

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Parts 61 and 68**

**[Docket No. FAA-2021-1040; Amdt. Nos. 61-152 and 68-2]**

**RIN 2120-AL51**

**Medical Certification Standards for Commercial Balloon Operations**

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

**ACTION:** Final Rule.

**SUMMARY:** The FAA is amending its regulations to require airmen hold a valid second-class medical certificate when exercising the privileges of a commercial pilot certificate in a balloon for compensation or hire except when conducting flight training in a balloon. In addition, the FAA makes miscellaneous amendments related to medical certification requirements for special medical flight tests and a minor change to the BasicMed regulations.

**DATES:** This rule is effective [INSERT DATE 30 DAYS AFTER PUBLICATION IN THE FEDERAL REGISTER], except for the amendments to §§ 61.3(c)(2)(vi), 61.3(c)(2)(vi)(A), 61.3(c)(2)(vi)(B), 61.23(a)(2)(i), 61.23(a)(2)(ii), 61.23(a)(2)(iii), 61.23(b)(3), 61.23(b)(4), 61.23(b)(5), 61.23(d)(1)(iii), and 61.23(d)(2)(i)), which are effective [INSERT DATE 180 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** For information on where to obtain copies of rulemaking documents and other information related to this final rule, see “How to Obtain Additional Information” in the SUPPLEMENTARY INFORMATION section of this document.

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**SUPPLEMENTARY INFORMATION:**

**List of Abbreviations and Acronyms Frequently Used In This Document**

AMCD Aerospace Medical Certification Division  
ADHD Attention Deficit Hyperactivity Disorder  
AME Aviation Medical Examiner  
ASI Aviation Safety Inspector  
ATP Airline Transport Pilot  
BFA Balloon Federation of America  
IRFA Initial Regulatory Flexibility Analysis  
LOA Letter of Authorization  
NAS National Airspace System  
NDR National Driver Register  
NPRM Notice of proposed rulemaking  
NTSB National Transportation Safety Board  
PDPS Problem Driver Pointer System  
PIC Pilot in Command  
SIC Second in Command  
SODA Statement of Demonstrated Ability

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## **I. Executive Summary**

### **A. Purpose of the Regulatory Action**

This final rule implements section 318 (“Commercial Balloon Pilot Safety Act of 2018”) of Public Law 115-254, the FAA Reauthorization Act of 2018. In addition, this final rule responds to National Transportation Safety Board (NTSB) Safety Recommendation A-17-034,

which recommends that the FAA remove the medical certification exemption in part 61 for commercial balloon pilots<sup>1</sup> receiving compensation for transporting passengers.

This final rule amends §§ 61.3 and 61.23 of title 14 of the Code of Federal Regulations (14 CFR) to require commercial balloon pilots conducting operations for compensation or hire to hold a valid second-class medical certificate. However, this final rule will continue to allow pilots to provide flight training in balloons without requiring a medical certificate. The rule also amends the table setting forth medical certificate durations in § 61.23(d) for consistency with amendments to §§ 61.3 and 61.23(a) and (b).

The FAA is also making two miscellaneous amendments. First, the FAA is amending sections of part 61 to allow persons to act as pilot in command (PIC) during a special medical flight test authorized under part 67 without holding a medical certificate.

The second is making a minor change to regulations amended or established by the Alternative Pilot Physical Examination and Education Requirements final rule to<sup>2</sup> allow a required pilot flightcrew member who is not acting as PIC to operate under BasicMed.

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<sup>1</sup> The FAA uses the term “commercial balloon pilots” in this rule to refer to airmen conducting operations in a balloon for compensation or hire, including operations involving the carriage of persons or property.

<sup>2</sup>The Alternative Pilot Physical Examination and Education Requirements final rule amended sections of part 61 and established part 68 to allow persons to conduct certain flight operations in powered aircraft while exercising the privileges of a private pilot certificate without holding a medical certificate issued under part 67. The provisions established by Alternative Pilot Physical Examination and Education Requirements final rule will be collectively referred to in this preamble as BasicMed. *82 FR 3149* (Jan. 11, 2017).

## B. Changes Made in this Final Rule

The FAA published a Notice of Proposed Rulemaking (NPRM), Medical Certification Standards for Commercial Balloon Operations on November 18, 2021 (86 FR 64419). This rulemaking finalizes the proposal, without change.

## C. Summary of the Costs and Benefits

This final rule will generate costs for balloon pilots to obtain a second-class medical certificate and for some pilots to seek an Authorization for Special Issuance of a Medical Certificate (special issuance). There will also be costs to the FAA to implement this requirement in terms of reviewing and processing submissions related to certification. The FAA estimates the present value of total costs over ten years is \$2.4 million to \$16.3 million with a mid-estimate of \$6.9 million at a 7 percent discount rate and \$2.9 million to \$19.9 million with a mid-estimate of \$8.4 million at a 3 percent discount rate. The annualized costs over ten years are \$0.3 million to \$2.3 million with a mid-estimate of \$1.0 million at a 7 percent discount rate and \$0.3 million to \$2.3 million with a mid-estimate of \$1.0 million at a 3 percent discount rate. The wide range in the cost estimates primarily reflects the uncertainty on the number of commercial balloon pilots who will seek medical certification.

The benefits of the final rule include enhanced safety of commercial balloon operations through reduced risks of accidents, fatalities, and injuries caused by medical impairment of balloon pilots.

## **II. Authority for this Rulemaking**

The FAA's authority to issue rules on aviation safety is in Title 49 of the United States Code. Section 106 describes the authority of the FAA Administrator. Subtitle VII, Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this final rule under the authority described in Section 44701, General Requirements; Section 44702, Issuance of Certificates; and Section 44703, Airman Certificates. Under these sections, the FAA prescribes regulations and minimum standards for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. The FAA is also authorized to issue certificates, including airman certificates and medical certificates, to qualified individuals. This rulemaking is within the scope of that authority.

Further, Section 318 of Public Law 115-254 directs the Administrator to "revise 14 CFR 61.3(c) (relating to second-class medical certificates) to apply to an operator of an air balloon to the same extent such regulations apply to a pilot flightcrew member of other aircraft."

## **III. Background**

### **A. Need for Regulation**

On the morning of July 30, 2016, a hot air balloon struck power lines and burst into flames over a pasture near Lockhart, Texas, killing all 15 passengers and the pilot. The flight was conducted in a balloon (N2469L) operated by Heart of Texas Hot Air Balloon Rides under part 91 as a sightseeing passenger flight. The pilot was exercising the privileges of a commercial pilot certificate.

Through its investigation, the NTSB determined that the pilot had been diagnosed with depression and attention deficit hyperactivity disorder (ADHD)<sup>3</sup> and identified medications found in the pilot's system that are known to cause impairment.<sup>4</sup>

The NTSB determined that the probable cause of this accident was the pilot's pattern of poor decision-making that led to the initial launch, continued flight in fog and above clouds, and descent near or through clouds that decreased the pilot's ability to see and avoid obstacles. The NTSB further determined that (1) the pilot's impairing medical conditions and medications, and (2) the FAA's policy to not require a medical certificate for commercial balloon pilots, were contributing factors in the accident.<sup>5</sup>

Prior to the Heart of Texas accident, the FAA generally considered commercial balloon operations to be a low-risk and extremely small segment of aviation in the United States. Research conducted by the FAA revealed 54 commercial hot air balloon accidents between 2003 and 2013, including four fatal accidents. In 2015, commercial sightseeing balloon operations represented 0.057% of the flight hours of total civil aircraft operations.<sup>6</sup> Prior to this accident, pilots conducted commercial balloon operations in the U.S. for decades without any accidents specifically attributed to medical deficiencies.

In response to the Heart of Texas accident, the FAA worked with industry advocacy organization Balloon Federation of America (BFA) to support its 2017 Envelope of Safety

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<sup>3</sup> ADHD is known to cause cognitive deficits that may affect decision-making and, ultimately, safety of flight.

<sup>4</sup> The medications identified by the NTSB are listed on the FAA's "Do Not Issue" and "Do Not Fly" lists found in the AME Guide.

[https://www.faa.gov/about/office\\_org/headquarters\\_offices/avs/offices/aam/ame/guide/pharm/dni\\_dnf/](https://www.faa.gov/about/office_org/headquarters_offices/avs/offices/aam/ame/guide/pharm/dni_dnf/)

<sup>5</sup> NTSB Accident Report NTSB/AAR-17/03 PB2018-100161 at p. 49.

<sup>6</sup> FAA Docket Submission to the National Transportation Safety Board for the investigation of the Heart of Texas Hot Air Balloon Accident Balony Kubicek BB85Z balloon, N2469L, Lockhart, Texas; July 30, 2016, Dated April 19, 2017. Page 6.

Program.<sup>7</sup> The voluntary program promoted safety within the commercial balloon industry by educating consumers with information when making balloon ride purchase decisions and offered multiple tiers of safety accreditation by the BFA. While the FAA supports the efforts of the BFA to enhance safety and professionalism of the industry while providing consumers with more information when choosing a commercial balloon ride operator, the agency notes that not all balloon operators are members of the BFA, and BFA members are not required to adhere to any specific standards in order to maintain professional membership. Consequently, the FAA considered BFA's efforts to achieve voluntary compliance with industry standards to be insufficient alone to address the need for additional oversight of airmen conducting balloon operations for compensation or hire.

In Section 318 (“Commercial Balloon Pilot Safety Act of 2018”) of Public Law 115-254, The FAA Reauthorization Act of 2018 (the Act), Congress directed the FAA to “revise section 61.3(c) of Title 14, Code of Federal Regulations (relating to second-class medical certificates), to apply to an operator of an air balloon to the same extent such regulations apply to a pilot flightcrew member of other aircraft.”

#### B. National Transportation Safety Board Recommendations

The NTSB made two Safety Recommendations in response to the 2016 Heart of Texas accident. Safety Recommendation A-17-034 urged the FAA to “Remove the medical certificate exemption in 14 [CFR] 61.23(b) for pilots who are exercising their privileges as commercial balloon pilots and are receiving compensation for transporting passengers.” Safety

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<sup>7</sup> <https://www.bfa.net/88888979-news/1579-envelope-of-safety-program-announced>

Recommendation A-17-045 urged the FAA to “analyze your current policies, procedures, and tools for conducting oversight of commercial balloon operations in accordance with your Integrated Oversight Philosophy, taking into account the findings of this accident; [and] based on this analysis, develop and implement more effective ways to target oversight of the operators and operations that pose the most significant safety risks to the public.”

The FAA agreed with the safety benefits of Safety Recommendation A-17-034<sup>8</sup> and stated its intention to add the recommended change to its rulemaking agenda. The FAA responded to Safety Recommendation A-17-045<sup>9</sup> by initiating a plan to develop and implement more effective ways to target oversight of operators posing the most significant safety risk to the public. The FAA identified and increased surveillance on the operators of the largest classes of balloons using information obtained from the Civil Aviation Registry, repair stations, and industry.

### C. Summary of the NPRM

The FAA proposed amending the exception to hold a medical certificate for balloon pilots in § 61.3(c)(2)(vi) by limiting it to certain types of balloon operations. Specifically, the FAA proposed that any person holding a pilot certificate with a balloon class rating and exercising the privileges of a private pilot certificate in a balloon; or providing flight training in a balloon in accordance with § 61.133(a)(2)(ii) is not required to hold a medical certificate. As a result of the amendment, the general requirement in § 61.3(c)(1) for a person to hold a medical certificate to serve as a pilot flight crewmember would apply to balloon pilots conducting

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<sup>8</sup> NTSB Safety Recommendation A-17-034 [https://www.nts.gov/\\_layouts/nts.gov/recsearch/Recommendation.aspx?Rec=A-17-034](https://www.nts.gov/_layouts/nts.gov/recsearch/Recommendation.aspx?Rec=A-17-034).

<sup>9</sup> NTSB Safety Recommendation A-17-045 [https://www.nts.gov/\\_layouts/nts.gov/recsearch/Recommendation.aspx?Rec=A-17-045](https://www.nts.gov/_layouts/nts.gov/recsearch/Recommendation.aspx?Rec=A-17-045).

operations for compensation or hire in a balloon (other than flight training) to hold a medical certificate issued under part 67.

Section 61.23 sets forth the specific requirements for when a particular class of medical certificate is required. Under § 61.23(a)(2)(ii), a second-class medical certificate generally is required when exercising the privileges of a commercial pilot certificate. Currently, under § 61.23(b)(3), a second-class medical certificate is not required when exercising the privileges of a pilot certificate with a glider category rating or balloon class rating in a glider or balloon, as appropriate.

