder harness properly secured about them or an approved child restraint system properly secured to an approved seat or berth with a safety belt and, if installed, shoulder harness in accordance with § 91.107(a)(3)(iii) or § 135.128(a)(2), during the entire flight. The second scenario is if each individual occupies an FAA-approved seat or berth with a safety belt and, if installed, shoulder harness, properly secured about them during movement on the surface, takeoff, and landing; during other phases of flight, if permitted by the pilot in command (PIC),[6] the passenger may use an SRS that meets all requirements proposed in this rule. The operator generally will provide the SRS to individuals who seek to use the SRS during the flight, but in some cases, an individual may opt to provide their own SRS as long as it meets the requirements proposed in this rule and the PIC approves the SRS.

This proposed rule would require the SRS to have a release mechanism that can be operated quickly by the passenger using the SRS with minimal difficulty. As proposed, the release mechanism must be located on the front or side of the harness in a place easily accessible to and visible by the passenger using the SRS and must prevent inadvertent release. Also, as proposed, the release mechanism cannot require the use of a knife to cut the restraint, the use of any other additional tool, or the assistance of any other individual to release the SRS.

As explained in section IV.E.2 of this preamble, the FAA proposes that the SRS must be connected to an aircraft attaching point or points with a rated strength equal to or greater than the combined weight of all the passengers using an SRS attached to that same point, but it cannot be connected to any airframe attachment point located in the flightdeck. Additionally, as proposed, the rule requires the SRS to have a lanyard that ensures the torso of the passenger using the SRS remains inside the aircraft at all times.

This proposed rule would also require operators conducting flight operations where passengers use an SRS to provide an enhanced passenger safety briefing. Further, this proposal would require passengers who seek to use an SRS during flight operations to demonstrate their ability to occupy, secure, and release the FAA-approved seat belts and, if installed, shoulder harnesses, as well as the ability to release quickly the SRS with no assistance, and with minimal difficulty. A passenger who could not meet the demonstration requirements of the enhanced safety briefing would be prohibited from using an SRS; however, they would be permitted to participate in the flight if they occupy an FAA-approved seat or berth with a safety belt and, if installed, shoulder harness, properly secured about them during operations when the doors are opened or removed or when otherwise required by regulations. Only those passengers who have reached their fifteenth birthday could use an SRS during flight operations, and no individual using an SRS could occupy a seat in the flightdeck. In addition to prohibiting individuals who occupy a child restraint system from also using an SRS, this proposed rule would prohibit a child from being held by an adult who is using an SRS. This proposed rule would also prohibit a child from being held when the aircraft doors are opened or removed.

This proposed rule would mitigate identified safety risks to passengers who use an SRS and would help ensure safety of the operation, including when the doors of the aircraft are opened or removed.

II. Authority for This Proposed Rulemaking

The FAA's authority to issue rules on aviation safety is found in Title 49 of the United States Code (49 U.S.C.). Subtitle I of 49 U.S.C., specifically section 106, describes the authority of the FAA Administrator. Subtitle VII of 49 U.S.C., Aviation Programs, describes in more detail the scope of the agency's authority.

The FAA promulgates this rulemaking under the authority described in 49 U.S.C. 106(f), which establishes the authority of the Administrator to promulgate regulations and rules, and 49 U.S.C. 44701(a)(5), which requires the Administrator to promote safe flight of civil aircraft in air commerce by prescribing regulations and setting minimum standards for other practices, methods, and procedures necessary for safety in air commerce and national security.

Emergency Order of Prohibition, means any passenger restraint that is not installed on the aircraft pursuant to an FAA approval, including (but not limited to) restraints approved through a Type Certificate, Supplemental Type Certificate, or as an approved major alteration using FAA Form 337.

[3] The FAA uses the term supplemental restraint system (SRS) to refer to the device in general, but, for the purposes of this rulemaking document, uses the term supplemental passenger restraint system (SPRS) when quoting or referring to documents that use the term ''SPRS'' (*e.g.,* The Emergency Order of Prohibition). The FAA considers the two terms to be synonymous.

[4] NTSB Safety Recommendation A–18–012, *https://data.ntsb.gov/carol-main-public/sr-details/A-18-012.*

[5] The FAA uses two categories to define those who travel on airplanes: crewmember and passenger. In this proposal, the agency uses that distinction when referring specifically to a crewmember or passenger. When the distinction between a crewmember and a passenger is not applicable, the agency uses the word ''individual'' when referring to anyone who occupies an SRS.

[6] Under 14 CFR 91.3, the PIC is the final authority as to the operation of the aircraft. The PIC may determine it is unsafe to allow the use of SRS during a phase of flight that would otherwise be allowed.

III. Background

A. Statement of the Problem

The FAA operational regulations pertaining to passenger restraints currently address only FAA-approved seat belts and, if installed, shoulder harnesses and child restraint systems approved for use on aircraft. They require individuals to be secured during movement on the surface, takeoff, and landing, or as instructed by the flight crew. Current regulations do not address passenger safety in operations conducted with doors opened or removed, except for parachute operations and rotorcraft external-load operations.

The proposed rule would mitigate the risk of harm to an individual using an SRS, including during operations with doors opened or removed. Specifically, the proposed rule is expected to mitigate the risk that an individual could fall out of the aircraft when the doors are opened or removed if they are not occupying an FAA-approved seat or berth with a safety belt and, if installed, shoulder harness, properly secured about them during the entire flight. It also mitigates the risk that a passenger cannot quickly egress after an accident because the SRS they use is difficult to release. By limiting where the passenger can sit when using an SRS and where the attachment point to which the SRS is attached is located, this rule proposes to mitigate the risk that a component of the SRS may inadvertently move a flight control mechanism, which could impact the operation of the aircraft. The proposed rule would provide minimum requirements for all flight operations when an SRS is used, including those with doors opened or removed. If adopted, this proposed rule will result in safer flight operations and reduce the risk of harm to individuals, whether passengers or crewmembers.

B. History

1. Liberty Helicopters Accident

On March 11, 2018, an Airbus Helicopters AS350 B2 lost engine power during cruise flight, and the pilot performed an autorotative descent and ditching on the East River in New York, New York. The pilot sustained minor injuries, the five passengers drowned, and the helicopter was substantially damaged. The FlyNYON-branded flight was operated by Liberty Helicopters Inc. (Liberty), per a contractual agreement with NYONair.[7]

Liberty operated the accident flight as a FlyNYON-branded, doors-off helicopter flight that allowed the five passengers (one in the front seat, four in the rear seats) to take photographs of various landmarks while extending their legs outside the helicopter during portions of the flight. For the accident flight (and other FlyNYON flights that Liberty operated), Liberty configured its Airbus AS350 B2 helicopter with the two right and the front left doors removed and the left sliding door locked open. Before departure, each passenger was fitted with a NYONair-provided harness/tether system that NYONair developed with the intent to prevent passengers from falling out of the helicopter. The harness/tether system used on the accident flight consisted of a full-body, workplace fall-protection harness that was secured (with a locking carabiner) to a tether, the other end of which was secured (with another locking carabiner) to an anchor point in the cabin. Each passenger also used the helicopter's installed, FAA-approved restraints. The pilot (who was seated in the front right seat) used only an installed, FAA-approved restraint.[8]

Under normal circumstances, at the conclusion of each flight, operator personnel would unscrew a locking carabiner located on the back of each passenger's harness so that the passenger could exit the helicopter. The operator provided each individual secured by an SPRS with a cutting tool, stored in a pouch attached to the harness, for use in freeing themselves from the harness/tether system in case of an emergency.[9] Prior to flight, each passenger viewed a passenger safety video that addressed general safety topics and emergency safety procedures, such as cutting-tool use.[10] The video narrative for releasing from the harness/tether system in the event of an emergency stated that ''the harness can be released by opening the quick release clip in the back of the harness'' and the visual that accompanied the narrative showed one person releasing another person's carabiner. The video also instructed passengers that ''a cutter [cutting tool] is also secured to one of your chest straps and will allow you to quickly cut through the harness if you are unable to reach the quick release clip.'' [11]

Consistent with the standard operating procedures (SOPs) used for FlyNYON flights, the passengers were allowed (when instructed by the pilot) to position themselves to extend their legs outside the helicopter. The two passengers who had been seated in the rear inboard seats removed their installed, FAA-approved restraints and sat on the cabin floor, wearing their harness/tether systems. The passengers seated in the outboard seats were allowed to rotate outboard in their seats. To enable such freedom of movement, the SOPs allowed the passengers to wear their installed, FAA-approved restraint with the lap belt adjusted loosely and the shoulder harness routed under the arm.[12]

During the flight, the aircraft lost engine power and the pilot conducted an emergency landing on the East River. The helicopter's floats did not fully inflate, and the helicopter rolled right in the water and became fully inverted and submerged about 11 seconds after it touched down. Despite receiving a briefing on how to self-egress from the SPRS using the provided cutting tool, none of the passengers were able to egress. All five passengers drowned. The pilot was able to release his installed, FAA-approved restraint after he was under water and successfully egress from the helicopter.[13]

2. National Transportation Safety Board Reports and Recommendations

The NTSB investigated the accident.[14] On March 19, 2018, the NTSB issued an Urgent Safety Recommendation Report, *Additional Harness Systems that Allow for Rapid Egress,* ASR–18–02, to ''prohibit all open-door commercial passenger-carrying aircraft flights that use passenger harness systems, unless the harness system allows passengers to rapidly release the harness with minimal difficulty, and without having to cut or forcefully remove the harness.'' [15]

The NTSB published its final accident report, *Inadvertent Activation of the Fuel Shutoff Lever and Subsequent Ditching, Liberty Helicopters Inc., Operating a FlyNYON Doors-Off Flight,* following a board meeting held on

[7] *Inadvertent Activation of the Fuel Shutoff Lever and Subsequent Ditching, Liberty Helicopters Inc., Operating a FlyNYON Doors-Off Flight, Airbus Helicopters AS350 B2, N350LH, New York, New York, March 11, 2018.* Aircraft Accident Report, December 10, 2019. Available at *https://www.ntsb.gov/investigations/AccidentReports/Reports/AAR1904.pdf.*

[8] *Id.* at ix.

[9] *Id.* at 19.

[10] *Id.* at 44.

[11] Ibid.

[12] *Id.* at ix.

[13] *Id.* at x.

[14] *Inadvertent Activation of the Fuel Shutoff Lever and Subsequent Ditching, Liberty Helicopters Inc., Operating a FlyNYON Doors-Off Flight, Airbus Helicopters AS350 B2, N350LH, New York, New York, March 11, 2018.* Aircraft Accident Report, December 10, 2019. Available at *https://www.ntsb.gov/investigations/AccidentReports/Reports/AAR1904.pdf.*

[15] NTSB Urgent Recommendation, ASR–18–02, accessed at *https://data.ntsb.gov/carol-main-public/sr-details/A-18-012* on February 23, 2021.

December 10, 2019, in which the Board issued additional safety recommendations.[16] The accident docket includes a detailed summary of the pilot interview.[17] The pilot reported that when he reached down for the emergency fuel shutoff lever, he realized that it was in the off position. He also noted that a portion of the front seat passenger's tether was underneath the lever.[18] A review of radar data and onboard video showed that when the flight was proceeding northwest over Manhattan toward Central Park at an altitude of 1,900 feet mean sea level, the front passenger, who was facing outboard in his seat with his legs outside the helicopter, leaned back several times to take photographs using a smartphone. The onboard video showed that each time he leaned back, the tail of the tether attached to the back of his harness hung down loosely near the helicopter's floor-mounted controls. At one point, when he pulled himself up to adjust his seating position, the tail of his tether remained taut but appeared to pop upward. Two seconds later, the helicopter's engine sounds decreased, and the helicopter began to descend.[19] The NTSB determined the probable cause of this accident was Liberty Helicopters Inc.'s use of a NYONair-provided passenger harness/tether system, which caught on and activated the floor-mounted engine fuel shutoff lever (FSOL) and resulted in the in-flight loss of engine power and the subsequent ditching.[20] NTSB also stated that Liberty and NYONair's use of the harness and tether system hindered passenger egress and contributed to the severity of the accident.[21]

[16] *Inadvertent Activation of the Fuel Shutoff Lever and Subsequent Ditching, Liberty Helicopters Inc., Operating a FlyNYON Doors-Off Flight, Airbus Helicopters AS350 B2, N350LH, New York, New York, March 11, 2018.* Aircraft Accident Report, December 10, 2019. Available at *https://www.ntsb.gov/investigations/AccidentReports/Reports/AAR1904.pdf.*

[17] Factual Report—Attachment 1, Interview Summaries, Operational Factors, accessed at *https://data.ntsb.gov/Docket/Document/docBLOB?ID=40476009&FileExtension=.PDF&FileName=Operations%20Attachment%201%20-%20Interview%20Summaries-Master.PDF* on February 23, 2021.

[18] *Id.* at 6.

[19] *Inadvertent Activation of the Fuel Shutoff Lever and Subsequent Ditching, Liberty Helicopters Inc., Operating a FlyNYON Doors-Off Flight, Airbus Helicopters AS350 B2, N350LH, New York, New York, March 11, 2018.* Aircraft Accident Report, December 10, 2019. Available at *https://www.ntsb.gov/investigations/AccidentReports/Reports/AAR1904.pdf.*

[20] *Id.* at x.

[21] *Id.* at x, xii, 67, 83, 85.

3. FAA Actions

The FAA carefully considered the information and recommendations from the NTSB. Following the issuance of the NTSB Urgent Safety Recommendation Report ASR–18–02, the FAA concluded that the SPRS each passenger wore, while intended as a safety measure when the aircraft was in flight, might have prevented the passengers' quick egress from the aircraft. Although the fatalities that occurred on March 11, 2018, involved an aircraft ditching on the water, the FAA determined that other situations, such as smoke and fire emergencies, might also result in injuries and fatalities unless passengers can release quickly their SPRS. Under 49 U.S.C. 46105(c), the Acting Administrator of the FAA determined that an emergency existed related to safety in air commerce based on the threat to passenger safety presented by the use of SPRS not approved by the FAA, which may prevent a passenger from exiting the aircraft quickly in an emergency. To address this emergency, on March 22, 2018, the FAA issued Emergency Order of Prohibition No. FAA–2018–0243 to all operators and pilots of flights for compensation or hire with the doors open or removed in the United States or using aircraft registered in the United States for doors-off flights.[22] The Emergency Order of Prohibition prohibits the use of SPRS that cannot be released quickly in an emergency in doors-off flight operation. The Emergency Order of Prohibition provides that persons may operate doors-off flights for compensation or hire involving SPRS if the Administrator has determined that the restraints to be used can be quickly released by a passenger with minimal difficulty and without impeding egress from the aircraft in an emergency, and provides information for operators to apply to seek such approvals. The Emergency Order of Prohibition also prohibits passenger-carrying doors-off flight operations unless the passengers are at all times properly secured using FAA-approved restraints.[23]

The FAA also posted to its website FAA Notice N 8900.456, Emergency Order of Prohibition Pertaining to ''Doors Off'' Flight Operations for Compensation or Hire, which provides guidance to FAA Aviation Safety Inspectors (ASIs) and others regarding the Emergency Order of Prohibition and its implementation.[24] Notice N 8900.456 directed ASIs to coordinate with the FAA's Aircraft Certification Service to ensure a restraint system, previously granted an approval by an FAA Form 337, is properly evaluated prior to use.[25] That notice was subsequently revised to FAA Notice N 8900.457 [26] and then FAA Notice N 8900.506,[27] before finally being established as FAA Order 8900.4.[28] That order sets out the application process to request a Letter of Authorization (LOA) from the FAA's Flight Standards Service to conduct operations using an SPRS. As a part of that process, the applicant must demonstrate that the restraints can be released quickly by a passenger with minimal difficulty and without impeding egress from the aircraft in an emergency. In reviewing a request for an LOA, the FAA reviews the design, manufacture, installation, and operations.

