Model Aircraft Aviation Today: A Series of Journalistic Compositions

By Michael W. Schwartz

Submitted in Partial Fulfillment of the Requirements for a Degree in Writing

Journalism/Freelance

April 4, 2008

Instructor Thesis Advisor: Dr. Patrick Ryan
Abstract

This collection of Journalistic compositions, encompassing straight news, feature, reviews and opinion, all focus on model aircraft aviation, or more commonly known as the hobby of flying remote control planes. This project highlights many topics in today’s model plane industry, writing to enthuse the audiences of such interested. While most model aviation coverage is broadcasted through magazine media, this collection aims to shed light on the hobby from several sides of the journalistic spectrum.
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**Introduction**

**Loops, stalls, and barrel rolls**, a winged splendor decorates the sky. It darts up from below, shooting vertically over the tree line, sending itself into a mélange of twists and twirls as if launched uncontrollably out of the earth’s orbit. Now parallel with the horizon, it flies in a rectangular pattern, zipping back and forth, hard for the eye to follow. It’s in a constant tantrum, wild and full of energy.

Slicing through the wind, it slows, descends under the canopies, and disappears. A moment ticks by, and like fireworks, two more burst out from the tree line. Following each other, a race—no, a game. Playing together, challenging one another, each trick a little more obscure then the last, up in the air, claiming the sky as their play-pen.

Another performer appears, larger, faster, v-shaped. It laps the others, declaring a victory in speed, rolling its wings in triumph, flying a pattern only understood by the creature itself. Suddenly, the chaotic behavior stops. They now soar gracefully, wings stretched, silent. At times, they fly close to one another, in formation it seems, across to an invisible border, and back again. One by one, they leave the sky, landing somewhere below. Minutes later, new flyers claim the atmosphere. The pattern repeats until the day’s light fades.

They don’t have a mind of their own, although many wish they did. On the ground, pilots, each with a transmitting signal controller, are manipulating the aviators, intentionally sending them into frenzy and chaos. For most, it takes years to learn the art of flying a model airplane correctly. It’s a multifaceted combination of visual and mental
dexterity, requiring hours of practice, which is frequently—unforgiving. The transmitter isn’t a video game joy-pad, either. It’s an advanced radio controller with two maneuverable sticks, a projected frequency signal, and many other sensitive switches, all which contain a specific purpose.

Members of the New Milford Model Airplane Club of Connecticut enjoy soaring the skies on a slightly warmer winter day in February. Photo Courtesy of Mike W. Schwartz.

They’re powered from two different primary sources: Model plane gas, a mixture of methanol, lubricant, and nitro methane, motorized by a two or four-stroke engine, or Electric battery-operated. Regular gasoline is used in much larger scale model planes, as well as diesel fuel, but not nearly as frequently.
The loops, rolls, and other aerobatics are among a repertoire of aerial tricks memorized, usually taking months of rehearsal, crashes, and countless reparation dollars to perfect. But to the pilots, it’s worth it; there’s a rush in performing the stunts—knowing that one wrong shift of the transmitter’s controls can result in the plane becoming debris. If performing for spectators, tricks are often highly appreciated. Pull off a successful knife-edge—where the plane flies sideways the rudder acts as the elevator—heads turn. Harrier the Extra 330 and hats are tipped. Waterfalls, Hammerheads, square loops, the list goes on. Model aircraft pilots take pride in their feat maneuvering, as it—amid many other aspects of the hobby—plays a huge role in becoming an advanced flyer.

They meet in groups, usually on a designated day, to spend hours in the sky. They bring hangars of planes in trucks and cars, and proudly set them up on the flying field for observation. As many models are ready-to-fly (RTF) or almost-ready-to-fly (ARF), others are hand built from balsa wood. The displayed planes are recognized and serve as eye-candy for the other pilots and spectators.

Some planes are made to replicate their full-scale version, called scale planes. Scale planes—unlike other types: sport, aerobatic, trainers and jets—aren’t made to satisfy the aerodynamics of a miniature RC model, but are built with the same exact characteristics as their life-size version but scaled down, ratio by ratio. They’re also to be flown like their original adaptation to “capture” the original in-flight characteristics and feel, all the while appreciating its physical similarities.

Many planes, scale or not, can weigh up to 30 pounds, running on loud, gas-powered engines with propeller/s sometimes pushing a foot in diameter, soaring at speeds
over 100 miles per hour. Flying such a plane is reserved only for the experienced. Crashing one can frequently cause a small fire, or a smashed windshield—or a serious injury.

A model aircraft enthusiast does a pre-flight check for his quarter-size Super Decathlon scale airplane. Photo Courtesy of Mike W. Schwartz.

RC Pilots often form flying clubs for these various reasons, and often, it’s a legal necessity. Secure airspace needs to be formally requested, approved, and chartered. Ranges of guidelines are imposed and habitually monitored by club members to ensure the safety of others, themselves, and sound levels.
Because of the risks of model flight, RC aircraft insurance is nearly always required—especially when taking up the five-plus-pounders. The Academy of model Aeronautics, based out of Muncie, Indiana, offers flight coverage packages at $30-$60 a year (life membership costs $1500), and offers up to a million dollars in property, medical, auto, and theft damages. Additionally, clubs require it for all members. It’s unheard of to allow a pilot to put a larger scale plane in the air if he/she isn’t properly AMA’d.

