

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Parts 61 and 68**

**[Docket No.: FAA-2021-1040; Notice No. 22-02]**

**RIN 2120-AL51**

**Medical Certification Standards for Commercial Balloon Operations**

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

**ACTION:** Notice of proposed rulemaking (NPRM).

**SUMMARY:** The FAA proposes 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 except when conducting flight training in a balloon. In addition, the FAA proposes miscellaneous amendments related to medical certification requirements for medical flight tests and a minor change to the BasicMed regulations.

**DATES:** Send comments on or before *[Insert date 60 days after date of publication in the Federal Register]*

**ADDRESSES:** Send comments identified by docket number FAA-2021-1040 using any of the following methods:

- Federal eRulemaking Portal: Go to <https://www.regulations.gov> and follow the online instructions for sending your comments electronically.

- Mail: Send comments to Docket Operations, M-30; U.S. Department of Transportation (DOT), 1200 New Jersey Avenue, SE, Room W12-140, West Building Ground Floor, Washington, DC 20590-0001.
- Hand Delivery or Courier: Take comments to Docket Operations in Room W12-140 of the West Building Ground Floor at 1200 New Jersey Avenue, SE, Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.
- Fax: Fax comments to Docket Operations at (202) 493-2251.

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

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

**FOR FURTHER INFORMATION CONTACT:** Bradley Zeigler, Airman Training and Certification Branch, Federal Aviation Administration, 800 Independence Avenue, SW, Washington, DC 20591; (202) 267-9601; e-mail [Bradley.C.Zeigler@faa.gov](mailto:Bradley.C.Zeigler@faa.gov).

## **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
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

### **I. Executive Summary**

This rulemaking proposes amendments in §§ 61.3 and 61.23 of title 14 of the Code of Federal Regulations (14 CFR) to require commercial balloon pilots<sup>1</sup> conducting operations for compensation or hire to hold a valid second-class medical certificate. Additionally, this proposed rule would continue to allow pilots to provide flight training in balloons without requiring a medical certificate.. The proposed rule includes related amendments to the table of medical certificate duration in § 61.23(d) for consistency with the proposed amendments to §§ 61.3 and 61.23(a) and (b). The FAA is also proposing miscellaneous amendments related to medical certification for medical flight tests and a minor change to the Alternative Pilot Physical Examination and Education Requirements

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

final rule, which amended sections of part 61 and established part 68. In this preamble, these regulations will be referred to as BasicMed.

This rulemaking would implement section 318 (“Commercial Balloon Pilot Safety Act of 2018”) of Public Law 115-254, the FAA Reauthorization Act of 2018. In addition, this rulemaking 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 receiving compensation for transporting passengers.

The proposed rule would generate costs for balloon pilots to obtain a second-class medical certificate and for some pilots to seek authorization through special issuance. There would 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 \$2.6 million to \$17.8 million with a mid-estimate of \$7.5 million at a 7 percent discount rate and \$3.1 million to \$21.7 million with a mid-estimate of \$9.1 million at a 3 percent discount rate. The annualized costs over ten years is \$0.4 million to \$2.5 million with a mid-estimate of \$1.1 million at a 7 percent discount rate and \$0.4 million to \$2.5 million with a mid-estimate of \$1.1 million at a 3 percent discount rate. The wide range in the cost estimates primarily reflect the uncertainty on the number of commercial balloon pilots.<sup>2</sup>

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

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<sup>2</sup> For more detail on the model used to predict the range, please refer to the “Affected Entities” under section V.A. of this preamble.

## **II. Authority for the Rulemaking**

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

The FAA is issuing this proposal under the authority described in Subtitle VII, Part A, Subpart iii, 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 proposal 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. Current Regulatory Framework**

Under current regulations, a person may serve as a required pilot flightcrew member of an aircraft only if that person holds the appropriate medical certificate.<sup>3</sup> There

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<sup>3</sup> 14 CFR 61.3(c)(1). When referring to a "medical certificate" in this NPRM, the FAA is referring only to a current and valid first-, second-, or third-class FAA airman medical certificate issued under 14 CFR part 67, which may have been issued under an authorization for special issuance. Under certain circumstances, this may include other documentation acceptable to the FAA, such as temporary documentation provided to the airman by the FAA when that person is awaiting the replacement of a lost or destroyed certificate. 62 FR 16220, page 16237 (Apr. 4, 1997).

are certain exceptions to this requirement, including pilots operating under the provisions of BasicMed,<sup>4</sup> or those flying balloons, gliders, or light sport aircraft.<sup>5</sup> Additionally, part 61 sets forth which operations require a medical certificate.<sup>6</sup>

A medical certificate provides validation that a person meets FAA medical certification requirements. Airmen must meet the applicable medical standards of part 67 to receive an unrestricted medical certificate. An aviation medical examiner (AME) makes this determination by conducting a physical examination and medical history review. In cases where the airman's medical condition does not meet the part 67 standard, the airman may be issued a medical certificate by authorization for special issuance or statement of demonstrated ability (SODA) when the Federal Air Surgeon has determined that the risk associated with the medical condition(s) is sufficiently mitigated.<sup>7</sup>

Part 67 provides for the issuance of three classes of medical certificates—first-, second-, and third-class medical certificates. In most cases, a first-class medical certificate is required for operations requiring an airline transport pilot (ATP) certificate. At minimum, a second-class medical certificate is required for operations requiring a commercial pilot certificate. Unless an airman chooses to operate under the conditions and limitations of BasicMed, a third-class medical certificate is required for operations requiring a private pilot certificate, a recreational pilot certificate, a flight instructor certificate (when acting as pilot-in-command (PIC) or serving as a required flightcrew

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<sup>4</sup> In order to establish medical eligibility to conduct operations under BasicMed, a person must meet the requirements of § 61.23(c)(3).

<sup>5</sup> 14 CFR 61.3(c)(2).

<sup>6</sup> 14 CFR 61.23(a).

<sup>7</sup> 14 CFR 67.401.

member in operations other than a light sport aircraft, glider, or balloon), or a student pilot certificate (other than a light sport aircraft, glider or balloon).<sup>8</sup>

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>9</sup> and undergoing a physical examination with an FAA-designated AME. An AME may defer an applicant to the FAA for further review when there is information indicating the existence or potential of an adverse medical finding that may warrant further FAA medical evaluation or oversight.

Under § 61.53, all airmen – regardless of whether they are required to hold a medical certificate – are prohibited from operating an aircraft during a medical deficiency. Specifically, § 61.53(b) prohibits a person who is not required to hold a medical certificate from conducting operations while that person knows or has reason to know of any medical condition that would make him or her unable to operate the aircraft in a safe manner. Accordingly, even in the absence of an existing requirement for balloon pilots to hold a medical certificate, all balloon pilots are currently subject to the requirements of § 61.53(b).

As discussed earlier, pilots conducting operations in a balloon are not required to hold a medical certificate. Specifically, under § 61.3(c)(2)(vi), a person holding a pilot certificate with a balloon class rating who is piloting or providing training in a balloon is excepted from the requirement to hold a medical certificate.

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<sup>8</sup> Airmen exercising sport pilot privileges in a light sport aircraft without a medical certificate must meet the requirements of § 61.23(c)(2).

<sup>9</sup> <https://medxpress.faa.gov/>

A person holding a commercial pilot certificate with a balloon class rating is granted privileges to conduct flights for compensation or hire and to provide flight training. As described in § 61.133(a), an airman who holds a commercial pilot certificate may act as PIC of an aircraft for compensation or hire, including operations involving the carriage of persons or property, provided the person is qualified in accordance with part 61 and other parts (such as parts 91, 121 or 135) that apply to the operation. Further, the FAA does not issue flight instructor certificates with lighter-than-air category ratings.<sup>10</sup> Flight training privileges in a balloon are included in the privileges conveyed to the holder of a commercial pilot certificate with a balloon class rating. This approach is unlike other aircraft categories such as airplanes, gliders, and rotorcraft, which require a person to hold a flight instructor certificate in order to exercise such privileges.<sup>11</sup>

#### B. Medical Certificate Requirements for Commercial Flight Operations

While unpowered<sup>12</sup> commercial operations in balloons and gliders currently have no associated medical certificate requirement, similar commercial operations in powered aircraft require either a first- or second-class medical certificate. Powered aircraft operations that require a commercial pilot certificate require the airman to hold at least a second-class medical certificate. *See* 14 CFR 61.23(a)(2). Generally, these operations include any operation for compensation or hire that does not require an ATP certificate

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<sup>10</sup> There are two classes within the lighter-than-air aircraft category: airship and balloon.

