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1. INTRODUCTION

1.1 - The Handbook

This handbook is an overview of the White Sands Soaring Association and its rules and operating procedures. It’s not intended to be an aviation encyclopedia, but we hope you find it to be a useful guide to both the spirit and the procedures of the Club.

1.2 - The Club: Who We Are and Why We Are

Welcome to the White Sands Soaring Association, also known as the WSSA, or "the Club". We were formed in 1959 by a group of people with a keen interest in soaring and have been in continuous operation since. Our purpose is to promote the art, science, fellowship and fun of soaring. To that end, we maintain several gliders, a tow plane, hangar and Clubhouse. (The current Club aircraft are listed in Appendix A.) All costs of ownership and operation are borne by the Club members in the form of initiation fees, dues and tow fees. As a Club, we do not aim to make a profit, but we do aim to generate enough revenue to cover the costs of safe operation and distribute these costs among the members in as fair a manner as possible. In the event the Club disbands, the Club Charter specifies that all assets will be turned over to the Soaring Foundation of America. Therefore, no one "owns" or has a financial interest in the Club.

In order to keep member costs to a minimum, we try to do as much work "in-house" as possible. This includes maintenance, towing, flight instruction, bookkeeping, housekeeping and dozens of other tasks necessary to our operation. There are some things that we have to pay for outside the Club, such as major aircraft maintenance, annual inspections on our aircraft, and of course insurance. However, if it's at all possible to get the job done safely, legally and correctly with Club members, we do it ourselves. We only do this for fun, and it's no fun if 10 percent of the people do 90 percent of the work, so don't be afraid to pitch in!

You are part of a group of people who have explored the possibilities of soaring flight and enjoyed the camaraderie of fellow glider pilots since the Club was founded almost 60 years ago. Many people have learned to appreciate the subtleties of soaring here at the WSSA. Whether you are brand new to aviation, sport pilot, journeyman aviator or military jet jockey, you will find soaring to be a unique challenge. As you peel back the layers of aviation technology to the essentials, you will experience what Otto Lilienthal, Octave Chanute and the Wright Brothers did over 100 years ago and learn what flight is really all about. You are in good company.
2. GENERAL INFORMATION

2.1 - The Members

Every Club member, including Board members, has some sort of duty assigned on a rotating basis. This is assigned by the Operations Officer and can be one of the following four tasks, depending on the qualifications and desires of the individual:

Flight Operations Officer (FOO) - Directs & assists the launch & retrieval of gliders. Acts as overall coordinator of airfield operations. Must know airfield & Club procedures.

Tow Pilot - Flies the tow plane. Must meet FAA, Insurance and Club requirements for towing gliders.

Instructor Pilot - Conducts flight instruction & flight reviews. Must meet FAA requirements for Certified Flight Instructor Glider (CFIG).

Aircraft Mechanic - Responsible for all maintenance accomplished on Club aircraft. Must be a certified FAA Airframe & Powerplant (A&P) mechanic.

2.2 - Flight Schedule

Operations are scheduled every Saturday and Sunday. A draft duty schedule is periodically prepared by the Operations Officer and distributed to the members. After the schedule is finalized, if a member cannot make their assigned date, it is their responsibility to arrange for a replacement. Operations can be conducted during the week by making individual arrangements for a tow pilot and FOO. Club operations depend on people showing up for their assigned duty.

2.3 - The Board

The Club is governed by a Board of Directors, elected each year at the April general membership meeting. All board members must be club members and every club member is eligible to serve on the Board. Board meetings are held on the first Saturday of each month at 11:00 at the WSSA Clubhouse. All members are welcome and encouraged to attend. The Club officer duties are described below:

- **President** - Presides over meetings & acts as the WSSA spokesperson.
- **Vice President** - Fills in for the President, if necessary & acts as "Social Director".
- **Treasurer** - Maintains accounts, collects dues/fees, pays bills & budgets funds.
- **Secretary** - Takes, files & publishes meeting minutes.
- **Operations Officer** - In charge of flight operations & schedules Club duties.
- **Maintenance Officer** - Schedules & arranges work on Club equipment.
- **Training & Safety Officer** - Monitors ground, flight & safety training programs.
- **Member at Large** - Acts as liaison to the general membership.
2.4 - Flying With the WSSA

All new members will fall in one of the following categories:

- **No FAA Pilot Certificate**
  1) Obtain a student certificate. Your instructor will help with this.
  2) Fly with your instructor until both you and the instructor are satisfied that you can safely "solo" the aircraft. Expect a minimum of 25 flights at the rate of 3-4 per session. At this point the instructor will administer a short written test on the particular glider you are flying and endorse your logbook for solo flight.
  3) Take the FAA written exam for your private pilot certificate. Your instructor will help you with the preparation.
  4) Practice solo flight.
  5) Fly several practice rides with your instructor in preparation for your checkride.
  6) Take the practical test, or "check ride". The practical test consists of an oral exam and flights (normally three) with an FAA examiner. It is somewhat analogous to a driving test. Your instructor will assist in your preparation and be present during the test.
  7) After you pass the practical test and have been issued a private pilot certificate, you can legally carry passengers.

- **FAA Power Pilot Certificate but no Glider Rating**
  1) 10-15 instructional flights, depending on the individual.
  2) The FAA written test is not necessary.
  3) Written test on particular glider being flown.
  4) Solo practice.
  5) Preparation for check ride.
  6) Check ride.

- **FAA Glider Pilot Certificate**
  1) 3 to 6 instructional flights, depending on the individual.
  2) Written test on particular glider being flown

- **Glider Pilot Certificate and Flying Your Own Glider**
  1) Briefing on Club and local airfield procedures before flying
  2) 1 or more instructional flights, if not current

**Notes:**

1) A separate written test must be taken for each different type of glider being flown with an attendant briefing by a Club CFIG.
2) Rear seat checkouts with a CFIG are required for each type of glider
2.5 - Dues and Fees

Dues and fees fall under four areas:

1. **Initiation Fee**
   This is a once in a life-time fee. There are discounts associated with TDY members, additional family members and youth.

2. **Yearly Soaring Society of America (SSA) Dues**
   This is due on a yearly basis. All members of the Club must be members of SSA for our insurance. In addition, there are additional benefits of being an SSA member including a monthly magazine.

3. **Monthly Dues**
   There are two types of memberships: Category 1 and Category 2. Most members pay the higher Category 1 dues which gives them unlimited use of all Club gliders. Category 2 membership is for members who normally own their own planes. Although the dues are lower, they must rent Club gliders, if they want to use them.

4. **Tow Fees**
   Each flight will be charged to a member based on the height of their tow. The lowest tow fee charged will be the rate for a 1,000’ tow. Higher tow fees are charged on each 100’ increments. If using the motor of a Club motorglider for the launch, a “Use of Motor” fee will be charged in place of the tow fee.

There are additional fees that apply to non-members. These are:

1. **Tows Fees for Visiting SSA Members Using Their Own Gliders**
   These fees are slightly higher than member tow fees since visitors are not paying monthly dues or the initiation fee.

2. **Commercial Demo Flights**
   These flights are conducted by commercial pilots with the guest in the front seat. They are normally given a high tow (4,000’) to ensure limited maneuvering required, great views and flight time of at least 30 minutes.

3. **Sniffer Program Flights**
   This program consists of 3 to 5 flights for people who have an interest in joining the Club. The first flight is with a commercial pilot, similar to a Demo Flight. The next two flights are with an instructor for pattern tows. If the person then decides to join the Club, he will receive two more pattern tows with an instructor for no additional cost.

