





MAXFAX 2022-4

There are few things more painful than having to accept the loss of a dear friend. To lose two within a short period of time challenges the mind and the heart in ways that can seem insurmountable. But carry on we will, because we know that's what **Don Srull** and **Dan Driscoll** would want of us.

Several of us had had the honor---oh, it was always an honor --of flying with Don at AirDale, just a week or so before he came down with his illness. Little did we know then that would be the last time we saw the man; Don seemed at the time, as ever, to be indefatigable. But the next planned flying date never happened. Don passed away about two weeks after contracting pneumonia, on Oct. 27th.

As we were coming to grips with this hollow in our lives, we learned from Dan's family that Dan had passed away on October 21st. He had been diagnosed with pancreatic cancer shortly after the the 2022 FAC Nats, where he had been doing all the things you expect Dan to do: applying his vast and easy understanding of all things FAC to the tasks at hand, helping out wherever and whenever asked, flying up a modest storm, and reconnecting with all of his many, many Maxecuter and FAC buddies. The progress of the cancer was swift and merciless.

It's impossible to overstate the influence that these two modeling giants had upon the Maxecuters and the FAC, each in their respective ways. Don was always up front, an instigator, challenging conventional wisdom, creating new paradigms, rewriting the book on what could / should be done in aeromodeling. Dan was no less active, but in more subtle ways: editing the MaxFax, CD-ing countless meets both in the field and indoors, and always always *always* standing ready to help out in any way possible.

We devote this issue to our dear departed friends. Use the good wood, and cherish the fellowship that model building brings us. -Dm

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Your mailing label indicates the year and month of the last issue of your current membership. An "X" in the box below your address is a reminder that your dues are due.

PUBLISHING DATES - Four issues of MaxFax are sent each year, one each quarter, but since this is a volunteer publication nothing is guaranteed except that four issues will be sent to all members.

UPCOMING EVENTS:

Maxecuters ZOOM meetings

Every other Tuesday at 11:30am, hosted by Carl Hampton. Check your e-mail for notices. To receive an invitation, E-mail Carl at: **champton3@cox.net**

April 15-16, 2023 - South Jersey Flying Circus Tuckahoe Turf Farm, 401 Myrtle Ave. Hammonton NJ

August 5-6, 2023 - Don Meyers Memorial Tuckahoe Turf Farm, 401 Myrtle Ave. Hammonton NJ

Contest information for both of the above meets at: www.oldwakefields.com/113221.html



Left--Don, with his last FF project, the Anec III. An excellent flyer. Don was active to the last.

photo-Dave Mitchell

Left--Dan lets 'er rip at the Geneseo Nats. 3 photo-Bonnie Simpers We are at the field and Don is trimming a new model for me. He has been watching without comment, but now I have asked for help and he is making numerous gentle flights. "The first rule of flying", he says with some deliberateness, "is not to destroy the model." Obviously, he had concluded that this was what I was about to do. Over and over again he launches the model, making adjustments to correct problems that I could not even detect. After more than a half hour, he returns the model to me. "Now it's safe", he said..

The subtleness of what Don could observe was uncanny. He just could see what most modelers do not. Such skill came from building and flying hundreds of models; he kept notes and records; he analyzed data and he formulated rules that he consistently followed. To Don, it was a matter of science. Unsubstantiated opinions, no matter how commonly recited by others, he discounted completely, and he developed a winning record in competition that justified his confidence: Grand Champion in rubber scale models at Muncie six times, an indoor free-flight duration record of 90 minutes. And then there were his free flight gas models, his pioneering electric free flight models including his unique, exceptional 12 propellor (all operational) Dornier DoX, and then just for fun, his many electric RC models. Along the way, with the late Tom Schmitt, he created Hi Line, a model airplane kit company.

Don was never secretive about his "formula" for success. He would gladly share what he knew with any modeler who cared to ask and pay attention. His sharing included designing and publishing more than twenty plans, many of which are still available. His fascination with flight spanned more than eighty years.

It would be a mistake to think that Don was simply a great airplane modeler. Indeed his modeling success was but an outward expression of an attitude and philosophy about living life itself, and he summed it up simply and frequently quoting the famous equation of Isaac Newton, "F=ma". By this Don meant that it was essential to be realistic, to be factual, to be logical, to seek the underlying causes of things and to dismiss completely convenient and sometimes popular notions that did not meet the standards of rigorous thought. Yet Don was not dogmatic; he had a great sense of balance and appreciation for what was not known. He recognized that sometimes what was known was not complete, but it was sufficient to solve the problem at hand. "Gut Genugt" he would say, citing a German colloquialism. Sometimes, what we knew was "good enough."