<sup>11</sup> Section 61.133(a)(2) sets forth certain additional privileges granted to airmen holding commercial pilot certificates with a lighter-than-air category rating. Airmen who hold a lighter-than-air category with balloon class rating on their commercial pilot certificate have the following privileges:

1. Give flight and ground training in a balloon for the issuance of a certificate or rating;
2. Give an endorsement for a pilot certificate with a balloon rating;
3. Endorse a pilot's logbook for solo operating privileges in a balloon; and
4. Give ground and flight training and endorsements that are required for a flight review, an operating privilege, or recency-of-experience requirements of part 61.

<sup>12</sup> For the purposes of this rulemaking proposal, the phrase "unpowered aircraft" includes self-launch gliders, which are considered by type certificate to be gliders.



(which requires a first-class medical certificate) and does not qualify under the compensation or hire exceptions in § 61.113(b) through (h) for persons holding a private pilot certificate. Examples of powered aircraft operations that require a commercial pilot certificate with at least a second-class medical certificate include sightseeing flights conducted under § 91.147;<sup>13</sup> commercial transportation of skydivers, banner towing, or aerial photography; and part 135 non-turbine operations of nine passengers or less.

Currently, operations in balloons for compensation or hire that may be conducted without a medical certificate include, but are not limited to, operations for purposes of passenger sightseeing, aerial advertising, maintenance test flights, and research and development flights. There are no operating rules under part 91 that limit the number of passengers an operator may carry. While an operator of a sightseeing flight in a powered aircraft conducted under § 91.147 is required to hold a second-class medical certificate when transporting a single passenger, an operator of a balloon carrying any number of passengers has no requirement to hold a medical certificate. This NPRM includes a proposal to address this disparity.

### C. Commercial Balloon Operations<sup>14</sup> in the U.S.

Approximately 4,870 commercial pilots hold balloon ratings,<sup>15</sup> and approximately 4,940 balloons are registered with the FAA.<sup>16</sup> The FAA does not have a database of

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<sup>13</sup> Section 91.147 is a provision for airplane and helicopter operations conducting passenger-carrying flights for compensation or hire. This provision requires the operators to obtain a Letter of Authorization (LOA) from the FAA, to comply with the various safety provisions of part 136, subpart A, and to implement a drug and alcohol testing program.

<sup>14</sup> The FAA uses the term “Commercial Balloon Operations” in this NPRM to refer to the operation of a balloon for compensation or hire, including operations involving the carriage of persons or property.

<sup>15</sup> FAA Airman Registry, as of July 2021. [https://www.faa.gov/licenses\\_certificates/airmen\\_certification/releasable\\_airmen\\_download/](https://www.faa.gov/licenses_certificates/airmen_certification/releasable_airmen_download/).

<sup>16</sup> FAA Aircraft Registry, as of October 2019 <https://registry.faa.gov/currentreg/>.

commercial balloon operators actively operating in the United States. Using commercial sources, the FAA estimates there are about 356 individual operators.<sup>17</sup> The commercial balloon industry estimates it conducts 100,000 to 250,000 passenger rides annually, as well as aerial advertising and other commercial activities.<sup>18</sup>

When ballooning was first regulated as an aeronautical activity in the 1940s by the predecessor of the FAA, the Civil Aeronautics Administration, pilots were required to complete a medical examination (CAR part 22).<sup>19</sup> This requirement continued through the establishment of part 61 in 1962.<sup>20</sup>

By the late 1960s, sport ballooning had grown significantly.<sup>21</sup> In 1973, part 61 was revised substantially. Under the revision, a part 67 medical certificate was no longer required for either private or commercial free balloon<sup>22</sup> operations.<sup>23</sup> The medical certificate requirements for balloon operations have remained substantively unchanged since the 1973 revision.

#### D. FAA Oversight

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<sup>17</sup> Estimate based on number of commercial operators advertising on [www.blastvalve.com](http://www.blastvalve.com). Accessed on April 27, 2021.

<sup>18</sup> Testimony of Scott Appelman, Representing the Professional Ride Operators Division of the Balloon Federation of America to NTSB Investigative Hearing, December 9, 2016. Transcript Page 53-54, a copy of which has been placed in the docket for this rulemaking.

<sup>19</sup> Amendment 127 to Civil Air Regulations, Part 22 *Lighter-Than-Air Pilot Certificates*. Effective September 15, 1941. Section 22.13 required the holder to complete “a physical examination conducted by an authorized medical examiner of the Administrator.” This requirement was further refined in an October 15, 1942, amendment, requiring a free balloon pilot certificate holder to meet the third-class physical standards prescribed in CAR part 29.

<sup>20</sup> 27 FR 7954 (Aug. 10, 1962), *Subchapter D Airmen [New] Addition of Subchapter*. Effective November 1, 1962, CAR part 22 was recodified as 14 CFR part 61. Free balloon pilot certificates were prescribed in § 61.181 with a requirement for those certificate holders to hold at least a third-class medical certificate issued under the newly created part 67.

<sup>21</sup> National Balloon Museum: *History of Ballooning* <https://www.nationalballoonmuseum.com/about/history-of-ballooning/>.

<sup>22</sup> The term “free balloon” was later replaced with “balloon” in April 4, 1997 revision of Part 61. 62 FR 16220.

<sup>23</sup> 37 FR 6012, 6018 (Mar. 23, 1972).

In the decades following the 1973 revisions, 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 Agency revealed 54 commercial hot air balloon accidents between 2003 and 2013, including four fatal accidents. In 2015, commercial sightseeing balloon operations represented .057% of the flight hours of total civil aircraft operations.<sup>24</sup>

#### E. 2016 Heart of Texas Hot Air Balloon Accident<sup>25</sup>

On the morning of July 30, 2016, a hot air balloon, N2469L, operated by Heart of Texas Hot Air Balloon Rides, impacted power lines and burst into flames over a pasture near Lockhart, Texas. The pilot and all 15 passengers were killed. The balloon was destroyed by impact forces and post-crash fire. The flight was conducted under part 91 as a sightseeing passenger flight, and the pilot was exercising the privileges of a commercial pilot certificate.

The NTSB determined that forecast information before launch showed that weather conditions were marginal and deteriorating. While the pilot could have decided to cancel the flight, he opted to launch the hot air balloon and continue the flight into worsening weather conditions. The NTSB also determined that the pilot had been diagnosed with depression and attention deficit hyperactivity disorder (ADHD). These medical conditions are known to cause cognitive deficits that may affect decision-making and, ultimately, safety of flight. The NTSB stated that the medical conditions “would

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<sup>24</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.

<sup>25</sup> NTSB accident No. DCA16MA204, Lockhart TX, July 30, 2016 Accident Report NTSB/AAR-17/03 PB2018-100161.

likely have led an aviation medical examiner (AME) to either defer or deny a medical certificate.” In addition, the NTSB reported that medications were found in the pilot’s system that are known to cause impairment.<sup>26</sup> The NTSB stated, “[a]n AME would likely have deferred or denied a medical certificate to a pilot reporting use of these medications.”<sup>27</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>28</sup>

#### F. NTSB Recommendations Following the 2016 Heart of Texas Balloon Accident

On October 31, 2017, the NTSB made two Safety Recommendations in response to the 2016 Heart of Texas balloon accident. Safety Recommendation A-17-034<sup>29</sup> 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 Recommendation A-17-045<sup>30</sup> urged the FAA to “analyze your current policies, procedures, and tools for conducting oversight

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<sup>26</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.

<sup>27</sup> NTSB accident No. DCA16MA204, Lockhart TX, July 30, 2016 Accident Report NTSB/AAR-17/03 PB2018-100161 Executive Summary Page vii.

<sup>28</sup> NTSB accident No. DCA16MA204, Lockhart TX, July 30, 2016 Accident Report NTSB/AAR-17/03 PB2018-100161 Page 49.