Electric powered (EP) flight has become immensely popular only less than a decade ago. They can be manufactured lighter, quieter, and best of all: battery powered. EP models offered pilots a new level of convenience. This meant gas engines, fuels, and exhausts; a pilot would only need to charge a battery—and the aircraft’s ready for the sky. With such ease (and considerably lower pricing, even the cheapest gas-powered plane package runs nearly $400), smaller electric planes can be purchased RTF for well under $100. Additionally, smaller EPs are not obligated to any form of insurance, but if needed—as many clubs require—only costs $30 per year from the AMA. Competitions are held year-round, all focusing on different qualities of the plane: speed, aerobatics, control, grace, and more. Touring events like the Quickie 500, focusing on speed, draw crowds of thousands each year. The 500 tests a pilot’s ability of rate control, flying medium-sized gas-powered aircrafts at speeds of 200 mph, darting around pylons and through other various obstacles. The Tournament of Champions (TOC) competition is another large event, focusing on all model aircraft abilities, also draws sizeable crowds of spectators and competitive pilots alike. Internationally known pilots—
masters of RC flight—like Quique Somenzini, four-time TOC champion and John
Glezelis, 2006 Electric TOC champion, compete for title trophies and often a large
financial awards. Model aircraft shows are truly important in the world of RC aviation,
because it brings modelers together and promotes the hobby.

All aspects mentioned: stunts, clubs, gassers and EP, scales, events and the like,
are all to be complied and explored further. This collection titled: “Model Aircraft
Aviation: A Series of Journalistic Compositions,” will offer seasoned aviators, as well as
the uninformed, a look into the world of RC journalism. Doing so, the works will be
geographically covering the United States’ northeast’s events, notorious pilots, clubs, and
more. The overall goal: sparking an interest in the eyes of others, as well as enlightening
readers of the very-much appreciated hobby of model aircraft aviation.
The WRAM Show 2008, Icy, Colors Still Flew

Mike W. Schwartz - Feb. 25, 2008

The Westchester County Center of New York was home to this year’s WRAM. Vendors and guests took part in the RC event. Photo Courtesy of Mike W. Schwartz.

The recent snow and rainstorms weren’t enough to deter them. Their mission was clear and simple: get to the WRAM show.

Last weekend, the Westchester Radio Aero Modelers remote control (RC) aviation club hosted their three-day 44th annual model aircraft, car, and boat trade show at the indoor Westchester County Center in Westchester, New York.
With over 150 vendors, nearly 14,000 guests, and celebrities including four-time RC Tournament of Champions (TOC) participant Frank Noll Jr. and internationally-known flying group, Team Futaba, the WRAM show supported what many RC enthusiasts strive for: promotion within the hobby.

Giant scale model planes and helicopters, some stretching over 12 feet in length, were displayed throughout the arena, poking over booths and exhibition stands. Rows of tables filtered through the giant room. Flat-screen TVs played model aircraft videos, and in the side areas, expert RC pilots flew their models for spectators.

A stage was placed at the end of the Center’s room, and on it laid a full-sized airplane, the 1912 Morane Saulnier World War one Warbird, brought in from Rhinebeck, New York courtesy of the Rhinebeck Aerodrome aviation museum—where they still fly functional WWI gems every weekend.

“The Wram show started in the 1960s as a very small operation and it’s led to a tremendous success,” explains Lou Scarlino, coordinator. “Our initial goal was to promote model aviation.”

Scarlino, member of the WRAM, has organized every show since 1989, each taking months of preparation and planning.

“It’s the second largest of its type in the U.S., the first being Toledo’s annual Weak Signals Expo,” Scarlino added. “And in terms of public attendance, we may be the largest.”

Ready-to-fly models, almost-ready-to-fly models, do-it-yourself kits, magazine subscriptions, batteries, computer simulators, and radio gear appear as just inklings
among the vast selection of goods sold at the event. Most products are considerably marked down from their original retail prices.

A WRAM Vendor stands in front of two larger model planes, both for sale.

A WRAM Vendor stands in front of two larger model planes, both for sale. Photo Courtesy of Mike W. Schwartz.

Some visitors come with predetermined items in mind for purchasing, as most vendors’ products “I’ve got a list of things I need, and now’s the time to get it,” said Merill Morsey, guest to the show and model enthusiast. “I’ve got a few things checked off, but there’s still more to go.”
Morsey, active member of NMMAC (New Milford Model Airplane Club) of Conn., carried several bags with plans to accumulate more.

Of the three days, Saturday was the busiest. All attendees seemed to take pleasure as the WRAM show frenzy grew—especially the vendors.

“This is one of our favorite shows, beyond the fact that it’s local, because we’re getting out and seeing the flyers, the driver, everybody,” said Bob Hastings, Senior Editor at Ridgefield, Conn.’s, model enthusiast magazine, Fly RC. “We’re definitely enjoying ourselves. It’s a can’t miss.”