Since dues and fees may change in a timeframe shorter than the update of this document, Appendix B (a separate document) lists the current amount of each.
2.6 - The White Sands Soaring Foundation (WSSF)

The WSSF was formed in 2011 as tax-exempt 501(c)3 charitable foundation to promote soaring and aviation in the Tularosa Basin. It has a separate board, owns a variety of assets and manages its own funds. Those funds are managed strictly according to IRS regulations pertaining to charitable organizations. Those regulations are quite different than those used for the Club, a C corporation. It was formed to allow a means to accept charitable donations – either money or equipment – that can be listed as a deduction on the donator’s annual IRS tax return. The WSSF provides a detailed receipt for each donation, including an estimated fair market value of the article by a qualified appraiser for higher value items (currently $5,000 in 2020).

The WSSF is a companion organization to the WSSA and most of its functions seamlessly fit into normal WSSA operations. Like the Club, it has no paid employees. Its assets include several of the aircraft the Club uses, a portion of the Club hangar and a variety of equipment. It rents out its airplanes to the Club, rents out space in the Club hangar to private aircraft owners, conducts and collects fees for all commercial Demo rides and conducts all training for Club members. As part of its mission to promote soaring and aviation, it is responsible for all the free instruction of Club members and annually conducts hundreds of free flights for children and other worthy organizations such as CAP, JROTC, local schools, military clubs, etc. Club members are expected to help with these events!
3. CLUB OPERATING RULES AND PROCEDURES

Some of these rules are driven by FAA requirements, some by the Alamogordo - White Sands Regional Airport, some by the Club's insurance carrier and some by Club experience and common sense. In all cases, safety is one of the primary considerations.

Club operating rules and procedures are enacted by a vote of the Board and are effective until changed by the Board. Members are encouraged to provide input to the Board as to the usefulness or irrelevance of a particular rule. The rules below are not all-inclusive, but cover most day-to-day situations and are intended to balance the desires of the individual with the rights of the majority.

3.1 - Safety

Although we have a WSSA Training & Safety Officer, safety is everyone’s responsibility. All the rules and procedures in the world are worthless if people are not focused on the task at hand and observant of what is going on around them. As a Club member, you should never hesitate to point out unsafe actions to others, regardless of their "status". Likewise, you should never take offense if your own actions are critiqued. Egos are less important than the well-being of the Club members. Look out for one another!

3.2 - Operation of Club Aircraft

To fly a Club aircraft, you must be checked out by a Club CFIG for each model of aircraft (See Appendix B for a list of the current Club aircraft). In some cases, the Club and its insurance carrier's requirements are more stringent than the corresponding FAA requirements. Each aircraft has somewhat different performance and flight characteristics with which the pilot should be familiar.

The following general restrictions apply to Club aircraft:

- Operation by Club members only.
- Aerobatics (i.e. over the tops and rolls) are not permitted.
- Not to be used for commercial purposes other than WSSA Demos and sniffer flights.
- Demo and sniffer rides will only be flown by commercial and/or instructor pilots, preferably from the rear seat.
- Spins will only be conducted in the L-23 with an instructor on board.
- No passengers in the Club tow-plane during tows except for training.
- Solo flights by pilots without a glider rating must be supervised by a WSSA CFIG.
  - For initial solo flights, the CFIG will be on the ground with radio contact for the entire flight along with visual contact for takeoff and landing.
  - For follow-on solo flights, at the discretion of the CFIG, the CFIG may be either on the ground, flying in a glider or operating the tow plane.
  - Solo flights by pilots without a glider rating may not carry passengers.
3.3 - Ground Handling

Giders are among the most graceful flying machines ever devised but are incredibly clumsy when out of their element on the ground. They are giant kites with the same sensitivity to wind gusts and susceptibility to damage. The vast majority of damage to gliders occurs on the ground while being pushed and prodded by hasty handlers. It's expensive and totally preventable.

Always observe the following guidelines and take your time:

- First, use your common sense!
- Always ensure that there is clearance on the wingtips and horizontal tail when moving in and out of the hangar.
- Always ensure that there is wingtip clearance on all objects while towing.
- If towing with a rope, ensure that the glider can be stopped to prevent it from running into the cart.
- When parking the glider in preparation for takeoff, be aware that the aircraft will tend to weathervane into the wind. Ensure clearances will be maintained if that happens.
- Gliders will never to be left unattended on the airfield. If the aircraft is not hangared or properly tied down, someone must remain with the aircraft. Many gliders have been damaged or totaled by a chance gust of wind or dust devil.
- Glider canopies must always be closed and latched, or in hand. Do not leave the immediate vicinity of the cockpit with the canopy open. Canopies are easily broken by being slammed shut or opened by the wind and are very expensive to replace.
- The idea behind using a vehicle to tow the gliders around the airfield is to save energy. When towing the glider, put the wing wheel on the downwind wing. Slow down for turns.
- When moving the gliders around on the ground, make sure that enough people are available to check clearances and control the movement of the glider. There are innumerable dents and dings (hangar rash) on the gliders from running into doors, columns, vehicles, walls and who knows what else.
- Finally, use your common sense!

3.4 - Pre-Flight and Post-Flight Checks

It is the responsibility of the Pilot-in-Command to perform a thorough pre-flight check with the use of a checklist before operation. A positive control check and tow line release check will be accomplished before the glider’s first flight of the day. In addition, perform a post-flight check and log the operation time on the card in the ship. If something is not right, make a note on the card and notify the Club Maintenance Officer. If the ship is damaged, post a sign on the canopy immediately so that no one else inadvertently tries to fly it. Don’t assume that someone else will notice the problem.
3.5 - Airfield Operations

We are based at the Alamogordo - White Sands Regional Airport (ALM), a public airport primarily funded by the FAA and owned & maintained by the City of Alamogordo, New Mexico. We are also in close proximity to Holloman Air Force Base - a very active jet fighter training base located approximately 4 miles to the west. We need to be very aware of airspace boundaries and operating procedures used by other air traffic in the area.

Many other aircraft use ALM. There is no control tower. Be alert to incoming and outgoing traffic and realize that others may occasionally use a non-standard approach or departure and may not always announce their intentions on 122.80 Mhz.

3.6 - General Procedures:

- There are gates to control the access to the airfield. These are operated by magnetic key cards, which are available, at a small fee, from the Alamogordo Airport Manager's office (439-4110). Otherwise, you must either walk or call someone at the Clubhouse to let you in.
- Do not obstruct the taxiway, ramp or runway with gliders, vehicles or equipment.
- Park your vehicles in a manner where they will not interfere with the taxing/towing of aircraft from the taxiways between the hangars.
- When leaving the hangar area with a glider, turn the master power and radio on and monitor 122.80. Leave the radio on for the rest of the day to insure everyone on the ground can hear radio communications.
- When operating a vehicle on the taxiway to tow a glider, use a flashing beacon and have an operational radio in order to monitor and make radio calls.
- When walking out onto an active runway, make sure that you can hear radio communications and visually clear for traffic in every direction! Keep visually clearing as long as you are on the runway. Keep time on the active runway to an absolute minimum!
- When driving carts on the taxiways, stop on the edge or move off the taxiway for taxing aircraft. The exception will be with the Club’s towplane with proper coordination between the Tow Pilot and cart operator.
- Do not cut across Runway 22 Dirt with the carts. Stay on the paved surfaces to the maximum extent possible. If the situation requires off-surface driving, avoid the thorns!

3.7 - Launch Procedures:

- Pilots should complete all positive control checks and pre-launch checks prior to moving to the hold short line of the runway. They should be ready for hook-up at this time, in order to accomplish the maximum number of launch operations for the day as well as to not cause unnecessary idling of the tow plane engine. This is especially important in hot weather.
- After receiving a thumbs-up signal from the pilot, and before picking up the wing, wing runners should take a good look to ensure that there is no incoming traffic
before signaling the tow pilot to take up slack and begin the pull to the runway centerline. Incoming traffic on final for runway 22 is difficult to see below the skyline of the mountains to the northeast. Wing runners should always guide the glider in a gentle arc (no more than a 45° angle) to the centerline of the runway to avoid excessive side loads on the tow hook and wear on the tow plane brakes. The yellow painted lines on the pavement are a good reference to follow.

