Hello Members, I hope you are all feeling fantastic.

Well, the good winds have finally arrived and August has given us some of the best flying days, thank you God, and John Roush.

We had a record attendance at our August meeting and thank you for attending.

The big prize of the day, was originally won by John Roush, but he felt that a new jet would have a better home with someone else, so he gave it to the next winner, who turned out to be one very appreciative, Greg MacCauley. Greg and his dad Gary added some fine retractors, and what a beauty it is. Thanks again John, you are a fine man and a credit to our club.

The little things that make our club so special, are those things that most members don’t see. John Conrad and Gary Swigart, set up the field each morning, putting out the chairs, taking in the field signs, pulling weeds, and sweeping the pit area, and I want to thank them very much.

Then when the flying is done, a special thanks to the guys that put all the stuff away, Bill King, Bruce Wright, Gary MacCauley. Then we have the guys that drag and roll the field, Rich Thomas, Walter Wilken, and Gary Swigart. We have a great field and I want to thank everyone, who work so hard to make it that way.

Remember that on Saturday September 10, we will be hosting our first Student Learn To Fly Day, at the field. This will be announced on the University Bulletin, and so hopefully we will get some new students out to enjoy our fun sport. We will have three trainers going that will be available from 7 to 9 am. If you see someone new, please take a minute to say hello and welcome to Casa de Aero.

Don’t forget the Club Boat Float on Saturday, September 24 at Goldwater Lake. Hot Dogs and Hamburgers will be furnished, so all you need is a side dish or a dessert, and your are in. Oh, if you have a boat, or an electric sea plane, bring it with you.

September will be a super month so come on out and enjoy life.

Take Care and Keep Flying,

Jack

NEXT MEETING will be Tuesday September 6, 2011

Meetings start at 7:00 PM in room 101, Building 21 (Robertson Aviation Safety Center)
On the Embry-Riddle campus, 3700 Willow Creek Road.
Visitors are welcome! See you there!
From the Safety Officers
Tom Gatchell and ARF the wonder dog.

Time for another safety column and this time an encore of issues for new members, nonbelievers and everyone else!

First on the hit parade, one thoroughly fried speed control.

Pop Quiz? When flying your ELECTRIC powered plane and a scrub oak suddenly jumps up and grabs your pride and joy, you should:
A) Leave your transmitter on and say a bunch of bad words before retrieving your plane.
B) Turn your transmitter off and say a bunch of bad words before retrieving your plane.
C) Leave your transmitter on, put the throttle stick to off and say a bunch of bad words before retrieving your plane.

Who picked “C”? You win! You see “safe, silent, trouble-free and clean” electrics are also dumb as a box of Wheaties. With your prop completely tangled in branches and unable to turn, that brush less marvel of modern technology will draw all the amps wires, batteries, integrated circuits and motor windings can stand and MORE until ONE (or more) burn up. As long as the battery stays connected and the receiver sees “all ahead FULL” coming from the transmitter, it’s gonna TRY and TRY and TRY UNTIL the weakest link gives up.

Now you say, “I DID put the throttle to “off” but I turned off my transmitter to save the battery for flying my other plane”. And STILL your power system became a “crispy critter”. Why? Some radios, Futaba’s being one, have a fail-safe setting of 40% throttle should the receiver become unbound (transmitter turned off). Maybe it’s to keep your plane flying to allow you to try to rebind, I don’t know. This setting IS changeable down to 8% which is off for all the ESC’s I’ve ever seen or used. Oh, and every radio I’ve owned, saw or heard about should ALWAYS have the transmitter ON FIRST and OFF LAST. They conceal that information in the direction booklet that comes with every radio and are seldom read.

Issue TWO! Been a lot of pit fly-overs on take-off lately and we’ve been lucky to have had no accidents. I will again ask Gary to insert the excellent article on P-factor/torque/prop airflow I had published a while back HERE:

P-Factor! I’m sure most of you have heard of it, some have experienced it and might not have recognized it. Maybe the following will be familiar.

