

United States Senate

WASHINGTON, DC 20510

706 HART SENATE OFFICE BUILDING
WASHINGTON, DC 20510

(202) 224-2823
FAX: (202) 224-9673

90 STATE HOUSE SQUARE, TENTH FLOOR
HARTFORD, CT 06103
(860) 258-6940
FAX: (860) 258-6958

915 LAFAYETTE BOULEVARD, SUITE 304
BRIDGEPORT, CT 06604
(203) 330-0598
FAX: (203) 330-0608

<http://blumenthal.senate.gov>

October 7, 2019

Mr. Stephen M. Dickson
Administrator
Federal Aviation Administration
800 Independence Avenue, Southwest
Washington, D.C. 20591

Dear Administrator Dickson:

The tragic Boeing B-17G crash at Bradley International Airport (Bradley) on October 2, 2019 – resulting in the loss of at least seven lives and multiple injuries – raises concerns and questions regarding the Federal Aviation Administration's (FAA) safety inspection requirements for these vintage planes. Public reports have indicated that at least one engine failed during flight and that there were engine issues on previous occasions.

If these historic planes are to be flown, the FAA must ensure the safety of vintage aircraft and address any dangers posed to passengers, crewmembers, and the public. In light of this recent accident, and as a member of the Senate Committee on Commerce, Science, and Transportation with jurisdiction over these matters, I urge the FAA to examine current standards to determine if additional requirements are necessary.

Unfortunately, this crash was not an isolated incident. According to the National Transportation Safety Board (NTSB), there are sixteen Boeing B-17G airplanes registered in the United States. The agency has investigated 21 accidents involving World War II-era bombers since 1982 – resulting in 23 fatalities. These numbers do not include the recent crash at Bradley.

Vintage military aircraft are a profoundly significant part of our history – providing important experiences and learning opportunities for our veterans and military aviation enthusiasts across the country. However, these planes are many decades old and contain original or rebuilt engines and equipment – requiring inspection and maintenance programs that recognize the significant differences between these planes and more modern civil aircraft.

On March 22, 2018, the FAA granted the Collings Foundation's (Collings) petition to extend and amend Exemption No. 6540 – allowing the organization to carry passengers on its vintage aircraft for compensation to defray the cost of operating and maintaining its planes. This

exemption, which is highlighted in the attached letter, requires a special set of stipulations – independent from established FAA regulations.

It is unclear from the exemption letter what specific inspection protocols were required in order for this vintage plane to fly with passengers. To better understand the conditions and limitations required of Collings to operate these aircraft, and to prevent similar tragedies in the future, I respectfully request your response to the following questions:

- 1) How many exemptions has the FAA granted to organizations or individuals in order to carry passengers for living history flight experiences?
- 2) It is my understanding that the complete information, documents, and records related to the maintenance and upkeep of the Boeing B-17G involved in the crash at Bradley were stored onboard the aircraft. How does the FAA ensure that copies of all aircraft materials are maintained at a centralized location – outside of the aircraft and easily accessible?
- 3) Why doesn't the FAA require vintage aircraft carrying passengers for profit or donations to install black box devices onboard the plane – similar to larger commercial aircraft?
- 4) How does the FAA ensure that pilots of vintage aircraft receive robust training on how to respond to emergency situations, including but not limited to, engine failure?
- 5) What gaps exist between the requirements included in FAA's living history flight experience exemptions and those required by other federal aviation regulations? Please provide a detailed rationale for any differences that may exist.
- 6) Recognizing that vintage aircraft often contain original or refurbished equipment, how do FAA inspection requirements for these planes take into account the likelihood that these parts may fail more often than modern equipment?
- 7) Public reports indicate that previous engine problems had occurred on this specific B-17G aircraft, prior to the crash at Bradley. What requirements does the FAA have for reporting such problems, and what specific steps does the agency take to ensure the safety of future flights?

