



FLIGHT OPERATIONS MANUAL

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Table of Contents

1) Mission and Introduction.....	3
2) List of Revisions.....	3
3) Purpose of the Flight Operations Manual.....	4
4) Emergency Contacts.....	4
5) Safety.....	4
6) General Rules	5
7) Standard Operating Procedures	6
7.10 Limitations	9
8) Check Out Procedures	10
9) Scheduling Aircraft	11
10) Non-Cirrus Training	12
11) Cirrus Training	12
12) Reporting Aircraft Squawks.....	12
13) Aviation Incident and Accident Emergency Response Plan	12
14) Non-Aviation Emergency Response Plan	12
15) Aerowood COVID-19 Policy.....	13
Appendices.....	13

1) Mission and Introduction

1.01 Aerowood Aviation Mission To provide the Central Piedmont area with the highest quality flight training and an outstanding client experience while keeping the safety of the operation at the center of everything we do.

This mission is *why* we are in business. It guides *everything* we do.

It is *supported* by our core values:

Safety • Excellence • Innovation • Integrity

1.02 Introduction

Welcome to Aerowood Aviation. We were founded in 2008 with the goal of sharing our passion for aviation. To that end, we created this document to standardize our operations and provide guidance. Please note that the Federal Aviation Regulations (FARs), Advisory Circulars (ACs) and Aeronautical Information Manual (AIM) take precedence over this document. If you find any part of this document to be in conflict with any aviation related regulation or practice, please let us know.

Aerowood Aviation has an excellent safety record. We owe that to the diligence and professionalism of our pilots, staff, and clients. Perhaps the single most important quality a pilot can possess is a positive attitude towards safety!

2) List of Revisions

<u>Rev #</u>	<u>DATE</u>	<u>HIGHLIGHTS OF CHANGE</u>
Original	May 27, 2010	
Rev 1	April 20, 2011	Para 9 2, 3, correct insurance protection for renter
Rev 2	March 22, 2019	Change title of this chapter to Standard Operating Procedures
Rev 3	June 24, 2020	Edits to update and align with Aircraft Rental Agreement (Appendix A)
Rev 4	November 24, 2020	Updates to change to Flight Operations Manual
Rev 4.1	March 1, 2021	Some minor edits; where other changes (6.03, 7.02.02a, b, and c) are significant they are highlighted in red

3) Purpose of the Flight Operations Manual

A Flight Operations Manual is an essential element of all professional aviation operations. The manual's principal function is to provide operational and administrative information to department personnel. The manual also serves as a communication tool that transmits Aerowood Aviation's (Aerowood) safety practices, policies and procedures to the clients we serve.

Standard Operating Procedures (SOPs) have been instituted to ensure the highest levels of pilot discipline, safety, and training effectiveness. These policies are applicable to all flights that are conducted as part of any course of instruction, aircraft rental, or professional flying at Aerowood. All flights conducted at Aerowood must adhere to the applicable Federal Aviation Regulations (FARs). This Flight Operations Manual (FOM) is superseded by the relevant FARs or the manufacturer's operating handbook. Some redundancy of regulations and operating handbook recommendations may be found in this manual in order to stress certain operating procedures.

Completed manuals will be distributed in electronic format to all Aerowood clients and employees. A copy will be posted on the Aerowood website. The manual should be readily available to all aviation personnel so that it can be easily referenced when appropriate; the most current version may always be found on the Aerowood website.

All Aerowood employees (full time, part time, and contract) and clients are expected to adhere to the practices, policies, and procedures prescribed in Aerowood Aviation's Aircraft Rental Agreement (Appendix A) and in this FOM. Deviation from the policies and procedures prescribed herein by employees may lead to disciplinary action including termination of employment. The practices, policies, and procedures in this manual are intended to maximize the safety of Aerowood; however, they may be waived at the discretion of the Director of Operations.