In addition, the Agency published Information for Operators (InFO) 18003, *Supplemental Passenger Restraint Systems (SPRS) for ''Doors-Off'' Flight Operations Conducted for Compensation or Hire,* on May 9, 2018, which informs operators of the procedure for obtaining an LOA for use of an SPRS for ''Doors-Off'' flight operations conducted for compensation or hire.[29]

In evaluating whether to authorize an operation with SPRS, the FAA requires the applicant to submit to the FAA the following items: a completed and signed FAA Form 7711–2, Certificate of Waiver or Authorization Application; a completed Attachment A, Request for FAA Letter of Authorization, Supplemental Passenger Restraint System—Supporting Information; a link to a video that shows an occupant demonstrating the method of release from the device; and, if the operator has been issued a Motion Picture and Television Filming certificate of waiver, a signed FAA Form 7711–1. In reviewing the request, the FAA also evaluates the applicant's preflight

[22] Emergency Order of Prohibition, ''*Operators and Pilots of* ''*Doors Off*'' *Flights for Compensation or Hire*'' available at *https://www.regulations.gov/document/FAA-2018-0243-0001.*

[23] Ibid.

[24] *https://www.faa.gov/regulations_policies/orders_notices/index.cfm/go/document.information/documentID/1032926.*

[25] *Id.* at 2.

[26] *http://www.faa.gov/documentLibrary/media/Notice/N_8900.457.pdf.*

[27] *http://www.faa.gov/documentLibrary/media/Notice/N_8900.506.pdf.*

[28] Although FAA orders typically serve as guidance material for FAA personnel only, FAA Order 8900.4 provides information to individuals, pilots, and operators. *http://www.faa.gov/documentLibrary/media/Order/FAA_Order_8900.4.pdf.*

[29] *https://www.faa.gov/sites/faa.gov/files/other_visit/aviation_industry/airline_operators/airline_safety/InFO18003.pdf.*

briefing procedures and/or step-by-step instructions, which must clearly and convincingly demonstrate that the SPRS can be released quickly by the SPRS user with minimal difficulty and without impeding egress from the aircraft in an emergency.

Additionally, the evaluation includes confirmation that the components (harness and lanyard) were manufactured in accordance with credible certification standards.[30] The FAA recognizes that acceptable and established minimum standards for supplemental restraints already exist and are in use in other FAA evaluation scenarios and in many occupations. The FAA accepts these standards since there is no single certification standard that is best for every SPRS, due to the unique activities in which the applicant seeks to engage during doors opened flight operations. The FAA considers these existing standards when reviewing submission packages. Credible certification standards include TSO–167 (for personnel carrying device systems), OSHA 1926.502 (fall protection), NFPA 1983–2017 (life safety rope and equipment), and EN 361:2002 (full body harness). Further discussion about credible certification standards can be found in section IV.D. of this proposal.

Non-certificated individuals may also request authorization to use SPRS. For example, passengers seeking to use SPRS may seek FAA authorization of their own equipment. They may include but are not limited to net gunners or aerial photographers. The FAA issues an LOA specific to that individual, the identified components of the SPRS, and the submitted operational procedures when the individual is a passenger on a doors opened/removed flight operated for compensation or hire.

The FAA reviews each submission to ensure the submitted documentation adequately demonstrates the ability of a user to release quickly the SPRS with minimal difficulty. Consistent with the Emergency Order of Prohibition, the ability for rapid release and egress must be inherent in the design of the SPRS. Additionally, each SPRS must not require the use of a cutting tool, or any other additional tool, or the assistance of any other person to release the restraint. The FAA also considers whether a user would have the ability to release the SPRS without any additional training beyond what would be provided in a preflight briefing, as discussed in the Emergency Order of Prohibition.

Once issued, the pilot or operator must ensure the LOA is available on the aircraft whenever any SPRS is used on any flight operation with doors opened or removed for compensation or hire. If issued to a non-certificated individual, the LOA requires that individual to provide a copy of the LOA to the pilot or operator prior to participating in a flight operation conducted with doors off for compensation or hire using an SPRS. The pilot or operator makes the final decision as to whether to accept the LOA and whether to permit the passenger to use the authorized SPRS on that flight.

Between March 26, 2018, and October 15, 2019, the FAA issued 41 LOAs to operators and 13 LOAs to non-certificated individuals. Through the application process, the FAA learned SPRS could be used on both fixed wing and rotorcraft aircraft.

If this rule is finalized as proposed, it would supersede existing processes for authorizing SPRS.

4. Department of Transportation Office of Inspector General Report and Recommendations

Following the fatal Liberty Helicopters crash, the Department of Transportation (DOT) Office of the Inspector General (OIG), in consultation with the NTSB, reviewed FAA's oversight of helicopter air tours and how FAA approved the supplemental passenger restraint systems used during the crash.[31] The OIG objectives were to assess FAA's processes for (1) review and approval of supplemental restraints for open-door helicopter operations, and (2) oversight of company use of supplemental restraints.[32] The OIG findings included that the FAA did not maintain effective and consistent oversight of open-door helicopter operations to maintain the safety of air tour passengers. The OIG issued recommendations to the FAA to improve the SPRS authorization process and oversight regarding SPRS use and to increase the safety of helicopter air tour passengers. Specifically, the OIG recommended the FAA issue a notice of proposed rulemaking and a final rule, if found to be in the public interest, that address operations using SPRS. This proposed rule addresses the OIG recommendation.

IV. Discussion of the Proposed Rule

A. Identified Safety Gaps

Although the Emergency Order of Prohibition fills safety gaps that existed prior to the Liberty Helicopters accident, the FAA identified residual safety gaps that still exist and that this proposed rule seeks to address. Discussed below are the primary residual safety gaps the FAA identified.

1. Limited Regulatory Oversight

Prior to March 11, 2018, no rules specifically addressed civil aircraft operations conducted with the use of SRS, including during operations with doors opened or removed. The Emergency Order of Prohibition sought to address this issue by imposing SPRS requirements; however, it only addresses doors-off operations for compensation or hire. This proposed rule would apply to all civil aircraft operations conducted in the U.S. with the use of SRS, including during operations with doors opened or removed and regardless of whether they are for compensation or hire. Moreover, the Emergency Order of Prohibition did not address operations where doors remain closed but where individuals use SRS. This proposed rule addresses those operations as well.

2. Ability To Release and Inadvertent Release of the Supplemental Restraint System

As explained above, the NTSB stated that the passengers' inability to release from the SPRS hindered their egress from the aircraft and contributed to the severity of the accident.[33] The Emergency Order of Prohibition sought to address this concern by imposing certain SPRS release mechanism design requirements; however, the FAA determined after the Emergency Order of Prohibition was put into place that there is no requirement to prevent inadvertent release of the mechanism. Although quick release is vital, it is equally important to ensure an SRS does not inadvertently release, particularly during operations where doors are opened or removed. This proposed rule addresses that concern.

3. Lap-Held Children

Current regulations permit a person to be held by an adult who is occupying an approved seat or berth, provided that the person being held has not reached his or her second birthday and does not occupy or use any restraining device.

[30] For the purposes of this evaluation, the FAA considers a certification standard to be credible when it ensures that materials, products, processes, and services are fit for their purpose.

[31] The FAA notes that both the NTSB and OIG used the term ''supplemental passenger restraint system'' (SPRS).

[32] *Weaknesses in FAA's Supplemental Passenger Restraint System Authorization Process Hinder Improvements to Open-Door Helicopter Operations,* Audit Report AV2021010, issued December 8, 2020. Available at *https://www.oig.dot.gov/library-item/38140.*

[33] *See id.* at x, xii, 67, 83, 85.

See 14 CFR 91.107(a)(3)(i) and 135.128(a)(1). The Emergency Order of Prohibition does not address lap-held children, leaving an unacceptable risk of children falling out of an aircraft with doors opened or removed or otherwise being injured when an adult is holding a lap-held child while using only an SRS. This proposed rule seeks to eliminate that risk to lap-held children.

B. How This Rule Enhances the Emergency Order of Prohibition

This proposed rule would enhance safety for individuals who use an SRS during all flight operations. As mentioned above, no regulations existed regarding the use of supplemental restraints prior to March 22, 2018. After the Liberty Helicopters accident, the NTSB found ''that minimally trained passengers would have great difficulty extricating themselves from the harness/tether system, each of which was equipped with locking carabiners and an ineffective cutting tool, during an emergency requiring a rapid egress.'' [34] The FAA issued Emergency Order of Prohibition No. FAA–2018–0243 to all operators and pilots of flights for compensation or hire with the doors open or removed in the United States or using aircraft registered in the United States for doors-off flights.

The Emergency Order of Prohibition prohibits the use of SPRS that cannot be released quickly in an emergency in doors-off flight operations. The Emergency Order of Prohibition provides that persons may operate doors-off flights for compensation or hire involving SPRS if the Administrator has determined that the restraints to be used can be quickly released by a passenger with minimal difficulty and without impeding egress from the aircraft in an emergency, and provides information for operators to apply to seek such authorization. The Emergency Order of Prohibition also prohibits passenger-carrying doors-off flight operations unless the passengers are at all times properly secured using FAA-approved restraints.

The term ''supplemental passenger restraint system,'' as defined in the March 22, 2018, Emergency Order of Prohibition, means any passenger restraint that is not installed on the aircraft pursuant to an FAA approval, including (but not limited to) restraints approved through a Type Certificate, Supplemental Type Certificate, or as an approved major alteration using FAA Form 337. For this rulemaking, the FAA uses the term supplemental restraint system (SRS) instead of supplemental passenger restraint system (SPRS) used in the Emergency Order of Prohibition. The FAA finds the terms ''supplemental restraint system'' (SRS) and ''supplemental passenger restraint system'' (SPRS) to be synonymous, except ''supplemental restraint system'' is more precise as the restraint could be worn by either a passenger or a crew member. Therefore, for accuracy, the FAA uses the term ''supplemental restraint system'' (SRS) throughout this document, except when quoting or referring to documents that use the term ''SPRS.''

Below is a table showing (1) the regulatory landscape after the FAA issued the Emergency Order of Prohibition, (2) identified safety gaps the Emergency Order did not address, and (3) a brief summary of the proposed § 91.108 requirements, including the requirements that seek to close the gaps identified after the Emergency Order of Prohibition was issued.

TABLE 1—COMPARISON OF REQUIREMENTS FOR OPERATIONS USING SUPPLEMENTAL RESTRAINT SYSTEMS

Emergency order of prohibition (current) Letter of authorization process	Identified safety gaps	Performance-based requirements (proposed) 91.108—Use of supplemental restraint systems
Emergency Order of Prohibition No. FAA–2018–0243, issued March 22, 2018, applies to operations for compensation or hire with doors open or removed. It prohibits the use of SPRS that cannot be released quickly and prohibits doors-off operations unless passengers are at all times secured using FAA-approved restraints or restrained by an authorized SPRS.	Emergency Order of Prohibition did not address: • Flight operations not conducted for compensation or hire; or • Operations where the doors remain closed, but passengers use an SRS. In addition, the Emergency Order of Prohibition only applies to passengers and does not address crew members.	The SRS proposed rule applies to: • All operations where the doors are opened or removed, regardless of whether they are for compensation or hire; • All operations, regardless of whether the doors are opened or removed, where passengers use an SRS; and • Passengers and crew members. *Proposed Requirement:* Flight operations with doors opened or removed are prohibited unless each individual either occupies: • An FAA-approved seat or berth with a safety belt/shoulder harness or an approved child restraint system during all phases of flight; or • An approved seat or berth with a safety belt/shoulder harness during critical phases of flight and is secured during the cruise portion of flight with an SRS.
The supplemental restraint must have a release mechanism that: • Can be released quickly by the person using the SPRS with minimal difficulty, without excessive force and without impeding egress from the aircraft; • Is located on the front or side of the harness, easily accessible to and visible by the person using the SPRS; • Does not require the use of a knife to cut the restraint, any other additional tool, or the assistance of any other person to release the SPRS.	Emergency Order of Prohibition did not address inadvertent release of the SRS.	The SRS proposed rule includes the same design requirements for the SRS release mechanism as the Emergency Order of Prohibition but adds a requirement about inadvertent release. *Proposed Requirement:* The supplemental restraint must have a release mechanism that: • Can be quickly operated with minimal difficulty; • Is attached to the front or side of the harness in a location easily accessible to and visible by the individual using the SRS; • Prevents inadvertent release; and • Does not require the use of a knife to cut the restraint, any other additional tool, or the assistance of any other individual to release the SRS.

[34] *Inadvertent Activation of the Fuel Shutoff Lever and Subsequent Ditching, Liberty Helicopters Inc., Operating a FlyNYON Doors-Off Flight, Airbus Helicopters AS350 B2, N350LH, New York, New York, March 11, 2018* at x. Aircraft Accident Report, December 10, 2019. Available at *https://www.ntsb.gov/investigations/AccidentReports/Reports/AAR1904.pdf.*

TABLE 1—COMPARISON OF REQUIREMENTS FOR OPERATIONS USING SUPPLEMENTAL RESTRAINT SYSTEMS—Continued

Emergency order of prohibition (current) Letter of authorization process	Identified safety gaps	Performance-based requirements (proposed) 91.108—Use of supplemental restraint systems
Operators, pilots, or individuals desiring authorization to use an SPRS must submit the following items for evaluation: • Completed FAA Form 7711–2, Certificate of Waiver or Authorization Application; • Completed ATTACHMENT A, Request for FAA Letter of Authorization; and • A link to at least one video that shows an occupant demonstrating the method of release from the SPRS. If the submitter seeks to use authorized SPRS for Motion Picture and Television Filming (MP/TF) operations, the submission must also include a scanned copy of the operators or pilot's issued FAA Form 7711–1, Certificate of Waiver or Authorization.	Other than addressing the release mechanism, the Emergency Order of Prohibition did not address detailed design or operational requirements.	The SRS proposed rule adds more detailed design and operational requirements and other requirements/prohibitions not addressed in the Emergency Order of Prohibition: *Proposed Design Requirements:* The supplemental restraint system must: • Have a harness that secures around the individual's torso; • Have a lanyard that connects the harness to the airframe attachment point and that ensures the individual's torso remains inside the aircraft; • Not impede egress from the aircraft in an emergency after being released; and • Identify the sizing criteria for which the SRS is rated. *Proposed Operational Requirements:* • A qualified person must: ○ Connect the SRS to an attachment point with rated strength for the individual using the SRS; and ○ Not connect the SRS to an attachment located in the flightdeck.
	The Emergency Order of Prohibition did not address other requirements outlined in the right-hand column, ''additional proposed requirements.''	*Additional Proposed Requirements:* The proposed rule adds requirements for: • Individuals providing their own SRS; • Pilot in Command's responsibilities and authority; • Passenger briefings; • Passengers demonstrating their ability to occupy FAA-approved safety belt/shoulder harness and accomplish actions required for SRS quick release without assistance.
	The Emergency Order of Prohibition did not address individuals who are prohibited from using an SRS or lap-held children during certain operations.	*Proposed Prohibitions:* • The proposed rule prohibits the following individuals from using an SRS: ○ Passengers who cannot demonstrate their ability to occupy a safety belt/shoulder harness or to release quickly their SRS; ○ Individuals under 15 years of age; ○ Individuals seated in flightdeck; ○ Passengers occupying a CRS; • The proposed rule also prohibits lap-held children from being held by an adult using an SRS or during doors-open or -removed operations.