You take your nice, new P-97 Belchfire War bird ARF that the manufacture actually spent some time designing a great flying airframe and matched it to the correct power motor/ESC/battery combination that should give good, reliable power and flight performance for many flights. Now as human nature would have it, a few of us want MORE POWER, right? Vertical performance and rocket-like speed, cool, right???? AND there’s nothing wrong with that as long as you understand ALL the dynamics that go with modifications and have the RC flying skills to match the modification’s new performance. Years ago MOST RC planes were flown with much less power (scale?) than even our little “toy” park fliers today. Please don’t get me wrong. There are many modified planes being flown regularly and safely at our field, I’m just commenting on an observation.
Dynamics??? What the heck???? That's RIGHT! Airplanes, models AND full sized, are not immune to the laws of physics. The difference is, your behind isn’t IN the model allowing you to feel all the forces DOUBLING or TRIPLING the power results in.

I could spend a bunch of effort writing about TORQUE, bigger PROPS, more PITCH, more BLADES, gyro effects and all the swell forces that powerful new thrust applies to left-wing, fuselages, tail surfaces and the right wing but others have already done it and better than I could myself. So THIS column will be a little shorter so I can include the excellent article I found online. Be advised, I, as the “Safety Czar for Life”, felt the need to dwell on this issue after a few guys have either made hard left turn departures over the pits and parking area or lost planes due to “unhappy” handling characteristics with planes that have become Dr Jekyll and Mr Hyde after adding “MORE POWER”! Also these effects seem to be missing with ducted fan jets because all that “wind” is contained in a tube and doesn’t flow over flight surfaces however “jet effect” will be another column.

I will now ask our editor-in-chief to run the article following this column! It is brief and to the point but with links for more information should you want it. You should at least read the short version:

Understanding Propeller Torque and P-Factor
From wiki.flightgear.org

This is an attempt to answer the frequent question "Why is my aircraft turning left all the time?"

This occurs only in aircraft with propellers at the front of the aircraft. And yes, it does occur in real life. Four distinct phenomena cause the effect, all causing the aircraft to turn in the same direction. They are:

Prop wash
A propeller pushes air not just horizontally to the back, but more in a twisting helix around the fuselage (clockwise as seen from the cockpit). As the air whirls around the fuselage it pushes against the left side of the vertical tail (assuming it is located above the propeller's axis), causing the plane to yaw to the left. The prop wash effect is at its greatest when the airflow is flowing more around the fuselage than along it, i.e., at high power and low airspeed, which is the situation when starting the takeoff run.

Propeller torque effect
Torque effect is the influence of engine torque on aircraft movement and control. It is generally exhibited as a left turning tendency in piston single engine propeller driven aircraft.

According to Newton’s law, “for every action there is an equal and opposite reaction,” such that the propeller, if turning clockwise (when viewed from the cockpit), imparts a tendency for the aircraft to rotate counterclockwise. Since most single engine aircraft have propellers rotating clockwise, they rotate to the left, pushing the left wing down.

Typically, the pilot is expected to counter this force through the control inputs. To counter the aircraft roll left, the pilot applies right aileron.

It is important to understand that torque is a movement about the roll axis. Aileron controls roll. Prop torque is not countered by moving the rudder or by setting rudder trim. It is countered by moving or trimming the aileron.

This correction induces adverse yaw, which is corrected by moving or trimming the rudder (right rudder).

On aircraft with contra-rotating propellers (propellers that rotate in opposite directions) the torque from the two propellers cancel each other out, so that no compensation is needed.

P-Factor
P-factor is the term for asymmetric propeller loading, causes the airplane to yaw to the left when at high angles of attack.

The descending right side of the propeller (as seen from the rear) has a higher angle of attack than the upward-moving blade on the left side and provides more thrust. This occurs only when the propeller is not meeting the oncoming airflow head-on, for example when an aircraft is moving down the runway at a nose-high attitude (i.e. at a high angle of attack), as is the case with tail-draggers. Aircraft with tricycle landing gear maintain a level attitude on the takeoff roll run, so there is little P-factor during takeoff roll until lift off. In all cases, though, the effect is weaker than prop wash.

Gyroscopic Precession
This is the tendency of a spinning object to precess or move about its axis when disturbed by
a force. The engine and propeller act as a big gyroscope. However, gyroscopic precession is likely to be minimal in a typical aircraft.