4) Emergency Contacts

- | | |
|--|---------------------|
| ○ Aerowood Aviation Main | 980.263.9025 |
| ○ Danielle Caro , V.P. Customer Relations | 704.620.0755 |
| ○ Marianne Borders, Director of Operations | 704.516.6194 |
| ○ Jim Efird, Chief Flight Instructor | 704.989.6223 |
| ○ Ben Werthwein, Director of Maintenance | 817.966.3036 |

5) Safety

5.01 General. As pilots and instructors, we are bound by relevant FARs and National Traffic Safety Board (NTSB) regulations to report safety related matters when the conditions meet the threshold for reportability. Aerowood Aviation fully supports this process and will assist all concerned agencies as required by law.

5.02 NASA's Aviation Safety Reporting System (ASRS). The ASRS collects, analyzes, and responds to voluntarily submitted aviation safety incident reports in order to lessen the likelihood of aviation accidents. These reports are submitted by pilots, controllers, and others in the aviation community on a non-attribution basis. We encourage our instructors, learners, and renters to participate in this program. Learn more at asrs.arc.nasa.gov

5.03 Internal Aerowood Aviation Safety Program

5.03.01 The purpose of this program is to constantly improve our safety practices.

5.03.02 When you observe safety related concerns that fall short of regulatory standards, you are welcome to let us know. Whether in person, by email, or even anonymously, we want you to feel free to relay your thoughts and concerns. We commit to taking your concerns seriously and if within the realm of what we do have control over, will address those concerns.

5.03.03 In order to encourage participation in the Aerowood safety program, we will use the Aerowood Safety Reporting Form in **Appendix B**. This document is based upon the ASRS program and can be used to report anything you see that you feel compromises safety at Aerowood. You may identify yourself or remain anonymous when submitting this form.

5.04 **FAA Safety Team, Wings Program** Aerowood strongly encourages every instructor to participate in the Wings Program. In turn, instructors should encourage their learners to participate as well.

6) General Rules

6.01 Renter Pilots must hold a valid and current pilot certificate with appropriate ratings. Pilots are responsible for providing photocopied or electronic scans of their Renter's Insurance, current Medical Certificate, Pilot Certificate, and State Driver's License or other government-issued photo ID so that these documents may be uploaded to Flight Circle. Renter pilots will make sure the date for their most recent Flight Review and the expiration date of their Renter's Insurance is posted in Flight Circle.

6.02 Pilots shall observe all Federal, State, and Local flight rules. All violations will be dealt with by the appropriate governing authorities and may be cause for automatic termination of aircraft use privileges, pending further action.

6.03 Never attempt to operate an aircraft when you have a known physical or mental deficiency, such as headache, cold, lack of adequate rest, **stress**, etc. **Within the context of this section, pilots of all levels of certificates, to include learners, must abide by: FAR 61.15 (Offenses involving alcohol or drugs), 61.23 (Medical certificates: Requirement and duration), and 61.53 (Prohibition on operations during medical deficiency.)**

6.04 In addition to the requirements set forth in FAR 91.17, Renter pilots shall not operate the aircraft for a period of at least 12 hours after using intoxicating substances such as liquor, drugs (both prescription and over the counter), tranquilizers, or sleeping aids that alter your abilities to operate the aircraft safely.

6.05 The designation of Pilot in Command (PIC) shall be determined prior to beginning the flight.

6.06 For flights with landings at other airports, pilots will list all landing airports in the Flight Circle Route Box.

6.07 Smoking is prohibited in all aircraft.

6.08 A checklist appropriate for the aircraft shall be used for all operations. This checklist shall be used as a backup for the flow procedures in each phase of flight.

6.09 Rental pilots will personally conduct a preflight inspection of the aircraft as prescribed by the manufacturer. A post flight inspection will also be conducted to determine if there are any squawks that need to be reported.

6.10 Pilots shall record the Hobbs and Tach times in the white Time Book at the beginning and end of each aircraft operation. If any time discrepancy appears, it must be reported to Aerowood Aviation office staff prior to flight. Renter should verify that all required documents are in the aircraft.

