

Precision Aerobatics

Addiction XL

A WIDESPREAD WING PLUS PLENTY OF POWER EQUALS SERIOUS FUN

By Mike Gantt Photos by John Reid & Mike Gantt

ONE OF MY FAVORITE STYLES OF FLYING

shares its name with a cutting edge company that produces very high-quality ARFs: Precision Aerobatics. This company has a primary emphasis on 3D and aerobatic airplanes, and anyone who has seen one of their model airplanes knows this. Having owned and flown a few "PA" planes, I will tell you that the level of engineering is superb; these airframes are extremely stout, considering how light they are. As an "aerobatic addict," I was fortunate enough to review the latest and largest PA's Addiction: The Addiction XL (ADXL).

Recently released, the ADXL has a 59-inch wingspan with a whopping 1,055 square inches of wing area and an all-up weight of only 4.5 pounds! Balsa and light ply are combined with carbon fiber in order to create the most robust and lightweight airframe possible. Precision Aerobatics calls the process FiberFusion, and when you look inside the airplane you will be impressed with its construction. Aside from the framework, carbon fiber is employed for the wing tube, landing gear, control horns, rudder servo arm, and control rods. As an option, you can get servo arms, vortex generators, and a spinner all also made of carbon fiber, which add some performance enhancement and bling factor. A small plastic pack is included and contains good hardware hardware, such as German-made ball links, CNC-machined clevises and Kevlar pull-pull cables. The instructions are black and white, contain photos, and show you how to assemble your Addiction XL quickly.



I'm 6 feet tall, so hopefully you get an idea of just how large the Addiction XL is! Not only is it super light, it also flies big.

SPECIFICATIONS

Model: Addiction XL
Manufacturer: Precision Aerobatics (precisionaerobatics.com)
Distributor: Precision Aerobatics
Type: 3D aerobatic monoplane
Length: 62.4 in.
Wingspan: 59 in.
Wing area: 1,055 sq. in.
Weight: 4.58 lb.
Wing loading: 10 oz./sq. ft.
Motor required: 50-sized brushless
Radio req'd: 6-channel
Price: \$705 as tested with iPA system, S325 (plane only)

HIGHLIGHTS

- Very "floaty"
- Uses low-cost batteries
- Excellent airframe construction

GEAR USED

Radio: JR 12x (jrradios.com), Spektrum AR7000 (spektrumrc.com), four Hitec 5245 servos (hitecrcd.com)
Motor: Thrust 50, Quantum 70 Pro speed control w/ switching BEC Thrust 50
Battery: Two 3S 2,200mAh PA LiPo packs in series for 6S (precisionaerobatics.com)
Prop: 15x8 Vox propeller



IN THE AIR

This has to be one of the easiest planes to get in the air. If there is any breeze, aim into it and apply some throttle. The Addiction XL hops up in a few short feet and almost floats away. As soon as the plane hit the sky, I knew it was going to be a fantastic voyage. Not very often can one start busting fun moves during a test flight, but this plane just wants to show off! If a maneuver gets out of shape on you, more than enough power is available to pull the plane out of trouble. Also, there is so much wing area that the plane will slowly fall out and not do "the nasty stall" during a less than perfect move; now that's what I call accident forgiveness. After you play around and want to land, it doesn't get any better — just line up and blip throttle and elevator while the wing seems to keep itself in the groove. After a slight flare, the plane rolls briefly, and since you can't flame out like you can with glow, you can taxi back with ease.



GENERAL FLIGHT PERFORMANCE

Stability: Even though the Addiction XL will do the impossible, it will also fly as stable as a trainer. In fact, I think it flies better than a trainer on low rates.

Tracking: The large fuselage side area and added vortex generators really help knife-edge stay in line with little deviation. Inverted flight tracks well with almost no input, and it is surprising how well this plane can do IMAC-style maneuvers.

Aerobatics: What is the impossible? Super slow spins, extra-tight knife-edge loops, backward traveling elevators and rolling moves; need I say more? Ok, fine. The plane will also fly very precise maneuvers and doesn't require a CG change for either flight style.

Glide and stall performance: A slow and stable glide is predictable and seems unreal. Just keep the prop moving and you will love how slow the plane can fly. A full pitch pull with power off leads to an elevator with almost no wing rock.

PILOT DEBRIEFING

Precision Aerobatics makes a great product. Their model airplanes are aimed toward hardcore 3D pilots who care about having the lightest weight and highest quality model airplane. With an ingenious construction method and an extremely large wing area, the Addiction XL has what it takes to satisfy the most demanding aerobatic fanatic.

