



Dennis McFarlane

# R/C Report

## HobbyZone Sportsman S+

*It's all about the pilot being successful.*

It's hard to imagine, but it was only a dozen years ago that Don Hendricks (Pat's Hobby Shop) and Walt and Jan Throne (Walt's Hobby Shop) along with Cindy and myself (Al's Hobby Shop) had been asked to attend a series of meetings at AMA headquarters in Muncie, Indiana. Not only were the individual hobby stores represented, but Don, Jan and Cindy were also on the NRHSA Board of Directors. The AMA was looking for answers and they wanted the input of the group as we represented modelers, hobby store owners and industry leaders.

The problem was the latest menace to model aviation, the emergence of the electric airplane. It seemed aero clubs were facing new members coming to the flying field wearing cargo shorts and sandals. Not only that, but they were experimenting with electric motors and batteries. I realize how incredible this must sound, but at the time the AMA was steeped in tradition. These newcomers were not appreciated at the club level, and even less so by the respective district vice presidents. As mentioned, the AMA leadership was looking for answers on how to deal with these "tech heads" that were invading our hobby.

I think it's safe to assume the menace was proven to be nothing more than the evolution of model aviation. I realize there are a number of model aviators that do not own an electric powered airplane, but they are few and far between, and the number of modelers who've not at the very least flown an electric powered airplane is almost non-existent.

By far the most popular trainer style of aircraft being sold by hobby dealers is the molded foam electric powered aircraft. Newbies love these things, and exactly like a



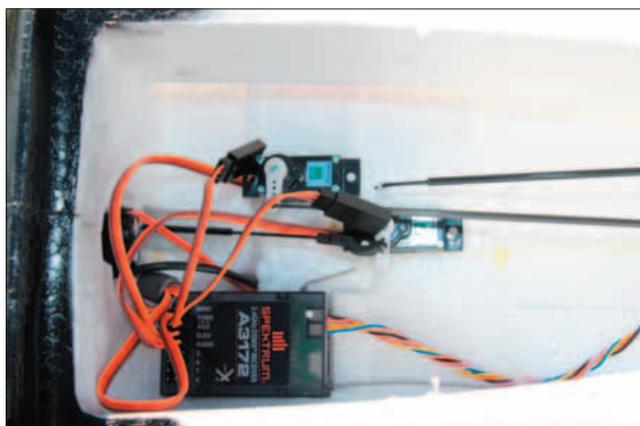
dozen years ago, dealers are more than happy to sell the modeling customer what he wants, not what tradition dictates. To this end, the latest offering by HobbyZone is the Sportsman S+. A trainer style of aircraft absolutely packed with advanced electronics and features all geared towards the burgeoning radio control aircraft pilot.

The Sportsman S+ is available both as a BNF (Bind and Fly) and an RTF (Ready to Fly). The only difference between the two offerings is the RTF includes a Spektrum DX4e transmitter, making it a true everything needed in one box offering. That said, any full-range Spektrum or compatible DSM2 or DSMX five-channel or more transmitter can be used. There is a full page in the manual dedicated to describing the setups used with the various transmitters.

Opening the box reveals the standard high-wing layout. The airplane is manufactured out of the company's high-impact and durable Z-foam, and is trimmed in a bright contrasting scheme of gray and red on white. Compared to

many boxy primary trainer offerings, this model has the look of a modern era Cessna style of aircraft, but with the impression of a large cargo door, much like something you'd see on a 172 that's been modified for skydiving.

Installed from the factory is an outrunner motor of unspecified dimensions, 18amp ESC, four mini servos, two for the ailerons, and one each for the elevator and rudder/nose wheel, along with the receiver contained stabilization package.