6.11 Rental pilots are responsible for shutting down and securing the aircraft, installing the control lock, tying down the three tie-down points, and returning keys and white Time Book to the office. The renter will be responsible for damage to aircraft caused by leaving an aircraft untied. When leaving an airplane unattended at EQY or away from EQY, tie down at least the wings. If tie-downs are not available, as a minimum chock the nosewheel.

6.12 Appropriate charts and equipment shall accompany pilots during all flight operations.

6.13 All aircraft malfunctions shall be reported immediately to a CFI or other Aerowood staff who may then refer to the Aerowood Aviation Director of Maintenance for inspection. Discrepancies shall be entered in the Flight Circle squawk system – **See Section 12**. Pilot will not depart with an aircraft if airworthiness is in question.

6.14 No aircraft shall be used to transport any illegal materials or substances.

6.15 No aircraft shall be used for any Commercial Operations.

7) Standard Operating Procedures

7.01 General Aerowood Aviation Standard Operating Procedures (SOP) are a set of procedures developed to enhance the safety of flight. These procedures should be used in addition to Aerowood Aviation's Aircraft Rental Agreement (Appendix A) and General Rules and can be used by any pilot for VFR or IFR flight.

7.02 Preflight

7.02.01 Pilots will conduct a thorough preflight in accordance with FAR 91.103. This includes terminal and enroute weather, fuel requirements, runway lengths, and aircraft performance at the desired airport with forecasted weather conditions. PIC shall compute takeoff and landing distances with a current Pilot Operating Handbook (POH).

7.02.02 Pilots will use a Flow for preflight with the Checklist used for verification and backup.

7.02.02a Fuel collected when sumping tanks shall be returned to the tank (if free of contaminants) or disposed of in fuel disposal can at FBO (if contaminated). Fuel will not be dumped on ground.

7.02.02b All 172s in the Aerowood fleet have fuel drain points under the gascolator. These points will be sumped before each flight.

7.02.02c As the last step in their exterior preflight, pilots will step away from the aircraft and conduct a Final Walk around, to include visual inspection of fuel and oil caps, tie downs, exterior gust locks, chocks, cowl plugs, covers, stepladder, and other exterior items.

7.02.03 Upon entering the aircraft, a passenger briefing shall be completed which will include Seatbelt use, location of Air vents, location of Fire extinguisher, Exits and Emergency Procedures, Exchange of Controls, Traffic, Talking, and Your Questions. This S.A.F.E.T.Y. briefing is detailed in this FAA PDF.

7.03 Before Engine Start Prior to engine start-up a crew briefing shall be completed which will include the following: review of airport diagram, ATIS/AWOS, runway in use, crosswind component, departure/taxi clearance, and who is PIC. There will be a positive exchange of flight controls at all times (and a visual confirmation that the exchange has occurred) and sterile cockpit procedures will exist which prohibits cockpit activities not related to safe flight operation during critical phases of flight. These activities include all ground operations involving taxi, takeoff, and landing or anytime while operating below 1,000 AGL.

7.04 Prior to Taxi During taxi operations, crewmembers will concentrate on taxiing aircraft on centerlines, maintaining situational awareness, and watching for other ground traffic. If situational awareness is lost, the aircraft will be stopped and position on the airport will be identified before proceeding. Pilot will advise ATC (if available) and request assistance and/or progressive taxi information. Flight planning and navigation equipment setup and data input should not be performed during taxi operations.

7.05 Before Takeoff

7.05.01 Before taxiing on to the runway, the Before Takeoff flow and checklist shall be completed. A pre-takeoff brief shall be conducted which will include the following information; verifying correct runway (DG, magnetic compass crosscheck), runway available/runway required, if any obstacles exist on departure, wake turbulence if any, sufficient take off power, and windsock position shall be noted with proper crosswind control position. This brief will also include normal, short and soft field takeoffs, nonstandard noise abatement procedures, and IFR departures. All departure briefings will include initial heading, altitude, and lost communications procedures.

