

An Ongoing Saga of the Love/Hate Relationship between Me and “*Big Blue*”

Written by: Dennis S. Nunes – December 2024



"Big Blue"

*In the Pits at the 44th Annual 2024 Golden State Stunt Championships
at the Folsom Lake Recreation Area in Granite Bay, California*

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I sometimes get carried away with writing about certain “adventures”. Like things I experience for the first time in this marvelous hobby called “Control Line Precision Aerobatics”.

The other day, I glanced at my Dennis Schauer’s designed *Gladiator 35* that hangs on the wall in my office. I thought, why not write something different, like my *journey* with a Classic plane that I’ve affectionately nicknamed, “*Big Blue*”.

How did it get its nickname *Big Blue*? Simply because of its dark blue color. No unsolved mystery there.

Since the first flight, a “love/hate” relationship had developed. To put it bluntly, I *love* this plane when the engine runs well, and *hate* it when it doesn’t. Regrettably, for the first 5 years of this planes existence, I’ve hated this plane a lot more than I have loved it.

Finally, this past year, I’ve developed a deep fondness and appreciation for *Big Blue*. Amazingly, during the 6+ years of its existence, *Big Blue* has performed remarkably well at several local and regional contests.

I keep a detailed flight log on all my planes, and record information such as flight number, issues, changes, what worked, what didn’t work, and so forth. So sit back, pour yourself a large glass of your favorite beverage and read on. I hope you enjoy reading about — “*An Ongoing Saga of the Love/Hate Relationship between Me and Big Blue*”.

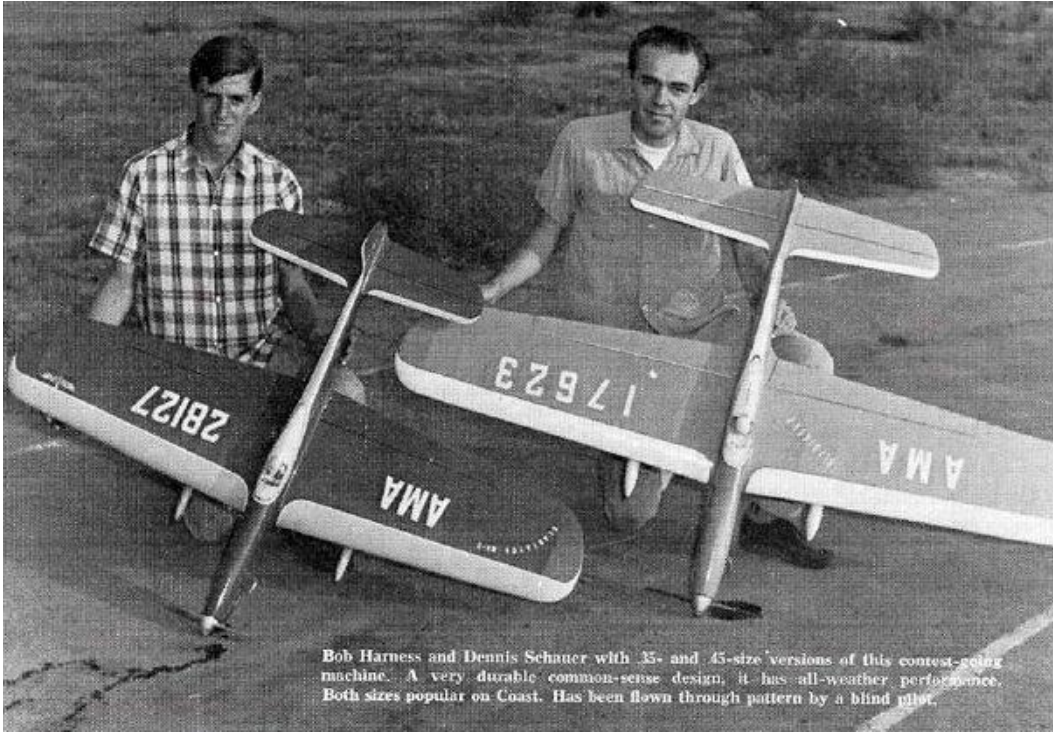


Logo on the Fuselage Side



A Little Bit of History:

As a 15-year old teenager, I fell in love with the *Gladiator* when it appeared in the pages of the February 1968 issue of *American Aircraft Modeler*. The *Gladiator* was built in two sizes, the larger 45 version and the smaller 35 size. Due to my limited resources as a teenager, I really couldn’t afford, nor possess the knowledge or skills required to build one. Eventually life got in the way, things like; school, odd jobs, cars, girls, marriage, kids, career, etc. The *Gladiator* became a very distant childhood memory.



*Photo from American Aircraft Modeler – February 1968
Bob Harness Jr (left) and Dennis Schauer (right)*

