



THE MAX-OUT

Newsletter of the Magnificent Mountain Men

AMA CHARTERED CLUB #177

Issue 2025-05
(Sep-Oct)



“Wake Turbulence. That’s my story and I’m stickin’ to it.”
We trust you, Len.

Upcoming Events

Indoor at Beth Eden	Dec 12 1800-2100	John Christensen
Indoor at Manitou	Dec 14 1000-1600	TBD
Indoor at Beth Eden	Dec 19 1800-2100	John Christensen
Christmas Party!	21 Dec	Don DeLoach
Annual Meeting	10 Jan 2026	Chuck Etherington
Indoor at Manitou	11 Jan 2026	TBD

From John Christensen: “Anyone not receiving announcements about indoor at Beth Eden can be added to the email list by contacting me at: cloverdale1955@gmail.com “

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- Kritter Korner
- Bernie on Spiral Flow
- CD Scoring Quiz

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Jace Pivonka 720-202-2936

Pete McQuade (backup)



The President's Corner

By Chuck Etherington

For the first time in our club's history, we have a real safety plan. Ken Phair, our Safety Officer, has developed a comprehensive plan that will go into effect following ratification at the annual meeting in January. It won't be just a document that gets filed in the CD briefcase, but a living document that encompasses our flying activity at both fields and also has relevance at our indoor activities. The details will be rolled out at the annual meeting. Thank you so much, Ken for all the hard work that went into this program.

Our CD team is not yet as strong as they need to be with scramble scoring. The importance of being able to score on the field rather than letting our scorekeeper, Jace Pivonka, do it later is that the winner needs to be announced and the award presented at the field. The winner deserves that real-time recognition. Scoring quizzes will be included in issues of the MaxOut and possibly remedial training provided at the annual meeting.

Updating activity at the Lowry field, the oil & gas company, Civitas, has a horizontal drilling plan afoot. They have a giant tower rig 1.8 miles to the NW of our flying area and will be doing horizontal

drilling for miles underground. Consequently, they are required to re-cap some legacy wells along the drilling routes to bring them up to code. The closest is 1.6 miles from our flying area. When finished, there will be no obstructions sticking up above ground.

For this operation, Civitas has greatly improved the pot-hole laden North/South "Ridge Road" (thus named because it runs along the watershed ridge-line between Coal Creek and Box Elder creek). They also greatly improved our East/West two-rut access road (affectionately named "Thunder Road," inspired by one of our members trying to recreate a scene from the movie of the same name). Three paths were mowed leading away from our flying area and, at least for next flying season, will make chasing safer and easier. Civitas uncovered and improved our culvert that runs under our road at the "S" turn where Ridge Rd meets Thunder Rd. Many years ago it was installed by SAM1 to handle the North/South drainage so it wouldn't wash out our road. Civitas also created a new turn-off sign to replace the one they managed to mangle.

You might recall that our resident sign painter, Darold Jones, hand painted that sign. So when Civitas requested our file with the artwork, we were at a bit of a loss. Through the miracle of modern technology, they were able to recreate the image exactly and make us a new, larger sign. Despite our lease being only a tiny player in the overall Lowry Ranch scheme of things, both Civitas and the rancher, Nick Trainor, have taken great care of us.

I have a tendency to write too much and make John crazy trying to fit it into the MaxOut, so I will stop here. I will see you possibly on the 14th at Manitou Springs High School (tentative) and/or Don & Cindy's for the Christmas party on the 21st.

See "CD Scoring Quiz" on Page 16



September Scramble

Sept. 21, 2024

By Pete McQuade, CD

Let's record this contest as "A Day in Free-Flight Heaven." Befitting the last official day of summer, the morning started with scattered puffy white clouds, very light winds, and pleasantly warm temperatures. And that pattern held throughout the day. To make it even better, we had a great turnout—11 fliers put in official flights. At one point, I counted 14 cars in the parking area. Pretty darned good for a monthly Scramble!



We were treated to some anxious excitement even before the first official flight. **Frank Menanno** was testing his A-Gas Maverick (inherited from **Bill Lovins**).



