



Somerset RC

A Chartered Club of the Academy of Model Aeronautics
est. 1972, AMA 1002

**Dedicated to the Enjoyment and Promotion of
Radio Control Model Airplane Flying**

CLUB NEWSLETTER www.somersetrc.org July-August 2020

A "Member Helping Member" Club for ALL AGES!

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IN THIS ISSUE

From the President.....	2
Treasurer's Chest by Dave Szabo.....	3-5
"Pattern Plane Evolution—The Early Years" by Duane Wilson.....	6-10
Mystery Plane Challenge.....	11
Member Profile—Jim Vigani.....	12-18
Club Schedule.....	19
Article Index.....	20-21
Club Application and Info.....	22

*Do you have
something for the
next issue?*

**Send it along
to the editor's
email above!**

Next issue this
September



From the President

And the flying continues...

The shutdown has yet to shut down the enthusiasm at Somerset RC. Our pilots are fueling planes, charging batteries, and sending planes skyward. Our club kept its **Big Bird Fly-In** commitment, and we had a turnout of 22 pilots from five clubs and many guests. If you have yet to see pictures of this event, go to our club website and view some stunning photos courtesy of **Tony Rossi** (www.somersetrc.org).

We welcome Somerset RC's newest member, Mr. **Shelly Bhumitra**. Shelly is a new arrival to our area from New York.

We are pleased once again to share with you a great issue of the Somerset RC newsletter. **Dave Szabo**, treasurer of Somerset RC, shows us how to create a caddy to keep glow plugs in order. I fly glow myself, so I intend to make one. **Duane Wilson** who is editor of the fine Senior Pattern Association newsletter has graciously shared an article that he authored about the fascinating trailblazing years of RC pattern. Our vice president of Somerset RC, **Jim Vigani**, is our featured member in this issue's Member Profile. His is a rich account in the pursuit of creating and sending beautiful things skyward. And as always, a Mystery Plane awaits you, all here in the Somerset RC Newsletter.

We are family. We are Somerset RC.

—**Domecq Smith**, President, Somerset RC

domecqsmith@msn.com



Treasurer's Chest

A Glow Plug Caddy for the Flight Box

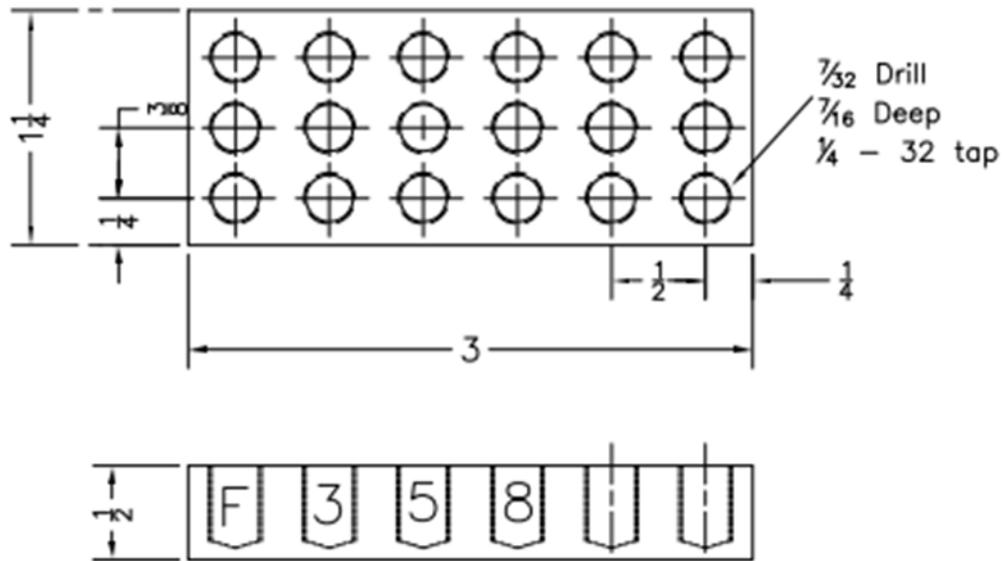
by Dave Szabo



There are still many diehard flyers that use glow engines as their power plant. For them, the smell of burning castor oil and the low rumble of a large 4-stroke far outweigh the challenges of constant tuning and cleaning a greasy mess off the plane after a long day of flying.