First, the NPRM proposed to amend § 61.23(a)(2) to add a requirement for any person exercising the privileges of a commercial pilot certificate for compensation or hire in a balloon to hold a second-class medical certificate. Second, the NPRM proposed to remove the allowance in § 61.23(b) by specifying that a medical certificate is not required when exercising the privileges of a private pilot certificate with a balloon class rating in a balloon or when a person is exercising the privileges of a commercial pilot certificate with a balloon class rating in a balloon and providing flight training in accordance with § 61.133(a)(2)(ii).

Section 61.23(d) includes a table providing the duration for each class of medical certificate depending on several factors, including the medical certificate privilege that is being exercised. In order to maintain consistency with other medical certificate privileges in § 61.23(d), the NPRM proposed related amendments to the table of medical certificate durations at § 61.23(d)(1)(iii) and (d)(2)(i). Specifically, the NPRM proposed to add persons who are exercising the privileges of a commercial pilot certificate (other than for flight training) in a balloon to the established medical certificate duration table in § 61.23(d).

In addition, the NPRM proposed amendments to alleviate confusion and eliminate burdens for persons obtaining special medical flight tests and for persons operating under BasicMed.

First, the NPRM proposed amending §§ 61.3(c)(2) and 61.23(b) to allow persons to act as PIC during a special medical flight test authorized under part 67 without holding a medical certificate. Second, the NPRM proposed amending several sections to alleviate certain burdens that resulted from the BasicMed final rule. Specifically, the NPRM proposed amending §§ 61.3(c)(2)(xiv), 61.23(c)(3)(i)(C) through (E), 61.113(i), 68.3(a) and (b), and 68.9(a) by expanding the requirements to allow required pilot flightcrew members to operate under BasicMed in addition to those individuals acting as PIC.

#### D. General Overview of Comments

The FAA considered 192 comments received during the 60-day public comment period. Of the comments received, 15 were out of scope, 17 were generally supportive of the proposed rule, and 112 generally opposed the rule as proposed. A significant number of commenters (142 commenters) suggested changes to the proposed rule. The remaining comments expressed neither support nor opposition to the rule. The majority of commenters were individuals. Two industry advocacy organizations submitted comments, as well as the NTSB.

#### **IV. Discussion of Comments and the Final Rule**

This rule amends part 61 to require a person who holds a commercial pilot certificate with a lighter-than-air category and balloon class rating to hold a valid second-class medical certificate when exercising the privileges of that certificate in a balloon for compensation or hire, unless that person is conducting flight training in accordance with § 61.133(a)(2)(ii).

Specifically, the exception in § 61.3(c)(2)(vi) is amended to reflect that any person holding a pilot certificate with a balloon class rating who is exercising the privileges of a private pilot certificate in a balloon; or providing flight training in a balloon in accordance with § 61.133(a)(2)(ii) is not required to hold a medical certificate. By revising the exception in § 61.3(c)(2)(vi), balloon pilots conducting operations for compensation or hire in a balloon (other than flight training), such as carrying passengers or property and advertising operations, are required under § 61.3(c)(1) to hold a medical certificate issued under part 67.

Further and for consistency across the regulations, the FAA is amending § 61.23(a)(2) to require any person exercising the privileges of a commercial pilot certificate for compensation or hire in a balloon, except when conducting flight training, to hold a second-class medical certificate; and § 61.23(b) to remove the allowance to exercise the privileges of a balloon pilot certificate without a medical certificate. Additionally, the FAA adds an exception at § 61.23(b)(4)-(5) to explain under what circumstances balloon operations are excepted from the requirement to hold a second-class medical certificate.

A. Application of Medical Certificate requirement to operations based on size of envelope or passenger capacity

Seventy-two commenters recommended that the proposed rule should only apply to certain operations based on size of envelope or number of people in the basket. Commenters proposed a passenger threshold ranging from 3 or more to 8 or more people. The Balloon Federation of America (BFA) stated that “any medical requirement for commercial balloon pilots should be limited to those operating balloons of such size as to legally transport 6 or more passengers.” Other commenters described the threshold as balloons with envelopes with volumes ranging from 77,682 cubic feet to 180,000 cubic feet.

Many of the commenters emphasized that these thresholds separated small-scale commercial balloonists from large-scale professional balloon ride operators. A common sentiment among commenters was that small commercial balloon operators were being over-regulated as a result of mishaps from larger balloon operators. Some commenters suggested that the NTSB safety recommendations were specifically directed toward the safety of larger passenger-carrying balloons.

The FAA notes that the second-class medical certification requirement represents a minimum safety standard for commercial operations. For non-air carrier operations, the regulatory requirements for medical certification do not vary based on the number of passengers aboard the aircraft or the size of the balloon. The FAA has long held that a passenger who engages with an aircraft operator in common carriage has a higher expectation of safety and oversight. The FAA notes that while operators of smaller balloons generally carry fewer passengers per year, the risk to any individual passenger in a smaller balloon is not significantly different than the risk to which they are exposed in a larger balloon.

The FAA does not concur with the assertion that the NTSB safety recommendations were specifically directed toward the safety of larger passenger-carrying balloons. Recommendation A-17-034 recommends that the FAA “remove the medical certification exemption in 14 Code of Federal Regulations 61.23(b) for pilots who are exercising their privileges as commercial balloon pilots and are receiving compensation for transporting passengers.” The FAA notes that while the NTSB directed the recommendation towards operations receiving compensation for transporting passengers, the NTSB did not distinguish between classes of operators in terms of size or passenger carrying capacity. Likewise, Congress included no distinction based on size or

passenger-capacity in Section 318 when it directed the FAA to remove the exception from medical certification for commercial balloon pilots.

Accordingly, this medical certification requirement will apply to all holders of a commercial pilot certificate with a lighter-than-air category balloon class rating when exercising the privileges of that certificate in a balloon for compensation or hire, unless that person is conducting flight training, regardless of the size of the aircraft or the number of passengers carried.

**B. Application of rule to commercial balloon operations without passengers**

The medical certification requirement in this final rule does not provide an exception to commercial operations not involving the carriage of passengers.

Several commenters contended that commercial balloon operations that do not involve the carriage of passengers for compensation or hire should not require the PIC to hold a second-class medical certificate. BFA stated that “there is no more risk to the flying public in these activities, which include commercial advertising contract flying and special shape flying, than private ballooning for sport.” The BFA strongly opposed the inclusion of commercial operations that do not conduct paying passenger activities.

Commenters to the proposed rule provided multiple examples of how commercial operations frequently occur without passengers. For example, one commenter operates a one-of-a-kind specially shaped balloon that is hired by events for its uniqueness and popularity. The city of Albany Parks & Recreation noted that the proposed rule would have a significant impact on their ability to recruit pilots for their annual festival. This commenter noted that “the second-class medical requirement may significantly impact the number of balloons available for the festivals as some pilots may decide to forego the expense and trouble.”

Another commenter said that many companies incorporate balloons into their marketing strategies, noting that these balloons are utilized as portable billboards to either be displayed while tethering on the ground or while conducting promotional flights during balloon festivals. One commenter observed that some events exclude private pilots from attending “since they interpret that getting your room, show up money or propane as ‘compensation’.”<sup>10</sup>

Section 318 of the FAA Reauthorization Act of 2018 directed the FAA to “revise section 61.3(c) of title 14, Code of Federal Regulations (relating to second-class medical certificates), to apply to an operator of an air balloon to the same extent such regulations apply to a pilot flightcrew member of other aircraft.”

The FAA proposed this rule specifically to implement section 318 of the FAA Reauthorization Act of 2018. Accordingly, the FAA proposed a requirement that any person exercising the privileges of a commercial pilot certificate for compensation or hire in a balloon, except when conducting flight training, hold a second-class medical certificate. The proposed rule made no distinction regarding whether the affected operation involved the carriage of passengers for compensation or hire, instead describing affected operations as including, but not limited to, operations for purposes of passenger sightseeing, aerial advertising, maintenance test flights, and research and development flights.

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<sup>10</sup> The FAA notes that compensation for display of an aircraft from the ground does not constitute a commercial operation. *See* Legal Interpretation to Karen Torres (March 17, 2011). A balloon operator may be compensated for attending an event and displaying a balloon, including inflating the envelope while the aircraft remains on the ground. An operation is generally considered a commercial operation when the operator is compensated to fly the aircraft, with or without passengers. Further, a balloon pilot may exercise private pilot privileges to fly the balloon at an event he or she received compensation for attending, provided the compensation was not provided with the expectation that the operator fly the balloon during the event. *See* Legal Interpretation to Tucker Comstock (Sept. 8, 1977); *see also* Legal Interpretation to Gary Bruce Eaton (Dec. 7, 2012).

FAA regulations require a second-class medical certificate for all commercial pilots of fixed-wing aircraft and rotorcraft, regardless of whether the operation involves the carriage of passengers. Further, the statute does not allow an exception for commercial operations not involving the carriage of passengers. Therefore, in accordance with the express statutory language in Section 318 of the FAA Reauthorization Act of 2018, the FAA will require all commercial balloon pilots to hold a second-class medical certificate, as proposed in the NPRM.<sup>11</sup>

### C. Drug and Alcohol testing

As discussed in the NPRM, the FAA considered whether to expand the definition of an operator under § 91.147 to include commercial balloon operations carrying passengers for compensation or hire. Doing so would have created a new requirement for such operators to obtain a Letter of Authorization (LOA) from the FAA, which would include a requirement to implement drug and alcohol testing programs in accordance with 14 CFR part 120. The FAA specifically sought comment on whether drug and alcohol testing should be required for commercial balloon operations.

Several commenters noted that the rule is insufficient because it lacks drug and alcohol testing. Most of the commenters expressing this sentiment used it as a rationale for opposing the rule, pointing out that holding a medical certificate does not compel a person to be randomly tested for prohibited substances and, as such, would have done little to prevent the Lockhart, Texas and Albuquerque, New Mexico<sup>12</sup> accidents.

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<sup>11</sup> The FAA excluded flight training because the legislation directed that the FAA to apply medical certification to commercial balloon pilots to the same extent as commercial pilots of other aircraft. The FAA has historically treated medical certification for persons conducting flight training different from other commercial operations.

<sup>12</sup> On June 26, 2021, the pilot and 4 passengers of a balloon were killed in an accident in Albuquerque, New Mexico. The accident is currently under investigation by the NTSB. (NTSB Accident No. WPR21FA242).

The FAA considered this alternative and concluded that such a requirement goes beyond the scope of the statutory mandate. The FAA established the § 91.147 provision in the 2007 National Air Tour Safety Standards final rule<sup>13</sup> following a pattern of accidents in powered aircraft. In that rule, the FAA specifically excluded balloon operations. The FAA notes that any future revisions of National Air Tour Safety Standards will require a risk-based assessment of need based on available safety data.

While medical certification under part 67 does not include a drug and alcohol testing component, it does require the applicant to authorize the FAA to access the applicant's National Driver Register (NDR) records. The NDR Problem Driver Pointer System (PDPS) identifies records on individuals whose privilege to operate a motor vehicle has been revoked, suspended, canceled or denied, or who have been convicted of serious traffic-related offenses. Even if the applicant fails to disclose these convictions on the medical certificate application, the FAA receives a report from the NDR, providing an additional safeguard and mechanism for verifying the accuracy of the information provided by the airman.

In the case of the pilot of the Lockhart accident, the accident pilot had a 20-year history of drug and alcohol convictions. Even if the airman had omitted his history of traffic offenses on an application for a medical certificate, the FAA would likely have been made aware of the motor vehicle actions from NDR records and had the opportunity to deny the application for a medical certificate based on evidence of substance dependence or substance abuse, in accordance with §§ 67.207(a)(4), 67.207(b), 67.107(a)(4), and 67.107(b).

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<sup>13</sup> 72 FR 19382, Apr 18, 2007

Accordingly, this final rule does not set forth a regulatory requirement for commercial balloon operators and pilots to implement a drug and alcohol testing program at this time.

#### D. Miscellaneous Issues

##### *Whether commercial ballooning poses a risk significant enough to warrant additional regulation*

Multiple commenters stated that ballooning is an insignificant activity in the National Airspace System (NAS) and should not be subject to additional regulation.

The FAA does not consider commercial ballooning an insignificant activity. The FAA notes that the Lockhart, Texas and Albuquerque, New Mexico accidents demonstrate that ballooning is not insignificant, and the potential risk for catastrophic accidents is not insignificant. While the FAA concurs with commenters who asserted that balloon operations represent a small percentage of the total operations in the NAS, the FAA notes that balloons are frequently used for carrying passengers for compensation and present a risk that justifies a level of medical oversight equivalent to that of pilots of powered aircraft for certain operations such as commercial sightseeing operations. Further, the NTSB and Congress have identified this risk and called on the FAA to extend the requirements for medical certification to balloon pilots operating for compensation or hire.

