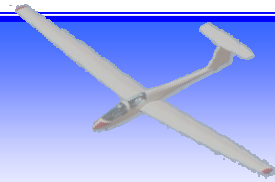


ISS Newsletter

www.glideiss.us

Newsletter Editor: Annette Dora

March 2011



Safety is Important!

We have been getting a steady stream of new pilots joining the club, and that's because we are a nice group of people to be with. We want to keep it that way, and by the same token, we have to keep things safe for all of us. Please exercise caution, safety and common sense when at the field. Keep planes flying out in front of the flight line to maintain a good safety margin. Always call out your intent to take off or land so that others can stay away from your path. Electric pilots must yield the right-of-way to glider pilots because a glider pilot only gets one chance to land while electrics can power up and go around. Glider pilots must keep the approach and landing zones clear to prevent yourself from becoming a landing or take-off target. Again, use common sense and use courtesy and we can all have fun and fly safely at the same time.

Recognition

First off, my hardy thanks and appreciations goes to JR for making our field look so outstandingly GOOD! Guys, JR works his brains out doing this stuff for YOU, and I ask that you all let JR know how much you do appreciate it next time out. It is people like JR who make this club a great club to be part of.

VIOLATOR of the Month



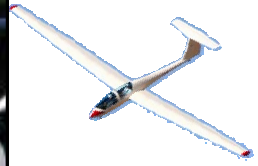
Looks like Ed Stewart was nice enough to take the entire months quota for violations in February

THANKS ED!!!

ISS Winners SC-2 Contest @ SWSA



From the Oval Office: *ISS President, Mike Lee*



The Competition Scene

For us contest pilots, February marks the beginning of the contest season. Normally, it kicks off with the Southwest Classic in Phoenix, Az., but this year we got a slight jump start from San Diego. The Torrey Pines Gulls had a club contest that was to replicate part of the Southwest Classic (SWC) as well as the F3J in the Desert event which preceded the SWC. So, they had formulated their contest to fly thermal duration, but launching off of winches with monofilament line! That means awesome launches! That being the case, a small contingent of ISS guys headed South on February 13, including Matt and Steve Garland, Mike Skube and myself.

The tasks to fly was four rounds of 10-minute flights and if you got a mondo launch, getting 10-minutes was not too much a problem. The real problem was facing down pilots with serious credentials; Mike Smith, Steve and Scott Condon, Thomas Keisling, Art Markiewicz, Tom Watson...to name a few and most all have been on a U.S. Soaring team at one time or another. Well, Matt, Steve and I must have been sharp this day, as Matt nailed down 3rd in Intermediate class, while Steve got third in Expert and I found my way to first in Expert! Nice way to start the season!

We now head to Sunny Phoenix for the F3J in the Desert and the SWC. Oops! Did I say sunny? I meant stormy Phoenix! We started the flying on Thursday with flying the F3J in the Desert event. Our ISS Team consisted of Matt, Steve, Robert Cavazos, Kent Nogy, Andy Thonet and Mike Lee. Of the pilots on the team, I was the only F3J contest experienced pilot on the team. But not a problem, as everybody fell into place and were soon flying like veterans. The first round was the round to forget, as the team and pilots didn't quite have the fine points together, save for Matt. Matt was the only pilot to get his full time. That set us up nicely and everybody started getting good times after that. In Round 4, disaster strikes me. Right off the launch, I head for an area that I suspect has lift, and everybody starts to follow me. 10 aircraft are all on my tail as I search for lift and the plane engages nicely. I turn to begin the thermal and am instantly nailed by another plane, still heading out. The impact shears the vertical stabilizer and rudder from the plane, and my

2

plane begins plummeting to the ground. Luckily, there is just enough fuselage left for marginal stability and I manage to get the plane on the ground safely. My favorite plane is now out of the contest. The crash allows me to have a reflight, but that turns to more disaster as my back-up plane, which is in lift, suddenly goes stupid and begins spinning to the ground. On the way down, it passes through the sun and I am now blinded! Luckily, the plane somehow gets some guidance and lands in a freshly plowed open field about a half mile away. It suffers only minor damage and is still able to fly. The problem? I had the internal antennas in direct contact with other wires, which is a no-no in 2.4 Ghz radios. (Yes, I have fixed that). So much for my F3J contest.

The other team members continued to do just fine, with Matt Garland just ripping us to pieces. In fact, at the end of the day, he is shown among the top ten pilots! He was flying HOT! Thankfully, we did not have any more destructive incidents on this day.