While Hastings took to the WRAM to sell subscriptions, other vendors promoted more specific areas of the hobby.

“We build the old radio designs that date back 35 years from this date and before. We get together and fly these old airplanes,” said John Hafner, vendor for RC’s antique-era planes. “We’ve gotten a lot of interest at the WRAM show.”

Hafner’s display consisted of vintage radio transmitters that resembling robots from 1980s movies. Antique planes sat on his table, restored from the model aviation’s initial era.

“Many people stop by and reminisce of the old times,” he added.

Members of Team Futaba, like 12 year-old RC helicopter expert and TOC participator, Kyle Stacy, performed live flight demos for gathered audiences. Stacy began flying as a toddler, and has now grown into one of the most prestigious flyers worldwide.

Joining the Saulnier on stage, members of the Academy of Model Aeronautics (AMA)—RC aviation’s flight insurance provider and publisher of “Model Aviation”
Magazine—was boothed. Many AMA executives offered their services, while many enjoyed playing computer-based model aircraft simulators on large TVs.

“I’ve been at this show almost every year since the mid 70s,” said Bob Brown, AMA’s Vice-President for District III: Pennsylvania, West Virginia, and Ohio. “I enjoy the WRAM because I meet new friends, current friends and old friends. I like to see the new products and associate with modeling in general.”

The representatives from the AMA raffled off prizes every hour, such as LightFlite’s famous flying “Bug,” and professional-grade RC monster trucks.

“In spite of the bad weather on Friday, the overall attendance for the three days was up and the exhibitors were, for the most part, happy with their sales and promotions,” said Sacrlino.

“Any time you’re around modelers, you have fun,” Added Gary Fitch, AMA’s Vice-President for District II: New Jersey and New York.

The next WRAM show is set for February of 2009. For more information, visit www.wram.org.
Hobbico Electristar – Review
By Mike Schwartz

Hobbico’s Electristar, a 63-inch wingspan trainer, offers beginner and seasoned flyers a peak into smooth, quiet, .40-size electric performance.

The Electristar deems comparable to today’s gas-powered planes because its variables are on par with a typical gas trainer. Its sturdy, balsa-built body provides strength to the design; it’s stable, and is powered by a C-42 brushless motor. The entire package is RTF, retails for $229, and comes with Futaba’s T4EXA transmitter, a radio the newbie can grow with. Two NiMH Batteries and a charger is all it takes for the ‘Star to fly. Best of all, the battery power can be upgraded to LiPo, maximizing speed and light-weight performance.

Specifications:
- Make: Hobbico
- Weight: 6 lbs.
- Length: 53"
- Wingspan: 63"
Servos: 3 Servos
Receiver: Futaba R168
Motor: C-42 brushless
ESC: ElectriFly SS-45D
Transmitter: Futaba T4EXA
Battery: NiMH or LiPo

Items needed to make this product safely airborne:

Two 7-cell 8.4V 3000mAh NiMH or 7.4V 3200mAh 20C LiPo, Battery Charger (NiMH or LiPo), Zap CA, one hour of assembly.

First Glance

With nearly a 5-foot pre-assembled fuselage, the massive box undoubtedly reflected its size. One of Hobbico’s great traits (among many) is that they pack their products very well to ensure no damage to inside contents. Opened, all parts were safely secured down with styro-foam, tape, cardboard, and bubble-wrap. Nothing was damaged. Most parts were pre-assembled—perfect for the new flyer. The instructions weren’t overwhelming or intimidating, just step-by-step procedures involving screwing, attaching, and minor gluing. With all pieces out and debris back in the box, I was ready to build.

Included in the Kit (RTF)
- Total balsa wood pre-built airframe
- C-42 brushless power system
- Futaba’s 4EXA transmitter radio
- Rubber bands
- Propeller, cowl
- Wing rod fasteners
- Landing gear
Building the Plane

Wings

Each wing came pre-set with an interior dowel, making installation easy. Using the dowel as a guide, I slid both sides of the wings into place. Each side locked in without excessive force. I folded over the fasteners and screwed them into the pre-drilled holes. Keep in mind; the servos were already installed, with the connector cable exposed for easy connection to the fuselage. Be sure not to wire the connector in with any servo pieces or pinch it in-between the two wing sides. With the wings a whole, secure, and in place, the completion time was less than five minutes. Also, the wing can be easily unattached for storage if needed.

The horizontal stabilizer wing was comparable in installation ease. I slid the piece under the rudder, and twisted the screws into the pre-drilled holes. No further assembly required for this step.

The pegs to secure the wing down on the fuselage required a bit of CA. I slid each peg through with no problem and glued their pieces into place. Be sure to measure each side of the peg equally to the opposing point to ensure equal support. Once dry, place the plastic caps over each end of the wooden peg and with the screws provided, and
bolt in each piece securely. With all holes pre-drilled, this was not a problem. I tugged on each peg as a test, and they were in well and tight. I placed the wing over the fuse, and rubber-banded it down with ease. The wings felt steady, as they should be.

**Batteries**

The Electristar comes equipped with two internal docks, especially made to fit both 3000 mAh 7-cell NiMH packs. Slide one pack toward the prop, the other toward the tail. Velcro is provided to secure the batteries even more so. If ready to fly, plug the batteries in, but be sure all safety precautions have been taken.

