

Aerospace Medical Association



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April 9, 2014

The Honorable Michael Huerta
Administrator
FAA Headquarters
Federal Aviation Administration
800 Independence Ave, SW
Washington, DC 20591

Dear Mr. Huerta,

The Aerospace Medical Association's mission is to apply and advance scientific knowledge to promote and enhance health, safety, and performance of those involved in aerospace and related activities. Hence, we are very interested in maintaining and improving the FAA's directives to achieve that end. Our Executive Committee and our specialists in aerospace safety agree that the petition by the Aircraft Owners and Pilots Association (AOPA) and the Experimental Aircraft Association (EAA) to "allow its members flying recreationally - according to certain operational limitations and restrictions - to fly without having to hold an FAA-issued medical certificate of any class" (HR 3708 & S 2103) by supplanting the third class medical certification process with a state driver's license is not in the best interest of pilots or public safety. In their petition to Congress and on their websites, the AOPA and EAA have made many statements in support of the legislation to eliminate the Class III medical certificate for General Aviation pilots. We have scientific research and medical sources which offer a very different picture.

1. The AOPA/EAA Petition for Exemption (pg. 11) states: "For general aviation operations requiring airman medical certification, there were 46,976 total accidents. Slightly more than 0.2 percent (99 total accidents) showed a medical cause. It is important to note that none of these accidents were prevented by the existence of third-class medical screening standards and the medical certification process."
 - Aerospace Medical Association Comments: "According to FAA data from 2008 through 2012, approximately 98.8 percent of pilot applicants are issued medical certificates, including approximately 8.4 percent who are authorized by a special issuance medical certificate after additional review by their aviation medical examiner (AME) or by FAA. In the end, only about 1.2 percent of pilot applicants do not obtain an FAA medical certificate." (Dillingham, 2014). However, what about that 1.2 percent who cannot obtain an FAA medical certificate? The criteria are meant to protect the pilots and the public due to significant medical issues. From the AOPA's website (<http://flighttraining.aopa.org/students/presolo/special/medical.html>): "The FAA aviation medical is not intended to be a comprehensive physical checkup. It is intended to be a screening exam to determine if you meet the minimum medical standards required by the regulations. You should continue to see your family physician for routine periodic checkups." This is good advice and it means that the FAA's Third Class Medical is

valuable and a good idea for safe General Aviation. Indeed, the FAA's Third Class medical certificate requirements are the minimum required for acceptance by the Transport Canada Civil Aviation (TCCA) Third Class Medical Certificate pilot licenses (Advisory Circular 61-135. http://www.faa.gov/documentLibrary/media/Advisory_Circular/AC_61-135.pdf, 5 Dec 2006).

2. The AOPA/EAA Petition (pg. 12) states there is an "unnecessary hassle and cost associated with the third-class medical certificate application process."
 - Aerospace Medical Association Comments: A third class medical exam will cost approximately \$40-\$80, depending on the area of the country where the exam is taken. This cost estimate is from the AOPA's flight training website (<http://flighttraining.aopa.org/students/presolo/special/medical.html>). In reality, the cost and administrative burden of a medical examination is minimal and their effect on prohibiting pilot applicants in seeking a medical exam is unsubstantiated. Indeed, compare this expense with an average annual cost of General Aviation accidents of US \$1.64-4.64 billion (Sobieralski 2013) and with the fact that approximately five of 180 fatal accidents (Part 91) per year are either due to pilot incapacitation or contributed to by alcohol/drug impairment (NTSB records- www.nts.gov/aviationquery). We need to improve discovering these cases, not removing the screening altogether.

3. The AOPA/EAA Petition (pg. 8) states: "This petition for exemption provides for a greater level of safety."
 - Aerospace Medical Association Comments: Congress needs to be aware of the potential increased safety risk to the public. Cars and trucks don't fall from the sky onto people, but planes do! Civilian Aeromedical Certification Programs have helped to maintain a reasonable and acceptable level of safety, reducing the risk of medically-related accidents over the past several decades. Without such preventive measures, the potential for catastrophic accidents in General Aviation by uncertified pilots will certainly increase especially with an increase in aging General Aviation pilots (Shao et al., 2014, in press). This will be evident and too great to ignore.
 - The US military and airline transport operations have been gathering data on aviation accidents for decades via yearly medical evaluations. That data, along with physical data on the aircraft equipment, enabled determination of the causes of accidents and appropriate actions were taken to prevent future accidents. In most cases, there were mechanical or procedural problems that were shown to be causal, but knowing the pilot's medical condition and adherence to preventive care provided data to rule out or ascribe those issues with incapacitating events leading to the fatal accidents. It is clear that military and Class I medical data have helped to steadily and greatly reduce the rate of all US military and airline transport accidents over the past several decades (Bolkcom, page CRS-23; Yacavone, 1993). Acquisition of Class III medical exams helps to do the same for General Aviation operations.

