OFFICIAL NEWSLETTER OF
SANDERSON FIELD R.C. FLYERS
SHELTON, WA

MARCH 2008
VOLUME XI ISSUE III

SANDERSON FIELD R.C. NEWS

Pylon Race March 16th

AMA
CHARTER NO. 3079

CLUB MEETING

This months meeting will be held on Thursday March 13th at 7:00 p.m.

at PUD #3

At 3rd & Cota

Minutes read and accepted as read.

Treasurers report read and accepted as read.

We discussed the second event to be locked in and also the Walmart/ public day. If I move the public day to the next weekend it will be father's day.

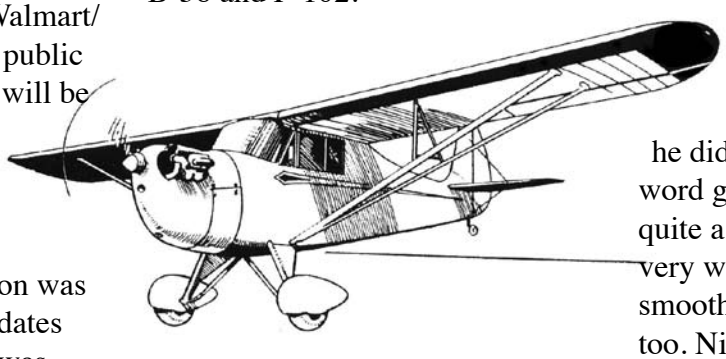
John Tupper motioned to lock in the 2 day may pylon race dates. The motion was seconded and passed. The dates have been approved. Jody was asked to remind everyone that if you help at the pylon races you'll get a raffle ticket for each time you help. The raffle will be held at the end of the winter season.

The event in Monroe was discussed, the general opinion was that it was that it was much better than last year. The move to the larger building really helped the swap meet portion. There was a lot more room between the tables and there were no dead end isles.

Dick Robb showed his new RCV 130 that he got in Monroe. He doesn't know what it's going in yet, possibly a Zero.

Meeting adjourned 7:45

Stacy Myers brought a slide show of some of the airplanes he refueled when in the air force including the B-58 and F-102.



In case you didn't notice the headline there is another pylon race on the 16th. It has been rescheduled from the 9th. Thanks to everyone who helped at the last one, we had a great turnout of club members.

Bob Brusa brought out his new "Elan" Jet out the other day for a couple of test flights. Chuck told me he didn't want a big audience but word got around and there was quite a crowd. Both flights went very well, it appears to be a very smooth flyer. Good looking plane too. Nice work Bob.

Breaking the Sound Barrier Without an Aircraft

Forbes Global

Joe Kittinger is not a household aviation name like Neil Armstrong or Chuck Yeager. But what he did for the U. S. space program is comparable.

On Aug. 16, 1960, as research for the then-fledgling U. S. space program, Air Force Captain Joseph Kittinger rode a helium balloon to the edge of space, 102,800 feet above the earth, a feat in itself. Then, wearing just a thin pressure suit and breathing supplemental oxygen, he leaned over the cramped confines of his gondola and jumped into the 110-degree-below-zero, near-vacuum of space. Within seconds his body accelerated to 714mph in the thin air, breaking the sound barrier. After free-falling for more than four and a half minutes, slowed finally by friction from the heavier air below, he felt his parachute open at 14,000 feet, and he coasted gently down to the New Mexico desert floor.

Kittinger's feat showed scientists that astronauts could survive the harshness of space with just a pressure suit and that man could eject from aircraft at extreme altitudes and survive.

Upon Kittinger's return to base, a congratulatory telegram was waiting from the Mercury Seven astronauts including Alan Shepard and John Glenn.

More than four decades later Kittinger's two world records the highest parachute jump, and the only man to break the sound barrier without a craft and live still stand. We decided to visit the retired colonel and Aviation Hall of Famer, now 75, at his home in Altamonte Springs, Florida, to recall his historic jump.

FORBES GLOBAL: Take us back to New Mexico and Aug. 16, 1960.

Joe Kittinger: We got up at 2 a. m. to start filling the helium balloon. At sea level, it was 35 to 40 feet wide and 200 feet high; at altitude, due to the low air pressure, it expanded to 25 stories in width, and still was 20 stories high! At 4 a. m. I began breathing pure oxygen for two hours. That's how long it takes to remove all the nitrogen from your blood so you don't get the bends going so high so fast. Then it was a lengthy dress procedure layering warm clothing under my pressure suit.
They kept me in air-conditioning until it was time to launch because we were in the desert and I wasn't supposed to sweat. If I did, my clothes would freeze on the way up.

How was your ascent?

It took an hour and a half to get to altitude. It was cold. At 40,000 feet, the glove on my right hand hadn't inflated. I knew that if I radioed my doctor, he would abort the flight . If that happened, I knew I might never get another chance because there were lots of people who didn't want this test to happen.
I took a calculated risk, that I might lose use of my right hand. It quickly swelled up, and I did lose use for the duration of the flight. But the rest of the pressure suit worked. When I reached 102,800 feet, maximum altitude, I wasn't quite over the target. So I drifted for 11 minutes. The winds were out of the east.

