



# The AMA History Project Presents: History of PRECISION AEROBATICS



Written by JS (11/2014); Reformatted by JS (11/2014)

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*Jay Smith wrote the following, published in the About Us section of Model Aviation magazine, November 2014 issue.*

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## **About us: Precision Aerobatics**

The name Precision Aerobatics, or simply PA, is associated with a well-known manufacturer of lightweight, versatile, electric-powered aircraft that are popular among devotees of 3-D flight. Although many may be familiar with the company's popular line of aircraft such as the Addiction or the Ultimate AMR, you may not know that PA cut its teeth on Giant Scale aircraft.

The PA story begins with Shaun Vanunu, who started flying at age six in Australia. As he got older and his skills increased, Shaun transitioned into different aircraft, finally settling on Giant Scale models. When constructing the aircraft, he would commonly build a couple of extra airframes that he could sell to cover the costs of building his own model. Before long, requests to buy Shaun's aircraft exceeded what he was able to produce.

To meet the increased demand and expand the business, Shaun traveled from Australia to China to establish a factory that could maintain the standard of quality that he had put into the models he had been producing.

In 2003, Shaun and his wife, Adad, began Precision Aerobatics. The company's first offerings were a profile model known as the Bad Boy, and a 106-inch Extra with assistance from an established Chinese factory.

After the first shipping container filled with aircraft was delivered, PA set up its own factory in northern China in an area known for producing fishing tackle. The new factory was outfitted with state-of-the-art machinery and had the capability to cut balsa. It also had a balsa sheeting machine that greatly assisted in production.

Each successive release required a development cycle of a year or more because Shaun wanted to incorporate new ideas and enhancements. Shaun designs every aircraft and draws from his experience as an aeronautical engineer and full-scale pilot.

This commitment to advancement paid off in the company's next release, the Katana Mini, which became an immediate success.

Shaun's next big triumph came in 2005 in the form of the Katana MD, which was developed during an 18-month period. This model's release was a pivotal moment in aircraft design because it incorporated FiberFusion.

PA describes this technology as “a method of combining carbon fiber, balsa, and plywood in a way never seen before, utilizing the strengths of the fibers within each raw material, with the end result being lighter, stronger, and more rigid.”

Shaun began looking at each component installed in the aircraft, and with help from an electrical engineer, released a line of Thrust brushless motors and PA Quantum speed controllers.

This led to the creation of the Integrated Performance Airframe Drive System (iPAs). This system provides the customer with tested components that best complement the aircraft. These components were often designed from scratch.

I also learned that even the hardware package that comes with each aircraft is specially selected and incorporates quality accessories such as metal clevises and ball links and servo wire imported from Germany.

During my conversation with Adad, the importance of quality was stressed several times and I was reminded of the company’s slogan, “‘cause quality counts.”

“When we construct the airplanes, for quality control we match the wing set with the fuselage. We check the incidence and wing alignment. We do it on each aircraft, same with the canopy. The parts are numbered; the wing root and the firewall have the same number. The parts are matched,” she said.

With all of the discussion surrounding models and their development, I asked what spurs PA to release a model. Adad said that the main influence is what the customer requests. “We brainstorm with 12 to 15 team pilots and keep them involved with the process and value their feedback. We also draw from experience from the previous designs,” she explained.

Any good aircraft design, full-scale or model, requires a significant amount of testing, and possibly a few revisions, to make it great. At PA, flight testing begins with Shaun and then team pilots get their chance to conduct more real-world testing. Typically after two or three prototypes, when everyone is happy with the aircraft, the design is finalized for release.

Although having an aircraft that performs well is important, an eye-catching and easy-to-see color scheme doesn’t hurt. That is where a talented graphic designer named Malcolm comes in. He and Adad work closely on this exciting part of the process and each aircraft is like a blank canvas awaiting an artistic expression of colors.

The Addiction has proven to be the biggest success of all of PA’s releases. It provides the perfect balance of an exciting model both in its looks and its capabilities.

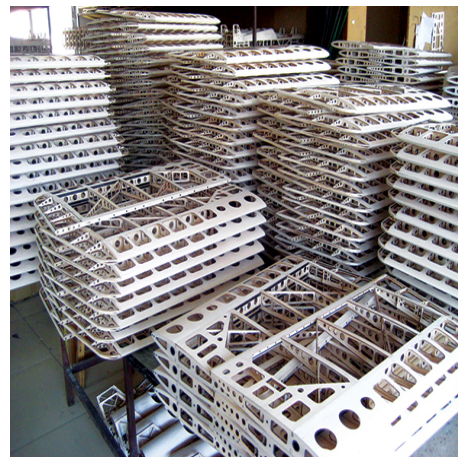
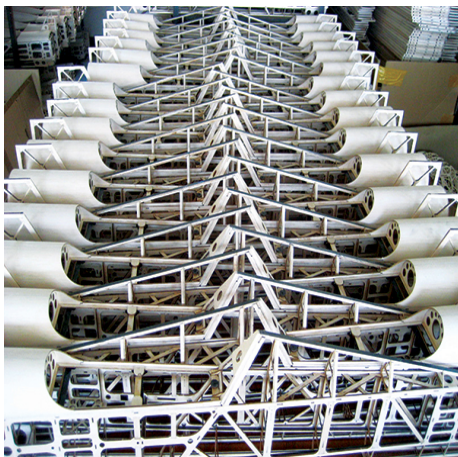
After a nearly two-hour conversation with Adad, I came away with more information and insight than could possibly fit on two pages. It’s clear that PA is not going to rest on its laurels. The company still has plenty of exciting innovations to share with its customers that will be realized in future releases—some of which may stray from the 3-D arena.

Although the company's headquarters is in Australia, its aircraft are distributed worldwide. In 2008, PA opened its US branch to serve its largest market. The 4,000-square-foot showroom/shipping facility, operated by Jim and Cheryl Widner, is located in Winamac, Indiana.

I visited Winamac this year and was impressed by the amount of stock on hand, as well as the large assortment of spare parts that consumed an entire room. Jim and Cheryl attend many events and trade shows each year and represent PA in a professional manner.

In its first 11 years, Precision Aerobatics has pushed the envelope of aircraft design. The company appears ready to continue that trend while providing some additional surprises sure to entice pilots interested in other disciplines of flight outside the realm of 3-D!

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