For those that still fly glow, how many times do you find yourself rummaging through the flight box looking for a glow plug? They always seem to be buried under a pile of junk, and then when you do find one, you have no idea if it is used or if it is the right number. You may have a bunch of plugs in your box, but you never have a clue of how many of each type you might have because they all jumbled around. Of the many you have, none are the one you need. Unfortunately, today's plugs don't seem to last as long as they used to, so having a good inventory is always a good idea. Wouldn't it be nice to have something to store them in?

Here is a simple design that is easy to make and does a nice job keeping your glow plugs organized and safe. Below is a drawing of the one I made. However, you can make it exactly as I did or modify it to better fit your box and plug needs. I used a piece of scrap Corian counter top material since it's a tough plastic that can be tapped and hold a thread well. You can also use the plastic trim that they sell at Home Depot. It does tap easily and will work as a relatively good substitute. Its not that big, so finding a useable scrap piece should not be difficult.



This design can also be adapted to a 3D printer. I don't know if it's best to print the threads or tap them after the part is printed. I am sure those of you that print parts can better determine that. Aside from a piece of Corian, the only tools required are:

drill

1/4 inch twist drill

1/4 -32 tap

tap wrench

electric etcher or Dremel tool

spray paint – any contrasting color will do

The side of the block indicates the plug number. They were hand-written characters using an electric etcher. The same can be accomplished with a Dremel tool and a pointed bit. After scribing the character, I then sprayed the end of the block with black spray paint and immediately wiped off the paint with a rag. The etched characters hold the paint and prevents it from being wiped off thus leaving easily readable numbers.

Here is the finished product.



My plugs are easy to find and I always know when I am running low on any one type.

Happy Flying.

—Dave Szabo

Pattern Plane Evolution—The Early Years

by Duane Wilson



I feel that anyone who flies pattern should have a basic knowledge and appreciation for AMA pattern's rich history. They are missing something if they don't. Consider the fact that precision aerobatic events have been around for nearly sixty years now! One of my prized possessions on the desk in my office is a trophy from the estate of Ed Kazmirski (we'll talk a bit about him later) that he won in 1957. It was presumably his first win. In his honor, the 2015 FAI championships opening ceremonies in Switzerland included a solo flight of a lone Orion, Ed's first design and the plane he used 55 years earlier to win that first event in that same venue.

Starting about that year (1960), when pattern planes first became popular, seemingly slow changes from year to year have led to a huge change in plane design over time. This month, let's talk a little about the evolution of R/C pattern aircraft over the years. I'm sure that some of you know pattern history much better than I do, but read on anyway, if for no other reason than to agree or disagree with what I say. There is so much we could talk about, so I'll confine this first mini-article to pattern's early years.

There are a few basic principles of pattern design that are timeless and apply to all pattern aircraft of any time period. First, all pattern planes, regardless of when they were flown were designed to be aerodynamically neutral, meaning they "go where you point them," and tend to hold whatever position you put them in. Design is influenced more or less by three factors: 1) the state of

technology, 2) the rules in effect, and 3) the maneuvers that are to be performed. The state of technology isn't as important now as it was in the early days when the primitive equipment by present standards (i.e. radio and engine) largely determined what was possible to accomplish. Early technology had a large effect over early designs. For example, when I wrote my Nov 2016 Model Aviation article on Tom Brett and his TBX, his wife Helen told me that Tom would *literally design a plane around the equipment*. The early

reed radios (look at the toggle switch transmitter on the ground) were very large, heavy, and bulky. Even the early proportional units were huge compared to modern radios. Look at Bob Dunham's early version premium black-cased Orbit



proportional systems. They were generally considered the best, but look at the size! A 2-meter plane would have been nice, but no engines existed then that could lift one.