##### *Effects to the industry due to the cost and ability to comply with the rule*

A number of commenters expressed concerns that the final rule would greatly reduce the number of balloon pilots due to costs associated with obtaining a second-class medical certificate. The FAA acknowledges that in some cases, some commercial operators—particularly low-volume commercial operators—may opt to no longer conduct commercial operations due to the cost of obtaining a medical certificate outweighing the marginal economic benefit of conducting operations for compensation. While some pilots may leave the industry, other balloon

pilots may opt to enter the commercial balloon industry to fill the void left by departing commercial pilots.

While the FAA does not expect a significant decrease in the availability of balloon pilots, changes in supply of balloon pilots could affect prices as well. The regulatory economic analysis does not quantify any potential changes in consumer and producer surplus from changes in supply. If the rule effectively screens out certain individuals for disqualifying medical conditions as intended, any potential adverse effects on individual applicants should be offset by the safety gains to the public. Nevertheless, the cost to obtain a second-class medical certificate is unlikely to be the sole reason to cause a commercial balloon pilot to discontinue commercial operations. The FAA estimates the cost per pilot to obtain a second-class medical certificate would be between \$160 and \$685 annually, depending on whether a special issuance would be necessary. This amount equates to about 0.06% to 0.37% of average annual revenues for small entities.<sup>14</sup>

The opportunity cost (including the time and fees) of seeking a second-class medical certification for some pilots may outweigh the monetary gains of operating commercially, resulting in some pilots opting not to seek medical certification. The FAA does not have sufficient information to predict how the supply of commercial balloon pilots would change as a result of this rule.

Multiple commenters stated that following the Heart of Texas accident, the ballooning insurance providers have required all commercial pilots flying balloons larger than 120,000 cubic feet to hold a second-class medical certificate. The revised regulatory economic analysis has factored in roughly 8.8% out of 4,869 commercial pilots with balloon class ratings who

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<sup>14</sup> See Final Regulatory Flexibility Analysis discussed later in this preamble.

probably fall into this group, based on 2021 data from the Airmen Certification Database. The intent of the rule is to provide safety protection for all balloon passengers, not just passengers flying with companies operating larger balloons.

*Treatment of Balloon Operations for Compensation or Hire as Commercial Aviation Operations*

Commenters acknowledged that, while they do receive compensation, they do not consider themselves "commercial" in a traditional sense. Many commenters used examples of being offered limited compensation in the form of lodging or fuel to participate in ballooning events, often without the expectation to carry passengers. Several commenters noted that many commercial operators only occasionally conduct operations for compensation or hire and do so to subsidize the cost of ballooning.

The concept of conducting commercial operations for compensation or hire for the purpose of defraying the cost of flying is not unique to ballooning. The FAA has long held that when a passenger responds to an offer made by an operator to the public to provide an aeronautical service in exchange for receipt of anything of value that is contingent on the pilot operating the aircraft, the public expects a higher level of oversight and safety assurance. The FAA does not delineate the volume of passenger activity for purposes of defining medical eligibility requirements.

The FAA notes that there are certain circumstances in which a pilot may accept limited compensation for operating an aircraft when exercising private pilot privileges. These exceptions are enumerated in § 61.113(b) through (h). Balloon pilots exercising private pilot privileges may share expenses with passengers under § 61.113(c), provided those expenses are limited to items such as fuel, oil, airport expenditures, or rental fees. Further, a pilot sharing expenses under §

61.113(c) may not pay less than the pro rata share of the operating expenses, and must not engage in common carriage by “holding out” to the public.

*Suggestions for alternative methods of establishing medical eligibility*

Several commenters suggested alternative methods of meeting medical eligibility requirements. A few commenters suggested the FAA should allow BasicMed in lieu of a second-class medical certificate for commercial balloon operations. Multiple commenters proposed to allow state division of motor vehicle (DMV) record checks or NDR checks in lieu of medical certificate requirements. Finally, commenters suggested the medical certificate requirement not be applied to existing commercial pilot certificate holders.

The FAA does not support allowing balloon pilots exercising commercial pilot privileges to establish medical eligibility under BasicMed. Section 318 of the 2018 FAA Reauthorization Act directed the FAA to revise regulations relating to second-class medical certificates to apply to commercial balloon pilots to the same extent such regulations apply to pilots of other aircraft.

Section 2307 of the FAA Extension, Safety, and Security Act of 2016 directed the FAA to issue or revise regulations to establish physical examination and education requirements, resulting in BasicMed. BasicMed was intended by statute to serve as an alternative means of establishing medical eligibility for limited non-commercial operations by persons exercising the privileges of a private pilot certificate. Section 2307 specifically excluded operations conducted for compensation or hire and specifically prohibited passenger or property carried for compensation or hire.

The FAA does not concur with the suggestion that the FAA implement motor vehicle record checks for commercial balloon pilots instead of a second-class medical certificate requirement. A motor vehicle record alone provides an incomplete picture of a person’s medical

history and does not provide enough information to determine whether that person has a medical condition that would prevent him or her from safely operating an aircraft. Further, the medical eligibility requirements to hold a driver's license are not consistent from state to state and, therefore, may not be sufficient to ensure the safety of pilots operating a balloon carrying passengers for compensation or hire.

When applying for a medical certificate in MedXPress, an applicant authorizes the NDR, through a designated State Department of Motor Vehicles, to furnish to the FAA information pertaining to his or her driving record consistent with 49 U.S.C. 30305(b)(3). The NDR PDPS identifies records on individuals whose privilege to operate a motor vehicle has been revoked, suspended, canceled or denied, or who have been convicted of serious traffic-related offenses.

NDR checks are just one part of the medical screening process and are insufficient alone to screen for disqualifying medical conditions. A person's motor vehicle arrest record reveals only the times an individual was arrested while operating a motor vehicle under the influence of alcohol or another drug. Further, an NDR check alone would not reveal evidence of a substance abuse problem if the applicant does not operate a motor vehicle while intoxicated. Most substantially, an NDR check alone would not uncover the myriad of potential non-substance abuse-related medical conditions that are evaluated in conjunction with a medical examination conducted under part 67.

The FAA does not consider the concept of excluding existing commercial pilot certificate holders from having to comply with a medical certificate requirement to be in the interest of flight safety. Existing commercial pilot certificate holders pose a similar medical risk to the NAS as new commercial pilot certificate holders. Such an exception for existing commercial pilots

would remove this group from the safety benefit of medical certification without any additional medical risk mitigation.

#### *Insurance requirements*

Commenters contended the rule is unnecessary because commercial insurers already require medical certificates. One commenter reported that insurance companies now require second-class medical certification for pilots of large passenger-carrying hot air balloons. The commenter added that the insurance requirement makes the proposed rule redundant and unnecessary.

Commercial balloon operators are not required by regulation to be insured, so withholding a regulatory requirement to hold a medical certificate and relying on insurance companies and operators to comply voluntarily with the insurance requirements would be insufficient alone to address the need for additional oversight of airmen conducting balloon operations for compensation or hire.

The FAA notes that commercial insurance requirements are not uniform and apply only to operators who choose to obtain such coverage and comply with the policy conditions. Further, insurance requirements for a medical certificate are not universal. Insurance providers typically require medical certificates for the pilots of commercial operations that are larger in terms of passenger capacity and number of operations.

#### *Focus on FAA enforcement*

Commenters noted that the FAA should focus on enforcement of existing rules and/or surveillance for balloon operators, rather than put forward new regulations requiring medical certification.

The FAA establishes regulatory standards to ensure safe operations in the NAS. The FAA's system is largely based on, and dependent upon, a culture of compliance with regulatory standards within the regulated community. FAA personnel use compliance, administrative, or legal enforcement actions to uphold the public's safety interest in ensuring that all regulated persons conform their conduct to statutory and regulatory requirements.

The FAA applies risk-based analysis to determine how, when, and where oversight and surveillance activities take place. The Integrated Oversight Philosophy allows both certificate holders and non-certificate holders to work with the FAA to ensure corrective action is appropriate and aims to address the root cause(s) of safety issues. Using this philosophy, the FAA oversight focus has been on existing surveillance, education, and awareness to the entire balloon industry to reduce the accident rate and improve balloon safety.

#### *Comparison of balloon and glider operations*

Multiple commenters noted that the FAA stated in the NPRM that gliders were out of scope because they carried only 1 or 2 passengers. The commenters argued that based on the FAA's rationale, balloons that carry 2 passengers or less should be excluded as well.

The FAA proposed this rule specifically to implement section 318 of the FAA Reauthorization Act of 2018 and respond to NTSB Safety Recommendation A-17-034, which recommended that the FAA remove the medical certification exemption in part 61 for commercial balloon pilots receiving compensation for transporting passengers. Section 318 directed the FAA to revise regulations as they relate to operators of balloons. The FAA considered whether glider operations conducted for compensation or hire should be included in the scope of this rule. The FAA ultimately determined that as a category of aircraft, the safety record and general operational risk profile of gliders carrying passengers for compensation or

hire did not warrant further regulatory oversight concerning the medical suitability of commercial glider pilots.

*Efficacy of medical certificate requirement*

Several commenters expressed doubt that a medical certification requirement will reduce the accident rate of commercial balloon operations. Commenters noted that inflight medical incapacitation is rare, and the FAA medical standards do not address the operational considerations of ballooning versus other aircraft. They contended the FAA lacks sufficient data to support a medical certification requirement. Further, they contended that a medical certificate requirement would not have affected the outcome of the two most recent significant fatal commercial accidents in Lockhart, Texas and Albuquerque, New Mexico.

The FAA is statutorily mandated to establish standards necessary to determine that an airman is physically able to perform the duties related to the privileges of their pilot certificate. See 49 U.S.C. 44703. Further, the FAA is statutorily mandated to revise regulations related to second-class medical certificates to apply to commercial balloon pilots.

In regards to whether medical standards address the operational considerations of ballooning, the FAA notes that medical certification standards address multiple dimensions of medical qualification, including medical factors that could diminish judgment and decision-making in addition to sudden physical incapacitation. While the standards do not apply to any specific type of aircraft operation, the standards do address general categories of medical considerations that are applicable to balloon operations. These categories include: vision; ear, nose, and throat; equilibrium; mental; neurological; cardiovascular; and general health. The standards established under part 67 are minimum standards. However, the Federal Air Surgeon does have the discretion to authorize special issuance of a medical certificate or a Statement of

Demonstrated Ability (SODA), which offers flexibility for the FAA to issue a medical certificate based on the individual circumstances of an applicant.

As noted in the proposed rule, the 2016 Lockhart accident served as an example of how a lack of medical oversight allowed the pilot to continue to operate a balloon for compensation or hire in spite of a questionable medical history. While instances of sudden inflight incapacitation are rare, there are documented cases of events occurring. Medical incapacitation incidents are often not reported if no accident occurred. When an accident does occur, it can be difficult to pinpoint whether medical issues of the pilot were a factor, as evidence is often limited to the pilot's available medical records, postmortem toxicology and autopsy reports. Consequently, it is difficult to quantify the impact of medical factors on aviation safety.

While medical certification cannot completely mitigate the risk of an accident due to a medical condition of the pilot, the public holds an expectation for a higher level of operational oversight when the flight is conducted for compensation or hire. One method the FAA has to accomplish this objective is medical certification.

#### *Medical certificates for all balloon operations*

One commenter suggested that medical certificates should be required for all balloon operations.

The FAA will not extend the medical certificate requirement to balloon pilots exercising private or sport pilot privileges. Non-commercial balloon operations are among the lowest-risk operations in the NAS and do not warrant the additional regulatory burden of medical certification requirements. While pilots exercising the privileges of a private pilot or sport pilot certificate in a balloon are not required to hold a medical certificate, they must comply with the 14 CFR 61.53(b) requirement to abstain from operating an aircraft while that person knows or

has reason to know of any medical condition that would make that person unable to operate in a safe manner. In addition, these pilots have fewer privileges, and in the case of sport pilots, more operational restrictions, than a commercial pilot holding his or her flight services out to the public for compensation. The FAA has determined that compliance with a prohibition from operating an aircraft during a medical deficiency sufficiently mitigates the risk of an accident in a balloon due to a medical-related issue in an operation exercising private or sport pilot privileges.

#### E. Effective Date

Commenters recommended the FAA should delay the effective date of the medical certificate requirement provision beyond 180 days. Most of those comments suggested that the rule take effect one year after publication. Commenters cited a lack of Aviation Medical Examiners (AMEs), the ongoing COVID-19 public health emergency, and delays in processing applications by the FAA.

Multiple commenters expressed concern that there are delays in processing medical certificate applications if a special issuance is required, preventing applicants from complying with the rule within 180 days. The BFA asserted that the process of obtaining a special issuance is burdensome and may take months, or in some cases years, to obtain a medical certificate.