Don Srull was born in 1929 in Dearborn, Michigan, the youngest of five. His father was a firefighter and he lost his life on duty. Don was only six months old. That same year, came the Great Depression and like many others, a young Don Srull lived frugally, made the best of what he had and he understood the value of making things for oneself. When he was about six years old, an event occurred that he would always remember. He was at a family picnic and an older cousin was flying a model airplane. Don was so excited by this that he began making model airplanes himself. This fascination with flight would always stay with him.

Dearborn, Michigan was "Ford Country" and Henry Ford contributed substantially to the public high school system, with an emphasis on "shop training". One year when 4 Don was in high school, a citizen of some means lent a seriously neglected Curtiss Robin airplane to the high school. This innovative idea was that the "boys" would learn about aircraft by restoring the airplane. For Don, working on a real airplane was a formative experience. He and his classmates successfully restored the airplane, which was then returned to its owner and for himself, Don earned a certification in aircraft mechanics; clearly a ticket to employment. However Don, being a very bright student, finished high school in three years, went on to the University of Michigan, and earned a Masters Degree in mathematics and physics. Meanwhile, his best high school buddy had gone to San Diego and this led Don to a job in San Diego too, working at Convair where he remained for sixteen years. These were good years for Don; he met and married Nancy and began to raise a family of three children. At Convair he worked with some exceptional engineers on some nationally-significant projects, such as the Atlas missile. And, of course, he flew models, often with the very men he worked with.

In 1967, Don was invited to take a position in Washington DC where he served as Under Secretary of the Army, responsible primarily for personnel policy. From that position he was promoted to Under Secretary of the Department of Defense reporting directly to Secretary Melvin Laird. Three times during these years Don was awarded the highest civilian honor, the Distinguished Civil Service Award. From this exceptional government career, Don went to the consulting firm of Logistics Management Institute where he worked for eight years on drones and missiles, before retiring in 1988.

From then on his attention was often devoted to his passion for airplane modeling and painting, a pastime he had also pursued since childhood. Not surprisingly, some of his best artwork was of a famous French airplane race. Yet, for all of this, his keenest desire was to have fun, to help others and to enjoy the company of colleagues and friends. For us who knew him, Don always will be remembered not only for his significant accomplishments but more for his good humor, his wit, and always, his willingness to share. Flying without him won't be quite the same, but it will have to be the final "gut genugt".

-Ralph Smalley

My sincere condolences to the family and friends of Don Srull on his passing. I will always remember the youthful enthusiasm that he radiated when discussing our hobby and at the flying field. Not only was he an inspiration at all levels, but was the first Maxecuter that discussed the details of the club with me and about becoming a member, for which I am forever grateful. May he rest in peace. -Barry Harrison



My first introduction to Don Srull was through R/C Modeler. In the sixties Don Srull built a 49" E-III powered by an Enya 09 with a rand actuator. This was a very good flyer. The plans were published in the Nov 1966 issue of R/C Modeler. (They are currently available on OuterZone. Jack Felter built one as well.) The wing span as published was 13 inches. Bingo, a peanut! I built one over these drawings and used an aluminum film can for the cowl. I still have the remains. I was member of DCRC at the time; I brought an 18" CO2 powered Guillow's Fokker D8 to a meeting in 1970 and John Strong suggested I should join the Maxecuters as that's what they fly. That's where I met Don who had moved to DC. My goodness that was 50 years ago.

In addition to being a Maxecuters stalwart, Don with Tom Schmitt started Hi-Line electric motors, rewinding small Mabuchi motors to run on lower voltage, and then persuaded Mabuchi build them with the preferred windings. Don was instrumental in establishing the Maxecuters as the dreaded Potomac Pursuit Squadron #6 of the FAC.

- Stew Meyers



I tend to think of Don in the company of his fellow Maxecuters. The early memories are the best. The time Stew, Ray, Don and Pat flew up to a Durham meet in Stew's Bellanca. They buzzed the field at what I recall as a low altitude - I can still see the banked turn, but maybe that's my imagination. This was sometime in the 80's I think, and Don and I wound up in the final heat of the WW1 ML. Me flying a peanut AW FK8 and him flying a red & white Fok DVII, a bit larger. Both our motors were toast at the end and it was close, but Don eked out the win. Boy...I thought I had him! Rest easy Mr Srull.