I appreciate your attention to this critically important matter and look forward to our continued communication on this issue as the NTSB's investigation progresses.

Sincerely,



Richard Blumenthal
United States Senate



U.S. Department
of Transportation
**Federal Aviation
Administration**

800 Independence Ave., S.W.
Washington, D.C. 20591

March 22, 2018

Exemption No. 6540P
Regulatory Docket No. FAA-2001-11089

Mr. Robert F. Collings, Jr.
Executive Director
The Collings Foundation
137 Barton Rd.
Stow, MA 01775

Dear Mr. Collings:

This letter is to inform you that we have granted your petition to extend and amend Exemption No. 6540. It transmits our decision, explains its basis, and gives you the conditions and limitations of the exemption, including the date it ends.

The Basis for Our Decision

By letter dated September 11, 2017, you petitioned the Federal Aviation Administration (FAA) on behalf of The Collings Foundation (Collings) for an extension of Exemption No. 6540, as amended. That exemption from §§ 91.9(a), 91.315, 91.319(a), 119.5(g), and 119.21(a) of Title 14, Code of Federal Regulations (14 CFR) allows Collings to operate certain aircraft for the purpose of carrying passengers for compensation or hire for living history flight experiences (LHFE). In this petition, you note that this petition meets all criteria as specified in the FAA living history flight experiences policy published on July 21, 2015 (80 FR 43012), hereinafter referred to as the "FAA Policy."

In your petition, you indicate that there has been no change in the conditions and reasons relative to public interest and safety that were the basis for granting the original exemption.

Our Decision

The FAA has determined that good cause exists for not publishing a summary of the petition in the Federal Register because the requested extension of the exemption would not set a precedent, and any delay in acting on this petition would be detrimental to Collings.

AFS-17-117677-E

Please note that the conditions and limitations included with an exemption may not be based on specific regulations, but are the FAA's means of ensuring an equivalent level of safety. This may necessitate limitations that go beyond the established regulations because the proposed operation is, by its need for an exemption, outside the normal regulatory structure. In addition, the FAA may, when necessary, revise the conditions and limitations or require corrective action in order to adequately mitigate safety concerns and risk factors as they become known.

The FAA has determined that the justification for the issuance of Exemption No. 6540, as amended, remains valid with respect to this exemption and is in the public interest. Therefore, under the authority provided by 49 U.S.C. §§ 106(f), 40113, and 44701, which the FAA Administrator has delegated to me, I grant The Collings Foundation (Collings) an exemption from 14 CFR §§ 91.9, 91.315, 91.319(a)(1) and (2), 119.5(g), and 119.21(a) to operate certain aircraft for the purpose of carrying passengers for compensation or hire in accordance with the FAA Policy for living history flight experiences (LHFE), subject to the conditions and limitations listed below.

Conditions and Limitations

1. This exemption applies only to the aircraft listed below:
 - a. Boeing B-17, N93012, serial number 32264;
 - b. Consolidated B-24, N224J, serial number 44-44052;
 - c. North American B-25, N3476G, serial number 44-28932;
 - d. McDonnell Douglas F-4 Phantom, N749CF, serial number 65-0749;
 - e. McDonnell Douglas TA-4J Skyhawk, N524CF, serial number 153524;
 - f. Grumman G-TBM Avenger, N9590Z, serial number 91733;
 - g. T-33A Lockheed N648 51-6953;
 - h. Bell UH-1, N911KK, serial number 153762;
 - i. North American F-100F Super Sabre N26AZ serial number 56-3844; and
 - j. Douglas EA-1E Skyraider N188RH serial number 135188.
2. Collings must maintain and apply, on a continuous basis, an operational control structure that meets the criteria specified in the FAA Policy.
3. Collings must maintain and apply, on a continuous basis, its manual system, to include all documents contained herein, used as their basis for an equivalent level of safety, for all operations subject to this exemption. This system must continue to ensure all criteria in the FAA Policy are continuously met, including the conditions and limitations of this exemption. Collings will be assigned a jurisdictional Flight