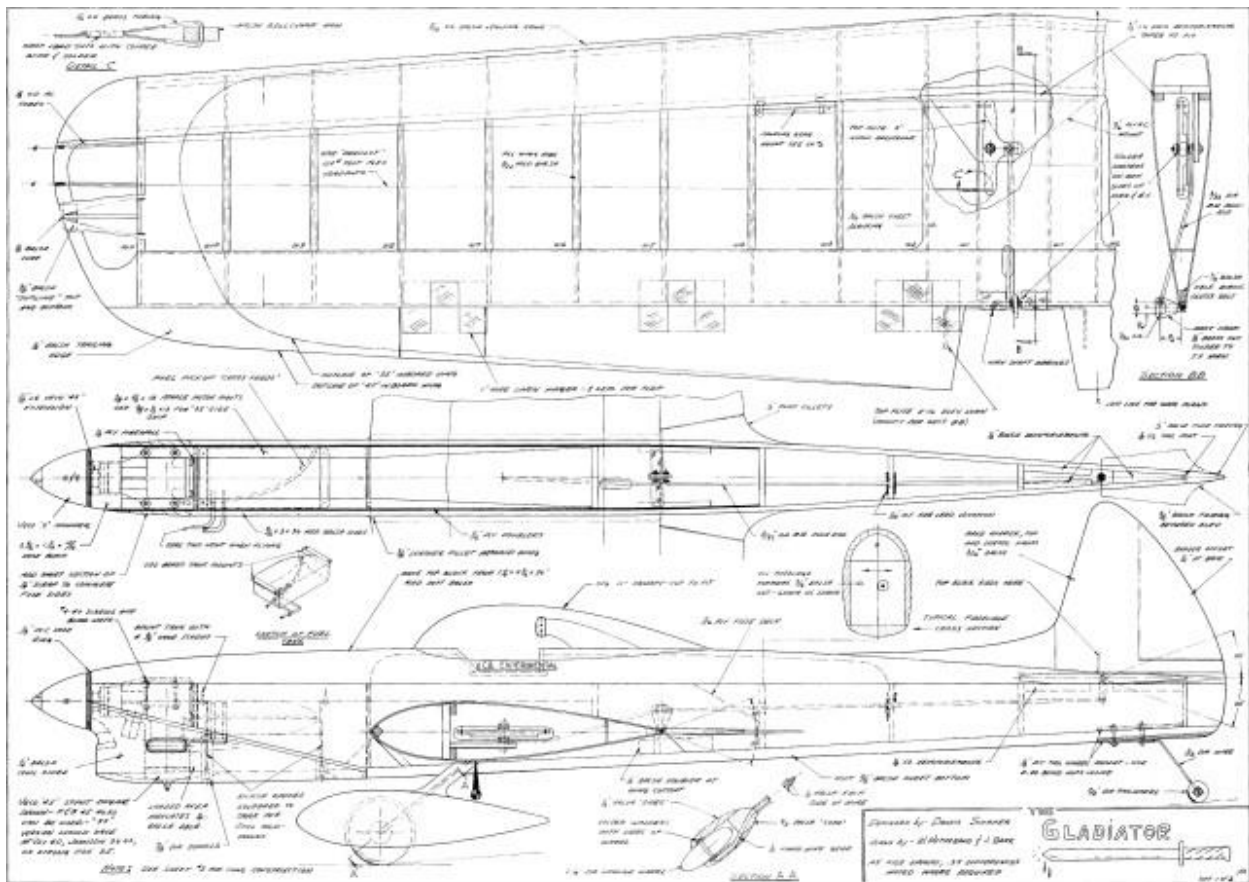


*March 2023 – Vintage Stunt Championship XXXIV
Dennis Nunes – Gladiator 35 (left) and Bob Harness Jr – Gladiator 45 (right)
(Yes, that’s the same Bob Harness Jr shown above – 55 years later!)*

In 2014, as I approached retirement, I returned to control line flying, with an emphasis on precision aerobatics. In 2015, some 56 years later, I began competing at local contests in Northern California. As I moved up the ranks, from the Intermediate class to

the Advanced level, I wanted to build a plane that I could fly in Classic. But I didn't know the rules, the requirements, or which planes were Classic legal.

From the PAMPA website, I downloaded the file entitled, "[PAMPA Rules for Classic Stunt](#)". This gave me the rules that I needed to follow. I also found and downloaded the file, "[Classic Designs Book](#)". I started scrolling through the various pages. Boy oh boy, were there some nice looking planes. As I scrolled through the many pages, on page 114, I saw the plan for the *Gladiator*. Instantly, it took me back to the memories of the 15-year old teenager when I first saw the *Gladiator* in the magazine. That was it, my mind was made up. I was going to build a *Gladiator*! But which one, the 35 or the 45 version? Believe it or not, that was an easy decision. It would be the 35 version. Why? Very simply, the 45 version, with its massive 68" wingspan, would not fit in my car!



Plan of the Gladiator from the February 1968 issue of American Aircraft Modeler

I obtained a copy of the magazine on eBay and downloaded the PDF plans from the [Outerzone](#) website. I used these plans to draw up my own plans in CAD. In January 2018, I began construction of *Big Blue* and completed the construction in August 2018. On my YouTube channel there is a pictorial video detailing the construction of *Big Blue* entitled, "[Gladiator 35 – Construction Photos](#)".

According to PAMPA's Classic rules, you are allowed to have trim devices, such as adjustable tip weight, adjustable leadouts and replaceable landing gear. I incorporated all these items into *Big Blue*. The original plans show these items as fixed or non-adjustable. Dimension-wise, everything else matched the original plans. Interestingly, the *Gladiator 35* is not very popular and very few individuals recognize *Big Blue* as a *Gladiator 35*. It seems that at every contest, someone will usually ask, "What plane is that?"

From the very start *Big Blue* flew really well, despite dealing with an array of engine issues. Strange enough, the only time I would bring *Big Blue* out to fly was when a local or regional contest came around. I would put in a couple of practice flights, either a day or two before, or at the contest. It took me 4 years to get to 100 flights! Dealing with inconsistent engine runs was extremely frustrating. Hence, the love/hate relationship.

It took me many years to get a consistent, reliable engine run. In fact it wasn't until this past year (2024), at the 7th Annual Top Gun Challenge held earlier in November in Las Vegas, that I experienced the best engine run – *EVER!* How did that come about? Stay tuned...

Specifications (As of December 2024):

Big Blue weights 60 oz. and has a 58" wingspan with a wing area of 660 sq. in. The wing was covered with medical exam crepe paper. Yes, it's the white paper you sit or lay down on, when on an exam table at the doctor's office. Butyrate dope was used for the finish.



August 2018 - After Final Coat of Clear Dope

Power for *Big Blue* was a stock OS LA 46, only because I didn't have anything else. The propeller is an APC 11.5 x 4 two blade prop. This combination provides more than enough power for *Big Blue*.

I originally made and installed a 5 oz. Veco-style metal fuel tank. This fuel tank was later replaced with a custom made 4.5 oz. canted metal tank. Both fuel tanks used a uniflow vent with muffler pressure.

For fuel, I've always used *Power Master* 10% GMA 10/22. Just recently, I had an eye popping experience with *Power Master* 15% AIR. More on that later...

As far as engine modifications go, I've replaced the nylon backplate with an aluminum one. Replaced the remote needle valve setup with an Enya ST-type needle valve and spraybar assembly. The stock OS aluminum venturi produced too much power. After trying a number of difference size venturis, I finally settled on a .235" Delrin venturi from Lee's Machine Shop. The original OS muffler was eventually replaced using a tongue

muffler. No other modifications, no additional head shims, no grinding anywhere on the engine.

The flying sites where I practice, have elevations between 10 to 20 feet above sea level. The field temperatures range from 40° to 85°. Normally, I fill the 4½ oz. fuel tank and withdraw a ¼ oz. of fuel. This amount of fuel allows the engine to run just about 6½ minutes on most occasions. More on this to follow as well...

I firmly believe the OS LA 46 is probably one of the easiest and most reliable engine of its kind. That being said, from *Big Blue's* very first flight, my engine was just the opposite. It behaved very strangely and unpredictably.

Let's take a look at the various issues and the contest results, and see how this saga of my love/hate relationship transpired throughout the years.

August 2018 – Ted Goyet Memorial:

At the 21st Annual Ted Goyet Memorial contest in Woodland, California, *Big Blue* made its first competitive debut. I only had 10 practice flights prior to the contest.

I was experiencing inconsistent engine performance. The engine would sputter prior to launch and almost cut out coming over the top of a wingover. I had no idea what caused these problems.

To my surprise, we captured a 3rd place finish. The next day, I flew *Big Blue* in the Advanced class. With a score of 505.5, I was able to grab on to 2nd place. Pretty good results for the first outing.

This was really the “official” start of the love/hate relationship that had dragged on for well over 6 years.

