



U.S. Department
of Transportation
Federal Aviation Administration

Small Airplane Directorate
Atlanta Manufacturing Inspection District Office
1701 Columbia Avenue
College Park, GA 30337

OPERATING LIMITATIONS: EXPERIMENTAL, AMATEUR BUILT

Builder: **Corkum Reginald R**
Serial No.: **76**
Date of Issuance: **09-14-2012**

Model: **Lightning**
Registration No.: **N290AL**
Expiration Date: **UNLIMITED**

These Operating Limitations Are a Part of FAA Form 8130-7, Dated 09-14-2012

1. No person may operate this aircraft for other than the purpose of meeting the requirements of § 91.319(b) during phase I flight testing and for recreation and education after meeting these requirements as stated in the program letter (required by § 21.193) for this aircraft. In addition, this aircraft must be operated in accordance with applicable air traffic and general operating rules of part 91 and all additional limitations herein prescribed under the provisions of § 91.319(i). These operating limitations are a part of the special airworthiness certificate Form 8130-7, and are to be carried in the aircraft at all times and be available to the pilot in command of the aircraft.
2. During phase I flight testing to meet the requirements of 91.319(b), the aircraft is to be flown a total of 40 hours. The first twenty (20) hours of flight time will be conducted within the 50 mile radius of the Shelbyville Municipal Airport (KSYI). Contingent upon a showing that the aircraft is controllable throughout its normal range of speeds and throughout all the maneuvers to be executed and that the aircraft has no hazardous operation characteristics or design features and a successful "Condition Inspection", is completed and recorded in the aircraft log book; the aircraft may be flown by the most direct route, avoiding flight over densely populated areas, to Hensley Airpark, Chuckey, TN (Lat/Long: N36-11-00.0/ W082-40-44.0) where the remaining flight test hours are to be flown within a 50 mile radius of Hensley Airpark (04TN).
3. All test flights at a minimum, must be conducted under VFR, day only. Guidance concerning the scope and detail of test flights can be found in AC 90-89. Following satisfactory completion of the required number of flight hours in the flight test areas, the pilot must certify in the aircraft records that the aircraft has been shown to comply with § 91.319(b). Compliance with § 91.319(b) must be recorded in the aircraft records with the following, or similarly worded, statement: "I certify that the prescribed flight test hours have been completed and the aircraft is controllable throughout its normal range of speeds and throughout all maneuvers to be executed, has no hazardous operating characteristics or design features, and is safe for operation. The following aircraft operating data has been demonstrated during flight testing: speeds V_{so}_____, V_x_____, and V_y_____, and the weight _____ and CG location _____ at which they were obtained."
4. Except for takeoffs and landings, this aircraft may not be operated over densely populated areas or in congested airways.
5. This aircraft is prohibited from operating in congested airways or over densely populated areas unless directed by air traffic control, or unless sufficient altitude is maintained to affect a safe emergency landing in the event of power failure, without hazard to persons or property on the ground.
6. This aircraft is to be operated under VFR, day only.
7. After completion of phase I flight testing, unless appropriately equipped for night and/or instrument flight in accordance with § 91.205, this aircraft is to be operated under VFR, day only.
8. Aircraft instruments and equipment installed and used under § 91.205 must be inspected and maintained in accordance with the requirements of part 91. Any maintenance or inspection of this equipment must be recorded in the aircraft maintenance records.
9. 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.
10. No person may operate this aircraft for carrying persons or property for compensation or hire.
11. 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.
12. The aircraft must contain the placards, markings, etc., as required by § 91.9. In addition, the placards and markings must be inspected for legibility and clarity, and the associated systems inspected for easy access and

13. This aircraft must display the word "EXPERIMENTAL" in accordance with § 45.23(b).
14. 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.
15. The pilot in command of this aircraft must hold a pilot certificate or an authorized instructor's logbook endorsement. The pilot in command also must meet the requirements of § 61.31(e), (f), (g), (h), (i) and (j) as appropriate.
16. After incorporating a major change as described in § 21.93, the aircraft owner is required to reestablish compliance with § 91.319(b) and notify the geographically responsible FSDO of the location of the proposed test area. The aircraft owner must obtain concurrence from the FSDO as to the suitability of the proposed test area. If the major change includes installing a different make and model of an engine or propeller, the owner must fill out a revised Form 8130-6 to update the aircraft's file in the FAA Aircraft Registry. All operations must be conducted under day VFR conditions in a sparsely populated area. The aircraft must remain in flight test for a minimum of 5 hours. The FSDO may require additional time (more than 5 hours) depending on the extent of the modification. Persons nonessential to the flight must not be carried. The aircraft owner must make a detailed logbook entry describing the change before the test flight. Following satisfactory completion of the number of flight hours in the flight test area, the pilot must certify in the records that the aircraft has been shown to comply with § 91.319(b). Compliance with 91.319(b) must be recorded in the aircraft records with the following, or similarly worded, statement: "I certify that the prescribed flight test hours have been completed and the aircraft is controllable throughout its normal range of speeds and throughout all maneuvers to be executed, has no hazardous characteristics or design features, and is safe for operation. The following aircraft operating data has been demonstrated during flight testing: speeds V_{so} _____, V_x _____, and V_y _____, and the weight _____ and CG location _____ at which they were obtained."
17. This aircraft must not be used for glider towing, banner towing, or intentional parachute jumping.
18. This aircraft does not meet the requirements of the applicable, comprehensive, and detailed airworthiness code as provided by Annex 8 of the International Convention of Civil Aviation Organization (ICAO). The owner/operator of this aircraft must obtain written permission from another county's Civil Aviation Authority (CAA) prior to operating this aircraft in or over that county. That written permission must be carried aboard the aircraft together with the US airworthiness certificate and, upon request, be made available to an ASI or the CAA in the county of operation.
19. No person may 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 appendix D to part 43, or other FAA-approved programs, and was found to be in a condition for safe operation. As part of the condition inspection, cockpit instruments must be appropriately marked and needed placards installed in accordance with § 91.9. In addition, system-essential controls must be in good condition, securely mounted, clearly marked, and provide for ease of operation. This inspection will be recorded in the aircraft maintenance records.
20. Conditions inspections shall 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 appendix D to part 43, and was found to be in a condition for safe operation." The entry will include the aircraft total time in service and the name, signature, certificate number, and type of certificate held by the person performing the inspection.
21. An experimental aircraft builder certificated as a repairman for this aircraft under § 65.104 or an appropriately rated FAA-certificated mechanic may perform the condition inspection required by these operating limitations.
22. Application must be made to the geographically responsible FSDO or MIDO for any revision to these operating limitations.
23. The pilot in command of this aircraft shall notify the air traffic control of the experimental nature of this aircraft when operating into or out of airports with an operational control tower. When filing instrument flight rules (IFR), the experimental nature of this aircraft must be listed in the remarks section of the flight plan.

LAST ITEM

I have read, understand, and accept the above operation limitations

Reginald R. Corkum Date: 9-14-2012
Reginald R. Corkum (Owner/Builder)

Gary D. Meier Date: 9-14-2012
Gary D Meier DARF511393CE CE-42, Atlanta Manufacturing Inspection District Office