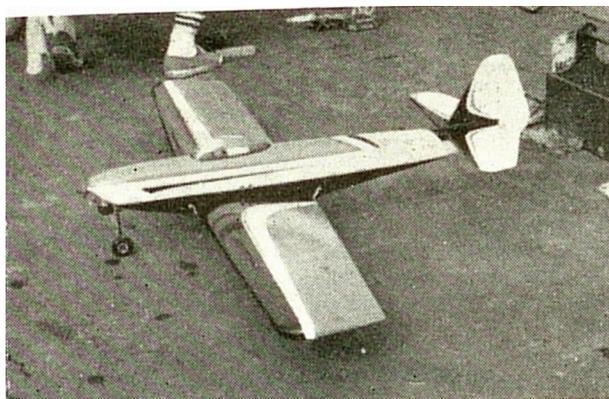


When looking at the maneuvers for the upcoming worlds, Tom created his most famous plane, the Perigee *because* he needed a smaller and more refined version of an existing plane he had. The smaller engines of the times and the maneuvers scheduled for the 1962 "worlds" *dictated* a slightly smaller aircraft.



Ed Kazmirski was one of the early leaders when pattern was in its infancy. Though he won the 1960 FAI championship with the Orion, his primary contribution to R/C pattern came two years later when he designed what is arguably the most popular and widely flown pattern and sport ship world-wide ever—his 1962 NATs-winning Taurus. The Taurus series

extended over a four-year period. Always experimenting, no two planes were exactly the same. The first Taurus in 1961 had a long nose moment and short tail moment. It crashed at the NATs, and was interestingly nicknamed “the flop”.



Success came the next year after a major redesign with a winning formula of a short nose and long tail moment. This plane also had a 70” wingspan—large for that time period. Ed’s NATs

winning 1962 Taurus can be traced back as a common ancestor of nearly everything that has followed based on its huge popularity and effect on future pattern design. You can still buy Taurus kits offered by generic kit-makers. It still flies well as a sport plane.

Pictured together in a rare photo are the NATs-winning Taurus

(foreground, which launched a very famous kit by Top Flite in 1963) and Ed's final and less known Taurus from a year later behind it on the runway at Muncie. Notice the near mid-wing placement and the tapered leading edge and straight trailing edge common in more modern designs. Also interesting to note is the decided lack of side area on the fuselage. Knife-Edge flight was not required back then and that affected design. Remember, design for the rules and maneuvers of the time. We will see this again when we later SPA-legal planes and the transition to Turnaround pattern.

The two aircraft were carefully preserved by Ed in a travel crate, and upon his death in December 2007, both were auctioned on eBay. The 1962 NAT's Taurus was purchased by the Vintage R/C Society, and a few months later, donated to the AMA Museum in Muncie. If you haven't been to the museum, it is well worth the visit. You can see it displayed there (next to the Perigee and Orion). The photo was taken on the day of the donation and shows both planes together for the last time. Note the excellent condition of the planes even though both were well over forty years old and had numerous flights. Considering the sometimes unreliable nature of the radios of the early 1960s, this is a minor miracle.

The remaining Taurus was purchased by another VR/CS member and myself. Not being a famous plane, we decided to make our Taurus flight worthy, flying it enough to get some nice pictures before retiring the plane before something "serious" happened to it.



The raked vertical fin and rudder line was common to nearly all pattern planes from the

early 1960s (technology again). They were originally designed to fly on reed radios with difficult and unnatural to use toggle switches for each surface control. It was easier to hold up the nose during a turn with that rudder shape. Proportional radios were easier to fly and did away with the need for this, and rudders became vertical for better flight characteristics in later pattern designs.

SPA is an AMA special interest group (SIG) dedicated to competition with vintage aircraft. Planes from this early era (early to mid 1960s) would best qualify for our “Antique” class, which is flown occasionally. Although I’ve been talking primarily about the Taurus, other well known planes from this era would be Jim Kirkland’s Beachcomber, Jim Whitley’s original Daddy Rabbit, and Phil Kraft’s Kwik Fli. These aircraft would not be very competitive against SPA-legal planes designed just a few years later within our legal 1960-1975 range. Next time we’ll discuss the more modern, commonly used SPA-legal planes, and continued pattern plane evolution to the present day. I hope this has been helpful.

