

# TEAM News-Dec. 2011

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## *Pilot of the month:*

**-Cecil Mead-**



**AMA#888**

*Cecil is what I would consider to be a master builder. He is the vice-president of our club and has been building and flying model aircraft since the late 40's and early 50's. As a matter of fact Cecil has flown and judged many AMA events. His hanger is full of trophies, plaques and planes not to mention many news articles about him. I would say Cecil is a professional RC pilot but, he says he just loves the hobby.*

*When I first met Cecil, it was apparent he likes scale flying and gliders. He really doesn't like the 3-D stuff and all. He says "real planes don't fly like that!"*

*He has sure seen this hobby change through the years, gosh with AMA # of 888 you know he has seen a lot of time on the sticks, and at the field. Cecil is very involved at the museum as he is in charge of our modeling room and teaches high school aged kids how to build model planes. Way to go Cecil!*

## *Aircraft of the month:*

**-Stearman PT-17-**



**The Stearman (Boeing) Model 75 is a biplane used as a military trainer aircraft, of which at least 9,783 were built in the United States during the 1930s and 1940s. Stearman Aircraft became a subsidiary of Boeing in 1934. Widely known as the Stearman, Boeing Stearman or Kaydet, it served as a primary trainer for the USAAF, as a basic trainer for the USN (as the NS & N2S), and with the RCAF as the Kaydet throughout World War II. After the conflict was over, thousands of surplus aircraft were sold on the civil market. In the immediate post-war years they became popular as crop dusters and as sports planes.**

## Tech-Talk:



The first general use of radio control systems in models started in the early 1950s with single-channel self-built equipment; commercial equipment came later. The advent of transistors greatly reduced the battery requirements, since the current requirements at low voltage were greatly reduced and the high voltage battery was eliminated. In both tube and early transistor sets the model's control surfaces were usually operated by an electromagnetic escapement controlling the stored energy in a rubber-band loop, allowing simple on/off rudder control (right, left, and neutral) and sometimes other functions such as motor speed.

Crystal-controlled superheterodyne receivers with better selectivity and stability made control equipment more capable and at lower cost. Multi-channel developments were of particular use to aircraft, which really needed a minimum of three control dimensions (yaw, pitch and motor speed), as opposed to boats, which can get away with two or one.

As the electronics revolution took off, single-signal channel circuit design became redundant, and instead radios provided proportionally coded signal streams which a servomechanism could interpret.

More recently, high-end hobby systems using Pulse-code modulation (PCM) features have come on the

market that provide a computerized digital bit-stream signal to the receiving device, instead of analog type pulse modulation. However, even with this coding, loss of transmission during flight has become more common in part because of the ever more wireless society.

In the early 21st century, 2.4 gigahertz transmissions have become increasingly utilized in high-end control of model vehicles and aircraft. Now, these 2.4 gigahertz systems are being made by most radio manufacturers. The radios range from a couple thousand dollars, all the way down to under US\$30 for some systems. Some manufacturers even offer conversion kits for older digital 72 Mhz band radios.

Now for the question. Who has the best radio Futaba Spektrum or JR?

I guess to answer that question, it's all in a pilots preference and what kind of a deal he can get when he first starts flying. They all do about the same thing the only difference is the read out is a bit different from one brand to another.

Today we fly a wide variety of aircraft and some of them require the ability to MIX surface areas on the aircraft. This is accomplished through the Radio settings and cannot be achieved with a standard (old school) 4 channel radio, you need a computerized radio.

I won't go into all the details about mixing, but you can control the amount of throw and speed your servos use which allows you to have a Hi and Low rate setting on your aircraft as well as the mixing different control surfaces at the same time. This leads me to the next article: **3-D Flying**.

## 3-D Flying:



*“What the heck is that guy doing with his plane over there? It looks like it’s floating”*. Those were the words I said when I first saw someone flying 3-D. I didn’t know rc planes could do that stuff. After talking with the pilot he explained what 3-D flying was. He said that basically it’s a light plane with a large wing area surface and a over sized engine and prop.

So I looked into it and here is what I found out. 3D flight is a type of flying in which model aircraft have a thrust-to-weight ratio of more than 1:1 (typically 1.5:1 or more), large control surfaces with extreme throws, low weight compared to other models of same size and relatively low wing loadings.

These elements allow for spectacular aerobatics such as hovering, 'harriers', torque rolling, blenders, rolling circles, and more, maneuvers that are performed below the stall speed of the model. The type of flying could be referred to as 'on the prop' as opposed to 'on the wing', which would describe more conventional

flight patterns that make more use of the lifting surfaces of the plane.