Day two is full of 15-minute flights, and nobody on any team scores a full flight in the first round. Matt is still doing great, and we get to the third and final flight of the day, which is only a 10-minute flight...in poor air. Matt is still messing with the top guys, and with the weather conditions deteriorating, I ask him the classic question, "Did you come here to fly or come here to win?" Of course, that means you take the risks needed to put in a good flight. Matt did just that, but it didn't work out for him and he fell short of time. But, by doing so, he vaulted to the front and center attention of several important people. To be sure, Matt just became a leading candidate to be on the 2011 Junior F3J Team!

The rest of the ISS Team finished in one piece, having taken in this new experience. With that, we move to Saturday, the start of the SWC event. The day dawned...somewhere other than in Phoenix. We awoke to heavy cloud cover and a mild wind from the South-East. It was such that the wind caused most planes to make their landing approach by flying just over the winch lines. No, nobody in the ISS group got messed with, but we did watch a big molded bird cross over the lines and then stop in mid-air, then violently get pulled down to the

Continued From Page 2:

ground, tail-first into total oblivion! I mean this plane flat blew up! He got caught by the winch line as it was being retrieved. WOW!

That aside, we started the second round with moving the winch and landing zone direction, but we never got to try it out. A howling desert wind storm came blasting through the area, ripping up tents, shade structures, planes, and darn near anything not welded to the ground! On my large shade tent, I found myself hanging on and being lifted off the deck by the force of the wind. It took four people to hold it down! Thankfully,

our ISS team had grown bigger for this part of the event, adding George and Manny Gomez, John Dora, Steve Garland and Ed Stewart to the mix. Needless to say, this day was finished! The wind was followed by rain and we all took off for lunch in town.

Sunday held promise, but not by much. Still looking at a heavy overcast and stiff wind conditions, we were tasked with a 5-minute, 10 and 6 minute flight. Most of us started adding ballast and that was a golden ticket. If the plane can't penetrate, it won't thermal. Unfortunately, one of our pilots suffered a problem in the air.

Continued on Page 4

Holding down precious expensive toys from flying away on their own.



What being BLOWN away in Phoenix looks like



Continued From Page 3:

Matt Garland was airborne and almost directly overhead, when the plane signed off. It took a slow, peeling turn to the left and headed nose down, downwind. It hit the ground just behind a row of RV's at terminal velocity, completely destroying the model. The culprit was determined to be a faulty main flight battery. So, the pilots were only able to fly a total of 4 flights for this portion of the contest, and our top scoring pilot was Mike Lee who finished in 5th spot. Steve Garland finished 22nd, Manny Gomez in 24th, and Robert Cavazos in 36th. Despite the poor weather, this was a well run event. I just wish Mother Nature was a bit kinder to us.

That moves us to the first SC-2 event of the season on February 27, with the host club being the guys at SWSA. Three rounds of thermal duration, flying a 6 minute, 8 and 10 minute task. The air was booming at times and complete sink at others, and that meant picking your flight time carefully to make sure you could find lift. Matt and Manny got slammed, as did Les Ward, and they all took a serious hit on the time. Robert Cavazos, Ed Stewart and Rick Pearson fell short in the second round and George Gomez came up short in the third round. The worst thing that happened was when Kerry Cavazos got involved in a mid-air in her second round, shearing the outer right wing tip from the plane! Between Kerry and Robert, they landed the plane but the wingtip settled halfway up a nearby mountain that a billy goat would have trouble trying to climb. The tip is simply lost forever.

That pretty much left two surviving pilots, them being Steve Garland and myself. I was a bit early on my first landing, by about 8 seconds and that was all that Steve needed to take the victory, winning the opening contest in fine style and I was in second place. It was a nice way to start out the new 2011 season, save for the loss of the wingtip for Kerry. It could actually have been worse, as Matt was seen clipping leaves from a nearby tree with his big Open class bird on the landing approach. For that, he gets a kill mark on his plane. Funny thing about it was that after the plane landed, a woody model landed right behind him and hit the rudder with its' wing, as if the woody was getting revenge for the tree. Go figure.

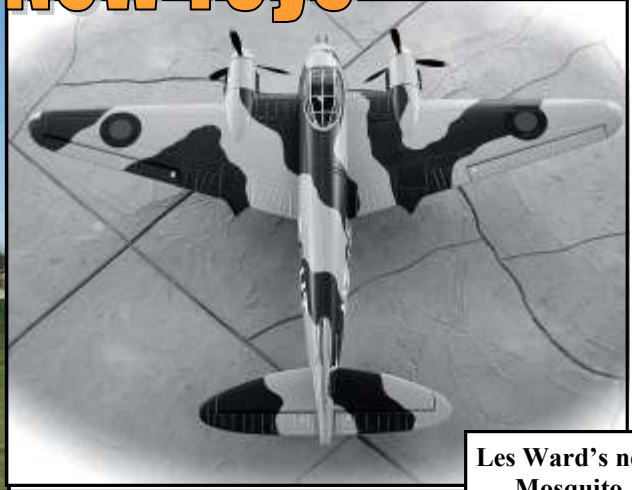
As you can see, our season has started out fast and furious, and our pilots are doing good. The next SC-2 event is on March 20 again at SWSA and hosted by the Downey Soarheads. Keep on practicing hard and tuning the plane.