7.05.02 Emergency procedures will be briefed before each takeoff, to include the following information: based on the preflight and performance calculations and any knowledge of the local terrain, the flight crew will determine the best course of action in the event of (1) an engine failure on departure prior to rotation, (2) after rotation with runway remaining, and (3) after rotation with no runway remaining. The pilot will determine the location of suitable terrain for use as an emergency landing site.

7.05.03 Prior to taxiing on to the runway at a non-towered airport, the pilot shall do a clearing turn on the ground to ensure the pattern is clear. At towered airports the pilot shall visually clear the base and final leg of the pattern prior to taking the runway. When cleared for takeoff or when crossing the hold short line at a non-towered airport the flight crew will maintain a sterile cockpit until above 1,000 feet AGL.

7.06 Initial Climb

7.06.01 Aerowood Aviation recommends climbing at V_y to an altitude of at least 700 feet AGL, with no power adjustments below 1,000 feet AGL when departing an airport. This will increase the probability of returning to the departure runway in the event of an engine failure on takeoff.

7.06.02 When departing an airport traffic pattern, the pilot shall follow published noise abatement procedures.

7.06.03 If departing from a Towered airport, the pilot shall depart the traffic pattern as advised by ATC.

7.06.04 If operating from a Non-Towered airport, procedures in the AIM and AC 90-66B (Non-Towered Airport Flight Operations) shall be followed, which include:

7.06.04.a If remaining in the traffic pattern, the crosswind turn will be made no lower than 300 feet below Traffic Pattern Altitude

7.06.04.b If departing the traffic pattern, climb will continue on the Departure Leg (takeoff runway extended) until above traffic pattern altitude before making any turns to depart the pattern. Departures will not be made from the crosswind or downwind leg.

7.07 Cruise

7.07.01 Cruise flow and checklist shall be completed upon reaching cruise altitude **and allowing engine temperature to stabilize**. For all VFR flights, flight following with ATC shall be used if possible.

7.08 Prior to Landing

7.08.01 When inbound to an airport, radio calls will be in accordance with Table 4-1-1 of AIM “Summary of Recommended Communication Procedures”.

7.08.02 The Before Landing flow and checklist will be verbalized and completed before entering the pattern.

7.08.03 Aircraft configuration before landing shall be in accordance with the aircraft’s procedures described in the POH.

7.08.04 If aircraft is not stabilized (Flaps set, on proper glideslope or visual approach path, speed at 1.3 V_{so} or as recommended in POH) by 300 feet AGL (VFR) or 500 feet AGL (IFR), the pilot shall execute a go-around per the POH.

7.08.05 If the aircraft has not landed within 400 feet of the intended touchdown point (normal landing) or 200 feet of the intended touchdown point (short field landing), the pilot shall execute a go-around per the POH.

7.09 After Landing

7.09.01 After touchdown, no configuration changes should be made until the aircraft is clear of the runway and *completely past the Hold Short Line*. After clearing the runway, the pilot will stop the aircraft and complete the After Landing flow and checklist; then contact ground control or announce on the CTAF that the aircraft is clear. If a short field landing is necessary, the flaps may be retracted while on the runway if so instructed and prebriefed. (there is little advantage in doing this on short field landings in an airplane with electric flaps because the retraction time is so long.) If the flaps are to be retracted during the ground roll, the pilot should verbalize “flaps identified” before retraction. This is to prevent developing bad habits that could carry over to Complex airplane operations.

7.09.02 Before taxiing the PIC will ensure that the proper taxi route is understood. If at any time the pilot is in doubt about the route of taxi or location on the airfield, STOP the aircraft and request clarification from ground control and/or review the airport taxi diagram. During shutdown, use the Shutdown flow and checklist and secure the aircraft.

7.10 Limitations

7.10.01 Student Pilot Solo Flight

7.10.01a Every Initial or Additional 90-day solo endorsement for Aerowood Student Pilots shall include wind limitations. **Maximum wind for solo flight: 20 kts total (including gusts) and 12 kts crosswind component.** Solo endorsement wind limitations may be more restrictive but not less restrictive. CFIs shall ensure learners understand that their wind/crosswind limitation is based on maximum gusts, not just steady state winds and that learners know how to calculate crosswind component while in the airplane – using a crosswind component diagram or E6B (smartphone apps are acceptable)

7.10.01b Aerowood CFIs will **not** endorse Student Pilots for solo flight at night.