The FAA proposed in the NPRM that compliance with the medical certificate requirement become effective 180 days from publication of the final rule. This would provide sufficient time for the majority of affected persons to comply with this rule by obtaining a medical certificate prior to the effective date. For reasons explained below, the medical certificate requirement will go into effect on [insert date 180 days after publication], 180 days after publication of this rule.

Based on historical data, the FAA estimates that over 95% of applicants, including those who need a special issuance, will have a disposition within 150 days. Approximately 1% of all applicants for FAA medical certificates are issued a denial. Of those denials, 95% of the final dispositions resulted from a lack of response to FAA requests for additional information. Only 4% of applicants take over 150 days for certification. Many of these individuals have medical conditions, which require mandatory periods of observation to demonstrate stability and/or allow for the risk of recurrence to diminish.

The FAA acknowledges that pilots with certain medical conditions may be required to obtain additional evaluation(s) prior to issuance of a medical certificate. The FAA recommends that affected airmen, especially those with known health conditions, initiate the process to apply for a medical certificate in a timely manner, taking into consideration the time needed to obtain relevant medical information and the time necessary for the FAA to review. Individuals who delay applying for a medical certificate risk loss of some operating privileges due to the inability to comply with the requirement to hold a second-class medical certificate.

Several commenters noted that the ongoing COVID-19 public health emergency would affect the ability of balloon pilots to obtain a medical certificate within 180 days. These commenters noted that there is a limited availability of health care workers due to COVID-19.

Commenters did not provide evidence that COVID-19 continues to limit the access to AMEs. While initial response to COVID-19 did result in significant restrictions and more limited access to healthcare facilities and physicians, access to AMEs has since returned to pre-pandemic levels.

Multiple commenters noted that balloon pilots never had medical certification requirements prior to this rule. BFA noted that a significant proportion of commercial balloon

pilots are older and at an age where they likely have one or more medical conditions requiring a special issuance. Accordingly, commenters suggested that, as a population, balloon pilots will require more time to obtain a medical certificate.

The FAA notes that, as a group, older pilots are more likely to have medical conditions that need additional evaluation. The FAA does not have evidence to support the assertion that balloon pilots are as a population older than other pilots.

Multiple commenters noted a lack of available AMEs. One commenter noted that there was only one AME serving Albuquerque, New Mexico.

The FAA notes that at the time of publication of the final rule, AMEs were practicing at 2,056 locations across the United States, including 13 locations in New Mexico. Of the 11 AMEs practicing at 13 locations in New Mexico, six were practicing in Albuquerque.<sup>15</sup>

In the NPRM, the FAA proposed that the two miscellaneous amendments be made effective 30 days after publication of the final rule. No comments were received regarding the effective date of either miscellaneous amendment. Accordingly, both provisions will become effective on [insert date 30 days after publication], 30 days after publication of this rule.

#### F. Comments Regarding Miscellaneous Amendments

The FAA received generally supportive comments from individual commenters and the Aircraft Owners and Pilots Association in regard to the two miscellaneous amendments in the NPRM. The proposal to remove the requirement for a medical certificate in order to act as PIC in a special medical flight test received two supporting comments. Accordingly, the FAA is

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<sup>15</sup> *FAA Designee Management System*, as of Oct 17, 2022. <https://designee.faa.gov/#/designeeLocator>

implementing the amendments as proposed. To allow persons to act as PIC during special medical flight tests, the FAA is amending § 61.3(c)(2) by adding new paragraph (xv), which allows persons to act as PIC during authorized special medical flight tests without holding a medical certificate. The FAA also adds a parallel provision in § 61.23(b)(12).

The proposal to extend BasicMed to persons serving as required flightcrew members but not acting as PIC received ten supporting comments. Accordingly, the FAA is implementing the amendments as proposed. Specifically, the FAA is amending §§ 61.3(c)(2)(xiv), 61.23(c)(3)(i)(C) through (E), 61.113(i), 68.3(a) and, 68.3(b), and 68.9(a) by expanding the requirements to include required pilot flightcrew members.

## **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 direct that each Federal agency shall propose or adopt a regulation only upon a reasoned determination that the benefits of the intended regulation justify the 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. 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 that may result in the expenditure by State, local, and tribal governments, in the aggregate, or by the private sector, of \$100,000,000 or more (adjusted annually for inflation) in any one year. The current threshold after adjustment for inflation is

\$165 million, using the most current (2021) Implicit Price Deflator for the Gross Domestic Product.

In conducting these analyses, the FAA has determined that this rule: will result in benefits that justify costs; is not a “significant regulatory action” as defined in section 3(f) of Executive Order 12866; may have a significant economic impact on a substantial number of small entities; will not create unnecessary obstacles to the foreign commerce of the United States; and will not impose an unfunded mandate on State, local, or tribal governments, or on the private sector.

#### A. Regulatory Impact Analysis

##### *Benefits and Costs of this Rule*

The final rule will generate costs for balloon pilots to obtain a second-class medical certificate and for some pilots to seek authorization through special issuance. There is a separate cost for the FAA to implement this requirement in terms of reviewing and processing submissions related to medical certification. The FAA estimates the present value of total costs over ten years is \$2.4 million to \$16.3 million with a mid-estimate of \$6.9 million at a 7 percent discount rate, and \$2.9 million to \$19.9 million with a mid-estimate of \$8.4 million at a 3 percent discount rate. The FAA estimates the annualized costs over ten years is \$0.3 million to \$2.3 million with a mid-estimate of \$1.0 million at a 7 percent discount rate and \$0.3 million to \$2.3 million with a mid-estimate of \$1.0 million at a 3 percent discount rate. While lack of data on the effectiveness of the rule prevents quantification of benefits, the FAA anticipates the rule will enhance safety of commercial balloon operations, including reduced risks of accidents, fatalities, and injuries caused by medical impairment of balloon pilots. The FAA estimates that it

would take between 0.3 to 2.8 averted fatalities in the next ten years for the benefits to breakeven with the costs of this rule.

In addition to the requirement for commercial balloon pilots to hold a second-class medical certificate, the rule made two miscellaneous amendments. The first amendment addresses certain inconsistencies in current regulations for conducting special medical flight tests and the second amendment addresses inconsistencies regarding who may operate under BasicMed. The FAA does not quantify the effects of the two miscellaneous amendments, but anticipates there will be minor cost savings. By allowing persons to receive special medical flight tests under part 67 without holding a medical certificate, the FAA aviation safety inspector will no longer have the burden of assuming the responsibility as PIC while conducting a medical test flight with an applicant. This also eliminates the inconsistency of both having to hold a medical certificate for the purposes of receiving a special medical flight test and needing the special medical flight test to obtain a medical certificate. The amendment to extend BasicMed eligibility to other required pilot flightcrew members reduces the burden for those pilots not acting as PIC of having to hold a medical certificate under current regulations and holds them to the same standard as those pilots acting as PIC under BasicMed. This may also result in more pilots seeking opportunities to serve as a safety pilot by lowering the medical certificate barrier without compromising safety. It also increases the number of pilots eligible to serve as safety pilot, easing the burden of pilots with instrument privileges conducting flights to meet recent flight experience requirements and consequently increasing overall safety in the national airspace system.

*Statement of Need*

This rulemaking addresses the need for additional oversight of airmen conducting balloon operations for compensation or hire by implementing the statutory mandate under the Commercial Balloon Pilot Safety Act of 2018 and NTSB Safety Recommendation A-17-034 to extend second-class medical certification requirements to operators of balloons. As discussed elsewhere in this document, the 2016 Heart of Texas accident highlights the potential for a pilot's medical condition to pose safety risks, which are not necessarily less than that of powered aircraft sightseeing operations that require at least a second-class medical certificate (e.g., commercial transportation of skydivers, banner towing, or aerial photography). Following the 2016 Heart of Texas accident, there have been voluntary efforts by the industry to raise the standard for balloon pilots, notably through the Envelope of Safety Program. While incentives to ensure a certain level of safety exist in the private market for commercial balloon operations, it is unlikely in the absence of federal regulation that all balloon pilots would choose to comply with the requirements of a second-class medical certificate. At the same time, consumers may be insufficiently aware of the risks associated with balloon pilots operating under a lower standard to demand full compliance. Therefore, this rulemaking is necessary to achieve a higher level of safety for commercial balloon operations.

#### *Data and Assumptions*

This section summarizes key data sources and assumptions used throughout the analysis:

- Costs and benefits are estimated over 10 years.
- Costs and benefits are presented in 2021 dollars.
- The present value discount rate of seven and three percent is used, as required by the Office of Management and Budget.

- The cost for a medical examination fee with an AME is in the following range: Low= \$100, Mid=\$150 or High=\$200.<sup>16</sup>
- The hourly rate of a pilot (VPT) exercising their commercial balloon rating varies greatly. Therefore, the FAA used the following hourly wages: Low= \$15, Mid= \$31.50 or High= \$48.<sup>17</sup>
- Vehicle operating cost per mile (VOC) as determined by the Internal Revenue Service (IRS) is \$0.16.<sup>18</sup>
- The FAA assumes 1.5 hours to complete the MedXPress form.<sup>19</sup>
- The FAA assumes 1 hour to complete a medical examination.
- The FAA assumes 1 hour of travel time to and from an AME's office.

#### *Affected Entities*

At the time of writing, the FAA used 2021 data from the Airmen Certification database to identify pilots certificated as commercial balloon pilots. There are currently 4,869 commercial pilots with balloon class ratings. During the public comment period, the FAA learned that most insurance providers have required commercial pilots flying balloons larger than 120,000 cubic feet to hold a second-class medical certificate. FAA sources indicate that of the 4,869 commercial pilots with balloon class ratings, 427 balloon pilots (approximately 8.8% of total

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<sup>16</sup> According to FAA subject matter experts and Phoenix East Aviation, <https://www.pea.com/blog/posts/the-faa-medical-exam-common-questions/>, the cost per medical exam ranges from \$100 to \$200.

<sup>17</sup> According to the FAA subject matter experts, responses from the Balloon Federation of America and online sources, the FAA estimates a commercial balloon pilot earns from \$15 to \$48 an hour. Online source: <https://www.jobmonkey.com/uniquejobs3/hot-air-balloon-pilot-jobs/>

<sup>18</sup> <https://www.irs.gov/newsroom/irs-issues-standard-mileage-rates-for-2021> Accessed on April 21, 2021.

<sup>19</sup> This estimate is consistent with FAA's estimated burden hours associated with the MedXPress form 8500-8 approved under OMB No. 2120-0034.

commercial balloon pilots) fall into this category.<sup>20</sup> Therefore, the updated estimated number of balloon pilots without medical certification in 2021 is 4,442.

This balloon class rating does not have an expiration date, and unlike certain other pilot ratings, a person exercising the privileges of a balloon class rating is not required to hold a valid first-, second-, or third-class medical certificate. Because of this, there is uncertainty in the number of commercial balloon pilots actively exercising commercial pilot privileges. For this reason, the FAA produced a low, mid, and high-range estimate of how many pilots would possibly be affected by this final rule.

In addition to the current number of certificated pilots with a commercial balloon rating, the FAA gathered data from the last 14 years to estimate an average growth of newly certificated commercial balloon pilots per year. Over the course of the last 14 years, from 2007 through 2020, there was, on average, 56 newly certificated commercial balloon pilots per year.

As mentioned earlier, there is uncertainty with the number of active pilots exercising their commercial balloon privileges. The FAA assumes a low estimate of 20%, a mid-estimate of 50% and a high estimate of 100% of the 4,442 impacted commercial pilots with a balloon class rating. Table 1 displays the potential number of airmen that would be affected by the final rule over the course of ten years. Note that in the first year and thereafter, the number of impacted commercial pilots includes an additional 56 newly certificated commercial balloon pilots each year to account for growth over time. Corresponding to the number of active balloon pilots is the number of expected application submissions for second-class medical certificates each year.

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<sup>20</sup> FAA Airman Registry internal analysis as of July 2021.

*Table 1. Low, Middle and High Estimates of Active Balloon Pilots*

<b>Year</b>	<b>Low</b>	<b>Middle</b>	<b>High</b>
1	944	2,277	4,498
2	1,000	2,333	4,554
3	1,056	2,389	4,610
4	1,112	2,445	4,666
5	1,168	2,501	4,722
6	1,224	2,557	4,778
7	1,280	2,613	4,834
8	1,336	2,669	4,890
9	1,392	2,725	4,946
10	1,448	2,781	5,002
<b>Total</b>	<b>11,960</b>	<b>25,290</b>	<b>47,500</b>

### *Benefits*

The benefits of this rule come from the value of averted accidents attributable to pilots operating commercial balloons with medical deficiencies. While under current regulations, balloon pilots must comply with § 61.53(b), which states that “a person shall not act as pilot in command, or in any other capacity as a required pilot flight crewmember, while that person knows or has reason to know of any medical condition that would make the person unable to operate the aircraft in a safe manner,” the second-class medical certificate requirement would provide greater assurances of safety to balloon passengers and other balloon operations conducted for compensation or hire. By requiring balloon pilots to undergo a medical certification process, an AME will have the opportunity to identify potentially impairing medical conditions and treatments thereof to ensure sufficient mitigation of any associated risks.

