



The R/C Flyer

Volume 30, Issue 1

January 2006

Next Meeting – January 12, 2006, Clear Lake Park Building – 7:00 PM

HAPPY NEW YEAR

By: Herman Burton, JSCRCC President

Here we are, in the new year of 2006. My sincere wishes for everyone are to have a safe, enjoyable and fruitful year. The Annual Christmas Party was well attended in December. Many members and their guests showed up for a delightful smorgasbord of delicious meats, cheeses, snacks and TOO MANY desserts! But, duty calls, so I had to sample each one, of course. Tough duty, but hey, someone has to do it!

For entertainment at the Christmas party, Mike Laible brought a CD player so we could listen to seasonal music. But, the “Crasher 3” video of radio control mishaps was the hit of the evening. Mike was kind enough to bring both a video player and a TV for the benefit of the club, in addition to the CD player. Some of the scenes of destruction exhibited in the video were beyond belief. The one scene that was for me the most graphic was when a jet made a high speed pass over the field, but lost its stabilizer over the landing strip. The plane nosed in at what appeared to be 150 mph, and when it hit, the fuel exploded, and the resulting fire and carnage added unexpected realism. There were scenes of helicopters in mishaps, float plane crashes, jets, piston engine aircraft, you name it. Thanks to Don Fisher for bringing the video to the Christmas club meeting.

The high winds during Hurricane Rita caused some damage to the canopy at the flying site. The club is hopeful of being able to get the damage repaired, either with the help of JSC, or repair the canopy at club expense with the blessings of JSC. Which ever method is finally used, this maintenance item is at the top of the list of things to accomplish early in the New Year.

In year's past, the club has had several Fun Fly's during the course of the year. These events are always fun, enjoyable, great camaraderie is experienced, food and beverages are provided at no cost to the participants, and winners are awarded cash prizes. The club intends to continue these events in 2006. You are encouraged to bring a plane out for the next Fun Fly, and have fun with us!

The Johnson Space Center Radio Control Club wishes you a hearty and Happy New Year!

2005 Model of the Year

By: Editor

After members and their guests had stuffed themselves on the excellent food and refreshments at the December Christmas Party, the members were tasked to undertake some serious work, vote for Model of the Year (MOY). Two eligible

models were shown, Ken White and his Midwest Twin and Troy Whitehurst and his interchangeable wing Cosmo.

Ken White won MOY for 2005



Troy Whitehurst took second place



There was a number of excellent Model of the Month winners during 2005 that for various reasons (e.g. had not flown yet) were not eligible for MOY consideration.

F3C World Championship 2005

By: Herman Burton, JSCRCC President

The January 2006 edition of MODEL AVIATION has a story by one of our club members, Mike

Goza, who is our club secretary. He had been selected to be the World Championship team manager. The article is the feature story of the magazine, and Mike does a great job of writing about the team experiences in Spain. The photos are excellent, and the writing sounds like Mike took a few extra courses while in college in journalism; the article is well written, concise, and keeps the reader's interest alive throughout.

The Johnson Space Center Radio Control Club extends a well-deserved "Congratulations for a job well done!" to Mike. And to all the team members, who placed second in the World Championships, our congratulations are extended. The entire RC community is proud of the accomplishments of these individuals. Thank you, men!

Float Flying

By Editor

Taking advantage of some excellent weather recently were Herman Burton, Mike Laible, and David Patlovany flying their float planes. Flying off of Taylor Lake on a perfectly calm day looks easy from the photos but we all know better, don't we?

Shown is Herman with his Sig Kadet 40 Trainer and David's Super Sportster.





A Fifth Grader Says Why He Wants To Be a Fighter Pilot

By: Troy Whitehurst, Courtesy of the Lone Star Flight Museum

I want to be a fighter pilot when I grow up because it's fun and easy to do. Fighter pilots don't need much school; they just have to learn numbers so they can read instruments. I guess they should be able to read maps so they can find their way if they get lost. Fighter pilots should be brave so they won't get scared if it's foggy and they can't see or if a wing or motor falls off they should stay calm so they'll know what to do. Fighter pilots have to have good eyes so they can see through clouds and they can't be afraid of lightning or thunder because they are closer to them than we are. They make more money than they can spend. This is because most people think airplane flying is dangerous except fighter pilots don't because they know how easy it is. There isn't much I don't like, except girls like fighter pilots and all the girls want to marry them and they always have to chase them away so they won't bother them. I hope I don't get airsick because if I do I couldn't be a fighter pilot and would have to go to work.

Which is the Better Radio System: PPM or PCM?

From the River District RC Eagles, Saint Clair, MI

By Ed Olszewski

(Editor, From the AMA National Newsletter November 2005)

Aside from all the other choices when selecting an RC radio system, the terms PPM and PCM come up. PPM or Pulse Position Modulation is standard FM. The next step up is PCM or Pulse Code Modulation which seems to be shrouded in mysticism. In a nut- shell, it is not what frequency each is on, but how they use their frequencies.