Thanks,
Mike Lee



Pilots & Their New Toys

Steve Garland
with new SUPRA



Les Ward's new
Mosquito



Kerry Cavazos
with new SUPRA
(Before SWASA)



Ed Stewart with new
combat plane

Pilots & Their Toys

Bob Russell with
new P-51



CARNAGE

Results of mid air between Brian
Starkey and Steve Anderson
(Looks like Steve enjoys CARNAGE!)



The President's Challenge!!!

March 13th 8:30AM

Yes, for the 4th consecutive year, we present the Annual President's Challenge. Your ISS President (me) hereby challenges our club membership to a fun-fly, using electric powered or non-powered models in tasks of daring and skill. Here are some of the tasks to be flown:

- ◆ **Black Jack Landing:** A grid will be marked out on the field which will have the numeric values of a common deck of cards. The idea is to have your plane make its' initial touchdown for a landing in the spot of your choice, and the score of that spot is used to produce your Black Jack hand. Now, this year, we will do this a bit different. Last year, we were a bit too generous with the size of the grid, and you guys were hitting a lot of 21's and Black Jacks'. The grid this year will be smaller and might just have a twist in it. Plus, we will play a bit more like Vegas. You get an initial 2 touchdowns to get your score. If you score low and wish to get one more card, that will cost you a buck. For example, I get two landings, and my score is only 15. If I want to take a bet that I can land one more time on a 6 to get a full 21, then I have to put up a buck. In case of a tie, the pilots play another hand. On the third hand, only a Black Jack can win.
- ◆ **How slow can you go:** This is a timed event to see how slow you can go from Point A to Point B, which is 100-ft. No hovering is allowed, meaning that if the plane stops its' forward movement for more than 2-seconds, you are eliminated. You must maintain forward motion towards Point B, so deliberately weaving left to right is not allowed. Time starts as you pass Point A and stops when you get to Point B. Touching the ground with a wheel is a disqualification...touching the tail is simply showing off.
- ◆ **Limbo reverse:** Yes, this is limbo with a twist. You come through the limbo bar any direction you wish but the next pass through must be from the opposite direction. You get 90-seconds to do as many passes under the bar that you can. You cannot touch the ground 5 ft before or 5 ft after the pass and you cannot taxi up, lift off and pass through. You must make a flying approach. Highest number of successful passes wins and if you hit the ground, you can get back into the air to keep on trying. Helicopters are not allowed and a complete pass is one that goes under and past at least 5 ft.
- ◆ **Free-for-all combat:** You read this correctly, it is free-for-all combat where you may fly any plane and go after any plane, with a bonus. We will have a tethered ribbon (I hope) that is open for being clipped by anyone for a kill. Highest number of kills wins.
- ◆ **Spin City:** How many turns in a spin turns can you do in 15-seconds. You climb to altitude and time starts when you enter the first turn of a spin. Hitting the ground is fine and quite entertaining, so go for it
- ◆ **Precision Bomb's away:** Drop an egg on the card grid for points. 2 bombs allowed and you must be at least 50-ft up. Hitting a spot on the card grid will get you points, depending on the value of the spot. Highest points wins.

That's what I have in mind for you at this point. Visitors are welcome and entry fee for the entire day is only \$5.00...unless you buy a second chance at any event which is a dollar for each new attempt. **We will start the first round sharply at 8:30AM, so be there earlier than that if you are going to join in the fun. (I hope there is plenty of carnage!)**

Mike Lee

Tech Tip Time (T3)

My T-3 subject deals with batteries and how they can act up on us. I mentioned that Matt Garland just lost a plane in Phoenix due to a faulty battery pack. The pack was new, cycled and charged. It was a 4-cell nickel-metal hydride pack of 1500-mAh capacity. But, this pack did provide some warning prior to failing. I don't know exactly the history, but when this model showed up on Thursday morning at the SWC for the F3-J event, Matt turned on the switch and nothing happened. He went straight to his back-up plane while Steve tried to find the problem. He reported later that the power plug was not fully in contact. Then during the fatal flight, Matt reported that just before the plane signed off, it was giving him very sluggish control response. That's a big red flag, guys! Unfortunately, by the time we all recognize this red flag warning, it's too late, and it was. The plane plunged to the ground and luckily did not hit anyone or anything. It hit at terminal velocity, and could have easily penetrated the skin of a big RV.