September 2018 – Meet ‘n Meat:

The 2018 Meet ‘n Meat contest was also held in Woodland. I was still dealing with engine issues and trying various changes unsuccessfully. I could only muster up a 4th place finish. But to my credit, I was competing with the likes of Ted Fancher and Jim Aron who were both excellent pilots. At the time, I was just a measly and lowly Advanced flyer. Because of the ongoing engine issues, the love/hate relationship started to sour and we were headed towards the hate side.

On a side note, The Meet ‘n Meat contest is also the site for the infamous *World Class Fox 15 Hurl*. I was able to win my first Fox 15 Hurl award! The next time I would win the infamous Fox 15 Hurl would be in 2024.



*Big Blue in Flight at 2018 Meet 'n Meat
(Photo by David Shorts)*

There is a [YouTube video](#) made by David Shorts about this Meet 'n Meat contest that contains a couple of shots of Big Blue.

October 2018 – Golden State Stunt Championships:

The 40th Annual Golden State Stunt Championships were held at the Madera Municipal Airport in Madera, California. A large contingent of 20 competitors entered Classic, and with only 26 flights to *Big Blue's* credit, I was very surprised to finish in 4th place with a score of 562.5. Bob Whitely (589) finished in 1st place, Lou Wolgast (580.5) was in 2nd place, followed by Ray Firkins (566) in 3rd place. I just happened to have some decent engine runs and *Big Blue* flew really well. I was grateful, but I don't know how that happened. This was the end of my 2018 contest season. The love/hate needle was moving back in the right direction.



April 2019 – Bob Palmer Memorial:

With the start of my 2019 contest season, my first contest of the year was at the *Bob Palmer Memorial* held at Whittier Narrows Recreational Park in South El Monte, California. This was my first trip down to southern California and my first *Bob Palmer Memorial* contest.

For those who may not be familiar with this flying site, Whittier Narrows is a very difficult place to fly! This is due to a large amount of trees lining the east and south sides of the site, very close to the flying circles. This creates two issues, (1) if the wind is coming from the east or south, through the trees, this creates some wild and wicked turbulence when flying. (2) If the wind is coming from the north or the west, you tend to lose sight of your plane because of the trees in the background. What makes this situation worse is if you have a dark blue colored plane, like *Big Blue*, it has a tendency to disappear in the trees, especially at the bottom of the maneuvers, like the pullouts for the reverse wingover!

I was still dealing with erratic engine runs. I can barely keep the engine running at startup, prior to the launch. Once the plane was released, it would run, but not very well. I wasn't sure what the problems were. I changed the glow plug, but I was still having the same issues. This time *Big Blue* could only muster a 7th place finish among the 15 competitors. This was the worse placement that *Big Blue* ever had in Classic. Guess which direction the love/hate needle was moving now?



May 2019 – Northwest Regionals:

With 34 total flights on *Big Blue*, we headed to Roseburg, Oregon for the 48th Annual Northwest Regionals. The picture and caption shown below was posted on the home page of the *Flying Lines* website for a short while. It is also shown under their [“The Northwest's Favorite Planes”](#) section.



This beautiful Classic Stunt plane by Dennis Nunes of Stockton, Calif., gives a sneak preview of the planes on display and in the air at the 2019 Northwest Control-Line Regionals, held over Memorial Day Weekend in Roseburg, Ore. A full report and photo gallery on the Regionals will be published here shortly. *Steve Lindstedt photo.*

The engine runs were getting better, but I didn't know why, as nothing had changed. Perhaps the engine was just starting to get broken in, I'm not sure. On my first official flight I lost focus while flying and added some extra triangles and some square eights. As a result, during the four-leaf clover I ran out of fuel. Very disappointing. On the second official flight I put up a decent flight. With 12 competitors, that flight was only good enough for 5th place. The love/hate needle was starting to head in the right direction.



August 2019 – Ted Goyet Memorial:

Now it was time to head back to Woodland, California, this time for the *22nd Annual Ted Goyet Memorial*. *Big Blue* flew fairly well with the engine running decently. Jim Aron flew well and took 1st place among the 8 entries with a score of 542.5. I was able to put up a respectable second flight with a score of 534 for 2nd place. Now the love/hate needle was trending further in the right direction.



Sadly, this was the last *Ted Goyet Memorial* contest. I hope that someday this contest will return.

September 2019 – Meet 'n Meat:

We're back in Woodland again for the *2019 Meet 'n Meat*. *Big Blue* was starting to find its groove. We were able to fly good enough to post a score of 508 to finish in 1st place against a small field of 8 competitors. This was the first time that *Big Blue* finished first at a local contest. The love/hate needle was doing well.



October 2019 – Golden State Stunt Championships:

The Madera Municipal Airport in Madera, California would be the site for the *41st Annual Golden State Stunt Championships*. With only 9 competitors flying in Classic, *Big Blue* flew well with a suitable engine run. We were able to pull out a 3rd place finish with a score of 515.5. First place went to Ray Firkins (552), followed by Lanny Shorts (517) in 2nd place.



This was the end of my 2019 contest season. At this point *Big Blue* had a total of 46 flights and the love/hate needle is sitting in a very good spot. And then...

2020 – No Contests Due to COVID-19



Sadly, *Big Blue* did not fly at all in 2020 because of the COVID-19 pandemic. *Big Blue* remained hung on the wall for 21 months, until a couple of practice flights in July 2021.

October 2021 – Golden State Stunt Championships:

I was able to get in several practice sessions before heading down to the *42nd Annual Golden State Stunt Championships* at the Madera Municipal Airport. This was the first contest to return, as the restriction from COVID-19 began to ease.

Unfortunately, this would be the last contest held at the Madera Airport, as future building construction and continued growth of the airport would eventually squeeze us out of the flying area that we enjoyed.

There were 11 entries in Classic. The wind started out at around 2-5 mph in the morning, but was increasing as the day went on. Something very unusual happened. Normally as the day progresses, the winds usually increase substantially, making it more challenging for those who fly later in the rounds. Bob Welch was the last to fly in the final round. Just before his flight, the wind unexpectedly died down. He took advantage of the conditions and flew a beautiful pattern, scoring 572.5 to win the event. Mike Haverly and I tied for second, with a score of 556.5. I was awarded 2nd place because of the higher first round score.

This was the only contest that *Big Blue* participated in 2021. The love/hate relationship with this plane is doing fine and seems to be holding in the “love” area for the moment. *Big Blue* now had a total of 62 flights.



Me and Big Blue at the 42nd Annual 2021 Golden State Stunt Championships (Jim Hoffman photo)

May 2022 – Northwest Regionals:

The start of my 2022 contest season was the 49th Annual Northwest Regionals in Roseburg, Oregon. This was my first contest where I made the decision to move up from the Advanced class and enter the Expert class.