**Propeller, Cowl, and Gear**

When installing all the gear for the prop, be sure to fasten the shaft down into the groove provided on the C-42 outrunner. Screw the cowl down over the blades, and the gear is ready to go. Pull on the pieces to ensure they’re on tight. Once checked, move onto the next step.

**Landing Gear**

The Electristar has trike-style landing gear, which is the most stable for take-off—another factor I appreciate about the plane. Just like the wings, the gear was easy to install (Hobbico’s on a roll). Place each rod into the designated groove, fold over the
fasteners, and screw the gear down. Like the wings, the landing gear can be removed with ease for storage purposes.

Radio Gear

All servos, wiring, speed control, etc., is pre-installed. Be sure to charge the Futaba T4EX in full, as well as the receiver battery. A downfall I noticed within the instruction guide is that the importance of charging the Tx and Rx wasn’t mentioned. Although experienced modelers assume such knowledge, a beginner may fail to establish this information. With all batteries properly charged, the Electristar was ready for its maiden flight.

Flight Report

After checking the trim, exponentials, and range, I taxied the plane to a safe takeoff point. The weather was cold and sunny, with winds about 10-12 mph. Starting with gradual to full throttle, I added little up elevator, and the Electristar easily became airborne. Due to its top-wing design, size, and dihedral, the plane remained incredibly stable despite the winds and rocky ground. I used the two 7-cell NiMH packs, which easily provided enough power to keep the plane going strong. The Electristar is a great trainer—it can stay level at slow speeds, glides well, and provides enough muscle to
recover from a stall. The plane is capable of minor aerobatics such as rolls, turn stalls, and loops. I’m sure that with a few upgrades, like the LiPo and prop, the ‘Star will be able to perform many more aerobatic maneuvers.
Introduction

HobbyZone has successfully taken part in opening the RC doors to flyers everywhere. Now, they’ve made it even easier by introducing one of their newest models, the Firebird Phantom.

The Phantom, like all other HZ planes (except for their infamous Super Cub), contains the popular “case and boom” design, where the body consists of a plastic cockpit, rear boom extension, one-piece wing, and v-tail rudder. The Phantom also has HZ’s preinstalled “Anti-Crash-Technology” system, which corrects the plane back to its level flight in the event of a plunge or pre-stall. Additionally, the Phantom is within HZ’s skill zone one, or “Z1 stage,” where in their list of Z1-Z3 skill levels, is for the “no
experience needed.” Best of all, the model’s ready-to-fly, and of course, electric powered.

The ‘Bird pretty much soars right out of the box.

Specifications:
Name: Firebird Phantom
Wingspan: 29.75 inches
MSRP: $99.99
Retail Price: $59.99
Range: 1300 feet
Flying Weight as tested: 8.5 ounces
Motor: 180 class
Servos: HobbyZone 3 wire servos
Radio equipment: 3 channel FM with ACT
Battery used: 7-cell 300mAh NiMH (45 minutes to charge)
ESC/Receiver used: HobbyZone Integrated

Items needed to make this product safely airborne:

Nothing. Everything is included in the box, even four AA batteries for the transmitter.

First Glance

In the box, the Phantom comes secure in styro-foam padded casing. The fuselage is taped down, and all pieces are secured to prevent movement and damage. There were no pre-existing physical defects to the plane. All pieces seemed to look flawless in their design. The sturdy box can be reused as a travel case, and easily fits into the trunk of a car for some quick after-work flying. The material of the fuselage was made of durable and flexible plastic.

Included in the kit (RTF)
-Transmitter (27 MHZ, operating on 1-6 channels)
-Four AA Batteries (for transmitter)
-Instructional DVD how-to guide
-Manual
-Transmitter wind ribbon, red
-Receiver battery
-Wall (AC) and Car (DC) chargers
-Rubber Bands (for wing attachment)

**Building the Plane (RTF)**

**Wing Installation**

Attaching the wing was quite easy. Since it comes in one piece, I simply placed it’s center on the top designated area of the fuselage, and pulled each of the rubber band fasteners over to hold it down. With the rubber bands, I secured the wing in this order: two straight, and two crossed. This design helped keep the wing firm enough on the body, where in the case of a rough landing, the wing could pop off and take some of the impact’s heat.

**Receiver Battery Installation**

When the receiver battery finished charging, it was a little warm. Not to alarm. This is common among NiMH, NiCd, or LiPo batteries. Installing, the battery fit snug into the Phantom’s Fuselage. I plugged it in, and it was ready for flight. The canopy flips closed on its own, so make sure no wires are exposed and that it has shut correctly.

**Landing Gear**
I don’t recommend the use of the landing gear on the Phantom. The wheels are plastic and weak, so trying to land the plane in grass will mostly likely fling its nose into the dirt. Take the gear off, the Phantom can easily glide into the grass on its belly.

**Tail and Tail gear**

The tail has been completely built for you.

**Pre-flight Preparation**

**Battery**

As always, be sure to drain the NiMH receiver battery before fully charging. To do so, insert the battery into the fuselage, turn on the transmitter, and run the plane (while held down) until the power dies. This will allow the battery a fresh start and give it longer, more efficient life.