C. Prohibitions Applicable to SRS and Doors Opened or Removed Flight Operations (§ 91.108(a) and (b))

The FAA is proposing to add a new § 91.108 to address the use of supplemental restraint systems. Proposed § 91.108(a) establishes the general prohibition against using SRS. Specifically, paragraph (a) would prohibit any operations in a registered civil aircraft if any individual is secured with an SRS except as described in § 91.108. This is a change from the status quo. The FAA determined that, even after the issuance of the Emergency Order of Prohibition following the Liberty Helicopters accident, safety gaps continue to exist. This proposal intends to eliminate these safety gaps for all individuals who use an SRS. For example, the Emergency Order of Prohibition prohibits operations with passengers using an SPRS unless certain conditions exist, including authorization from the FAA. Proposed paragraph (a) would apply the prohibition to everyone on board, including crew members. In addition, currently, an individual can use an SRS without FAA authorization both during operations conducted with doors closed and operations conducted not for compensation or hire. Proposed paragraph (a) would extend the prohibition to these additional types of operations as well. Proposed § 91.108(b) builds on the prohibition in paragraph (a). Paragraph (b) would prohibit operations with doors opened or removed with two exceptions. The first exception, under § 91.108(b)(1)(i), is when each individual on board is properly secured in an approved seat or berth or in an approved child restraint system during all phases of flight. The second exception, under § 91.108(b)(1)(ii), is when an individual is properly secured in an approved seat or berth during movement on the surface, takeoff, and landing, and is secured during other phases of flight using an SRS in accordance with, and that meets the requirements of, § 91.108.

The FAA proposes these requirements to ensure that during operations with doors opened or removed, all individuals are at all times properly secured using restraints that meet the requirements of the proposed rule and at no time are unrestrained during operations. As proposed, all SRS would be required to be properly secured on each individual and properly secured to an FAA-approved airframe attaching point prior to the removal of the FAA-approved seat belt and, if installed, shoulder harness. The proposed rule requires the attachment point(s) to be rated at a strength equal to or greater than the total combined weight of the occupants secured to the attachment point to ensure that the attachment point has adequate strength.

To ensure each individual is properly secured at all times during flight operations in which doors are opened or removed, operators may choose to require compliance with procedures that ensure both the FAA-approved aircraft seat belt and, if installed, shoulder harness and the SRS are secured prior to ground movement or that the SRS is secured after takeoff. In either case, the proposed rule requires each person to be properly secured by the SRS before releasing the FAA-approved seat belt and, if installed, shoulder harness. The FAA reiterates that an individual must be secured by an FAA-approved seat belt and, if installed, shoulder harness during movement on the surface, takeoff, and landing. Moreover, the FAA proposes

that an individual cannot release their safety belt and shoulder harness until the PIC authorizes them to do so. As discussed in more detail in Section IV.G., the PIC is the final authority on whether SRS may be used during flight operations. In addition, the PIC is in the best position to know when flight conditions are appropriate to authorize SRS use.

Finally, the FAA notes that proposed § 91.108 compliments the safety belt provisions in §§ 91.107 and 135.128. Each of these regulations requires individuals to be properly secured in FAA-approved safety belts and, if installed, shoulder harnesses during critical phases of flight (*i.e.,* movement on the surface, takeoff, and landing). Section 91.108 simply allows individuals to release their safety belts and shoulder harnesses during the cruise portion of flight if they are appropriately harnessed by an SRS and as authorized by the PIC.

D. SRS Design Requirements (§ 91.108(c)(1) Through (4))

As the FAA determined the possible scope of this rulemaking, the FAA considered developing certification requirements for SRS. Specifically, the FAA considered a requirement that the SRS be installed pursuant to an FAA approval or that the SRS be separately approved by the FAA. However, the FAA's development of the current LOA review process based on the safety concerns identified by the NTSB following the Liberty Helicopters' accident has not indicated that a physical review of the SRS itself is necessary. In the minutes before the Liberty Helicopters accident, the passengers disconnected their FAA-approved lap belts and shoulder harnesses and moved about the helicopter's interior, secured only by their SRS, which kept them secured within the opened door cabin. The SRS does not need to meet restraint crashworthiness standards because it is intended as a fall protective device, and the proposed rule requires the use of restraints installed pursuant to an FAA approval during critical phases of flight only. For these reasons, the FAA determined that requiring that the SRS be installed pursuant to an FAA approval based on a new set of certification standards would create an unnecessary burden when the approach in this proposed rule would achieve the safety objectives.

The SRS is intended as a fall protective device and not as a crashworthy restraint as mentioned previously. The FAA is aware that standards currently exist that ensure SRS component materials will maintain their integrity and efficacy when used during cruise phases of flight. For instance, the FAA determined that components that meet National Fire Protection Association, Occupational Safety and Health Administration, or American Society for Testing and Materials standards are adequate to prevent an individual using the SRS from falling out of an aircraft being operated with doors opened or removed. Although these standards help ensure an SRS provides adequate fall protection, they do not address whether a particular SRS is designed and operated in a way that ensures the ability to rapidly egress from an aircraft during an emergency. Therefore, this proposed rule does not recommend or require one standard over another.[35]

This proposed rule would establish minimum requirements for the utilization of an SRS to ensure that each SRS has an appropriately designed harness and lanyard, as well as an appropriately designed release mechanism that can be released quickly, and will not impede egress in an emergency. Specifically, these minimum requirements include a quick release mechanism that must be operated without the use of a cutting tool, any other tool, or the assistance of another person, and require that the device, when released, does not impede egress from the aircraft as described in section IV, D, 2 below.

This proposed rule would also allow operators flexibility in determining which make or model of SRS to permit for their operations, as long as the SRS meets the requirements in the proposed rule. Moreover, the proposed performance-based design requirements would allow innovation in design and manufacturing for manufacturers to develop new SRS components to meet aviation-specific needs. Each SRS design requirement is discussed in more detail below.

1. Harness and Lanyard (§ 91.108(c)(1) and (2))

The FAA proposes that each SRS have a harness that secures around the individual's torso and a lanyard that connects the harness to an airframe attachment point or points, ensuring that the individual's torso remains inside the aircraft. An SRS consists of two components: a body harness secured around a person's torso; and a lanyard that connects to the harness and to an airframe attachment point in the aircraft that is not within the flightdeck. The harness is attached to a lanyard through the use of a quick release mechanism. As proposed, an SRS lanyard would be required to meet specific criteria to ensure the safety of the occupant using the SRS. This proposed rule would require the lanyard's length ensures the person's torso remains inside the aircraft at all times to prevent the person from becoming human external cargo and, thus, an external load. Pursuant to the definition in 14 CFR 1.1, an external load means a load that is carried, or extends, outside of the aircraft fuselage. The pertinent regulations for human and nonhuman external cargo, which pertain to any load that is carried, or extends outside a rotorcraft, are found in part 133.

An SRS must comply with the provisions of proposed § 91.108 and is distinct from child restraints approved for use on aircraft, as described in §§ 91.107 and 135.128. A child restraint system does not have a body harness secured around a person's torso, and it is not connected to an airframe attachment point in the aircraft by a lanyard. In the United States, federal regulations for child restraint systems use on aircraft are governed by Federal Motor Vehicles Safety Standard (FMVSS) No. 213, which ensures that child restraint systems for aircraft use not only are crashworthy in a typical motor vehicle frontal crash scenario, but also must pass an inversion test to ensure the occupant is contained in the event an aircraft encounters turbulence.[36] In contrast to an SRS, the characteristics of a child restraint system meeting the criteria of FMVSS No. 213 include that the child restraint system should have a solid back and seat, internal restraint straps installed to securely hold the child in the device, and a label showing approval for aviation use.

2. Impede Egress in an Emergency After Being Released (§ 91.108(c)(3))

The FAA proposes that an SRS must not impede egress from the aircraft during an emergency after being released. The use of an SRS may complicate the emergency egress of passengers. This could occur if an SRS is used in conjunction with a corded headset, for instance, or when multiple SRS users' lanyards are attached to

[35] Design characteristics of some manufactured devices might not meet the rigorous and necessary safety requirements that would allow for rapid egress in an aircraft emergency. For example, a fall arrest harness which meets its appropriate standard would be able to safely bear the occupant's weight and prevent a fall. However, it still could entangle the occupant and would not be permissible under this rule.

[36] 49 CFR 571.213 S8.2.

multiple securement points in the cabin. It could also occur if an SRS requires the user to exit the aircraft while using the harness with the lanyard attached to it, which could cause a tripping hazard or interfere with the ability of any other person on the aircraft to evacuate in an emergency. Even though the user may be able to disconnect themselves from the aircraft while still using the harness with the lanyard attached, this configuration would not meet the regulation since the lanyard could become entangled and impede egress from the aircraft. A retractable lanyard, however, that would not become entangled or impede egress would comply with the proposed requirement.

3. Quick Release Requirements (§ 91.108(c)(4))

The FAA proposes to require that each SRS have a release mechanism that the individual using the SRS can operate quickly with minimal difficulty and without impeding egress from the aircraft in an emergency. This is important because emergency evacuation conditions may include an environment where egress is already difficult due to smoke, fire, or water.

This proposed rule would require the quick release mechanism to be located on the front or side of the harness, in a location easily accessible to, and visible by, the individual using the SRS. This release could work in several ways. A mechanism located on the front or side of the harness that releases the harness from the lanyard, allowing the individual to egress from the aircraft while continuing to wear the harness, would fulfill this proposed requirement. Similarly, a mechanism located on the front or side of the harness that releases the harness from the individual's torso, allowing the individual to egress the aircraft while leaving the entire SRS behind, would also comply with the proposed requirement.

Although the release mechanism of the SRS must be able to be operated quickly with minimal difficulty, it must also prevent inadvertent release while in use. The proposed term ''inadvertent release'' means unintentional activation of the quick release system. Complying with this standard could consist of having a dual actuation device, which is a sequential control that requires two distinct actions in series for actuation. For example, an operator may use protective covers or flaps that a person must open or remove prior to operating the release mechanism. Another example would be a release mechanism of the SRS that could include a press-gate carabiner that requires two distinct actions.

Additionally, the FAA is aware of certain buckles that cannot be opened when under load, such as could occur when the user is upside down or sideways following an accident. Although this feature would prevent inadvertent release, this feature would not meet the requirement to allow the release mechanism to be operated quickly with minimal difficulty if rapid egress from the aircraft were required.

Additionally, this proposed rule would require that the quick release mechanism be capable of release without the use of a knife, any additional tool, or the assistance of any other individual to cut or release the SRS. In the Liberty Helicopters accident, passengers used harnesses that included interconnected shoulder straps and leg straps, a chest strap that spanned the two front shoulder straps, and a dorsal D-ring (used on the accident flight for attaching a tether) between the wearer's upper shoulder blades. NYONair attached a pouch containing an emergency cutting tool on either the right or left upper shoulder strap of each harness.[37] The dorsal D-ring on each passenger's harness was secured with a locking carabiner to a tether, which consisted of several loops of 11 mm webbing of varying lengths (manufactured by a climbing-gear supplier). The other end of each tether was secured to a cabin anchor point with a second locking carabiner.[38] First responders reported that they found the passengers strapped in the cabin, and they had to cut various straps to free them. Part of one passenger's harness was found in the helicopter with the D-ring secured to the tether (and the tether secured to the cabin floor fitting) with locking carabiners. The NTSB inspected portions of two harnesses and found that one had a pouch attached that contained a cutting tool; the other had a pouch attached, but no cutting tool was present. Post-accident examination of a harness removed from another passenger revealed a cutting tool contained inside a pouch attached to the front of the left shoulder strap.[39] A ceiling-mounted camera in the helicopter captured video and audio information of emergency egress-related events. It showed that, despite receiving instruction on how to remove or cut their harnesses, the passengers were unable to release themselves.[40]

The NTSB found that minimally trained passengers would have great difficulty extricating themselves from the harness/tether system, each of which was equipped with locking carabiners and an ineffective cutting tool, during an emergency requiring a rapid egress. Additionally, the NTSB concluded that Liberty's ''. . . decision to use locking carabiners and ineffective cutting tools as the primary means for passengers to rapidly release from the harness/tether system was inappropriate and unsafe.'' [41]

In an emergency, rapid egress from the aircraft is essential. Passengers who have never used a cutting tool, or who don't pay attention to a safety briefing or take it seriously, could have difficulty using a tool to cut themselves from an SRS, especially in an environment that may include smoke, fire, or water. They could forget where the tool is located on the harness or have difficulty in removing the tool from the storage pouch. Also, they could drop the tool, rendering it useless. Relying on another person to assist in detachment could also be ineffectual if that person becomes injured or unresponsive in an emergency and cannot help.

E. Who May Provide the SRS (§ 91.108(d))

The FAA proposes to allow an operator or an individual to provide an SRS for use during a flight. In some cases, an individual (*e.g.,* professional photographer, fire suppression technician, wildlife net gunner) may own their own SRS and want to use it on different operators' aircraft. In other cases, the operator or PIC will provide the SRS to individuals who seek to use SRS during the flight. For an individual providing their own SRS, the FAA proposes that they must confirm with the PIC, either verbally or in writing, as determined by the PIC, the system's continued serviceability and readiness for its intended purposes. One way an individual providing their own SRS can meet this requirement is by ensuring the SRS is inspected and maintained in accordance with the manufacturer's instructions.

In addition, the proposed rule would require that each individual providing their own SRS comply with the sizing criteria for which the SRS is rated. This requirement would ensure that the SRS is properly sized for the individual using the SRS. The manufacturer's sizing criteria may include different

[37] *Inadvertent Activation of the Fuel Shutoff Lever and Subsequent Ditching, Liberty Helicopters Inc., Operating a FlyNYON Doors-Off Flight, Airbus Helicopters AS350 B2, N350LH, New York, New York, March 11, 2018.* Aircraft Accident Report, December 10, 2019. Available at *https://www.ntsb.gov/investigations/AccidentReports/Reports/AAR1904.pdf* at page 18.

[38] *Id.* at 19.

[39] *Id.* at 21.

[40] *See id.* at 28–29.

[41] *Id.* at xii.

measurements such as height, weight, chest circumference, or other specified sizing criteria. Requiring that the SRS be used within the limitations for which the SRS is rated will help ensure safe and appropriate use of the system.[42] This requirement supplements an SRS operational requirement in section IV.F.3., below, stating that the SRS must fit the individual using it based on the sizing criteria for which the SRS is rated.