7.10.01c Unless an Aerowood instructor is onboard the aircraft, all landings will be a **full stop taxi back** or (if runway distance remaining permits and CFI has approved) a **Stop and Go**. Touch and Go landings without an Aerowood instructor on board are not permitted.

7.10.02 The rental pilot will operate the aircraft from the Pilot’s seat and will be responsible for the aircraft and its operation at all times. Except when training for a CFI certificate, no person may take off or land an Aerowood aircraft from the right seat. Exceptions require an approval in writing from Aerowood Aviation’s Chief Flight Instructor.

7.10.03 Do not load or unload passengers when the aircraft engine is operating

7.10.04 Do not taxi aircraft through tie down ropes (push-back into appropriate tie down space).

7.10.06 Renter pilots shall not allow anyone else to operate the aircraft.

7.10.07 Formation flying is prohibited by all renter pilots.

7.10.08 Emergency or forced landing practice will only be conducted with an Aerowood flight instructor aboard. During all simulated engine failures, pilots will abide by FAR 91.119 (Minimum Safe Altitudes). Engine failures in all aircraft will be simulated by retarding the throttle only. When practicing simulated engine out procedures that are not conducted with a runway as the intended point of landing, do not go below 500' AGL. Use carb heat before power is reduced to idle and clear the engine at least every 1000 feet of descent to ensure it will develop power and that no carb ice is present.

7.10.09 Do not attempt to start an engine when the ambient temperature has been below 40 degrees for more than two hours in the previous 12 hours, unless the engine has been preheated. Instructions for preheating are detailed in the *Cold Weather Operations* document on the Aerowood website under the "Downloads" tab.

7.10.10 Aerowood aircraft are not allowed to taxi for the purpose of flight with any frost, ice, or snow adhering to any lifting surface of the aircraft. The aircraft must be completely uncontaminated. FAR 91.527 (Operating in Icing Conditions) prohibits taking off "*an airplane that has frost, ice, or snow adhering to any propeller, windshield, stabilizing, or control surface.*"

7.10.11 Unless accompanied by an Aerowood Aviation CFI, aircraft must be operated on hard surfaced public use airports or as approved by the Chief Flight Instructor.

8) Check Out Procedures

8.01 Aircraft rental approval is restricted to the individual airplane make and model for which the pilot has completed the checkout procedures.

8.02 The renter pilot will study the entire Pilot Operating Handbook, Aircraft Flight Manual, Aircraft Flight Manual Supplements, Pilot Quick Reference Guides (for avionics), and Aerowood Aviation's Aircraft Rental Agreement prior to the checkout flight. These documents are available on the Aerowood website.

8.03 In order to be checked out in a new make and model of aircraft, the renter pilot shall complete the Flight Review and Aircraft Checkout form (AW-005A, available on the Aerowood website) and be reviewed by an Aerowood Aviation CFI. The renter pilot shall complete an initial minimum one hour flight check out and receive the authorization of an Aerowood Aviation Flight Instructor who is acting as Pilot in Command.

9) Scheduling Aircraft

9.01 Renter Pilots:

9.01.01 The pilot in command is responsible for the weight and balance of the aircraft; this includes requesting fuel quantities for other than standard fuel loads.

9.01.01a If the renter pilot requires other than normal fuel load for a flight, they must contact the renter pilot or CFI of the preceding flight and request the aircraft not to be filled after their flight. If the renter needs the aircraft to be de-fueled the renter is responsible for the cost of the fuel that is being removed and for the time of the mechanic to de-fuel the aircraft.

9.01.02 Aircraft rental is on a first come, first serve basis. As a matter of courtesy, please do not reserve multiple airplanes on the same day during the same time.

