

Robert L. Woods

Pikeville, NC 27863

**EXPERIMENTAL - AMATEUR - BUILT
PHASE 1 - OPERATING LIMITATIONS**

ISSUE DATE: June 16, 2007

EXPIRATION DATE: Completion of 40 hrs. In flight area

MAKE/MODEL: Winkler, Gary R. / Challenger II CW

REGISTRATION: N990SS

SERIAL NUMBER: CH2-1004-CW-2537

1. No person may operate this aircraft for other than the purpose of meeting the requirements of FAR 91.319 (b) during the Phase 1 flight testing, and for recreation and education after meeting these requirements as stated in the program letter (required by FAR 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 FAR 91.319 (c). These operating limitations are a part of Form 8130-7, and are to be carried in the aircraft at all times and be available to the pilot in command.
2. During phase 1 flight testing to meet the requirements of FAR 91.319 (b), all flights must be conducted within the geographical area described as follows: Starting at the Apex Airstrip (Pvt), Southeast to the Johnston County Airport (JNX), Southeast to the Mt. Olive Airport (W40), Southwest to the Sampson County Airport (CTZ), Southwest to the Lumberton Airport (LBT), Northwest to the Laurinburg-Maxton Airport (MEB), North back to the Gilliam McConnell Airport (Pvt), Northeast back to Apex. With home base being a private strip at the builders home near Vass NC. (See Attached Chart)
3. This aircraft must be operated for at least 40 hours in the assigned geographic area.
4. All test flights, at a minimum, must be conducted day VFR to the scope and detail of Advisory Circular 90-89, Amateur-built Aircraft and Ultra-light Flight Testing Handbook. Following satisfactory completion of the required number of flight hours in the flight test area, the pilot shall certify in the records that the aircraft has been shown to comply with FAR 91.319(b). Compliance with FAR 91.319(b) recorded in the aircraft records with the following or similarly worded statement:
"I certify that the prescribed flight 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 the flight testing:
V_{so} _____, V_x _____, and V_y _____ and location _____
At which they were obtained.
5. Except for takeoffs and landings, this aircraft may not be operated over densely populated areas or in congested airways.
6. 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 effect a safe emergency landing in the event of a power unit failure, without Hazard to persons or property on the ground.
7. This aircraft is to be operated under Visual Flight Rules (VFR), day only.
- 9: Aircraft instruments and equipment installed and used under FAR 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.
10. During the flight test phase, no person may be carried in this aircraft during flight unless that person is essential to the purpose of the flight.
11. No person may operate this aircraft for carrying persons or property for compensation or hire.
13. This aircraft must contain the placards, markings, etc. As required by FAR 91.9. In addition, the placards and markings must be

inspected for legibility and clarity, as the associated systems inspected for easy access and operation, to insure they function in accordance with manufacturer's specifications during each condition inspection.

14. This aircraft must display the word **EXPERIMENTAL** in accordance with FAR 45.23(b).

16. This aircraft may conduct aerobatic flight in accordance with the provisions of FAR 91.303. Aerobatics must not be attempted until sufficient flight experience has been gained to establish that the aircraft is satisfactorily controllable and in compliance with FAR 91.319 (b). The aircraft maintenance records by use of the following, or similarly worded, statement: **"I certify that the following aerobatic maneuvers have been test flown and the aircraft is controllable through out the maneuver's normal range of speeds and is safe for operation. The flight tested aerobatic maneuvers are: _____, _____, and _____."**

17. The pilot in command of this aircraft shall, as applicable, hold an appropriate category / class rating and type rating per 14 CFR, part 61. If required, the pilot in command must also hold a "Letter of Authorization" issued by an FAA Flight Standards Operations inspector.

19. After incorporating a major change as described in FAR 21.93, the aircraft owner is required to reestablish compliance with FAR 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 engine (recip or turbine) or change of a fixed prop or to a controllable propeller, the owner must submit a revised Form 8130-6 to update the file in OKC. All operations must be conducted under day VFR conditions in a sparsely populated area. A minimum of 5 hours of flight test is required. The FSDO may require 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 required 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 FAR 91.319(b). Compliance with FAR 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 the flight testing: Speed Vso _____, Vx _____, and Vy _____. And the weight _____, and CG location _____, at which they were obtained."**

20. This aircraft shall not be used for glider towing, banner towing, or intentional parachute jumping.

21. This aircraft does not meet the requirements of the applicable, comprehensive, and detailed airworthiness code as provided by Annex 8 to the Convention of International Civil Aviation. This aircraft is not to be operated over any other country without permission of that country.