What's it look like from so high up?

You can see about 400 miles in every direction. The formula is 1.25 x the sq. root of the altitude in thousands of feet. (The square root of 102,000 ft is 319 X 1.25 = 399 miles) The most fascinating thing is that it's just black overhead the transition from normal blue to black is very stark. You can't see stars because there's a lot of glare from the sun, so your pupils are too small. I was struck with the beauty of it. But I was also struck by how hostile it is: more than 100 degrees below zero, no air. If my protection suit failed, I would be dead in a few seconds. Blood actually boils above 62,000 feet.
I went through my 46-step checklist, disconnected from the balloon's power supply and lost all communication with the ground. I was totally under power from the kit on my back. When everything was done, I stood up, turned around to the door, took one final look out and said a silent prayer: "Lord, take care of me now." Then I just jumped over the side.

What were you thinking as you took that step?

Aviation Record (cont)

It's the beginning of a test. I had gone through simulations many times more than 100. I rolled over and looked up, and there was the balloon just roaring into space. I realized that the balloon wasn't roaring into space; I was going down at a fantastic rate! At about 90,000 feet, I reached 714mph. The altimeter on my wrist was unwinding very rapidly. But there was no sense of speed.
Where you determine speed is visual if you see something go flashing by. But nothing flashes by 20 miles up there are no signposts there, and you are way above any clouds. When the chute opened, the rest of the jump was anticlimactic because everything had worked perfectly. I landed 12 or 13 minutes later, and there was my crew waiting. We were elated.

How about your right hand? It hurt, there was quite a bit of swelling and the blood pressure in my arm was high. But that went away in a few days, and I regained full use of my hand.

What about attempts to break your record?

We did it for air crews and astronauts for the learning, not to set a record. They will be going up as skydivers. Somebody will beat it someday. Records are made to be busted. And I'll be elated. But I'll also be concerned that they're properly trained. If they're not, they're taking a heck of a risk.

TIPS AND TRICKS

Good Cleaner
Here is a concoction I came up with. In an empty spray bottle, add a tablespoon of dish washing detergent, then fill the bottle halfway with regular rubbing alcohol, and top off with hot water. I have found this to work really well for cleaning the oil off of the wings and fuselage after a days worth of flying. Strong cleaner but will not hurt the covering or take the colors off.

New Life to Old Wire Landing Gear
Did you ever have a problem where your wire landing gear seems to get weaker and weaker? A possible solution is to remove the gear from the airframe and remove all the hardware from the gear wire (i.e. the wheels, collars, pants, etc). Preheat your kitchen oven to 450°F. Place the wire on a cookie sheet in the oven for one hour. Turn off the oven and toss the wire into cold water to cool it off quickly. What you have just done is to re-temper the **music wire** and you should have put new life into that old gear. Note that soldered joints should not be harmed as solder doesn't melt until about 700°F.

Mixing Epoxy
When mixing epoxy use an old coffee can lid, after the epoxy hardens just flex the lid and the epoxy will pop off.

For New Pilots
Here's a flying tip for new pilots: Something to pay attention to when learning to fly is control reversal. Control reversal is when the inputs on the transmitter sticks must be reversed when your airplane is flying toward you, rather than away from you. When flying away from you, there is no problem; just move the stick in the direction you want to turn. Many new pilots become disoriented when their airplane is approaching them. To help with this, move the stick in toward the low wingtip. This will level the wing when

Continued on the bottom of page 4

Club Officers

President	Jody Diaz	(360)427-6102
Vice President	Dick Robb	(360)427-4521
Treasurer	Charles Kentfield	(360)866-9473
Secretary	Bob Beatty	(360)426-5601
Safety Officer	John Tupper	(360)426-6383

Board Members

Board Member	Jody Diaz	(360)427-6102
Board Member	Dick Robb	(360)427-4521
Board Member	Stacy Myers	(360)426-9367
Board Member	Bob Beatty	(360)426-5601
Board Member	Dave Fisher	(360)490-2338
Alt Board Member	Bob Mason	(360)426-9256
Alt Board Member	Chuck Kentfield	(360)866-9473

Minutes or MAH (milliamp hours)

By James Goss

When you are cycling your batteries most cyclers will allow you to select the results to be stated in minutes or either mah (milliamp hours). This may be confusing to some new pilots in our hobby so I thought I would give you a little background on the subject. Both mah and minutes will tell you what you want to know about your battery pack's condition. You are trying to find out how much energy your battery will store so you will know how long to expect the battery to last during a day at the field. For example, if you have a 600-milliamp battery and it is fully charged when you place it on the cycler and it takes 120 minutes to discharge down to the point where your cycler starts to charge the battery again, then you can expect to get 120 minutes of actual work from the battery.

