

### Tail Spin

By: David DeWitt, President

Florida Jets 2007 was a success, and I want to thank the members and friends who helped the club at the event this year. We had adequate man power to make everything run smoothly, and a chance to give the workers a long lunch break and time to browse the vendors and watch the activities. The strong cross winds made it challenging for the pilots who decided to fly and never a dull moment for the flight line crew.

Our next event is the pylon race on March 31-April 1, 2007. Scott Smith will be the Contest Director. The pylon event requires 12-15 people per day for man power to run the race - please try to lend Scott a hand if you are available that weekend.

May 2-6, 2007 is "Top Gun" at Lakeland Linder Airport. Please mark these dates on your calendar and let me know when you can be available to help the club by working at this event.

### IRCC Club Lunch, Fun Fly & Swap Meet

Sunday April 22, 2007 will be a club members and their family's appreciation day. Lunch will be provided by the club. Bring along the wife, kids and enjoy lunch and get in some flying time. We will include a club member's only swap meet at the field and a couple fun fly competition events. If you don't want to compete just bring out a plane and fly.

See you at the flying field!!

### New Members

*Proposed at the March Meeting*

Mike Zellers

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*Here is another multipart article for our members. This information was sent to me by Dave DeWitt. This is a Q & A format about electrics, charging, etc. We are not sure who the author is, but we certainly thank him.*

**Here's the answers to our most frequently asked questions regarding care, feeding, technology types and system applications\***

### Part #6

**Q: Isn't the pack the most likely thing to fail on the airplane? Why back up the switches?**

A: Whups.. looks like the Wives Tale Tag Team has been

busy again. The likelihood of a tested, known to be in good condition and properly charged pack suddenly suffering a cell failure in flight is unlikely. Falling short of a catastrophic weld or cell interconnect casualty the two components on the aircraft most likely to fail during flight operations are the connectors or the switch assembly; both items being very susceptible to vibration and fuel soaking damage leading to an 'intermittent' operating condition.. something that's insidiously difficult to detect before it costs you a plane.

**Q: What can I do to protect myself against the 'unlikely' event of a cell failure?**

A: Cells typically fail 'shorted'.. that means that falling short of a major mechanical failure of the battery pack cell interconnects (why you should NEVER fly a 'soldered' pack), electrical continuity of the system remains intact.. in other words, if a cell shorts out, the system voltage drops by the value of the failed cell. To avoid allowing the voltage drop of a failed cell to threaten the system, just use a 5-cell pack instead of a 4-cell pack. To avoid the remote possibility of a weld or battery interconnect strap failure, using parallel packs does the trick & covers all the bases.

**Q What's the safest.. dual leads on a single pack or dual packs?**

A: The safest system in the air is a matched parallel / redundant 5-cell Rx pack system. As well as backing up the vulnerable switch and connector it also avoids the remote possibility of a shorted cell, weld or battery interconnect strap failure in one of the packs taking you down out of hand.. parallel systems cover all the bases. The next best setup is a single 5-cell pack with dual leads and dual switches. The latter is lighter by the weight of one pack, the former a lot better for handling very large current draw. Both are far, far better than a single 4-cell pack in ANY application.

**Q: What's the best switch setup for a single 5 cell pack?**

A: You can save a bit on weight by using two HD 'standard' type switches with charge leads and then add one 'Earnst' type charge port to get ESV and charger access to the pack. Alternatively, you can use two of the larger 'chargeport' type switches, this allows you to plug your ESV in to watch your voltage while the charger is plugged into the other port. If you were not counting grams, this would be a better route.

**Five Cell packs.. Where, why and when**

**Q: What's up with 5 cell packs.. why would I need one?**

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*Courtesy and  
common sense keep  
R/C modeling fun  
for everyone.*

A: Both Nicads and NiMH have similar load performance.. when a load is applied the voltage drops. The bigger the load, the bigger the voltage drop. If you are flying an average 40-60 sized trainer or sport aerobatic plane, voltage drops are fairly low because the control surface loading isn't significantly loading up the servos. As soon as the planes get a little bigger, folks need bigger servo's to deal with the bigger control surface loads.. before long we reach a 'critical load point' where the loaded voltage drop on a half discharged 4 cell pack could force the systems voltage down to less than 4.4v.. the voltage point where no sane man want's to fly because some brands of receivers tend to stop receiving around there. This leads to the famous 'I ain't got it!!!' demise of another nice plane because the Rx stopped working due to a servo load Rx lockout.