Now, submitted for your consideration, I just got my red flag warning. My primary aircraft, an Xplorer 3.8, was being charged up the night before going to the SC-2 event, and the charger detected an error in the pack. The screen displayed a warning that the battery was over-voltage, and this is on a lithium-ion pack. I changed charger and the second charger also gave me the same warning. I did not hesitate with this one; I took out the pack and replaced it with a new pack. So, what was the problem?

Having spent years (and I do mean years) of research and study on battery technology and how they behave under charge and discharge, I determined that my battery pack was deteriorating rapidly and was doomed. It had suffered a failed internal grid and was generating excess voltage in a slow short out. We call this process a battery going into high impedance. All batteries have a certain amount of impedance, and for performance testing of a battery, we want as low an impedance rating as possible, as this governs the amount of amperage a cell will provide on demand. High impedance means you cannot get higher levels of amperage (power) on demand. It just won't give it to you. Let's see how this works.

A battery is made from a host material being eaten by a hostile compound that ends up releasing electrons, or electricity. Think of the classic lead/acid battery. A grid of lead is submerged into sulfuric acid and as the acid eats the lead, it produces electricity. Using more exotic host materials and hostile compounds allows the process to be reversed, and gives you a rechargeable battery. How fast the hostile compound can react on the host material dictates the amount of power you can get. But no matter

what the chemistry, eventually, the host material is eaten up and this renders the battery to be useless.

Now then, take this typical battery and put into our use, day in and day out. Eventually, the grid comes apart and one piece of the grid ends up making contact with another part. Well, we want the electrons to flow one direction so that we have a positive and negative pole and that works, unless the grid comes apart. When the grid come apart, either by deterioration or by shorting, the battery fails. In my case, going into high impedance indicated a grid shorting. The nominal voltage goes up and beyond normal range but you will end up not getting as much amperage. If you can recognize this trend in time, you can replace the faulty pack and save a plane.

In the case of the battery pack that did in Matt's plane, I suspect there was at least one faulty cell in the pack, going into high impedance with a short in the grid. The voltage climbs, and causes the pack to look good, even to the charger. But why didn't the charger note a fault like my charger did? In the case of the battery pack that did in Matt's plane, I suspect there was at least one faulty cell in the pack, going into high impedance with a short in the grid. The voltage climbs, and causes the pack to look good, even to the charger. But why didn't the charger note a fault like my charger did?

The answer to this question is quite simple; battery chemistry. My pack is a lithium-ion pack using a charger that is based on a charge using constant voltage, set for a maximum voltage of 4.2 volts per cell. The charger will feed in the preset amount of amperage which declines as the pack reaches and attains the voltage setting. If the charger detects the voltage climbing past the preset limit, it either stops charging or shows an error notice. The pack that Matt used is a nickel-metal hydride pack, using a charger that charges by constant amperage, regardless of voltage. Once the battery reaches full charge and the voltage begins to drop, only then does the charger think to cut off the charge. I have had packs rated for 4.8 volts climb all the way to 9.5 volts and overheat, but the pack did not decline in voltage and so the charger keeps going. The problem then manifests itself as a steady self-discharge over a period of say 72 hours. A normal Ni-MH pack should suffer a standard self-discharge rate of not more than 5% per month. That is equal to 25-mAh on a 500-mAh pack. Remember that this plane was dead on Thursday morning, but was said to have a loose plug wire....maybe it wasn't.

The point to remember is that you need to pay close attention to all battery packs you use. Test each one periodically for capacity and energy retention. If you have a pack that self-discharges in less than a month, toss it out. If you have a pack that has an unusually high voltage level during charge, it may be very risky to put to use. Check your wiring, check the switch and check the battery covering. Whatever you do, live by this motto when it comes to batteries: when in doubt, throw it out! Don't risk a crash.

SC-2 Contest at SWSA



Kerry Cavazos, George Gomez, John Dora and Ed Stewart taking it easy.



