

Sky Sailing

31930 Highway 79 Warner Springs Ca 92086
(760) 782-0404 Fax 782-9251

e-mail soar@skysailing.com
www.skysailing.com

Safety Is No Accident



Steps To A Perfect Check Ride

1. Schedule your check ride at your EARLIEST CONVENIENCE. Contact Polly Ridgway, the Flight Test Examiner, here at Sky Sailing. Please schedule directly with Polly after approval from your instructor.
2. Contact Polly the day before your check ride for your Cross Country assignment (if required)
3. Get a Soaring Weather Briefing on the morning of your Flight Test. You should call FSS or National Weather Service 1-800-WX BRIEF. Ask for a Soaring Briefing and standard briefing for your cross-country. You should use the Internet and get appropriate charts & weather maps. Prepare a Stability Chart for the day.

This is the first flight you will have where YOU are carrying a passenger, (the examiner), and are acting as pilot-in-command (you will log it as PIC). Good judgment is even more important to the examiner than the mechanics of your flying. If the winds are stronger than you want, then fly another day. You are already under enough stress; your flight will show this, pick a better day. You might have to do the oral portion one day the flight on another.

WHAT TO BRING

- Current Los Angeles Sectional Chart
- Weather Briefing (NWS, FSS, & Stability Chart)
- Current Student Certificate with X-C signed off or Pilots License.
- Logbook With CFI Recommendation
- Written Test Results (Unless this is an Add-On rating of the same grade)
- Completed Application Form 8710, with CFG sign-off
- 2-33 or Appropriate Manual
- Check or cash for flight test fee
- Calculator and plotter
- Scratch paper
- Pen and pencil
- Verify Aeronautical Experience

HOMework

- o Computation of a Weight & Balance Problem from log & Placards.
- o Complete Weather Briefing NWS, FSS, Internet
- o Prepare Pseudo-adiabatic Chart
- o Determine: Trigger Temp, Thermal Index, and Max thermal height
- o Draw a profile of a WAVE and Ridge Lift
- o Complete Cross Country Problem
- o Prepare Emergency Procedures
- o Prepare a list of Equipment you would need for a Cross Country

THE ORAL

CERTIFICATES, DOCUMENTS AND FAR's

- Private Pilot Certificate, Privileges & Limitations
- Biennial Flight Review
- Required Documents in Glider (ARROW)
- Currency Requirements for carrying passengers
- 100 hour and Annual inspections for aircraft
- Maintenance as a Private Pilot
- Preventive Maintenance
- Medical Statement
- Personal pilot logbook or flight record
- FCC Station license and operator's permit
- See SSWS Handout: FAR's FOR GLIDER PILOTS

AERODYNAMICS

- Straight glides, 3 forces on glider
- Turning flight, resolution of forces
- 5 Undesired Side Effects of a turn
- Relation of Undesired Turning Effects to Airspeed
- Slip vs Skid, purpose of rudder
- Spin vs Spiral Dive
- Effects of Water Ballast
- Interpreting performance curves & limitations
- Speed-to-fly
- Effects of flaps, both positive & negative
- Compute Weight and Balance. Explanations of: Over Gross? Aft CG? Forward CG? Movement of Center of Pressure vs CG
- Relation of CG to stability and performance

APPROACHES

- Cross wind takeoffs, 3 phases
- Cross wind landings and pattern
- Downwind landings
- Off-field landings. Field selection and pattern
- Landing into very strong winds / x-winds
- Ground Handling in medium & strong winds

LOCAL PROCEDURES

- Noise abatement rules
- Class B, Mode C Vail, minimum equipment and ground references
- Tow signals (International and Local)
- Ground handling (normal and strong winds)
- Runway length /elevation /winds /density altitude /glider

SYSTEMS & EQUIPMENT

- Flight manual, equipment list
- 3 Types of Oxygen Systems and Limitations, PRICE checklist, Airspeed Indicator IAS, TAS, Density Altitude, Colors, Connections, lag, INOP
- Altimeter, effect of temperature/pressure variations. Lag, Connections, INOP., Indicated, True, Absolute, Pressure, and Density Altitudes
- Variometers: Mechanical, Electrical, Total energy and Netto Compensation. Connections, and Lag
- Magnetic compass: Variation, Deviation, Turning Errors. ANDS
- Gyroscopic instruments
- Electrical system
- Landing gear
- Avionics
- Yaw string
- Inclinator
- Glider Assembly & Disassembly
- Parachutes: Landing, Repacking, Care, Requirements
- Equipment essential for: High altitude, long distances, varying terrain, and in changing climatic conditions.