<sup>29</sup> NTSB Safety Recommendation A-17-034  
[https://www.nts.gov/\\_layouts/ntsb.recsearch/Recommendation.aspx?Rec=A-17-034](https://www.nts.gov/_layouts/ntsb.recsearch/Recommendation.aspx?Rec=A-17-034).

<sup>30</sup> NTSB Safety Recommendation A-17-045  
[https://www.nts.gov/\\_layouts/ntsb.recsearch/Recommendation.aspx?Rec=A-17-045](https://www.nts.gov/_layouts/ntsb.recsearch/Recommendation.aspx?Rec=A-17-045).

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.”

The FAA agreed with the safety benefits of recommendation A-17-034 and stated its intention to add the proposed change to its rulemaking agenda. The FAA responded to Safety Recommendation A-17-045 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.

#### G. Industry Efforts and Voluntary Compliance

Immediately following the 2016 Heart of Texas accident, the FAA worked with an industry group, Balloon Federation of America (BFA), to support its 2017 Envelope of Safety Program. The program promotes safety within the commercial balloon industry by educating consumers with information when making balloon ride purchase decisions. The program includes voluntary standards for both pilots and operators and offers multiple tiers of safety accreditation by the BFA.<sup>31</sup>

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, however, that not all balloon operators are members of BFA. Moreover, members are not required to adhere to any

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<sup>31</sup> BFA Envelope of Safety Program <https://www.bfa.net/envelope-of-safety-program>.

specific standards in order to maintain professional membership. Consequently, the FAA considers 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.

#### **IV. Discussion of the Proposed Rule**

This proposed rule would amend part 61 to require a person who holds a commercial pilot certificate with a lighter-than-air category 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).

##### A. Proposed Rule Amendments

As previously discussed, balloon pilots currently are not required to hold a medical certificate when exercising the privileges of a commercial pilot certificate. Section 318 ("Commercial Balloon Pilot Safety Act of 2018") of Public Law 115-254, 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." While the statute specifically directs the FAA to revise § 61.3(c), the FAA notes that § 61.23, *Medical certificates: Requirement and duration*, establishes the requirements and exceptions for medical certificates based on certain types of operations. The FAA proposes to amend § 61.23 in addition to § 61.3(c) for purposes of implementing the statutory requirement.

Section 61.3(c)(1) sets forth the requirement for any person serving as a required pilot flightcrew member of an aircraft to hold the appropriate medical certificate issued under part 67 and to keep evidence of such certificate in the person's physical possession or readily accessible in the aircraft. Exceptions to the medical certificate requirement are set forth in § 61.3(c)(2). Currently, under § 61.3(c)(2)(vi), a person holding a pilot certificate with a balloon class rating who is piloting or providing training in a balloon is not required to hold a medical certificate.

Consistent with the legislative directive, the FAA proposes to amend the medical certificate requirement exception in § 61.3(c)(2)(vi) by limiting it to certain balloon operations. Specifically, the exception would be amended to reflect that any person holding a pilot certificate with a balloon class rating who is (A) exercising the privileges of a private pilot certificate in a balloon; or (B) 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, would be required under § 61.3(c)(1) 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. However, 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.

The FAA proposes amending § 61.23 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. First, the FAA proposes 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 FAA proposes to amend § 61.23(b) to remove the allowance to exercise the privileges of a balloon pilot certificate without a medical certificate. Third and finally, the FAA proposes to add an exception at § 61.23(b)(4)-(5) to explain under what circumstances balloon operations are excepted from the proposed requirement to hold a second-class medical certificate. This exception would specify 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 exercising the privileges of a commercial pilot certificate with a balloon class rating in a balloon if the PIC is providing flight training in accordance with § 61.133(a)(2)(ii).

Further, § 61.23(d) includes a table providing the duration for each class of medical certificate depending on the several factors including the certificate privilege that is being exercised. The FAA proposes to make related amendments to the table of medical certificate durations at §§ 61.23(d)(1)(iii) and (d)(2)(i). Specifically, the FAA proposes 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 durations in § 61.23(d).<sup>32</sup> These proposed amendments are for clarification and

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<sup>32</sup> As a miscellaneous amendment, the FAA has added flight engineers to § 61.23(d). Section 65.3(b) requires a person serving as a flight engineer of an aircraft to hold a current second-class (or higher) medical certificate issued to that person under part 67, or other documentation acceptable to the FAA, that



consistency with the other proposed amendments to §§ 61.3 and 61.23. The FAA does not propose to amend any existing substantive requirement to change the duration of a medical certificate.

All certificated airmen are prohibited from operating an aircraft in the national airspace system during a medical deficiency, regardless of whether they hold a medical certificate or not. This requirement in § 61.53 for medical self-evaluation applies to every flight a person conducts as a required flightcrew member. Airmen conducting commercial balloon operations are currently subject to the requirements of § 61.53(b). Under the proposal, these airmen would be subject to § 61.53(a) by virtue of exercising the privileges of a commercial pilot certificate in a balloon for compensation or hire.

#### B. Rationale for Medical Requirement for Commercial Balloons

Some medical conditions, such as mental health conditions, inherently impair the judgement of the person to properly self-evaluate their medical condition. A lack of medical knowledge about one's own condition may also preclude an airman from effectively determining his or her ability to safely operate the aircraft. Lastly, external factors, such as economic factors or concerns about customer dissatisfaction, may affect the ability of a commercial balloon pilot to make an impartial assessment of his or her health.

Operators conducting flights for compensation or hire are held to a higher safety standard with increased oversight. The commercial balloon industry has evolved and commercial operators today fly much larger balloons carrying many more passengers

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is in that person's physical possession or readily accessible in the aircraft. In developing this rule, the FAA identified that flight engineers had been inadvertently omitted from the medical certificate duration in § 61.23(d). The FAA proposes to correct that error in this rulemaking.

than in the past. As a result, the risk associated with commercial balloon operations has increased. This increased risk justifies a level of medical oversight equivalent to that of pilots of powered aircraft for certain operations such as commercial sightseeing operations.

The purpose of the FAA medical certification program is to ensure that only pilots, who are physically and mentally fit, will be authorized to operate aircraft, thereby enhancing aviation safety by mitigating the risk of medical factors as a cause of aircraft accidents.

Prior to the Heart of Texas accident, pilots conducted commercial balloon operations in the U.S. for decades without any accidents attributed to medical deficiencies. However, the FAA agrees with the NTSB and Congress that a second-class medical certificate is necessary to increase balloon passenger safety and other balloon operations conducted for compensation or hire. The Heart of Texas accident highlights how the medical certification process could reduce the risk of a similar accident in the future by increasing the level of FAA oversight of commercial balloon operations.

For instance, the pilot in the Heart of Texas accident had a 20-year history of drug and alcohol convictions, which he failed to report to the FAA in accordance with § 61.15(e). If the airman had been required to hold a medical certificate, he would have been required to disclose any history of those arrests and convictions on his medical application form, completed through MedXPress. By signing and submitting the medical application, the airman authorizes the FAA to receive National Driver Register (NDR)

pointer data as well as any individual state records, as applicable, as part of the medical certificate application.<sup>33</sup>

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 an airman fails to disclose these convictions on the 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 addition, this pilot had multiple known medical conditions—notably depression and ADHD—which generally could be disqualifying for any class of medical certification under §§ 67.107(c), 67.207(c), and 67.307(c), respectively. Unless the airman was able to demonstrate, to the satisfaction of the Federal Air Surgeon, that the risk associated with each condition and associated treatment warranted an authorization for special issuance, an application for a medical certificate with this medical history disclosed would likely have been denied, if a medical certificate had been required as provided for in this proposal.<sup>34</sup>

Finally, the accident pilot was also using medications that typically are disqualifying<sup>35</sup> for use due to sedation and cognitive impairment. Had he reported their usage to an AME during a medical review, the AME would have discussed this matter with the airman and addressed appropriate usage.

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<sup>33</sup> When applying for a medical certificate in MedXPress, an applicant authorizes the National Driver Register (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).

<sup>34</sup> FAA AME Guide: *Pharmaceuticals* <https://faa.gov/go/ameguide>.