You have got to remember that the cycler is discharging at the rate you have selected, this may be 50 milliamps or it could be 250 milliamps or any value your cycler will allow. I like to use 250 milliamps on all packs less than 1200 milliamps. 250 milliamps is a good reference because this is about what an average transmitter draws in current. Some PCM radios will pull a little more, but by and large 250 is a good value to use. With this in mind lets say you have cycled your 600 mah flight pack and it shows 120 minutes of time required to discharge the battery to the point where it drops below 4.8 volts. This is what happens when the battery uses up its stored energy, its rated voltage starts to decrease. With nicads the voltage drops very fast when this point is reached. How long you actually have to fly on this battery depends on the actual load on the battery, and that load may be greater that 250 milliamps. So you may not have the full 120 minutes of flight time even though the cycler said you have 120 minutes. Under some conditions you may only get 60 minutes instead of the 120 you expected. So using minutes is good if you have the same discharge rate on your cycler as you will have in an actual flight, but this is not likely. Your flight discharge rate for the flight pack is constantly changing as your plane goes through its many maneuvers.

Milliamp hours is a little more confusing than minutes, we all understand time so this is why the manufacturer has the discharge rated in minutes or mah. Even I know that there is 60 minutes in one hour. A lot of modelers find it easier to read the discharge in minutes and there is nothing wrong with this. It doesn't have to be 100% anyway. For the more technical minded people the mah rating will tell you the whole story about your battery and it is very accurate. The term mah gets its name because it is current referenced to time. If you have a 1200 mah battery, you should be able to get a current flow of 1200 milliamps (1.2 amps) for a time of one hour before the battery's terminal voltage starts to drop. This same battery should also furnish 100 milliamps for 12 hours, or 600 ma for two hours, or any combination of milliamps and hours that equal 1200 mah. Since your battery is rated in mah and not minutes, this is the only logical unit of measurement to use. Having the same unit rating means you can look at the battery rating and compare it to the cycled mah value. A new battery's cycled value should be equal to or greater than the battery rating.

There is a relationship between minute's discharge and mah discharge. It is easy to understand if you look at it this way. Lets say you have a discharge of 120 minutes and you were using a discharge value of 250 ma. This means that 250 ma were flowing through a load resistance for 120 minutes. To convert this to mah simply change the 120 minutes to hours, 2 hours, so we have 250 ma flowing for 2 hours. Now multiply the 250 ma times two hours to get 500 mah. Both minutes and mah are useful, but I think I like mah better because the battery is rated in mah. Minutes will work OK especially if you have a good record of the cycle time on a battery and you notice a sudden fall off in discharge time, this flags you that something is wrong. Cycling is a good way to spot a trouble in advance of total failure, but you must cycle on a regular basis if you want it to work for you.

2008 DUES ARE $100.

PLEASE RETURN YOUR KEY IF YOU ARE NOT RENEWING

IF YOU PAY BY MAIL SEND YOUR DUES, PROOF OF 2008 AMA MEMBERSHIP AND A SELF ADDRESSED STAMPED ENVELOPE TO THE TREASURER:

CHUCK KENTFIELD
3122 Madrona Beach Rd
Olympia WA 98502

Make checks payable to SFRCF

"Tips" Continued from page 3

your airplane is coming toward you, avoiding a sharp bank and possibly a crash.

Example: Say your airplane is coming toward you, and the right wingtip is low, as if banked to the right. Move the stick to your left, toward the low wingtip. This will bring the airplane's right wingtip up, and level the wing. I also recommend getting Real Flight G2 if you do not have it. Practice on that before you fly an airplane or helicopter for the first time or if you have been away for an extended period of time. It will save you money and heartaches in the future.

THE PROPS ASKED TO HAVE THE PYLON RACE MOVED TO THE 16TH AND IT HAS BEEN MOVED ON THE PORTS CALENDAR. THE MASON COUNTY FIRE DISTRICT WILL BE AT THE NORTH END ON THE 22ND AND 23RD AND WON'T INTERFERE WITH OUR FLYING.

Club Scheduled Events for 2008

January 1st.....First fly of the year (success in the rain)
January 6th .....Pylon Race - Come out and help officiate
February 17th.....Pylon Race - Come out and help officiate
March 16th .....Pylon Race - Come out and help officiate
April 19th .....Sanderson Field RC flyers annual swap meet 9:00 to 12:00 SHS Sub
May 3rd & 4th.....Season opener Pylon race - Locked
May 10th.....Fly-In - 9:00 a.m. to ?????
June ?? .....Forest festival Parade float
June 7th.....Display at Walmart
June 8th.....Public Fly-In 9:00 a.m. to ????
July 19th.....Scale fly-in/Public/potluck BBQ - 9:00 a.m. to ?????
August 16th.....Fly-in/potluck BBQ
Sept. 6th & 7th .....Pylon Race - Locked
September 13th.....Fly-In 9:00 a.m. to ????
October 11th.....Fly-In 9:00 a.m. to ????
December ?? .....Christmas Party

It's time for 2008 dues, dues are $100.00

Check out our web site at http://sfrcf.quintex.com