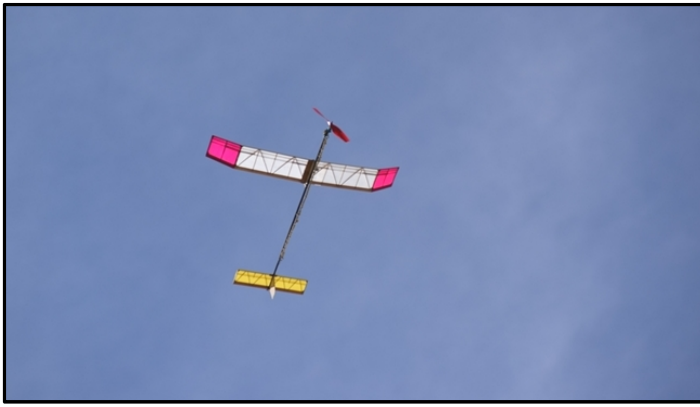
As luck would have it, Gremlins were out in full force, because the electronic engine shut-off failed, leaving the perfectly-trimmed climb to continue until the gas ran out. You guessed it: the model was looking very, very tiny. Having survived that glitch, the Maverick transitioned into its excellent glide—and failed to respond to the RDT. It also failed to DT at the programmed time.

Undeterred, Frank followed the model on his chase bike, aided by the gentle breeze that was slowly carrying the flight to the south. Meanwhile, back at the flightline, several of us tracked the model with binoculars until it disappeared from sight. We were all pleasantly surprised when Frank returned with the wayward airplane after a remarkably short time. Somehow, against the odds, the Maverick had dodged whatever thermals were out there, and descended to a landing not too far away. Later, Frank traced the problems to a servo trip-wire that had nudged into a bad position, jamming up the mechanism. But Frank's good fortune held throughout the day, as the problem never recurred throughout the six official flights he subsequently put in with the Maverick. I guess some guys just live right.



We had some less anxious entertainment from a beautifully-restored, full-sized 1930s/40s-vintage Stinson Reliant making several flybys in the blue-and-white, late summer sky. The rumbling sound of that big radial engine is enough to set any modeler's pulse racing.

John McGrath got into his groove right at the 9:00 am contest start. Soon he was putting up max-after-max in E-20. His air picking was positively on fire all day, in both that event and P-30 (next page). Even when his model would occasionally get off to a less-than-perfect launch and appear to be set for a drop, the wings would begin to rock and boom! Upward the airplane would go.



Frank Menanno was right there with John in E-20, maxing out the first three flights. He was also busy putting up great flights with the Maverick in A-Gas and Classic A-Gas. Iron-Man Menanno still found time to fly Catapult-Launch Glider, leading the pack in that event. But Frank really hit his stride in A-Electric, chalking up four maxes in a row with his beautiful black-and-yellow carbon-fiber model.



But **Don DeLoach** was hot on his heels in A-Electric, eventually bettering Frank's time on the fifth flight.



Bernie Olson, our Assistant CD for this contest, found some time to demonstrate the impressive power pattern of his E-36 model and nailing two maxes in the process. Bernie also gave his gorgeous My Coupe a workout.

Speaking of power patterns, **Rick and Cass Pangell** were busy wringing out her Satellite 1/2A Gas model. In addition, Rick had his E-36 model going well. And throughout the day, **Ken Phair** fine-tuned his AMA Gas ship (below) until it was really dialed in. It's an impressive sight to see.



their beautifully-built and dayglo-pink decorated models that climbed with the best on the field.



Our Youth-Senior level flier, **Skill DeLoach** had a busy day, flying P-30, E-36, Classic Towline, CLG, and HLG. Where does she get all that energy?



Neil Myers was also shooting his glider sky high with great consistency. A true gentleman, Neil's attitude of flying for fun is absolutely infectious. In the end, **Frank Menanno** had topped the CLG field.



There were plenty of other folks flying CLG, including **Karren and Bill Groman**, who showcased



Bill Ledden spent the day coaxing his 1/2A "Flying Washboard" model to ROG. You've got to see this out-of-the-rut creation to believe it. Although it didn't quite fly as well as Bill hoped, it did leave the tall grass on the field "well scrubbed."



Besides the flying, the biggest excitement of the day was **Karren Groman's** discovery that a 3-ft rattlesnake had snuggled up in the shade under the Groman car. It seems the reptile took exception to the intrusion and began to make a fuss. Fortunately, our **MMM Snake-Handlers, Chuck Etherington and Don DeLoach** were on hand, and using the club's snake-moving device, expertly lifted and transferred the snake to a large Tupperware tub and then transported the creature a few hundred yards away. This was fully in accordance with the MMM's Safety Program document. So, remember: if you see a snake, don't kill it and let our experts move it. If they aren't on the field, leave the snake alone and move to a safer place to fly. Also, be sure to read the **MMM Safety Program** document, which covers a wide range of safety issues.