UNIQUE FEATURES

When your ADXL is delivered, it will be triple boxed and will require serious postal punishment to cause any damage to the contents inside. Once you get the package open, you will have to cut or pull some packing tape to free up the plane parts and accessories. As usual, I opened all of the wood-covered parts and allowed them to adjust to the local climate overnight. To my surprise, none of the pieces needed to be ironed or adjusted for warp. CA hinges are used to hold all controls surfaces to their counterparts, and there are strips of covering provided that need to be ironed

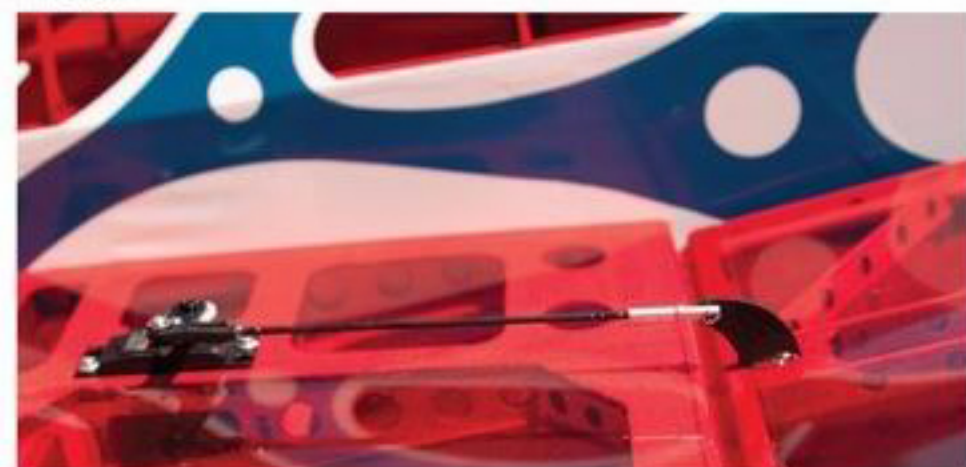
in place to seal all hinge gaps, which is an extremely important step. It's also recommended to hard-mount your servos versus using the typical grommet and eyelet method. The idea is to keep servo resolution at a maximum and eliminate any possible "blow back." I also used some aftermarket servo screws that have built-in washers and hex heads to secure the servos as recommended.

When it comes to powering the ADXL, you can put together a package from what you have on hand or cut out all of the guesswork and get the Integrated Performance Airframe-Drive System (iPA) when you order your ADXL. This is a really smart setup consisting of everything you need to power the model as it was meant to be. Add in the fact that the iPA Thrust 50 brushless outrunner fits perfectly in the motor box without modification and sets the PA carbon spinner at the correct distance, and you end up with a win-win situation. There are provided air scoops for motor cooling and a very cleanly created and painted fiberglass cowl that finishes off the nose of this airplane.

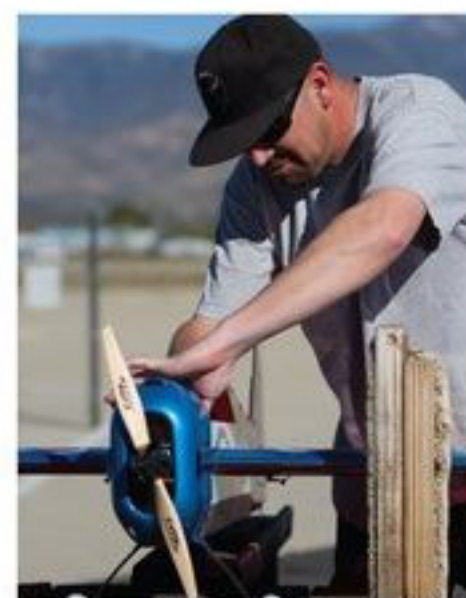
The undercarriage of the ADXL is tricked out with fiberglass wheel pants and small fairings, which add more detail to the

THE IPAS THRUST 50 BRUSHLESS OUTRUNNER FITS PERFECTLY IN THE MOTOR BOX WITHOUT MODIFICATION AND SETS THE SPINNER AT THE CORRECT DISTANCE, AND YOU END UP WITH A WIN-WIN SITUATION.

This high-quality hardware is included in the kit! Notice the lightening holes; every gram has been shed where appropriate to give you a fantastic floating flyer.



Precision Aerobatics Addiction XL



More evidence of the PA mindset: carbon fiber everywhere with strength and light weight being most important.



Two 2100 3-cell packs are cheap and provide good flight times. I used genuine Deans Ultra plugs and Wet Noodle Wire to make a custom series adapter.

