



U.S. Department  
of Transportation  
Federal Aviation  
Administration

Operating limitation for N1224K  
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13, October 2017

### **EXPERIMENTAL OPERATING LIMITATIONS AMATEUR- BUILT**

1. This aircraft does not meet the airworthiness standards of Annex 8 to the Convention on International Civil Aviation. Operations in airspace outside of the United States will require the permission of the applicable foreign authority. That permission must be carried aboard the aircraft together with this U.S. airworthiness certificate and, upon request, be made available to an FAA inspector or the applicable foreign authority in the country of operation. Operations may be further restricted by the applicable foreign authority. This may include not allowing use of an airport, requiring specific routing, and restricting flight over specific areas. The operator must comply with any additional limitation prescribed by the applicable foreign authority when operating in its airspace. (1)

2. These operating limitations do not provide any relief from any applicable law or regulation. This aircraft must be operated per applicable regulations and the additional limitations prescribed herein. Note that a clearance from air traffic control (ATC) is not authorization for a pilot to deviate from any rule, regulation, operating limitation, or minimum altitude, or to conduct unsafe operation of the aircraft. If ATC issues a clearance that would cause a pilot to deviate from a rule, regulation, or operating limitation, or in the pilot's opinion, would place the aircraft in jeopardy, it is the pilot's responsibility to request an amended clearance. These operating limitations are a part of FAA Form 8130-7 and are to be carried in the aircraft at all times and to be available to the pilot in command of the aircraft. (2)

3. This special airworthiness certificate is not in effect during public aircraft operations (PAO). Concurrent public/civil operations are not permitted; the aircraft cannot be operated as a civil aircraft and as a public aircraft at the same time. No weapons or special military mission systems may be added to the aircraft. This airworthiness certificate is not in effect during flights related to providing military services (that is, air combat maneuvering, air-to-air gunnery, target towing, electronic countermeasures simulation, cruise missile simulation, and air refueling). These activities are inherent military, not civil activities. The FAA makes the distinction between the authorized flights for experimental purposes, and PAO. Before operating this aircraft under this special airworthiness certificate following a PAO, the aircraft must be returned to the condition and configuration at the time of inspection for the issuance of this airworthiness certificate. The operator must have written procedures for returning the aircraft to the civil configuration. This action must be documented in the maintenance records. The maintenance records and entries must clearly differentiate between a civil experimental flight per this certificate and any other flights. (3)

4. Application to amend this certificate must be made to the local Flight Standards District Office (FSDO) or Manufacturing Inspection District Office (MIDO). (4)

5. No person may operate this aircraft for other than recreation and education. (5)

6. The pilot in command must hold airplane category and single-engine land class certificate or privilege. The pilot in command must hold all required ratings or authorizations and endorsements required by part 61. (7)

7. When filing a flight plan, the experimental nature of this aircraft must be listed in the remarks section. (11)

8. This aircraft must not be used for towing, including, but not limited to glider towing, banner towing, target towing, or towing electronic receivers or emitters. This aircraft must not be used for intentional parachute jumping. (13)

9. If aircraft, engine, or propeller operating limitations are exceeded outside of planned test conditions, an appropriate entry will be made in the maintenance records. (14)

10. No person may operate this aircraft unless within the preceding 12 calendar months it has had a condition inspection performed per the scope and detail of part 43, appendix D, manufacturer or other FAA-approved programs, and was found to be in a condition for safe operation. The 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] per the [insert either: scope and detail of part 43, appendix D; or manufacturer's inspection procedures] and was found to be in a condition for safe operation." The entry will include the aircraft's total time-in-service (cycles if appropriate), and the name, signature, certificate number, and type of certificate held by the person performing the inspection. (15)

11. 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. (18)

12. The aircraft may not be operated unless the replacement for life-limited articles specified in the applicable technical publications pertaining to the aircraft and its articles are complied with in one of the following manners:

(a) Type-Certificated Products: Replacement of life-limited parts required by § 91.409(e) applies to experimental aircraft when the required replacement times are specified in the U.S. aircraft specifications or type certificate data sheets. (b) Non-Type-Certificated Products: All articles installed in non-type-certificated products operated under an airworthiness certificate issued for an experimental purpose, in which the manufacturer has specified limits, must include in their program an equivalent level of safety for those articles. These limits must be evaluated for their current operating environment and addressed in the approved inspection program. All articles installed in non-type-certificated products in which the manufacturer has specified limits, must include in their program an equivalent level of safety for those articles. The article must be inspected to ensure the equivalent level of safety still renders the product in a serviceable condition for safe operation. (20)

13. For aircraft originally incorporating fatigue life recording systems, the owner/operator must maintain and use the system as prescribed by the aircraft manufacturer and comply with the manufacturer's fatigue life limits. (21)