F. SRS Operational Requirements (§ 91.108(e)(1) and (2))

As discussed in more detail below, the FAA proposes specific SRS operational requirements to help ensure individuals are using the SRS safely and appropriately.

1. Airframe Attachment Points (§ 91.108(e)(1)(i))

This proposed rule would require a qualified person designated by the operator to connect each SRS lanyard to an airframe attachment point or points with a rated strength equal to or greater than the total weight of the occupant (or the combined weight if there is more than one occupant attached to an attachment point).[43] There is no requirement for a specific number of attachment points. The number and location vary by each aircraft type design. Attachment points in the cabin may be existing hard points, with weight capabilities documented on existing placards or in appropriate aircraft flight manuals. If multiple harnesses are attached to a single location, the proposed rule requires the attachment point to be rated at a strength equal to or greater than the total combined weight of the occupants.

All aircraft are designed for both emergency landing conditions and all flight loads. The FAA is not proposing that an SRS be designed or intended for restraining an occupant in an emergency landing condition because the FAA expects occupants to be in an FAA-approved seat with the seat belt fastened prior to an emergency landing. Therefore, the FAA is not proposing that SRS be subject to the emergency landing load factors applicable to the FAA-approved seats and seatbelts. SRS are designed to keep an individual inside the aircraft, while approved seats and seatbelts are designed for emergency landing conditions. The proposed rule would require each airframe attachment point used for the attachment of SRS to have a rated strength equal to or greater than the total weight of each occupant (or the combined weight if there is more than one occupant attached to an attachment point). This proposed requirement regarding airframe attachment point(s) would ensure that the attachment point has adequate strength under all flight conditions.

2. SRS Attachment Location (§ 91.108(e)(1)(ii))

The FAA proposes that no SRS may be connected to any airframe attachment point located in the flightdeck. During the Liberty Helicopters accident flight, the front passenger, who was facing outboard in his seat with his legs outside the helicopter, leaned back several times to take photographs using a smartphone. The onboard video showed that, each time he leaned back, the tail of the tether attached to the back of his harness hung down loosely near the helicopter's floor-mounted controls. At one point, when he pulled himself up to adjust his seating position, the tail of his tether remained taut but appeared to pop upward. Two seconds later, the helicopter's engine sounds decreased, and the helicopter began to descend. The pilot reported that when he reached down for the emergency fuel shutoff lever, he realized that it was in the off position. He also noted that a portion of the front seat passenger's tether was underneath the lever.[44]

During its investigation of the Liberty Helicopters accident, the NTSB evaluated the certification basis for the accident helicopter's fuel shutoff lever, which did not require protection from inadvertent activation due to external influences, such as interference from a passenger.[45] The NTSB found that the tail of the front passenger's tether caught on the fuel shutoff lever during the flight, which resulted in the inadvertent activation of the fuel shutoff lever, interruption of fuel flow to the engine, and loss of engine power.[46] The NTSB determined the probable cause of the accident was Liberty Helicopters' use of a NYONair-provided passenger harness/tether system, which caught on and activated the floor-mounted engine fuel shutoff lever and resulted in the in-flight loss of engine power and the subsequent ditching.[47]

As the FAA developed this NPRM, it considered previous accidents and incidents in addition to the Liberty Helicopters accident that involved inadvertent operation of flight controls. Reports from these incidents indicate in each that a passenger inadvertently manipulated controls (*e.g.,* fuel flow control lever) in the flightdeck. For example, on April 4, 1994, an Aérospatiale AS 350B Ecureuil air ambulance crashed in Alberta, Canada, following loss of engine power. After an investigation, the Transportation Safety Board of Canada issued its final report, *Engine Failure, Hard Landing, Turbowest Helicopters Limited, Aerospatiale AS350B Astar (Helicopter) C=FHBG, High Prairie, Alberta, 62nm NE, 04 April 1994.*[48] The report stated that a strap from a knapsack got caught on the fuel control lever and moved it out of the ''flight'' position resulting in fuel starvation to the engine, a total loss of engine power, and low rotor revolutions per minute.

On September 13, 1996, an Aérospatiale AS 350B1 Ecureuil, under contract to carry out a number of flights in connection with the filming of scenes for a feature film, crashed in Greenland following loss of engine power, killing the single passenger/photographer and seriously injuring the pilot. Following completion of its investigation, the Danish Accident Investigation Board (AAIB) opined that during movements in and around the lefthand seat, while troubleshooting problems with his photographic equipment, the photographer may unintentionally have pushed the fuel control lever toward idle/shut down. During its investigation, the Danish AAIB became aware of an almost identical incident that happened in 1993. The mission was also photography, and the straps of the photography equipment became caught in the fuel control lever and moved it toward the idle position, resulting in the loss of engine power. The pilot was able to restart the engine and landed the helicopter normally.

[42] For similar requirements imposed on the PIC regarding the SRS's continued serviceability and sizing criteria, see section IV.G below.

[43] The weight limits for aircraft attachment points are placarded within the aircraft, and the aircraft weight and center of gravity limitations are outlined in the aircraft flight manual. Under § 91.103 (Preflight action), prior to flight, each pilot is responsible for being familiar with pertinent information concerning the flight—that typically includes information outlined in the aircraft flight manual. In addition, § 91.9 (Civil aircraft flight manual, marking, and placard requirements) requires persons to comply with the operating limitations specified in the approved aircraft flight manual. Consequently, it is the PIC's responsibility to ensure that all occupants on board meet the attachment point limitations outlined for that aircraft.

[44] *Id.* at 6.

[45] *Id.* at ix.

[46] *Id.* at xii.

[47] Ibid.

[48] *Engine Failure, Hard Landing, Turbowest Helicopters Limited, Aerospatiale AS350B Astar (Helicopter) C=FHBG, High Prairie, Alberta, 62nm NE, 04 April 1994,* Report Number A94W0037 (Gatineau, Quebec, Canada: Transportation Safety Board of Canada, 1994) accessed at *http://www.bst-tsb.gc.ca/eng/rapports-reports/aviation/1994/a94w0037/a94w0037.pdf* on June 24, 2021.

On April 15, 2008, a Eurocopter AS350B2 helicopter crashed 34 miles east of Chickaloon, Alaska, killing the pilot and three passengers and seriously injuring one passenger. The NTSB determined that the probable cause of the accident was the loss of engine power due to an overspeed of the helicopter's turbine engine, precipitated by the inadvertent movement of the fuel flow control lever by a passenger in the front seat. Contributing to the accident was the pilot's failure to properly secure or stow the passenger's backpack. During its investigation, the NTSB interviewed two large helicopter operators, Era and Eurocopter, about incidents of passengers interfering with floor-mounted engine controls on helicopters—specifically, the fuel flow control lever. Both operators informed the NTSB that they had anecdotal information about passengers placing items such as purses and camera bags on the floor-mounted engine controls. The operators also mentioned incidents of bag straps snagging on the fuel and other control levers.[49]

The airworthiness standards for 14 CFR 23.2600, 25.1143(e), 27.1143(d), and 29.1143(e)[50] require that flight and engine controls not be subject to inadvertent operation. This requirement is based on the assumption that only crewmembers and/or pilots will interact with the aircraft controls. When the FAA codified these airworthiness standards, the FAA did not anticipate crewmembers or passengers in the flightdeck would be attached to or carry equipment that is not part of the approved type design that could snag on controls. Generally, flight manual procedures[51] require that all items be secured prior to flight. These procedures reinforce the assumptions made when the airworthiness standards were codified.

This proposed rule would prohibit any person who occupies a seat in the flightdeck from using an SRS. In addition, this proposed rule would require an SRS to be connected to an aircraft attaching point or points that are not in the flightdeck. These proposed limitations would prevent inadvertent operation of the flight controls, as was experienced by the crew and passengers of the Liberty Helicopters accident flight. The operator would be responsible for ensuring that both of these requirements are met.

3. Sizing Criteria (§ 91.108(e)(2))

This proposed rule would also require that the SRS fit the individual using it based on the sizing criteria for which the SRS is rated. As discussed above in section IV.E (''Who May Provide the SRS''), sizing criteria may include different measurements such as height, weight, chest circumference, or other specified sizing criteria. For example, SRS size requirements may be listed as small, medium, and large; however, the size may actually be based on a combination of height and weight. To illustrate, a ''small'' SRS may have minimum criteria of 4 feet 10 inches in height and a weight of 100 pounds and a maximum of 6 feet in height and 170 pounds. Requiring that the SRS fit the individual using it will help ensure safe and appropriate use of the system. This requirement is supplemented by the additional requirements under § 91.108(d)(2) and (f)(3) found in Sections IV.E. and IV.G, respectively.

G. Pilot in Command (§ 91.108(f)(1) Through (5))

In accordance with § 91.3(a), the PIC of an aircraft is directly responsible for, and is the final authority as to, the operation of that aircraft. As a result, this proposed rule imposes several responsibilities on the PIC.

First, the FAA proposes that regardless of who provides the SRS, the PIC has the overall responsibility to ensure that the SRS meets the requirements of proposed § 91.108. As the final authority of the aircraft operation, the PIC is best suited to make this determination. In addition, the FAA proposes that if the SRS does not meet the requirements outlined in § 91.108, the PIC must not permit the individual to use the SRS. For example, if the PIC determines that an SRS is not safe for continued use or that an individual does not meet the sizing criteria for which the SRS is rated (if the operator or PIC provided the SRS), the PIC must not permit the individual to use that SRS.

Second, for any SRS provided by either the operator or the PIC, the FAA proposes that the PIC must ensure the SRS's continued serviceability and readiness for its intended purpose. As discussed in the section pertaining to individuals providing their own SRS, this requirement may be met by inspecting and maintaining the SRS in accordance with the SRS manufacturer's instructions. Ensuring the SRS is serviceable and ready for its intended purpose will help ensure the SRS is safe for continued use.

Third, the FAA proposes that the PIC may only permit an individual to use an SRS that is provided by either the operator or the PIC if that individual complies with the sizing criteria for which the SRS is rated. As discussed in sections IV.E (''Who May Provide the SRS'') and IV.F.3 (''Sizing Criteria''), a manufacturer's sizing criteria may include different measurements such as height, weight, chest circumference, or other specified sizing criteria. This requirement would ensure safe and appropriate use of the system and that the SRS is properly sized for the individual using the SRS.[52]

Fourth, the FAA proposes that the PIC has final authority regarding whether the SRS may be used during flight operations. If the PIC determines an individual should not use an SRS during an operation, the PIC may prohibit use of the SRS. This stipulation is in addition to the PIC's obligation to prohibit the use of an SRS if it does not meet the requirements in § 91.108. For example, the PIC may determine that aircraft operations, outside the requirements of § 91.108, render conditions unsafe to use an SRS. In that case, the PIC may prohibit individuals from using the SRS during the flight.

Finally, the FAA proposes that the PIC has final authority to authorize an individual to release the FAA-approved safety belt and, if installed, shoulder harness and remain secured only by the supplemental restraint system. The PIC is in the best position to determine when appropriate flight conditions exist so as to allow individuals to move about the aircraft using only an SRS.

H. Enhanced Passenger Briefing and Demonstration (§ 91.108 (g) and (h))

1. Passenger Briefing (§ 91.108(g)(1) and (2))

The FAA proposes to require a passenger briefing on how to use SRS during a flight. Existing regulations require operators to provide all passengers a safety briefing prior to departure. When a passenger onboard an aircraft will use an SRS, the rule as proposed requires that passenger to receive additional information in an enhanced safety briefing. In addition, any passenger using an SRS provided by

[49] NTSB Accident Number ANC08FA053, released 2/17/2010, available at: *https://data.ntsb.gov/Docket?ProjectID=67841.*

[50] The airworthiness standards in parts 23, 25, 27, and 29 are organized by aircraft category. Part 23 applies to normal category airplanes; part 25 applies to transport category airplanes; part 27 applies to normal category rotorcraft; and part 29 applies to transport category rotorcraft.

[51] *See* § 91.9 (Civil aircraft flight manual, marking, and placard requirements) requiring persons to comply with the operating limitations specified in the approved aircraft flight manual; *see also* § 21.5 (Airplane or Rotorcraft Flight Manual) requiring the aircraft flight manual to contain the operating limitations and other information required by applicable regulations.

[52] For similar requirements imposed on individuals providing their own SRS, regarding the SRS's continued serviceability and use limitations, see section IV.E above.

either the operator or PIC would have to demonstrate the ability to occupy, secure, and release the FAA-approved seat belts and, if installed, shoulder harnesses, as well as the ability to release quickly the SRS with no assistance and with minimal difficulty. Individuals providing their own SRS do not have to meet this specific requirement, but they must still meet the other briefing requirements, and they must meet the demonstration requirements under § 91.108(h), as discussed in Section IV.H.2, below. Therefore, under the proposed requirements, in addition to the standard briefing requirements codified at §§ 91.107, 91.519, 91.1035, and 135.117, an operator or PIC conducting operations that involve the use of SRS would provide an enhanced briefing prior to the flight to all passengers using an SRS during the flight.

This proposed rule would require the enhanced safety briefing to include information about the proper use, securing, and releasing of the SRS and the means of direct communication among crewmembers and passengers during normal and emergency operating procedures. This proposed rule would require the provision of information about use of any headset and intercom systems, how a passenger will be notified of an event requiring action, including emergencies, egress procedures, and other unforeseen circumstances, and how crewmembers would notify the passenger that they can release the FAA-approved seat belt and, if installed, shoulder harness and move within the aircraft using the SRS. The briefing would also describe how a passenger will be notified when to return to their seat and secure the FAA-approved seat belt and, if installed, shoulder harness, and when to notify the pilot of safety concerns. Each such aspect of this proposed briefing requirement is important because it provides the individual with additional information specific to the unique characteristics of using an SRS during normal and emergency flight operations that would enhance the individual's safety. The proposed briefing helps inform the individual SRS user of the behavioral expectations during the flight and may provoke clarifying dialogue, if necessary, that ensures the individual understands these expectations. These elements are critical to ensuring the safety of the operation.

Finally, to ensure clarity between the existing passenger briefing requirements outlined under §§ 135.117 and 136.7 and the passenger briefing requirements in this proposed rule, the FAA proposes to add a cross-reference to § 91.108 in those sections. Adding this cross-reference will help ensure that the proposed briefing requirements in § 91.108 are not overlooked when considering the other passenger briefing requirements in §§ 135.117 and 136.7.

2. Passenger Demonstration (§ 91.108(h)(1) and (2))

After receiving this enhanced briefing, prior to ground movement of the aircraft, this proposed rule would require all passengers using an SRS to demonstrate their comprehension of the information presented in the briefing. To this end, the proposed rule requires all passengers using an SRS to demonstrate to the operator their ability to occupy, secure, and release the FAA-approved seat belts and, if installed, shoulder harnesses, as well as their ability to release the SRS quickly without assistance and with minimal difficulty. As noted in the proposed regulatory requirements, the passenger must demonstrate their ability to accomplish all actions required for quick release of the SRS with no assistance, regardless of whether the individual will use the individual's own SRS or will use an SRS the operator provides.