**Q: What kinds of planes need 5 cell packs, or; how will I know if I need a 5 cell pack without crashing first?**

A: Well, it ain't quite as bad as all that; folks have been flying with happy smiles for several decades on 4 cell packs; and certainly not everybody needs one. On the other hand, 'standard size' 120oz pack draining high torque servo's haven't been around for decades. Ever more apparent the past couple of years are aircraft and control systems that 'ol Gramps and his Kaydett would hardly recognize. The demands of modern aircraft designs with massive control surfaces tied to ultra high speed, high torque servos forces a better, higher capacity, higher voltage pack to keep up with the higher loads without the risk of tripping over the minimum voltage the receiver needs to keep you flying. Pattern Planes, Giant Scale, Aerobatic, Heli's, 3-D'ers and anybody else that wants faster control response and more servo output power should be using a 5 cell 6 volt Rx pack.

**Q: If I use a 5 cell NiMH pack do I need to use a voltage regulator?**

A: In far and away the majority of R/C Rx applications a 6v NiMH pack provides the same faster servo speed and increased servo output power a 6v Nicad would without any of the twitches or jitters long associated with Nicad 6v systems. Nicads display a relatively high 'surface voltage spike' fresh off of a peak charge, and that's what's producing

those un-nerving servo jitters. With a NiMH pack the peak voltage spike fresh off of a fast charge is dampened better, result; you'll rarely get those annoying shakes and quakes that require a voltage regulator or 'pre-loading' with an ESV to avoid.

**Q: I'd like to upgrade my computer radio systems Tx pack. Can I use NiMH packs?**

A: Quality NoBS Sanyo NiMH replacement packs and Computer R/C Transmitters are perfect for each other. The original equipment 700ma Nicad pack in my Futaba 9CAP would peter out in under an hour of operation. With a new NoBS Sanyo NiMH 1650ma replacement the run time is better than twice that; even more when I'm not in PCM mode (4 + hours in PPM!).

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**Military Maxims**

Submitted by: Ian Clark

The three most common expressions (or famous last words) in aviation are:

"Why is it doing that?"

"Where are we?"

"Oh S???!"

"Weather forecasts are horoscopes with numbers."

"Though I fly through the valley of death, I shall fear no evil. For I am at 80,000 feet and climbing."

At entrance to old SR-71 base in Japan

"You've never been lost until you've been lost at Mach 3."

Paul F.Crickmore  
(test pilot)

"The only time you have too much fuel is when you're on fire."

"There are more planes in the ocean than submarines in the sky."

--Old carrier sailor

"If the wings are traveling faster than the fuselage, it's probably a helicopter -- and therefore, unsafe."

"When one engine fails on a twin-engine airplane you always

The IRCC monthly club meeting will be held at FTE near the Lakeland Airport. The next meeting will be on Thursday April 5<sup>th</sup> and starts promptly at 7:30pm. Remember to bring a chair - if you want to have a seat.

have enough power left to get you to the scene of the crash."

"Without ammunition, the USAF would be just another expensive flying club."

"What is the similarity between air traffic controllers and pilots? If a pilot screws up, the pilot dies; If ATC screws up, .... The pilot dies."

"Never trade luck for skill."

"Airspeed, altitude and brains. Two are always needed to successfully complete the flight."

"Mankind has a perfect record in aviation; we never left one up there!"

"Flashlights are tubular metal containers kept in a flight bag for the purpose of storing dead batteries."

"Flying the airplane is more important than radioing your plight to a person on the ground incapable of understanding or doing anything about it."

"The Piper Cub is the safest airplane in the world; it can just barely kill you."

Max Stanley (Northrop test pilot)

"A pilot who doesn't have any fear probably isn't flying his plane to its maximum."

Jon McBride, astronaut

"If you're faced with a forced landing, fly the thing as far into the crash as possible."

Bob Hoover (renowned aerobatic and test pilot)

"Never fly in the same cockpit with someone braver than you."

"There is no reason to fly through a thunderstorm in peacetime."