- When launching from runway 22 or 04 during warm weather or when there is little or no headwind, two-place ships and ballasted ships should use as much of the runway as possible. The glider pilot should consider carefully if density altitude justifies a longer takeoff distance. The tow pilot always has the final say on launching from anywhere other than the end of the field.

3.8 - In-Flight Procedures:

- Monitor 122.8 MHz when in the vicinity of the airport.
- Use 122.8 MHz to communicate with the tow plane and White Sands Ground.
- After release and away from the local area, 123.50 Hz can be used to communicate with other gliders.

3.9 - Landing Procedures:

- The standard glider landing pattern at ALM for runway 22 is a right-hand pattern. Power traffic uses a left-hand pattern. Conversely, the standard pattern for runway 04 is a left-hand pattern while power traffic uses a right-hand pattern. This helps keep the gliders and power traffic from encountering one another in the pattern by keeping them on opposite sides of the field.
- At the end of the day, the preferred place for gliders to land in the 22 direction is the dirt strip adjacent to the taxiway. It is not an "official" runway but is maintained by the airport maintenance crew as a courtesy. The main runway is, of course, available, but the taxiway should not be used except when there is no other alternative.
- Do not use 04 dirt, except in an emergency. People accessing the taxiway from the ramp in front of the Clubhouse will not be looking for or expecting a glider coming from their right, nor should they be. The potential for a mishap is real.
- If winds are not favorable for runways 22 or 04, use crosswind runways 16 or 34. A right-hand base turn to 16 and left-hand base turn to 34 are the preferred patterns. 16 and 34 should not be used for launch - they are too short and the dirt is damaging to the tow plane.
- Gliders decrease control effectiveness as they decrease speed in the landing rollout. Do not cross ground obstacles with the wings and beware of the effects of winds on the glider’s direction as the speed slows.
3.10 - Scheduling

The use of Club gliders is on a first come, first served basis. Glider time may be reserved by blocking out a 2-hour time slot on the online schedule. In general, multiple time blocks are not permitted except by special arrangement. If you cannot make the time you signed up for, call ahead and let people know. Primary student training, check rides and BFR’s are generally done in the morning until 12 noon, with the exception of advanced students who need instruction in thermaling technique.

The order of precedence for scheduling should be approximately as follows:

**Mornings:**

1. Practical Test for License (with examiner)
2. Training (with instructor)
3. Biennial Flight Review (with instructor)

**Afternoons:**

1. Regular Member Flying
2. Demo Rides

Every effort should be made to not impinge on the regular member afternoon flying. Courtesy and consideration for others is key to maintaining harmony. Work it out!
3.11 - Cross-Country Flights

Cross-country flight in a glider can be very rewarding but carries with it the risk of an off-field landing. Pilots should realistically appraise their skills at thermaling, speed to fly, field selection and short field landings before undertaking a cross-country flight.

While off-field landings can be done safely, pilots should keep the following points in mind:

- An airport is the safest place to land. Try to plan the task so that an airport is within gliding distance for as much of the flight as possible.
- It is impossible to judge with 100% certainty the suitability of the terrain for landing by viewing it from altitude and by the time you get a close look, you will be committed to land. A good way to appreciate this fact is to note a few possible landing sites during a routine flight, then go back later in your car and see how well your aerial impressions match reality. There are usually some surprises.
- The bottom line is that pilots must judge the suitability of the landing place themselves with less than perfect information and accept the consequences.

In addition to meeting the minimum requirements of Section 3.2, pilots also need:

- Ground Crew – You must enlist the help of a person or persons with a capable vehicle to tow a trailer to retrieve you, if necessary. The FOO is not the crew.
- Communications Plan – You and the crew need to have an agreed-upon plan to communicate during the flight and know how to properly disassemble and trailer the glider and reassemble it upon arrival back at the airport. The pilot is responsible to see that the trailer and necessary fittings are ready for use. It is not the responsibility of the FOO to help with this. A crew is a must. If the flight terminates at an airport, it may be possible to aero-tow the ship back to the home field, at normal tow rates plus hourly fees, provided it doesn’t impact normal operations and the tow pilot is willing.
- Flight-Task Plan – Post your instructor-approved task at the Clubhouse and let people know your intended task route, so they know when and where to look for you, if need be.
- Pre-Flight Paperwork & Official Observer for Badge or Record Attempts – If your flight is a Badge or Record attempt, you need an Official Observer who is familiar with the rules for FAI Badge flights to document your flight. The paperwork has to be accomplished prior to the flight and is an absolutely critical portion of the flight.
4. DUTY DESCRIPTIONS

4.1 - FOO (Flight Operations Officer)

The Operations Officer schedules the FOO on a rotating basis. The FOO’s function is to direct and assist Club flying operations at the airport. They should arrive at the airport prior to the first scheduled flight, or no later than 12 noon. If early training is scheduled, the instructor will notify the FOO in advance so they can be at the airport to help with the gliders and assist the tow pilot with tow plane.

The FOO must be fully competent in ground handling, launch procedures, signals, and airfield protocol, and make sure that any individual assisting with the launch of gliders is knowledgeable of procedures and is properly conducting such procedures. The FOO has the authority to halt operations if the situation warrants. Examples of this include deteriorating weather, unusually heavy traffic (such as fire-fighting tanker activity) or unsafe actions by Club members.

The FOO should, if not otherwise busy with operations, monitor the Clubhouse radio and greet visitors. The FOO is not the janitor, nor should the FOO be expected to assist with the retrieve of an off-field landing, unless it will not impact operations and the FOO is willing.

The FOO must remain at the airport until the last scheduled flight is complete and assist in securing the Club aircraft at the end of the day. In addition, he should ensure that there are no towropes, ground handling gear, trash or other artifacts of the day’s activity left on the airfield. One of his last duties of the day is to ensure that all items are in place on the shadow board. They may leave for a break if they have enlisted the help of a qualified person to fill in for them. If someone is still flying at the end of the day, the FOO should not leave unless someone is willing to stay and assist the pilots when they land.

*The FOO has the final say on airfield operations.*

4.2 - Tow Pilot

The Chief Tow Pilot schedules tow pilots on a rotating basis on Saturdays and Sundays. The tow pilot typically arrives at the airport before the first scheduled flying in order to preflight the aircraft. The first tow is usually at 1200 noon but may be sooner depending on training requirements. Prior to the first tow of the day, the tow pilot ensures that the aircraft has sufficient fuel and oil for the day’s tows and makes a pattern flight to warm up the aircraft to verify that all systems are operational.

The tow pilot is responsible for the safety of the tow. He assures that the pattern is clear and initiates the tow by announcing "glider tow in progress" and taxis onto the active runway with the glider. When the glider pilot gives the "ready" signal (rudder wag and/or radio call), the tow pilot starts the takeoff roll. Most tows are done at 75 mph (65 KIAS) but can be modified depending on glider requirements and tow plane cooling requirements.
Most tows are done in a racetrack pattern to the north of the airfield but can proceed to the mountains to the east after sufficient altitude is gained. When the glider releases, the tow plane banks left in a descending turn and reduces power. The tow pilot monitors CHT cooling rate to ensure that no engine shock-cooling occurs.

The tow pilot logs all glider tows noting glider, pilot, and release altitude. After all tows are complete for the day, the tow pilot completes the tow log, noting any maintenance issues and returns the aircraft to the hangar. He tow pilot will release the tow rope as the tow plane comes to a stop in front of its hangar parking spot. Do not release the tow rope on the parking ramp in front of the clubhouse! Roll up the tow rope on the plastic reel and place it on the shadow board at the appropriate spot.

The chief tow pilot is responsible for the checkout of new tow pilots. In accordance with FAR 61.69, all tow pilots are required to fly 3 flights every 24 months in either 1) a tow plane towing a glider accompanied by a qualified tow pilot or 2) as a PIC in a glider towed by an airplane.