<sup>35</sup> Such medications are typically prohibited for a period of five half-lives. A half-life is a pharmacologic term for the period of time, based on average human physiology, that 50% of the drug can be expected to remain in the body following consumption.

Performance demands of a commercial balloon pilot are very similar to the performance demands of a pilot operating a powered aircraft. In both contexts, commercial pilots should be required to be both physically and mentally fit to operate their respective aircraft. The Heart of Texas accident serves 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. The FAA therefore concludes the unpowered nature of commercial balloon operations no longer justifies excepting operators from holding a second-class medical certificate in order to act as PIC.

#### *Flight Training*

Unlike other categories of aircraft, the FAA does not issue a flight instructor certificate with a lighter-than-air category rating for part 61 subpart H flight instructors. Flight training privileges in a balloon are conferred to commercial pilots via a balloon rating on the individual's commercial pilot certificate.

While the FAA considers flight training to be a commercial operation, it has—for purposes of medical certification—distinguished instructors providing flight training from pilots engaged in other commercial operations involving the carriage of passengers or property for compensation or hire. For example, under current regulations, conducting flight training while serving as PIC in either a glider or balloon does not require any medical certification. *See* §§ 61.3(c)(2) and 61.23(b).

The FAA acknowledges that a flight instructor serving as PIC in an operation other than a glider or lighter-than-air aircraft during which private pilot privileges are being exercised must hold a third-class medical certificate or opt into the requirements of BasicMed in accordance with § 61.23(a)(3) or § 61.23(c). However, section 318 of Public

Law 115-254 specifically directs the FAA “to revise § 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” (emphasis added).

Therefore, the FAA has determined that Congress did not intend amendments to be made to other classes of medical certification. As such, the FAA is not proposing in this NPRM to extend third-class medical certification requirements to balloon operations during which flight instruction is conducted by an airman serving as PIC. However, the FAA invites comment on this issue.

As previously explained, § 61.23(b)(4) and (b)(5) would specify 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 exercising the privileges of a commercial pilot certificate with a balloon class rating in a balloon if the PIC is providing flight training in accordance with § 61.133(a)(2)(ii). The FAA notes that, in some cases, flight training may be conducted concurrently with an operation conducted for compensation or hire.<sup>36</sup> In circumstances such as this, the PIC would be required to hold either a first- or second-class medical certificate, as appropriate, for the commercial operation being conducted in conjunction with the flight instruction.

While the medical certificate requirements in §§ 61.3(c)(2) and 61.23(b) do not apply to both balloons and gliders, the FAA is not proposing to extend the second-class medical certification requirement described in this NPRM to commercial glider operations at this time. Due to the limited passenger carrying capacity of gliders,<sup>37</sup> the

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<sup>36</sup> An example of this may be an operator who is providing flight instruction, but is conducting the instruction in a balloon that displays aerial advertising and the operator has received compensation to display the advertising.

<sup>37</sup> Gliders are typically limited to a capacity of 1-2 passengers in addition to the pilot in command.

FAA has not identified a safety risk basis for imposing similar medical certification requirements on glider operations. However, the FAA invites comment on this issue.

### C. Invitation for Comment Regarding Options for Enhanced Safety Oversight of Commercial Balloon Operations

As previously discussed, balloon operations conducted for compensation or hire—many of which involve passenger-carrying operations conducted for purposes of sightseeing—are not required under § 91.147 to obtain a Letter of Authorization (LOA) from the FAA. Under § 91.147, to obtain an LOA, a sightseeing operator must:

(1) identify the business, where it is located, where it principally operates from, and who is responsible for management and maintenance; (2) identify the type of aircraft used; and (3) implement an Antidrug and Alcohol Misuse Prevention Program in accordance with 14 CFR part 120.

Following a 2013 non-fatal accident of a commercially operated balloon carrying 10 passengers, the NTSB issued Safety Recommendations A-14-011<sup>38</sup> and A-14-012.<sup>39</sup> The recommendations urged the FAA to require commercial balloon operators to obtain and maintain an LOA under § 91.147 to conduct air tour flights and to enhance oversight by including commercial balloon operators in general surveillance activities.

Recommendations A-14-011 and A-14-012 were ultimately superseded by Safety Recommendation A-17-045, described previously.

The FAA is not proposing to apply similar requirements to balloon operations conducted for compensation or hire in this rulemaking. The FAA, however, invites

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<sup>38</sup> NTSB Safety Recommendation A-14-011  
[https://www.nts.gov/\\_layouts/ntsb.recsearch/Recommendation.aspx?Rec=A-14-011](https://www.nts.gov/_layouts/ntsb.recsearch/Recommendation.aspx?Rec=A-14-011).

<sup>39</sup> NTSB Safety Recommendation A-14-012  
[https://www.nts.gov/\\_layouts/ntsb.recsearch/Recommendation.aspx?Rec=A-14-012](https://www.nts.gov/_layouts/ntsb.recsearch/Recommendation.aspx?Rec=A-14-012).

comment on whether the FAA should consider rulemaking in the future to expand the definition of an operator under § 91.147 to include nonstop passenger-carrying flights in a balloon, which would require an LOA and drug and alcohol testing requirements for balloon operations conducted for compensation or hire.<sup>40</sup> Specifically, the FAA requests information and data regarding the following:

- 1) Should the applicability of § 91.147 LOA and drug and alcohol testing requirements be limited to certain thresholds of balloon operations? If so, what thresholds, such as passenger capacity, number of annual operations, or size of aircraft should be used?
- 2) Currently, operators who are required to comply with drug and alcohol testing under part 120 must establish a program that covers all individuals performing safety-sensitive functions directly or by contract. In the context of balloon operations, this testing would include non-pilots, such as persons conducting maintenance of the balloon. If the applicability of such testing was extended to operators conducting passenger carrying operations in a balloon for compensation or hire, what factors might affect the ability of the balloon operator to comply with a requirement to test all individuals performing safety-sensitive functions? How many personnel conducting safety-sensitive functions does each operator have and what are their functions?
- 3) What current voluntary drug and alcohol testing is being conducted among commercial balloon operators? Do these testing programs apply only to

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<sup>40</sup> More information about initiating a Drug and Alcohol Testing Program can be found at: [http://www.faa.gov/about/office\\_org/headquarters\\_offices/avs/offices/aam/drug\\_alcohol/starting/media/Air\\_Tour\\_Operators\\_Defined\\_in\\_Section\\_91\\_147\\_Implementation.pdf](http://www.faa.gov/about/office_org/headquarters_offices/avs/offices/aam/drug_alcohol/starting/media/Air_Tour_Operators_Defined_in_Section_91_147_Implementation.pdf)

persons serving as PIC or to all individuals performing safety-sensitive functions?

- 4) What are the incremental initial and recurring costs and benefits of implementing and executing drug and alcohol testing and complying with LOA requirements?

#### D. Miscellaneous Amendments

The FAA is also proposing miscellaneous amendments to alleviate confusion and eliminate burdens for persons obtaining medical flight tests and for persons operating under BasicMed.

First, the FAA proposes an amendment to §§ 61.3(c)(2) and 61.23(b) to allow persons to receive medical flight tests authorized under part 67 without holding a medical certificate. Some medical certificate applicants are not qualified for an unrestricted medical certificate due to disqualifying medical conditions and therefore require the issuance by authorization for a special issuance or SODA as discussed above. In most cases, the FAA can determine if an individual is eligible for a special issuance or SODA by means of additional medical evaluations. However, for some conditions, a medical flight test is necessary to determine whether the individual is qualified to hold a medical certificate.

