

## Cherry Bipe! PAs New Ultimate Bipe with Bite!



### Precision Aerobatics Ultimate AMR

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Member Contributor

#### FAST FACTS

<b>Batteries:</b>	2200 3S 20C+
<b>Construction:</b>	Fiber Fusion
<b>Drive System:</b>	PA iPA
<b>Wingspan:</b>	40
<b>Weight:</b>	39oz / 1.1kg with batt
<b>Skill:</b>	Intermediate - Advanced
<b>Street Price:</b>	225.00 USD (RRP)

#### THINGS I LIKED

- Wild Flight Performance
- 3S Power System
- Kit Quality

#### WHAT TO IMPROVE

- Canopy system is tricky to use
- Build manual is black & white

## Overview



This is one of my favorite parts when purchasing any new Precision Aerobatics model, opening the kit to marvel (drool) at their latest creation. \*someone pass me a bib!\*

As I begin to inspect each part it becomes apparent that the crew at the PA factory are masters at their craft as each "Drum Tight" piece was immaculately finished off. Both main wings are meticulously covered with the ailerons pre-hinged and sealed as is the elevator. The air foiled rudder is pre-hinged also with matching slots already sliced into the rear of the fuselage. Too easy!

Holding the fuse for the first time, you can't help but be amazed by the light weight. The magnetic canopy snaps off to reveal PA's World Famous "FiberFusion" technology. (the combination of ultra light ply and balsa reinforced by carbon rods and carbon fiber plates for superior strength with very little weight) When peering into the fuselage it resembles something that was designed in a

European Formula One factory! Carbon fiber plates and rods span in all directions. Very impressive.

The Fiberglass cowling is beautifully finished in matching paint to suit the fuselages' scheme with lookalike air vents adding a nice touch.

Carbon Fiber wheel pants and spinner are also of the highest quality, and should make this Ultimate look even more sleek.

## What's Included?

As always, I try to go with the recommended 'Combo Setups' (regardless of manufacturer) so as to leave as little room for uncertainty as possible and to enjoy the plane as close as possible to the way the designers intended. So 1 x Red Ultimate AMR with PA's very own Integrated Performance Airframe-Drive System (iPAs) shows up at my door a few days after ordering. I opted for the Carbon Spinner and Wheel Pants. The iPAs consists of; • PA Thrust 40 outrunner motor with RotorKool Technology • PA Quantum 45A High performance Programmable ESC • German made CNC machined precision prop adapter Coupled with PA's V2 2200 3S lipos (that's right, 3S!), 4 x HS65MG's on the surfaces, 14x7 Wood Prop and a Spektrum 6200 Rx and this plane should be ready to rip up the skies!

## Materials & Packaging



The kit arrived split into 2 x boxes, both in excellent condition. The smaller box contains the upper and lower main wings, the rest of the plane and accessories are packed neatly in the other.

## Instructions & Assembly

The build was an uneventful and straight forward affair with no hidden surprises and could easily be completed in 1-2 solid nights in the hanger with no distractions. I personally found the whole thing practically fell together and locked up so straight and true there wasn't a wrinkle in sight upon completion. Further testimony to the quality control exercised down at Precision Aerobatics H.Q.

The wings are individually matched to each fuselage and seat perfectly insuring exact incidence and alignment with 2 x screws locking the whole assembly solidly into place. The top wing and carbon fiber cabane struts is a cinch to assemble, and once done up tight the whole plane stiffens up and immediately feels very sturdy.

The misc parts of the AMR are typical Precision Aerobatics quality, Carbon fiber landing gear, CNC machined carbon fiber control horns for all surfaces, and PA;s trusty "Slop Free" system for the control rods and aileron ganging setup consisting of Carbon Rod, Kevlar thread and piano wire "Z=bends". (I have an Addiction with 200+ flights using this bullet proof setup without any hint of play).

The only recommendation I could make to assist with the build would be to see the existing well explained and easy to follow manual printed in color. No biggie.

The canopy requires a twist as you insert and remove it and the knack for doing it easily comes quickly. This system was necessary to get the battery exactly where it was needed to achieve as

close to perfect c.g as possible.. and it worked!

## Flying



It's 7am on a Saturday at the club. Hardly a soul around, just how I like it whenever doing a maiden.

Pre-flight check complete, I taxi out across the mist covered grass and stand on the flight line. The usual deep breath and I apply throttle. This was the first of many standouts, the AMR traveled about 6 feet across the oval and left the ground ever so gently and locked into a stable flight from the second its wheels left the deck. As described in the manual, the plane required just a few clicks of down trim on the elevator to help compensate for the drag of the top wing. Once I got that out of the way I proceeded to shake the plane up a bit and perform a few c.g checks and everything suggested that the 59.5mm recommended c.g is about as close to spot on as you could hope for. Some long climbs and I can't help but grin as the AMR accelerates vertically to a very impressive speed followed by a few lazy down line rolls and spins that confirmed everything was symmetrical and couple free. Awesome, time to land and check everything is in order.

