

NATIONAL TRANSPORTATION SAFETY BOARD

Office of Aviation Safety
Washington, D.C. 20594

March 09, 2015

Attachment 9

FAA letter to Scaled Composites, LLC, dated May 21, 2014

SYSTEM SAFETY

DCA15MA019



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

Commercial Space Transportation

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

May 21, 2014

Mr. Kevin W. Mickey
President
Scaled Composites, LLC
1624 Flight Line
Mojave, CA 93501-1663

Dear Mr. Mickey:

This letter concerns a waiver to Scaled Composites, LLC (Scaled) from the requirements of 14 C.F.R. sections 437.29 and 437.55(a) to provide the FAA a hazard analysis that identifies, mitigates, and verifies and validates mitigation measures for hazards. The FAA finds that a waiver is in the public interest and will not jeopardize public health and safety, safety of property, and national security and foreign policy interests of the United States. This waiver applies to the second renewal of Experimental Permit 12-007.

I. Background

On May 23, 2012, the FAA's Office of Commercial Space Transportation (AST) issued Scaled Experimental Permit No. 12-007. On March 6, 2013, Scaled submitted an application to renew its experimental permit. In its application for renewal, Scaled included modifications to its permit to reflect changes made to SpaceShipTwo (SS2). Upon reviewing Scaled's application to renew its permit, the FAA determined that Scaled did not fully meet the requirements of 14 C.F.R. sections 437.29 and 437.55(a). On July 9, 2013, the FAA issued a waiver to sections 437.29 and 437.55(a) for the first renewal of Experimental Permit No. 12-007.

On March 17, 2014, the FAA received from Scaled a second request for renewal of Experimental Permit No. 12-007. In this request, Scaled included additional modifications to its launch system that were not included in its first request for renewal. Because Scaled did not include an updated hazard analysis in its second application for renewal, it did not fully meet the requirements of 14 C.F.R. sections 437.29 and 437.55(a).

II. Discussion

A. Waiver Criteria

The FAA issues experimental permits under authority granted to the Secretary of Transportation under 51 U.S.C. section 50906 and delegated to the FAA Administrator. The FAA may waive an experimental permit requirement if the waiver (1) will not jeopardize

public health and safety or safety of property, (2) will not jeopardize national security and foreign policy interests of the United States, and (3) will be in the public interest. 51 U.S.C. § 50905(b)(3); 14 CFR 404.5(b).

B. Scaled did not meet the requirements of sections 437.29 and 437.55(a)

Section 437.29 requires an applicant for a permit to perform a hazard analysis that complies with section 437.55(a), and to provide the FAA all results of each step of the hazard analysis required by section 437.55(a). Section 437.55(a) requires an applicant to perform a hazard analysis that identifies, mitigates, and validates and verifies mitigation measures for each hazard. Scaled did not identify and describe all hazards as part of its hazard analysis, and therefore did not fully satisfy sections 437.29 and 437.55(a). Scaled did, however, provide information sufficient for the FAA to identify the hazards associated with the modifications.

C. Operation of the SpaceShipTwo Vehicle

The FAA waives the hazard analysis requirements of sections 437.29 and 437.55(a) for the second renewal of Experimental Permit 12-007 because the SS2 operation will not jeopardize public health and safety or safety of property, national security or foreign policy interests of the United States, and is in the public interest.

i. Public Health and Safety or Safety of Property

A hazard analysis serves to reduce risk to the public by limiting the possibility of a vehicle mishap. Although Scaled did not complete its hazard analysis as required by the regulations, the combination of its training program, incremental approach to flight testing, use of chase planes, and two-pilot model, as well as the limited duration of the permit and thus the waiver, the remoteness of its operating area and its use of a winged vehicle combine to allow the FAA to find that Scaled's activities will not jeopardize public health and safety or safety of property.

i. National Security and Foreign Policy Implications

This waiver does not have an impact on any national security or foreign policy interests of the United States. Scaled's launch operations will take place within the United States and within a specifically defined area that is used for military operations.

ii. Public Interest

The FAA finds that granting this waiver is in the public interest. The Commercial Space Launch Act provides that the United States should encourage private sector launches, reentries, and associated services. Additionally, Congress established Chapter 509 to promote economic growth and entrepreneurial activity through use of the space environment for peaceful purposes.

This waiver is consistent with the public interest goals of Chapter 509. The SS2 test flights will stimulate economic growth, spur technological developments and create aerospace business opportunities such as carrying scientific payloads and space tourists on trips to the edge of space and back. The FAA finds that granting this waiver is in the public interest because the SS2 flights further the purposes Congress articulated for Chapter 509.

Sincerely,



Kenneth Wong
Manager
Licensing and Evaluation Division

A handwritten signature in blue ink, appearing to be 'K Wong'.