IPAS SYSTEM

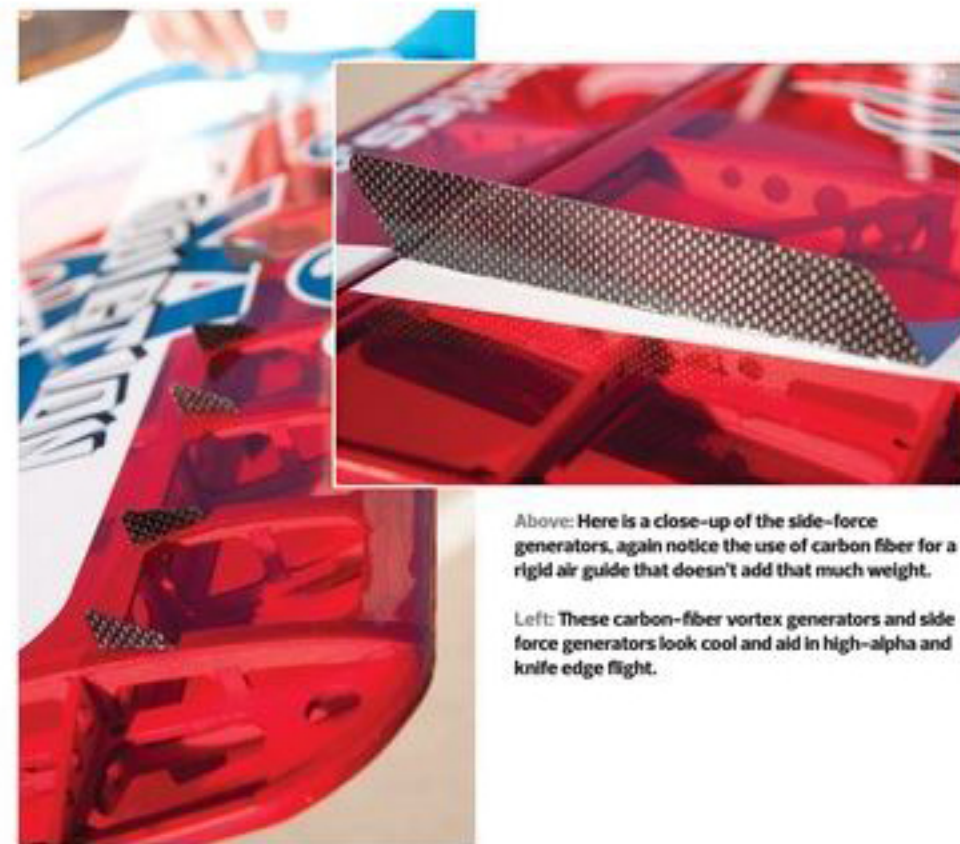
If you are not a new pilot but are new to 3D flying, I would say that the PA Addiction is for you. With the Integrated Performance Aircraft-Drive System (iPA), one can eliminate any guessing and "what ifs" from the electronics equation. If you visit the Precision Aerobatics website, you can see how their aircraft perform using these setups, which means your model will function and run the same. You won't have to wonder why your plane didn't have enough power to accelerate from a hover or why your model couldn't do certain maneuvers. For the ADXL, we tested the following:

MOTOR: The Thrust 50 outrunner has a CNC-machined interior finned design that aids in cooling (PA's patented Rotorkool technology). Bullet plugs are pre-soldered and the power it gives the ADXL is awesome with the 15x8 prop. A 16x6 prop is also available for more low-and-slow 3D antics.

SPEED CONTROL: The Quantum 70 Pro speed controller is the Thrust 50's mate and has an SBEC, so you will not need to use a separate BEC for your guidance package. Mating bullet plugs are pre-soldered on and are ready to connect to the motor.

PROP/ADAPTER: The Vox 15x8 wood prop and adapter are also included and will keep you out of the stores. Convenience is king here!

SERVOs: Yes, even the recommended Hitec digital servos are included. What's even better is that the optional CF servo horns and some high-quality servo extension wire are also added in the iPA kit, making for a simple setup and sweet-flying model airplane.



Above: Here is a close-up of the side-force generators, again notice the use of carbon fiber for a rigid air guide that doesn't add that much weight.

Left: These carbon-fiber vortex generators and side force generators look cool and aid in high-alpha and knife edge flight.

THE WING LOADING IS ALMOST TOO GOOD TO BE TRUE AND THIS AIRPLANE CAN FLY AT A WALKING PACE.

carbon-fiber main gear legs. The included main wheels are foam and 2 1/8 inches in diameter, and when they're mounted, they allow for some fairly large prop diameters to be installed up front. A large tinted hatch opens up to the inside and you will find more than enough room for your electronics. Be careful when opening it for the first time because it is very lightly built and the magnets are extremely strong. Finally, there is a single decal sheet should you want to add more to the already super-cool color scheme.

CONCLUSION

Available as an all-inclusive ARF, the Precision Aerobatics Addiction XL with iPA is the perfect addition to your 3D hangar. The wing loading is almost too good to be true and this airplane can fly at a walking pace. The provided parts are all high quality and the model assembles in about 8-12 hours depending on your building skill level. I would say an intermediate pilot will have no problems flying the ADXL and advanced pilots will not want to put it down. ✈