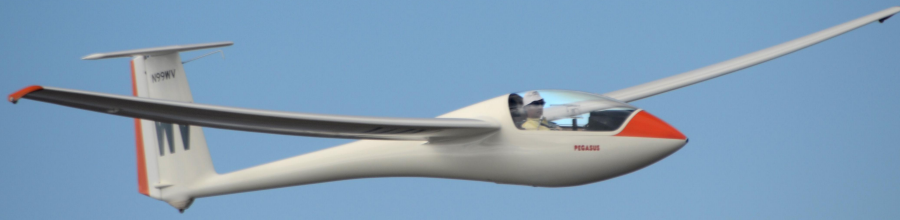


SKY LINES

MONTHLY NEWSLETTER OF SKYLINE SOARING CLUB, DECEMBER 2012



Masthead photo by Dick Otis

Ready and waiting

Skyline Gliding Club gliders ready for their next tow



Photo by Dick Otis

Waggle the rudder?



Photo by Dick Otis

Flying Aerobatics in the MDM Fox

By Douglas Hiranaka

Williams Soaring Center

Isn't aerobatics and gliding an oxymoron? You are throwing away energy at a fierce rate. On the other hand aerobatics includes the discipline of energy management. You are constantly keeping track of your energy state because all aerobatics planes including the monster airshow planes lose energy every time you perform a maneuver. Now, controlling a aircraft for precision figures is completely different than trying to stay up in the air using rising air. I fly aerobatics with precision but am a novice at getting from point a to point b in a glider. I decided to expand my skills in control of an aircraft by doing a checkout in glider aerobatics.

Only a few places in the United States rent acro gliders and teach the required skills. I went to Williams Soaring Center in Williams California today because they are one of the places that has and does both. It is a 2 hour drive from Cupertino where I have been staying. Why do acro in a state known for its soaring conditions? The forecast was for flat conditions all over the state so if I take a sled ride it might as well be in a terrible glider?!? That for me means aerobatics. A acro capable glider tends to have short wings (for a glider) and limited glide ratio ~28:1. But for acro all that means is slightly less sink rate.

I arrived about 10:00am after the long drive and knew that I would be there most of the day so I ate a burger and drove across the freeway to the gliderport. This is a privately owned and run commercial operation with newer high end trainers ASK21 and DUO Discus and high end racing 15m ships for rent. You can get a check out in the single seaters but it may take a couple flights in their K21 to make sure you will treat the ship well. I arrived without reservations so the K21 was booked all day for training flights. This is usually their intro acro ship. I asked about the MDM2 Fox visible in a open shelter and they said that it is usually for checked out pilots. I talked with the instructor Greg and he looked over my log books. The variety of gliders I have flown, having 1/3 of my own ship and 250 hours of power acro time said I should have no problem with the Fox. The difficulty was that the Fox is experimental so they can't instruct in it but I could rent the glider with a instructor for a regular "checkout" and just happen to do acro while he is in there with me being the PIC.

I emptied my pockets of change and keys (a quarter in the control linkage will ruin your day). After looking through the whole rack of parachutes to find a couple of recently packed rigs I inspected the harness and pack for wear and packing seals. Satisfied with the parachutes we strolled 100yards out to the glider shelter to look at the plane. First thing I notice is the short wings: 13m and 7/8 span ailerons with lots of hinges 6 each side. The next is the really thick and short fuselage, then the 4" thick vertical stab and huge rudder, then the long horizontal stab about 25% longer than standard and 1/2 chord elevator both the rudder and elevator have huge aerodynamic balances. The fuselage stands on a really tall fixed an faired main wheel with the cockpit sills about 18" higher than the "K". I put my chute on and climbed into the front cockpit to try the cockpit on and adjust the rudder pedals. There are the standard two lap belts (having a lap belt come loose is a emergency in a acro ship!). You sit about as reclined as my DG which is pretty flat. The pedals fit so no adjustments were made. I made sure I knew where all the gauges were and I could reach the rado knob and release handle. The stick and spoiler handle are

wood an look shaped like something out of a fighter (not that I know anything about that).

After the walk around we untied the wings and tail and pulled the glider out of the shelter. It seems to weigh between a single seat ship and a two seat trainer. Greg warned me that the ailerons were really sensitive. We pulled the glider out most of the way to the runway and angled it about 15 degrees to the runway heading. Taking our time to put the chutes on and get all the buckles on in the right order we closed the canopies and did the pre take off check as the wing runner hooked us up angled to the runway. After we were hooked up the Pawnee took up slack without the brakes out on the glider. Without any delay I waggled the rudder and we started angled to the runway. About the time we straightened out the glider was off the ground. There are lots of rice fields around and a group of pinnacles in the middle of the valley so staying oriented was easy. The 6,000ft tow took a while but the air was dead calm making the tow comfortable. The "sensitive" ailerons were not quite as responsive as a light power plane. The ship tows well (nose hook) but not as nice as a trainer or a single place ship. 6,000 feet up and a standard left and right check then release and right turn. Nice response on the ailerons but not sensitive.