22. No person shall operate this aircraft unless within the preceding 12 calendar months it has had a conditional 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 marked appropriately and needed placards installed in accordance with FAR 91.9. In addition, system -essential controls must be in good condition, securely mounted, clearly marked, and provide for ease of operation. This condition inspection will be recorded in the aircraft records.

23. Condition inspections shall be recorded in 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 found to be in a condition for safe operations."** The entry will include the aircraft total time in service and name, signature, certificate number, and type of certificate held by the person performing the inspection.

26. An experimental aircraft builder certificated as Repairman for this aircraft under 65.104, or an appropriately rated FAA certificated mechanic, may perform the condition inspection required by these operating limitations.

27. Application must be made to the geographically responsible **FSDO** or **MIDO** for any revision to these operating limitations.

28. 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.

Robert L. Woods

June 16, 2007

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**EXPERIMENTAL - AMATEUR - BUILT
PHASE II - OPERATING LIMITATIONS**

ISSUE DATE: June 16, 2007

MAKE /MODEL: Winkler, Gary R. / Challenger II CW

REGISTRATION: N990SS

SERIAL NUMBER: CH2-1004-CW-2537

1. No person may operate this aircraft for other than the purpose for which this special airworthiness certificate was issued and the aircraft shall be operated in accordance with the applicable FAA air traffic and General Operating Rules of FAR part 91 and additional limitations herein. These operating limitations are a part of the Form 8130-7 and are to be carried in the aircraft at all time and be available to the pilot in command of the aircraft.

5. Except for takeoffs and landings, this aircraft may not be operated over densely populated areas or in congested airways.

8. Unless appropriately equipped for night and/or instrument flight in accordance with FAR 91.205, this aircraft is to be operated under VFR, day only.

11. No person may operate this aircraft for carrying persons or property for compensation or hire.

12. 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.

13. This aircraft must contain the placards, markings, etc. As required by FAR 91.9. In addition, the placards and markings must be inspected for legibility and clarity, as the associated systems inspected for easy access and operation, to insure they function in accordance with manufacturer's specifications during each condition inspection.

14. This aircraft must display the word **EXPERIMENTAL** in accordance with FAR 45.23(b).

16. This aircraft may conduct aerobatic flight in accordance with the provisions of FAR 91.303. Aerobatics must not be attempted until sufficient flight experience has been gained to establish that the aircraft is satisfactorily controllable and in compliance with FAR 91.319 (b). The aircraft maintenance records by use of the following, or similarly worded, statement: "I certify that the following aerobatic maneuvers have been test flown and the aircraft is controllable through out the maneuver's normal range of speeds and is safe for operation. The flight tested aerobatic maneuvers are: _____, and _____."

17. The pilot in command of this aircraft shall, as applicable, hold an appropriate category / class rating and type rating per 14 CFR, part 61. If required, the pilot in command must also hold a "Letter of Authorization" issued by an FAA Flight Standards Operations inspector.

19. After incorporating a major change as described in FAR 21.93, the aircraft owner is required to reestablish compliance with FAR 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 engine (recip or turbine) or a change of a fixed pitch prop or to a controllable prop, the owner must submit a revised Form 8130-6 to update the file in OKC. All operations must be conducted under day VFR conditions in a sparsely populated area. A minimum of 5 hours of flight test is required. The FSDO may require more than 5 hours depending on the extent of 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 required 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 FAR 91.319(b). Compliance with FAR 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 the flight testing:**

Speed V_{so} _____, V_x _____, and V_y _____. And the weight _____, and CG location _____, at which they were obtained."

20. This aircraft shall not be used for glider towing, banner towing, or intentional parachute jumping.

21. This aircraft does not meet the requirements of the applicable, comprehensive, and detailed airworthiness code as provided by Annex 8 to the Convention of International Civil Aviation. This aircraft is not to be operated over any other country without permission of that country.

22. No person shall operate this aircraft unless within the preceding 12 calendar months it has had a conditional 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 marked appropriately and needed placards installed in accordance with FAR 91.9. In addition, system-essential controls must be in good condition, securely mounted, clearly marked, and provide for ease of operation. This condition inspection will be recorded in the aircraft records.

23. Condition inspections shall be recorded in 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 found to be in a condition for safe operations."** The entry will include the aircraft total time in service and name, signature, certificate number, and type of certificate held by the person performing the inspection.

26. An experimental aircraft builder certificated as Repairman for this aircraft under 65.104, or an appropriately rated FAA certificated mechanic, may perform the condition inspection required by these operating limitations.

28. 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.

Note: This aircraft shall not be operated without a properly installed Emergency Locator Transmitter in accordance with FAR 91.207.

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