--Tom Nallen II

So much advice I was given early on turned out to have started with or have come through Don. I finally got to talk with him when I found one of his models near the end of a Gtown day, way down the end of the field behind the farm building. The ongoing conversations became something I looked forward to each year; he seemed to have an unending curiosity. The year I was flying my Manulkin twin pusher in Old Time Stick , Don was flying his big single pusher. He took great joy in pointing out that his model came from the page after mine in the 37 Zaic yearbook, and that some 75 years later they were still going into a flyoff together. I first met Don when I tagged along with Fernando Ramos to attend a long-ago Geneseo meet. We stayed at Don's home and experienced not only Nancy's hospitality but Don's fabulous workshop. When we first descended the stairs to that hallowed ground, I felt like a kid going into Santa's workshop. Jeez Louis, there, actually hanging on the walls, stuffed into rafters and setting on cabinets were those incredible aircraft I had only seen in model magazines. I felt like I was handling diamonds as Don patiently answered my rookie questions as I turned these jewels over in my hands. He treated me like I actually was a model building equal and that feeling cemented my respect for the man instantly.

Over the years that respect only grew along with a friendship that would burst into bloom again every time we talked over the phone or on the field. The trip to Geneseo was a National Lampoon road trip without the booze and girls, with people shifting cars to talk models at every gas stop. What an experience. I thought I'd died and gone to heaven. Fernando and I repeated that experience for many years and I never tired of descending those stairs to hear stories of contests gone past, and see Don's latest test project which he always loved talking about. The visual I will always have of Don is when you'd show him your latest model and he'd always go "Ooooooooooo, I like that!" and then he'd launch into a genuine conversation about your build and the full-size aircraft. Don was always so enthusiastic about everything that took off from our workbenches.....he was the Chief Morale Officer of modeling in my life.

Our California assaults on his shop had to end when I moved from San Diego but I continued to enjoy his warmth at Geneseo and he always had great suggestions for the wacko subjects I would try to make fly. If you go to Youtube and enter "JU-635", you will find a video of Don helping me launch a monster 4-engined Ju-635 that his coaching actually made fly. Another time, I was obsessing over the weight of a rubber motor affecting its flight time. Don looked at me and said "When Lindberg was getting ready to fly the Atlantic, do you think he said 'Don't put much gas in it as I want great glide performance'?" I promptly put a longer motor in!

Being a guest in Don's home, I was continually amazed at his artwork that hung on the walls. The guy was not just an engineer but a fine artist as well----that is an incredibly rare combination.

One of the things he did that was so inspirational was he made planes fly well IN SPITE of themselves, not because they were no brainers. Look at the Voisin variants he flew: the Japanese Shinden canard, that incredibly long nosed Swiss target tug, the first ducted fan jets, the P-13 push-pull flying wing, the Dornier DO-X, a host of electric models, and more. If it was a tough subject, it became a pussy cat under his trimming skills. He taught me about Gurney flaps and drag plates....in fact I am looking at one on a model right now.

I used to think Walt Mooney could talk to our little critters but I think Don could sing to them.

- Tom Arnold

-Clive Gamble

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Don Srull was a living legend. He was a cornerstone of our club for well over fifty years, the guy to go to for advice and help. I doubt that there's a single Maxecuter who hasn't sought Don's advice for what size prop to use, what rubber or electric motor to use, for an oddball needed part, or for help in trimming an ornery airplane. And all of us sought his help many times over. Just ask Ralph Smalley, who has become an expert rubber-powered modeler through Don's patient counsel. Don's tutoring elevated us into the famed and dreaded Maxecuters at contest time. He was always available for assistance, even in the heat of a contest when he'd pause to help a Maxecuter – or a competitor - in need. He had time for everyone, taking great pleasure in sharing the joy of model airplanes with anyone imbued with the same passion.

We know Don mostly for his masterful model airplane accomplishments. At the same time we can't overlook his other seminal accomplishments, as Glen Simpers described in his 2012 support letter for Don's nomination for the National Free Flight Society Hall of Fame, including Don's career as an aerospace engineer and as a government official. (Don was also honored by being named to both the Academy of Model Aeronautics as well as the Flying Aces Club Halls of Fame.) To all that should be added his great skill as an artist. He did innumerable MaxFax covers. He also made a series of paintings of early full-scale airplane competitions in France, and of WW I fighters. He was an excellent landscape painter. On top of that he did fine figure drawings, one of the most difficult areas of representational art.