9.01.03 Cessna 172 rental aircraft may not be rented for more than a six hour block without permission from the Director of Operations.

9.02 Student Pilots:

9.02.01 All solo flights must be approved and supervised by an Aerowood Aviation flight instructor.

9.02.02 Scheduling is to be done only under the direct supervision of an Aerowood Aviation flight instructor.

9.03 Authorized Instructors

9.03.01 Following is a list of the only persons authorized to provide training, checkrides, or Practical Tests:

- FAA check airman
- Designated Pilot Examiner (DPE)
- Aerowood Aviation flight instructor

9.04 Transient Maintenance

9.04.01 In the event of a mechanical breakdown away from EQY, notify Aerowood Aviation of the problem immediately (telephone numbers are in the binder in each rental aircraft and are listed in **Section 4**). If maintenance personnel are not available, leave your name, aircraft number, and telephone number where you can be contacted.

9.04.02 Do not authorize any repairs to be made to the aircraft without authorization from an Aerowood Aviation representative. Failure to do so could result in the Renter being responsible for part or all of the bill.

9.04.03 Aerowood Aviation will not reimburse the Renter for any overtime charges, call-out fees, or any other after hour charges made by the maintenance facility. Other expenses incurred by the Renter as a result of a mechanical delay such as rental cars, hotel rooms, meals, and airline fares, etc. will not be reimbursed.

10) Non-Cirrus training

10.01 Aerowood follows the “Private Certificate Syllabus” as published in part 6 of The Student Pilot’s Flight Manual (11th Edition) by William K. Kershner.

10.02 Stage Checks with a designated Stage Check Flight Instructor are required at three points in training for Private Pilot learners:

1. Immediately after First Solo
2. After the first solo Cross-Country
3. A Mock Check-ride as a final Check-ride Prep

11) Cirrus Training

11.01 Aerowood follows the Cirrus Initial or Transition Training Syllabus.

12) Reporting Aircraft Squawks – Flight Circle

12.01 Aerowood uses the Squawk reporting system in Flight Circle.

12.02 Renters or CFIs reporting squawks shall put date of the flight, name, and phone number in the Notes section of the squawk along with details of the issue.

12.02 If a Squawk does not affect the airworthiness of an airplane, after entering the Squawk, change the Status from “New/Pending” (Red) to “Verified/Repair Later” (Yellow)

12.03 When Squawks are resolved, Maintenance Personnel shall enter details of the corrective action taken to clear the Squawk.

13) Aviation Incident and Accident Emergency Response Plan

13.01 In the event of an incident or accident involving Aerowood aircraft:

13.01.01 Provide immediately for the first aid of passengers and other persons injured.

13.01.02 Notify Aerowood Aviation as soon as possible at the numbers listed in **Section 4**, Emergency Contacts. If the first person does not answer, leave a message, then contact the next person until you can speak to an individual. These Emergency contacts are also listed in the binder in the aircraft.

13.01.03 Secure aircraft and take necessary steps to limit further damage to aircraft.

13.01.04 If possible, take photographs.

13.01.05 Do not discuss the situation with any media personnel.

13.02 In case of other emergency such as mechanical malfunction, unexpected weather, delay, or damage to the aircraft, the pilot in command shall notify Aerowood Aviation immediately at the Emergency Contact numbers listed in **Section 4**.

14) Non-Aviation Emergency Response Plan

14.01 Under development

15) Aerowood COVID-19 Policy

15.01 See **Appendix C**

Appendices

Appendix A: The Aerowood **Aircraft Rental Agreement** is posted on the Aerowood website under the “Training/Rental” Tab, then at the bottom of that page at the button labeled “Rental Agreement (Date)”

Appendix B: The Aerowood **Safety Reporting form** is posted on the Aerowood website under the “Downloads” Tab, then in the Forms, Policies, and Procedures section

Appendix C: The Aerowood **COVID-19 Policy** is posted on the Aerowood website under the “Downloads” Tab, then in the Forms, Policies, and Procedures section