*The Tow Pilot can and should refuse to tow anyone who is unprepared or unsafe!*

4.3 - Flight Instructor

WSSA flight instructors each maintain an FAA issued Certified Flight Instructor – Glider (CFIG) rating. Unlike all other FAA pilot ratings, a CFIG must re-certify their rating every other year. Besides instructing, our WSSA CFIGs ensure that all members conduct flight operations in accordance with all FAA, airport and Club regulations and procedures. They are not scheduled on a fixed rotation but make arrangements with students on an as-needed basis. Students can expect to fly with an assortment of instructors during their training. The WSSA CFIGs do not charge for their services but all tow costs are borne by the student.

WSSA CFIGs are available for the following duties:

- **Flight Instruction:** Ground and Flight instruction in accordance with the FARS for glider ratings
- **Supervision of Solo Students:** Persons without a glider rating must be supervised by a WSSA CFIG who is in the local area and in radio contact.
- **Check Rides:** Present candidates to the FAA Examiner for Practical Tests
- **Biennial Flight Reviews:** Perform flight reviews in accordance with FAR 61.56
- **Checkouts in Club Aircraft:** Administer written tests and check out Club members in various Club gliders
- **Backseat Checkouts in Club Two-Seat Aircraft:** Checkout pilots for flights from the backseat of each type of two-seat glider.
• **Badge and Cross-Country Training:** Will help pilots prepare for each.

• **Motorglider Checkouts and Add-Ons:** Will conduct self-launch checkouts in the motorgliders, if available.

• **Auto-Tow Launch Checkouts and Add-Ons:** Will conduct auto-tow launch checkouts during special auto-tow events.

• **Refresher Training:** Will provide any additional kind of training requested by Club pilots

*WSSA CFIGs are final arbiters of any member’s qualification to fly a Club ship!*

4.4 - **Aircraft Mechanic**

The Chief WSSA FAA certified Airframe & Powerplant Mechanic (A&P) is responsible for maintenance accomplished on all Club aircraft. However, that doesn’t mean that he accomplishes all the work! Besides using additional internal WSSA A&Ps along with non-WSSA commercial A&Ps, club members accomplish much of the maintenance work, either directly under the supervision of an A&P as his helper or, as owners of our aircraft, we are allowed to perform certain maintenance functions.

According to 14 CFR Part 43, Maintenance, Preventive Maintenance, Rebuilding, and Alteration, the holder of a pilot certificate issued under 14 CFR Part 61 may perform specified preventive maintenance on any aircraft owned or operated by that pilot, as long as the aircraft is not used under 14 CFR Part 121, 127, 129, or 135. This is our situation.

The following four points must be thoroughly understood:

• Authorized preventive maintenance cannot involve complex assembly operations.
• 14 CFR Part 43, Appendix A, Subpart C (Preventive Maintenance) provides a list of the authorized preventive maintenance work that an owner pilot may perform.
• The Chief A&P will determine who can perform the work satisfactorily & safely.
• The work must be properly documented in the appropriate logbook.

(Additional information is presented in Appendix C.)

All WSSA aircraft will receive an annual inspection during the month of January. In addition, the tow plane along with the gliders used for commercial demo flights will receive 100 hour inspections, as required, generally during the Summer. All members are expected to help the Chief A&P during these inspections by accomplishing tasks such as disassembly/assembly of the gliders, removal/installation of glider interiors, cleaning of the gliders and workspace, etc.

*The Chief WSSA A&P has the final word on all maintenance issues concerning all Club aircraft!*
FACILITIES AND SUPPORT EQUIPMENT

4.5 - Clubhouse & Bathroom

The Clubhouse is a gathering place for members and gets a lot of use. It needs attention now and then. If something is needed, go buy it and put the receipts against your bill. Treat it like your own house, unless you’re a slob, then treat it like your Mom’s place.

MAIN AREA

Swamp Cooler - Power switch near CB panel and water valve outside on hose bib. Make sure power and water feed is turned off at the end of the day.

Electric Fireplace and Heaters - Make sure they are turned off at the end of the day. Unplug any portable electric heaters.

Bed, Couches, Chairs & Tables - Clean them up when finished.

Paperwork & Aircraft Log Books - In lateral files under the counter to the left when entering the clubhouse. Be extremely careful with the aircraft log books – they are irreplaceable!

Computers - Make sure they are turned off at the end of the day.

Handheld Radios - Store in the charging shelf on the wall between the windows. All should be charging at the end of the day.

GPS Data Loggers - Stored near the old computer on window bar. Use the club’s GPS flight data logger or Volksloggers, purchase your own or use a smart phone app for verification of Badge claims and for recording flights to be submitted to the Online Contest (OLC).

Club Library - The Club has a library of soaring reference materiel at the Clubhouse, primarily donated by former member Howard Ebersole. If you borrow a book, please return it when you’re finished!

Trash - If the trash needs emptying, take it to the dumpster near the airport terminal.

KITCHEN AREA

Refrigerators - All drinks are bought using a separate, non-monitored fund. Additional beer is historically donated to the cause by any pilot flying his first solo or passing a checkride. Canned and bottled beverages are available for a fee. Water bottles are free but the expense can be kept down by refilling your personal bottle using the RO valve on the kitchen sink. Deposit the money in the box on the side of the refrigerator. Or keep a record of your own account on the side of the fridge & pay-up on occasion. The large
fridge by the sink is for soft drinks and food. The small undercounter fridge is for water. The large fridge by the computer is for beer. Don’t leave dead food inside any.

**Kitchen Utensils and Dishes** - Clean them and put away when you are finished.

**Coffee Maker** - If you use it, clean, turn off & unplug it at the end of the day.

**WSSA T-Shirts and Long Sleeve Shirts** - Stored below the counter next to the entrance. Take shirt and mark on the sheet for payment.

**BATHROOM**

**Water Shutoff Valve** - Accessible in the ground outside near hose bib. Must be turned off and water drained during winter cold-weather days.

**Hot Water Heater** - The switch is located on the wall by the bathroom window. Don’t turn it on unless you know water is in the heater and you really need hot water. Normally, keep it turned off.

**Shower** - Make sure hot water heater is filled with water and turned on prior to use.

**Sink & Toilet** - You know how to use them. Learn how to clean them. Practice both on a regular basis. Extra toilet paper and towels in cabinets above.

**4.6 - Hangar**

The Club hangar is used for the safe storage of the tow plane, gliders, golf carts and assorted equipment. Each aircraft and golf cart as well as most equipment items have specific storage spots. Have an experienced Club member show you how to move the gliders in and out. It is very easy to damage the aircraft because they are a tight fit.

**Aircraft** - Canopies should be closed and latched with side windows and vents shut with canopy covers in place. While the aircraft is out of the hangar, the canopy cover should be stored in the plastic bin to keep it free of dirt, dust and grime. If any gliders are in the hangar, at least one side of the hangar doors should remain closed to prevent wind from blowing through the hangar and moving the aircraft and equipment. At the end of the day, check that the doors are secured with pins, the shadow board is full and the lights are turned off. (See Appendix B for a list of the current Club aircraft).

**Golf Carts** - The electric golf carts are stored in the hangar and used to tow gliders to and from the launch point. Make sure that the amber beacon is on and a handheld radio is in place. Do not drive the cart over mesquite thorns on the dirt strip or other areas. The parking order from left to right (looking into parking area) should be: 1.) Family Model, 2.) Pickup, 2’ space for walking, 3 & 4.) remaining two carts. When plugging in, wiggle the plug and wait to ensure that the ammeter jumps up on the charger. At the end of the day, take handheld radios into clubhouse and throw away the trash.
Parachutes - The Club owns enough parachutes for the use of Club members and their guests flying Club ships. Get instruction in their use from your instructor. They should be treated with care, as they are susceptible to damage from excess sunlight, dirt and water. The safest place to store them is in the glider, never on the hangar floor or anywhere where they might be subjected to moisture or damage.