A quick scan on the Internet lists over twenty of Don's plans. While most of them were well within the skills of us mortal model builders, some were extremely challenging projects, reserved for only the brave. Among those his plans are airplanes that few of us ever heard of, but Don's sharp eye found them and his equally honed design skills transformed them into high performance and prize- winning models. Who among us would think of tackling Santos Dumont's 1906 14bis, the first airplane to (barely) fly in Europe? I say barely because as Don figured out the center of gravity was in the wrong place. Who would have taken on the 1919 Handley Page W.8, one of Britain's first passenger planes, a bi-motor biplane with the motors mounted between the wings on struts? Then there was the Dornier DO 335, a German WW II fighter with piston engines front and rear. How about the WW II Japanese Kyusho J7W Shinden (magnificent lightning), a flying wing single engine pusher? The Swiss F+WC-3605, aka the "Schlepp" (tug), had a nose moment that begged to be modeled for rubber power. Don did it both for rubber and RC, as he did with the 14bis. If you have nothing to do for the next year or so you might want to build the 1912 Royal Aircraft Factory B.E.2, as Don did in quarter scale. This list of Don's extraordinary accomplishments wouldn't be complete without mentioning the Lippisch flying wings, dating from the 1920s, or the British Westland-Hill Pterodactyls of the 'twenties and 'thirties. But of all of these, and perhaps of all of Don's models, the huge Dornier DOX flying boat may be the one most remembered. It had no less than twelve motors in six nacelles mounted atop its wing, half pulling, half pushing. Again, who would even consider modeling any of these, let alone know of them? The DOX and several others wouldn't

have been possible without Don's pioneering work using electric power, which he developed with his Hiline electric motor partner and fellow Maxecuter, the late Tom Schmitt.

One of the Maxecuters most ambitious projects, spearheaded by John Hunton, was to build a 1/10 scale model of the British WW II four-engine Halifax bomber. The model had a ten-foot wingspan. Don calculated the power of the four required electric motors as well as the complex wiring. I think he could make a brick fly.

On a personal note I'd like to add that I'm among the Maxecuters who knew Don for over fifty years, beginning in the late 1960s when he came to Washington from Southern California, where he built and flew with the cream of master modelers. Over the years we flew with the late Hurst Bowers, Pat Daily, Ernie Green, and Bill Winter, to name just a few. The first of Don's designs that I built was a Cox 020powered cabin-type classic, my first rudder-and-elevatorcontrol airplane, with a Cannon RC system. Don and I did figure painting and drawing together for many years at a studio in Mclean, along with Priscilla Felter, wife of the late Jack Felter, another Maxecuter stalwart. On one occasion I was the judge for an art show at the Yellow Barn studio in which Don entered his painting of one of the early French airplane races. Don earned one of the top prizes.

The last time I saw and flew with Don was less than two months ago, on Friday, Sept 9. Six of us were flying together - Don, Mike Dale, Wally Farrell, Dave Mitchell, Frank Rowsome, and myself. Don had brought one of his oldest airplanes, the all-wood Bill Winter "Lightning Bug". Don had restored his from Ace rudder-only RC and Cox 010 power to electric-power and rudder-and-elevator control. Taking his cue I restored mine similarly, and on that last day together we flew both models, bonded in the air as in friendship.

There's a story about Don that's been repeated several times, deservedly because it says so much about his values, particularly his magnanimity. The Maxecuters were having one of our winter indoor contests at the Patuxent River Naval Air Station. We flew in one of their huge arched-roof hangars. The base personnel and their families were invited to come and watch, and many did, along with their children. You'd think that living at a military airbase the children were quite familiar with aircraft, and I'm sure they were - but not model airplanes. Don and I were competing in the Peanut mass launch event. One young boy, standing nearby, watched with wide-eyed fascination. Don noticed him and asked him if he'd like to assist by holding his model while he wound it up. Don showed him how to hold it; the young boy could barely hide his delight. Don's airplane landed and for the next round Don asked the boy if he'd like to wind the airplane up while Don held it. And for the next round Don asked the boy if he'd like to launch it. Again he showed him how. When Don's model landed, the mass launch event concluded, Don asked the boy if he'd like to keep the model, and handed it to him.

Don was a legend. He'll continue to be a legend in years to come, along with the other greats of the model airplane world. And for all of us who were privileged to know him, to share the pleasure of building and flying with him, his memory will ever be a blessing.