The proposed requirement for the user of the SRS to demonstrate the ability to occupy, secure, and release the FAA-approved seat belts and, if installed, shoulder harnesses would ensure that, in an inflight emergency while using SRS at low altitude, the individual can quickly re-secure themself with the FAA-approved seat belt and, if installed, shoulder harness. It would also establish that the individual can accomplish all actions required for quick release of the SRS without assistance to egress the aircraft in case of an emergency.

I. Individuals Not Permitted To Use SRS (§ 91.108(i)(1) Through (4))

During operations when SRS are in use, there might be instances when not all individuals are using an SRS, either by choice or because they do not meet the requirements of the proposed rule. This would include, but is not limited to, any passenger who is unable to demonstrate that the individual is able to occupy, secure, and release the FAA-approved seat belt and, if installed, shoulder harness, or release quickly the SRS with no assistance and with minimal difficulty. Passengers under the age of 15, individuals occupying a seat in the flightdeck, and passengers occupying or using an approved child restraint system are not permitted to use an SRS.

1. Individuals Unable To Meet the Demonstration Requirements of the Enhanced Safety Briefing (§ 91.108(i)(1))

If an individual cannot demonstrate that they are able to occupy, secure, and release the FAA-approved seat belt and, if installed, shoulder harness, and able to release quickly the SRS with no assistance and with minimal difficulty, this proposed rule would prohibit the individual from occupying or using an SRS during the flight. The individual must remain secured in their FAA-approved seat belt and, if installed, shoulder harness for the entire flight.

2. Individuals Under the Age of 15 (§ 91.108(i)(2))

The FAA is proposing that an individual may not use an SRS during operations unless the individual has reached their fifteenth birthday. In determining this proposal, the FAA referred to the ''*Exit Row Seating*'' final rule,[53] which evaluated various criteria to determine individuals who are capable of performing certain functions during an emergency. As explained below, limiting the age to 15 or older for those who use an SRS helps maximize the chances of survival for the user should an emergency evacuation occur.

As discussed in the ''*Exit Row Seating*'' final rule, many children do not have the skills or capabilities necessary to perform the required functions of an emergency evacuation from an aircraft and would likely require the assistance of an adult during an emergency.[54] The same is true for children using SRS. It is likely a child would need assistance in releasing from the SRS in order to egress the aircraft safely and quickly during an emergency. Similarly, it is likely that some children, due to their age and/or size, would not have the cognitive or physical ability to safely release from an SRS during an emergency.

The FAA has stated that it is difficult to establish a clear cut-off point between childhood and adolescence when individuals may be more capable of handling emergency situations.[55] Notwithstanding, a number of existing laws, regulations, and practices point to the age of 15 as a turning point into adulthood. For example, in many states it is the age when driver's licenses and

[53] *See Exit Row Seating,* Final Rule, 55 FR 8054, 8066 (Mar. 6, 1990).

[54] *Id.*

[55] *Id.* (discussing various dictionary definitions of ''child.'') In the *Exit Row Seating* NPRM, the FAA did not propose a specific age limit, but one commenter requested a defined age to facilitate the operators' abilities to establish objective criteria. *Exit Row Seating,* NPRM, 54 FR 10484 (Mar. 13, 1989).

work permits become available.[56] After considering several options for an age requirement to use an SRS, the FAA determined that the reasoning in the ''*Exit Row Seating*'' final rule applies in this proposed rule. Fifteen is an objective criterion that will enable operators to comply with clear SRS requirements. Moreover, most children at that age can accomplish the functions required to release from an SRS safely and quickly during an emergency. The FAA has determined that individuals who have reached this age are less likely to need assistance from an adult during an emergency. Consequently, the FAA proposes that passengers under the age of 15 are prohibited from using an SRS and must occupy either an approved seat or berth with a safety belt and, if installed, shoulder harness, or an approved child restraint system that complies with § 91.107(a)(3)(iii) or § 135.128(a)(2).

3. Individuals Seated in the Flightdeck (§ 91.108(i)(3))

This proposed rule would prohibit individuals using an SRS from sitting in the flightdeck. As discussed in section IV.F.3 of this preamble, this proposed prohibition is based on a review of past accidents and incidents where unsecured items, including those with straps and lanyards, have a history of interfering with flight and engine controls. In the Liberty Helicopters accident, a tether caught on and activated the floor-mounted engine fuel shutoff lever, resulting in the in-flight loss of engine power and subsequent ditching.[57]

As described above, airworthiness standards codified at 14 CFR parts 23, 25, 27 and 29 require that flight and engine controls not be subject to inadvertent operation. These standards do not address circumstances when carry-on objects, tethers, or straps would inadvertently move a control. Consequently, crewmembers or passengers in the flightdeck should not be attached to or carry equipment that could snag on controls.

4. Passengers Who Occupy or Use an Approved Child Restraint System (§ 91.108(i)(4))

The FAA proposes to prohibit anyone occupying or using a child restraint system from also using an SRS. Current regulations under 14 CFR parts 91, 121, 125, and 135 allow a child, who by definition is any individual under 18 years of age, to occupy or use an FAA-approved child restraint system, provided certain conditions exist, including that the child is accompanied by a parent, guardian, or attendant designated by the child's parent or guardian to attend to the safety of the child during the flight.[58] As a result, there may be circumstances where an individual occupying an approved child restraint system is 15 years old or older and is otherwise eligible to use an SRS. As explained in more detail below, an SRS may not be used by an individual occupying a child restraint system.

The use of a child restraint system is incompatible with the use of an SRS. As described above, this proposed rule would require each SRS to consist of a body harness secured around the torso of the individual using the SRS and a lanyard that connects the body harness to an airframe attachment point inside the aircraft. The SRS would have a release mechanism that the individual can quickly operate with minimal difficulty and without impeding egress from the aircraft in an emergency. Additionally, the release mechanism cannot require the assistance of any other individual to release the SRS. It is illogical to permit a child who occupies a child restraint system, and who must be accompanied by a parent, guardian, or attendant tasked to attend to the safety of the child during the flight, to be permitted to also use an SRS. Therefore, this proposed rule would prohibit all individuals occupying or using a child restraint system from also using an SRS. The FAA notes that this proposed rule permits the use of an approved child restraint system on a flight where the doors are opened or removed as long as the child restraint system is properly secured to an approved seat or berth with a safety belt and, if installed, shoulder harness, and complies with § 91.107(a)(3)(iii) (for part 91 operations) or § 135.128(a)(2) (for part 135 operations).

J. Lap-Held Child (§ 91.108(j)(1) and (2))

The proposed rule would prohibit a child who has not reached their second birthday from being held by an adult during civil aircraft operations when the adult uses an SRS or during any operation in which the doors are opened or removed. Specifically, the proposed rule would prohibit a child from being held by an adult using an SRS during civil aircraft operations even when the aircraft doors are not opened or removed. The intent of using an SRS is to provide support to the user when they are out of their required safety belt and, if installed, shoulder harness. Unexpected turbulence can cause an airplane to suddenly jolt, possibly injuring passengers who are not restrained. If turbulence occurs when the SRS user is not secured by a safety belt, they would require the use of their hands to steady themselves or to hold onto an aircraft seat or structure to prevent themselves from falling, particularly if they are out of their seat. Holding a lap child would prevent the SRS user from being able to use their hands to steady themselves or to grasp onto something if necessary. Further, in the event of an emergency, time is critical. Using an SRS requires additional steps to release. Holding a lap child while trying to quickly release the SRS and the required safety belt and, if installed, shoulder harness, could cause the SRS user additional time to evacuate the aircraft.

In addition, this rule would prohibit a lap-held child during operations where the aircraft doors are opened or removed. As currently permitted by §§ 91.107 and 135.128, a child who has not reached their second birthday may be held by an adult who occupies an approved seat or berth. However, it is contrary to this proposed rule, the intent of which is to mitigate risks to all occupants during operations conducted anytime an SRS is in use, to permit a child to remain unrestrained during all phases of flight, including during movement on the surface, takeoff, and landing, when the aircraft doors are opened or removed. During an operation with doors opened or removed, a lap-held child would be at high risk of falling out of the aircraft—an unacceptable risk this rule seeks to prevent.

For the above reasons, the FAA proposes that lap-held children may not be held by anyone using an SRS, regardless of whether the doors are opened or removed, and they are not permitted on flights where the doors are opened or removed.

Finally, to ensure clarity between the lap-held child permissions outlined under §§ 91.107 and 135.128 and the lap-held child restrictions in this proposed rule, the FAA proposes to add a cross-reference to § 91.108 in those sections. Adding this cross-reference will help ensure that proposed § 91.108 is not overlooked when considering whether lap-held children are permitted on a flight.

[56] 55 FR 8066.

[57] *Inadvertent Activation of the Fuel Shutoff Lever and Subsequent Ditching, Liberty Helicopters Inc., Operating a FlyNYON Doors-Off Flight, Airbus Helicopters AS350 B2, N350LH, New York, New York, March 11, 2018.* Aircraft Accident Report, December 10, 2019. Available at *https://www.ntsb.gov/investigations/AccidentReports/Reports/AAR1904.pdf.*

[58] See § 91.107 Use of safety belts, shoulder harnesses, and child restraint systems, § 135.128 Use of safety belts and child restraint systems.

K. Excluded Operations (§ 91.108(k)(1) Through (3))

The FAA determined that this proposed rule should not apply to certain other regulations if the rule would otherwise conflict with the intent of those regulations. As a result, this proposed rule would not apply to operations conducted under part 105, Parachute Operations, nor would it apply to the persons described in § 91.107(a)(3)(ii), which allows person(s) on board an aircraft for the purpose of engaging in sport parachuting to use the floor of the aircraft as a seat.

Additionally, this proposed rule would not apply to rotorcraft external-load operations conducted under part 133. Title 14 CFR 1.1 defines external load as a load that is carried, or extends, outside of the aircraft fuselage. Section 133.11(a) states that no person subject to part 133 may conduct rotorcraft external-load operations within the United States without, or in violation of the terms of, a Rotorcraft External-Load Operator Certificate issued by the Administrator under § 133.17.

This proposed rule also would not interfere with or contradict the requirements of § 91.105, Flight crewmembers at stations, or § 135.171, Shoulder harness installation at flight crewmember stations. As proposed, the regulation would allow an operator to conduct a flight with doors opened or removed under § 91.108(b)(1) even if there are flight crewmembers on board who are subject to the requirements of §§ 91.105 or 135.171 and to the extent that the flight crewmembers must unfasten their shoulder harnesses in accordance with those sections. Similarly, the FAA proposes that § 91.108(b)(2) not apply to any flight crewmembers subject to §§ 91.105 or 135.171 to the extent they need to unfasten their shoulder harnesses in accordance with those sections. Sections 91.105 and 135.171 allow a flight crewmember to unfasten or not use the installed shoulder harness if the crewmember cannot perform the required duties with the shoulder harness fastened.

The proposed SRS rule could inhibit, or otherwise conflict with, the aforementioned operations; therefore, the FAA proposes the aforementioned exclusions under § 91.108.

L. Definition (§ 91.108(l))

This proposed rule would define an SRS as a device that is not installed on the aircraft pursuant to an FAA approval used to secure an individual inside an aircraft when that person is not properly secured by an FAA-approved seat belt and, if installed, shoulder harness or an approved child restraint system.[59] An SRS consists of a harness secured around the torso of the individual using the supplemental restraint system and a lanyard that connects the harness to an approved airframe attachment point inside the aircraft. Examples of FAA-approved devices include (but are not limited to) restraints approved through a Type Certificate, Supplemental Type Certificate, or as an approved major alteration using FAA Form 337.

M. Additional Comments Invited

This proposed rule would apply to operations conducted under parts 91 and 135 and does not include an option for waiving the proposed requirements of § 91.108 in accordance with § 91.905, *List of rules subject to waivers.* The FAA cannot envision a scenario in which operations conducted with doors opened or removed could occur safely without complying with the proposed requirements of § 91.108. The FAA seeks input, however, on its proposal that § 91.108 not be listed in the rules subject to waivers under § 91.905.

V. Regulatory Notices and Analyses

Federal agencies consider impacts of regulatory actions under a variety of executive orders and other requirements. First, Executive Order 12866 and Executive Order 13563, as amended by Executive Order 14094 (''Modernizing Regulatory Review''), direct that each federal agency shall propose or adopt a regulation only upon a reasoned determination that the benefits of the intended regulation justify its costs. Second, the Regulatory Flexibility Act of 1980 (Pub. L. 96–354) requires agencies to analyze the economic impact of regulatory changes on small entities. Third, the Trade Agreements Act (Pub. L. 96–39) prohibits agencies from setting standards that create unnecessary obstacles to the foreign commerce of the United States. In developing U.S. standards, this Act requires agencies to consider international standards and, where appropriate, that they be the basis of U.S. standards. Fourth, the Unfunded Mandates Reform Act of 1995 (Pub. L. 104–4) requires agencies to prepare a written assessment of the costs, benefits, and other effects of proposed or final rules that include a federal mandate likely to result in the expenditure by state, local, or tribal governments, in the aggregate, or by the private sector, of $100 million or more (adjusted annually for inflation) in any one year. The current threshold after adjustment for inflation is $177 million using the most current (2022) Implicit Price Deflator for the Gross Domestic Product. The FAA has provided a detailed Regulatory Impact Analysis (RIA) in the docket for this rulemaking. This portion of the preamble summarizes the FAA's analysis of the economic impacts of this proposed rule.

In conducting these analyses, the FAA has determined that this proposed rule: (1) has benefits that justify its costs. This rule is not a significant regulatory action, as defined in section 3(f) of Executive Order 12866. The proposed rule, if adopted, would not have a significant economic impact on a substantial number of small entities, would not create unnecessary obstacles to international trade, and would not impose an unfunded mandate on state, local, or tribal governments, or on the private sector.

A. Summary of the Regulatory Evaluation

The FAA estimates that for safety benefits to equal or exceed the costs of the proposed rule, based on a 20-year analysis, two accidents of the same severity as the Liberty Helicopters accident would need to be mitigated. The estimated safety benefit in present value, from mitigating one part 91 and one part 135 helicopter accident (*i.e.,* an accident in year 10 and an accident in year 20 of the analysis period), would range from $26.8 million to $40.2 million, at a 7 percent discount rate, and $45.4 million to $68.0 million at a 3 percent discount rate.

The cost of the proposed rule to operators, pilots, and passengers comes from purchasing harnesses and lanyards that meet specific requirements as set forth in this rule, conducting a pre-flight safety briefing on the use of the SRS, and requiring passengers to demonstrate their ability to remove the SRS in the event of an emergency. The FAA would also incur costs for periodic surveillance of parts 91 and 135 SRS operations. The estimated present value cost to the FAA, over 20 years, is $1,240 at a 7 percent discount rate and $1,263 at a 3 percent discount rate. The estimated present value total cost to industry and the FAA, for these requirements, over 20 years, is $22.3 million at a 7 percent discount rate and $31.7 million at a 3 percent discount rate. Estimated safety

[59] As explained previously, there may be circumstances where an individual occupying an approved child restraint system is 15 years old or older and is otherwise eligible to use an SRS.

benefits and costs are shown in the table below.

