



**TEAM News-March 2012**

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### ***Pilot of the month:***

***Ryan Colman***

*Buddy Boy*



*I first met Ryan about a year ago, and right away I knew I was dealing with someone that was very talented in the R/C world. As I got to know him a bit more I discovered he is quite knowledgeable in many different aspects of aero-molding and engineering. Come to find out he is quite the winemaker as well.*

*I had the opportunity to spend some time with Ryan building and flying this past*

*summer, the more I got to know him the more impressed I was. I found out he was an open wheel racer, and did very well at it. He says (racing's not a sport it's a lifestyle). Now days he brings his knowledge of mechanics to the air-field. Ryan can fly just about anything out there, but he prefers to fly 3-D.*



*This past summer he set up a couple of 40%ers and I got to say they ROCKED, nothing says R/C like a 40% aircraft. Ryan's passion for flying is very strong; it will be fun to see where it will take him.*

*One thing I will say is that I'm glad I got to spend some time with him, as he has taught me many things about aircraft. I guess it's true (you can teach old dogs new tricks). Kudos go to his parents as well for letting Ryan explore the world of R/C.*

*Keep up the good work Ryan, as my dad used to say (Go get-em Tiger).*

## *Aircraft of the month:*

### *F-22 Raptor*



The Lockheed Martin/Boeing F-22 Raptor is a single-seat, twin-engine fifth-generation supermaneuverable fighter aircraft that uses stealth technology. It was designed primarily as an air superiority fighter, but has additional capabilities that include ground attack, electronic warfare, and signals intelligence roles. Lockheed Martin Aeronautics is the prime contractor and is responsible for the majority of the airframe, weapon systems and final assembly of the F-22. Program partner Boeing Defense, Space & Security provides the wings, aft fuselage, avionics integration, and training systems.

The aircraft was variously designated F-22 and F/A-22 during the years prior to formally entering USAF service in December 2005 as the F-22A. Despite a protracted and costly development period, the United States Air Force considers the F-22 a critical component of US tactical air power, and claims that the aircraft is unmatched by any known or projected fighter, while Lockheed Martin claims that the Raptor's combination of stealth, speed, agility, precision and situational awareness, combined with air-to-air and air-to-ground combat capabilities, makes it the best overall fighter in the world today.<sup>[7]</sup> Air Chief Marshal Angus Houston, former Chief of the Australian Defence Force, said in 2004 that the "F-22 will be the most outstanding fighter plane ever built."

The high cost of the aircraft, a lack of clear air-to-air combat missions because of delays in the Russian and Chinese fifth-generation fighter programs, a US ban on Raptor exports, and the ongoing development of the planned cheaper and more versatile F-35 resulted in calls to end F-22 production. In April 2009 the US Department of Defense proposed to

cease placing new orders, subject to Congressional approval, for a final procurement tally of 187 operational aircraft. The National Defense Authorization Act for Fiscal Year 2010 lacked funding for further F-22 production. The final F-22 rolled off the assembly line on 13 December 2011 during a ceremony at Dobbins Air Reserve Base.

## Classified:

**1.** I would like to have you place on the sale board a Spektrum DX6i 6-channel 2.4ghz full range spm 6620 radio transmitter for \$125.00. I am upgrading to a DX8, that's the reason for my sale. Contact cell phone is (503) 931-4054 contact me or leave a message. Thanks! Derek Samson

**2.**  
For sale \$140.00  
8 Futaba FM receivers. 20 crystals and a programmable 6ch FUTABA SKYSPORT 6A FP-T6VA with battery. All are used and as is. Two of the Futuaba RX's are factory recertified with paperwork and have not been flown since then. All for \$40.00 special price to club members, asking more on craigs list. Will trade for DX7

Hobbyzone Supercub Electric 47" wingspan. Ready to fly. \$95.00 Complete, everything that was in box,

radio, new battery, gear spare parts and original box complete. Shown without gear, hand launches well. Lands great on you lawn without the gear. GEAR INCLUDED but not attached. Flown about 12 times, fuse snapped in front of tail repaired per manual's instructions, see pic detail of repair. Very easy to fly, perfect trainer. \$95.00 or Trade for DX7 + some cash make offer

TX battery for DX7, brand new in the bag—extended life 2500mah Ni-MH Sanyo battery for DX7 \$58.00 (20% off list)

Jake Bolotin 503-554-0975 or email at [ferncreek@frontier.com](mailto:ferncreek@frontier.com)

### **3. Twin Otter- free to club**

**member only. Soren Miller has a winter project if anyone wants to work on it. E-mail Shawn Barney if your interested**

Let me know what you need listed.