Batteries - Each glider has a battery to power the radio and instruments. The motor glider batteries are charged while still installed in the aircraft while the other glider batteries must be removed from the aircraft and charged at the battery charging area.

Tow Gear - Place all tow ropes, short ground tow ropes, 1-26 weak-links and tow rope grabbers on the shadow board. Place all tow dollys and wing wheels in the hangar somewhere near the appropriate aircraft while providing walking room.

Extra Tow Ropes, Tow Rope Rings & Glider Tape - Stored in a variety of spots under the shadow board.

Oxygen - We keep four 40-cubic foot cylinders of breathing oxygen in the hangar. Have the safety caps in place before moving a cylinder and use great care. All cylinders will be chained/roped/strapped in place. Replace the safety caps when finished. In addition, keep the hoses and fittings clean.

Have an experienced Club member show you how to fill the onboard oxygen cylinders. A full cylinder is approximately 2,200 PSI. Use all four cylinders using the lowest pressure cylinder first and the highest pressure cylinder last. Note the pressure reading (from the glider’s pressure gage) after using each cylinder and write it down in the proper place. This is the most efficient way to use the oxygen. You will achieve the highest pressure in the aircraft oxygen bottle while the club gets the most oxygen out of the cylinders.

Air Compressor - Use it to charge the air tank, fill tires and operate various tools.

Tools - The club has an extensive amount of hand and power tools. A rolling toolbox with tools for the tow plane is stored under the work bench near the tow plane. In addition, a portable drill is on the tow plane work bench since it is used on a regular basis for the tow plane. Otherwise, the vast majority of tools are either in the tool box or
behind, on or under the main work bench near the clubhouse. In addition, several table mounted power tools (i.e. drills, grinders, saws, etc) are near the main work bench area.

**Other Parts & Pieces** - Some equipment such as weights, cushions & extra parachutes are stored on the shelves near the golf carts. If you don’t know where an item belongs, ask someone or put the item either on the workbench or bar so it won’t get lost.

**4.7 - Glider Trailers**

The Club owns an assortment of glider trailers for transportation of Club gliders. They are specially fitted for each glider. They require a 2” tow ball on a vehicle with adequate weight and power to pull them. They should be thoroughly checked for proper operation of lights, condition of tires and current registration before use.

**4.8 - Glider Trailer Tie-Down Area**

There are 10 trailer tie-down slots in a semi-paved area with trailer balls anchored in concrete for the storage of glider trailers. Usage is first-come, first-served (The Club’s trailers are always first). If you use the area, you will be billed yearly from the Club as your share of the total cost of the land lease from the City of Alamogordo.

**5. INSURANCE**

The Club carries hull, liability and medical cost coverage. Copies of the policies are on file at the Clubhouse. We are covered for flights by Club members and their guests and sightseeing for hire (Demos). The following rules apply:

- Any person operating a Club aircraft must be a Club member, period.
- All passengers, guests and Demos alike, must fill out and sign a waiver of liability.
- Demo flights are insured up to a 25 NM radius from the Alamogordo Airport and must be piloted by a Club member with a commercial glider rating.
- No passengers are allowed in the Club tow-plane during tows, except for training.
- No more than two people, including the pilot, are allowed in the tow plane during any operation.
- In addition to meeting the requirements of the FARS, tow pilots must meet the terms stipulated in the Club’s insurance policy, which are more stringent than the FARS requirements. See the Club’s Chief Tow Pilot and the insurance policy for information.
- The pilot-in-command is liable for the costs of damage to club aircraft up to the current deductible amount. The deductible amount varies depending on recent insurance claims.
- If a pilot damages an aircraft, they are expected to help out with the repairs to the extent they are able and assist with transportation of the aircraft to a repair facility, if necessary. This includes arrangements with the shop doing the repairs and the Club’s insurance carrier. If damage to Club equipment occurs as the result of gross negligence or willful violation of the Club rules or the FARS, the Board may elect to take actions to recover the entire cost of the damage from the responsible party.
6. WAVE WINDOW

In order to take advantage of lee wave conditions that sometimes occur here, the Club has a letter of agreement with the FAA to operate gliders at 18,000 ft MSL and above when permission is granted by Albuquerque Center and HAFB RAPCON. The letter spells out procedures to open the window and conditions of its use. A copy of the letter, including a map showing the boundaries of the window, is available in Appendix D. Pilots must obtain proper instruction before attempting high altitude wave flight.

8. MISCELLANEOUS INFORMATION

Phone Numbers

Alamogordo Airport Manager (575) 439-4110
Alamogordo AWOS (575) 439-4112
Albuquerque Center (FAA) (505) 456-4500
Albuquerque FSS (575) WX-Brief
Albuquerque Soaring Club (505) 832-9921
Carrizozo Airport (575) 648-9996
Ed’s Flying Service (575) 437-4330
Exile Aviation (Fuel) (575) 437-2474
HAFB RAPCON (Radar Approach Control) (575) 572-5072
New Mexico State Police (575) 437-1313
WSSA Clubhouse (Leave message) (575) 434-2671

Radio Frequencies

Alamogordo CTAF 122.80
Alamogordo AWOS 127.825
Glider-To-Glider 123.50
HAFB Tower 119.30
Carrizozo CTAF 122.80
Albuquerque Soaring Club (Moriarty) 123.30
Moriarty CTAF 122.90

Member Phone Numbers and Addresses

A member list with phone numbers and e-mail addresses is published periodically and distributed via e-mail to all members.

The Club's Web Site: http://whitesandssoaring.net/

The Club’s Facebook Page: https://www.facebook.com/whitesandssoaring/
Appendix A: WSSA Aircraft

March 2020

Powered Aircraft

<table>
<thead>
<tr>
<th>Model</th>
<th>Make</th>
<th>Name</th>
<th>Tail #</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>C-150/180</td>
<td>Cessna</td>
<td>Tow</td>
<td>6484G</td>
<td>2 Seat Cessna 150 with 180 hp Engine</td>
</tr>
</tbody>
</table>

Gliders

<table>
<thead>
<tr>
<th>Model</th>
<th>Make</th>
<th>Name</th>
<th>Tail #</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>L-23 Super Blanik</td>
<td>LET</td>
<td>L23</td>
<td>6289</td>
<td>2-Seat Metal &amp; Fabric Trainer</td>
</tr>
<tr>
<td>SGS 1-26E</td>
<td>Schweizer</td>
<td>126</td>
<td>2505H</td>
<td>1-Seat Metal &amp; Fabric</td>
</tr>
<tr>
<td>G-102 Jeans</td>
<td>Grob</td>
<td>E4</td>
<td>7497</td>
<td>1-Seat Fiberglass High Performance</td>
</tr>
<tr>
<td>G-102 Astir CS</td>
<td>Grob</td>
<td>SS</td>
<td>155SS</td>
<td>1-Seat F-Glass High Perf / Ret Gear / H2O</td>
</tr>
<tr>
<td>G-103 Twin II Acro</td>
<td>Grob</td>
<td>MG</td>
<td>103MG</td>
<td>2-Seat Fiberglass High Performance</td>
</tr>
<tr>
<td>G-103 Twin II</td>
<td>Grob</td>
<td>JH</td>
<td>5364G</td>
<td>2-Seat Fiberglass High Performance</td>
</tr>
<tr>
<td>G-103 Twin III SL</td>
<td>Grob</td>
<td>ML</td>
<td>5094Y</td>
<td>2-Seat F-Glass &amp; Carb Comp / Motor Glider</td>
</tr>
<tr>
<td>G-103 Twin III SL</td>
<td>Grob</td>
<td>DL</td>
<td>493SL</td>
<td>2-Seat F-Glass &amp; Carb Comp / Motor Glider</td>
</tr>
</tbody>
</table>

Glider Uses

L-23        Primary trainer, initial solos, practice solos, spin training, checkrides and normal flying. Lend to CAP for glider camp.