In the past, the FAA issued a medical certificate to applicants for the sole purpose of conducting a medical flight test to determine whether a special issuance was appropriate. The FAA has determined that temporary issuance of medical certificates for this purpose is inconsistent with the requirements in part 67. Accordingly, the FAA has ceased issuing them. As a result, a person authorized to take a medical flight test may not



currently act as PIC during the test because he or she does not hold a medical certificate (for those aircraft for which a medical certificate is required).<sup>41</sup> This places an unintentional burden on the FAA aviation safety inspector (ASI) who conducts the medical flight test because to complete the medical flight test, the ASI would need to assume the duties of PIC.<sup>42</sup> To allow persons to continue to act as PIC during these medical flight tests, the FAA is proposing to amend § 61.3(c)(2) by adding new paragraph (xv), which would allow persons to act as PIC during authorized medical flight tests without holding a medical certificate.<sup>43</sup> The FAA has also proposed to add a parallel provision in § 61.23(b)(12). This proposed change would not apply to any other flight activity for which a medical certificate is required. The FAA has determined that this action would not compromise safety. First, by policy, the ASI must hold a valid medical certificate in order to conduct medical flight tests regardless of whether the ASI acts as PIC.<sup>44</sup> Second, in order for the FAA to initiate an LOA for a medical flight test, the applicant must have a medical evaluation that determines that the applicant is otherwise medically qualified.<sup>45</sup>

Additionally, the FAA is proposing to amend §§ 61.3(c)(2), 61.23(c)(3), 61.113(i), 68.3, and 68.9 to alleviate certain burdens that resulted from the BasicMed final rule.<sup>46</sup> This rule codified section 2307 of the FAA Extension, Safety, and Security

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<sup>41</sup> Under the current regulations, a person may act as PIC during a medical flight test only if that person holds a medical certificate issued under part 67. 14 CFR 61.3(c)(1).

<sup>42</sup> A PIC is the person who has final authority and responsibility for the operation and safety of the flight. 14 CFR 1.1. By FAA policy, Aviation Safety Inspectors (ASI) do not routinely act as PIC during airman evaluation flights (e.g., practical tests, medical flight tests, etc.).

<sup>43</sup> The FAA notes that it proposes to remove the “or” from paragraph (c)(2)(xiii) and relocate it to paragraph (c)(2)(xiv) to coincide with the additional paragraph FAA proposes to add to the list of exceptions in § 61.3(c)(2).

<sup>44</sup> FAA order 8900.1 Volume 5, Chapter 8, Section 1, paragraph 5-1523(D)(3) and Volume 1, Chapter 3, Section 6.

<sup>45</sup> FAA order 8900.1 Volume 5, Chapter 8, Section 1, paragraph 5-1523(B).

<sup>46</sup> 82 FR 3149 (Jan. 11, 2017).

Act of 2016, (Public Law 114-190) (FESSA). Section 2307 directed the FAA to “issue or revise regulations to ensure that an individual may operate as pilot in command of a covered aircraft” without having to undergo the medical certification process under part 67. In that final rule, the FAA adopted the statutory language set forth in section 2307, without interpretation.

To accommodate safety pilots<sup>47</sup> who wish to operate under BasicMed, but who are not acting as PIC, the FAA is proposing to expand the BasicMed requirements to include persons serving as required pilot flightcrew members who are not acting as PIC. Currently, BasicMed applies only to PICs, because section 2307 of FESSA applies only to PICs.<sup>48</sup> As a result, BasicMed does not provide relief from the requirement to hold a medical certificate under § 61.3(c) to a person who is not acting as PIC. Specifically, pilots who are acting as safety pilots in accordance with § 91.109(c), but who are not acting as PIC, must hold a medical certificate because they are required flightcrew members. Instead, a safety pilot who intends to operate under BasicMed must agree to act as PIC for the portion of the flight in which they will serve as safety pilot.<sup>49</sup>

The FAA encourages pilots to seek opportunities to increase proficiency through operations, such as simulated instrument flying. As such, the FAA proposes to alleviate

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<sup>47</sup> A safety pilot is a person who occupies a control seat in an aircraft and maintains a visual watch when the pilot manipulating the flight controls of the aircraft is using a view-limiting device to simulate flight by reference to instruments. See 14 CFR 91.109.

<sup>48</sup> There is statutory evidence that the provision creating BasicMed was not intended to be limited to only persons acting as PIC. One of the attestations that a person intending to operate under BasicMed must agree to states “I understand that I cannot act as pilot in command, **or any other capacity as a required flight crew member** [emphasis added], if I know or have reason to know of any medical condition that would make me unable to operate the aircraft in a safe manner.”

<sup>49</sup> In certain circumstances, a person who is qualified to act as a safety pilot may not meet the regulatory requirements to act as PIC for the flight. Further, a person may not agree to act as PIC while acting as safety pilot for several non-regulatory reasons, personal limits, operating experience, aircraft rental requirements, or insurance coverage.

the current burden on safety pilots by allowing persons to operate under BasicMed while serving as required pilot flightcrew members.

Specifically, the FAA is proposing to amend §§ 61.3(c)(2)(xiv), 61.23(c)(3)(i)(C) through (E), 61.113(i), 68.3(a), 68.3(b), and 68.9(a) by expanding the requirements to include required pilot flightcrew members. The FAA notes that, in very limited circumstances, this amendment would also allow a private pilot to act as second-in-command (SIC) of an aircraft type certificated for more than one required pilot flightcrew member or in operations requiring a SIC flightcrew member while operating under BasicMed, provided the aircraft meets the covered aircraft requirements of § 61.113(i)(1).

#### E. Effective Date

The FAA proposes that the medical certificate requirement of this proposed rule become effective no less than 180 days from publication of the final rule. This time span would provide sufficient time for affected persons to comply with this rule by obtaining a medical certificate in a timely manner. The FAA notes that airman with certain medical conditions may be required to obtain an authorization for special issuance. The process for obtaining a special issuance may require additional time for the FAA to review additional medical information provided by the airman. As such, persons who are required by this rule provision to obtain a medical certificate should seek to obtain a medical certificate in a timely manner in order to avoid a loss of operating privileges due to the inability to comply with the requirement.

The FAA proposes that the two miscellaneous amendments of this proposed rule related to BasicMed become effective 30 days from publication of the final rule.

## **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 (Public Law 96-354) requires agencies to analyze the economic impact of regulatory changes on small entities. Third, the Trade Agreements Act (Public Law 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 (Public Law 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 \$158,000,000, using the most current (2020) Implicit Price Deflator for the Gross Domestic Product.

In conducting these analyses, the FAA has determined that this rule: 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

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

The proposed rule would generate costs for balloon pilots to obtain a second-class medical certification and for some pilots to seek authorization through special issuance. There would 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 \$2.6 million to \$17.8 million with a mid-estimate of \$7.5 million at a 7 percent discount rate and \$3.1 million to \$21.7 million with a mid-estimate of \$9.1 million at a 3 percent discount rate. The FAA estimates the annualized costs over ten years is \$0.4 million to \$2.5 million with a mid-estimate of \$1.1 million at a 7 percent discount rate and \$0.4 million to \$2.5 million with a mid-estimate of \$1.1 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 0.4 to 3.0 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 proposes two miscellaneous amendments. The first amendment addresses certain inconsistencies in current regulations for conducting 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 would be minor cost savings. By allowing persons to receive medical flight tests under part 67 without holding a medical certificate, the FAA ASI will no longer have the burden of assuming the responsibility as

PIC. This would also eliminate the inconsistency of both having to hold a medical certificate for the purposes of receiving a medical flight test and needing the medical flight test to obtain medical certification. The amendment to extend BasicMed eligibility to other pilot flightcrew members would reduce the burden for those pilots not acting as PIC of having to hold a medical certificate under current regulations and would hold them to the same standard as those acting as PIC. This may also result in more pilots seeking opportunities to serve as safety pilot by lowering the medical certificate barrier without compromising safety. It would also increase 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 air balloons. As discussed elsewhere in the preamble, the 2016 Heart of Texas balloon 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 certification. 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 2020 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>50</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>51</sup>

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<sup>50</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>51</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/>

- Vehicle operating cost per mile (VOC) as determined by the Internal Revenue Service (IRS) is \$0.16.<sup>52</sup>
- The FAA assumes 1.5 hour to complete the MedXPress form.<sup>53</sup>
- The FAA assumes 1 hour to complete a medical examination.

### *Affected Entities*

At the time of writing, the FAA used 2021 data from the Airmen Certification database to identify pilots certified as commercial balloon pilots. There are currently 4,869 commercial pilots with balloon class ratings. This balloon class rating does not have an expiration. Unlike other pilot ratings, a person exercising the privileges of a balloon class rating does not require an active first-, second-, or third-class medical certificate. Because of this, there is uncertainty in the number of active 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 proposed 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%,

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<sup>52</sup> <https://www.irs.gov/newsroom/irs-issues-standard-mileage-rates-for-2021> Accessed on April 21, 2021.