To quantify the benefits from this rule, it is necessary to: (1) forecast a baseline level of accidents attributable to medically impaired balloon pilots in the absence of this rule and (2) estimate the extent to which the medical certification requirement effectively reduces the risk. Based on the FAA’s analysis of the NTSB accident database during the ten-year period from

2010-2020, the FAA finds that there has been one accident, the Heart of Texas accident, where the medical condition of the pilot was a factor. The Heart of Texas accident resulted in 16 fatalities. The commercial pilot and all 15 passengers were killed, and the balloon was destroyed by impact forces and post-crash fire. For an accident of this magnitude, the FAA estimates that the social cost associated with the loss of life alone is \$185.6 million using a value of statistical life of \$11.6 million.<sup>21</sup> Additional costs of a similar accident would include non-fatal injuries, the value of property loss and damage as well as the cost of the accident investigation and clean-up efforts. However, the FAA currently does not have enough information to monetize those additional costs.

The FAA finds that the requirement for a second-class medical certificate could have prevented the Heart of Texas accident if: (1) information made available through the NDR database as part of the medical review process revealed the pilot's history of drug- and alcohol-related traffic offenses and resulted in a disqualification, (2) a medical review either prompted effective treatment of or disqualification for the pilot's medical conditions (depression and ADHD), or (3) discussion of the use of certain medications with an AME would have resulted in the pilot adjusting his behavior to avoid usage as a PIC during a balloon operation.

Due to the infrequency of such events and limitations in the available data, it is difficult to quantify and monetize the benefits of the rule. The FAA intended to update its estimates of quantified benefits for the final rule based on additional information and data identified during the comment period. Specifically, the FAA requested information and data, including references

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<sup>21</sup> Value of a statistical life in 2020 is \$11.6 million. See DOT published values at <https://www.transportation.gov/office-policy/transportation-policy/revised-departmental-guidance-on-valuation-of-a-statistical-life-in-economic-analysis>.

and sources that could be used to predict the number of similar accidents that may occur in the future and the number of accidents that may be averted by this rule. No additional data was provided during the comment period.

While the FAA describes the benefits of the rule qualitatively, the FAA expects that second-class medical certification provides additional screening to reduce the risk of commercial balloon pilots operating while medically impaired. In the section below, the FAA conducted a breakeven analysis to show that the monetized benefits of the rule equates costs if it averts 0.3 to 2.8 fatalities in the next ten years.

#### *Costs*

This final rule results in private sector costs to balloon pilots for obtaining a second-class medical certificate, including the opportunity cost of time and fee for the medical exam with an AME. Some balloon pilots with certain health conditions that are otherwise disqualifying may also incur the cost of seeking a special issuance medical certificate or SODA. The FAA incurs costs for reviewing and processing the applications (i.e., MedXPress forms) and reviewing NDR information for a subset of submissions.

#### *Cost to Industry*

##### *1) Costs of Obtaining Second-Class Medical Certification*

To obtain a second-class medical certificate, an applicant needs to complete the MedXPress form and a medical exam with an AME. Because the second-class medical certificate expires 12 months after the date of the medical exam, the FAA assumes that pilots incur these costs on an annual basis. The FAA estimates the opportunity cost of time for each applicant would include 1.5 hours to complete the MedXPress form, 1 hour for the medical

examination, and 1 hour of travel time to and from the exam for a total of 3.5 hours.<sup>22</sup> The FAA assumes an hourly wage for a balloon pilot ranges from \$15 per hour to \$48 per hour, with a mid-estimate of \$31.50 per hour, to value time for the medical exam and completing the MedXPress form. For valuing travel time, the FAA uses an estimate of \$13.60 per hour consistent with 2016 DOT guidance (in this analysis, \$14.44 was used for year 2021).<sup>23</sup> Multiplying the value of time by the amount of time spent yields an estimate of \$51.94 to \$134.44, with a mid-estimate of \$93.19 per applicant in opportunity cost of time. FAA subject matter experts estimate the cost per medical exam with an AME ranges from \$100 to \$200, with an average of \$150. Additional costs arise from vehicle operating costs (VOC) of 16 cents per mile for an average of 50 miles traveled by vehicle to and from a medical exam, which yields \$8 for each exam. Taking the sum of the value of time spent, medical exam fee, and VOC, the FAA estimates that each applicant incurs costs of approximately \$160 to \$342, with a mid-estimate of \$251 to obtain a second-class medical certificate each year.

Table 2 below shows the range of total costs to industry for obtaining a second-class medical certificate. The FAA derives the aggregated low, middle, and high costs by multiplying the estimated number of active pilots (low, middle, high) as shown in Table 1 by the corresponding low, middle, and high costs per applicant by cost category.

*Table 2. Costs to Industry by Category to Obtain Second-Class Medical Certification*

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<sup>22</sup> According to the “FAA Aerospace Medical Certification Services Airman Satisfaction Survey,” (April 2017), over 60 percent of applicants traveled between 0 and 25 miles one way for an exam with an AME. (Retrieved from: [https://www.reginfo.gov/public/do/PRAViewDocument?ref\\_nbr=201904-2120-007](https://www.reginfo.gov/public/do/PRAViewDocument?ref_nbr=201904-2120-007))

<sup>23</sup> Department of Transportation. “The Value of Travel Time Savings: Departmental Guidance for Conducting Economic Evaluations Revision 2 (2016 Update). Available at: <https://www.transportation.gov/office-policy/transportation-policy/revised-departmental-guidance-valuation-travel-time-economic>. This analysis assumes that the value of travel time grows 1% a year. Year 2021: \$14.44.

2) Cost of Obtaining a Special Issuance

Year	Opportunity Cost of Time for Exam, MedXPress Form, and Travel			Fee for Medical Exam with AME			Vehicle Operating Costs		
	Low	Middle	High	Low	Middle	High	Low	Middle	High
1	\$48,899	\$211,875	\$604,081	\$94,400	\$341,550	\$899,600	\$7,552	\$18,216	\$35,984
2	\$51,940	\$217,412	\$612,240	\$100,000	\$349,950	\$910,800	\$8,000	\$18,664	\$36,432
3	\$54,996	\$222,965	\$620,414	\$105,600	\$358,350	\$922,000	\$8,448	\$19,112	\$36,880
4	\$58,080	\$228,559	\$628,650	\$111,200	\$366,750	\$933,200	\$8,896	\$19,560	\$37,328
5	\$61,180	\$234,169	\$636,903	\$116,800	\$375,150	\$944,400	\$9,344	\$20,008	\$37,776
6	\$64,297	\$239,795	\$645,173	\$122,400	\$383,550	\$955,600	\$9,792	\$20,456	\$38,224
7	\$67,430	\$245,439	\$653,460	\$128,000	\$391,950	\$966,800	\$10,240	\$20,904	\$38,672
8	\$70,581	\$251,100	\$661,764	\$133,600	\$400,350	\$978,000	\$10,688	\$21,352	\$39,120
9	\$73,748	\$256,777	\$670,084	\$139,200	\$408,750	\$989,200	\$11,136	\$21,800	\$39,568
10	\$76,932	\$262,471	\$678,421	\$144,800	\$417,150	\$1,000,400	\$11,584	\$22,248	\$40,016

Note: The low, middle, and high estimates correspond to the low, middle, and high estimates of the number of active pilots and the range of costs per applicant in each category of costs.

For applicants that do not initially meet the requirements of a second-class medical certification, there may be an additional cost to seek a special issuance medical certificate or SODA.<sup>24</sup> The FAA assumes that an applicant seeking special issuance would incur the same costs and time of a second-class medical certification as estimated per applicant above. Based on the historical rate of special issuances, the FAA assumes that approximately 10 percent of affected balloon pilots would seek special issuance, including SODAs. Therefore, the FAA takes

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<sup>24</sup> The cost to obtain a SODA is included in the estimated costs to obtain a special issuance medical certificate. Based on the FY2022 data from Aerospace Medical Certification Division, the FAA estimates that on average approximately 0.02% (or no more than one applicant a year) of medical certificate applicants will require a SODA.

the sum of costs in each cost category for obtaining a second-class medical certification and multiplies by 0.1 to obtain the total industry cost for obtaining special issuances. Table 3 below shows the range of special issuance costs in each year.

*Table 3. Total Industry Cost for Special Issuances*

Year	Total Private Sector Costs for Special Issuance		
	Low	Middle	High
1	\$15,085	\$57,164	\$153,967
2	\$15,994	\$58,603	\$155,947
3	\$16,904	\$60,043	\$157,929
4	\$17,818	\$61,487	\$159,918
5	\$18,732	\$62,933	\$161,908
6	\$19,649	\$64,380	\$163,900
7	\$20,567	\$65,829	\$165,893
8	\$21,487	\$67,280	\$167,888
9	\$22,408	\$68,733	\$169,885
10	\$23,332	\$70,187	\$171,884
Present Value at 7%	\$131,272	\$441,519	\$1,136,479
Annualized at 7%	\$18,690	\$62,862	\$161,809
Present Value at 3%	\$161,857	\$540,060	\$1,385,536
Annualized at 3%	\$18,975	\$63,311	\$162,427

*Summary of Total Cost to Industry*

The FAA estimates the present value of total cost to industry associated with obtaining a second-class medical certification and special issuances to be \$1.4 million to \$12.5 million, with a mid-estimate of \$4.9 million at a 7 percent discount rate and \$1.8 million to \$15.2 million, with a mid-estimate of \$5.9 million at a 3 percent discount rate. The annualized value of total cost to industry are \$0.2 million to \$1.8 million with a mid-estimate of \$0.7 million at a 7 percent discount rate and \$0.2 million to \$1.8 million with a mid-estimate of \$0.7 million at a 3 percent discount rate. In Table 4 below, the FAA shows these total costs to industry for obtaining a second-class medical certification and special issuances in each year. The low, middle, and high

estimates correspond to the range of estimates on the number of affected pilots and costs associated with obtaining medical certification.

*Table 4. Total Industry Costs*

Year	Total Cost to Industry		
	Low	Middle	High
1	\$165,936	\$628,805	\$1,693,632
2	\$175,934	\$644,629	\$1,715,419
3	\$185,949	\$660,470	\$1,737,223
4	\$195,993	\$676,355	\$1,759,096
5	\$206,056	\$692,259	\$1,780,987
6	\$216,138	\$708,182	\$1,802,897
7	\$226,237	\$724,122	\$1,824,825
8	\$236,356	\$740,082	\$1,846,772
9	\$246,493	\$756,059	\$1,868,737
10	\$256,648	\$772,056	\$1,890,721
Present Value at 7%	\$1,443,990	\$4,856,705	\$12,501,274
Annualized at 7%	\$205,592	\$691,486	\$1,779,900
Present Value at 3%	\$1,780,422	\$5,940,655	\$15,240,897
Annualized at 3%	\$208,720	\$696,426	\$1,786,698

*Costs to FAA to Implement Requirement for Second-Class Medical Certification for Balloon Pilots*

*1) FAA Cost of MedXPress Review and Processing*

The FAA incurs costs associated with reviewing and processing applications submitted through MedXPress. Based on internal FAA data on total personnel costs and benefits attributable to labor hours spent on review of airmen medical certification in FY 2019 through FY 2021, the FAA estimates an average cost of \$30 to review and process each application. In Table 5 below, the Agency derives the FAA cost to review applications in each year using the estimated range for the number of submissions based on the forecasted number of active balloon pilots in each year.

*Table 5. FAA Costs to Review and Process Applications*

Year	FAA Costs for Review and Processing		
	Low	Middle	High
1	\$27,944	\$67,402	\$133,146
2	\$29,601	\$69,060	\$134,804
3	\$31,259	\$70,717	\$136,462
4	\$32,917	\$72,375	\$138,119
5	\$34,574	\$74,033	\$139,777
6	\$36,232	\$75,690	\$141,435
7	\$37,890	\$77,348	\$143,092
8	\$39,547	\$79,006	\$144,750
9	\$41,205	\$80,663	\$146,408
10	\$42,863	\$82,321	\$148,065
Present Value at 7%	\$242,207	\$519,347	\$981,108
Annualized at 7%	\$34,485	\$73,943	\$139,688
Present Value at 3%	\$298,552	\$635,141	\$1,195,954
Annualized at 3%	\$34,999	\$74,458	\$140,202

*2) FAA Cost of Special Issuance Review*

A MedXPress application that requires a special issuance medical certificate is deferred to the Aerospace Medical Certification Division (AMCD) for further consideration. Based on FAA internal data on personnel compensation and benefits attributable to labor hours spent on reviewing and processing special issuance medical certificates in FY 2019 through FY 2021, the FAA estimates an average cost of approximately \$126 per special issuance review. The table below displays the FAA cost for special issuance review assuming that 10 percent of the applicants do not initially qualify for second-class medical certification.