1-26        Practice solos & normal flying.

E4 & SS     Normal flying, badge flights and cross-countries.

MG & JH     Secondary trainer, initial solos, practice solos, checkrides and normal flying.

ML & DL     Demo flights, normal flying, badge flights and cross-countries.

Glider Models

There are six models of gliders in which members must be checked out:

Model #1: L-23
Model #2: 1-26
Model #3: E4
Model #4: SS
Model #5: MG & JH
Model #6: ML & DL
## Appendix B: WSSA Dues & Fees

### March 2020

### Initiation Fee

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
<th>Fee</th>
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<tbody>
<tr>
<td>Normal</td>
<td>One-time – Good for life</td>
<td>$250</td>
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<tr>
<td>22 or Younger</td>
<td>One-time – Good for life</td>
<td>$125</td>
</tr>
<tr>
<td>Additional Family Member</td>
<td>One-time – Good for life</td>
<td>$125</td>
</tr>
<tr>
<td>TDY (Short-term)</td>
<td>Per TDY</td>
<td>$125</td>
</tr>
<tr>
<td>CAP Cadet</td>
<td>Up to age of 21 in L-23</td>
<td>Free</td>
</tr>
<tr>
<td>CAP Adult</td>
<td>Limited to L-23 with Cadet</td>
<td>Free</td>
</tr>
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### Soaring Society of America (SSA) Yearly Membership Fee

<table>
<thead>
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<th>Category</th>
<th>Description</th>
<th>Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal (including CAP Adult)</td>
<td>Prorated to 1 April</td>
<td>$75</td>
</tr>
<tr>
<td>22 or Younger</td>
<td>Prorated to 1 April</td>
<td>$42</td>
</tr>
<tr>
<td>Additional Family Member</td>
<td>Prorated to 1 April</td>
<td>$45</td>
</tr>
<tr>
<td>CAP Cadet</td>
<td>Free</td>
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### Monthly Dues

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<thead>
<tr>
<th>Category</th>
<th>Description</th>
<th>Fee</th>
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</thead>
<tbody>
<tr>
<td>Normal</td>
<td>Unlimited use of gliders</td>
<td>$85</td>
</tr>
<tr>
<td>22 or Younger</td>
<td>Unlimited use of gliders</td>
<td>$42.50</td>
</tr>
<tr>
<td>Additional Family Member</td>
<td>Unlimited use of gliders</td>
<td>$42.50</td>
</tr>
<tr>
<td>Members with Personal Glider</td>
<td>Rental of Club gliders</td>
<td>$30 /hr</td>
</tr>
<tr>
<td>CAP Cadets</td>
<td>Up to age of 21 in L-23</td>
<td>Free</td>
</tr>
<tr>
<td>CAP Adult</td>
<td>Limited to L-23 with Cadet</td>
<td>Free</td>
</tr>
</tbody>
</table>

### Tow Fees

<table>
<thead>
<tr>
<th>Description</th>
<th>Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal member to first 1,000’</td>
<td>$18</td>
</tr>
<tr>
<td>Additional 100’ increments ≤3,000’</td>
<td>$0.60</td>
</tr>
<tr>
<td>Additional 100’ increments &gt;3,000’</td>
<td>$1.00</td>
</tr>
<tr>
<td>Visiting SSA Member to first 1,000’</td>
<td>$36</td>
</tr>
<tr>
<td>Additional 100’ increments ≤3,000’</td>
<td>$1.20</td>
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<tr>
<td>Additional 100’ increments &gt;3,000’</td>
<td>$2.00</td>
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### Items for Sale

<table>
<thead>
<tr>
<th>Item</th>
<th>Price</th>
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<tbody>
<tr>
<td>Glider Pilot Log Book</td>
<td>$10</td>
</tr>
<tr>
<td>WSSA T-Shirt</td>
<td>$10</td>
</tr>
<tr>
<td>WSSA Long Sleeve</td>
<td>$25</td>
</tr>
</tbody>
</table>
Appendix C: Maintenance Aspects of Ownig You Own Aircraft
March 2020

The following FAA safety publication provides a summary of Advisory Circular (AC) AC 20-106, *Aircraft Inspection for the General Aviation Aircraft owner.*
Maintenance Aspects of Owning Your Own Aircraft
Introduction

According to 14 CFR Part 43, Maintenance, Preventive Maintenance, Rebuilding, and Alteration, the holder of a pilot certificate issued under 14 CFR Part 61 may perform specified preventive maintenance on any aircraft owned or operated by that pilot, as long as the aircraft is not used under 14 CFR Part 121, 127, 129, or 135. This pamphlet provides information on authorized preventive maintenance.

How To Begin

Here are several important points to understand before you attempt to perform your own preventive maintenance:

First, you need to understand that authorized preventive maintenance cannot involve complex assembly operations.

Second, you should carefully review 14 CFR Part 43, Appendix A, Subpart C (Preventive Maintenance), which provides a list of the authorized preventive maintenance work that an owner pilot may perform.

Third, you should conduct a self-analysis as to whether you have the ability to perform the work satisfactorily and safely.

Fourth, if you do any of the preventive maintenance authorized in 14 CFR Part 43, you will need to make an entry in the appropriate logbook or record system in order to document the work done. The entry must include the following information:

- A description of the work performed, or references to data that are acceptable to the Administrator.
- The date of completion.
- The signature, certificate number, and kind of certificate held by the person performing the work. Note that the signature constitutes approval for return to service only for work performed.

Examples of Preventive Maintenance Items

The following is a partial list of what a certificated pilot who meets the conditions in 14 CFR Part 43 can do:

- Remove, install, and repair landing gear tires.
- Service landing gear wheel bearings (for example, cleaning and greasing).
- Service landing gear shock struts (for example, adding oil, air, or both).
- Replace defective safety wire or cotter keys.
- Lubricate items not requiring disassembly other than removal of nonstructural items (for example, cover plates, cowling, and fairings).
- Replenish hydraulic fluid in the hydraulic reservoir.
- Apply preservative or protective material to components where no disassembly of any primary structure or operating system is involved, and where such coating is not prohibited or contrary to good practices.
- Replace safety belts.
- Replace bulbs, reflectors, and lenses of position and landing lights.
- Replace or clean spark plugs and set spark plug gap clearance.
• Replace any hose connection, except hydraulic connections.
• Replace and service batteries.
• Make simple fabric patches not requiring rib stitching or the removal of structural parts or control surfaces. (Note: For balloons, this includes making small fabric repairs to envelopes as defined in, and in accordance with, the balloon manufacturer’s instructions and which do not require load tape repair or replacement.)
• Replace any cowling not requiring removal of the propeller or disconnection of flight controls.

Sample Checklists

Propeller Check
Check the following items:
• Spinner and back plate for cracks or looseness.
• Blades for nicks or cracks.
• Hub for grease or oil leaks.
• Bolts for security and safety wire.

Engine Check
Perform the following tasks:
• Preflight engine.
• Run up engine to warm-up and check the following:
  • Magnetos for RPM drop and ground-out.
  • Mixture and throttle controls for operation and ease of movement.
  • Propeller control for operation and ease of movement.
  • Engine idle for proper RPM.
  • Carburetor heat or alternate air.
  • Alternator output under load (for example, landing light in “on” position).
  • Vacuum system (if installed) for output.
  • Temperatures (CHT, oil, and so on) within proper operating range.
  • Engine and electric fuel pumps for fuel flow or fuel pressure.
  • Fuel selector, in all positions, for free and proper operation.
• Remove engine cowling. Clean and check for cracks, loose fasteners, or damage.
• Check engine oil for quantity and condition. Change oil and oil filter; check screens.
• Check oil temperature "sensing" unit for leaks, security, and broken wires.
• Check oil lines and fittings for condition, leaks, security, and evidence of chafing.
• Check oil cooler for condition (damage, dirt, and air blockage), security, leaks, and winterization plate (if applicable).
• Clean engine.
• Remove, clean, and check spark plugs for wear. Regap and reinstall plugs, moving "top to bottom" and "bottom to top" of cylinders. Be sure to gap and torque plugs to the manufacturer's specifications.