[ShawnBarney@comcast.net](mailto:ShawnBarney@comcast.net)

## Tech-Talk



### Radio mixing

*I just thought I would touch a bit on mixing channels on your radio. There are times when a standard 4ch. radio just won't cut it. Some times you have aircraft that need a special set-up and radio mix. Additional radio control functions*

Additional functions, all referred to as *channels*, are found on either toggle switches or dials, both of which can be located on the face or top of the transmitter within easy fingertip reach (*the photo shows the top left corner of a transmitter with many extra channels*).

Common radio control functions and features include:

**Flaps** are usually controlled by rotating a small dial so that varying amounts of flap can be applied as necessary. Retractable landing gear, or 'retracts', on the other hand, is likely to be controlled by the flick of a toggle switch. **Control surface mixing** is only possible on a computer-based

transmitter, which are very common these days. A single pair of control surfaces is made to act as two separate pairs would. The most common type of control surface mixing is to combine elevator and aileron deflection into 'elevons'. With such mixing, the transmitter is operated normally but the single pair of control surfaces combine the two different deflections in accordance with the Tx stick movements and so move together, as elevators do, and individually as ailerons do.

Other similar control surface mixing includes *flaperons* (mixing aileron & flap deflection) and *spoilerons* (mixing aileron & spoiler deflection). **Channel mixing** occurs when two separate channels are made to operate in conjunction with one another. For example, you could program an aileron and rudder mix whereby the rudder automatically moves a set amount when the ailerons are deflected.

A **memory function** of an rc system means that multiple models can be used with just the one transmitter. Once the particular settings for a model are programmed in to the Tx (eg trim settings), they can be stored along with saved settings for other models. This function is very convenient, it prevents you having to start trimming from scratch every time you fly a different aircraft with the same transmitter.

A **training feature** is the ability to connect one transmitter to a second transmitter, or 'Buddy Box', via a cable. This allows the student pilot to have full

control of the airplane, yet allows the instructor to resume immediate control at the flick of a switch, if the student gets in to difficulties.

This way of learning is one of the best methods and should be seriously considered if you join a club – most model airplane clubs will have at least one buddy box system, to enable flight training under direct supervision of an approved model flying instructor.

Further radio control functions commonly found on a transmitter can be servo reverse and dual rates...**Servo reverse** allows the direction of servo movement to be fully reversed, ideal for times when a servo can only be installed in the model in a way which isn't conducive to the required direction of movement.

**Dual rates** enable the control surface deflection to be limited while still retaining full stick movement, so as to limit the sensitivity of the airplane in the air. With dual rates off the control surface has 100% deflection, but with dual rates on the deflection can be programmed down to, say, a 20% deflection limit.

Dual rates can be found on some RTF rc airplanes these days, and may be described as '*Beginner Mode*' (less deflection) and '*Advanced Mode*' (full deflection).

## ***In the Hanger:***



## ***S.P.A.D.'s***

*With a S.P.A.D event on our schedule I felt it necessary to talk about spad's.*

*Spad means **simple plastic airplane design**. Basically it is R/C airplanes made out of PVC gutter pipe and corrugated plastic. (the stuff real-estate signs are made of).*



*They are very easy to build, with a few tools and some glue, tape and left over*



*parts you have in your shop you can have one in the air in just a couple of days. The best way to find the spud you want to build is to do a quick search on google (image) or you can start with SPADTOTHEBONE.COM This site will offer just about everything you need to know to get the job done. I hope you all build one or two for this years event. Combat is where it's at ...so keep that in mind when deciding on your design.*



### ***Last words:***

*Wow Spring is right around the corner, with the days getting longer and the flowers starting to bud that can only*

*mean one thing, it's time to start getting ready to fly...Charge those batteries finish your builds and check your equipment because soon it will be Time To Fly.....*

*This winter seems to have gone by so fast, I hope you had the chance to get some flying in, as there has been a few days here and there that have been okay for flying. I know there are a few **Hard Core** guys that will fly any time...*

*The Static show went well this year from what I hear. I was not able to attend this years show due to the fact my planes are not ready yet, and my schedule would not allow. I am sure there were many great aircraft, if it was anything like last years event.*

*Please e-mail me photos and I will post them.*

*Well that's it for now. Please feel free to send letters and photos of your projects, Ideas or fun times flying and I will work them in.*

*Shawn Barney*

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***NEW NEWS – Just Released***

Hey guys we are now live on Facebook. We've setup a Facebook page for our club.

Here is the link to our new Facebook page:

<http://www.facebook.com/home.php#!/EvergreenAeroModelers>

Take time to "like" us on Facebook and leave us a message for all to see.

***Next month:***

***Props***

*I will take a look into propellers, Sizes, balancing, types and whatever else I can dig up.*

***Glow fuel***

*I will talk about glow fuel what % should you run, what brand is the best, handling and care of.*

*Until then Fly safe and have Fun.*