Standards District Office (FSDO). Collings must provide its manual system documents, including revisions, in a form and manner acceptable to the Collings jurisdictional FSDO. Manual and document revisions and a record of revisions must be provided to the jurisdictional FSDO within 10 days of any changes. These documents include, at a minimum:

- a. Collings General Operations Manual (GOM);
 - b. Collings Pilot Qualifications and Training Manual;
 - c. Collings General Maintenance Manual (GMM);
 - d. Collings Safety Management System (SMS) Manual; and
 - e. Collings Approved Inspection Program(s) (AIP).
4. In order to participate in Collings's program and operations, persons must initially, and on an annual basis, receive training appropriate to their position on the contents and application of Collings's manual system, safety and risk management program, and the conditions and limitations set forth in this exemption.
5. Collings must maintain and apply on a continuous basis its safety and risk management program that meets or exceeds the criteria specified in the FAA Policy for all operations subject to this exemption. This includes, at minimum, the Collings SMS Manual, used as a basis for an equivalent level of safety.
6. Collings must maintain all aircraft subject to this exemption in accordance with the—
 - a. Collings General Maintenance Manual;
 - b. Maintenance requirements as specified in the appropriate type specification sheet, as amended;
 - c. FAA-approved maintenance inspection program that meets the requirements of § 91.409(e), (f)(4), and (g); and
 - d. Appropriate military technical manuals.
7. Collings must document and record all ground and flight training and testing. The documentation and records must contain, at minimum, the following information:
 - a. Date of each training or testing session;
 - b. The amount of time spent for each session of training given;

- c. Location where each session of training was given;
 - d. The airplane identification number(s) in which training was received;
 - e. The name and certificate number (when applicable) of the instructor who provided each session of training;
 - f. The name and certificate number of the pilot who provided each session of testing; and
 - g. For verification purposes, the signature and printed name of the person who received the training or testing.
8. No person may serve as a flight crewmember unless, since the beginning of the 12th calendar month before that service, that pilot has completed all Collings- and FAA-required training, and passed a competency check given by the FAA or an authorized check pilot in that aircraft, to determine the pilot's competence in practical skills and techniques. The competency check will consist of the maneuvers and procedures currently required for the original issuance of the commercial pilot certificate, except that an actual engine shutdown, restart and propeller feathering exercise, for those pilots already holding the appropriate Type Rating or Experimental Authorization, is not required.
9. Collings must maintain the following information and records:
- a. The name of each pilot crewmember Collings authorizes to conduct flight operations under the terms and conditions of this exemption;
 - b. Copies of each pilot crewmember's pilot certificate, medical certificate, qualifications, and initial and recurrent training and testing documentation to comply with these conditions and limitations;
 - c. The name of each mechanic Collings authorizes to conduct maintenance operations under the terms and conditions of this exemption;
 - d. Copies of each mechanic's certificate, qualifications, and initial and recurrent training, and testing documentation to comply with the terms and conditions of this exemption; and
 - e. Records of maintenance performed, and maintenance inspection records to comply with the conditions above. Maintenance and inspection records must meet the requirements of §§ 43.9, 43.11, and 91.405.