I was able to put in several practice flights the day before the contest, but for some strange reasons, I was back to struggling with an erratic needle setting. It was at this contest that Steve Helmlick gave me an APC 11.5 x 4 prop to try, which worked extremely well. From this point on, I abandoned the APC 12.25 x 3.75 prop and have not used or tried any other prop since. I highly recommend the APC 11.5 x 4 prop for all OS LA 46 engines. By now, the frustration with *Big Blue's* engine issues had really started to get to me.



Fortunately, I was able to pull off a 2nd place finish in Classic with a score of 490.5, finishing behind Bruce Perry from Canada, who bested the 10-man field with a score of 521.



With *Big Blue's* 2nd place finish in Classic, along with my 1st place finish in Expert Profile and an 8th place finish in Expert, I received the *Northwest Regional's Aerobatic Grand Champion* trophy for the very first time!

August 2022 – Palmer Memorial & Knights' Joust:

With several practice sessions between Napa and the Stunt Farm in Elk Grove, California, I was still dealing with erratic engine runs. At this point I went back to the stock OS LA 46 muffler hoping that this would help with the engine issues. It didn't.

The 2022 *Palmer Memorial & Knights' Joust* moved from April to August. My engine issues were getting worse. I was trying everything possible. I changed glow plugs, tried different fuel, removed the fuel filter, and checked for leaks, you name it. I even replaced the engine with my backup engine, just hoping that this would solve the issues. Nope. At this point I was thoroughly disgusted. The love/hate needle was firmly pegged on the hate side!

But somehow, I did manage to squeeze out a 3rd place finish, behind Stan Tyler and Antone Kephart. *Big Blue* was now up to 83 total flights and I'm *extremely* frustrated with the engine problems!



September 2022 – Meet 'n Meat:

The 2022 *Meet 'n Meat* was held at a new venue, the Jim Tichy Memorial Circle located inside Kennedy Park in Napa. I was still dealing with engine issues. I ran short of fuel on my first official flight and had to abandon the flight during the overhead eights.

The second official ran much better, but still leaned out towards the end of the flight. Brett Buck was pretty sure I was having overheating problems and recommended having more "exit" area in the cowl. My second flight was pretty good and I was able to

put in a score of 542. This was good enough for 1st place in a small field of 8 participants.

Several days later after the contest, I removed a section between the two opening exhaust slots and added (6) additional holes on the bottom of the cowl to see if this solved the possible overheating problem. *Big Blue* now had a total of 103 flights.

October 2022 – Golden State Stunt Championships:

The 43rd Annual Golden State Stunt Championships which was scheduled to be held at the Napa County Airport, was canceled because the Napa County Airport Manager decided, at the last minute, not to allow this contest to be held there.



November 2022 – Las Vegas Stunt Challenge:

As you have read so far, the majority of *Big Blue*'s issues were inconsistent engine runs. Sometimes it worked, but most of the time it didn't. The first major breakthrough came at the 2022 Las Vegas Stunt Challenge.

Before going any further, I need to include some pertinent details that happened at this contest. I was only planning to fly *Big Blue* in Classic on Saturday. On Friday, Profile Stunt was flown. I had brought my fairly new electric powered *Circulas 61e* profile for this event. My plan also included flying this plane in Expert on Sunday as well.

However, during my first official flight in Profile, the electric motor unexpectedly stopped, just as I pulled up into the wingover. Sadly, this led to the demise of a great flying plane. Now, *Big Blue* was pressed into service to fly Sunday in Expert.

After all the official flying was completed in Old Time Stunt and Profile Stunt, the circles were open for all to practice. They say the hardest flight to do is one that follows a loss of a plane. *It's so true!* I still had a heavy heart from the loss of my *Circulas 61e* profile, just a few hour ago. But I needed to find out if the engine in *Big Blue* would run properly.

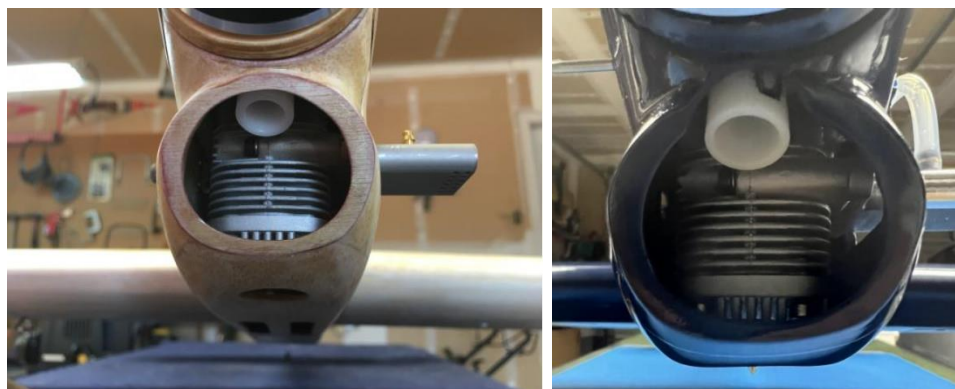
I completed 7 practice flights! We tried everything we could, and we can't get the engine to run as it should. Just before my last practice flight, I started the engine. Dave Fitzgerald was launching *Big Blue*, could feel raw fuel coming out from the remote needle valve opening on the side of the cowl. So we stood up and tipped the nose down to stop the engine. I emptied the tank, cleaned everything off and we headed back to our hotel.



The sad demise of Circulas 61e Profile

Later that evening at the hotel, we took everything out of the engine compartment. We removed the fuel tank and tested for leaks. No leaks. Checked the fuel filter, it was clean. However, when I removed the venturi, I discovered that there was no rubber O-ring where the venturi is seated against the engine case. When did the O-ring go MIA? I had no idea. I firmly believe this was one of the major issue that caused the erratic engine behavior. I installed a new O-ring, and at the same time, decided to replace the remote needle valve with an Enya ST-type needle valve and spraybar assembly.

Then, as I was putting the engine cowl back on, Dave noticed that the edge of the opening of the air intake on the cowl was interfering with the airflow to the venturi. Dave recommended that I notch the edge of the cowl, near the intake to allow uninterrupted air to flow cleanly to the venturi. This too was another key issue that led to the erratic engine runs. So out came the knife and sand paper and I carved out the opening.



Cowl Intake Modification to Big Blue

The next day, Dave and I arrived at the flying site at 7:00am, just before Classic started and put in a practice flight. After starting the engine, we could *immediately* tell that the engine was running better and the Enya needle valve assembly was working really well. Once up in the air, the engine ran like a Swiss watch, just purring like a kitten. The engine was alive and running like it's supposed to! I was ecstatic and one very happy camper!



The scoring format for this contest was done differently. Each competitor would have two flights. But the two flights were flown on different circles, with a different set of judges on each circle. Instead of using the high score of your two flights, both scores were added together to determine your final score. No throw-away flights and both circles were flown at the same time. This format is used at the NATs on Top 20 day. I was first up on Circle 2 and the last one to fly on Circle 1.