To demystify PCM somewhat you should understand that there is no range increase with PCM. It is not on some special side band or frequency. It shares the exact same FM frequency everyone else on your channel is using, and is susceptible to the same interference. There is, however, improvement in noise reduction and safe performance while the noise is received.

Noise is the undesirable signals on your frequency. It can be caused by anything from sunspots to another transmitter horning in on your frequency. Today's modern radios operate on a narrow band that eliminates most of the random noise. Basically, the PCM radio takes your FM signal and codes it digitally (the C in PCM). Then the PCM receiver decodes the signal to utilize it. Since noise is not a normally recognized code, it is ignored by the PCM receiver, and is not sent as servo instructions. In addition PCM does not transmit position signals for each servo in each transmitter pulse. Rather, it transmits movement commands as required and occasional position confirmation commands. Short periods of interference will simply leave the servo at its last known position, and not show such radio interference as glitches or fluttering.

If your PCM receiver continuously receives interference past the preset time, it then switches

into failsafe mode, and obeys some preset commands you programmed into the receiver. For example, you may set failsafe to throttle down and move all other surfaces to the neutral position. This is great if you are in level flight, but disastrous if you are exiting a loop. If set to continue the last command, it will often keep your model in the loop. Unfortunately, failsafe settings will put your model in a precarious situation you didn't want it locked into.

A third level of protection may be obtained by using a pilot assist module in combination with preset positions on the failsafe settings. You can help ensure your model will go to level flight at a slow but safe airspeed and hopefully safely ride out the interference. Even though the radio does not glitch, it is not to say the PCM radio was in good contact at all times. If another radio is transmitting on your frequency, it can and likely will interfere with your receiver's ability to receive the proper signal from your transmitter. The CB radio enthusiast in the seventies used to call this being walked on. PCM will help keep your receiver from acting on a bad signal, but there is nothing it can do if a good signal can not be received over the interference. The logic of PCM is that it is better to momentarily do nothing than act on a bad signal. PCM benefits are purely in precise transmitter/receiver communication.

PCM does, unfortunately, have a serious weakness. Even minimal atmospheric or external noise can foul up those wonderful intricate binary numbers beyond any correction. In that case, the receiver is up a creek without a paddle. Think of it as if trying to communicate a grocery list via cell phone in a one bar area. Some things are not going to make it in the grocery cart. With PCM, the main purpose is to hide glitches by not transmitting them to a control surface command. As far as the pilot is concerned, there is only an unnoticeable momentary loss of control. If the radio interference is persistent, the pilot will probably be unaware and may lead to total loss

of control sending the airplane either into the wild blue yonder or to the ground.

On the other hand, the simple PPM pulses may be corrupted with some information getting through. When things go bad, the choice is between no control (PCM) and some control (PPM). Most RC pilots would prefer having some control even if erratic. When a model aircraft is suddenly doing the funky chicken, it is normally a signal to land. Most radio interferences are normally small glitches and are recoverable, giving the PPM pilot a chance to land and find the cause of the problem. The bottom line is if you are looking for a bullet-proof radio system to keep your airplane from falling from the sky, it does not exist.

A system sporting PCM is an excellent choice for larger acrobatic and 3-D fliers with quick throws, where a small glitch may send it suddenly into the ground. PCM will of course work on smaller, more docile airplanes. These airplanes will benefit less from the added features, and PPM is probably a good bet. Remember there is no substitute for a good battery charge and a range check. If another radio on your frequency is turned on, there is little any radio can do to keep you from being shot down.

Club Officers

President: Herman Burton 281-474-7133
Vice-President: James Lemon 832-385-4779
Treasurer: Dave Hoffman 281-479-1945 (W)
832-689-6201 (Cell)
Secretary: Mike Goza 281-554-4016(H)
281-483-4695(W)

Instructors

Chief Instructor:

Dave Hoffman: 281-479-1945 (W)
832-689-6201 (Cell)

Fixed:

Mike Laible: 281-474-1255 (H)
281-226-4192 (W)
James Lemon: 832-385-4779
Clay Bare: 281-488-2992
Don Fisher: 281-474-4942

Heli & Fixed:

Mike Goza: 281-554-4016 (H)
281-483-4695 (W)
Steve Rhodes: 409-948-2881

The R/C Flyer

Editor/Electronic Distribution

Charlie Teixeira

Articles and Want Ads may be submitted to
Charlie Teixeira at 1711 Bowline Rd, Houston TX
77062 in hard copy or via e-mail (preferred) to
ctei@sbcglobal.net

To get the newsletter via e-mail go to
<http://www.jsrcc.com/> and click on the
"Subscribe to Newsletter". Once you have
subscribed you will automatically receive the
newsletter each month. If you have any questions
concerning the web site, e-mail Ron Madsen at
webmaster@jsrcc.com or Mike Laible at
mlaible@jsrcc.com.

Club Homepage

<http://www.jsrcc.com>