*Table 6. FAA Cost of Special Issuance Review*

Year	FAA Costs for Special Issuance Review		
	Low	Middle	High
1	\$11,931	\$28,779	\$56,851
2	\$12,639	\$29,487	\$57,559
3	\$13,347	\$30,195	\$58,267
4	\$14,055	\$30,903	\$58,974
5	\$14,763	\$31,611	\$59,682
6	\$15,470	\$32,318	\$60,390
7	\$16,178	\$33,026	\$61,098
8	\$16,886	\$33,734	\$61,806
9	\$17,594	\$34,442	\$62,513
10	\$18,302	\$35,150	\$63,221
Present Value at 7%	\$103,418	\$221,751	\$418,915
Annualized at 7%	\$14,724	\$31,572	\$59,644
Present Value at 3%	\$127,476	\$271,193	\$510,650
Annualized at 3%	\$14,944	\$31,792	\$59,864

*3) Cost of FAA Review of the National Driver Register (NDR) Reports*

Included within the medical certificate application is the applicant’s authorization for the FAA to receive NDR data, which provides a report of applicable motor vehicle actions within the preceding three years. Intentional failure to report required drug or alcohol motor vehicle actions is grounds for suspension of a pilot certificate. NDR checks help to identify persons who may have substance abuse or dependence issues. Although the bulk of the process is automated, the FAA estimates there is roughly a 3% return rate that requires additional review and investigation. The FAA estimates that it takes approximately 40 hours of additional review time by a special agent for each applicant that is flagged through the NDR database. Using a special agent hourly wage adjusted for fringe benefits of \$60.18, as shown in Table 7 below, the FAA estimates that each submission that requires further investigation would cost \$2,407. The total costs to FAA associated with NDR review are estimated in Table 8 using the range of estimated submissions.

*Table 7. Special Agent Wage with Fringe benefits*

	Yearly	Hourly	Fringe benefits	Total
Special Agent	\$91,877	\$44.17	\$16.01	\$60.18
Federal Fringe Benefit Factor (1)(2)(3)			36.25%	
(1) <a href="https://www.whitehouse.gov/sites/whitehouse.gov/files/omb/memoranda/2008/m08-13.pdf">https://www.whitehouse.gov/sites/whitehouse.gov/files/omb/memoranda/2008/m08-13.pdf</a> (2) Percent of position's basic pay. (3) Dallas-Fort Worth, TX-OK locality plus fringe benefits, GS-12 Step 4. Retrieved from <a href="https://www.opm.gov/policy-data-oversight/pay-leave/salaries-wages/salary-tables/pdf/2021/DFW.pdf">https://www.opm.gov/policy-data-oversight/pay-leave/salaries-wages/salary-tables/pdf/2021/DFW.pdf</a>				

Table 8. FAA Costs for NDR Review

Year	FAA Costs for NDR Review		
	Low	Middle	High
1	\$68,172	\$164,436	\$324,828
2	\$72,216	\$168,480	\$328,872
3	\$76,260	\$172,524	\$332,916
4	\$80,304	\$176,568	\$336,960
5	\$84,348	\$180,612	\$341,004
6	\$88,392	\$184,656	\$345,048
7	\$92,436	\$188,700	\$349,092
8	\$96,481	\$192,745	\$353,136
9	\$100,525	\$196,789	\$357,180
10	\$104,569	\$200,833	\$361,224
Present Value at 7%	\$590,895	\$1,267,013	\$2,393,537
Annualized at 7%	\$84,130	\$180,394	\$340,786
Present Value at 3%	\$728,356	\$1,549,507	\$2,917,681
Annualized at 3%	\$85,386	\$181,650	\$342,041

*Summary of Total Costs to FAA*

The total costs to the FAA to implement the requirement for commercial balloon pilots to hold a second-class medical certificate is the sum of the costs for FAA review and processing of MedXPress applications, review of special issuances, and review of NDR information associated with certain applications. The FAA estimates the present value of total costs to the Agency to be \$0.9 million to \$3.8 million, with a mid-estimate of \$2.0 million at a 7 percent discount rate and \$1.2 million to \$4.6 million, with a mid-estimate of \$2.5 million at a 3 percent discount rate. The annualized value of total cost to FAA is \$0.1 million to \$0.5 million with a mid-estimate of \$0.3 million at a 7 percent discount rate and \$0.1 million to \$0.5 million with a mid-estimate of \$0.3 million at a 3 percent discount rate.

The FAA acknowledges the difficulty in estimating FAA burden and cost after the effective date of this rule given uncertainties in the number of pilot applicants and those pilots that would either receive a second-class medical certification or be granted a special issuance certification.

*Table 9. Total Costs to FAA*

Year	Total Cost to FAA		
	Low	Middle	High
1	\$108,047	\$260,617	\$514,825
2	\$114,456	\$267,027	\$521,235
3	\$120,866	\$273,436	\$527,644
4	\$127,276	\$279,846	\$534,054
5	\$133,685	\$286,256	\$540,463
6	\$140,095	\$292,665	\$546,873
7	\$146,504	\$299,075	\$553,282
8	\$152,914	\$305,484	\$559,692
9	\$159,323	\$311,894	\$566,102
10	\$165,733	\$318,303	\$572,511
Present Value at 7%	\$936,521	\$2,008,111	\$3,793,560
Annualized at 7%	\$133,339	\$285,910	\$540,118
Present Value at 3%	\$1,154,385	\$2,455,842	\$4,624,285
Annualized at 3%	\$135,329	\$287,900	\$542,107

*Total Costs of the Rule*

The total costs are shown in the table below, which includes both costs to industry and to the FAA. The total costs over the ten years include the costs for pilots to obtain their second-class medical certificate, special issuances and costs to the Agency for review of applications, special issuances, and NDR information. The FAA estimates the present value of total costs over ten years is \$2.4 million to \$16.3 million with a mid-estimate of \$6.9 million at a 7 percent discount rate and \$2.9 million to \$19.9 million with a mid-estimate of \$8.4 million at a 3 percent discount rate. The FAA estimates the annualized costs over ten years is \$0.3 million to \$2.3 million with a mid-estimate of \$1.0 million at a 7 percent discount rate and \$0.3 million to \$2.3 million with a mid-estimate of \$1.0 million at a 3 percent discount rate.

As stated previously, in some cases, where the airman's medical condition does not meet the part 67 standard, the airman may still be issued a medical certificate by authorization for special issuance when the Federal Air Surgeon determines the risk associated with the medical condition(s) to be sufficiently mitigated. Based on the rate of special issuance for general aviation pilots, the FAA assumes that 10% of the commercial balloon pilot applicants would require a special issuance. For purposes of this analysis, the FAA assumes that most applicants would ultimately either receive a second-class medical certificate or be granted a special issuance and therefore does not quantify costs associated with not meeting the requirements.

However, the FAA expects some applicants who would have otherwise been able to operate as commercial balloon pilots may not meet the requirements of a second-class medical certification nor the requirements for a special issuance. Furthermore, the opportunity cost (including the time and fees) of seeking a second-class medical certification for some pilots may outweigh their private gains from operating commercially, resulting in some pilots opting not to seek medical certification. The FAA does not have sufficient information to predict how the supply of commercial balloon pilots would change as a result of this rule.

While the FAA does not expect a significant decrease in the availability of balloon pilots, changes in supply of balloon pilots could affect prices as well. This analysis does not quantify any potential changes in consumer and producer surplus from changes in supply. If the rule effectively screens out certain individuals for disqualifying medical conditions as intended, any potential adverse effects on individual applicants should be offset by the safety gains to the public.

Table 10. Total Costs of the Rule

Year	Total Cost of the Rule		
	Low	Middle	High
1	\$273,983	\$889,422	\$2,208,457
2	\$290,390	\$911,656	\$2,236,654
3	\$306,815	\$933,907	\$2,264,867
4	\$323,269	\$956,201	\$2,293,150
5	\$339,741	\$978,515	\$2,321,451
6	\$356,232	\$1,000,847	\$2,349,770
7	\$372,742	\$1,023,197	\$2,378,108
8	\$389,270	\$1,045,566	\$2,406,464
9	\$405,816	\$1,067,953	\$2,434,839
10	\$422,381	\$1,090,359	\$2,463,232
Present Value at 7%	\$2,380,511	\$6,864,816	\$16,294,834
Annualized at 7%	\$338,931	\$977,395	\$2,320,018
Present Value at 3%	\$2,934,807	\$8,396,497	\$19,865,182
Annualized at 3%	\$344,049	\$984,326	\$2,328,805

### *Breakeven Analysis*

Given the uncertainties and limitations in the available data, the FAA conducted a breakeven analysis to determine the number of averted fatalities necessary to generate benefits equal to costs. The FAA divided the present value of total costs of the rule by the present value of a statistical life to estimate the number of fatalities needed to break even with the costs of the rule over a ten-year time horizon. Using a value of statistical life of \$11.6 million and the range of present value of costs presented in Table 10 above, the monetized benefits of this rule will break even with costs if the new medical certification requirement averts between 0.4 to 2.8 fatalities under a 7 percent discount rate and between 0.3 to 2.3 fatalities under a 3 percent discount rate.<sup>25</sup>

### *Regulatory Alternatives*

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<sup>25</sup> Departmental Guidance on Valuation of a Statistical Life in Economic Analysis  
<https://www.transportation.gov/office-policy/transportation-policy/revised-departmental-guidance-on-valuation-of-a-statistical-life-in-economic-analysis>

As discussed in the NPRM, the FAA considered one alternative to the proposed rule: Letter of Authorization (LOA) and Drug and Alcohol Testing.

With this alternative, the FAA would have instituted both a medical certificate requirement as well as a requirement for obtaining an LOA from the FAA and mandatory drug and alcohol testing. This alternative would have expanded the definition of an operator under § 91.147 to include balloons, which would have required the commercial balloon operators to obtain an LOA from the FAA in accordance with § 91.147 prior to conducting air tour operations, and implement a drug and alcohol testing program in accordance with 14 CFR part 120. However, as discussed elsewhere in this final rule, this alternative goes beyond the statutory mandate. Therefore, the FAA did not adopt this alternative.

#### B. Regulatory Flexibility Act

The Regulatory Flexibility Act (RFA) of 1980, Public Law 96–354, 94 Stat. 1164 (5 U.S.C. 601–612), as amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (Pub. L. 104–121, 110 Stat. 857, Mar. 29, 1996) and the Small Business Jobs Act of 2010 (Pub. L. 111–240, 124 Stat. 2504 Sept. 27, 2010), 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 published an Initial Regulatory Flexibility Analysis (IRFA) in the proposed rule to aid the public in commenting on the potential impacts to small entities. The FAA considered the public comments in developing the final rule and this Final Regulatory Flexibility Analysis (FRFA). A FRFA must contain the following:

- (1) A statement of the need for, and objectives of, the rule;
- (2) A statement of the significant issues raised by the public comments in response to the IRFA, a statement of the assessment of the agency of such issues, and a statement of any changes made in the proposed rule as a result of such comments;
- (3) The response of the agency to any comments filed by the Chief Counsel for Advocacy of the Small Business Administration (SBA) in response to the proposed rule, and a detailed statement of any change made to the proposed rule in the final rule as a result of the comments;
- (4) A description of and an estimate of the number of small entities to which the rule will apply or an explanation of why no such estimate is available;
- (5) A description of the projected reporting, recordkeeping, and other compliance requirements of the rule, including an estimate of the classes of small entities which will be subject to the requirement and the type of professional skills necessary for preparation of the report or record; and
- (6) A description of the steps the agency has taken to minimize the significant economic impact on small entities consistent with the stated objectives of applicable statutes, including a statement of the factual, policy, and legal reasons for selecting the alternative adopted in the final rule and why each of the other significant alternatives to the rule considered by the agency which affect the impact on small entities was rejected.

#### **Statement of the Need for and Objectives of the Rule**

This rulemaking addresses the need for additional oversight of airmen conducting balloon operations for compensation or hire by implementing the statutory mandate under the Commercial Balloon Pilot Safety Act of 2018 and NTSB Safety Recommendation A-17-034 to extend second-class medical certification requirements to operators of balloons.

The objective of the rule is to enhance safety for passengers of commercial balloon operations by requiring pilots to obtain and hold second-class medical certificates, in compliance with Section 318, to prevent potential accidents in commercial balloon operations.