3D has created a huge market for electric indoor 'profile' types similar to the Ikarus 'Shockflyers' designed to be able to fly inside a gym or outside in little wind. These generally make use of small brushless motors (often outrunners, but also geared inrunners) and lithium polymer batteries. There are also many larger 3D designs designed for two and four stroke glow engines, two stroke gas engines and large electric power systems. The most common and which most pilots describe as the best size of a 3D plane is a 40%/150cc class.

## Last Words:



With the holidays in full swing, I hope you all get the opportunity to spend some quality time with your family and friends. Please be safe this holiday season. Just a quick reminder the **Christmas Party** is on **Dec, 15<sup>th</sup>**. At **7:00pm** in the **Aero Space building**. Please bring a dish and your spouse. It will be a fun evening. **NOTE: Please email Dave Bibbee at [dbibbee@pcc.edu](mailto:dbibbee@pcc.edu) and let him know if you plan to attend.** There will be a white elephant gift exchange so bring a gift marked pilots and if you have a guest also bring a ladies white elephant gift. Don't exceed \$15 in

value for either gift. The club will get 6 gift cards from a major department store (or VISA) valued at \$25. The ladies will draw a number from 1 thru 6 to determine who gets to choose the next gift card.

*The weather outside can be quite lousy this time of year, so I hope you all have winter projects on the boards. When you finish them up please bring them in for show and tell, as I am adding a new area here in the News Letter, so I can show them off for you.*

*TEAM tee shirts are now available contact (Martin B).*



### Show & tell:

Derek Samson brought in his 84" slope sailplane. He said his dad taught him to how to read the slopes with this German glider. Thanks for bringing it in and showing it to us Derek.

### Next month:



**Batteries:** *What different kinds of batteries are there? What kind should I use? Are they expensive? I will answer those questions and more.*

**Safty:** *This is a subject I think we should cover once in a while. So I will look into some aspects of how important it is in our hobby.*

**Electric vs. Nitro:** *What type of motor is the best and which one is most cost effective.*

### Classified:

This is the new classified area for you to list rc related items for sale or trade.

**1. S.P.A.D. combat planes for sale:  
\$25.00 contact: Shawn Barney 503-330-6783**



**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 your 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 503-554-0975  
ferncreek@frontier.com

3. (your listing here-send me your info !)

Let me know what you need listed.

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### *Letters to the Editor:*

*Newsletter looks good Shawn. Good luck with the newsletter, and thanks for your help at the field!*

*You can use my stories in the next newsletter if you want, seems like every time I fly something interesting happens:*

*Sept 2011: This month I finally got my new DX8 working with my old .15 Fun Bat, old .32 Scat Cat and new (to me) .46 Goldberg low wing sport flyer,*

*all just in time for the rain, but they all fly great, so I can't wait to get out there again.*

*I'm still getting used to reaching the trim switch locations on the DX8, they are not where I am used to them being on my old Futaba. I still have to look down to find them, often a very risky maneuver. I've learned the hard way to never take your eyes off your plane!*

*My first electric - the Brio - didn't fly worth beans till I changed the prop to a 10-6. The 11-3.7 it came with was worthless on a 35" span electric with a Park 480 and I was getting ready to give up on it till I read the manual and realized I had a (very) wrong prop on it. Now it flies like a true acro, really fun even in a 10mph wind. I am just learning about electrics.*

*There's a lot to know, and never assume that because the last guy had it that way that it is right.*

*Just placed my first Hobby King order. Everything arrived promptly and as expected but I can't use my new batteries until I get the right connectors...time to order a bulk pack of XT60's and toss the Deans.*

*I have an 81" Great Planes Cub 'ARF' on the bench I picked up on Craigs List unbuilt (instructions say 10-15 hour build time). It's my next project just sitting there - I can't wait to get started on it. Rainy weekends have their silver lining if you like to build.*

*I bought a Beast on close out from Hobby Town. It arrived damaged - one wing servo was jammed. It was obviously used, the box was a little torn, the wing nicked etc... I called the store, they suggested I call Horizon for repair since the model is not replaceable.*

*Horizon sent me a new wing servo and explained how to cut the whole plane open to plug it in. I took it back to the store to let them do it. Instead they unjammed the existing servo rather than replacing it, the guy said it happened to his Beast also, no big deal. I took it home, launched it and the servo jammed right away again, crashing the plane. What a waste of \$100. Well, like a guy I know says, sometimes you throw away some junk in this hobby to get to the good stuff.*

*Jake Bolotin  
Newberg*