WEATHER AND LIFT

- Reports & Forecasts (winds aloft, area & terminal)
- Weather charts (surface analysis, weather depiction, radar summary, significant weather prognostics, winds and temperatures aloft, stability and freezing charts)
- Pilot weather reports
- SIGMET's and AIRMET's
- Notices to Airmen
- Wind-shear reports
- Pressure and Temperature lapse rates
- Atmospheric instability
- Prepare a pseudo-adiabatic chart
- Stability
- Thermal production
- Cloud formation and identification
- Frontal Weather (warm front vs cold front characteristics)
- Thunderstorms (formation & hazards)
- Advantages and Cautions of Mountain Soaring
- From weather briefing predict the possibility of ridge, thermal & wave at Warner Springs Airport
- Ridge, Thermal and Wave Flying Techniques. Including knowledge of ridge rules and draw an accurate profile of Ridge & Wave.
- Risks associated with each type of lift
- Dolphin flying, 270° correction, thermal centering, 8's on ridge, holding position in wave - Go - No Go decision

CROSS COUNTRY

- Pilotage (true course, magnetic course, distance, course line, prominent checkpoints)
- Current charts: Class B, Sectional, WAC
- Route of Flight for likely lift - Alternate airports & available landing areas
- Go, No-Go circles (to assure airport landing) with minimum return altitudes clearly marked [5 & 10 mi circles]
- Flight profile on graph paper. Effects of Wind
- List of Equipment
- Assembly and Disassembly
- Water Ballast
- Crossing Ridges
- McCready Speed Ring

AIRSPACE

- Class A High Altitude area (wave window)
- Class B Minimum equipment, pilot license requirements, verbal contact
- Class C Minimum equipment, pilot license requirements, verbal contact
- Class D Minimum equipment. Air Traffic Control, verbal contact
- Class E VFR minimums, cloud clearance
- Class F Not used in the United States
- Class G VFR minimums, cloud clearance
- TRSA: Minimum equipment and requirements
- Special Use Airspace: MOA, Restricted, Prohibited, Warning, Alert, MTR's
- Details on Aeronautical Charts (Airport information. Airport classification, landmarks, obstructions, radio aids, misc.)

PHYSIOLOGICAL

- Hypoxia - Hyperventilation
- Middle ear and sinus problems
- Spatial disorientation
- Motion sickness - Dehydration
- Carbon monoxide poisoning - Smoking
- Over the counter drugs - Drugs / Alcohol
- Exhaustion
- Scuba Diving
- Personal GO/NO GO decision
- Personal attitude

FLIGHT TEST MANEUVERS

FOR PRIVATE AND COMMERCIAL

- Normal or Crosswind Take off
- Maintain Tow Positions
- Box the Wake, and up/down through prop wash
- Recovery from slack line - Determining winds aloft
- Tow to a goal (Altitude over point)
- Abnormal Aerotow Occurrences (rock off at any altitude)

- Imminent stall straight and in turns to the left and right (perhaps with spoilers and remain in the turn after recovery)
- Calibrate your ASI
- Clearing turns followed by full stall straight, turning stalls left & right
- Maneuvering at Minimum Controllable Airspeed straight, turns 90° left & right
- Hold constant speed and cycle spoilers (open & closed)
- Turns to headings
- Minimum Sink Airspeed
- Speed to Fly
- Steep 720 degree turns (45° bank) left & right

- Traffic Pattern
- Normal or Crosswind Landing
- Slip on Final Approach
- Land beyond a predetermined spot and stop with the nose within but not beyond 200 feet of a mark.

ADDITIONAL FOR COMMERCIAL

- Steep Spirals
- Steep 720° turns (60° bank) left & right
- Recovery from unusual attitudes
- Best Glide Airspeed
- Simulated Off Airport Landing
- Downwind Landing
- Land beyond a predetermined spot and stop with the nose within but not beyond 100 feet of a mark

NOTES:

1) The examiner must test your ability to deal with an aerotow emergency. Normally, you will simulate a rope break at low altitude, but if conditions do not allow this (heavy traffic, strong wind, etc.) watch for the tug to give you an emergency rock off signal at any altitude.

2) You may be asked to recover your imminent turning stalls as you would when thermaling, to a turn. Keep the bank constant and coordinated as you approach the buffet.

3) Slow flight or MCA, should be slow enough that 20° of bank will cause a buffet. However, at MCA you need to slightly increase your airspeed in a turn and return it when level. One technique is to allow the wing to touch the horizon and no more - Remember overbanking tendency is stronger in slow flight. WHY??

4) Most applicants have difficulty with full turning stalls. The 2-33 lacks enough elevator authority to give a crisp break from a turning stall if the bank is greater than 15 ° and the glider is being flown dual (forward e.g.). You must not allow the bank to steepen as the glider is being slowed to a stall. Remember, overbanking tendency intensifies as the speed decreases because the relative speed difference between the wings increases as the turning radius decreases. Increasing opposite aileron is necessary to hold bank constant!