TABLE 2—TOTAL BENEFITS AND COSTS OVER 20 YEARS

[Millions of USD]*

Provisions	Affected population	Safety benefits		Costs	Safety benefits		Costs
		Low	High		Low	High	
		7 Percent present value			3 Percent present value		
91.108—Use of supplemental restraint systems[60].	Part 91 Operations	$17.8	$26.7	$19.4	$26.0	$39.0	$27.5
	Part 135 Operations	9.0	13.6	2.9	19.4	29.0	4.1
Total		26.8	40.2	22.3	45.4	68.0	31.7
Annualized		2.5	3.8	2.1	3.0	4.6	2.1

*Table values have been rounded. Totals may not add due to rounding.

In 2018, in response to the Liberty Helicopters accident, the FAA issued an Emergency Order of Prohibition, which prohibited the use of supplemental passenger restraint systems (SPRS) that cannot be released quickly in an emergency in doors-off flight operations. The FAA also estimates the cost and benefit of the proposed rule using the Emergency Order of Prohibition as the baseline. The FAA estimates that the undiscounted cost of the rule, above the Emergency Order of Prohibition, is $22.9 million ($11.8 million at 7 percent present value, or $16.8 million at 3 percent present value). When annualized, at either a 7 percent or 3 percent discount rate, the cost is approximately $1.1 million. The costs come entirely from the demonstration by passengers of the ability to release the device. The FAA considers that a passenger demonstrating the ability to release themselves from the device adds to the efficacy of the rule above the Emergency Order of Prohibition. However, the FAA is unable to quantify the incremental safety benefits gained by the passenger demonstration.

1. Who is potentially affected by this rule?

This proposed rule would affect all flights with doors opened or removed and all operations with individuals on board who choose to use an SRS, except for operations conducted under part 105, Parachute Operations, or conducted under part 133, Rotorcraft External-Load Operations, and public aircraft operations. The FAA identified the following, from Flight Standards' Web-based Operations Safety System (June 2021), as the population that could be affected:

TABLE 3—POTENTIAL AFFECTED OPERATORS

CFR	Number of operators	Number of rotorcraft	Number of operators	Number of aircraft
	Rotorcraft		Fixed wing	
91	405	1,051	716	1,894
135	472	2,917	1,728	8,411

However, based on the number of requests for SRS LOAs, the FAA narrowed the population to 26 part 91 operators and 40 part 135 operators over the next 20 years.

General Assumptions:

- The present value discount rate of three and seven percent is used as required by the Office of Management and Budget.[61]
- Period of Analysis: 20 years to capture replacement of an SRS occurring every 10 years.[62]
- The estimated average number of passengers per flight is between 3 to 5 passengers. The FAA used 4 passengers in the analysis.
- Estimated time to create and update content for enhanced passenger safety briefing:[63] 2 hours per operator. Assume updates occur every 10 years to align with the replacement cycle of harnesses and lanyards.
- Estimated pilot time to complete enhanced safety briefing:[64] 0.03 hours (2 minutes)
- Estimated time for passenger competency demonstration:[65] 0.02 hours (1 minute)

Baseline: There were no requirements for an SRS prior to 2018 when the FAA issued Emergency Order of Prohibition No. FAA–2018–0243. Since the Emergency Order of Prohibition is temporary, the baseline used in this analysis is pre-Emergency Order. However, the Emergency Order requires harnesses and lanyards that fulfill the same requirements required in the

[60] Assumes a part 91 accident occurs in year 10 and a part 135 accident occurs in year 20.

[61] Office of Management and Budget, OMB Circular A–4 (2003), guidance for the development of regulatory analysis.

[62] A sample of harnesses provided for consideration of an SRS LOA, such as Yates 363 and 338, have a maximum life span of 10 years. See Product manuals. *available at http://yatesgear.com/en/special-forces-full-body-spie-harness* and *http://yatesgear.com/en/ars-heli-ops-harness.*

[63] *Part 135—Operating Requirements: Commuter and on-Demand Operations and Rules Governing Persons on Board such Aircraft, Paperwork Reduction Act Supporting Statement,* (OMB No. 2120–0039): § at 8 (Apr. 9, 2019) (estimate of time and volume of operators and passenger briefings pursuant to § 135.117, Briefing of passengers before flight), *available at https://www.reginfo.gov/public/do/DownloadDocument?objectID=86383102.*

[64] *Id.*

[65] This estimate is a combination of the time identified in the Emergency Order and the FAA's assertion that a passenger will need to release the SRS in under a minute to be able to evacuate a helicopter in an emergency.

proposed rule; therefore, operators already incur the cost of the harness and lanyard. Operators would primarily incur the additional cost of the passenger demonstration briefing under the proposed rule. This is analyzed as a second baseline. The extension of the Emergency Order of Prohibition was considered as an alternative, and cost and benefits are estimated in the alternative section below.

2. Benefits of This Rule

Benefits of this rule include preventing future accidents similar to the Liberty Helicopters accident. The NTSB final safety report identified the probable cause of this accident as Liberty Helicopters' use of an SRS system. The SRS caught on and activated the engine fuel shutoff lever, located in the flightdeck, and resulted in the loss of engine power and the subsequent ditching. That same SRS, worn by passengers on that flight, also contributed to the severity of the accident by hindering the passengers' quick egress from the aircraft. This proposed rule would prohibit use of an SRS in the flightdeck, address the inadvertent activation of the fuel shutoff lever, and propose SRS requirements that would reduce the likelihood of passengers being unable to remove an SRS when needed in an emergency.

The Liberty Helicopters accident resulted in five fatalities, one minor injury, and a substantially damaged aircraft. The analysis assumes that another accident of similar magnitude would occur in the 20-year time horizon. While the SRS operation requirements, passenger briefing, and passenger demonstration set forth in the proposed rule would have lessened the severity of the accident, the NTSB determined the probable cause of the accident to be the inadvertent activation of the floor-mounted engine fuel shutoff lever by the passenger harness/tether system.[66] Prohibiting the use of an SRS in the flightdeck would help mitigate the risk factor that initiated the accident. The benefits include avoided casualties and aircraft damage. Multiplying the five casualties by a value of statistical life (VSL) of $11.6 million yields a total of $58.0 million as the social cost of these fatalities.[67] The pilot also sustained minor injuries at an avoided minor injury rate of $34,800, and the helicopter, an Airbus AS350 B2, suffered substantial damage valued at $210,243.[68] Adding the value of avoided casualties, including the pilot's injuries, to aircraft damage gives a total potential loss of $58.2 million that enhanced safety measures could avert.

The FAA Office of Accident Investigation and Prevention evaluated how effective the proposed requirements would be at addressing the NTSB urgent safety recommendation and any other factors that may have contributed to the Liberty Helicopters accident, previously described in section III. of this proposed rule. Based on that assessment, the FAA used a range for the effectiveness rate of 0.6 to 0.9.[69] Multiplying the effectiveness rates by the estimated potential loss of $58.2 million, mentioned above, yields an estimated range of $34.9 to $52.4 million for one averted accident. Assuming an accident occurs every 10 years over a 20-year time horizon (*i.e.,* an accident in year 10 and year 20 of the analysis period), the present value of benefits would range from $26.8 million to $40.2 million, at a 7 percent discount rate, and $45.4 million to $68.0 million at 3 percent discount rate.

3. Costs Relative to Pre-Emergency Order of Prohibition

This proposed rule would prohibit flight operations with an SRS unless the SRS meets specific requirements. Although these requirements are being proposed under part 91, they would affect any operation with an SRS except for operations conducted under part 105, parachute operations, and operations conducted under part 133, Rotorcraft External-Load Operations. This subsection examines the costs relative to the regulatory environment before the Emergency Order of Prohibition, when no rules specifically addressed civil aircraft operations conducted with the use of SRS.

This proposed rule would require the SRS (which would consist of a harness and lanyard, at a minimum) to have an accessible front or side release mechanism that can be quickly operated with minimal difficulty during an emergency. The rule would require the lanyard be connected to an aircraft attaching point or points that are not in the flightdeck, with a rated strength equal to or greater than the weight of the occupant (or the combined weight if there is more than one occupant attached to an attachment point), and ensures the torso of the person using the SRS remains inside the aircraft at all times. Additionally, for operations with doors opened or removed, each person would need to occupy an approved seat or berth with a safety belt and, if installed, shoulder harness, properly secured about the individual during all phases of flight; or occupy an approved seat or berth with a safety belt and, if installed, shoulder harness, properly secured about the individual during movement on the surface, takeoff, and landing, in accordance with § 91.107 and during other phases of flight, the individual would use an SRS.

This proposed rule would also require operators to provide passengers with an enhanced safety briefing that includes a passenger's satisfactory demonstration of competency to release quickly the SRS with no assistance. The rule also proposes certain requirements regarding persons who may seek to participate in such flights. Passengers unable to release quickly from an SRS, passengers under 15 years of age, individuals seated in the flightdeck, and passengers occupying an approved child restraint system would be prohibited from using the SRS. Furthermore, children may not be held in an adult's lap if the adult uses an SRS or the aircraft doors are opened or removed. The FAA intends these proposed requirements to ensure the safety of all aircraft occupants on such flights.

The cost of the proposed rule to operators, passengers, and pilots would arise out of purchasing harnesses and lanyards that meet specific requirements as set forth in this rule, a pre-flight safety briefing on the use of the SRS, and passengers demonstrating their ability to remove the SRS in the event of an emergency. The cost to the FAA comes from approving the addition of SRS to part 135 passenger safety briefing cards and for periodic surveillance of parts 91 and 135 SRS operations. The estimated cost of these requirements is $22.3 million at 7 percent present value

[66] National Transportation Safety Board. (March 11, 2018) *Inadvertent Activation of the Fuel Shutoff Lever and Subsequent Ditching Liberty Helicopters Inc., Operating a FlyNYON Doors-Off Flight Airbus Helicopters AS350 B2, N350LH* (Report No. NTSB/AAR–19/04 or PB2020–100100). Retrieved from *https://www.ntsb.gov/investigations/AccidentReports/Reports/AAR1904.pdf.*

[67] Departmental Guidance on Valuation of a Statistical Life in Economic Analysis, Issued Date: 3/23/2021 *https://www.transportation.gov/office-policy/transportation-policy/revised-departmental-guidance-on-valuation-of-a-statistical-life-in-economic-analysis.*

[68] Economic Values for FAA Investment and Regulatory Decisions, A Guide: 2021 Update, Section 5, Table 5–10: General Aviation Restoration Costs ($2018). These numbers are adjusted to reflect 2020 dollars. *https://www.faa.gov/regulations_policies/policy_guidance/benefit_cost.*

[69] *Id.* at Appendix A at 61 (stating, High effectiveness—The JIMDAT-assigned values in which enhancements that are judged to have a ''low'' probability of preventing an accident receive a numerical value ranging from 0.1 to 0.4, reflecting a one in ten chance of preventing the accident to a 40% chance. Similarly, ''medium'' may receive numerical ratings of 0.4 to 0.6 and ''high'' may receive up to 0.95).

and $31.6 million at 3 percent present value, as shown in the table below.

TABLE 4—PROPOSED RULE TOTAL COST OVER 20 YEARS *

Requirements	Part 91	Part 135	Total
Harness + Replacement	$172,608	$623,616	$796,224
Lanyard + Replacement	43,152	155,904	199,056
Create Briefing	14,572	19,774	34,346
Passenger Briefing (Pilot + Passenger)	16,840,356	2,139,920	18,980,276
Passenger Demonstration (Pilot + Passenger)	20,342,887	2,584,989	22,927,876
FAA costs	583	898	1,481
Total Cost	37,414,159	5,525,101	42,939,259
Total Cost at 7 Percent Present Value	19,361,893	2,933,645	22,295,537
Total Cost at 3 Percent Present Value	27,541,440	4,109,635	31,651,075

* Table values have been rounded. Totals may not add due to rounding.

4. Costs Relative to Post-Emergency Order of Prohibition

After the FAA published the Emergency Order of Prohibition, operators were required to comply with many of the requirements of this proposed rule. This subsection measures the costs which are above and beyond the costs of complying with the Emergency Order of Prohibition.

There are three main differences between this rule and the Emergency Order of Prohibition. First, the Emergency Order of Prohibition does not prohibit passengers using an SRS from being seated in the flightdeck, while the proposed rule would prohibit this. The FAA estimates minimal cost from this proposed prohibition.

Second, the Emergency Order of Prohibition applies only to operations conducted for compensation or hire. The proposed rule would extend this to all civil operations. The FAA does not have precise data on operations using an SRS that are not for compensation or hire, and so assumes there would be a negligible number.

Finally, the Emergency Order of Prohibition does not require a passenger demonstration of the passenger's ability to release the SRS. The FAA estimates the undiscounted costs, beyond the Emergency Order of Prohibition, to be $22.9 million ($11.8 million at 7 percent present value, or $16.8 million at 3 percent present value). At either discount rate, the annualized cost is approximately $1.1 million. These costs come entirely from the value of passenger and pilot time spent on the demonstration.

5. Alternatives Considered

The FAA considered proposing the Emergency Order of Prohibition as the proposed rule but applying it to all civil operations. The Emergency Order of Prohibition prohibits the use of an SRS that cannot be released quickly in an emergency during flight operations for compensation or hire with the doors opened or removed. The Emergency Order of Prohibition requires: a supplemental harness that meets specific safety requirements, an application for an LOA to include a link to a video (roughly 8 seconds long) demonstrating the user's ability to release themselves from the supplemental harness without assistance, a preflight briefing on the release of the SRS, and FAA review and approval of the application. The table below summarizes the costs of each of these requirements.

TABLE 5—EMERGENCY ORDER OF PROHIBITION TOTAL COST OVER 20 YEARS *

Requirements	Part 91	Part 135	Total
Cost of Harness + Application + Video + Safety Briefing	$4,747,142	$1,225,615	$5,972,757
FAA Cost	2,399	4,107	6,506
Total Cost	4,749,541	1,229,722	5,979,263
Total Cost at 7 Percent Present Value	4,394,485	986,054	5,380,539

* Table values have been rounded. Totals may not add due to rounding.

The FAA considered proposing the above requirements in this proposed rule, but after careful review of the NTSB final accident report and the information gathered through the Emergency Order of Prohibition, the FAA determined that it could tailor the requirements to increase the likelihood that passengers would be able to quickly release the supplemental restraint in the event of an emergency. For example, the Emergency Order of Prohibition does not address the use of an SRS in the flightdeck. Additionally, the proposed rule would require operators to conduct an enhanced safety briefing and passengers to complete a demonstration. Passengers in the Liberty Helicopters accident received a briefing on how to release their supplemental restraints but were unable to release them during the accident. Requiring passengers to demonstrate successfully their ability to release the SRS would ensure passengers not only understand how to release themselves from the SRS during an emergency but also increase the likelihood that they would be able to release themselves from the SRS during an emergency. The proposed passenger demonstration requirement would be necessary to achieve the effectiveness estimate of 0.6 to 0.9 as discussed in the main analysis of the proposed rule. However, uncertainty exists regarding the incremental reduction in the effectiveness of a regulatory alternative that would not require passengers to demonstrate proficiency in using the SRS. The FAA requests comments and data to help quantify the benefits of this alternative relative to the proposed rule.