### **Significant Issues Raised in Public Comments**

The FAA received 192 comments during the public comment period. One significant issue commenters raised was the concern that the proposed rule would impose significant burdens on balloon pilots and could put some of them out of business, causing the supply of balloon pilots to shrink. The FAA assessed this concern and does not believe that the costs of the rule would cause such an undue burden. The cost estimate per pilot to obtain a second-class medical certificate is between \$160 and \$685 annually, depending on whether a special issuance would be necessary, which is the equivalent of 0.06% to 0.37% of average annual revenues for small entities. The FAA considers this expense to be non-significant to cause such a decline in the number of balloon pilots. A more detailed analysis may be found under the Description and an Estimated Number of Small Entities Impacted section.

In addition, several commenters noted that larger balloon operations require their pilots to carry second-class medical certificates as part of insurance requirements. These balloon pilots do not have to incur additional costs as a result of the final rule. The FAA estimates about 8.8% of balloon pilots fall into this category. However, the vast majority of balloon pilots are not currently required to hold second-class medical certificates either by the FAA or insurance carriers. There was no change made to the final rule as a result of public comments.

### **Response to SBA comments**

The FAA received no comments from the Chief Counsel for Advocacy of the Small Business Administration.

## Description and an Estimated Number of Small Entities Impacted

The final rule affects commercial balloon pilots and establishments involved in commercial balloon operations. The FAA does not maintain a database of commercial balloon operators actively operating in the United States. Using commercial sources, the FAA estimates that number to be about 356<sup>26</sup> companies. Approximately 4,870 commercial pilots hold balloon ratings, and approximately 4,940 balloons are registered with the FAA. The commercial balloon industry estimates that 100,000 to 250,000 passenger rides are conducted annually, as well as aerial advertising and other commercial activities.

FAA used the definition of small entities in the RFA for this analysis. The RFA defines small entities as small businesses, small governmental jurisdictions, or small organizations. In 5 U.S.C. § 601(3), the RFA defines "small business" to have the same meaning as "small business concern" under section 3 of the Small Business Act. The Small Business Act authorizes the Small Business Administration (SBA) to define "small business" by issuing regulations. SBA (2019) has established size standards for various types of economic activities, or industries, under the North American Industry Classification System (NAICS).<sup>27</sup> These size standards generally define small businesses based on the number of employees or annual receipts. Note that the SBA definition of a small business applies to the parent company and all affiliates as a single entity.

To identify small entities, the FAA first identified the primary NAICS of the airline or parent company, and then used data from different sources (e.g., company annual reports, Bureau

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<sup>26</sup> [http://www.blastvalve.com/Balloon\\_Rides/USA/index.shtml](http://www.blastvalve.com/Balloon_Rides/USA/index.shtml)

<sup>27</sup> Small Business Administration (SBA). 2019. Table of Size Standards. Effective August 12, 2019. <https://www.sba.gov/document/support--table-size-standards>.

of Transportation Statistics) to determine whether the parent company meets the applicable size standard. Businesses affected by this rule are classified using the 2017 North American Industry Classification System<sup>28</sup> under NAICS code 487990 “Scenic and Sightseeing Transportation, Other.” This industry comprises establishments primarily engaged in providing scenic and sightseeing transportation (except on land and water). The U.S. Small Business Administration (SBA) defines entities in this industry as “small” using an average annual revenue threshold of \$8 million.<sup>29</sup> With limited information and data on sales revenues for each of the affected commercial balloon operators, the FAA has uncertainty as to how many entities would meet the SBA’s small-entity criteria.<sup>30</sup> Furthermore, the FAA has uncertainty as to how the burden associated with the final rule would be distributed across commercial balloon companies versus individual balloon pilots employed by an operator. The FAA requested comment and data on the average annual sales revenues for the affected small businesses and to what extent the costs of obtaining a second-class medical certification would be considered an “out-of-pocket” cost incurred by commercial balloon pilots rather than a cost to the commercial balloon operator. The only information received was that the ballooning insurance providers have required commercial pilots flying balloons larger than 120,000 cubic feet to hold a second-class medical certificate. Data indicated 427 balloon pilots have second-class medical certificates, and the FAA has made this adjustment to recompute the costs of this final rule. As previously described, the FAA

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<sup>28</sup> <https://www.census.gov/naics/?input=487990&year=2017&details=487990>

<sup>29</sup> [https://www.sba.gov/sites/default/files/2019-08/SBA%20Table%20of%20Size%20Standards\\_Effective%20Aug%2019%2C%202019\\_Rev.pdf](https://www.sba.gov/sites/default/files/2019-08/SBA%20Table%20of%20Size%20Standards_Effective%20Aug%2019%2C%202019_Rev.pdf)

<sup>30</sup> Rainbow Ryders is one of the larger commercial balloon companies and are under the Small Business Administration small-entity criteria. Therefore, the FAA estimates that all of the Commercial balloon companies are a small entity. *It's Been a Year of Growth for Rainbow Ryders*, <https://www.abqjournal.com/1095655/its-been-a-growth-year-for-rainbow-ryders.html>, September 9, 2019.

estimates the cost per pilot to obtain a second-class medical certificate would be between \$160 and \$685 annually, depending on whether a special issuance would be necessary.

For purposes of this final regulatory flexibility analysis, the FAA assumes that the private sector costs of this rule (i.e., the cost to obtain a second-class medical certification or special issuance) fall entirely on commercial balloon operators. In the absence of data on annual receipts specific to the commercial balloon industry, the FAA relies on the most recent data available on average revenues for all businesses, including commercial balloon operators, classified under NAICS 487990 “Scenic and Sightseeing Transportation, Other” from the 2017 Census Bureau’s Statistics of U.S. Businesses (SUSB)<sup>31</sup> to inform the analysis. Note that the total number of firms identified for this industry is less than the FAA estimated number of commercial balloon operators. In this analysis, the FAA uses the SUSB data to estimate the proportion of balloon companies for each size category by annual receipts.

The table below summarizes the total number of firms, employment, and estimated annual receipts by annual receipt category for the entire industry classified under NAICS 487990 “Scenic and Sightseeing Transportation, Other” for the year 2017. Note that blanks in the table below reflect data that the Census Bureau withheld to avoid disclosing data for individual companies but are included in the higher-level totals. After adjusting the 2017 dollar values to constant 2021 dollars using the GDP deflator,<sup>32</sup> the FAA estimates that approximately 93 percent of companies (or about 331 balloon operators extrapolating from this percentage) may be considered small entities under the SBA definition.

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<sup>31</sup> Available at: <https://www.census.gov/data/tables/2017/econ/susb/2017-susb-annual.html>, retrieved on August 15, 2021.

<sup>32</sup> Available at: <https://www.whitehouse.gov/omb/historical-tables/>,

To compare the compliance costs of the rule to the average revenues of small entities, for each receipt size category the FAA multiplies the proportion of total employment by the annualized private sector costs of the rule and divides by the estimated annual receipts in 2021 dollars.<sup>33</sup> Assuming that costs are proportional to employment size, which may be reasonable given that costs are driven by the number of pilots requiring a second-class medical certification, the FAA estimates that the costs of the final rule constitutes 0.06% to 0.37% of average annual revenues for small entities. Given the currency and level of aggregation of the data available, the FAA requested comment on accuracy of these estimates and any other information or data that would be relevant for estimating the effects of the rule on small entities but did not receive any during the comment period.

*Table 11. Number of Firms, Establishments, Employment, and Estimated Receipts by Enterprise Receipt Sizes for the United States, NAICS 487990: 2017 (Census Statistics of U.S. Businesses)*

Enterprise Receipt Size [a]	Number of Firms [b]	Percentage of Firms	Employment	Percentage of Total Employment	Estimated Receipts (\$1,000)	Cost for All Firms in Size Category (\$1,000)	Cost as a Percentage of Receipts
<\$100,000	53	17%	48	1%	2,255	9	0.37%
\$100,000-499,999	119	39%	192	5%	29,644	37	0.11%
\$500,000-999,999	47	15%	237	7%	32,765	45	0.13%
\$1,000,000-2,499,999	43	14%	365	10%	63,134	70	0.10%
\$2,500,000-4,999,999	18	6%	323	9%	65,788	62	0.09%
\$5,000,000-7,499,999	6	2%	106	3%	29,465	20	0.06%
\$7,500,000-9,999,999	5	2%	213	6%	41,585	41	0.09%
\$10,000,000-14,999,999	4	1.3%	196	5%	50,270	38	0.07%
\$20,000,000-24,999,999							
\$25,000,000-29,999,999	3	1.0%	93	3%	19,490	18	0.08%
\$30,000,000-34,999,999							
\$35,000,000-39,999,999							
\$50,000,000-74,999,999							

<sup>33</sup> For this calculation, the FAA uses the mid-estimate of \$691,486 for the total private sector costs annualized at a 7 percent discount rate.

\$100,000,000+	4	1%	1,044	29%	251,871	200	0.07%
Total	309	100%	3,611	100%	762,426	691	0.08%

[a] Using the Gross Domestic Product (GDP) deflator, the FAA finds that \$7.49 million in 2017 dollars would be approximately \$ 8.16 million in 2021 dollars. Therefore, the FAA assumes firms with receipts of less than \$7.49 million in 2017 dollars would be considered small.

[b] The FAA notes that the number of firms in NAICS 487990 is lower than FAA’s estimate of the number of balloon operators. For purposes of this analysis, the SUSB data is used to estimate the percentage of small entities and the distribution of costs relative to revenues.

### **Description of the Recordkeeping and Other Compliance Requirements**

The FAA requires that airmen hold a valid second-class medical certificate when exercising the privileges of a commercial pilot certificate in a balloon for compensation or hire. A medical certificate is not required for commercial pilots conducting flight training in a balloon. As determined by a physical examination and review of medical history, airmen must meet the applicable medical standards of part 67 in order to receive an unrestricted medical certificate. In cases where the airman’s medical condition does not meet the part 67 standard, the airman may still be issued a medical certificate by authorization for special issuance or SODA when the Federal Air Surgeon had determined that the risk associated with the medical condition(s) is sufficiently mitigated.

A person obtains a medical certificate by completing an online application (FAA form 8500–8, Application for Medical Certificate) using the FAA’s medical certificate application tool, MedXPress,<sup>34</sup> and undergoing a physical examination with an FAA-designated AME. An AME may defer an applicant to the FAA for further review (which may include further examination and testing by a specialist physician) when there is information indicating the existence or potential of an adverse medical finding that may warrant further FAA medical evaluation and oversight. Second-class medical certificates held for any operations requiring a

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<sup>34</sup> <https://medxpress.faa.gov/>

commercial pilot certificate (including the second-class medical certificates that is required for balloon operations under this final rule) expire at the end of the last day of the 12<sup>th</sup> month after the month of the date of examination shown on the medical certificate.

### **Alternatives Considered to Minimize any Significant Economic Impact on Small Entities**

The FAA has not identified any significant alternative that would minimize any significant economic impact on small entities which do not conflict with the statutory mandate. During the comment period, the FAA solicited comment on potential alternative approaches that could minimize the burden on small entities while still accomplishing the objectives of the proposal and did not receive any suggestions.

#### **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 final rule and determined that it will not create unnecessary obstacles to the foreign commerce of the United States.

The FAA has assessed the potential effect of this rule and determined that it ensures the safety of the American public and does not exclude imports that meet this objective. As a result, the FAA does not consider this rule as creating an unnecessary obstacle to foreign commerce.

#### 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 final rule will not result in the expenditure of \$165,000,000 or more by State, local, or tribal governments, in the aggregate, or the private sector, in any one year.

#### E. Paperwork Reduction Act

The Paperwork Reduction Act of 1995 (44 U.S.C. 3507(d)) requires that the FAA 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.

This final rule contains the following amendments to the existing information collection requirements previously approved under OMB Control No. 2120-0034. In the analysis below, the FAA describes the incremental changes in the number of respondents, annual burden, and monetized costs of the existing information collection requirement previously approved under

OMB Control No. 2120–0034. As required by the Paperwork Reduction Act of 1995 (44 U.S.C. 3507(d)), the FAA has submitted the information collection requirements to OMB for its review.

*Requirements to hold a second-class medical certificate*

The final rule requires airmen to hold a valid second-class medical certificate when exercising the privileges of a commercial pilot certificate in a balloon for compensation or hire. To obtain a medical certificate, an airman has to complete an online application (FAA form 8500–8, Application for Medical Certificate) using the FAA’s medical certificate application tool, MedXPress and undergo a physical examination with an FAA-designated Aviation Medical Examiner (AME).

In Table 12 below, the FAA shows the incremental burden of this rule to the approved information collection under OMB Control No. 2120-0034. Additional details on assumptions and calculations used in this section are presented elsewhere in the Regulatory Evaluation section of this document.