When 5:00 pm arrived, **John McGrath's** score of 5.59 had outpaced the pack for the September Scramble Championship, with **Don DeLoach** close behind at 4.92, and **Frank Menanno** smidgen back in third place at 4.74.

September Scramble Results		
Contest Date:		21-Sep-25
Scramble Place	Name	Points
1	John McGrath	100
2	Don DeLoach	88
3	Frank Menanno	85
4	Bernie Olson	51
5	Skilly DeLoach	46
6	Rick Pangell	35
7	Bill Groman	33
8	Neil Myers	26
9	Karren Groman	25

Don't forget!
 MMM Holiday Banquet
 at the home of
 Don and Cindy DeLoach

 21 December.
 Further details to follow.



More Ken! (Never gets old)

October Scramble

October 19, 2025

By Bernie Olson, CD

We enjoyed a beautiful autumn day for the October Scramble. It started with temperatures in the upper forties that quickly warmed into the seventies. Winds were 5 to 10 mph in the morning, and that dropped to 0 to 5 in the afternoon with clear to scattered clouds throughout the day.

Eleven flyers took to the air, five of whom put up official flights. **John McGrath** flew three classes and won the Scramble with his P-30 after scoring five straight maxes. Frank took second and was biting at John's heels all day while flying in five classes with thirteen maxes. **Karren Groman** took third flying her cat-launch glider. **Bill and Karren Groman** have really got their CLGs working!



Len Sanders flew several of his power models.



Ken Phair was dialing in one of his nostalgia F1C models and put up some beautiful flights!



Bill Ledden flew a couple of nice-looking models from a hi-start; a Seagull (1955 design) and a Cosmo A-1 flying wing. Plus an Al Yuhaz model (above) called a Cosmo. Wing close-up below. (Thanks, Bill)



Darold doing Cata Kid launch prep



Darold Jones flew a Cata Kid and a gull winged P-30 designed by George Perryman. That bird has lovely lines in flight and was a treat to watch.



Jeff Pakiz was trimming his E-20 Micro Pearl.



John gave Herb Kothe's Sparky some air time.

The flying site was much-improved thanks to work performed by Civitas. The main access road coming in from Quincy was smoothed up to the first gate saving wear on our suspensions. They then smoothed the road to the MMM flying site and layed down gravel in a couple of key locations. Roads were mowed in three directions from our site which makes chases safer on our dirt bikes. Finally, the electric wire gate northwest of the flying site has been replaced with a new non-electrified gate.

Lots of extracurriculars were around. We enjoyed a Blackhawk airshow that was in the area for about 45 minutes. The Hunt Club was out in force chasing critters. Bill found another rattlesnake just south of the mowed towline area. Finally, at the end of the day a large coyote came through successfully finding dinner.

October Scramble Results		
Contest Date:		19-Oct-25
Scramble Place	Name	Points
1	John McGrath	100
2	Frank Menanno	70
3	Karren Groman	40
4	Bernie Olson	35
5	Bill Groman	33



Another shot of Darold's Perryman P-30

Big shout-out to Bernie Olson for running the contest and snapping nearly 200 photos at his first Scramble as CD. Thanks, Bernie!

Projects and New Builds

Frank Menanno's new E-36



From Frank: “New Super Pearl 232 flat, has a very stiff boom from Kites & Things, called Nitro, sanded to about 13G, wing and stab have been stiffened with 3-thousandths carbon fiber on the geodetics, the fuselage has been shortened two and a half inches and the stab has been increased in area to 36.5% of the wing, CG is at 80%, Wing dihedral has been decreased and stab dihedral has been added, motor is an iflight xing 2205 with a 20 amp ESC and custom built TM E36 timer. PROP. 6X4, Battery 350 rdq.”

Looks awesome, Frank!

Frank's Quarter-A Shooting Star



“John, The 125 Shooting Star is my own design in 1993 and updated with new fuselage last year, Cox Baby Bee 010 engine.”

