



U.S. Department
of Transportation

**Federal Aviation
Administration**

JAN 11 2016

Major Daniel S. Fiust
11173 E. 26th Street
Yuma, AZ 85367

Office of the Chief Counsel

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

RE: Title 14 Code of Federal Regulations (14 CFR) § 61.159

Dear Major Fiust:

This is in response to your letter of July 29, 2015, requesting an interpretation of 14 CFR § 61.159, which specifies the aeronautical experience required for an airplane category rating for an Airline Transport Pilot (ATP) certificate. Your question concerns whether pilot-in-command (PIC) time in an AV-8B Harrier can be logged as time in an airplane.

The AV-8B Harrier is an aircraft that has Vertical Takeoff and Landing (VTOL) capabilities as well as conventional takeoff and landing abilities. In the preamble to the Notice of Proposed Rulemaking that added the powered-lift category of aircraft (60 FR 41160, August 11, 1995), the FAA notes that, "According to the FAA's Interim Airworthiness Criteria Powered-Lift Transport Category Aircraft . . . powered-lifts resemble airplanes and rotorcraft in many respects." The preamble continues, "[p]owered-lift aircraft have vertical take-off and landing and hovering capability like helicopters, but they also may fly at higher airspeeds like airplanes." The preamble then says, "[p]owered-lift aircraft will require a new set of pilot knowledge, skills, and abilities. Therefore, the FAA proposes to create a new powered-lift aircraft category rating."

Section 61.159 provides the aeronautical experience requirement to obtain an airplane category rating for an ATP certificate. This aeronautical experience includes 250 hours of flight time *in an airplane* as pilot in command, or as second in command performing the duties of pilot in command while under the supervision of a pilot in command, or any combination thereof. As you also noted, the definition of powered-lift aircraft in § 1.1 states that "powered-lift means a heavier-than-air aircraft capable of vertical takeoff, vertical landing, and low speed flight that depends principally on engine drive lift devices or engine thrust for lift." The FAA amended the regulations in 1997 to add the powered-lift category (62 FR 16220, April 4, 1997). With the creation of a separate aircraft category for powered-lift aircraft, the FAA precluded the possibility of counting PIC time in a powered-lift aircraft, such as the AV-8B Harrier, towards the aeronautical experience requirements for a different aircraft category rating such as airplane or rotorcraft. The 1997 rule created § 61.163, aeronautical experience for a powered-lift category rating. Thus the regulations currently do not allow for crediting PIC time in a powered-lift category aircraft towards the

aeronautical experience for an airplane category rating. An individual may seek relief from regulations by applying for an exemption under 14 C.F.R. part 11.¹

We hope this response has been helpful to you. If you have additional questions or need further assistance, please contact my staff at (202) 267-3073. This response was prepared by Neal O'Hara, an attorney in the Regulations Division of the Office of the Chief Counsel, and was coordinated with the General Aviation and Commercial Division of the Flight Standards Service, (AFS-800).

Sincerely,

A handwritten signature in cursive script, appearing to read "Lorelei Peter".

Lorelei Peter
Acting Assistant Chief Counsel for Regulations

¹ The FAA does not take any position on whether such relief would be granted. Petitions for exemption are considered on a case-by-case basis in accordance with the provisions of 14 C.F.R. part 11.

Daniel S. Fiust
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July 10, 2015

Mark Bury
Assistant Chief Counsel
International Law, Legislation, and Regulations
800 Independence Avenue SW
Washington, DC 20591

Dear Mr. Bury,

I would like to request clarification on which aircraft category the AV-8B Harrier is considered by the FAA, and whether or not pilot time logged in the Harrier can be considered airplane time. This issue has come up recently in discussions with other Harrier pilots and various FSDOs, specifically with regard to satisfying the aeronautical experience requirements for an ATP certificate with airplane category rating per CFR §61.159 of 250 hours of flight time in an airplane as Pilot in Command.

Different FSDOs have had different interpretations; some consider the Harrier an airplane, single engine land, others have categorized it as powered lift. I believe based on the definitions found in CFR §1.1, as well as the flight characteristics of the Harrier, and ICAO DOC 8643- Aircraft Type Designators, the Harrier should be considered an airplane.

Consider the definition of airplane from CFR §1.1: "*Airplane* means an engine-driven fixed wing aircraft heavier than air, that is supported in flight by the dynamic reaction of the air against its wings." The Harrier fits this definition during all regimes of flight, even during the vast majority of takeoffs and landings.

It is only in the rare instances of a vertical takeoff or landing that the CFR §1.1 definition of powered lift would seem to apply: "*Powered-Lift* means a heavier-than-air aircraft capable of vertical takeoff, vertical landing, and low speed flight that depends principally on engine driven lift devices or engine thrust for lift." Based on several years of operational experience piloting the Harrier, I estimate that vertical landings occur on less than 10% of Harrier sorties, while vertical takeoffs are almost never used due to the extremely limited fuel and payload capacity of the aircraft when conducting this type of takeoff. I estimate that 99% of takeoffs and at least 90% of landings in the Harrier include a ground roll/landing roll out where all or most of the lift is generated by the dynamic reaction of the air against its wing, so even in the takeoff/landing regime the Harrier flies like an airplane 90% of the time. Once the Harrier is outside of the takeoff and landing regime, the aircraft flies like an airplane 100% of the time.

Another point in favor of categorizing the Harrier as an airplane is the definition of category and class in CFR § 1.1: "*Category*: (1) As used with respect to the certification, ratings, privileges, and limitations of

airmen, means a broad classification of aircraft. Examples include: airplane; rotorcraft; glider; and lighter-than-air." "Class: (1) As used with respect to the certification, ratings, privileges, and limitations of airmen, means a classification of aircraft within a category having similar operating characteristics. Examples include: single engine; multi-engine; land; water; gyroplane; helicopter; airship; and free balloon; and (2) As used with respect to the certification of aircraft, means a broad grouping of aircraft having similar characteristics of propulsion, flight, or landing. Examples include airplane; rotorcraft; glider; balloon; landplane; and seaplane. "

Powered Lift is not mentioned as either a category or class in CFR§1.1. The CFR category the Harrier fits into seems to clearly be airplane, with a class of single engine land. This also aligns with the ICAO designation of the Harrier as a "Landplane, Jet, 1 Engine."

I believe that considering the Harrier a powered lift aircraft and counting pilot time logged in the Harrier as powered lift versus airplane time is an inaccurate interpretation of the CFRs, as well as an inaccurate reflection of the aeronautical experience attained by Harrier pilots. A simpler and more accurate reflection would be for all pilot time logged in a Harrier to be considered airplane time. A compromise could be for Harrier pilot time logged on sorties on which no vertical takeoffs or landings were executed to be considered airplane time, while pilot time logged on sorties on which vertical takeoffs or landings were executed to be considered powered lift time. This can be verified via pilot logbooks, as the number and type of landings are logged for all USN/USMC sorties. Considering all Harrier pilot time to be powered lift time seems to be both inaccurate and unfair, as it negatively impacts the ability of Harrier pilots to pursue careers in civil aviation if they desire. Thank you very much for your time and consideration.

Sincerely,



Daniel Fiust
Major, USMC