14. 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 type of engine (reciprocating to turbine) or a change

of a fixed pitch from or to a controllable propeller, the aircraft owner must fill out a revised FAA Form 8130-6 to update the aircraft's file in the FAA Aircraft Registration Branch, AFS-750. All operations must be conducted under day visual flight rules (VFR) conditions over a sparsely populated area in compliance with § 91.305. 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 an aircraft maintenance record 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 § 91.319(b). Compliance with § 91.319(b) must be recorded in the maintenance records with the following, or a 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." (23)

15. When changing between experimental operating purposes, the operator must determine that the aircraft is in a condition for safe operation and appropriate for the purpose intended. A record entry will be made by an appropriately rated person to document that finding in the maintenance records. (26)

16. This aircraft is prohibited from flight with any externally mounted equipment unless the equipment is mounted in a manner that will prevent in-flight jettison. The aircraft must be configured as documented in the aircraft's flight test records or as allowed in the original manufacturer's, or military operator's aircraft limitations. If relying on the manufacturer's or military data, the aircraft must conform to the manufacturer's design and be maintained to manufacturer's or military instructions. No change in external loading for the aircraft (for example, a change in a pylon, rack, or external store) from configurations approved by the manufacturer or military operator is allowed, except to prevent jettison. Compliance with all manufacturer or original military operator limitations when any external stores or fuel tanks are installed is required. (39)

17. Except for single-place aircraft, the following placard must be displayed in the aircraft in full view of all occupants: "PASSENGER WARNING THIS AIRCRAFT DOES NOT COMPLY WITH FEDERAL SAFETY REGULATIONS FOR STANDARD AIRCRAFT." (41)

**The following limitations apply during phase 1:**

18. No person may operate this aircraft for other than the purpose of meeting the requirements of § 91.319(b). The pilot in command must comply with § 91.305 at all times. This aircraft is to be operated under VMC, day only. **This aircraft must be operated for at least 40 hours with at least 3 takeoffs and landings in this geographical area: Within a 25 n.m. radius of Yale Airport Yale, Michigan. FAA Identifier: D20 Lat/Long: 43-06-45.0940N / 082-47-14.7460W** (42)

19. Unless operating per FAA AC 90-116, Additional Pilot Program for Phase I Flight Test, only the minimum crew necessary to fly the aircraft during normal operations may be on board. (44)

20. Upon completion of phase I flight testing, compliance with § 91.319(b) must be recorded in the maintenance records. The following or similar statement must be recorded in the maintenance records: "I certify that the prescribed flight test has 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." If aerobatic maneuvers are intended to be performed during phase II, those maneuvers must be satisfactorily accomplished and recorded in the maintenance records. Aerobatic flight testing is not complete until sufficient flight experience has been gained to establish that the aircraft is satisfactorily controllable during the aerobatic maneuver tested. Upon completion of flight testing, the owner/operator must make the following or similar entry in the maintenance records: "I certify that the following aerobatic maneuvers have been test flown, and that the aircraft is controllable throughout the maneuvers' normal range of speeds. The flight-tested aerobatic maneuvers and speeds are \_\_\_\_\_ at \_\_\_\_\_, \_\_\_\_\_ at \_\_\_\_\_, \_\_\_\_\_ at \_\_\_\_\_, and \_\_\_\_\_ at \_\_\_\_\_." During phase II operations, aerobatic maneuvers that were not documented per this limitation may not be performed. The owner may place the aircraft back into phase I for the sole purpose of adding additional aerobatic maneuvers to the aircraft authorized maneuvers. (45)

21. If the aircraft will have removable externally mounted equipment, it must be test flown in all configurations. An entry must be made in the maintenance records indicating the configurations flight tested, unless the original manufacturer's flight test data for that equipment is included in the aircraft limitations. If relying on the manufacturer's data, the aircraft and load must conform to the manufacturer's design and be maintained to manufacturer's instructions. Otherwise, the aircraft owner/operator must conduct test flights in all configurations and make an entry in the maintenance records indicating the configurations flight tested. (46)

**The following limitations apply during Phase 2 operations:**

22. Kinds of operations authorized: Day VFR flight operations are authorized (47)

23. Night flight operations are authorized if the instruments specified in § 91.205(c) are installed, operational, and maintained per the applicable requirements of part 91. (48)

24. Instrument flight operations are authorized if the instruments specified in § 91.205(d) are installed, operational, compliant with the performance requirements of, and maintained per the applicable regulations. All maintenance or inspection of this equipment must be recorded in the aircraft maintenance records and include the following items: date, work performed, and name and certificate number of person returning aircraft to service. (49)

25. The pilot in command must not perform any maneuvers that have not been flight tested or operate the aircraft outside the weight, airspeeds, and center of gravity limits tested. (51)

26. Flight over a densely populated area or in a congested airway is authorized for the purpose of takeoff or landing; or unless sufficient altitude is maintained to make a safe emergency landing in the event of a power unit failure, without hazard to persons or property on the ground. (55)

ISSUED BY:

Date: October 13, 2017

*T. Gauthier*

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