10. Collings must make available to the FAA, upon request, any manual, document or record used to meet the criteria specified in the FAA Policy and these conditions and limitations.
11. Before permitting a person to be carried on board its airplanes for the purposes authorized under this exemption, Collings will inform that person of the type of airworthiness certificate held, and the significance of that certificate as compared to a Standard Airworthiness Certificate.
12. Collings must notify the jurisdictional FSDO within 24 hours of any of the following occurrences by written report, by electronic mail, or by facsimile:
 - a. Each in-flight fire in any system or area that requires activation of any fire suppression system or discharge of a portable fire extinguisher;
 - b. Each exhaust system component failure including the turbocharger components that causes damage to any engine, structure, cowling, or components;
 - c. Each airplane component or system that causes, during flight, accumulation or circulation of noxious fumes, smoke, or vapor in any portion of the cabin or crew area;
 - d. Except when intentional for training, each occurrence of engine shutdown or propeller feathering, and the reason for such shutdown or feathering;
 - e. Each failure of the propeller governing system or feathering system;
 - f. Any landing gear system or component failure or malfunction, which requires use of emergency or standby extension systems;
 - g. Each failure or malfunction of the wheel brake system that causes loss of brake control on the ground;
 - h. Each airplane structure that requires major repair due to damage, deformation, or corrosion and the method of repair;
 - i. Each failure or malfunction of the fuel system, tanks, pumps, or valves;
 - j. Each malfunction, failure, or defect in any system or component that requires taking emergency action of any type during the course of any flight; or

- k. For the purpose of this section, "during flight" means the period from the moment the airplane leaves the surface of the earth on takeoff until it touches down on landing.

13. All flight operations must be conducted —

- a. At a minimum operating altitude of not less than 1,000 feet above ground level (AGL);
 - b. Between the hours of official sunrise and sunset, as established in the Air Almanac, as converted to local time;
 - c. Within a 50-statute-mile radius of the departure airport with landings permitted only at the departure airport;
 - d. With a minimum flight visibility of not less than 3 statute miles and a minimum ceiling of not less than 1,500 feet AGL;
 - e. For passenger-carrying flights greater than 25 statute miles from the departure airport and up to 50 statute miles, the pilot-in-control (PIC) must obtain weather reports and forecasts prior to flight and valid for the duration of the proposed operation that indicate that the weather would be no less than 5 statute miles visibility and cloud ceilings no less than 2,000 feet AGL. Passenger-carrying operations shall be terminated if ceiling and visibility become less than the minimum required by these conditions and limitations. Weather forecasts listing discriminators such as probability (PROB), becoming (BECMG), or temporarily (TEMPO) shall be limiting; and
 - f. Operations conducted for the purpose of dispersing human remains must comply with applicable Federal, State, and local laws and regulations governing the dispersal of human remains.
14. All flight operations must carry no more than the maximum number of passengers permitted by the aircraft's weight and balance limitations and the number of approved seats in the airplane.
15. All aircraft must have the equipment listed in §§ 91.205(b) and 91.207, and that equipment must be in an operable condition during the flight.
16. No later than 72 hours prior to commencing flight operations under the terms of this exemption, Collings must notify the FSDO having geographic responsibility where it intends to conduct the flight operations and shall provide a copy of this exemption upon request.

17. Aerobatic flight is prohibited while passengers are on board the aircraft.
18. Flight within 500 feet of another aircraft (i.e., formation flying) is prohibited.
19. Prior to flight, the PIC must ensure that a passenger briefing meeting the scope and content of § 135.117 has been provided to the passengers.
20. Only those listed by Collings as a qualified PIC or second-in-command (SIC) for the aircraft may occupy a pilot station or manipulate the flight controls.
21. Collings must operate all flights within the confines of its manual system, the applicable regulations, conditions and limitations of this exemption, and is bound by whichever is more restrictive.
22. Failure to comply with any of these conditions and limitations is grounds for the immediate suspension or revocation of this exemption.
23. The North Florida FSDO is the jurisdictional FSDO for Collings's reciprocating engine aircraft, and the Houston FSDO is the jurisdictional FSDO for Collings's turbine powered aircraft. The respective FSDOs are responsible for oversight of Collings for all matters pertaining to this exemption and the operation of the aircraft as specified under this exemption unless noted otherwise.
24. This exemption is not valid for operations outside of the United States.

The Effect of Our Decision

Our decision extends the termination date of Exemption No. 6540, as amended, to March 31, 2020, unless sooner superseded or rescinded.

Sincerely,

/s/

John S. Duncan

Executive Director, Flight Standards Service