<sup>53</sup> This estimate is consistent with FAA's estimated burden hours associated with the MedXPress form 8500-8 approved under OMB No. 2120-0034.



a mid-estimate of 50% and a high estimate of 100% of the 4,869 commercial pilots with a balloon class rating would be active. Table 1 displays the potential number of airmen that would be affected by the proposed rule over the course of ten years. Corresponding to the number of active balloon pilots is the number of expected submissions for second-class medical certifications each year.

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

<b>Year</b>	<b>Low</b>	<b>Middle</b>	<b>High</b>
1	1,030	2,491	4,925
2	1,086	2,547	4,981
3	1,142	2,603	5,037
4	1,198	2,659	5,093
5	1,254	2,715	5,149
6	1,310	2,771	5,205
7	1,366	2,827	5,261
8	1,422	2,883	5,317
9	1,478	2,939	5,373
10	1,534	2,995	5,429
<b>Total</b>	12,820	27,430	51,770

*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 certification 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 should

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. As previously discussed, 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>54</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 certification 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) use of certain medications were discussed with

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<sup>54</sup> Value of a statistical life in 2020 is \$11.6 million. Letter from Acting Assistant Secretary for Transportation Policy April 1, 2021.

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 intends 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 requests information and data, including references and sources, that can be used to predict the number of similar accidents that may occur in the future and the number of accidents that could be averted by this rule.

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 0.4 to 3.0 fatalities in the next ten years.

#### *Costs*

This proposed rule would result 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 obtaining a LOA by special issuance. The FAA would incur 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 would need 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 would incur these costs on an annual basis. The FAA estimates the opportunity cost of time for each applicant would include 1.5 hour 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>55</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, \$14.30 was used for year 2020).<sup>56</sup> Multiplying the value of time by the amount of time spent yields an estimate of \$51.80 to \$134.30, with a mid-estimate of \$93.05 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 would incur costs of approximately

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<sup>55</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>56</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 2020: \$14.30.

\$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*

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	\$53,354	\$231,788	\$661,428	\$103,000	\$373,650	\$985,000	\$8,240	\$19,928	\$39,400
2	\$56,407	\$237,355	\$669,646	\$108,600	\$382,050	\$996,200	\$8,688	\$20,376	\$39,848
3	\$59,475	\$242,938	\$677,879	\$114,200	\$390,450	\$1,007,400	\$9,136	\$20,824	\$40,296
4	\$62,572	\$248,563	\$686,180	\$119,800	\$398,850	\$1,018,600	\$9,584	\$21,272	\$40,744
5	\$65,685	\$254,205	\$694,497	\$125,400	\$407,250	\$1,029,800	\$10,032	\$21,720	\$41,192
6	\$68,814	\$259,864	\$702,831	\$131,000	\$415,650	\$1,041,000	\$10,480	\$22,168	\$41,640
7	\$71,961	\$265,540	\$711,182	\$136,600	\$424,050	\$1,052,200	\$10,928	\$22,616	\$42,088
8	\$75,124	\$271,233	\$719,550	\$142,200	\$432,450	\$1,063,400	\$11,376	\$23,064	\$42,536
9	\$78,304	\$276,942	\$727,934	\$147,800	\$440,850	\$1,074,600	\$11,824	\$23,512	\$42,984
10	\$81,501	\$282,668	\$736,335	\$153,400	\$449,250	\$1,085,800	\$12,272	\$23,960	\$43,432

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.

*2) Cost of Obtaining a Special Issuance*

For applicants that do not initially meet the requirements of a second-class medical certification, there may be an additional cost to seek a LOA by special issuance. 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. Therefore, the FAA takes 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	\$16,459	\$62,537	\$168,583
2	\$17,369	\$63,978	\$170,569
3	\$18,281	\$65,421	\$172,558
4	\$19,196	\$66,869	\$174,552
5	\$20,112	\$68,318	\$176,549
6	\$21,029	\$69,768	\$178,547
7	\$21,949	\$71,221	\$180,547
8	\$22,870	\$72,675	\$182,549
9	\$23,793	\$74,130	\$184,552
10	\$24,717	\$75,588	\$186,557
Present Value at 7%	\$140,959	\$479,339	\$1,239,310
Annualized at 7%	\$20,069	\$68,247	\$176,450
Present Value at 3%	\$173,625	\$586,001	\$1,510,442
Annualized at 3%	\$20,354	\$68,697	\$177,070

*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 \$1.6 million to \$13.6 million, with a mid-estimate of \$5.3 million at a 7 percent discount rate and \$1.9 million to \$16.6 million, with a mid-estimate of \$6.4 million at a 3 percent discount rate. The annualized value of total cost to industry are \$0.2 million to \$1.9 million with a mid-estimate of \$0.8 million at a 7 percent discount rate and \$0.2 million to \$1.9 million with a mid-estimate of \$0.8 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	\$181,053	\$687,902	\$1,854,410
2	\$191,064	\$703,759	\$1,876,263
3	\$201,092	\$719,633	\$1,898,133
4	\$211,151	\$735,554	\$1,920,076
5	\$221,228	\$751,493	\$1,942,038
6	\$231,324	\$767,451	\$1,964,018
7	\$241,438	\$783,427	\$1,986,017
8	\$251,570	\$799,421	\$2,008,034
9	\$261,721	\$815,434	\$2,030,070
10	\$271,891	\$831,466	\$2,052,124
Present Value at 7%	\$1,550,549	\$5,272,731	\$13,632,413
Annualized at 7%	\$220,763	\$750,718	\$1,940,949
Present Value at 3%	\$1,909,876	\$6,446,015	\$16,614,860
Annualized at 3%	\$223,896	\$755,670	\$1,947,768

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

*1) FAA Cost of MedXPress Review and Processing*

The FAA would incur 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 and FY 2020, 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	\$30,489	\$73,737	\$145,786
2	\$32,147	\$75,394	\$147,444
3	\$33,805	\$77,052	\$149,102
4	\$35,462	\$78,710	\$150,759
5	\$37,120	\$80,367	\$152,417
6	\$38,778	\$82,025	\$154,075
7	\$40,435	\$83,683	\$155,732
8	\$42,093	\$85,340	\$157,390
9	\$43,751	\$86,998	\$159,048
10	\$45,408	\$88,656	\$160,705
Present Value at 7%	\$260,087	\$563,839	\$1,069,884
Annualized at 7%	\$37,031	\$80,278	\$152,327
Present Value at 3%	\$320,268	\$689,177	\$1,303,774
Annualized at 3%	\$37,545	\$80,793	\$152,842

*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) of Oklahoma City 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 and FY 2020, 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	\$13,018	\$31,484	\$62,248
2	\$13,726	\$32,192	\$62,956
3	\$14,434	\$32,900	\$63,664
4	\$15,142	\$33,608	\$64,371
5	\$15,850	\$34,315	\$65,079
6	\$16,557	\$35,023	\$65,787
7	\$17,265	\$35,731	\$66,495
8	\$17,973	\$36,439	\$67,202
9	\$18,681	\$37,147	\$67,910
10	\$19,388	\$37,854	\$68,618
Present Value at 7%	\$111,052	\$240,749	\$456,820
Annualized at 7%	\$15,811	\$34,277	\$65,041
Present Value at 3%	\$136,748	\$294,266	\$556,687
Annualized at 3%	\$16,031	\$34,497	\$65,261

*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 is 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	\$74,382	\$179,890	\$355,664
2	\$78,427	\$183,934	\$359,708
3	\$82,471	\$187,978	\$363,752
4	\$86,515	\$192,022	\$367,796
5	\$90,559	\$196,066	\$371,840
6	\$94,603	\$200,111	\$375,884
7	\$98,647	\$204,155	\$379,928
8	\$102,691	\$208,199	\$383,972
9	\$106,735	\$212,243	\$388,017
10	\$110,779	\$216,287	\$392,061
Present Value at 7%	\$634,516	\$1,375,557	\$2,610,118
Annualized at 7%	\$90,341	\$195,848	\$371,622
Present Value at 3%	\$781,334	\$1,681,335	\$3,180,721
Annualized at 3%	\$91,596	\$197,104	\$372,877

*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 \$1.0 million to \$4.1 million, with a mid-estimate of \$2.2 million at a 7 percent discount rate and \$1.2 million to \$5.0 million, with a mid-estimate of \$2.7 million at a 3 percent discount rate. The annualized value of total cost to FAA are \$0.1 million to \$0.6 million with a mid-estimate of \$0.3 million at a 7 percent discount rate and \$0.1 million to \$0.6 million with a mid-estimate of \$0.3 million at a 3 percent discount rate.