For my first official flight on Circle 2, *Big Blue* was flying a little fast, at 5.1 second laps. Though fast, Dave said that was the best he had ever seen me fly *Big Blue*. However, I only scored 517 which was a little disappointing, as I too thought I flew pretty well. The judges on Circle 2 were scoring very conservatively.

On Circle 1, the judges were more generous and gave me a score of 567.5, the high score for this circle. To my surprise, what I thought was a low score on Circle 2, was actually the high score. With my two scores added together, was good enough for 1st place and the win. The win was bittersweet, but it did help relieve some of the pain of losing my *Circulas 61e* profile the day before.

Now, *Big Blue* flew the next day in Expert. I had difficulties focusing on flying that morning. Along with some excellent competition, I could only come up with an 8th place finish in Expert. The good news? *The engine runs were outstanding!*



With 122 flights, my relationship with *Big Blue* moved into the love side of the gauge. This was the end of the 2022 contest season.

February 2023 – Southwest Regionals:

February was the start of my 2023 contest season. The engine had run very consistently since November 2022. At the *73rd Annual Southwest Regionals* in Tucson, the engine decided to act up once again. During a morning practice flight, before the contest began, I filled up the fuel tank and removed my ¼ oz. of the Power Master GMA 10/22 fuel like I normally do. The engine ran just a hair rich, but too long! No problem, I'll just remove an additional ¼ oz. of fuel (½ oz. total), tweaked the needle in and should be good to go.



Big Blue in the Pits at the 2023 Southwest Regionals in Tucson, Arizona

So the next flight, which was my first official flight, the engine started fine, but during my level laps after the takeoff, the engine went a little rich again. The plane was still flew good enough to do the pattern. However, during the first leaf of the 4-leaf clover the engine “coughed” and so I leveled off. The engine quit, but I landed safely. What now?

On my second official flight, the engine did the same thing, and went rich in the air. This time I was able to complete the pattern. The flight was good enough to capture 1st place. I was done for the day and gave it no further thought at the time.

Afterwards, I chose to fly *Big Blue* the next day in Expert, as my *Circulas 46 IIe* profile wasn't performing very well. Later that evening, back at the hotel while cleaning the plane, I noticed fuel stains around the side of the nose and on the leading edge of the

wing. I didn't give it too much thought as I figured it was due to the engine running a little rich.

Then, at 1:00 in the morning, I woke up from a dead sleep and said, "*There must be a leak somewhere in the fuel system!*" So I got out of the bed and removed everything from the engine compartment. When checking the metal fuel tank, I found a leak in the tank seam. Great, just what I needed! I didn't have a soldering gun or iron to fix the leak. I figured that I would fly my profile in Expert. Now my relationship with *Big Blue* had changed, the relationship needle was beginning to move further and further into the "hate" side.



I went back to bed and when I woke up in the morning, I wasn't feeling very good. I soon discovered that I had gotten some type of mild food poisoning. I sent out several text messages early that morning, checking to see if someone had a soldering gun or iron so I could repair my fuel tank. Of course no one did. I then remembered that I had my 5 oz. backup fuel tank. I had enough time to put in a test flight. But for some dumb reason, I only took out a ¼ oz. of fuel after filling the tank. I should have removed at least ½ oz. of fuel, if not more. As a result the engine ran 9 minutes!

So now it was time for my first official flight. I removed ½ oz. of fuel and the flight ended right at 8 minutes. *Whew, that was really close!* The engine ran really well. I was happy with the score I received. But what I was most grateful for was that I didn't have an *accident* in my pants!

On my last flight, I removed ¾ oz. of fuel and the engine ran great, and I stayed below the 8 minute time limit. I scored the best I could at the time, but physically I felt pretty awful. So I put my stuff away and went to my car and took a short nap and waited for the awards presentation later that afternoon. *Big Blue* did really well and the needle of the love/hate relationship moved back towards the "love" side.



Though *Big Blue* finished 1st in Classic, flying in Expert was a different story. I could only muster an 8th place finish against some excellent competition. I now had 136 flights on *Big Blue*.

March 2023 – Vintage Stunt Championships XXXIV:

We were back in Tucson again for my first *Vintage Stunt Championships, VSC XXXIV*. I was traveling with Tim Just. We left Tim's house in Victorville, California at 6:00 am, arriving at the Christopher Columbus Park around 3:00 in the afternoon. When we left Tim's house it was raining really hard, the weather didn't look very promising. But as we traveled east towards Arizona, the rain lightened up and eventually stopped. The wind was starting to cooperate as well. By the time we got to the flying site and setup to fly, the weather was perfect for practicing. But for some strange reason, everyone else was leaving for the day.

So we started putting in some practice flights. By now, I replaced the 5 oz. backup tank with the repaired 4½ oz. tank. I was still having trouble getting the correct needle setting, and figuring how much fuel needed to be removed from the tank. The engine was acting strangely. It would start off running very rich, then go “over-the-top” lean in the middle of the flight and stayed there. Of course I was exceeding the 8 minute time limit. So I kept removing fuel and adjusting the needle valve. It started to rain lightly. Finally on the last two practice flights *Big Blue* was running better. By now the rain was coming down pretty good. We were getting really soaked. Now we knew why everyone was leaving when they did. We placed the planes under the canopy, dried everything off, loaded up the SUV and headed for the hotel.



*Me and Big Blue in the Pits at the 2023 Vintage Stunt Championships in Tucson, Arizona
Ready for an Official Flight*

The next morning, Thursday, we were to fly Rounds 1 and 2. I was first up on Circle 1. It was cloudy, but no rain. However, the wind was dead calm and my needle setting was a bit on the rich side. *Big Blue* did well, but my score suffered because of the rich needle setting.

For Round 2, I flew on Circle 2. I was up 7th in the flight order, by now there was a little bit of wind, making the flying conditions just right. *Big Blue* ran and flew extremely well and I received my best score on this flight. I was really pleased with *Big Blue*.

On Friday we flew Rounds 3 and 4. For Round 3, I was 6th up on Circle 1 and needed a better score than what I received the previous day for this circle. I put in a really good flight and scored well. For Round 4 on Circle 2, I was 12th up in the flying order and did not improve my score from the previous day.

With my Round 2 score on Circle 2 and my Round 4 score on Circle 1, surprisingly, I finished in 3rd place at my first VSC contest. Now the love/hate relationship was fixed on the *love* side once again! At the end of the VSC contest, I now had exactly 150 flights with *Big Blue*.



May 2023 – Northwest Regionals:

I left my house at 12:30 am to make the 1½ hour drive to meet up with Dave Fitzgerald in Napa. I got to Dave’s house at 2 o’clock in the morning. Dave has a SUV that can handle all our planes and equipment for the 425 mile drive to Roseburg, Oregon for the

50th Annual Northwest Regionals. Our goal was to arrive in Roseburg around 10:00 am and get in some practice.