We started right off with stalls (the left wing is heavy in the break even with right rudder and aileron to try to stay level). Then I started on 3 consecutive loops nose down 30 degrees, 110 indicated then a slightly aggressive 4g pull and the rest felt normal to a power pilot. The one loop into another was new. Just keep into the down leg until 110 shows again then pull again. The glider view was new with looking left as the nose comes up normal then looking through the canopy as I floated zero g over the top was novel. After the loops I attempted my first roll with too much rudder over the top resulting in a 1/4 snap leaving me 90degrees off heading in a spin so I centered the stick and recovery rudder and the ship popped right out of the spin. Note to self: the spin recovery is normal the speed doesn't pick up any faster than a power ship (under power) but remember to center the rudder over the top. So 90degree left turn to line up with the pinnacles and try again: 80 mph, nose up 15 degrees and stick left. Better but still too much rudder and I feel the ship shudder then break just before I finished the roll. Ok recover again and set up for another try. Mtn. 80 mph, nose up then stick over with just enough rudder to center the string then off the pedals and voila a glider roll!

Then came the strangely difficult (for a power pilot) wing over/hammer head turn. So 80 mph, nose up 75 degree, smooth aileron and rudder and the wind gets really quiet as the glider floats through the top and I end up 90 degrees off heading again in another spin. 1/4 turn and recover, some words of new things to try from Greg then just like the rolls it took 3 tries to figure out the control inputs.

Time to land. Pattern looks normal. They prefer only a 45 and downwind call "35ZZ on..." the paved part of the runway has two aim marks 1/2 way up and is about as wide as the Pawnee landing gear. I am guessing that this used to be a crop dusting field at one time. The spoilers are really effective and I never used more than 1/2. The touchdown and roll out was normal.

I was feeling a little queasy after the consecutive loops and hammer overs so I took a break. While waiting for my g induced headache to ease I talked to a local master soaring pilot. The conversation will be another article but he verified lots of things I have wondered about in soaring.

Second flight I nailed the loops, rolls and wing overs so we moved on to two point rolls and inverted flight. Been a while since I have been hanging from the straps. Nice to be back. If I were to come

back out to the field I am checked out for all the maneuvers that I flew which was my goal: Fly well enough to transition to glider acro not fly the maneuvers to any precision just well enough to continue so that I can work on the maneuvers solo to save some money while I learn.

The MDM2 Fox is definitely a glider. It has a sink rate like the 1-36 with better penetration. The roll rate is nice but still needs rudder to keep the string in the center. The rudder feels like a power acro ship and the elevator is really powerful. Any solo'd pilot could possibly tow, land or thermal it with no difficulty. BUT, it is an acro ship and has a very pronounced stall and Fox's tend to fall off to one side on their own entering a spin. So getting slow in the pattern would be avoided at all costs and training just to fly the ship safely before performing acro is mandatory. Primary acro training in a K21 would result in less time recovering from spins but learning spin recovery is part of advanced acro. Just like pushing the Fox around on the ground it feels between a solo ship and a glass trainer as far as response.

For learning acro It takes quite a few flights to get comfortable and coordinated with all the strange uncoordinated control inputs. Inverted you push the stick forward to hold the nose up and to recover you push the stick left and rudder right while still pushing forward to do a coordinated roll upright with the string centered. Botching a maneuver always results in a spin so spin recovery is constantly practiced. Keeping orientated upside down also takes lots of practice. Acro is not for everyone but it is yet another set of skills to work on if you ever get bored with steep turns and zooming.

Ratings, Achievements, Badges

Glider Private Pilot: Tommy Childress



Photo by Dan Ernst

By Dan Ernst

Transition Full Scale Gilders

Skyline Soaring Club's Tommy Childress receives congratulations from Designated Pilot Examiner Marvin Holland after his successful private pilot – glider check ride in the ASK-21 on November 9th at Front Royal, VA. Tommy is an enthusiastic radio control pilot who started is flying career 30 years ago with bungee-launched model gliders. In smaller scale he is both a glider pilot and tow pilot. Tommy says that both RC and full size gliders are controlled with fingers and thumb on stick, but the view is quite

different inside looking out. Now he can soar just about any time he wants to.



Photo by Dan Ernst

First Solo: Clyde Kizer



Photo by Dan Ernst

Bronze: Chris Zaboji

Saturday December 1 Chris Zaboji took and passed the written exam completing the requirements for his SSA Bronze badge. Chris demonstrated his duration flight using the club Sprite with multiple flights of long duration over the summer showing that the badge tasks are stepping stones to more advanced soaring.

Recycled Information

Worth Repeating



SAY AGAIN

Wave!



Photo by Joe Lingeitch

Grob Meister Found

Rufus Decker is stepping down as Grob Meister favoring his commitment to instruction. Calling for a new volunteer to serve as Grob Meister. Learn all about organizing the care for a glider with having to own it and without having to do all the work. For that mater without having to pay for it. Meisters are responsible for the gliders but not required to perform the work.

Pawnee Tail Repair



Eric Litt being swallowed by a wild Pawnee.

Pawnee Door "Glass"

The plexiglass door windows on the Pawnee were replaced by Shane with lexan (the material some bullet resistant windows are made of). Were not sure what that means but the new windows will be more scratch resistant than the old ones.

Anyone in for New Zeland?

By Mike Christensen

Maryann and I are going to New Zealand Feb 3, 2013 . Steve Rockwood is planning to go. Rob Creedon is teetering on the brink of going. We are planning to fly at Omarama Airfield NZ <http://www.glideomarama.com/> . Would you please put a note in the Newsletter saying "the more the merrier."

New Glider Owner



Martin Gomez it the proud owner of SGS 1-26 "505" He is the end slot in the club hanger.



President - John Noss
 Secretary - Jim Kellett
 Treasurer - Thomas Park
 Membership - Steve Rockwood
 Chief Duty Officer - Craig Bendorf
 Chief Tow Pilot - Martin Gomez

Skyline Soaring Club, Inc. Chief Flight Instructor - Piet Barber

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