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

Office of the Chief Counsel

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

January 24, 2011

Mr. David Goodman
[redacted]

Dear Mr. Goodman:

This responds to your e-mail to Mr. Michael McKinley dated September 23, 2010, which was subsequently forwarded to my office. In that e-mail you request clarification of the FAA's requirements pertaining to the carriage of persons in an experimental aircraft during its initial 40 hour flight test period. You specifically ask, "If a PIC determines he needs a safety pilot with him, or requests another pilot or person to assist him on certain flights during the initial period, is that acceptable?" Based on an additional reference to the "first 40 hours of test flying" in your e-mail, I assume that the experimental aircraft you reference is certificated under the provisions of § 21.191(g) of Title 14, Code of Federal Regulations (14 CFR) for the purpose of operating amateur-built aircraft.

Section 91.319 of that title sets forth the operating limitations applicable to all aircraft having experimental certificates. It contains specific operating limitations such as those specified in paragraph (a) which prohibit a person from operating an aircraft that has an experimental certificate for other than the purpose for which the certificate was issued, or to carry persons or property for compensation or hire. Additionally, paragraph (i) of that section states that "the Administrator may prescribe additional limitations that the Administrator considers necessary, including limitations on the persons that may be carried in the aircraft."

In accordance with the provisions of paragraph (i) of § 91.319, the FAA has set forth those additional operating limitations that will be issued by its inspectors and designees for the operation of experimental aircraft. Those operating limitations that the agency has determined "shall be prescribed to experimental amateur-built aircraft" are specified in paragraph 154 b of chapter 4 of section 9 of FAA Order 8130.2F, Airworthiness Certification of Aircraft and Related Products.

These limitations are issued with FAA Form 8130-7, Special Airworthiness Certificate, which is issued to each experimental aircraft. That form specifically states that "Operating limitations issued on _____ are part of this certificate." The certificate, on its reverse side,

also states that "No person may operate the aircraft described on the reverse side: (1) except in accordance with the applicable CFR and in accordance with conditions and limitations which may be prescribed by the Administrator as part of this certificate."

In response to your question as to whether another pilot or person would be permitted to assist the pilot in the conduct of the flight during the initial flight test period, operating limitation 10 for experimental amateur-built aircraft, as specified in FAA Order 8130.2F, states that "during the flight testing phase, no person may be carried in this aircraft during flight unless that person is essential to the purpose of the flight." Unless otherwise specified by a regulation or by an operating limitation issued for the aircraft, the FAA considers only one pilot to be essential for the conduct of a flight of an experimental amateur-built aircraft during the flight testing phase. If the owner of an experimental amateur-built aircraft does not believe that he or she is capable of safely conducting flight testing of the aircraft, that person should seek the assistance of another qualified person to conduct the flight testing of the aircraft.

In response to whether the use of a safety pilot would be permitted during flight testing, a safety pilot is typically required to permit a person to operate a civil aircraft in simulated instrument flight. *See* § 91.109(b). In accordance with operating limitation 10 for experimental amateur-built aircraft, a safety pilot may only be carried during the flight testing phase if that person is essential to the purpose of the flight. Additionally, operating limitation 4 for experimental amateur-built aircraft specified in FAA Order 8130.2F states that "all test flights, at a minimum, must be conducted under day VFR conditions." A safety pilot therefore could only be carried aboard the aircraft during those instances when the purpose of the flight necessitates that it be operated in simulated instrument flight. A flight test program for an experimental amateur-built aircraft, however, should not necessitate operation of the aircraft in simulated instrument flight; therefore the use of a safety pilot would not be permitted during flight testing. If your use of the term "safety pilot" is meant to describe a person who would provide you with assistance in the event a hazardous operating characteristic or design feature is uncovered during flight testing of the aircraft, carriage of that person would also not be permitted in accordance with the previous discussion.

This response assumes that those operating limitations discussed have been issued for the particular experimental amateur-built aircraft undergoing flight testing. FAA Order 8130.2F also specifies numerous additional operating limitations that are required to be issued which may further affect the conduct of flight testing. That order also permits an inspector or designee to impose any additional operational limitations deemed necessary in the interest of safety. You should therefore thoroughly review the operating limitations issued for an experimental amateur-built aircraft to determine that any flight testing you intend to conduct is accomplished in accordance with those operating limitations.

This interpretation was prepared by Paul Greer, an attorney in the Regulations Division of the Office of the Chief Counsel, and was coordinated with the General Aviation and

Commercial Division (AFS-800) of the Flight Standards Service. If you have additional questions regarding this matter, please contact us at your convenience at (202) 267-3073.

Sincerely,

Rebecca B. MacPherson
Assistant Chief Counsel, Regulations Division (AGC-200)
Office of the Chief Counsel