B. Regulatory Flexibility Determination

The Regulatory Flexibility Act (RFA) of 1980 (Pub. L. 96–354), as amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (Pub.

L. 104–121) and the Small Business Jobs Act of 2010 (Pub. L. 111–240), requires federal agencies to consider the effects of the regulatory action on small business and other small entities and to minimize any significant economic impact. The term ''small entities'' comprises small businesses and not-for-profit organizations that are independently owned and operated and are not dominant in their fields, and governmental jurisdictions with populations of less than 50,000.

The FAA is publishing this Initial Regulatory Flexibility Analysis (IRFA) to aid the public in commenting on the potential impacts to small entities from this proposal. The FAA invites interested parties to submit data and information regarding the potential economic impact that would result from the proposal. The FAA will consider comments when making a determination or when completing a Final Regulatory Flexibility Assessment.

An IRFA must contain the following:

(1) A description of the reasons why the action by the agency is being considered;

(2) A succinct statement of the objective of, and legal basis for, the proposed rule;

(3) A description of and, where feasible, an estimate of the number of small entities to which the proposed rule will apply;

(4) A description of the projected reporting, recordkeeping, and other compliance requirements of the proposed rule, including an estimate of the classes of small entities that will be subject to the requirement and the type of professional skills necessary for preparation of the report or record;

(5) An identification, to the extent practicable, of all relevant federal rules that may duplicate, overlap, or conflict with the proposed rule; and

(6) A description of any significant alternatives to the proposed rule that accomplish the stated objectives of applicable statutes and that minimize any significant economic impact of the proposed rule on small entities.

1. Reasons the Action Is Being Considered

This proposed rule addresses safety issues that contributed to the Liberty Helicopters accident to ensure the safety of similar operations. The operator-provided harness/tether system the passengers used on that flight, while intended as a safety measure when the aircraft was in flight, hindered the passengers' egress from the aircraft. This proposed rule would address the safety issue by proposing specific requirements for individuals using an SRS or participating in flights with doors opened or removed.

2. Objectives of the Proposed Rule

For flights with doors opened or removed, each person would be required to either occupy an approved seat or berth with a safety belt and, if installed, shoulder harness, properly secured about the individual during all phases of flight; or occupy an approved seat or berth with a safety belt and, if installed, shoulder harness, properly secured about the individual during movement on the surface, takeoff, and landing, and during other phases of flight, the individual uses an SRS.

For flights using an SRS, this proposed rule would require the harness and lanyard, at a minimum, to have an accessible front or side release mechanism that can be operated quickly with minimal difficulty during an emergency. As proposed, the lanyard must be connected to an aircraft attaching point or points, not in the flightdeck, with a rated strength equal to or greater than the weight of the occupant (or the combined weight if there is more than one occupant attached to an attachment point). This proposed rule would require the lanyard to ensure the torso of the person using the SRS remains inside the aircraft. Additionally, operators would be required to provide passengers with an enhanced safety briefing, and passengers would demonstrate the capability to release quickly the SRS with no assistance. Passengers under 15 years of age, individuals seated in the flightdeck, passengers occupying an approved child restraint system, or passengers unable to release quickly from the SRS would be prohibited from using the SRS.

3. All Federal Rules That May Duplicate, Overlap, or Conflict

This proposed rule does not duplicate, overlap, or conflict with any other rule.

4. Description and Estimate of the Number of Small Entities

This proposed rule would affect flights with doors opened or removed and all operations with individuals on board who choose to use an SRS. A search of the Web Based Operations Safety System (WebOPSS) database, as of June 2021, indicates that the rule could affect 1,121 part 91 operators and 2,200 part 135 operators. These flights include sightseeing, motion picture and television filming, electronic news gathering, power line inspection, game management, and fire suppression, for example. The Small Business Administration (SBA) defines charter nonscheduled passenger air transport (NAICS 481211) with less than 1,500 employees or scenic and sightseeing transportation (NAICS 487990) with less than $8.0 million in revenue as small businesses.[70] Census data indicates that revenue for the scenic and sightseeing transportation industry (NAICS 4879), which includes airplane and helicopter operations, was roughly $502.5 million for 220 establishments, and for nonscheduled chartered passenger air transportation (NAICS 481211), there are 28,261 employees for 1,604 firms.[71] Based on census data and the SBA definition of a small business, a substantial number of operators affected by this proposed rule would be considered small businesses.

5. Projected Reporting, Recordkeeping, and Other Compliance Requirements

The cost of the proposed rule would include purchasing harnesses and lanyards that meet specific requirements as set forth in this rule, a preflight safety briefing on the use of the SRS, and passengers' satisfactory demonstration of their ability to remove the SRS in the event of an emergency. The estimated cost for these requirements per year for a part 91 operator is $71,949 and $6,905 for a part 135 operator, as shown in the table below.

TABLE 6—ESTIMATED COST PER OPERATOR *

Provisions	Part 91 [72]	Part 135 [73]
Harness + Replacement	$6,639	$15,590

[70] United States Small Business Administration, *Table of Size Standards* (2019), *available at https://www.sba.gov/document/support--table-size-standards.*

[71] United States Census Bureau, *Transportation and Warehousing: Geographic Area Series: Summary Statistics for the U.S., States, Metro Areas, Counties, and Places* (2012), *available at https://factfinder.census.gov/faces/nav/jsf/pages/searchresults.xhtml?refresh=t.*

TABLE 6—ESTIMATED COST PER OPERATOR *—Continued

Provisions	Part 91 [72]	Part 135 [73]
Lanyard + Replacement	1,660	3,898
Create + Update Briefing	560	494
Passenger Briefing (Pilot + Passenger)	647,706	53,498
Passenger Demonstration (Pilot + Passenger)	782,419	64,625
Total Over 20 Years	1,438,984	138,105
Estimated Yearly Cost Per Operator	71,949	6,905

* Table values have been rounded. Totals may not add due to rounding.

6. Significant Alternatives Considered

The FAA considered proposing to codify the requirements of the Emergency Order of Prohibition applied to all civil operations, but determined to propose adding the requirement for operators to brief passengers on the SRS and verify that passengers could release the SRS in an emergency.

The Emergency Order currently prohibits the use of an SRS during flights with doors opened or removed unless it complies with the process referenced in FAA Order 8900.4. FAA Order 8900.4 requires harnesses and lanyards that fulfill the same requirements this proposed rule would require; therefore, operators already incur the cost of the harness and lanyard. Under this proposed rule, operators would primarily incur the additional cost of the enhanced safety briefing. However, the majority of the cost comes from the pilot safety briefing and the passenger demonstration and is directly tied to the passenger count. Based on the foregoing, this proposed rule would not have a significant economic impact on a substantial number of small entities. The FAA solicits comments regarding this proposed determination.

C. International Trade Impact Assessment

The Trade Agreements Act of 1979 (Pub. L. 96–39), as amended by the Uruguay Round Agreements Act (Pub. L. 103–465), prohibits federal agencies from establishing standards or engaging in related activities that create unnecessary obstacles to the foreign commerce of the United States. Pursuant to these Acts, the establishment of standards is not considered an unnecessary obstacle to the foreign commerce of the United States, so long as the standard has a legitimate domestic objective, such as the protection of safety, and does not operate in a manner that excludes imports that meet this objective. The statute also requires consideration of international standards and, where appropriate, that they be the basis for U.S. standards. The FAA has assessed the potential effect of this proposed rule and determined that it would have only a domestic impact and, therefore, no effect on international trade.

D. Unfunded Mandates Assessment

The Unfunded Mandates Reform Act of 1995 (2 U.S.C. 1531–1538) governs the issuance of federal regulations that require unfunded mandates. An unfunded mandate is a regulation that requires a state, local, or tribal government or the private sector to incur direct costs without the federal government having first provided the funds to pay those costs. The FAA determined that the proposed rule will not result in the expenditure of $177 million or more by state, local, or tribal governments, in the aggregate, or the private sector, in any one year.

Title II of the Unfunded Mandates Reform Act of 1995 (Pub. L. 104–4) requires each Federal agency to prepare a written statement assessing the effects of any Federal mandate in a proposed or final agency rule that may result in an expenditure of $100 million or more (in 1995 dollars) in any one year by state, local, and tribal governments, in the aggregate, or by the private sector; such a mandate is deemed to be a ''significant regulatory action.'' The FAA currently uses an inflation-adjusted value of $177.0 million in lieu of $100 million.

This proposed rule would not contain such a mandate. Therefore, the requirements of Title II of the Act do not apply.

E. Paperwork Reduction Act

The Paperwork Reduction Act of 1995 (44 U.S.C. 3507(d)) requires the FAA to consider the impact of paperwork and other information collection burdens imposed on the public. According to the 1995 amendments to the Paperwork Reduction Act (5 CFR 1320.8(b)(2)(vi)), an agency may not collect or sponsor the collection of information, nor may it impose an information collection requirement, unless it displays a currently valid Office of Management and Budget (OMB) control number. As required by the Paperwork Reduction Act of 1995 (44 U.S.C. 3507(d)), the FAA has submitted a new information collection to OMB for its review.

- *Summary:* The FAA is proposing to require operators conducting operations using SRS, including during operations with doors opened or removed, to present updated safety information to passengers.
- *Use:* Part 91 and 135 operators would create and brief an enhanced passenger safety briefing.
- *Respondents:* As of June 2021, the FAA estimates that 26 part 91 operators (based on the number of approved Letter of Authorization holders and the A049 [74] population) and 40 part 135 operators would choose to offer flights with use of an SRS over the next 20 years.
- *Frequency:* Operators who choose to offer flights using an SRS would initially develop and periodically update an enhanced passenger safety briefing pertaining to the SRS. The FAA assumes updates would occur every ten years, based on a typical SRS replacement period.
- *Annual Burden Estimated:* The total burden hours are calculated by multiplying the number of enhanced passenger safety briefings and subsequent updates by 2 hours per briefing. As shown in the table below, this sums to 90 hours for part 91 operators and 134 hours for part 135 operators over 3 years. The FAA is updating existing Information Collection Request (ICR) 2120–0005 (General Operating and Flight Rules—FAR 91 and FAR 107).

[72] Total cost per requirement is divided by 26 part 91 operators.

[73] Total cost per requirement is divided by 40 part 135 operators.

[74] An A049 is a Letter of Authorization for Commercial Air Tour Operations Authorization and Drug and Alcohol Testing Program Registration. This allows a Part 91 operator to operate commercially and allows the FAA to estimate the affected population.

TABLE 7—INFORMATION COLLECTION BURDENS

Year	Number of operators		Time to develop or update briefing (hours per briefing)	Total hour burden	
	Part 91	Part 135		Part 91	Part 135
1	21	31	2	42	62
2	0	0	2	0	0
3	0	1	2	0	2
Total				42	64
Average Over 3 Years				14	21

For part 91 operators, the FAA assumes that a pilot, with an hourly wage of $75.90, would be the person developing and updating the content of the briefing. At $75.90 the total cost burden is $3,188 ($2,602 at 7 percent present value) over a 3-year period. For part 135 operators, the Director of Operations, at an hourly wage of $68.66, could be the person responsible for developing the briefing. Total cost burden for part 135 operators over a 3-year period is $4,394 ($3,578 at 7 percent present value) for developing the content of the briefing.

Pilots would also brief passengers on the content of the enhanced passenger briefing prior to each flight. The estimated number of flights per year is multiplied by 2 minutes per briefing for parts 91 and 135 annual burden hours to brief passengers. Total burden hours, over 3 years, as shown in the table below, sums to 8,177 hours for part 91 operators and 962 hours for part 135 operators.

TABLE 8—TOTAL HOUR BURDEN FOR ENHANCED SAFETY BRIEFING

Year	Number of flights		Time to present the enhanced safety briefing (hours per briefing)	Total hour burden	
	Part 91	Part 135		Part 91	Part 135
1	89,935	10,475	0.03	2,698	314
2	90,845	10,684	0.03	2,725	321
3	91,780	10,897	0.03	2,753	327
Total				8,177	962
Average Over 3 Years				2,726	321

A pilot would be presenting the briefing at an hourly wage of $75.90. At $75.90 the total cost burden over a 3-year period, for part 91 operators, is $620,598 ($506,593 at 7 percent present value) and $72,989 ($59,581 at 7 percent present value) for part 135 operators.

The agency is soliciting comments to—

(1) Evaluate whether the proposed information requirement is necessary for the proper performance of the functions of the agency, including whether the information will have practical utility;

(2) Evaluate the accuracy of the agency's estimate of the burden;

(3) Enhance the quality, utility, and clarity of the information to be collected; and

(4) Minimize the burden of collecting information on those who are to respond, including by using appropriate automated, electronic, mechanical, or other technological collection techniques or other forms of information technology.

Individuals and organizations may send comments on the information collection requirement to the address listed in the **ADDRESSES** section at the beginning of this preamble by January 22, 2024. Comments also should be submitted to the Office of Management and Budget, Office of Information and Regulatory Affairs, Attention: Desk Officer for FAA, New Executive Office Building, Room 10202, 725 17th Street NW, Washington, DC 20053.

F. International Compatibility and Cooperation

In keeping with U.S. obligations under the Convention on International Civil Aviation, it is FAA policy to conform to International Civil Aviation Organization Standards and Recommended Practices to the maximum extent practicable. The FAA has reviewed the ICAO Standards and Recommended Practices and has not identified any conflicts with these proposed regulations.

G. Environmental Analysis

FAA Order 1050.1F identifies FAA actions that are categorically excluded from preparation of an environmental assessment or environmental impact statement under the National Environmental Policy Act in the absence of extraordinary circumstances. The FAA has determined this rulemaking action qualifies for the categorical exclusion identified in paragraph 5–6.6f for regulations and involves no extraordinary circumstances.

This rulemaking action provides a framework for civil aircraft operations conducted with SRS, including during operations with doors opened or removed. It does not affect the frequency of aircraft operations in the airspace of the United States. The FAA has reviewed the implementation of the rulemaking action and determined it is categorically excluded from further environmental review. Possible extraordinary circumstances that would preclude the use of a categorical exclusion have been examined, and the FAA has determined that no such circumstances exist. After careful and thorough consideration of the rulemaking action, the FAA finds that it does not require preparation of an Environmental Assessment or Environmental Impact Statement in accordance with the requirements of NEPA, Council on Environmental Quality (CEQ) regulations, and FAA Order 1050.1F.

VI. Executive Order Determinations

A. Executive Order 13132, Federalism

The FAA has analyzed this proposed rule under the principles and criteria of Executive Order 13132, Federalism. The agency has determined that this action would not have a substantial direct effect on the states, or the relationship between the federal government and the states, or on the distribution of power and responsibilities among the various levels of government, and, therefore, would not have federalism implications.

B. Executive Order 13211, Regulations That Significantly Affect Energy Supply, Distribution, or Use

The FAA analyzed this proposed rule under Executive Order 13211, Actions Concerning Regulations that Significantly Affect Energy Supply, Distribution, or Use. The agency has determined that it would not be a ''significant energy action'' under the executive order and would not be likely to have a significant adverse effect on the supply, distribution, or use of energy.