This is when I found the second of the AMR's standouts. Wing Rock is near on nonexistent with this plane. Whilst cruising in for the landing at 1/2 throttle I applied a touch of rudder to point the nose in to the gentle breeze and like one of my latest indoor foamys full of S.F.G's and Air brakes the AMR turned perfectly flat without tipping the inside wing and then proceeded to a beautiful "3 point" touchdown. I was chuffed!

The battery and motor were barely warm to the touch, reassuring my decision to run with a power system that was developed specifically for this Aircraft. Kudos again to PA!

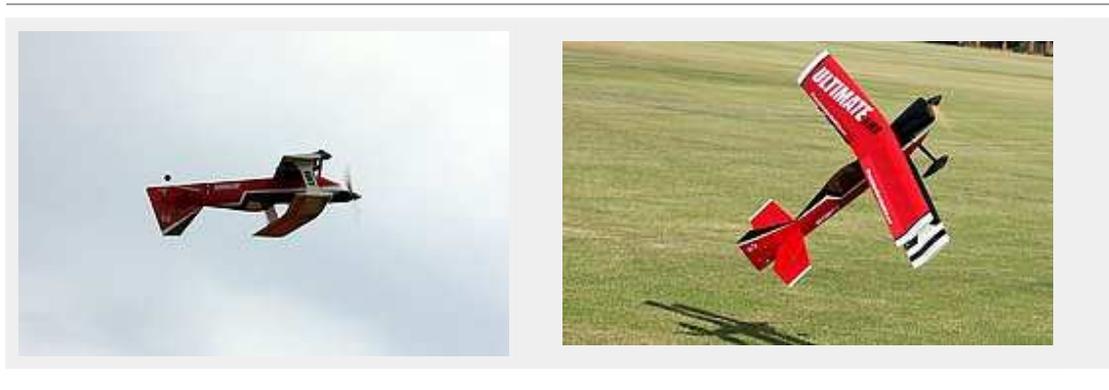
By the end of that first day I had put 4 packs through the AMR and left the field with a new outlook on Biplanes and knew then that this plane had a big part in my R/C'ing future! The following flight was a "Club Day" so I snuck in early again and got the AMR back in the sky. The new plane jitters faded quickly as I began to gel with the AMR. Rudder authority is huge and a quick pulse of throttle at the top of a vertical climb produced some of the most accurate hammer head turns I have ever pulled off. Aileron authority is equally impressive with the 4 x surfaces providing a very brisk roll rate and being more than enough to deal with the massive amounts of torque produced by the Thrust 40 under the hood, even when in a hover, and hover this plane does! The elevator produces the tightest of tight knife edge spins as well as insane walls and elevators with its massive throws in both directions, I did find the Bipe liked a fair amount of down line speed before entering the knife edge spins but does reward you with the most axial and fast spins you could ever hope for! (don't take my word for it, check out some of the Ultimate vids on PA's website). The combination of those dominant features gives you a plane that can change direction like a jack rabbit yet remain stable and predictable regardless of what stall situation or position you may find yourself in, just punch the throttle and grab the surface that steers you away from the ground.

High angle of attack Harriers are as solid as a rock upright or inverted and coaxes you into bringing the plane lower and lower with each attempt.

Knife Edge flight with the PA Ultimate is a breeze. Follow the step by step controller mixing setup section in the manual and you will be cutting up the sky on your side with the best of them! Getting back to that rudder authority, you only need to apply a minimal amount to keep the AMR slipping through the air on its side.

It wasn't until after a few trips to the field that I finally decided to try switching my radio over to Low Rates and see how it likes flying at the other end of the scale. To my astonishment the AMR is a formidable "pattern" ship also. Due to its couple free chassis the AMR can pull off very graceful slow point rolls as well as hold perfect trajectory throughout any radius loop you are trying to achieve.

In fact if I had to write my name in the sky, of all the planes in my hanger I would use the AMR. Its 2D manners are exceptional!



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## Conclusion



THE A.M.R. A few of the forum regulars (including myself) were curious to know how the naming "AMR" came to be? Shaun from PA chimed in (as he frequents the forums regularly) with their (Shaun and his wife Adad) story of a close family friend who was bravely fighting cancer at the time of the planes design / prototype stage and so dedicated this extraordinary plane to his honor. Sadly, earlier this year AMR lost his battle but his memory lives on through this magnificent aircraft.

### LAST WORD

Just when you think PA have reached the pinnacle in R/C Plane design they out do themselves by raising the bar yet again, this time with the Ultimate AMR, leaving the competition lagging behind in their prop wash and scrambling back to their drawing boards.

Extra recognition should go to Precision Aerobatics due to the fact that they continue to lead the way without following the norm of their major competitors and releasing their version of a plane that has already been done umpteen times before.

After just 3 outings with the AMR, it caused a major reshuffle of the storage order in my Hanger as every plane had to move down one notch. The PA Ultimate AMR now resides in Bay # 1, and

has not missed a single trip to the field since I have owned it. I also believe it is one of the nicest looking planes I have in my hanger (not a biplane? Who me?). The great looks of the plane are confirmed by the number of people who pass compliments or gather around it every time it's at the field. It sure is a charmer! If you are an Intermediate to Advanced pilot and are looking for the "Ultimate" in High Performance R/C Planes then the Precision Aerobatics Ultimate AMR is definitely a plane worth considering!

M.E.