WING TIPS 1/16 SH WING LE 3/32 50 WING SPARS (2) 1/8 SQ B SA SPAR SPLICES END PLATE OUTLINE WING RIB 1/16 SH (DOUBLE SCALE) MAKE (13) STAB RIB 1/16 SH (DOUBLE SCALE) MAKE (9) FUSELAGE WIDTH 1 1/2 INS. CONTOUR FUSE WIDTH 16 SH FILL TO ZERO AT REAR -FUSE WIDTH 1/4 INS 3/32 50 FUSE LONGERONS AND SPACERS BALSA LAMINATED NOSE PLUG END PLATE (2) -7 165H STAB LE 1/4 50 1) "Gollywock" two-bladed folding props used, block 1 1/4 x 1 3/4 x 12. Blade outlines varied. Usual Midwest Model Supply hinge and stop assembly. Freewheelers also 1/8×3/8 . used. 2 4 5 STAD TE З) Use light balsa throughout except fuselage longerons and wing spars. Shrink and FROM DAN DRISCOLL'S NOTES: "My Miss Production weighed 57g w/o rubber. dope covering carefully to avoid warping. 3) Keep fuselage width 1 in. at rear dowel for motor clearance. I'm not sure, but I think I used a 12" carved balsa prop. I don't remember the pitch, 4) Power: 8-10 strands 1/4 flat. but I remember it originally wasn't enough, and I cut the blades off near the hub 5) Use 1/16 - 1/8 in. incidence block under lower wing spar for decalage adjustment. and reset them at a higher pitch. Suffice it to say it had a high pitch. CG was 6) DT ideas welcomed. @ WING TILT, SCALE, ING. probably about 50%. At the 2008 FAC Nats I got three maxes using a motor of 288" of 5/32" in 8 strands and 1150 turns. I recall I had a hard time getting it trimmed, but once trimmed, it was very consistent. It had a very fast climb and not 14 7 much of a glide. However, despite the poor glide, it usually got so high that it would still max. Model went OOS at Muncie in 2009."

This plan is reduced to fit the page. Enlarge 1.87 times to arrive at the original wingspan of 28"









Dan Driscoll, long time Maxecuter and Flying Aces Club stalwart, passed away on 10/21/22 at age 77. Dan attended the Flying Aces Club Nationals 2022 and felt fine. He returned home and didn't feel well and went to the doctor and was diagnosed with pancreatic cancer. There is no cure for pancreatic cancer and very little that can be done as far as treatment. Dan was a model airplane builder his whole life plastic models, control line, and free flight. He became heavily involved in the Flying Aces Club movement in the late 1970s, and attended his first FAC Nationals in 1982. When he was with the Maxecuters, he was a long time contest director, volunteer, and frequent newsletter contributor. He was a graduate of the University of Maryland and a certified public accountant (CPA). He spent most of his career as an agent for the US Treasury Department. He was also a proud US Navy Veteran. He leaves behind his wife Susan and daughter Kathleen.



I met Dan Driscoll at the first Flying Aces Nationals that I ever attended, in 2018. Someone introduced me to "another guy from Florida" and it turned out we didn't live that far apart. We started meeting to fly at a small field near us in between the treks to Palm Bay across the state. Weekly meets and monthly trips to Palm Bay became the new routine. Dan was energized. Having moved down from Washington, D.C. a few years before, his model flying had fallen off a bit but with a little company and the promise of more FAC competition at Palm Bay he was all in. He helped revive local interest in FAC, and the number of events flown at our Florida Modelers Association meets has steadily grown. Dan's long-time experience with the DC Maxecuters was a big help to me when I became CD for the FAC events at the King Orange International.

At the 2021 AMA Nats we stopped by the museum and Dan asked if an old model of his was still in the collection. It is an Udet Flamingo, designed by Bill Winter. Dan built it for a Maxecuter Bill Winter design cookup. This was back when the AMA HQ was still in DC, and somehow his entry ended up in a display case at the HQ. After AMA moved to Muncie, Dan always wondered what happened to his model. So he asked, and one of the staff went off to look. They came back, wearing rubber gloves, gently carrying Dan's plane,

and set it on a table so we could get a picture. Pretty cool.

You can't browse old issues of MaxFax or the FAC

Newsletter for very long without running across an article by Dan, or a picture of him with a plane in his hand. He made it to all but one or



two FAC Nats. I've driven many miles to one contest or another, listening to Dan tell stories about the Maxecuters and all the flyers he's known over the years. Dan was true to the spirit of FAC: happy to share, willing to help and generous with his time. He will be missed.

-Duncan McBride

Dan was a great of the Flying Aces Community. He competed frequently; he ran contests in North Carolina and the National Building Museum in DC; he edited the Max Fax, newsletter of the D.C. Maxecuters; and was a fun guy to be around. One of my fondest memories is flying with Dan at COMSAT on Friday evenings in the 1980's. Having carried models to work Dudley Prisel and I would swing by Dan's apartment in Alexandria, VA and pick him up. We would talk airplanes all the way out to COMSAT. We would fly until dusk and then gather at the fast food spot and talk airplanes late into the evening with all the Maxecuter greats. Then it was fix and build during the week to do it all again the next Friday night. Glorious days.