*Estimates of the hour burden of the collection of information:*

The mid estimate of the number of applicants in the first year is 2,277.

*Table 12. Burden Hours Associated with MedXPress form 8500-8*

Form #	# of Applicants	Hours per Applicant	Total Hours
8500-8	2,277	1.5	3,416

*Estimate of the total annual cost burden to respondents or record keepers resulting from the collection of information:*

Once the information on FAA Form 8500-8 is collected, respondents must receive a medical examination in order to be certificated to exercise commercial balloon pilot privileges. The average fee for a basic medical examination is estimated at \$150. The total cost for medical exams in the first year is as follows:

$$\$150 \times 2,277 \text{ submissions of Form 8500-8} = \$ 341,550$$

*Estimates of annualized costs to the Federal Government:*

The estimated annualized cost to the Federal Government to implement the final rule is between \$133,339 and \$540,118, with a mid-estimate of \$285,910 at a 7 percent discount rate. The FAA would incur costs associated with reviewing and processing applications submitted through MedXPress. It costs about \$30 per medical certification review using the primary estimate for the number of applications in the first year, the FAA estimates a total cost of \$67,399 (= \$29.60 per application x 2,277) in the first year.

Currently, a MedXPress application that requires a special issuance medical certificate is deferred to the AMCD of Oklahoma City for further consideration. The FAA assumes that 10 percent of the applicants do not initially qualify for second-class medical certification and, therefore, would require special issuance. The average cost to FAA for each medical certificate special issuance review is approximately \$126.

The total annualized costs for the FAA to review, including NDR and process MedXPress applications from commercial balloon applicants and costs for the FAA to conduct Special Issuance Review for commercial balloon applicants is between \$98,855 and \$400,430, with a mid-estimate of \$211,967 at a 7 percent discount rate over ten years.

## F. International Compatibility

In keeping with U.S. obligations under the Convention on International Civil Aviation, it is FAA policy to conform to International Civil Aviation Organization (ICAO) Standards and Recommended Practices to the maximum extent practicable. The FAA has reviewed the corresponding ICAO Standards and Recommended Practices and has determined that this rule will require a minor modification to the existing differences filed in regard to medical certification for commercial balloon pilots. Currently, the U.S. has filed a difference stating that balloon pilots are not required to hold a medical certificate but are prohibited from operating during periods of medical deficiency. This statement will be updated to reflect the medical certificate requirement described in this rule.

## 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.

## **VI. Executive Order Determination**

### A. Executive Order 13132, Federalism

The FAA has analyzed this final rule under the principles and criteria of Executive Order 13132, Federalism. The agency has determined that this action does 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, does not have federalism implications.

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

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

C. Executive Order 13609, International 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 reduces differences between U.S. aviation standards and those of other civil aviation authorities by bringing U.S. regulatory requirements partially into compliance with International Civil Aviation Organization (ICAO) standards for medical certification.<sup>35</sup>

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<sup>35</sup> The 12th edition of the Annex 1 to the Convention on International Civil Aviation, Personnel Licensing, (July 2018), specifies that a person exercising the privileges of a Free Balloon Pilot License must hold a Class 2 medical. See 2.10.1.5.

## **VII. Privacy**

The information collected from FAA Form 8500-8 becomes part of the Privacy Act System of Records DOT/FAA 847, "Aviation Records on Individuals," [DOT/FAA 847] and is provided the protection outlined in the description of the system as published in the *Federal Register*.

## **VIII. Additional Information**

### **A. Electronic Access and Filing**

A copy of the NPRM, all comments received, this final rule, and all background material may be viewed online at <https://www.regulations.gov> using the docket number listed above. 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 on the FAA's Regulations and Policies website at [https://www.faa.gov/regulations\\_policies](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 S.W., Washington, D.C. 20591, or by calling (202) 267-9677. Commenters must identify the docket or amendment number of this rulemaking.

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

## B. Small Business Regulatory Enforcement Fairness Act

The Small Business Regulatory Enforcement Fairness Act (SBREFA) of 1996 requires the FAA to comply with small entity requests for information or advice about compliance with statutes and regulations within its jurisdiction. A small entity with questions regarding this document may contact its local FAA official, or the person listed under the **FOR FURTHER INFORMATION CONTACT** heading at the beginning of the preamble. To find out more about SBREFA on the Internet, visit

[https://www.faa.gov/regulations\\_policies/rulemaking/sbre\\_act/](https://www.faa.gov/regulations_policies/rulemaking/sbre_act/).

### **List of Subjects**

#### **14 CFR Part 61**

Aircraft, Airmen, Alcohol abuse, Aviation safety, Drug abuse, Flight instruction, Medical certification, Recreation and recreation areas, Reporting and recordkeeping requirements, Security measures, Teachers

#### **14 CFR Part 68**

Aircraft, Airmen, Health, Reporting and recordkeeping requirements

### **The Amendment**

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

## **PART 61--CERTIFICATION: PILOTS, FLIGHT INSTRUCTORS, AND GROUND INSTRUCTORS**

1. The authority citation for part 61 is revised to read as follows:

Authority: 49 U.S.C. 106(f), 106(g), 40113, 44701-44703, 44707, 44709-44711, 44729, 44903, 45102-45103, 45301-45302.

2. Amend § 61.3 by:

- a. Revising paragraphs (c)(2)(xiii) and (c)(2)(xiv); and
- b. Adding paragraph (c)(2)(xv).

The revisions and additions read as follows:

**§ 61.3 Requirement for certificates, ratings, and authorizations.**

\* \* \* \* \*

(c) \* \* \*

(2) \* \* \*

(xiii) Is exercising the privileges of a student, recreational or private pilot certificate for operations conducted under the conditions and limitations set forth in § 61.113(i) and holds a U.S. driver's license;

(xiv) Is exercising the privileges of a flight instructor certificate and acting as pilot in command or a required flightcrew member for operations conducted under the conditions and limitations set forth in § 61.113(i) and holds a U.S. driver's license; or

(xv) Is exercising the privileges of a student pilot certificate or higher while acting as pilot in command on a special medical flight test authorized under part 67 of this chapter.

\* \* \* \* \*

3. Effective [INSERT DATE 180 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER], amend § 61.3 by:

- a. Revising the introductory text of paragraph (c)(2)(vi); and
- b. Adding paragraphs (c)(2)(vi)(A) and (c)(2)(vi)(B).

The revisions and additions read as follows:

**§ 61.3 Requirement for certificates, ratings, and authorizations.**

\* \* \* \* \*

(c) \* \* \*

(2) \* \* \*

(vi) Is holding a pilot certificate with a balloon class rating and that person —

(A) Is exercising the privileges of a private pilot certificate in a balloon; or

(B) Is providing flight training in a balloon in accordance with § 61.133(a)(2)(ii);

\* \* \* \* \*

4. Amend § 61.23 by:

a. Revising paragraph (b)(8) and (b)(9)(ii);

b. Adding paragraph (b)(10); and

c. Revising paragraphs (c)(3)(i)(C), (c)(3)(i)(D), and (c)(3)(i)(E).

The revisions and additions read as follows:

**§ 61.23 Medical certificates: Requirement and duration.**

\* \* \* \* \*

(b) \* \* \*

(8) When taking a practical test or a proficiency check for a certificate, rating, authorization or operating privilege conducted in a glider, balloon, flight simulator, or flight training device;

(9) \* \* \*

(ii) The flight conducted is a domestic flight operation within U.S. airspace; or

(10) When exercising the privileges of a student pilot certificate or higher while acting as pilot in command on a special medical flight test authorized under part 67 of this chapter.

(c) \* \* \*

(3) \* \* \*

(i) \* \* \*

(C) Complete the medical education course set forth in § 68.3 of this chapter during the 24 calendar months before acting as pilot in command or serving as a required flightcrew member in an operation conducted under § 61.113(i) and retain a certification of course completion in accordance with § 68.3(b)(1) of this chapter;

(D) Receive a comprehensive medical examination from a State-licensed physician during the 48 months before acting as pilot in command or serving as a required flightcrew member of an operation conducted under § 61.113(i) and that medical examination is conducted in accordance with the requirements in part 68 of this chapter; and

(E) If the individual has been diagnosed with any medical condition that may impact the ability of the individual to fly, be under the care and treatment of a State-licensed physician when acting as pilot in command or serving as a required flightcrew member of an operation conducted under § 61.113(i).

\* \* \* \* \*

5. Effective [INSERT DATE 180 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER], amend § 61.23 by:

- a. Revising paragraphs (a)(2)(i) and (a)(2)(ii);
- b. Adding paragraph (a)(2)(iii);
- c. Revising paragraph (b)(3);
- d. Adding new paragraphs (b)(4) and (b)(5);

- e. Redesignating paragraphs (b)(4) through (b)(10) as paragraphs (b)(6) through (b)(12); and
- f. Revising paragraphs (d)(1)(iii) and (d)(2)(i) of the table.

The revisions and additions read as follows:

**§ 61.23 Medical certificates: Requirement and duration.**

(a) \* \* \*

(2) \* \* \*

(i) Second-in-command privileges of an airline transport pilot certificate in part 121 of this chapter (other than operations specified in paragraph (a)(1)(ii) of this section);

(ii) Privileges of a commercial pilot certificate in an aircraft other than a balloon or glider; or

(iii) Except as provided in paragraph (b)(5) of this section, privileges of a commercial pilot certificate with a balloon class rating for compensation or hire; or

(b) \* \* \*

(3) When exercising the privileges of a pilot certificate with a glider category rating in a glider;

(4) When exercising the privileges of a private pilot certificate with a balloon class rating in a balloon;

(5) When exercising the privileges of a commercial pilot certificate with a balloon class rating in a balloon if the person is providing flight training in accordance with § 61.133(a)(2)(ii);

(c) \* \* \*

(d) \* \* \*

<p><b>If you hold</b></p>	<p><b>And on the date of examination for your most recent medical certificate you were</b></p>	<p><b>And you are conducting an operation requiring</b></p>	<p><b>Then your medical certificate expires, for that operation, at the end of the last day of the</b></p>
<p>(1) * * * * *</p>			
	<p>(iii) Any age</p>	<p>a commercial pilot certificate (other than a commercial pilot certificate with a balloon rating when conducting flight training), a flight engineer certificate, or an air traffic control tower operator certificate</p>	<p>12th month after the month of the date of examination shown on the medical certificate.</p>
<p>* * * * *</p>			
<p>(2) * * * * *</p>			
	<p>(i) Any age</p>	<p>an airline transport pilot certificate for second-in-command privileges (other than the operations specified in paragraph (d)(1) of this section), a commercial pilot certificate (other than a commercial pilot certificate with a</p>	<p>12th month after the month of the date of examination shown on the medical certificate.</p>

		balloon rating when conducting flight training), a flight engineer certificate, or an air traffic control tower operator certificate	
* * * * *			

6. Amend § 61.113 by revising the introductory text of paragraph (i) to read as follows:

**§ 61.113 Private pilot privileges and limitations: Pilot in command.**

\* \* \* \* \*

(i) A private pilot may act as pilot in command or serve as a required flightcrew member of an aircraft without holding a medical certificate issued under part 67 of this chapter provided the pilot holds a valid U.S. driver's license, meets the requirements of § 61.23(c)(3), and complies with this section and all of the following conditions and limitations:

\* \* \* \* \*

**PART 68—REQUIREMENTS FOR OPERATING CERTAIN SMALL AIRCRAFT WITHOUT A MEDICAL CERTIFICATE**

7. The authority citation for part 68 continues to read as follows:

Authority: 49 U.S.C. 106(f), 44701-44703.

8. Amend § 68.3 by revising the introductory text of paragraph (a) and the introductory text of paragraph (b) to read as follows:

**§ 68.3 Medical education course requirements.**

(a) The medical education course required to act as pilot in command or serve as a required flightcrew member in an operation under § 61.113(i) of this chapter must—

\* \* \* \* \*

(b) Upon successful completion of the medical education course, the following items must be electronically provided to the individual seeking to act as pilot in command or serve as a required flightcrew member under the conditions and limitations of § 61.113(i) of this chapter and transmitted to the FAA—

\* \* \* \* \*

9. Amend § 68.9 by revising the introductory text of paragraph (a) to read as follows:

**§ 68.9 Special Issuance process.**

(a) *General.* An individual who has met the qualifications to operate an aircraft under § 61.113(i) of this chapter and is seeking to act as a pilot in command or serve as a required flightcrew member under that section must have completed the process for obtaining an Authorization for Special Issuance of a Medical Certificate for each of the following:

\* \* \* \* \*

Issued in Washington, DC, under authority provided by 49 U.S.C. 106(f), 44701, 44702, and 44703 on or about November 16, 2022.

/

Billy Nolen,  
Acting Administrator.