—Duane Wilson

Duane Wilson is a classic pattern enthusiast and is the author of many articles on vintage pattern for Model Aviation Magazine and The K Factor. He is editor of the newsletter for Senior Pattern Association.

MYSTERY PLANE CHALLENGE

Can you name the model airplane below? This RC pattern ship was state of the art in the mid-80's. Send your answers to Domecq Smith at domecqsmith@msn.com. The answer will be published in the September/October Newsletter.



The May newsletter's mystery plane was the Lou Andrews **Aeromaster** designed in 1966. It was a favorite biplane among many RC enthusiasts. Congratulations and thanks to **Paul Audino** and **Ernest Evon** for identifying this great airplane.

Member Profile

Jim Vigani



I grew up in Scotch Plains, NJ and have been building model airplanes as long as I can remember. Since I was a kid, the magic of flight has always given me a thrill. The first model I remember was a solid wood F-86 Sabre Jet given to me by my dad. I glued it together and flew it around the house holding it in my hands, making the noise of a whining jet engine. No paint, just a bare wood F-86. Loops and rolls, dive bombing, you name it. Had lots of fun with that little airplane. I believe I was in 3rd grade when I got the F-86 (1953). In 4th grade I remember building my own version of the Wright Flyer. I got a sheet of 1/8 inch balsa, cut out pieces with a single edge razor from my Dad and covered it with tissue paper from my Mom. That plane was just a static model, but I did learn how easy it was to cut yourself with a razor blade.

When I was in 5th grade, I discovered there was a model airplane club for kids in our town run by a Mr. Lloyd. It was called the “Scotchwood Fliers.” He held meetings in his basement once a month and would hold contests for the members at the local high school field. Back in those days, control line was king. He also was set up as a hobby shop so we could order supplies at a 40% discount. What a deal. That was the year I got



my first gas powered model and engine: a Sterling Ringmaster kit and a McCoy 36. That was the plane I used learning to fly control line. A few flights, crash, glue it back together, fly again. I still have that engine. I also learned to chew the dried Ambroid off my fingertips. Those were really fun days for us kids when you could fly at the schools and no one complained. In fact, the neighbors loved the sound of the engines and would come out and watch.

I continued serious modeling for another 9 years through 1965, competing in a myriad of events including Precision Aerobatics, Combat, Rat Racing, and Navy Carrier, and some Free Flight. There was a contest circuit in New Jersey and New York. One of the major events was the New York Mirror Meet held at Floyd Bennet Field in New York. That was a serious meet where they limited the number of entrants to 1000! It was a two-day event and included almost every type of model aviation event available. In 1959, I entered the Pan American Payload Jet free flight event and won the Junior Division. The plane I flew was powered by a Jetex 150 Model Rocket Engine. My prize for first place was an RCA transistor radio, quite the haul for those days. I still have the radio and the Jetex engine. Both are being donated to the AMA Museum. During those nine years, I loved to design and build original planes. I still have a folder of old plans and sketches of planes I built over those years.



After 1965, college, work, and family got in the way, and the modeling was put on hold. I did take some time to take flying lessons in a Cessna 152, but decided that with my work schedule, I wouldn't have enough time to fly, and decided it would be more

prudent not to get my private flying license rather than being tempted to fly on a sporadic basis. I do not regret that decision.