5) For Steep turns, begin at proper entry speed with glider trimmed. Roll smoothly to 45° or 60° bank and hold pitch. Then, remember AIRSPEED IS BEST CONTROLLED WITH BANK. If you're a little fast take off a few degrees of bank and vice versa. What is the proper entry speed? To simulate thermaling, we will fly at minimum sink speed. Recall that minimum sink increases 40% in a 60° bank turn just as stalling speed does. Level flight minimum sink is 42 and $42 + 40\% (42) = 60$ approximately. Use 60 MPH for your steep 60° bank turns, 50 mph for 45° bank. You must adjust ALL speeds for the instrument error.

6) One final note, plan a normal pattern; even though a slip is required on final. A gentle (non-altitude intensive) slip is fine. If you plan high, you will probably be very high.

7) The hardest part of the flight and oral test (Practical Flight Test Standards) is not letting your nervousness win out. You feel like you are under intense pressure, but you must RELAX and learn! You will miss a few answers that you know and your flight will be one of your worst! If you are safe during all this - You will be a safe pilot. Remember: a pilot flies by attitude - Yours and the nose of the aircraft. Plan safety & you will be... Do not fly if you would not be comfortable to take your Mom as a passenger, ie use good Judgment. Do not be swayed by your own desire to finish your license. It has taken a long time to get here, a few days one way or the other will make no difference!

GENERAL GUIDELINES FOR YOUR FLIGHT TEST

MAKE A COMPLETE AND THOROUGH PREFLIGHT INSPECTION

- Check for ALL required documents
- Compute gross weight and CG location from weight & balance documents of glider to be used. And check placarded weights
- Check currency of 100 hour and Annual inspections from logbooks.
- Be aware of aircraft's weak points, ie. for a 2-33 the aileron hinges may not have more than 1/4 in crack without a stop drill hole. How many springs are needed in the spoilers? How many are required to fly?
- Inspect the sailplane as though your life depends upon it!
- Make a positive control check.
- Brief passenger (examiner) on seat belts and any special instructions ie help watch for traffic, release handle, etc.
- Check the tow rope

USE GOOD GROUND HANDLING PROCEDURES

- Keep the downwind wing low when moving the glider. If you have an assistant, have them hold the upwind wing low. Always get an assistant if the winds are strong or gusty. Consider the day for the departure point (wind, tow plane, density altitude, and sailplane)
- Don't skid the tailwheel sideways if it doesn't swivel
- Put the glider away by pulling from the inboard leading edge of the downwind horizontal stabilizer
- Think that the wings are constantly growing. Therefore, you must check both tips constantly

CONSIDER THE WIND CONDITIONS

- From the windsock, your forecast winds aloft data and the electronic indicator in the office consider the effect of the wind on your entire flight prior to takeoff. This would include takeoff, emergency procedures, practice area, relative glide angles in various directions, entry, downwind, base, final and selection of your aim point and roll-out.

CALL CHECK-LISTS OUT LOUD

- Be sure to consider emergencies prior to takeoff
- Call out 100' and 200' (tap next to the altimeter NOT on the glass) during launch and note alternate fields to be used in the event of a rope break.

BE READY TO GO WHEN THE TOWPLANE IS READY TO GO

- Don't let this compromise your checklist
- Ask the rear seat occupant, "Are you ready for takeoff?"

SAVE THE SKID

- Get the nose up early to takeoff attitude. Remember, the nose is harder to raise when you are flying dual.
- Keep the nose up as long as possible during landing.
- Stop with the stick full back.

STAY VFR

- Remember to stay at least 500' below any cloud and at least 2000' to the side. Don't get caught on top!

DON'T BUST THE 30 mile TCA VAIL

- Remember the tow plane does not have a transponder.

CONSIDER WINDS ALOFT / YOUR RELEASE LOCATION

- Remember winds aloft can be 180 degrees different from surface winds.
- What are the forecast winds aloft?
- On tow, how strong is the drift and in what direction? Are actual winds different than forecast? Should I change my location of release?

RELEASE OVER A PREDECLARED LOCATION AND ALTITUDE

- Clear BOTH left & right (for you and the tug) prior to your release and tap next to the altimeter. Be precise, if desired release is 4000', don't release at 4100'.

CALL ALL TRAFFIC

- Vigilance deserves as much attention as control of the aircraft.
- Use the clock system and decide early if traffic is a factor.
- Clear all turns by looking BOTH DIRECTIONS, looking in the direction of the turn last. (You should see your own tail in both directions)

IN GENERAL, RECOVER ALL MANEUVERS TO WINGS LEVEL MINIMUM SINK ATTITUDE EXCEPT STALLS TO L/D ATTITUDE

FINISH YOUR LANDING CHECKLIST EARLY (BY 1200')

- Call out your landing checklist

30° BANK TURNS IN THE PATTERN

TURNS OF MORE THAN 90° HEADINGS SHOULD NEVER BE MADE EXCEPT FOR CRAB CONDITIONS

NO SPOILERS IN PATTERN UNTIL ON BASE, UNLESS IN LIFT.