Dan pushed me hard to get involved in more than flying. He showed me how to judge FAC models where he was the master of judging the non-scale rubber models. He handed over running the contests at the National Building Museum to me. He provided me with forms for judging and time keeping as well as templates for the trophies. The multiple computer disks of old model magazine covers are gold for printing out trophies.

I last flew with Dan at the 2022 FAC Nats. He was urging me and the other D.C. Maxecuters to get out to Kudzu at Raeford, N.C. This event was a long way from his Florida home but Dan was dedicated to flying with his long-time flying friends. I will think of Dan each time I drive the sports car that bought from him. He will be greatly missed.

-Glen Simpers, D.C. Maxecuters

When I first moved to Virginia, I was able to get up to the meets in Comsat once or twice before we lost the use of the field. My introduction to the Maxecuters included meeting Dan Driscoll and Bert Phillips. These two guys seemed to really have a special friendship, and over the years they traveled to many of the meets together. I was able to get to know them just a little before Bert passed away. Eventually I got to spend more time with Dan as we attended contests and flew together at the sod farm. A few things became clear as we met for lunch after flying: Don and Pat Daily both held Dan in the absolute highest regard. If I recall correctly, Pat had Dan do some work for him as an

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accountant. Dan tried on a couple of occasions tried to

explain annuities to me, as he prepared for retirement, (and I could see mine on the horizon).

Over the years I realized what an encyclopedic knowledge Dan had acquired of the old time stick and cabin models. He seemed to have a knack for finding a plane that no one had ever heard of and making it go. The Miss Production (*plan in this issue -Ed.*) is a good example of one of Dan's picks. He mailed me the plan and some notes in a letter when I was looking for a "smaller" stick model. Dan also sent me notes on the Casano stick and recommended building the WREN for OT Cabin. He was always very generous with his time and advice.

Dan loved to fly. This past May he even came up to North Carolina from Florida with his buddy Duncan McBride to CD the FAC events. At that meet, Dan came up to me with a grin on his face and looked over my new dimer, a Knight Twister, (from the MaxFax). He said "Wally, you should be proud of that. It is surely going to be a one of a kind- no one else would build a plane that ugly". Ha! Dan was also a very good scale modeler. His recent Sopwith 1-1/2 Strutter was a a real looker.

There is a real "esprit de corps" to being a Maxecuter that is centered upon the fantastic group of modelers that have been, and still are, within our ranks. Dan's quiet leadership and commitment to the FAC was, and remains, an inspiration to all of us. Smooth air, Dan. We miss you.

-Wally Farrell

My thoughts and prayers go out to Dan Driscoll's family and friends during this difficult time. I always enjoyed Dan's camaraderie, having conversation with him, and his cheerful smile. He always amazed me with his collection of vintage FAC-event shirts that he would proudly wear at Geneseo. Dan's heartfelt FAC spirit will surely not be forgotten.

-Barry Harrison

Perhaps it's a bit blunt, but I have to say that I more or less expected Don Srull's batteries to give out much as they did, like a LiPo---strong power burst, long cruise, rapid decline. If it seems disrespectful to characterize Don as a modern day Energizer bunny, so be it--I'll stand by my cartoon, not least because I think he would have gotten a kick out of it! In any event, we have the testimony of many others in this issue ready to flesh out Don's genius.

Dan Driscoll's death, however, felt both unexpected and unjust. I think we all imagine that by the time you are into your 90's you are living on borrowed time, but that a hale and hearty person in their 70's must surely have more time on the clock: time to be the person we imagine them, nay NEED them, to be. Alas, it ain't necessarily so.

When I think of Dan, it is from the perspective of someone who did not know him in his "prime". Did I say he was hale and hearty? In my experience, he *always* had a gimpy gait, and was *always* hard of hearing. He was not one to complain however, and his *projection* was indeed "hale and hearty". I was always impressed by the grace and humor with which he bore his late afflictions; I'm reminded that we all have something to give.

Ultimately, a lifetime of interest in an archaic --go on, admit it--pursuit positioned him to be THE go-to guy for the 16

FAC when it came to old-time rubber FF models. No, he wasn't the only fellow who could tell you anything you might want to know about this-or-that obscure design. There's other learned folk about, and we'll be needing them now more than ever. What made Dan stand out was the depth of his knowledge, his easy manner, and his eagerness to lend his energy to any individual, contest, or organization that asked. He was for many years absolutely essential to the running of FAC and Maxecuter events.