C. Executive Order 13609, Promoting International Regulatory Cooperation

Executive Order 13609, Promoting International Regulatory Cooperation, promotes international regulatory cooperation to meet shared challenges involving health, safety, labor, security, environmental, and other issues and to reduce, eliminate, or prevent unnecessary differences in regulatory requirements. The FAA has analyzed this action under the policies and agency responsibilities of Executive Order 13609 and has determined that this action would have no effect on international regulatory cooperation.

VII. Additional Information

A. Comments Invited

The FAA invites interested persons to participate in this rulemaking by submitting written comments, data, or views. The agency also invites comments relating to the economic, environmental, energy, or federalism impacts that might result from adopting the proposals in this document. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. To ensure the docket does not contain duplicate comments, commenters should submit only one time if comments are filed electronically, or commenters should send only one copy of written comments if comments are filed in writing.

The FAA will file in the docket all comments it receives, as well as a report summarizing each substantive public contact with FAA personnel concerning this proposed rulemaking. Before acting on this proposal, the FAA will consider all comments it receives on or before the closing date for comments. The FAA will consider comments filed after the comment period has closed if it is possible to do so without incurring expense or delay. The agency may change this proposal in light of the comments it receives.

Privacy: In accordance with 5 U.S.C. 553(c), DOT solicits comments from the public to better inform its rulemaking process. DOT posts these comments, without edit, including any personal information the commenter provides, to *https://www.regulations.gov,* as described in the system of records notice (DOT/ALL–14 FDMS), which can be reviewed at *https://www.dot.gov/privacy.*

Confidential Business Information: Confidential Business Information (CBI) is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA) (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to this NPRM contain commercial or financial information that is customarily treated as private, that you actually treat as private, and that is relevant or responsive to this NPRM, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission containing CBI as ''PROPIN.'' The FAA will treat such marked submissions as confidential under the FOIA, and they will not be placed in the public docket of this NPRM. Submissions containing CBI should be sent to the person in the **FOR FURTHER INFORMATION CONTACT** section of this document. Any commentary that the FAA receives that is not specifically designated as CBI will be placed in the public docket for this rulemaking.

B. Electronic Access and Filing

A copy of the notice of proposed rulemaking (NPRM), all comments received, any final rule, and all background material may be viewed online at *https://www.regulations.gov* using the docket number listed above. A copy of this rule will be placed in the docket. Electronic retrieval help and guidelines are available on the website. It is available 24 hours each day, 365 days each year. An electronic copy of this document may also be downloaded from the Office of the Federal Register's website at *https://www.federalregister.gov* and the Government Publishing Office's website at *https://www.govinfo.gov.* A copy may also be found at the FAA's Regulations and Policies website at *https://www.faa.gov/regulations_policies.*

Copies may also be obtained by sending a request to the Federal Aviation Administration, Office of Rulemaking, ARM–1, 800 Independence Avenue SW, Washington, DC 20591, or by calling (202) 267–9677. Commenters must identify the docket or notice number of this rulemaking.

All documents the FAA considered in developing this proposed rule, including economic analyses and technical reports, may be accessed in the electronic docket for this rulemaking.

List of Subjects

14 CFR Part 91

Air carrier, Aircraft, Airmen, Aviation safety, Charter flights, Reporting and recordkeeping requirements.

14 CFR Part 135

Air taxis, Aircraft, Airmen, Aviation safety, Reporting and recordkeeping requirements.

14 CFR Part 136

Air transportation, Aircraft, Aviation safety, National parks, Recreation and recreation areas, Reporting and recordkeeping requirements.

The Proposed Amendment

In consideration of the foregoing, the Federal Aviation Administration proposes to amend chapter I of title 14, Code of Federal Regulations as follows:

PART 91—GENERAL OPERATING AND FLIGHT RULES

■ 1. The authority citation for part 91 continues to read as follows:

Authority: 49 U.S.C. 106(f), 106(g), 40101, 40103, 40105, 40113, 40120, 44101, 44111, 44701, 44704, 44709, 44711, 44712, 44715, 44716, 44717, 44722, 46306, 46315, 46316, 46504, 46506–46507, 47122, 47508, 47528–47531, 47534, Pub. L. 114–190, 130 Stat. 615 (49 U.S.C. 44703 note); articles 12 and 29 of the Convention on International Civil Aviation (61 Stat. 1180), (126 Stat. 11).

■ 2. Amend § 91.107 by revising paragraph (a)(3)(i) to read as follows:

§ 91.107 Use of safety belts, shoulder harnesses, and child restraint systems.

(a) * * *

(3) * * *

(i) Be held by an adult, except as outlined in § 91.108(j), who is occupying an approved seat or berth, provided that the person being held has

not reached his or her second birthday and does not occupy or use any restraining device;

* * * * *

■ 3. Add § 91.108 to read as follows:

§ 91.108 Use of supplemental restraint systems.

(a) *Use of supplemental restraint systems.* Except as provided in this section, no person may conduct an operation in a registered civil aircraft in which any individual on board is secured with a supplemental restraint system.

(b) *Doors opened or removed flight operations.* Except as provided under paragraph (k) of this section:

(1) No person may operate a registered civil aircraft with the doors opened or removed unless—

(i) Each individual on board occupies an approved seat or berth with a safety belt and, if installed, shoulder harness, properly secured about the individual or an approved child restraint system properly secured to an approved seat or berth with a safety belt and, if installed, shoulder harness in accordance with § 91.107(a)(3)(iii) or § 135.128(a)(2) of this chapter, during all phases of flight; or

(ii) Each individual on board—

(A) Occupies an approved seat or berth with a safety belt and, if installed, shoulder harness, properly secured about the individual during movement on the surface, takeoff, and landing; and

(B) Is secured during the remainder of the flight using a supplemental restraint system in accordance with, and that meets the requirements of, this section.

(2) Prior to releasing an FAA-approved safety belt and, if installed, shoulder harness during an operation with the doors opened or removed, an individual must be properly secured by a supplemental restraint system that is connected to an airframe attachment point. An individual cannot release their safety belt and, if installed, shoulder harness until the pilot in command authorizes them to do so.

(c) *Supplemental restraint system design requirements.* Each supplemental restraint system must:

(1) Have a harness that secures around the torso of the individual using the supplemental restraint system;

(2) Have a lanyard that connects the harness to an airframe attachment point or points inside the aircraft and that ensures the torso of the individual using the supplemental restraint system remains inside the aircraft at all times;

(3) Not impede egress from the aircraft in an emergency after being released; and

(4) Have a release mechanism that—

(i) Can be quickly operated by the individual using the supplemental restraint system with minimal difficulty;

(ii) Is attached to the front or side of the harness in a location easily accessible to and visible by the individual using the supplemental restraint system;

(iii) Prevents inadvertent release; and

(iv) Does not require the use of a knife to cut the restraint, any other additional tool, or the assistance of any other individual to release the supplemental restraint system.

(d) *Who may provide the supplemental restraint system.* The supplemental restraint system may be provided by the operator or by the individual using the supplemental restraint system. An individual providing their own supplemental restraint system must:

(1) Confirm with the pilot in command, either verbally or in writing, as determined by the pilot in command, the system's continued serviceability and readiness for its intended purposes; and

(2) Ensure they are complying with the sizing criteria for which the supplemental restraint system is rated.

(e) *Supplemental restraint system operational requirements.* The following are supplemental restraint system operational requirements:

(1) A qualified person designated by the operator must—

(i) Connect the supplemental restraint system to an airframe attachment point or points with a rated strength equal to or greater than the weight of the individual using the supplemental restraint system (or the combined weight if there is more than one supplemental restraint system attached to an attachment point); and

(ii) Not connect the supplemental restraint system to any airframe attachment point located in the flightdeck.

(2) A supplemental restraint system must fit the individual using it based on the sizing criteria for which the supplemental restraint system is rated.

(f) *Pilot in command.* The pilot in command—

(1) Has the overall responsibility to ensure that the supplemental restraint system meets the requirements of this section and must not permit an individual to use a supplemental restraint system that does not meet the requirements of this section;

(2) Must ensure, for any supplemental restraint system provided by either the operator or the pilot in command, the supplemental restraint system's continued serviceability and readiness for its intended purpose;

(3) May only permit an individual to use a supplemental restraint system provided by the operator or the pilot in command if that individual complies with the sizing criteria for which the supplemental restraint system is rated;

(4) Has final authority regarding whether the supplemental restraint system may be used during flight operations; and

(5) Has final authority to authorize an individual to release the FAA-approved safety belt and, if installed, shoulder harness and remain secured only by the supplemental restraint system.

(g) *Passenger briefing.* Before each takeoff, the pilot in command must ensure that each passenger who intends to use a supplemental restraint system has been briefed on:

(1) How to use, secure, and release the supplemental restraint system properly. This requirement is not necessary for an individual providing their own supplemental restraint system, but that individual must meet the passenger demonstration requirements in paragraph (h) of this section.

(2) Means of direct communication between crewmembers and passengers during normal and emergency operating procedures regarding—

(i) The use of headset and intercom systems, if installed;

(ii) How passengers will be notified of an event requiring action, including emergencies, egress procedures, and other unforeseen circumstances;

(iii) How each passenger will be notified when the passenger is permitted to release the FAA-approved safety belt and, if installed, shoulder harness, and move within the aircraft using the supplemental restraint system;

(iv) How each passenger will be notified when the passenger must return to their seat and secure the FAA-approved safety belt and, if installed, shoulder harness; and

(v) When and how to notify a crewmember of safety concerns.

(h) *Passenger demonstration.* After the briefing required by paragraph (g) of this section, prior to ground movement, any passenger intending to use a supplemental restraint system must demonstrate to the pilot in command, a crewmember, or other qualified person designated by the operator, the following:

(1) The ability to use, secure, and release the FAA-approved safety belt and, if installed, shoulder harness, and

(2) The ability to accomplish all actions required for quick release of the supplemental restraint system, without assistance and with minimal difficulty.

(i) *Individuals not permitted to use supplemental restraint systems.* The

following individuals are not permitted to use a supplemental restraint system, as defined in paragraph (l) of this section:

(1) Any passenger who cannot demonstrate—

(i) That they are able to occupy, secure, and release the FAA-approved seat belt and, if installed, shoulder harness; and

(ii) That they are able to release quickly the supplemental restraint system with no assistance and with minimal difficulty.

(2) Any individual who is less than 15 years of age.

(3) Any individual seated in the flightdeck.

(4) Any passenger who occupies or uses an approved child restraint system.

(j) *Lap-held child.* Notwithstanding any other requirement of this chapter, a child who has not reached their second birthday may not be held by an adult during civil aircraft operations when:

(1) The adult uses a supplemental restraint system; or

(2) The aircraft doors are opened or removed.

(k) *Excluded operations.* Unless otherwise stated:

(1) This section does not apply to operations conducted under part 105 or 133 of this chapter and does not apply to the persons described in § 91.107(a)(3)(ii) of this chapter.

(2) Operators subject to the requirements of paragraph (b)(1) of this section may operate an aircraft with doors opened or removed notwithstanding any flight crewmembers on board who are subject to the requirements of §§ 91.105 and 135.171 of this chapter and who need to unfasten their shoulder harnesses in accordance with those sections.

(3) Paragraph (b)(2) of this section does not apply to any flight crewmembers subject to §§ 91.105 and 135.171 of this chapter to the extent that the flight crewmembers need to unfasten their shoulder harnesses in accordance with those sections.

(l) *Definition.* For purposes of this section, a *supplemental restraint system* means any device that is not installed on the aircraft pursuant to an FAA approval, used to secure an individual inside an aircraft when that person is not properly secured by an FAA-approved seat belt and, if installed, shoulder harness, or an approved child restraint system. It consists of a harness secured around the torso of the individual using the supplemental restraint system and a lanyard that connects the harness to an approved airframe attachment point inside the aircraft.

PART 135—OPERATING REQUIREMENTS: COMMUTER AND ON DEMAND OPERATIONS AND RULES GOVERNING PERSONS ON BOARD SUCH AIRCRAFT

■ 4. The authority citation for part 135 continues to read as follows:

Authority: 49 U.S.C. 106(f), 106(g), 40113, 41706, 44701–44702, 44705, 44709, 44711–44713, 44715–44717, 44722, 44730, 45101–45105; Pub. L. 112–95, 126 Stat. 58 (49 U.S.C. 44730).

■ 5. Amend § 135.117 by adding paragraph (g) to read as follows:

§ 135.117 Briefing of passengers before flight.

* * * * *

(g) If any passengers on board a flight conducted under this part are secured with a supplemental restraint system, the pilot in command of that flight must ensure those passengers are briefed in accordance with § 91.108(g) of this chapter.

■ 6. Amend § 135.128 by revising paragraph (a)(1) to read as follows:

§ 135.128 Use of safety belts and child restraint systems.

(a) * * *

(1) Be held by an adult, except as outlined in § 91.108(j) of this chapter, who is occupying an approved seat or berth, provided the child has not reached his or her second birthday and the child does not occupy or use any restraining device; or

* * * * *

PART 136—COMMERCIAL AIR TOURS AND NATIONAL PARKS AIR TOUR MANAGEMENT

■ 7. The authority citation for part 136 continues to read as follows:

Authority: 49 U.S.C. 106(f), 106(g), 40113, 40119, 44101, 44701–44702, 44705, 44709–44711, 44713, 44716–44717, 44722, 44901, 44903–44904, 44912, 46105.

■ 8. Amend § 136.7 by adding paragraph (c) to read as follows:

§ 136.7 Passenger briefings.

* * * * *

(c) If any passengers on board a flight conducted under this part are secured with a supplemental restraint system, the pilot in command of that flight must ensure those passengers are briefed in accordance with § 91.108(g) of this chapter.

Issued in Washington, DC, under the authority of 49 U.S.C. 106(f) and 44701(a)(5).

Wesley L. Mooty,

Acting Deputy Executive Director, Flight Standards Service.

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ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 60

[EPA–HQ–OAR–2023–0358; FRL–10655–03–OAR]

RIN 2060–AV93

New Source Performance Standards Review for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels); Extension of Comment Period

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule; extension of public comment period.

SUMMARY: On October 4, 2023, the U.S. Environmental Protection Agency (EPA) proposed amendments to the ''Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels).'' The EPA is extending the comment period on this proposed rule that currently closes on November 20, 2023, by 18 days. The comment period will now remain open until December 8, 2023, to allow additional time for stakeholders to review and comment on the proposal.

DATES: The public comment period for the proposed rule published in the **Federal Register** (FR) on October 4, 2023 (88 FR 68535), originally ending November 20, 2023, is being extended by 18 days. Written comments must now be received on or before December 8, 2023.

ADDRESSES: Submit comments, identified by Docket ID No. EPA–HQ–OAR–2023–0358, by any of the following methods:

- *Federal eRulemaking Portal: https://www.regulations.gov/* (our preferred method). Follow the online instructions for submitting comments.
- *Email: a-and-r-docket@epa.gov.* Include Docket ID No. EPA–HQ–OAR–2023–0358 in the subject line of the message.
- *Fax:* (202) 566–9744. Attention Docket ID No. EPA–HQ–OAR–2023–0358.
- *Mail:* U.S. Environmental Protection Agency, EPA Docket Center, Docket ID No. EPA–HQ–OAR–2023–