I worked as an engineer and started my own engineering company in 1985. Part of my work included Forensic Engineering as an expert for litigation. In 2003, I had a case where I had to build a scale model of an airport baggage train. In designing the model, I determined I needed wheels about two inches in diameter. That's when I remembered the wheels I used on my model airplanes. So, I looked up a local hobby shop and took a ride to see what they had available. When I walked into the shop, I was blown away by how the hobby had changed over the years. Most everything was RC with a myriad of kits and ARFs. It was on that visit to the shop when I met Bill Becker, an older member of our club who has since passed. He told me all about the Somerset Signal Senders, and when and where they met. So, I went to a meeting, liked what was going on, and joined the Club. The only problem was I didn't know how to fly RC. So, I bought RealFlight, loaded it on my computer and proceeded to practice all winter while I designed and built my first RC plane, the Bandit. Not wanting to risk crashing the Bandit on my first RC ever flight, I designed and built a foamy YAK for my first flights. It only cost a couple of dollars in materials, and I built it in a couple of evenings. With all my practice time on RealFlight, I was doing loops and rolls on my first flight with the YAK. Quite a testimony for RealFlight. The Bandit finally flew several months later and as a bonus, won 3rd Place at the WRAM show for scratch built





electric models.

Over the years since I started modeling again, I have designed and built any number of airplanes, the most notable of which is the “Scratch” series. The original Scratch with a 40-inch wingspan, was designed for members of the club who wanted to learn how to scratch build. Eight of us met once a week in Mark Julius’ basement for a building session. We cut out the parts, built and covered the airframe, and installed the electronics. The design flew extremely well and was subsequently published in Fly RC magazine. It was also ARF’d by BP Hobbies. I subsequently designed and built a 60-inch version called the Super Scratch. This version was published in Flying Models Magazine. The final version was the Mega Scratch, an 80-inch version that was one of my all time favorite models. Alas, it met its demise a couple of years ago when I flew it through the trees on approach for landing. In 2010, the Scratch Series won best “Original Designed Model” at the Neat Fair. I was quite honored. I was also a regular contributor to Flying Models magazine, having done a number of reviews and articles.



One of my favorite experiences with the club was our work with the North Brunswick Middle School STEM program. Lyn Alford’s neighbor, Dee Guarino, was the STEM teacher for the 8th grade science class. As part of her curriculum, she wanted to teach about aerodynamics. We tossed the idea around and decided we

would offer a program where the kids would design, build, and fly their own RC model. The class was broken down into groups of three, with each group designing their own model. Lyn Alford, John Samtak and I went to the school every week to mentor and help the kids. Paul Gentile also pitched in on a number of occasions. The program lasted for 3 years, with 8 groups completing their planes the first year, 16 groups the second year, and 8 groups again the third year. All the planes flew, some extremely well. A highlight of the experience was after their successful flight, an all-girls group was carrying their plane back to the pits when one girl said to another, “I can’t believe this all started as a thought in our heads!” Yes, they did get an education on how to bring ideas into reality.



In 2007, I met Paul Gentile who wanted to kit a series of foamy electric planes. He had seen one of my foamy designs with an airfoiled wing and was intrigued as most foamies of that time had a flat wing. We decided to collaborate and the AirFoilZ series was born. The AirFoilZ series was a breakthrough in foamy design and performance, and were extremely popular with many kits sold. In fact, I still get calls for the plans. I still fly mine on a regular basis. As an aside, the AirFoilZ Extra 300 has been in RealFlight’s add on models.

Since I grew up on control line, in 2008 when our club decided to hold the Region II Fly-In, I suggested we provide an area where the control line guys could fly. Everyone agreed, and I was tasked on putting that together. Not having flown control line since 1965, I built an electric Flight Streak to fly at the event. We had a reasonable turnout and I was reintroduced to that segment of the hobby. Although I didn't forget how to fly, I did get dizzy during the first several flights.



After that event, control line flying has again become a significant part of my participation in the hobby. I compete in a number of events both at the local and national level with a modicum of success. Last year, I was a judge for the control line Precision Aerobatic event at the Nationals.

Control line combat was a staple event in the old days and is still reasonably popular today, although mostly flown at slower speeds (everyone is getting older). The thrill of flying a vintage combat plane at over 120 MPH, however, is still something we miss. So, several years ago, a group of the old-time combat fliers arranged a Vintage Combat Festival where the old designs from the 50's and the 60's would be flown. No real combat flying, just flying the old-time designs with prizes for the fastest plane. So far that record is 128 MPH.