Never much one for drawing up his own plans, Dan preferred ferreting out obscure designs from the golden age of modeling. It's wrong to pigeonhole him as strictly an OT rubber guy--any look into past Maxecuters contest results will show that he was into scale FF modeling as much as anyone else, building a slew of fine models and avidly seeking out hard-to-find information about the color schemes of any given air force. These days, with a world of resources at our fingertips within a few quick keystrokes, we have perhaps lost sight of the work once required to find and bring old plans and documents to light---not to mention the dedication required to maintain them. Flat files full of musty old documents are, ahem, an acquired taste, and it's only by the efforts of guys like Dan that this history is still with us-virtual or otherwise.

Above all, Dan loved the camaraderie of being an oldschool Maxecuter, the days of gathering with the boys to drink beer and talk airplanes while you assembled the next MaxFax with its original, hand folded full-sized plans, each issue hand-stapled. It's not hard at ALL to imagine the fun they must have had, even if it's well nigh impossible for me to imagine doing the same with today's MaxFax. We are deeply and probably irretrievably tied to the print shop, a wedding of convenience. It's undeniably true however that in that marriage, something wonderful has been lost...and now we have lost Dan as well. Those were good times, I'm told, and he was at the heart of it all.

-Dave Mitchell



TRIMMING TECHNIQUES I LEARNED FROM DON

1. Here is a "must read"- <u>GET THAT CG RIGHT- A first step</u> <u>in trimming free-flight models by Don Srull</u>. *(See page 18)* This is one of the first things Don taught me. Trim is not the same as stability. You use a high speed glide to establish the stability margin. The main take away here is that if the model zooms with a high speed test launch then the CG is too far forward. Up to that point I would have just added more nose weight. It is not intuitive (at least not to me) but following this has really improved my plane's glide performance. If you have a plane with a massive amount of downthrust you may want to look at this glide trim.

2. The Srull flap- I've written about this before in my NFFS article which was reprinted in the FAC Newsletter. It allows for inducing a turn with no roll. This drawing is by Don.



3. Motor selection- Don's article on motor selection is reprinted at right. Don told me over and over, and explained with calculations, that duration is more directly tied to the amount of rubber you use (percentage of All Up Weight) than wing loading. It took me a long time to absorb this.

Don liked to have motors that were 25%-30% of the empty model weight as a starting point. Let's do an example. If you have a plane that weighs 30 grams and you put it a 10 gram motor, that is not a 33% motor it is a 25% motor (10/40=25%). So that would be an acceptable motor but he would ask the question "can you put more in there"- usually with a smile. So, in order to get a motor that is 25% of the AUW, you need to divide the empty model weight by 3. To get a motor that is 30% of the AUW you need to divide the empty model weight by 2. Not that many scale models can manage a 30% motor in my experience.

His formula for determining cross section was: estimated AUW/90= cross section. Now some of this is a bit "flexible". There are many factors that affect how much rubber will fit in any given model- maybe there isn't enough room in the plane to use the motor you want or you don't think you built it sturdy enough to take the stress of a big motor, but this formula from Don is a great starting point. Let's do an example: an empty plane weighs 38 grams. A 25% AUW motor weighs about 12.6 grams (see what I did there? 38/3= 12.6). The AUW of plane and motor is 50.6 grams. 50.6/90 is .56 inch cross section. A single loop of 1/4 is a .50 inch cross section (i.e. 2 strands of .25"), so you could start with that or maybe a loop of 3/32 and a loop of 3/16 (which would bring you up to a .56 cross section). As Don notes in his article, this is a starting point.

-Wally Farrell

ESTIMATING RUBBER CROSS-SECTION REQUIREMENT by Don Srull

Originally published in the Jan/Feb 1994 issue of MaxFax

One of the first questions to be answered before test flying that new rubber scale or sport job is: "How many strands should the rubber motor have?" Many experienced modelers have developed a 'feel', a sixth sense, for how much crosssection will likely be needed for any given model. For relative newcomers to our sport, however, a reasonable starting point may not be nearly that obvious. The "optimum" rubber cross- section, of course, will depend on many complicated variables, some predictable and others quite slippery, and is best determined by test flying. Nevertheless, a reasonable first guess could save much unnecessary effort and wasted trial and error; and if that first guess could be calculated simply and quickly it would be of use to the newcomer.