Once we got there and settled in, I put up a practice flight. The needle setting was a little lean. *Big Blue* flew fine, but a bit fast. I was pretty tired from the drive and decided to end my practice session. The next day, I would just back off on the needle setting a bit to slow the plane down. The engine ran very consistently.

The next day for my first official flight, I removed 3/8 oz. of fuel from the tank and backed off the needle setting. But for some reason I just barely had enough fuel to finish the pattern and land with no extra laps to spare. I put up a decent score.

On my second official flight I only removed ¼ oz. of fuel. This time I had a couple of extra laps after completing the pattern. I didn't score as well as my first flight. My first flight was good enough for 1st place. However, I wasn't thrilled with the engine run, although it did get the job done. My "love/hate" needle was coming off the love side and heading ever so slightly in the wrong direction.



With *Big Blue's* 1st place finish in Classic, along with a 1st place finish in Expert Profile and a 7th place finish in Expert, I received the *Northwest Regional's Aerobatic Grand Champion* trophy for the second year in a row.

When I got back home, I started checking things over. Before the Northwest Regionals I had switched to my No. 2 backup engine. To my surprise, I found out this engine had a .240" diameter venturi installed when I thought it had the same size venturi as my No. 1 primary engine, a .235" diameter venturi. This was why I was running low on fuel with the 4½ oz. tank! I changed the venturi, checked for leaks and found none. I cleaned the fuel filter and blew out the spraybar. All was good for now.

August 2023 – Bob Palmer Memorial:

A day before the contest, I was struggling finding a good needle setting during my practice session. The engine run on four practice flights varied from flight to flight.

On my two official flights the needle settings were too lean and *Big Blue* flew too fast. I could only muster up a 3rd place finish in Classic. My love/hate needle had crossed over, back to the hate side once again. Total flights is at 169.



However, *Big Blue* contributed to my point total for 3 events to win the *Bob Palmer Perpetual* trophy for the first time. Very cool!

September 2023 – Meet 'n Meat:

After the 2023 *Bob Palmer Memorial*, I did some extensive testing prior to the *Meet 'n Meat* contest in Napa. After several flights I could not get a reliable needle setting. The

engine would start very rich and then go lean in the air, getting faster and faster. I decided to change the glow plug --- and *VOILA!* The engine was running consistently throughout the entire flight once again. If only I could have figured that out earlier, like in August at the *Bob Palmer Memorial*. Oh well.

I was pleased that the engine ran well on both official flights. My first flight was good enough for 1st place. The love/hate needle was trending towards the love side, but not by much. *Big Blue* is up to 178 flights.



October 2023 – Golden State Stunt Championships:

The *43rd Annual Golden State Stunt Championships* were held at a new venue, near the Mather Airport in Mather, California. This site was found at the 11th hour, though not ideal, it did work out well.

On my practice flights before the day of the contest, my engine bugaboo's returned. This time I was getting some unbelievable fuel economy and running almost 10 minutes! Why? I'm not sure. Somewhere I must have changed the fuel tank from the 4½ oz. tank with the 5 oz. unit. I don't recall doing this. Anyway, I ended up removing 1 oz. of fuel to get within the time limit.

On my two official flights, I removed an ounce of fuel on each flight and the engine ran really well. Surprisingly, it was good enough for 1st place. Though winning can cure a lot of ills, my relationship with *Big Blue* was once again moving back toward the hate side because of the strange fuel economy. I now had 185 flights.



November 2023 – Las Vegas Top Gun Challenge:

The *6th Annual Top Gun Challenge* was held at the Bennett Air Field in Las Vegas. On my practice flights the day before the contest, the first flight was too rich. The second flight was too lean. Nevertheless on my official flights the engine ran good enough to capture 2nd place. This was the last contest of the 2023 schedule. *Big Blue* now has a total of 189 flights and the love/hate needle was heading towards the love side, by just a slim margin.



February 2024 – Southwest Regionals:

It was the start of the 2024 contest season. Prior to the *74th Annual Southwest Regionals* in Tucson, I had a practice session in Napa. Everything was running really well and *Big Blue* was flying exceptionally well. I removed 1 oz. of fuel from the tank, set the needle and it ran consistent all day long. The love/hate needle was moving further into the love area.

By now you can see why my love affair with *Big Blue* was hit and miss. Though we did well in various competitions, the engine runs were all over the place. This all came to a head at the *Southwest Regionals*.

I put in several practice flights trying to get the engine to run correctly. The engine would start off very rich, then after the reverse wingover the engine would go very lean and 'over-the-top'. I was very frustrated. I called in the big boys, Dave Fitzgerald, Brett Buck and Jim Aron to see what was wrong, as things were going from bad to worse.



Big Blue in the Pits at the 2024 Southwest Regionals in Tucson, Arizona ready for an Official Flight

We tried different plugs, different fuels. Nothing was working. As a result, both of my official flights had overruns that cost me dearly, though I did manage to finish in 3rd place in Classic. But that was because there were only four entries.



Now, I'm at a point that I'm so mad that I don't even want to look at *Big Blue*, let alone keep trying to figure out what is going on with the engine. We now have 197 flights

Practice in Napa:

In late February, I brought *Big Blue* to Napa to see if I could figure out what was going on. I removed and replaced the engine with my backup unit. My backup engine was doing the same thing as my primary engine. I decided to pull the fuel tank and tested for leaks. It was then that I discovered that I had the 5 oz. tank installed. I decided to replace this tank with the 4.5 oz. tank and reinstall my primary engine. It was time for a test flight. Though the first flight was set a bit too rich, it held its setting throughout the entire flight. The second flight, a tweak of the needle setting, and the engine ran beautifully. *Big Blue* was a joy to fly again.

When I got home I wanted to determine what was wrong with the 5 oz. tank. Was there a leak in the tank? Did I have a split in the pickup or uniflow tubing inside the tank? Something was causing this fuel tank to act strangely. I tested for leaks, no leaks. I removed the end cap to inspect and tested the tubing inside the tank, all was good. At that point, I am so frustrated with this tank that I decided to abandon the tank and didn't put the end cap back on.