**Trim**

While checking the tail rudder, I noticed that the elevators were slightly off-center. In this case, be sure to loosen the fasteners and re-adjust the flaps so that they’re level with the tail-wing. This is a good habit to develop for before every flight to ensure smooth soaring.

**Flight**
I hand-launched the Phantom myself with no problem. Full throttle, it took off, and with a slight push on the up-elevator, it gained altitude to a comfortable height. I noticed that for such a small plane, it flew incredibly fast. This may be a downfall, as the little size may cause you to lose sight of the plane if it gets too far away. When flying, be sure to keep it in within a reasonable distance for this reason. No other aspects of the Phantom were objectionable. The plane had very stable flight characteristics; it flew straight and responded nicely. Letting off the throttle, I noticed how well the Phantom glided. I also noticed how well the ACT was helping the plane. If I intentionally put the plane into a straight or sideways dive, the ACT kicked in, cut the power and transmitter jurisdiction, and leveled the plane. The system will definitely help a beginner pilot manage the aircraft, as long as they’re flying at a reasonable altitude due to its 2-4 second uncontrollable adjustment time. To gain control, I turned the ACT off. For the Phantom having such a lightweight, it handled well in weak winds, cutting through with ease. I wouldn’t take it out in a breeze over 10 mph., as it may send the plane into an unrecoverable direction or drop. Landing the Phantom was quite simple because of the stable gliding characteristics. It skid onto the grass with no physical harm.

**Aerobatics**

I was able to loop the Firebird Phantom, and that’s about it. It isn’t much of an aerobatic plane, to say the least. If you’re trying to pull of such maneuvers, be sure to click the ACT off so the system isn’t constantly trying to correct the vertical position of the plane.
Conclusion

HobbyZone’s Firebird Phantom is a great plane to own because it can act as your “fly anywhere” plane. It doesn’t require much sky-space, fly’s great, it’s quiet, and it’s small. The Phantom also acts as a great beginner’s plane due to its ACT system, durability, and smooth flight characteristics.

Pros

- Convenience
- Durability
- Stable flight characteristics

Cons

- ACT will backfire if activated at too low of altitude
- Small and fast, easy for the eye to lose
- Landing gear is pretty much useless
Electrics Bringing More Flyers than Ever

By Mike Schwartz, March 24 2008

Before electric power hit the model aircraft industry, interested RC newcomers needed at least $500 for their first gasser; a nice dent in the wallet, and the maiden flight still wasn’t guaranteed a success. Now, with all-inclusive electric packages, many nicknamed “park flyers” ranging from beginner to advanced experienced levels, newbies can spend closer to $100 for a smaller and easier maintainable machine—with almost no learning curve and less to lose for those unexpected “landings.”

The aerial RC hobbyist population has practically doubled in size since park flyers were introduced. Why? One word: convenience. The plane is already built: you charge the battery, plug it in, find a small plot of land, and you go flying. There’s no complicated building, learning of the nitro engines, and there isn’t the aggravation of getting the engine started. Park flyers are also smaller and quieter, so you additionally don’t have to worry about a gas engine’s blare.

Now, easing one’s way into the hobby is simpler and more financially friendly. With many speculating that RC aviation enthusiasts are dwindling, it’s nice to know that model plane clubs are seeing more electrics—and members—take to the skies. Park flyers have promoted the hobby incredibly.

So what’s a park flyer, exactly?
A park flyer is a small, more often electric-powered, two-pound-or-less remote control plane that strictly flies at speeds under 60 miles per hour. Its name is coined because it can be flown within the confines of a small land area (like, well—a park.) The flyers started appearing on shelves of hobby stores around four years ago. Now, some might say they’re the majority of the business.

Although nearly impossible to prove considering modelers have been building smaller homemade planes for a decades now, Grand Wing System’s (GWS) Pico Stick flyer is considered the world’s first “true” manufactured park flyer. It wasn’t ready-to-fly (RTF), but once assembled, it flew with similar characteristics as most park flyers seen today: slow speeds, quiet, and un-intimidating.

Once on shelves, the park flyer era was birthed. Newbies fearlessly joined the hobby, and those who left decades ago now had an easy way to pick it back up. Children became involved due to the safer nature, and anyone willing to try flying didn’t need to blow several weeks worth of pay to do so.

Neighboring manufacturers helped the park flyer promotion by taking popular models and electrifying/RTFing them. Piper cubs flew out of the box. Fokker DR-1s were up in the air in less than an hour. The hobby was blooming from a new side of the spectrum, and after the Stick, new pilots walked in through hobby shop doors and out with a ticket into RC.
GWS’ Pico Stick, an original park flyer, helped open doors to many blooming model aircraft enthusiasts due to its convenience and slow flight characteristics.

Photo Courtesy of RCUniverse.com

Great Planes and Horizon, the largest hobby distributors in the world, played a large role in the coming of park flyers. Great Planes helped release GWS’ Pico Stick back in 2003 (along with many other electric park flyers to follow). Soon after, Horizon, the company behind the branches of Hobbyzone and Parkzone, offered complete RTF packages with “Anti-Crash Technology”—crash-safe—planes that literally “fly out of the box.” These companies, along with sprinkled here-say from RC Internet message boards and blogs (like the Badius boys and Aussie forums), aided in flourishing the convenient electric park flyer era.