4. The AOPA/EAA Petition (pg. 8) states that it "...requires an operating limitation linked to state-issued driver's license standards..."
 - Aerospace Medical Association Comment: Conditions which should disqualify pilots from operating an aircraft should be identified or eliminated as potential hazards to safe flight by trained physicians with knowledge of those conditions relevant to flight safety. This is not possible using a US state driver's license which typically limits its "physical" to being able to stand up at the counter and read an eye chart not capable of determining near vision adequate

to read vehicle instruments such as speed. Maintenance of pilot health is a process that must involve checking of that health by qualified physicians as a means of protecting their lives and those whom they would impact during a physical or mental incapacitation or impairment during flight. This is a matter of flight safety as well as public safety for those on the ground. There is a real benefit to pilots who cannot obtain a Class III medical certificate due to disqualifying medical issues. Such identification of medical issues may save their lives by obtaining corrective medications and consultation regarding lifestyle changes that could improve their performance and potentially lengthen their productive lives.

5. EAA chairman of the board, Jack Pelton, stated on their website that “This legislation addresses two goals EAA has long advocated: Eliminating excess red tape in the medical certification process while maintaining a safe way to keep pilots flying. Our members and the General Aviation community have long supported a change in the medical certification process. This proposal will maintain safety, reduce costs for pilots and the federal government, and allow people to pursue the unique freedom of flight in the same way they can pursue other powered recreational activities.”
 - Aerospace Medical Association Comments: Pilots with FAA Third-Class medical certificates, appear to have a lower accident rate than sport pilots who have no such certification (Casas G, et al. 2012; Castro LN, et al. 2012). Unfortunately, the record of such accident statistics is limited at this time and the only way to acquire such data is to require it. Only monitoring of the health of General Aviation individuals using acquisition of a Third Class Medical Certificate would provide a reliable means of preventing most accidents caused by physical and possibly mental insufficiencies. Importantly, a recent study has shown an association of fatal accidents with advancing age and that the General Aviation pilot population is getting older. Thus, there is an even greater need for monitoring the health of a pilot population which, as an aggregate, is advancing in age (Shao, et al., 2014).
 - The requirement of only a multi-year driver’s license in the United States, consisting of a simple eye test, renewable online and without reassessment of visual acuity in many states would be the extent of their medical fitness to fly as described in H.R.3708 (see H.R. 3708 in References). Medical requirements to obtain a driver’s license vary from state to state; therefore, an individual who would not be able to be “medically certified” to fly in one state could be considered qualified in another. For example, most states only check distant vision for a driver's license. For pilots, AMEs also test near vision to ensure they can read charts, checklists, and the aircraft's flight instruments. Medical examiners can also address conditions such as dangerously high blood pressure, diabetes, mental decline or psychological issues. These and other physical and mental ailments have a significant link with sudden incapacitation or other performance problems which may result in an aviation mishap. Many of the medical conditions which could cause incapacitation may go unnoticed by the pilot, providing no indication of a problem unless examined by a physician who could prescribe medication or other treatments allowing the pilot to continue to fly safer and with better performance in the aircraft. There would be no check of the applicants overall medical condition, no measure of blood pressure (BP) allowing those with dangerously high BP to pilot a 6000 pound aircraft at 250 mph with 5 passengers at night near thunderstorms at 14,000 ft without supplemental oxygen, a condition which would drive BP to very high levels in good pilots with a Class I medical certificate.
 - Based on a study of driving statistics (Hendricks, et al., 1999), approximately 6.4% of driving crashes resulted primarily from driver incapacitations. According to the AOPA/EAA Petition for Exemption, “AOPA and EAA estimate that this petition for exemption would likely affect 39,120

pilots annually and between 86,664 and 114,333 single-engine piston airplanes.” If roughly 6.4% of those exempted pilots are susceptible to incapacitation as a result of the medical requirements associated with maintaining a driver’s license, we can assume 1,425 pilots could experience incapacitation during flight each year. Should the draft legislation currently being considered by Congress be approved, the number of pilots affected by the law would increase and a concurrent 6.4% increase in the risk of aircraft accidents due to human incapacitation. (Hendricks DL, et al., 1999)

6. In a March 12, 2014 letter to AOPA members, several issues were bulleted, including: “This measure will save pilots and the FAA money and time.” “These bills address the number one concern of pilots.” (Personal communication with AOPA member; emailed letter available on request.)
 - Aerospace Medical Association Comment: It would take FAA much more time and money to investigate one General Aviation fatal accident than it would save by eliminating the Class III medical certificate. (See item 3.)