Wanting to participate in the festival, I got my old plans out and built several of my old combat designs. I still fly them, and they are a hoot. My fastest has been clocked at 122 MPH. That design,

called the “Double Diamond,” is on display at the Bob Mears Control Line Combat Museum in Lubbock, Texas.



Anyway, to sum everything up, modeling is in my blood and surely is one of my life's passions. The best part is the friends you make and the good times you share.

—Jim Vigani

Club Event Schedule, 2020

All events at North Branch Park Flying Field, 355 Milltown Road, Bridgewater, New Jersey 08807, unless otherwise noted.

Big Bird Fly-In, Saturday June 20

E-Fly, Saturday July 25

Warbirds Over North Branch, Saturday August 29

End-of-Season Picnic, Saturday September 26

Turkey Fly, Saturday November 14

please refer to SomersetRC.org for event updates

Article Index

all newsletters archived at www.somersetrc.org

Construction Articles

Big Hots	Tim Cullen	January 2020
Big Hots Update	Tim Cullen	May 2020
Comments on Covering the Robin Hood 25	Jeff Randolph	March 2020
Extra 330 LX, Krill—Part 1	Bob Both	July 2019
Extra 330 LX, Krill—Part 2	Bob Both	September 2019
F-86 Sabre 15 DF ARF, E-flight—Part 1	Tony Rossi	March 2019
F-86 Sabre 15 DF ARF, E-flight—Part 2	Tony Rossi	May 2019
P-47D Razerback Giant Scale, Top Flite	Larry Gray	January 2019
P-47 (1976) 1/6 Standof Scale, Top Flite	Domecq Smith	November 2019

General

AMA Expo East 2019 (photos)	Tony Rossi	March 2019
AMA Report	Jon Gerber	January 2019
AMA Report	Tony Rossi	May 2020
A European Summit	Domecq Smith	November 2019
Developing Rudder Skills	Don Ramsey	March 2020
Field Accessibility Update	Domecq Smith	July 2019
Freeze Fly 2019	Domecq Smith	January 2019
How to Renew Your Permit Online	Felipe Trucco	May 2019
Metropolitan Sports Squadron	Jon Gerber	May 2019
My Other Vice (MS Access and club records)	Dave Szabo	March 2019
Pattern Plane Evolution—The Early Years	Duane Wilson	July 2020
The Survey Says (club statistics)	Dave Szabo	September 2019

Literature

STS-51-L	Jon Gerber	March 2019
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Member Profiles

Michael Ahlff		May 2019
Bill Broillard		May 2020
Rich Blatt		March 2020
Robbie DeVergillo		November 2019
Jerry Lustig		September 2019
George Mariasz		July 2019
Tony Rossi		March 2019
Domecq Smith		January 2019
Dave Szabo		January 2020
Jim Vigani		July 2020

Shop Articles

A Glow Plug Caddy for the Flight Box	Dave Szabo	July 2020
Cowl Cutting for a Muffler	Domecq Smith	May 2020
How to Take Care of Your Glow Engine	Rich Blatt	January 2019
Installing a Speaker in Your Transmitter	Dave Szabo	July 2019
Model Airplane Assembly	Rich Blatt	March 2019
On Electrics	Jim Vigani	January 2019
Safely Handling and Charging Lithium Batteries	Jim Vigani	May 2019
Taps, Dies, and Thread Sizes	Rich Blatt	September 2019



Somerset RC Membership Application

Name: _____ Date: _____

Address: _____

Phone: Home: _____ Cell: _____

AMA Number: _____ Email: _____

To obtain an AMA Membership go to:
<http://www.modelaircraft.org/>
Membership is \$30.00 for adults \$4.00 for
students up to the age of 21

Mail all applications with check to :
Dave Szabo
12 Shoshoni Way
Branchburg NJ 08876
Make check out to "Somerset RC Club"

Paying by PayPal send to:
Somersetradiocontrol@gmail.com
Put your name in the notes and use the":
"send to a friend option.

Meetings are 8:00pm every last Tuesday of the month at:
American Legion Post 306
707 Legion Place
Middlesex, NJ 08846
732-356-9699

For full club information, please visit SomersetRC.org