• Check magnetos for security, cracks, and broken wires or insulation.

• Check ignition harness for chafing, cracked insulation, and cleanliness.

• Check cylinders for loose or missing nuts and screws, cracks around cylinder hold-down studs, and broken cooling fins.

• Check rocker box covers for evidence of oil leaks and loose nuts or screws.

• Remove air filter and tap gently to remove dirt particles.

• Replace air filter.

• Check all air inlet ducts for condition (no air leaks, holes, and so on).

• Check intake seals for leaks (fuel stains) and check clamps for security.

• Check condition of priming lines and fittings for leaks (fuel stains) and check clamps for security.

• Check condition of exhaust stacks, connections, clamps, gaskets, muffler, and heat box for cracks, security, condition, and leaks.

• Check condition of fuel lines for leaks (fuel stains) and security.

• Drain at least one pint of fuel from each fuel filter, each fuel tank sump, and any other aircraft fuel drain into a clean, transparent container to check for water, dirt, wrong type of fuel, and any other type of contamination.

• Visually check vacuum pump and lines for missing nuts, cracked pump flanges, and security.

• Check crankcase breather tubes and clamps for obstructions and security.

• Check crankcase for cracks, leaks, and missing nuts.

• Check engine mounts for cracks or loose mountings.

• Check engine baffles for cracks, security, and foreign objects.

• Check wiring for security, looseness, broken wires, and condition of insulation.

• Check firewall and firewall seals.

• Check generator (or alternator) and starter for security and safety of nuts and bolts.

• Check brake fluid for level and proper type.

• Lubricate engine controls: propeller, mixture, and throttle.

• Check alternate air source "door" or carburetor heat to ensure that the door has a good seal when closed.

• Check door operation.

• Reinstall engine cowling.

Cabin Check

Check the following items:

• Cabin door, latch, and hinges for operation and worn door seals.

• Upholstery for tears.

• Seats, seat belts, and adjustment hardware.

• Trim operation for function and ease of movement.

• Rudder pedals and toe brakes for operation and security.

• Parking brake.
• Control wheels, column, pulleys, and cables for security, operation, and ease of movement.
• Lights for operation.
• Heater and defroster controls for operation and ducts for condition and security.
• Air vents for general condition and operation.
• Windshield, doors, and side windows for cracks, leaks, and crazing.
• Instruments and lines for proper operation and security.

**Fuselage and Empennage Check**
Check the following items:
• Baggage door, latch, and hinges for security and operation; baggage door seal for wear.
• Battery for water, corrosion, and security of cables.
• Antenna mounts and electric wiring for security and corrosion.
• Hydraulic system for leaks, security, and fluid level.
• ELT for security, switch position, and battery condition and age.
• Rotating beacon for security and operation.
• Stabilizer and control surfaces, hinges, linkages, trim tabs, cables, and balance weights for condition, cracks, frayed cables, loose rivets, and so on.
• Control hinges for appropriate lubrication.
• Static ports for obstructions.

**Wing Checks**
Check the following items:
• Wing tips for cracks, loose rivets, and security.
• Position lights for operation.
• Aileron and flap hinges and actuators for cleanliness and lubrication.
• Aileron balance weights for cracks and security.
• Fuel tanks, caps and vents, and placards for quantity and type of fuel.
• Pitot or pitot-static port(s) for security and obstruction.

**Landing Gear Check**
Check the following items:
• Strut extension.
• Scissors and nose gear shimmy damper for leaks and loose or missing bolts.
• Wheels and tires for cracks, cuts, wear, and pressure.
• Hydraulic lines for leaks and security.
• Gear structure for cracks, loose or missing bolts, and security.
• Retracting mechanism and gear door for loose or missing bolts and for abnormal wear.
• Brakes for wear, security, and hydraulic leaks.
Functional Check Flight

Check the following items:

• Brakes for proper operation during taxi.
• Engine and propeller for power, smoothness, and so on during runup.
• Engine instruments for proper reading.
• Power output (on takeoff run).
• Flight instruments.
• Gear retraction and extension for proper operation and warning system.
• Electrical system (lights, alternator output).
• Flap operation.
• Trim functions.
• Avionics equipment for proper operation (including a VOR or VOT check for all VOR receivers).
• Operation of heater, defroster, ventilation, and air conditioner.

General

Perform the following tasks:

• Ensure that the aircraft is in compliance with all application Airworthiness Directives (ADs) and that compliance has been properly documented in the aircraft records. If the AD involves recurring action, know when the next action is required.

• Comply with recommended service bulletins and service letters. (Note: These are recommendations unless an AD requires compliance.)

• Ensure that a current FAA-approved Flight Manual or Pilot's Operating Handbook with all required changes is aboard and that all required placards are properly installed.

• Check that the Certificate of Airworthiness and Aircraft Registration are displayed. Check for an FCC radio station license, if required for international operations.

• Verify that all FAA-required tests involving the transponder, VOR, and static system have been performed and entered in the appropriate aircraft records.

Summary

It pays to take good care of your engine. Good maintenance is not cheap, but poor performance can be disastrously expensive.

If you are unqualified or unable to do a particular authorized job, you must depend on competent and certificated aircraft maintenance technicians to perform the job. Always use FAA-approved parts.

You can save money and have a better understanding of your aircraft if you participate in the maintenance process.
If you do some of your own preventive maintenance, do it properly. Make sure that you complete the job you start and that you make all the required record entries.

Money, time, and effort spent on maintenance pay off and ensure that your aircraft will have a higher resale value if you decide to sell.

Remember, a well-maintained aircraft is a safe aircraft. A safe aircraft needs to be flown by a competent and proficient pilot. Maintain both your aircraft and yourself in top-notch condition.

**Additional Reading**


**About This Series**

The purpose of this series of Federal Aviation Administration (FAA) safety publications is to provide the aviation community with safety information that is informative, handy, and easy to review. Many of the publications in this series summarize material published in various FAA advisory circulars, handbooks, other publications, and audiovisual products developed by the FAA and used by the FAA Safety Team (FAASTeam) for educational purposes.

Some of the ideas and materials in this series were developed by the aviation industry. The FAASTeam acknowledges the support of the aviation industry and its various trade and membership groups in the production of this series.

Comments regarding these publications should be e-mailed to ProductManager@FAASafety.gov.

Additional copies of this publication may be downloaded or printed at [http://FAASafety.gov](http://FAASafety.gov).
Appendix D: Wave Window Letter of Agreement

March 2020

The following Letter of Agreement is the most current between the Albuquerque Air Route Traffic Control Center & the White Sands Soaring Association (WSSA).
LETTER OF AGREEMENT

EFFECTIVE: XX/XX/XX

SUBJECT: Glider Operations in Class A Airspace-Sacramento Air Traffic Control Assigned Airspace (ATCAA)

1. PURPOSE: This Letter of Agreement establishes Sacramento ATCAA, defines responsibilities, and outlines procedures for glider operations scheduled by White Sands Soaring Association (WSSA) within controlled airspace.

2. CANCELLATION: Albuquerque Center; 49th Fighter Wing; and White Sands Soaring Association Letter of Agreement; Subject: Glider Operations in Class A Airspace (Sacramento ATCAA); dated September 28, 2009.

3. SCOPE: The provisions of this agreement apply to Albuquerque Air Route Traffic Control Center (ZAB), White Sands Soaring Association (WSSA), 49th Fighter Wing (RAPCON) and pilots operating in the Sacramento ATCAA as described in Appendix 1.