My $0.02

Will electrics steal the skies from gassers completely? Not a chance.

The Academy of Model Aeronautics’ March survey stated that 45 percent of modelers still prefer gas and glow planes, while the other 55 percent is spread among all
other types of RC aircraft (park flyers, helis, non-powered, control line, etc.). So if you’re speculating that electric flight will eventually make gassers obsolete, you’re probably wrong. Park flyers aside, the reality is that there are electric motors that will pull a 60-pound plane with a 32-inch prop—but that still doesn’t mean gas engines will be replaced. Gassers now share the sky with planes of a different power source. They’re now an optional area of the hobby that’s there if one chooses to enjoy it. If nothing else, electric flight is falling into the hands of those seeking a more convenient method of remote control flight, and helping newbies—or oldies—get started, or, pick up where they left off.

There’s no battle here. Most enthusiasts are more concerned with promoting the hobby than segregating batteries from gas engines.
Top Four Living Room Flyers for the Modifier

By Mike W. Schwartz

When ready-to-fly micro-build planes hit the market after 2004, modelers had the exciting opportunity to modify their own flight concepts using the inclusive mini technology. With so many living-room flyers (LRF) available, it can be easy to choose a miniature plane with unreliable machinery. Here’s a list of the best micro planes you can buy with the most dependable technology to modify.

4. Silverlit Palm-Z—Silverlit’s Palm-Z (palm-sized) mini biplane comes RTF, equipped with a powerful micro geared pusher prop, rudder, and digitally proportional speed control. The transmitter contains two channels—throttle and rudder—and also has trim adjustment. It’s powered with infra-red technology; the plane can only be flown in regularly lit rooms due to the IR’s easy interference with bright lights. It’s super light EPP foam make allows the aircraft to gain altitude quickly, and freely soar with half throttle. The soft build can also take crashes without excessive damage. The Z isn’t equipped with landing gear, but can still take off from hard floor or rug surfaces. The motor is powered with a lithium polymer battery, requiring a 7-minute charge but capable of 12-minute flights. According to Silverlit’s advertising, the Z can be flown in the confines of an 8x8 foot room. This is hard to believe—unless you want to fly in tight circles only.
**Why this plane made the list:** The Palm-Z’s motor and technology is well crafted and remains secure during rough landings. Sporting a LiPo battery, the Z is capable of long flight times and impressive power. Although it can fly sluggish at times, the all-inclusive equipment can be modified or extracted for use in a modeler’s micro-sized project. **Street Price: 39.99**

**3. Avion io**—Avion’s micro bi-plane has a 7.5-inch wingspan and can be easily flown in a small room—with incredible control. The Avion-io’s two-channel proportional control system is quick to respond, making it simple to navigate through tight living quarters and over/under furniture. It’s powered with a 3.7 volt 50 mAh LiPo, giving the io up to 15 minutes of flight time on charges for less than half that time. The charger is built within the transmitter, so with on-board charging, traveling and flying is even easier. The micro technology is built and manufactured to perform well, as the flying capabilities are extremely smooth.
**Avion io**

Why this plane made the list: The Avion-io sports similar characteristics of the Palm-Z, but flies more gracefully. It’s made of harder-grade foam, and still maintains the ability to take all sorts of unexpected bumps. Its street price is $50, which is a tad high. But with stable and well-built technology, it can certainly be modified to or reconstructed to meet a modeler’s needs.

2. Revell Piloto – Released in March of 2008, the Piloto is one of the newest living room flyers offered to consumers. A little heavier than most micros—7.14 grams—the Piloto can only be flown in larger size due to its faster speed and slower turning radius. It’s equipped with an FM transmitter, which gives the Piloto a little more edge—FM radio signals won’t be deterred by the sun’s brightness, hence it can be flown worry-free outside on weather-calm days. The rudder, non-proportional and trimless, delivers a quick response but due to the Piloto’s unique build, still has sluggish turns. Like other minis, the Piloto is powered by a 50 mAh LiPo battery, and is charged from the transmitter.
Revell Piloto

Why this plane made the list: The Piloto’s motor is slightly larger than the Avion-i’s, which gives the modeler a slight performance upgrade option if modification is in mind. The street price for a Piloto is $39.99, which isn’t bad considering what’s offered at number two.

1. Plantraco Butterfly—The smallest living room flyer isn’t always the cheapest. The Butterfly, a 3.6-gram, 3.5-inch wingspan flyer, costs $199, RTF. The package comes with a four-channel infrared transmitter, aluminum carrying case, two LiPo batteries and more. For such a small size, it flies incredibly fast. The mechanics of the plane are made specifically for the user to upgrade if needed. Since the kit comes with a four-channel transmitter, adding elevator—or even ailerons—is a possibility. The fuselage is made of carbon fiber, while the wings and rear stabilizer are durobatic foam to keep a super lightweight, and maximum performance.
Plantraco Butterfly

Why this plane made the list: The butterfly is one of a kind—it may be the smallest functional RTF RC plane ever built. Trying to modify such a product is a true challenge for the modeler, simply because the machinery is tremendously small. There’s a lot of room for modifying with the Butterfly, and with such a reliable construct, along with brilliant flight characteristics, Plantraco’s Butterfly is one of the most impressive micro flyers in the world, and ready for anyone’s ideas at the cost of a nice dent in the wallet.
Just less than a decade ago, many RC modelers thought on-board in-flight video recording would never be practical enough for the average RC flyer to try.