March 2024 – Vintage Stunt Championships:

The practice flights, the day before I was to fly at the 2024 VSC XXV in Tucson, were fine. On my first two official flights on Day 1, my old engine issues reared its ugly head – *again!*

The engine was going over-the-top lean about a fourth of the way through the flight. After all the official flying was done for the day, I decided that I wasn't going to leave the flying field until we found what the issues were. With Dave Fitzgerald, Paul Walker and Jim Aron, I was going to find out what was the problem. We tried different fuel to no avail. New glow plug, no change. No leaks, no plug fuel filter, muffler pressure, and no muffler pressure – *nothing worked!*

Dave suggested we pull the needle valve assembly and take a look. By now, I was pretty tired from the official flights earlier that morning and from all the test flying. I got the spraybar out and gave it to Dave to take a look. When Dave blew into the spraybar, it seemed fine. But upon removing the needle and inspecting the spraybar by looking through the hole, Dave saw what appeared to be a “burr” on the inside of the spraybar, right at the small hole that directs fuel into the venturi. I brought out my small bag of drill bits and found one that fit the large hole in the spraybar. Sure enough, out came this brass burr! We put everything back together again. (By the way, my backup engine had the same spraybar setup. It too had a brass burr in the spraybar – Weird, very weird!)



Me and Big Blue at the 2024 Vintage Stunt Championships at Tucson, Arizona (Photo by Evan Murphy)

Paul recommended that we try running it with no muffler pressure, so we did. Paul also recommended that I might try adding more oil to the fuel. He along with Brett thought that I could be having an overheating issue. One more test flight and the engine ran much better and seemed to be fine. That was good enough as I was completely spent and exhausted.

The next day, I did one practice flight before the Day 2 rounds began and the engine was running fine. I did my first official flight of the day and scored well. On the second official flight of the day, the engine was just a hair lean. Then, during the inside loops, the engine unexpectedly took off and went ‘over-the-top’ lean. Here we go again. However this time, as I completed the inside loops and went inverted, the engine came back down and ran fine for the rest of the flight with no overrun. The flight was good enough that I ended up finishing tied for 4th place with Jim Hoffman. Jim had a



higher score on his third flight, so I received the 5th place trophy, behind Paul Walker, Joe Gilbert, Dennis Adamisin and Jim.

Though my last flight was ok, I still didn't have a good feeling about the engine runs. The love/hate needle is wavering, but not necessarily in the right direction. The total flights on *Big Blue* was at 227.

May 2024 – Northwest Regionals:

While practicing at the Stunt Farm in preparation for the *51st Annual Northwest Regionals*, the engine began to run very inconsistently – again. *Now what?* With no muffler pressure or with muffler pressure the engine ran terribly. On one flight, for some strange reason, I ran out of fuel and could not complete the pattern. On the next flight, Brett said he felt raw fuel hitting his hand during the launch, so I pulled out the engine and fuel tank and proceeded to look for a leak. No leaks were found. That was it for the day as I was too frustrated.

Once I got home, I went through everything and discovered a “*pinhole*” leak where the fuel line connects at the spray bar, right near the end of the spraybar nipple. It was so close to the end of the fuel line that it was difficult to see and to test. During subsequent testing, I put the fuel line on my syringe and apply pressure while the line was placed in a bucket of water. The leak was above the end of the syringe implying that there was no pinhole leak. Then I removed the tubing from the syringe, swapped ends, and tested again. What do you know, I saw bubbles! Who knows how long the line was leaking. I replaced all the fuel lines immediately. A week later, I went to Napa to do more testing. The engine ran beautifully, smooth and consistent.

At the *Northwest Regionals* the engine ran really well, the best it had ever run, and *Big Blue* was flying well. I ended up in 1st place and winning Classic. I was in love with *Big Blue* --- again!



*Classic Appearance Judging
51st Annual 2024 Northwest Regionals in Roseburg, Oregon*



With *Big Blue*'s 1st place finish in Classic, along with a 1st place finish in Expert Profile and an 7th place finish in Expert, I received the *Northwest Regional's Aerobatic Grand Champion* trophy, this was the third year in a row winning this award.

September 2024 –Palmer Memorial & Knights’ Joust:

Big Blue was running and flying exceptionally well at the *2024 Palmer Memorial & Knights’ Joust* at Whittier Narrows Recreational Park. The judges that day were extremely generous. I received a monster score of 598.5 points on my second flight and won Classic! This was the highest score that *Big Blue* had ever received.



Big Blue contributed to help me win the *Bob Palmer Memorial Trophy* for high points for 3 different events (Classic, Profile and Expert) for the second time in a row.

September 2024 – Meet ‘n Meat:

Later in the month, *Big Blue* and I headed to Napa for the *25th Anniversary of the Meet ‘n Meat* contest. *Big Blue* was running and flying exceptionally well once again. With a score of 561, *Big Blue* won 1st place against a small field. I am still in love with *Big Blue*! At the end of the contest, we have 260 flights recorded.



October 2024 – Golden State Stunt Championships:

The *44th Annual Golden State Stunt Championships* was held at a new venue. Permission was granted to have this contest at the Folsom Lake State Recreation Park in Granite Bay, California. It was a beautiful site with a huge parking lot overlooking Folsom Lake.



44th Annual Golden State Stunt Championships at Beautiful Folsom Lake in Granite Bay, California (Photo by James Dean)

Classic started out with only 6 entries. But at the last minute, Brett Buck asked Jim Aron if he could fly his 26 year old Ringmaster in the event. On his first flight with no practice and a handle setting that did not suit him, Brett put up a score of 498.5. I was up last in Round 1 and scored 521, which was the high score for that round.

For Round 2, I sensed that I needed a very good flight. Basically, Brett's first round was nothing more than a practice flight. Everyone knew that his second round flight would be much better, as he now had a feel for how the *Ringmaster* flies. On my second flight, I improved my score with a 538, although it wasn't one of my better flights.

Brett was last to fly in Round 2. Oh oh! By now, everyone was watching. For me, this was very nerve-racking! You could just sense that Brett was going to put on a show. Would *Big Blue* be beaten by an old Ringmaster in the very capable hands of Brett Buck? Brett, as expected, flew the heck out of the thing and posted a score of 525.5 (with no appearance points)! I let out a big sigh of relief. *Thank you appearance points!*

Big Blue had done it again, and finished in 1st place. This probably will be the only time that I can say, "I beat Brett Buck!" (I just won't say that he was flying someone else's old Ringmaster with no appearance points)!

The love/hate needle was firmly planted on the love side after 262 flights.



November 2024 – Top Gun Challenge:

The final contest of the year was the 7th Annual Top Gun Challenge in Las Vegas. Dave and I got to the flying site a day before the contest began. Our goal was to get in some practice and make sure everything was working well.

The site elevation was about 2,000 feet above sea level. The temperature was around 45° in the morning and rose to 72° by 1:00pm. This was a lot higher elevation that I normally fly at. During our practice flights, I noticed that the power had dropped off and *Big Blue* wasn't flying very well, it seemed sluggish. I started out using my GMA 10% 10/22 fuel. Dave suggested trying his Power Master 15% AIR.

What a difference! The power returned and the engine ran so smoothly, the best that it had ever run – *I mean ever!* The change in fuel brought the engine to life, but in the air, *Big Blue* was still a little sluggish, especially in the corners.