These preliminary cost estimates to the FAA are subject to change for the final rule and are not intended to inform future rulemakings or policies involving user fees since these are point-in-time preliminary estimates of additional personnel costs to FAA before the effective date of the final rule. 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	\$117,890	\$285,111	\$563,698
2	\$124,300	\$291,521	\$570,107
3	\$130,709	\$297,930	\$576,517
4	\$137,119	\$304,340	\$582,927
5	\$143,528	\$310,749	\$589,336
6	\$149,938	\$317,159	\$595,746
7	\$156,347	\$323,568	\$602,155
8	\$162,757	\$329,978	\$608,565
9	\$169,167	\$336,387	\$614,974
10	\$175,576	\$342,797	\$621,384
Present Value at 7%	\$1,005,655	\$2,180,145	\$4,136,823
Annualized at 7%	\$143,183	\$310,404	\$588,991
Present Value at 3%	\$1,238,350	\$2,664,778	\$5,041,181
Annualized at 3%	\$145,172	\$312,393	\$590,980

*Total Costs of the Rule*

The total costs are shown in the table below, which include 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 \$2.6 million to \$17.8 million with a mid-estimate of \$7.5 million at a 7 percent discount rate and \$3.1 million to \$21.7 million with a mid-estimate of \$9.1 million at a 3 percent discount rate. The FAA estimates the annualized costs over ten years is \$0.4 million to \$2.5 million with a mid-estimate of \$1.1 million at a 7 percent discount rate and \$0.4 million to \$2.5 million with a mid-estimate of \$1.1 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, 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 certification or be granted a special issuance certification 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. The FAA requests comment on these assumptions and data that would allow the FAA to quantify these potential impacts.

*Table 10. Total Costs of the Rule*

Year	Total Cost of the Rule		
	Low	Middle	High
1	\$298,944	\$973,013	\$2,418,108
2	\$315,364	\$995,280	\$2,446,370
3	\$331,802	\$1,017,563	\$2,474,650
4	\$348,270	\$1,039,894	\$2,503,003
5	\$364,757	\$1,062,242	\$2,531,374
6	\$381,262	\$1,084,609	\$2,559,764
7	\$397,785	\$1,106,995	\$2,588,172
8	\$414,327	\$1,129,399	\$2,616,599
9	\$430,888	\$1,151,822	\$2,645,044
10	\$447,467	\$1,174,263	\$2,673,508
Present Value at 7%	\$2,556,204	\$7,452,875	\$17,769,236
Annualized at 7%	\$363,946	\$1,061,122	\$2,529,939
Present Value at 3%	\$3,148,226	\$9,110,792	\$21,656,041
Annualized at 3%	\$369,068	\$1,068,063	\$2,538,749

*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 3.0 fatalities under a 7 percent discount rate and between 0.4 to 2.5 fatalities under a 3 percent discount rate.<sup>57</sup>

### *Regulatory Alternatives*

The FAA considered one alternative to the proposed rule:

Letter of Authorization (LOA) and Drug and Alcohol Testing. With this alternative, the FAA would institute 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 expand the definition of an operator under § 91.147 to include balloons, which would require the commercial balloon operators to obtain an LOA from the FAA in accordance with § 91.147 prior to conducting operations, and implement drug and alcohol testing programs in accordance with 14 CFR part 120. This alternative goes beyond the statutory mandate and would add the additional administrative costs of implementing a drug and alcohol testing program and obtaining a LOA to commercial balloon operators and pilots.

### 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

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<sup>57</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>

and to minimize any significant economic impact. The term “small entities” comprises small businesses and not-for-profit organizations that are independently owned and operated and are not dominant in their fields, and governmental jurisdictions with populations of less than 50,000.

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

An IRFA must contain the following:

- (1) A description of the reasons why the action by the agency is being considered;
- (2) A succinct statement of the objective of, and legal basis for, the proposed rule;
- (3) A description of and, where feasible, an estimate of the number of small entities to which the proposed rule will apply;
- (4) A description of the projected reporting, recordkeeping, and other compliance requirements of the proposed rule, including an estimate of the classes of small entities which will be subject to the requirement and the type of professional skills necessary for preparation of the report or record;
- (5) An identification, to the extent practicable, of all relevant Federal rules that may duplicate, overlap, or conflict with the proposed rule; and



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

#### **Description of Reasons the Agency Is Considering the Action**

The FAA is publishing this rule to comply with the Commercial Balloon Pilot Safety Act of 2018, which directs the FAA to require commercial balloon pilots conducting operations for compensation or hire to hold a valid second-class medical certificate. Congress introduced this legislation in response to the 2016 Heart of Texas hot air balloon accident and the NTSB finding 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.

This proposed rule would amend part 61 to require a second-class medical certificate for balloon operations conducted for compensation or hire, other than flight training. As such, a person who holds a commercial pilot certificate with a balloon class rating would be required 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).

#### **Statement of the Legal Basis and Objectives**

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

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart iii, Section 44701, General Requirements; Section 44702, Issuance of Certificates; and Section 44703, Airman Certificates. Under these sections, the FAA is charged with prescribing 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 proposal is within the scope of that authority.

Further, this rulemaking is issued under section 318 of the FAA Reauthorization Act of 2018, Public Law 115-254, (“Commercial Balloon Pilot Safety Act of 2018”). Section 318 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 flight crewmember of other aircraft.” While the statute specifically directs the FAA to revise § 61.3(c), the FAA notes that § 61.23, Medical certificates: Requirement and duration establishes the requirements and exceptions for medical certificates based on certain types of operations. The FAA proposes to amend § 61.23 in addition to § 61.3(c) for purposes of implementing the statutory requirement.

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

The FAA proposes 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 would not be 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>58</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 commercial pilot certificate (including the second-class medical certificates that would be required for balloon operations under this proposal) 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.

#### **All Federal Rules That May Duplicate, Overlap, or Conflict**

There are no relevant Federal rules that may duplicate, overlap, or conflict with the proposed rule.

#### **Description and an Estimated Number of Small Entities Impacted**

The proposed rule would affect 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

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<sup>58</sup> <https://medxpress.faa.gov/>

sources, the FAA estimates that number to be about 356<sup>59</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.

Businesses affected by this rule would be classified using the 2017 North American Industry Classification System<sup>60</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>61</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>62</sup> Furthermore, the FAA has uncertainty as to how the burden associated with the proposed rule would be distributed across commercial balloon companies versus individual balloon pilots employed by an operator. The FAA requests 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

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<sup>59</sup> [http://www.blastvalve.com/Balloon\\_Rides/USA/index.shtml](http://www.blastvalve.com/Balloon_Rides/USA/index.shtml).

<sup>60</sup> <https://www.census.gov/naics/?input=487990&year=2017&details=487990>

<sup>61</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>62</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.

commercial balloon operator. As previously described, 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.

For purposes of this initial 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>63</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 2020 dollars using the GDP deflator,<sup>64</sup> the FAA estimates that approximately 93 percent of companies (or about 331 balloon

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<sup>63</sup> Available at: <https://www.census.gov/data/tables/2017/econ/susb/2017-susb-annual.html>, retrieved on August 15, 2021.

<sup>64</sup> Available at: <https://www.whitehouse.gov/omb/historical-tables/>, retrieved on January 15, 2020.

operators extrapolating from this percentage) may be considered small entities under the SBA definition.

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 2020 dollars.<sup>65</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 proposed rule would constitute 0.07% to 0.42% of average annual revenues for small entities. Given the currency and level of aggregation of the data available, the FAA requests 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.