Gyroscopic precession is frequently confused with p-factor.
One author maintains p-factor is caused by a combination of factors unrelated to gyroscopic precession.

http://home.earthlink.net/~x-plane/FAQ-Theory-PFactor.html


I suspect there are a few new pilots who do not understand the flight dynamics of the models they fly. What we didn’t talk about was how to deal with it. DON’T firewall the throttle instantly on take off. After making sure you are pointed straight down the runway, smoothly advance the throttle to flying speed. Tail draggers have their OWN little quirks but in both cases BUMPING a little right rudder (don’t hold it over unless you have a Seagull Models ‘Spacewalker II’) to maintain your heading.

Please NEVER be afraid to ask an experienced member for assistance. It isn’t a sign of weakness, but a sign of good sense!

We need to be considerate of the many new pilots and students with regard to running up fuel or gas engines behind the flight stations. I believe our “etiquette” rules mention that issue.

Well, enough about YOU! We are heading to Floriduh, home of old people and their parents, WHO obviously are incapable of voting without adult supervision. I find Floriduh only marginally more ‘enjoyable’ than a colonoscopy by a doctor who was his college’s arm wrestling champ.

Daughter’s getting married (already went to the first one but it doesn’t count) so might as well make a trip up the East Coast while we’re at it. So that means NO ‘safety czar’ tyranny for a month or so but you better not have any accidents or there will be H. E. Double ‘toothpicks’ to pay when I return!

Tom
searching for planes. Read my Safety column for more safety related items.

Field Report (Gary Swigart): Field in great shape thanks to Walter and Richard who have dragged and rolled the field and cleared out drainage ditches.


Flight Instruction Report (Richard Thomas): Solo Certificates were awarded to Bill Hurst and Bill Munson.

Ted Cheever showed off a beautiful electric float plane which is a Hanger 9, 58” wing span aircraft.

Tom Funk of Guidance Aviation spoke about the FAA Sport Plane license. You can fly anywhere during the day only and below 10,000 feet. The plane is a Piper Sport which can be rented for $99.00 per hour and uses 91 octane auto fuel. Guidance Aviation has a full motion simulator to train on. Tom gave away a Guidance Aviation hat to Jerry Alvarez and a one hour ride in the sport plane to Kevin Shuster.

The Meteor Jet was raffled off and the winner was Greg MacCauley.

A big thank you goes to Tom Ault for the coffee and refreshments which were made available throughout the meeting.

The meeting was adjourned at 8:10 pm.

Respectfully submitted by: Gene Tomek
Don’t forget the **BOAT FLOAT**
September 24th, 9AM to 1PM.

**I don’t know what to call it but, it flies!!**
For more info., talk to Rich Thomas.

**Details about the Boat Float/Picnic on Saturday, September 24:**

**Provided by club** - Hamburgers and hot dogs (with buns)
Plates, utensils, napkins, condiments, bottled water, etc.

**Members bring** - Dish to share
Beverage (no alcohol allowed)
Boats (electric, steam, or wind powered)
Optional: Park Flyer-type planes (electric power). Ramada is reserved for us from 9 am to 1 pm. Parking passes available to the first 25 who RSVP.

**Walter’s P-51 going fast.**
It does it well.

**Twisting the Yak.**

**Walter and Otto working with a new aircraft.**

**Jack’s Corsair looking good.**

**Paint crew.**
If you are interested in getting rid of any of your excess (small & shippable) R/C items, contact Greg MacCauley. He will list them on eBay and handle the shipping for a small commission. He can be reached at (805)341-5887.
SUPPORT YOUR LOCAL HOBBY STORE

The owners and operators of the local hobby shop put in long hours and make a large investment in inventory so that you can have the items you need to enjoy this great hobby. Their margins are slim when they have to compete with mail order houses. Their existence literally depends on us. If you want to keep the convenience of instant supply of that needed item, patronize the store below.

VALLEY HOBBY SHOP
RC CENTER
7680 East HWY 69
Prescott Valley AZ 86314
Open Monday thru Friday 9:30 AM to 7 PM
Saturday 9:30 to 6 PM
Sunday Noon to 5 PM
Ask Donna for that special item
(928)-775-4071
Owners: Donna and Tony Pacini

Put your advertisement in the FLITE LINES. It’s free if you’re a member, almost free if you’re not. Contact, Gary MacCauley with your copy, hand written, emailed, typed, or on disk.