Now, I had a different engine problem. With the 15% fuel and removing ¼ oz. of fuel from the 4½ full tank, as I normally do, the engine was running 9½ minutes long! With each flight after that, I kept removing an additional ¼ oz. of fuel to get under the 8 minute mark.

I ended up removing ¾ oz. of fuel and was right at the 8 minute mark. I figured that removing a full ounce of fuel in the cool air the next morning would do the trick.

Because *Big Blue* was so sluggish in the air, I wanted to see if the addition of trip strips on the wing would help in the thin Las Vegas air. At dinner, I asked Jim Aron if he had brought along any extra trip strips. He had some, so after dinner we headed back to the hotel and added the trip strips to the wing. But I couldn't leave *Big Blue* alone with just the trip strips. I decided to install some Vortex Generators (VG's) that I had brought along and add them to the wing. In the 6 years that I've been flying *Big Blue*, I had never tried trip strips or VG's on the wing. I had installed trip strips on the leading edge of the stabilizer, along with tail wedges back in November of 2021, and these worked really well. So after about an hour of work, we had the trip strips and VG's installed.

With the engine purring like a kitten, we got to the flying site early to see if the trip strips and VG's helped. The wind was blowing around 12-15 mph, so all I wanted to do was a couple of triangles and square maneuvers before the contest began to see if *Big Blue* flew differently. *It did!* *Big Blue* was no longer struggling in corners and flew really well in the windy conditions.



*Big Blue at 2024 Top Gun Challenge in Las Vegas
Notice the Trip Strips and VG's (Photo by Brent Williams)*

Strangely enough, the wind started to die down as the day progressed and turned into an excellent day for flying. On my first official flight, I removed 1 full ounce of fuel from the tank. At the Las Vegas flying field, the asphalt R/C runway has a large slope of about 4 feet from one side of the circle to the opposite side of the circle. It also has a

grass section on the low end of the circle. You try to land on the asphalt runway and avoid landing on the grass. Not an ideal situation, but you get used to it.

On my first official flight, according to my watch, I was getting very close to the 8 minute mark. If I did a normal landing, when the engine quit, I would have to land in the grass area. Instead, when the engine quit, I whipped *Big Blue* around about $\frac{3}{4}$ of a lap and touched down just past the edge of the grass on to the asphalt. *That was a big mistake!* *Big Blue* didn't stop rolling until 8 minutes and 10 seconds. *A 10 second overrun!* No landing points and no pattern points for that flight! What made it even worse, it was a decent flight. So my first flight score was only 491.5.

So on my second official flight, I removed 1.125 oz. of fuel from the tank! This put *Big Blue* below the 8 minute mark. I scored 547 points. The previous year, they combined the scores of your two flights. For this contest, they went back to using your high score of your two flights to determine your placement. So my second flight was good enough for 1st place. The love/hate relationship is still hanging on to the love side. *So sweet!*



Afterwards we were trying to figure why I was getting such *unbelievable* fuel economy. I believed we narrowed it down to two things. (1) The air density along with the altitude of the Las Vegas field and (2) the oil content in the 15% AIR fuel. According to VP Racing's website, the oil content of the Power Master GMA 10/22 fuel is 22% oil (10% synthetic oil and 10% castor oil), where the 15% AIR is 18% oil (80% synthetic and 20% castor oil). All I know, the engine really liked the 15% AIR!

I haven't had the opportunity to try either the 10% AIR or 15% AIR at my near sea level practice fields. I'm very curious and excited to see if it runs as well as it did in Las Vegas. More importantly, I wanted to see what happens to my fuel economy. We shall see...



This marked the end of a very successful 2024 flying season.

Conclusion:

As of January 1, 2025, *Big Blue* has a total of 271 logged flights. Though *Big Blue* has been around for some 6+ years, it was the last two years along with three major breakthroughs that make this plane a joy to fly. The first break, came during the 2022 *Las Vegas Stunt Challenge*, by discovering the missing O-ring and interference of the cowl opening for the venturi. The second, was at the 2024 VSC in Tucson, and finding a burr on the inside of the spraybar. And lastly, the 2024 *Top Gun Challenge* in Las Vegas, with the change in fuel and the addition of trip strips and VG's to the wing.

Now, *Big Blue* proudly hangs on the wall of my office and brings a smile to my face.

The love/hate affair with *Big Blue* continues. *However, I am pleased to report that our relationship is now rock-steady!*

Accolades:

Big Blue has won its share of trophies and awards. There are a couple of trophies that I'm particularly fond of and have a special meaning to me. In the photo below, the 3 tall trophies sitting on the floor are the *Northwest Regionals' Grand Stunt Champion Awards* for 2022, 2023 and 2024. The smaller trophy is the *Bob Palmer Memorial Perpetual Award* that I've won two years in a row (2023 and 2024). *Big Blue* contributed greatly to winning these awards.



Big Blue proudly hangs on my office wall. This is some of the special hardware that we've collected throughout the years.

I hope you've enjoyed the wonderful and wacky world of me and *Big Blue*, and the ongoing saga of the love/hate relationship we have. This experience is just some of the trials and tribulations that we put ourselves through just to compete in this wonderful hobby called, "*Control-line Precision Aerobatics*".

Enjoy,
Dennis S. Nunes

Big Blue - Won/Loss Record									
Year	Event	1st	2nd	3rd	4th	5th	6th	7th	8th
2018	Ted Goyet Memorial (3rd Classic, 2nd Advanced)		X	X					
2018	Meet 'n Meat				X				
2018	Golden State Stunt Championships				X				
2019	Bob Palmer Memorial							X	
2019	Northwest Regionals					X			
2019	Ted Goyet Memorial		X						
2019	Meet 'n Meat	X							
2019	Golden State Stunt Championships			X					
2020	No Contest - COVID-19								
2021	Golden State Stunt Championships		X						
2022	Northwest Regionals (1st Aerobatic Grand Champion Trophy)		X						
2022	Palmer Memorial & Knights Joust			X					
2022	Meet 'n Meat	X							
2022	Las Vegas Stunt Challenge (1st Classic, 8th Expert)	X							X
2023	Southwest Regionals (1st Classic, 8th Expert)	X							X
2023	Vintage Stunt Championships			X					
2023	Northwest Regionals (2nd Aerobatic Grand Champion Trophy)	X							
2023	Palmer Memorial & Knights Joust (1st Bob Palmer Perpetual Trophy)			X					
2023	Meet 'n Meat	X							
2024	Southwest Regionals	X							
2024	Vintage Stunt Championships					X			
2024	Northwest Regionals (3rd Aerobatic Grand Champion Trophy)	X							
2024	Palmer Memorial & Knights Joust (2nd Bob Palmer Perpetual Trophy)	X							
2024	Golden State Stunt Championships	X							
2024	Top Gun Challenge	X							
Totals		11	4	5	2	2	0	1	2

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