I have kept records of most of my models over the years, and looked to see if there was any pattern of rubber cross-section I had been using. For about fifty of my models (mostly scale and sport types, plus a few old timers) I plotted total model weight vs total rubber width (*see graph, below*). VOILA! A surprisingly consistent and simple relationship appeared: **MOTOR WIDTH IN INCHES = TOTAL MODEL WEIGHT IN GRAMS ÷ 90**

Motor width as used above is equivalent to motor crosssection (for uniform rubber thickness), and it is much easier to calculate than actual cross-section. For example, a 4 strand motor of 1/8" rubber has a width of $4 \ge 1/2$ ". To use the above relationship, first estimate the total weight of your newly finished model by weighing the airframe (in grams) and adding about 25 % more for the rubber motor. Divide this number by 90, to get the rubber motor width in inches. Motors of this size will provide enough torque for scale-like flight, rather than hot contest model performance. For scorching fast climbs, increase the width by 20% or so. EXAMPLE: the airframe of your model weighs 75 grams plus 25 % (19 grams) for a motor gives a 94 gram estimated total weight. Calculate a 94/90 = 1.04" motor width. In this case a 4 strand 1/4" rubber motor would do the trick. Easy, eh? Remember though, it's only a starting point. Keep test flying and adjusting motor width, length, and prop size to edge closer to that ethereal "perfect flyer".



GET THAT CG RIGHT

A first step in trimming free-flight models by Don Srull 9/06 An Article published in the September 2006 issue of MaxFax, the journal of the DC Maxecuters, Stew Meyers, Editor

Here is a simple procedure I have found to be helpful when trimming a new free-flight model, either rubber scale or sport. It is a summary of part of an article that appeared in the August, 1982 Model Aviation magazine. It describes the important first step of finding a good combination of center of gravity (C.G. or balance point), and the wing and stab incidence angles. Only after getting a satisfactory C.G. and incidence setting is it safe to move on to power tests to find the best thrustline offsets for powered flight. Initial C.G. and incidence adjustments determine to a large extent how stable and well behaved the model will be under power and in the glide as you finalize your trim settings. To work, the steps must be followed in sequence. It will only take a few minutes, but in the long run can save a lot of time and minimize those annoying trim flight accidents.

Basically, we'll get the glide and C.G. adjusted first, and only then proceed to the power phase. The first trimming objective is to achieve a reasonable, but minimum amount of longitudinal (or pitch) stability. But wait a minute - isn't stability good? Can you have too much stability? Yup, you can. The reason we don't want too much stability is because it adds drag; but worse, it makes the model prone to zooming and stalling at high speed - like at launch! That means we would have added drag plus need huge amounts of downthrust to overcome the excess stability — not good. On the other hand, we do want some stability, of course, so our model will recover from gusts and other minor upsets. In general, the further forward the model's C.G. is, and the larger the angular

difference between wing and stab. the the greater stability-and vice versa.(see Figure A). Luckily, we can easily trim model to our have enough, but not too much. longitudinal stability and simplify the whole trimming process to boot by just following the steps outlined below.

1. Since each model tends to be unique, there is no simple formula to predetermine



exactly the correct CG and wing/stab angular differences. Test

gliding is the best way to find out; and besides, it's more fun than doing math anyhow. The idea here is to test glide our model to determine the combination of C.G. and wing and tail angular difference that provides satisfactory pitch stability. Make sure you have some means of accurately adjusting the angular difference between wing and stab. If you have an adjustable elevator, you can use that, but usually, the simplest and most common way to allow some stab angular adjustment is to tack glue either the leading or trailing edge of the stab to the fuselage, and allow for some shimming of the other, loose edge. When adjustment is complete, you can then cement the stab permanently in place if you wish. The very best method to provide for very accurate and repeatable adjustments is to make use of a small nylon machine screw (2-56 or 0-80 size) to change the stab angle. Moving the CG is most easily done by simply adding bits of clay to nose or tail.

2. First of all, make sure that all flying surfaces are straight and free of warps before testing. Use modeling clay if necessary to place the C.G. at a reasonable spot about onethird the distance between the wing's leading and trailing edge as a good starting point. Also as a first guess, approximately 1° to 3° angular difference between wing and stab should be OK. Keep the rubber motor in the model under tension so it doesn't flop around and change the C.G. during glide tests. If your model has a free-wheeling prop, it is best to remove the propeller and replace it with a piece of modeling clay of equal weight. The model's behavior, and the changes we want to observe will be easier to see without the drag of the propeller. For models with a folding prop, keep the prop attached.

3. Begin by gently gliding the model several times at normal gliding speed. Adjust the *stab (or elevator) angle only* until you get a nice, smooth descending glide. Several glides with each stab adjustment will be necessary to make sure you eventually have the best glide possible.





ABOVE: Bones shot of the legendary DO-X, Don Srull's FAC Electric Scale masterpiece. Present at the birth are, L-R, Paul Spreiregen, Stew Meyers, Mark Fineman, Don, Bill Ceresa, and Allan Schanzle. photo - Tom Schmitt

BELOW: Dan Driscoll in action at the 2016 FAC Nats, Geneseo.

photo - Bonnie Simpers



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