Even so, most pilots still persevered to try and document their aerial experiences. Some tried taping a hand-held camcorder to a fuselage, which not only looked ridiculous, but also made the craft too heavy and was always difficult to secure. Some tried fastening bulky digital cameras on-board, which was risky, only able to record briefly and with poor quality, and was often too heavy for smaller planes.

As long as video documentation and RC aviation have been around, enthusiasts have been compelled to develop ways to mount cameras onto their aircraft.

The question is: why?

RCers have always yearned to capture the first-person in-flight perspective (as if manning the full-scale yoke themselves). They, like many others, have dreamt of being airborne. Seeing themselves as they performed a low fly-by, the precipitation on the canopy when sailing through low clouds, treetops, rooftops, and anything else that was once only viewable by birds or full-scale aircraft pilots.

It’s no doubt exhilarating—especially while flying your favorite RC plane in your choice location.

In 2007, the craving for appropriate technology has come to an end. New, advanced, and easy-to-use micro cameras with long-range wireless signals—made
especially for RC (the signal doesn’t interfere with transmitter’s channel)—are available for prices under $100 and encompass full color, audio, and produce remarkable images. Pilots also found similar use with slimmer, lighter, and powerful digital cameras. Now, with many cameras eight mega-pixel or more, the images produced are admirable. And since the weight is so light, it’s easier and safer to mount aboard.

Out of today’s RC-intended micro cameras, Hobby Lobby’s FlyCamOne, is one of the user-friendliest recorders available to consumers. The Cam is all-inclusive—just simply add a memory card, 256 MB or higher, and it’s ready for flights up to 30 minutes. A LiPo battery, 220 mAh, is charged through USB connection. No buttons or fuss, just record and go. It stops recording when the memory is full. Best of all, it’s available for $80, and can fit on even the smallest of park flyers or helis.
Most cameras, like the FlyCamOne, are extremely light—usually under 40 grams—and very small in size. They can be placed almost anywhere on the craft: wings, fuselage, cockpit, canopy, or modified extension. They’re normally secured with Velcro, rubber bands, or doublesided tape, locking the camera on-board firmly, but not permanently.

RcPlaneCams.com, a popular site among modelers, offers the Aiptek 1.3 mega-pixel SD modified RC Aerial Camera for $75. The camera, like the FlyCamOne, is all-inclusive and great for beginners. Basically, the user adds memory, charges the battery, and it’s ready to go. A bit heavier at 48 grams, the Aiptek is another easy way to start recording without constructing one’s own recording device, which is difficult and expensive. Being larger in size and weight, enthusiasts usually prefer the Aiptek to be used on slightly larger aircrafts.

Some pilots, like [insert name], a Canadian RC enthusiast, took the experience to the next level: real-time in-flight viewing from the plane’s cockpit. [Name] crafted a video camera that mounted on board the cockpit of an EasyStar electric Park Flyer. The live aerial video footage was signaled from the plane and received through video goggles the pilot wears (where each eye has an liquid-crystal-display (LCD) screen mounted. A gyroscope upon the goggles detects the pilots’ head movements, and the plane’s camera follows mimics the motion, giving the pilot a full-scale in-cockpit flying experience.
A Homemade RC video kit, capable of streaming live aerial footage the receiver goggles.

Photos Courtesy of Youtube.com

Unfortunately, such a kit is not available from any company, and can only be homemade. Also, according to the FAA, flying an un-manned aircraft out of view is illegal in the United States. Such aircrafts, Unmanned Aerial Vehicle’s (UAVs) are reserved for the military.

Thanks to RC and micro cams, enthusiasts who are unable to afford a real plane or the time and/or money to obtain a pilot’s license, are now able to get the similar feeling through today’s incredible RC-intended micro-cams.
Flyzone Piper J-3 Cub – Review

By Mike W. Schwartz

Introduction

Much history goes into the Piper J-3 Cub Airplane. It was crafted in the 1940s, and has served for both military and civilian purposes. The cub is an important plane in American history, and is no-doubt considered a classic icon for all aircraft enthusiasts.

Flyzone has taken the Piper J-3 Cub and scaled it down to a battery-operated, Ready-to-Fly (RTF), realistic looking scale RC plane. Thankfully, it holds true to the original J-3 qualities: it’s a tail dragger, the traditional yellow finish, and the braced wings, perched atop the fuselage. Airborne you’ll have others saying, “Now that’s a classic.”
Putting the Cub in the air means placing you, the pilot, right in the cockpit. Get ready to man the yoke of Flyzone’s scaled version of America’s beloved, timeless winged legend: the Piper J-3 Cub.