*Table 11. Number of Firms, Establishments, Employment, and Estimated Receipts by Enterprise Receipt Sizes for the United States, NAICS 487900: 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	10	0.42%
\$100,000-499,999	119	39%	192	5%	29,644	40	0.13%
\$500,000-999,999	47	15%	237	7%	32,765	49	0.14%
\$1,000,000-2,499,999	43	14%	365	10%	63,134	76	0.11%
\$2,500,000-4,999,999	18	6%	323	9%	65,788	67	0.10%
\$5,000,000-7,499,999	6	2%	106	3%	29,465	22	0.07%
\$7,500,000-9,999,999	5	2%	213	6%	41,585	44	0.10%
\$10,000,000-14,999,999	4	1.3%	196	5%	50,270	41	0.08%
\$20,000,000-24,999,999							
\$25,000,000-29,999,999	3	1.0%	93	3%	19,490	19	0.09%
\$30,000,000-34,999,999							
\$35,000,000-39,999,999							

<sup>65</sup> For this calculation, the FAA uses the mid-estimate of \$750,718 for the total private sector costs annualized at a 7 percent discount rate.

\$50,000,000-74,999,999							
\$100,000,000+	4	1%	1,044	29%	251,871	217	0.08%
Total	309	100%	3,611	100%	762,426	751	0.09%

[a] Using the Gross Domestic Product (GDP) deflator, the FAA finds that \$7.49 million in 2017 dollars would be approximately \$7.97 million in 2020 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 487900 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.

## **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. The FAA solicits comment on potential alternative approaches that could minimize the burden on small entities while still accomplishing the objectives of the proposal.

### C. International Trade Impact Assessment

The Trade Agreements Act of 1979 (Public Law 96-39), as amended by the Uruguay Round Agreements Act (Public Law 103-465), prohibits Federal agencies from establishing standards or engaging in related activities that create unnecessary obstacles to the foreign commerce of the United States. Pursuant to these Acts, the establishment of standards is not considered an unnecessary obstacle to the foreign commerce of the United States, so long as the standard has a legitimate domestic objective, such as the protection of safety, and does not operate in a manner that excludes imports that meet this objective. The statute also requires consideration of international standards and, where appropriate, that they be the basis for U.S. standards. The FAA has assessed the potential effect of this proposed rule and determined that it will not create unnecessary obstacles to the foreign commerce of the United States.

#### D. Unfunded Mandates Assessment

Title II of the Unfunded Mandates Reform Act of 1995 (Public Law 104-4) requires each Federal agency to prepare a written statement assessing the effects of any Federal mandate in a proposed or final agency rule that may result in an expenditure of \$100 million or more (in 1995 dollars) in any one year by State, local, and tribal governments, in the aggregate, or by the private sector; such a mandate is deemed to be a "significant regulatory action." The FAA uses an inflation-adjusted value of \$158.0 million in lieu of \$100 million. This proposed rule does not contain such a mandate; therefore, the requirements of Title II of the Act do not apply.

#### E. Paperwork Reduction Act

The Paperwork Reduction Act of 1995 (44 U.S.C. 3507(d)) requires 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 NPRM contains the following proposed 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 submitted the



proposed information collection requirements to OMB for its review. Review for the renewal of OMB Control No. 2120-0034 was completed on May 29, 2020.

*Requirements to hold a second-class medical certificate*

The proposed rule would require 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 airmen would 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 2,491.

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

Form #	# of Applicants	Hours per Applicant	Total Hours
8500-8	2,491	1.5	3,737

*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:

$$\$150 \times 2,491 \text{ submissions of Form 8500-8} = \$ 373,650$$

*Estimates of annualized costs to the Federal Government:*

The estimated annualized cost to the Federal Government is between \$143,183 and \$588,991, with a mid-estimate of \$310,404 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 \$73,747 (= \$30 per application x 2,491) 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 and process MedXPress applications from commercial balloon applicants and costs for the FAA to conduct Special Issuance Review for commercial balloon applicants is between \$90,341 and \$371,622, with a mid-estimate of \$195,848 at a 7 percent discount rate over ten years.

Individuals and organizations may send comments on the information collection requirement to the address listed in the ADDRESSES section at the beginning of this preamble by [INSERT DATE XX DAYS AFTER PUBLICATION IN THE FEDERAL REGISTER]. Comments should be submitted to the Office of Management and Budget,

Office of Information and Regulatory Affairs, Attention: Desk Officer for FAA, New Executive Office Building, Room 10202, 725 17th Street, NW, Washington DC 20053.

#### F. International Compatibility

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 identified no differences with these proposed regulations.

#### G. Environmental Analysis

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

### **VI. Executive Order Determination**

#### A. Executive Order 13132, Federalism

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

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

The FAA analyzed this proposed rule under Executive Order 13211, Actions Concerning Regulations that Significantly Affect Energy Supply, Distribution, or Use (May 18, 2001). The Agency has determined that it would not be a “significant energy action” under the executive order and would not be likely to have a significant adverse effect on the supply, distribution, or use of energy.

### C. Executive Order 13609, International Cooperation

Executive Order 13609, Promoting International Regulatory Cooperation, (77 FR 26413, May 4, 2012) promotes international regulatory cooperation to meet shared challenges involving health, safety, labor, security, environmental, and other issues and to reduce, eliminate, or prevent unnecessary differences in regulatory requirements. The FAA has analyzed this action under the policies and agency responsibilities of Executive Order 13609, and has determined that this action would reduce 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>66</sup>

## **VII. Additional Information**

### A. Comments Invited

The FAA invites interested persons to participate in this rulemaking by submitting written comments, data, or views. The Agency also invites comments relating to the economic, environmental, energy, or federalism impacts that might result from adopting the proposals in this document. The most helpful comments reference a specific portion

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<sup>66</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.

of the proposal, explain the reason for any recommended change, and include supporting data. To ensure the docket does not contain duplicate comments, commenters should send only one copy of written comments, or if comments are filed electronically, commenters should submit only one time.

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

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

## B. Electronic Access and Filing

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

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

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

### **List of Subjects**

#### **in 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.

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

**The Proposed Amendment**

For the reasons discussed in the preamble, the Federal Aviation Administration proposes to amend 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; Sec. 2307 Pub. L. 114-190, 130 Stat. 615 (49 U.S.C. 44703 note); Sec. 318 of Pub. L. 115-254, 132 Stat. 3269 (49 U.S.C. 44703 note).

2. Amend § 61.3 by:

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

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);

\* \* \*

(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 medical flight test authorized under part 67 of this chapter.

\* \* \* \* \*

3. 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. Redesignating paragraphs (b)(4) through (b)(9) as paragraphs (b)(6) through (b)(11);
- e. Adding new paragraphs (b)(4) and (b)(5);
- f. Revising newly-redesignated paragraphs (b)(10) and (b)(11)(ii);
- g. Adding paragraph (b)(12);
- h. Revising paragraphs (c)(3)(i)(C), (c)(3)(i)(D), and (c)(3)(i)(E); and
- i. 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 in a balloon 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);

(11) \* \* \*

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

(12) When exercising the privileges of a student pilot certificate or higher while acting as pilot in command on a 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).

\* \* \* \* \*

(d) \* \* \*

If you hold	And on the date of examination for your most recent medical certificate you were	And you are conducting an operation requiring	Then your medical certificate expires, for that operation, at the end of the last day of the
(1) * * * * *			
	(iii) Any age	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	12th month after the month of the date of examination shown on the medical certificate.
* * * * *			
(2) * * * * *			

	(i) Any age	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 balloon rating when conducting flight training), a flight engineer certificate, or an air traffic control tower operator certificate	12th month after the month of the date of examination shown on the medical certificate.
* * * * *			

4. 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**

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

Authority: 49 U.S.C. 106(f), 44701-44703; Sec. 2307 of Pub. L. 114-190, 130 Stat. 615 (49 U.S.C. 44703 note).

6. Amend § 68.3 by revising the introductory text of paragraph (a) and 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—

\* \* \* \* \*

7. 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, and section 318 of Public Law 115-254 on or about November 1, 2021.



Robert Ruiz  
Acting Deputy Executive Director, Flight Standards Service.