--Sign over squadron ops desk at Davis-Monthan AFB, AZ, 1970

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Contributions to the IRCC newsletter by club members are always welcome. Hobby related is best, and both humorous and general information about R/C may be used. Please forward your material to the newsletter editor via Email so we can use our member's ideas.

All contributions for the Newsletter should be submitted no later than the 15<sup>th</sup> of the month.

Minutes from the  
March 8<sup>th</sup>, 2007 Club Meeting  
*Allen Sale, Secretary*

The IRCC held its March regular club meeting at FTE on Thursday March 8, 2007.

The meeting was called to order by club President David Dewitt at 7:30 p.m.

The minutes of the February meeting were approved as mailed and e-mailed.

Treasurer Rick Ruede gave the **treasurers report** which is on file. Rick also reported we presently have 71 members.

Charlie Patterson was welcomed to the meeting after rejoining the club.

**Field Maintenance:** Bunk reported that he will soon remove the grass under the heli shed. A new "stand up" plane holder 12" shorter than the first one.

**Safety:** Reminder to safely tie down your plane. First Aid kit to get some restocking.

Newsletter: Keep sending articles. Also if you have any items for sale, please let John know.

**Past Events:** Florida Jets- Big success. Sunday better than Saturday. Club made \$1800. 30 members worked, including new member Wayne Churchill who worked three full days.

**Future Events:** Southern 500 Pylon Race. March 30th through May 1st. Need Volunteers.

**New Business:** Motion made, seconded unanimously passed to not allow persons refused membership or removed as members, to fly as guests.

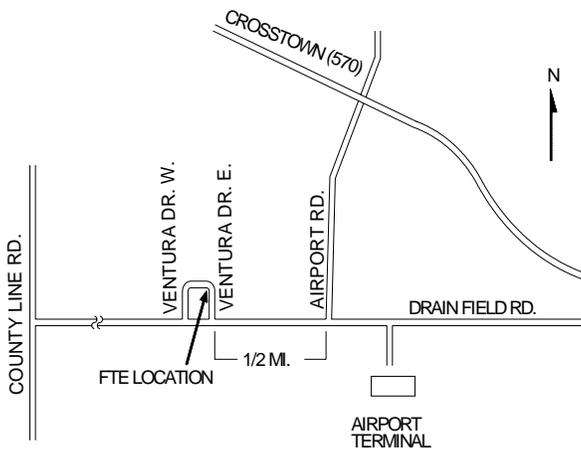
IRCC FIELD RULES #1 and CLUB POLICIES #2

Flying is restricted to current IRCC club members and their guests. Sponsoring club members must be present and are responsible for their guests. Guests are AMA members who are not current IRCC members and were not IRCC members in the previous six months. Guests will be permitted to fly up to five days per calendar year, never to exceed two times in any month. **Any person who had been denied club membership or any previous member who was removed from the club SHALL NOT be allowed to fly as a guest.**

Gary Snyder was unanimously elected to replace Robert Stinger as a board member.

**Sportsmanship Award:** given to new member Wayne Churchill for his work at Florida Jets.

There being no further business the meeting was adjourned at 8:00 p.m.



Please **DO NOT PARK ON THE GRASS** at FTE or his neighbors.

## April Meeting Agenda

Pylon Race Wrap-Up

Top Gun

Put in your three cents worth

### **Who's Building What??**

Bring your latest creation, and show the other members what you are doing.

*If you have a topic for discussion let Dave DeWitt know so he can put it on the agenda*

## Coming Area Events

### **IRCC Pylon Race**

March 31-April 1, 2007

Scott Smith - (863) 670-5141

[ssmith4710@aol.com](mailto:ssmith4710@aol.com)

Rick Rurde - (863) 944-8237

[rurde@tampabay.rr.com](mailto:rurde@tampabay.rr.com)

[www.imperialrcclub.com](http://www.imperialrcclub.com)

### **Sun'N Fun**

Lakeland Airport

April 17<sup>th</sup> – 23<sup>rd</sup>

[www.sun-n-fun.org](http://www.sun-n-fun.org)

### **Top Gun**

Lakeland Airport

May 2<sup>nd</sup> – 6<sup>th</sup>

[www.FrankTiano.com](http://www.FrankTiano.com)

**OUR NEXT MEETING IS: April 5<sup>th</sup>**

*Check out the directions to our meeting place.*