**Specifications:**
Name: Piper J-3 Cub RTF  
Wingspan: 36.25 in.  
MSRP: $199.99  
Retail Price: $160.00  
Flying Weight as tested: 21 oz.  
Motor: 380 class  
Prop: 7x3 in.  
Servos: Three microservos  
Radio equipment: 4-Channel transmitter, 6-Channel Receiver  
Battery used: GPMG7700 NiMH 8.4v 1100mAh

**Items needed to make this product safely airborne:**

Eight AA batteries are required for the Tactic FM Transmitter. Other than that, all other items are included with the RTF package.

**First Glance**

The Cub comes well packaged, pre-colored, and pre-decaled. The plane is RTF, but only requires a few tightening of screws and a battery charge. The box is fairly large and the Styrofoam protective—if needed, the box can be used as travel case to preserve the Cub’s well being. The instructions were well written and provided detailed pictures to help explain the simple building procedures. It took about 40-minutes to get the cub airborne.

**Included in the kit (RTF)**
- Transmitter (Tactic 72 MHz FM, 4-channel)
- Instructions, box, hardware, and packaging
- Transmitter wind ribbon, red
- Receiver battery
- Car (DC) chargers
- Rubber Bands (for motor attachment)

**Building the Plane (RTF)**

**Wing Installation**

Installing the wings was fairly easy, but required delicate positioning of the included screws. Each wingside is first placed on top of the fuselage, and screwed down. Then the bracers are attached below and are also screwed in. It’s easy to improperly screw the wings down—the screws appear to tighten into the body, however, be sure to give a stress test to ensure the stability. If the wings are loose, locate where, and tighten as needed.

**Battery Installation**

Place the battery in the underside compartment of the fuselage. To do so, unscrew the lid prior to installing the wings, and attach the battery to the appropriate connector. Once completed, secure the screws and ensure the fastening with a stress test.

**Landing Gear**

The landing gear looks great. It holds true to the classic cub feel: the tail dragging takeoffs and landings, and the wheels proportional. However, the gear is not made any
grass that’s not freshly cut and short. Unless you’re taking off from pavement, the Cub should be hand-launched by a friend. To install, simply screw the gear in underneath the fuselage.

**Tail and Tail gear**

The tail has been completely built for you. Simply bolt the vertical and horizontal stabilizers into place. Be sure to stress test both pieces to ensure a safe flight. Use the included wrench to pin the tail gear. At this point, you’ll notice the Cub beginning to take its traditional form.

**Pre-flight Preparation**

**Battery**

As always, be sure to drain the NiMH receiver battery before fully charging. To do so, insert the battery into the fuselage, turn on the transmitter, and run the plane (while held down) until the power dies. This will allow the battery a fresh start and give it longer, more efficient life.

**Trim**

Be sure to note the trim of the rudder. If you don’t already know, the rudder on the Cub has extreme authority in the control of the plane. I noticed the rudder to be slightly
off to the left. Additionally, check the center of gravity as well. The Cub is know for being slightly tail-heavy.

**Flight**

The cub took off from sandy pavement with ease. Climbing out, and turning left, I noticed how scale FlyZone’s Piper J-3 Cub really is. The flight characteristics were graceful and un-intimidating. It Cub ascended with ease, rising and gliding with delicate control. I quickly decided to do a low fly-by maneuver, to hopefully get a closer look at the traditional beauty. It flashed by and I couldn’t help appreciate its soft hum of the 380 electric motor.

The Cub flies fast, yet only needs about 60 percent throttle to maintain altitude. At a comfortable height, I cut the power and let the Cub soar. Being a top-wing, it glided very well and descended gradually. Perfect for those unexpected power-losses; you can soar to a decent landing-zone time to spare.

Being relatively light, 21 ounces, the Cub can only be safely flown on calmer days (winds under 10 miles per hour). A nice gust of wind would be able to knock the Cub into a frenzied spin or stall.

**Aerobatics**

When flying scale planes, the pilot is encouraged not to perform any aerobatics, and instead appreciate the beauty of the scaled machine they’re operating. However, with curiosity, I decided to try some stunts, confident that the Cub could handle such requests.
It can loop with 75 percent throttle, stall into a smooth dip, and perform rolls. The rolls, however, require the Cub to have a safe altitude—you descend a considerable amount when doing so.

**Conclusion**

FlyZone’s J-3 Piper Cub is a great RC plane with many admirable qualities. It has smooth flight characteristics, looks great, and can still perform some impressive aerial stunts. Although the plane is advertised as a beginner’s, I would recommend a newbie to fly it first with an instructor, due to the extreme authority of the rudder. In order to turn safely, the rudder needs to be utilized properly.

Flying the Cub was a joy. Flight times are 10 minutes, but with extra batteries, the pilot can enjoy the aerial tradition all day long.

**Pros**

- Holds true to the original cub’s physical qualities
- All items included in package, rare for a scale RC plane
- Decals and paint job well crafted to add touch

**Cons**

- Rudder has extreme authority over ailerons
- Plane not suitable for beginners, unless accompanied by instructor
- Landing gear prohibits take-off or landing in grassy, uncut areas.