Thank You to ISS Sponsors



Bob Breaux



www.hobbypeople.net

Mike Braun



FRESNO SOARING SOCIETY

29th ANNUAL FRESNO CLASSIC



- LOCATION:** Fresno Soaring Society Lost Lake Park Flying Site
GPS Coordinates: N 36⁰ 58' 33" W 119⁰ 43' 30"
- DATES:** April 2-3, 2011
- EVENTS:** OPEN Class: UNLIMITED, TWO-METER and RES
- SCHEDULE:** Pilot check-in on Saturday – 7:00 AM to 8:00 AM
Pilots meeting Saturday 8:00 AM First Flight 8:30 AM
Pilots meeting Sunday 8:00 AM First Flight 8:30 AM
- TASKS:** Saturday: 5 Flights - 3, 8, 10, 9 and 7 minute precision duration, 1 point per second scoring
No flights will begin after 3:00 PM.
Sunday: 3 Flights - 4, 10 and 8 minute precision duration, 1 point per second scoring
No flights will begin after 12:30 PM.
Landings will be detailed at pilot's meeting
- AWARDS:** OPEN class - Unlimited - 1st thru 5th Two Meter - 1st thru 3rd RES – 1st thru 5th
- RAFFLE:** No raffle this year.
- FOOD:** Lunch will be available in the park on Saturday for a nominal cost.
- REGISTRATION:** To insure confirmation and parking passes, please register by March 22, 2011.
- DIVERSIONS:** An informal Hand-Toss contest will be held after the official contest on Saturday afternoon weather permitting. No trophies, but a good time for all contestants and spectators.
- MOTELS:** The best and closest motel is the Red Roof Inn. The prices below are for two persons per room, motels are on Blackstone Ave. At last report the prices were:
- | | | | | | |
|----------------|----------------|-----------------|--|----------------|------------------|
| Red Roof Inn | (559) 431-3557 | \$89.99 + Tax * | Motel Six | (559) 221-0800 | \$51.99 + tax ** |
| Water Tree Inn | (559) 222-4445 | \$80.00 + Tax * | \$72.00 w/AAA - Friday Only | | |
| | | | ** Motel Six has senior Discount 60 & over \$46.79 + tax | | |
| | | | * Includes Continental Breakfast | | |
- CONTEST DIRECTOR** CD: Charlie Thompson
Phone (831) 809-8501
E-mail: cwthompson@charter.net

NOTE: The gate to Lost lake Park is closed and locked at 10:00 PM. You may exit but can not re-enter until about 6:00 AM

The FRESNO SOARING SOCIETY flying site is located at Fresno County's Lost Lake Park about 15 miles North of Fresno. The park is on Friant Road at the San Joaquin River below Millerton State Park. There are established fishing areas, picnic areas with BAR-B-Q facilities, nature trails, running water and rest rooms. Running water is available at the flying site. The park charges an entry fee of \$5.00 per day per vehicle. An entrance pass will be sent to you if you register by March 22, 2011 that will allow entry of one vehicle each day. Recreational vehicles or tent camping are allowed at the flying site. The park staff will collect an \$18.00 fee for the overnight stay. If you need additional directions please call, e-mail or write the CD listed on the registration form.

Skegs are allowed for RES class

If you include the name and AMA # of your timer we will insure that you are able to time for each other if frequency allocations permit. Entries received after the cutoff date probably will not be matched with their selected timer and will not include park entrance passes.

Mail entry to: Charlie Thompson
1531 Union Heights Drive
Hollister, CA 95023

CD: Charlie Thompson
Phone (831) 809-8501
E-mail: cwthompson@charter.net

29th ANNUAL FRESNO SOARING CLASSIC

April 2-3, 2011

NAME _____ AMA No. _____
 ADDRESS _____ Phone (____) _____
 CITY _____ STATE ____ ZIP _____ AMA CLUB _____
 E-mail address _____

Ch/Freq: Please select 3. Only 4 pilots per frequency Please indicate if TX is synthesized No ___ Yes ___

UNLIMITED	CH/FREQ: 1st _____ 2nd _____ 3rd _____	Open	\$55.00
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TWO METER	CH/FREQ : 1st _____ 2nd _____ 3rd _____	Open	\$55.00
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RES	CH/FREQ: 1st _____ 2nd _____ 3rd _____	Open	\$55.00
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Enter any 2 for \$ 75.00 _____

Total _____

Preferred Timer's Name _____ AMA # _____ (required)

Please make check payable to: "FRESNO SOARING SOCIETY"

_____ **PLEASE CUT HERE** _____

NOTE:

This year we will have out-of-bounds. Landing out-of- bounds will result in a zero score for the round. We have had flyers land a long way from the landing area and near Friant Road. This decision is reluctantly made but Friant Road has been rebuilt as a 4 lane road. We need to protect our field. The in-bounds area is defined as the portion of the field within the berm and the turnarounds.



Charlie Thompson
1531 Union Heights Drive
Hollister, Ca 95023