



NATIONAL TRANSPORTATION SAFETY BOARD

Office of Aviation Safety
Washington, D.C. 20594

February 21, 2015

Attachment 20 – SS2 Operating Limitations

OPERATIONAL FACTORS

DCA15MA019



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

Transport Airplane Directorate
Van Nuys Manufacturing
Inspection District Office
7120 Hayvenhurst Avenue Suite 100
Van Nuys, California 91406-3823

EXPERIMENTAL OPERATING LIMITATIONS

RESEARCH & DEVELOPMENT

MAKE: Scaled Composites LLC MODEL: 339 SER. NO. 001 REG. NO. N339SS

THIS AIRCRAFT SHALL BE OPERATED IN COMPLIANCE WITH THE FOLLOWING

1. No person may operate this aircraft unless FAA Form 8130-7 is displayed at the cabin or cockpit entrance and visible to passengers or flightcrew members.
2. No person may operate this aircraft for other than the purpose of R&D to accomplish the flight operation outlined in the program letter dated **September 1, 2011**, which describes compliance with 14 CFR § 21.193(d), and has been made available to the pilot in command of the aircraft. In addition, this aircraft must be operated in accordance with applicable air traffic and general operating rules of 14 CFR part 91, and all additional limitations herein prescribed under the provisions of 14 CFR § 91.319(i).
3. All intentional glide flights conducted from Mojave airport must be able to return to Mojave airport and operate within the R-2508 Complex as depicted in the Edwards AFB R-2508 Complex Users Guide, dated January 5, 2010. All intentional glide flights conducted at Spaceport America, New Mexico must be able to return to Spaceport America, New Mexico and operate within the geographic boundaries identified in the program letter. The designated area must be over open water or sparsely populated areas having light air traffic. The size of the area must be that required to safely conduct the anticipated maneuvers and tests.
4. The pilot in command of this aircraft must hold a Letter of Authorization issued by an FAA Flight Standards Operations Inspector and must hold an appropriate category and class rating.
5. This aircraft is to be operated under VFR, day only.
6. No person may operate this aircraft for carrying persons or property for compensation or hire.
7. No person may be carried in this aircraft during flight unless that person is essential to the purpose of the flight.

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8. The pilot in command of this aircraft must advise each passenger of the experimental nature of this aircraft, and explain that it does not meet the certification requirements of a standard certificated aircraft.

9. This aircraft must contain the placards, markings, etc. required by 14 CFR § 91.9.

10. This aircraft is prohibited from aerobatic flight, that is, an intentional maneuver involving an abrupt change in the aircraft's attitude, an abnormal attitude, or abnormal acceleration not necessary for normal flight.

11. This aircraft must not be used for glider towing, banner towing, or intentional parachute jumping.

12. No person must operate this aircraft unless within the preceding 12 calendar months it has had a condition inspection performed in accordance with the scope and detail of 14 CFR part 43, appendix D, or other FAA-approved programs, and was found to be in a condition for safe operation. This inspection will be recorded in the aircraft maintenance records.

13. FAA-certificated repair stations and FAA-certificated mechanics with appropriate ratings as authorized by 14 CFR § 43.3 may perform inspections required by these operating limitations.

14. Inspections must be recorded in the aircraft maintenance records showing the following, or a similarly worded, statement: "I certify that this aircraft has been inspected on [insert date] in accordance with the scope and detail of 14 CFR part 43, appendix D, or other FAA-approved programs, and was found to be in a condition for safe operation." The entry will include the aircraft's total time-in-service, and the name, signature, certificate number, and type of certificate held by the person performing the inspection.

15. This aircraft must not be operated unless it is maintained and inspected in accordance with the requirements of 14 CFR part 43.

16. This aircraft must display the word "**EXPERIMENTAL**" in accordance with 14 CFR § 45.23(b).

17. The pilot in command of this aircraft must notify air traffic control of the experimental nature of this aircraft when operating into or out of airports with operating control towers. The pilot in command must plan routing that will avoid densely populated areas and congested airways when operating VFR.