4. AUTHORIZATION:

   a. This letter of agreement authorizes pilot scheduled to operate in the ATCAA to deviate from the requirements of the following Federal Aviation Regulations (FARs) while in the area:

      (1) FAR 91.215(b)(4), aircraft equipped with Mode 3A 4096 code and Mode C automatic pressure altitude reporting capability.

      (2) FAR 91.205(d) and (e), equipped with instruments and equipment for instrument flight.

      (3) FAR 91.135(a)(3), flown by a pilot rated for instrument flight.

      (4) FAR 91.135(a)(4)(ii), aircraft equipped with a radio providing direct pilot/controller communications, as follows: Aircraft operating in the ATCAA shall have an operative two-way radio capable of communicating with the WSAA operations office on 123.5. When operating above FL260, at least one aircraft must be in direct communications with ZAB on 132.65.

5. RESPONSIBILITIES:

   a. ZAB shall:

      (1) Ensure all applicable operational personnel providing air traffic services are knowledgeable of and adhere to the provisions of this agreement.

      (2) Ensure non-participating IFR aircraft are provided separation minima from the designated airspace during the approved time period.
b. The WSSA shall:

(1) Ensure each pilot operating under this agreement adheres to the provisions specified.

(2) Ensure pilots comply with applicable Federal Aviation Regulations (except for deviations authorized in paragraph 4.a(1-4).

(3) Ensure pilots are sufficiently familiar with local terrain features so flight is contained within the ATCAA by visual references to the ground.

(4) Ensure pilots fly in the ATCAA in VFR conditions in accordance with FAR 91.155.

(5) Ensure pilots fly in the ATCAA only at altitudes and times approved for use.

(6) Ensure the WSSA President reviews this Letter of Agreement annually with the WSSA membership.

c. The RAPCON shall:

(1) Ensure all applicable operational personnel providing air traffic services are knowledgeable of and adhere to the provisions of this agreement.

(2) Ensure non-participating IFR aircraft are provided separation minima from designated airspace during the approved use-time period. d by ATC, stating the reason and the estimated time periods.


d. Glider Pilots shall assume responsibility for separation between gliders when the area will be used by more than one glider.

7. PROCEDURES.

a. Airspace Coordination.

(1) The WSSA shall coordinate with the RAPCON at (575) 678-8000 at least 1 hour in advance for operations in RAPCON’s airspace. The RAPCON shall coordinate with the Holloman Control Tower prior to approval to ensure activation of the ATCAA will not adversely affect Holloman AFB local flying commitments.

(2) If approval is obtained from the RAPCON, WSSA shall contact ZAB’s Southeast Operations Supervisor (OS), at (505) 856-4573 at least one (1) hour, but not more than three (3) hours in advance of the intended beginning time. The request shall specify:

(a) Approval has been obtained from the RAPCON

(b) Altitudes and times requested

(c) Telephone number of WSSA (575) 434-2671 and the POC phone number for the day. WSSA will ensure personnel are available to respond to phone calls from
RAPCON/ZAB any time after authorization to use the ATCAA is given until the end of approved time period.

(d) If RAPCON is closed. WSSA shall coordinate ATCAA operations directly with ZAB Southeast OS at least one (1) hour in advance. In-flight requests may be approved on an individual basis.

(3) Within one (1) hour of the request, ZAB will either provide an approval, approval with restrictions (altitudes/times) or disapproval to the RAPCON and WSSA. Use of the ATCAA will be restricted/disapproved if R-5109A, R-5103C, R5107F/G or the Beak MOAs are scheduled by the using agency. Final approval for operations in the ATCAA is at the discretion of ZAB.

(4) WSAA shall notify the Southeast OS at (505) 856-4573 and the RAPCON at (575) 475-3421 when the first aircraft enters and the last aircraft exits the ATCAA.

b. Aircraft Operations.

(1) The Tow aircraft shall squawk beacon code 1227, unless otherwise coordinated or assigned.

(2) Pilots shall enter and exit the ATCAA through the “floor” of the area and within its horizontal boundaries. Entry/exit takes place when the climb/descent is made through FL180. Pilots shall report entering and exiting the ATCAA to WSSA on 123.5.

(3) For approved glider operations at or below FL 260, pilots shall maintain two-way radio communications with either WSSA on 123.5 or ZAB on 132.65. Once established in the ATCAA, pilots monitoring WSSA on 123.5 shall make radio contact with WSSA every 15 minutes. If contact is not maintained with ZAB or WSSA, the pilot must vacate the ATCAA.

(4) For glider operations above FL260, at least one aircraft shall be in direct communications with ZAB on 132.65. This aircraft will remain in contact with ZAB until all aircraft have descended at or below FL260 and shall report when the use of that airspace is terminated. All other aircraft operating above FL260 must comply with the procedures in paragraph 4.a.(3).

(5) In-flight requests for a change in pre-coordinated assigned altitudes and/or times of ATCAA usage may be approved on an individual basis, but only for aircraft capable of direct communications with the RAPCON on 120.6 and ZAB on 132.65. Requests shall be made with the RAPCON, who will coordinate with ZAB.

c. Airspace Recall. In the event, ZAB must withdraw approval for use of the ATCAA, ZAB will notify WSSA via telephone of the revised end time. The new end time shall be no sooner than 30 minutes from the time WSSAA is notified to implement the recall. In the event, RAPCON must withdrawal approval for use of the ATCAA, the RAPCON will notify ZAB and ZAB will coordinated as outlined above.
8. APPENDICES.

   a. Appendix 1 – Sacramento ATCAA

   b. Appendix 2 – Point of Contacts (POC)

<table>
<thead>
<tr>
<th>Leonie San Miguel</th>
<th>Colonel Joseph L. Campos</th>
</tr>
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<tbody>
<tr>
<td>Air Traffic Manager</td>
<td>Commander</td>
</tr>
<tr>
<td>Albuquerque ARTCC</td>
<td>49th Fighter Wing</td>
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<tr>
<td>Albuquerque, New Mexico</td>
<td>Holloman Air Force Base, New Mexico</td>
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<table>
<thead>
<tr>
<th>Trever Perkins</th>
<th>Lance Grace</th>
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<tbody>
<tr>
<td>President</td>
<td>Chief - Certified Flight Instructor for Gliders</td>
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<tr>
<td>White Sands Soaring Association</td>
<td>White Sands Soaring Association</td>
</tr>
<tr>
<td>Alamogordo, New Mexico</td>
<td>Alamogordo, New Mexico</td>
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NOTE: Lat/Long Coordinates are in degrees, minutes, seconds format (xx°xx 'xx")
## APPENDIX 2

### POINT OF CONTACTS

<table>
<thead>
<tr>
<th>Point of Contact</th>
<th>Abbreviation</th>
<th>Phone Number/Email</th>
</tr>
</thead>
<tbody>
<tr>
<td>Albuquerque ARTCC Southeast Operational Supervisor</td>
<td>SE OS</td>
<td>(505) 856-4573</td>
</tr>
<tr>
<td>Albuquerque ARTCC Airspace &amp; Procedures</td>
<td>ZAB APO</td>
<td>(505) 856-4533 Support Specialist (505) 856-4530 Manager</td>
</tr>
<tr>
<td>White Sands Soaring Association</td>
<td>WSSA</td>
<td>(575) 434-2671 Club House (757) 816-6633 Trever (Pres – WSSA) (575) 491-4260 Lance (CFIG – WSSA)</td>
</tr>
<tr>
<td>Holloman 49th OSS/OSOS Scheduling</td>
<td>HMN 49OSS/OSOS</td>
<td>(575) 572-3536 <a href="mailto:49OSS.osos.Ops.Scheduling@us.af.mil">49OSS.osos.Ops.Scheduling@us.af.mil</a></td>
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