The Aerospace Medical Association recommends you carefully consider the consequences of eliminating the FAA Third Class medical certification requirement for this large population of private pilots. The outstanding General Aviation safety record is a direct result of proper preventive maintenance for the aircraft and the pilots flying those aircraft. We believe expanding the population of pilots allowed to fly larger, faster, and more complex aircraft without an appropriate medical evaluation is not in the public interest and will eventually reduce flying safety in the future.

The proposed changes to the Third Class medical certification requirements represent significant changes to the Federal Aviation Regulations. The Aerospace Medical Association strongly recommends any proposed changes go through the Notice of Proposed Rule Making processes. These processes exist so that comments and concerns from the public can be properly voiced and considered by rules makers.

Thank you for your time and consideration of this critical aviation issue.



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References:

Advisory Circular 61-135. Conversion Procedures and Processes for FAA Pilot Certificates and TCCA Pilot Licenses. http://www.faa.gov/documentLibrary/media/Advisory_Circular/AC_61-135.pdf, 5 Dec 2006

AOPA's flight training website.

<http://flighttraining.aopa.org/students/presolo/special/medical.html>

AOPA/EAA Medical Exemption Request Information Guide

<http://www.aopa.org/->

[/media/Files/AOPA/Home/News/All%20News/2012/April/Flying%20and%20buying/120319aopa-eaa-medical-exemption-guide.pdf](#). Pages 8 and 12.

AOPA, EAA. Petition for exemption from federal aviation regulation Sections 61.3 and 61.23 to allow AOPA and EAA members to conduct certain operations of aircraft without having to hold an FAA-issued medical certificate. <http://www.aopa.org/->

[/media/Files/AOPA/Home/News/All%20News/2012/March/AOPA%20EAA%20file%20medical%20exemption%20petition/120319aopa-eaa-petition-for-exemption.pdf](#)

Bolkcom C. Military aviation safety. Order Code RL31571. 2002:27 pages.

http://www.ihst.org/portals/54/industry_reports/Report%20To%20Congress%20CRSRL31571.pdf

Casas G, Castro LN, Ricaurte EM, et al. Comparison of post-mortem pathology findings between the federal aviation administration (FAA) medically certified third-class and self-certified pilots, CY 2010. Part 1 of 2. *Aviat Space Environ Med.* 2012; 83:246.

Castro LN, Casas G, Ricaurte EM, et al. Comparison of post-mortem pathology findings between the federal aviation administration (FAA) medically certified third-class and self-certified pilots, CY 2010. Part 2 of 2. *Aviat Space Environ Med.* 2012; 83:246-247.

Dillingham G. FAA's Medical Certification Processes. *Aviat Space Environ Med.* 2014; 85:351.

FAA-TCCA Pilot medical certificate requirements for conversion

http://www.faa.gov/documentLibrary/media/Advisory_Circular/AC_61-135.pdf, 5 Dec 2006.

H. R. 3708. 113TH CONGRESS. 1ST SESSION. General Aviation Pilot Protection Act of 2013. 2013:3 pages.

<http://www.gpo.gov/fdsys/pkg/BILLS-113hr3708ih/pdf/BILLS-113hr3708ih.pdf>

Hendricks DL, et al. The relative frequency of unsafe driving acts in serious traffic crashes; Summary Technical Report. Dec. 1999.

http://www.nhtsa.gov/people/injury/research/udashortrpt/documentation_page.html

Pelton J. Quote from chairman of the board. EAA website download 17Mar2014.

http://www.eaa.org/news/2013/2013-12-11_proposed-legislation-would-cut-third-class-medical-requirement-for-many-ga-pilots.asp

S. 2103. 113TH CONGRESS. 1ST SESSION. General Aviation Pilot Protection Act of 2014. 2014:3 pages.
<https://www.govtrack.us/congress/bills/113/s2103/text>

Shao BS, Guindani M, Boyd DD. Fatal accident rates for instrument-rated private pilots. *Aviat Space Environ Med* 2014; 85:1-7. In Press.

Sobieralski JB. The cost of general aviation accidents in the United States. *Transportation Research Part A* 2013; 47:19-27.

Yacavone DW. Mishap trends and cause factors in naval aviation: a review of Naval Safety Center data, 1986-90. *Aviat Space Environ Med*. 1993; 64:392-5.