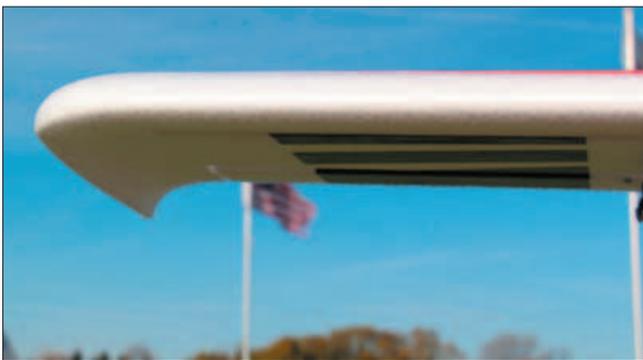
*All the necessary accelerometers, stabilizers and GPS satellite sensors have been packaged in the Spektrum A3172 receiver.*



*There is plenty of extra room in the molded battery compartment, making replacement and/or charging an easy process.*

The first thing always done is to take a look at the manual for any highlights. The manual is well written and printed in four languages. For the stateside customer, 25 of those pages are dedicated to the English language. Yet only three of those 25 pages are devoted to the assembly of the model. The rest are detailed explanations of the included DX4e transmitter and its various sticks and switches. How the SAFE+ system works, how to recalibrate the system if a failure is suspected, along with a handy trouble shooting guide.

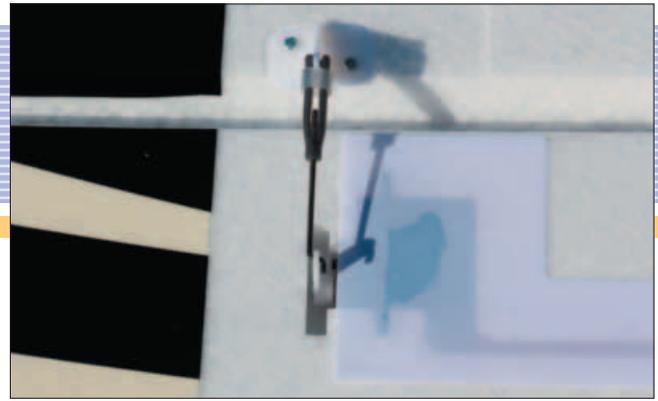
Like many offerings in this category, it takes longer for the 3S 1300mAh LiPo battery to charge than it does to assemble the model. There is a minor discrepancy in the manual in regards to the main landing gear — the manual shows the gear retainers installed on top of the landing gear fairings — but that's it, and I'm being pretty picky to even bring this up. The only other change, if you can even call it that, was leaving the wing strut screws barely snug when they were installed, thus allowing for a tiny bit of flex in the wing. All told, no more than 30 minutes was needed from opening the box to placing the completed Sportsman S+ upright on its wheels.



*Besides technology there are several aerodynamic aids, such as the Horner wingtips, to help stabilize the airplane during flight.*

So far it's been fairly routine. Even though the Sportsman S+ is an attractive model, it isn't the looks of the Sportsman S+ that is the highlight, it's the advanced electronics package. I have no idea what the acronym for SAFE+ stands for, but the system works by detecting a number of GPS satellites and if desired, holding the airplane in that position during flight.

With the battery charged it was time to head to the



*Control linkages all use the completely familiar rod from the servo to the control surface via a threaded clevis and retainer.*

flying field. On page 16 of the manual it talks about "Virtual Fence." Two options are offered. One is the VF Park setting where the airplane flies in a circle around the pilot and the other option is VF Airfield where the airplane flies in front of the pilot. Default is for the park setting, but during testing this would allow the airplane to fly over the pit area, spectator seating and the parking lot. Changing to the airfield is a simple matter of moving the sticks in a predetermined pattern. This is brought to the



*The battery was exhausted, but there was nothing to fear, as exactly like the manual states, the Sportsman lands itself.*

attention of the selling dealer as one of our club instructors had read the manual and missed this completely. It's something not to be overlooked.

By now we've all seen airplanes that takeoff by themselves and can even land with nothing more for the pilot to do than either add, or reduce, power. This is not new, but what is new and was tested at length was the Holding Pattern and Virtual Fence. The idea behind the holding pattern is that once the airplane is aloft, should the pilot become disoriented he can enter a holding pattern and the aircraft will fly in a gentle circle (based on the GPS coordinates) until such time as he's able to regain his composure and take back control of the airplane. I don't know what more to say about this than it works. There were comments made along the lines of taking a coffee break. Unfortunately I can also see this function being abused. Instructors will have to make it clear to student pilots that activating the holding pattern is not intended as a stop-

gap for something foolish like answering a phone during flight.