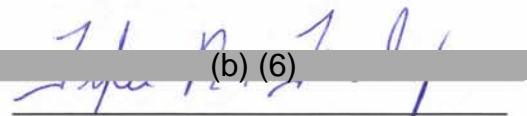
18. This aircraft does not meet the requirements of the applicable, comprehensive, and detailed airworthiness code as provided by Annex 8 to the Convention on International Civil Aviation. The owner/operator of this aircraft must obtain written permission from another country's CAA prior to operating this aircraft in or over that country. That written permission must be carried aboard the aircraft together with the U.S. airworthiness certificate and, upon request, be made available to an FAA inspector or the CAA in the country of operation.

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19. Aircraft instruments and equipment installed and used under 14 CFR § 91.205 must be inspected and maintained in accordance with the requirements of 14 CFR parts 43 and 91. Any maintenance or inspection of this equipment must be recorded in the aircraft maintenance records.

20. Application must be made to the Van Nuys MIDO for any revision to these operating limitations.

21. 14 CFR § 47.45 requires that the FAA Aircraft Registry must be notified within 30 days of any change in the aircraft registrant's address. Such notification is to be made by submitting Aeronautical Center Form 8050-1 to AFS-750 in Oklahoma City, Oklahoma.


(b) (6)

Tyler R. Feeley
Aviation Safety Inspector
NM-MIDO-48

September 12, 2011

September 11, 2012
Expires



September 1st 2011

Mr. Tyler Feeley
Federal Aviation Administration -- MIDO
7120 Hayvenhurst Avenue, Suite 100
Van Nuys, CA 91406-3757
FAX: (818) 904-6001

Dear Mr. Feeley:

Scaled Composites, LLC hereby requests re-certification of the Model 339 aircraft (SpaceShip 2, proof-of-concept aircraft) in the Research & Development category, in accordance with Part 21.191 of the FARs. We request the duration to be one year.

Aircraft Builder:	Scaled Composites, LLC
Model Number:	339
Registration:	N339SS
Type:	Fixed wing, glider
Serial Number:	001
Powerplant:	N/A
Wing Span:	22.96 ft.
Wing Area:	450 ft ²

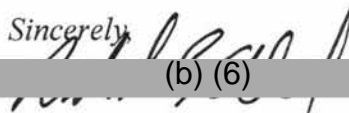
Since its first flight on 10 October 2010, the Model 339, registration N339SS, has completed 15 flights for a total of 2.7 flight hours. No hazardous flight or operational characteristics have been observed. The aircraft has safely demonstrated speeds from 80 to 300 KEAS, altitudes from 51,000 feet and maneuvering loads from -1 to 3.8g. Explorations of performance, handling qualities, and systems operation are ongoing.

Maintenance and inspections will be in accordance with the Model 339 Inspection Plan's latest revisions.

We propose to conduct all flight testing, as stated under separately provided Phase 1 Flight Test plan dated 07 September 2011, within the following areas: R-2508 Complex as depicted in the Edwards AFB R-2508 Complex Users Guide, as provided for in our letter of agreement with the United States Air Force (on file at Scaled Composites, LLC). In addition to this area, we proposed to conduct a research flight at Space Port America in New Mexico (K90NM) for the purpose of gathering numerous test points including but not limited to: avionics guidance validation, grooved runway ground handling, nose skid wear data, on board flight test engineer support evaluation, pilot evaluation of new visual references and familiarization with the NM airspace, and ATC coordination. Currently this flight is scheduled for the time frame of October 1 thru 31. Enclosed you will find two proposed routes and a chart depicting the operation areas while at K90NM.

We are also enclosing an Application for Airworthiness Certificate (Form #8130-6) filled out appropriately.

Sincerely,



(b) (6)

Richard T. Aldrich
Director of Quality Assurance
Enclosures as noted above

Weather Provider: JeppWx
Display Time: 09/09/11 12:00PM (19)
Display Altitude: 0 ft