Virtual Fence is great. Anyone who's been around model aviation for any length of time has taken the occasional dive when a student loses his perspective and control. During a flight the transmitter was being passed back and forth, playing VF like the old 70s game Pong. A person would fly at an angle towards the limit allowed by the GPS coordinates and the airplane would automatically get reflected away with no pilot input. It's realized this is professional evaluation for a radio control model product, but one couldn't help but giggle when it would happen. We actu-



*The aircraft is a good looking trainer and is brightly trimmed, making it easy for the new pilot to orientate during flight.*

ally got a little carried away and flew until the flight battery had run out of energy but exactly like the manual states, the aircraft landed itself smoothly.

All said, the HobbyZone Sportsman S+ is a really nice product. Back in the day, when an individual was interested in radio control he learned to build, fly and repair an aircraft. That was all part of the deal, but times change, and today's interested pilot wants to fly radio control without the effort we had to put into the process. The Sportsman S+ will make this happen.

The Sportsman S+ like all HobbyZone products is available through Horizon Hobby Distributors. **HM**

## Aerial Photography Made Simple

Thankfully we don't all enjoy the same sort of thing. What a boring place it would be if we all flew the same airplane, each one painted the exact same color. This past flying season a friend mentioned he didn't see the draw in aerial photography: "So you fly around taking pictures, then what?" I didn't have an answer. If a person isn't involved in the creative process of photography no explanation would convince him he needs to broaden his horizons, but if a person enjoys photography, no further explanation is necessary, it's that simple.

Only a few years ago taking a photograph from an airborne platform was a big deal. We had the vibration issues of the glow (or ignition) motor to deal with, and unless you were willing to carry a very expensive 35mm, along with a motor drive for advancing the film to the next frame, the cameras available weren't that all that great.

All sorts of different ideas were tried; most of them required that a separate platform be manufactured, then a cheap camera along with a servo was mounted to the platform. The idea was simple enough. Once in position you'd flip a switch on the transmitter which would activate the servo, and its arm would press against the shutter release button. From there you'd land, advance the film, and do it again. As inexpensive cameras progressed in development, some even had wind up, automatic film advance, and the experimenters could shoot off a whole roll of film in one flight just by triggering the shutter servo.

It wasn't at all practical, and considering the obtained results, it was rather expensive, and this took the fun away. Thankfully that's all changed. As an accessory to the Sportsman S+, E-flite is offering an inexpensive, extremely



light weight (15 grams), hi-definition camera that's even aerodynamic in its shape, EFC-721 HD Camera (EFLA801).

Included with the camera package is the camera unit itself, a USB adaptor for charging and computer interface, 2GB micro SD card, servo extension and the instruction manual, which is nothing more than a folded piece of paper.

Although the camera is an add on sale, the airplane itself comes with a camera mount that's specific to the Sportsman S+ as part of the package. Operation couldn't be easier. Attach the mount to the top of the wing, slip the camera into the mount, turn it on and go fly. It's that simple. The results are not professional movie studio quality, especially on the first few attempts, but it's fun, and with home editing programs so common, anyone can put together a short video to share with family, or on one of the social media sites.

Although the DX4e transmitter does not offer a spare channel, there are plenty of open ports on the SPMA3172 receiver. As mentioned, there is a servo extension included with the camera that allows the camera to be plugged into one of the open ports, and by binding a transmitter with a spare channel available, such as a DX6, to the aircraft, video or stills can be remotely triggered by the pilot.

Multi-axis stabilization can sometimes get in the way of many experienced pilots, but it makes an incredible platform for aerial photography, regardless of how experienced (or inexperienced) the pilot may be.

Photography from a radio controlled aircraft is only one of the many aspects of model aviation, but it's now one that can be enjoyed by many. It all depends on how creative a person wants to be. **HM**