Pete's repair of Jace's F1A

From Pete:

“1. Jace's F1A glider crashed on tow in the Rocky Mountain Champs and was badly broken. It's a Vasi Beschasnyy model (Ukraine) that Jace inherited through a string of owners, most recently Mark Covington.



On arrival at the shop

2. Fixing the broken tailboom was a simple decision for me: replace the boom altogether, rather than trying to "splint" it. With these narrow-diameter booms, it just works much better this way. This was even more complicated because the stab's carbon-fiber push-rod had snapped in the crash.

3. I had to launch a literally-worldwide search to find a boom which fit the dimensions, taper, etc. Fortunately, Jim Farmer of Arizona happened to have one, and he brought it to Superior, Colorado on a trip to visit his son, Sam. Thanks, Jim!



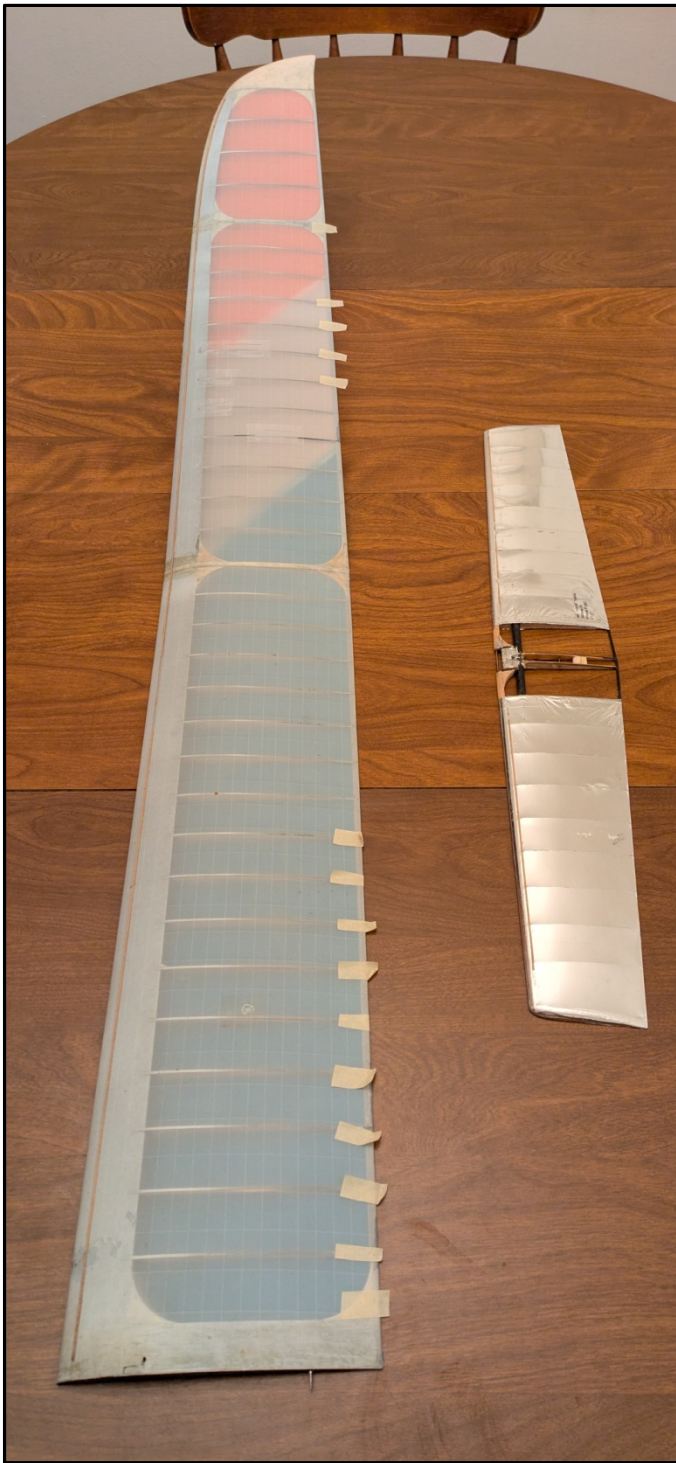
Test fitting the new boom



In the jig—aligning pod, boom and stab

4. There was significant stab and wing damage. On initial inspection, I identified 15 ribs in the right wing and 4 in the left wing that appeared to be damaged. As it turned out, I had to repair or strengthen 36 wing ribs and repair a break in the carbon D-box shell. All

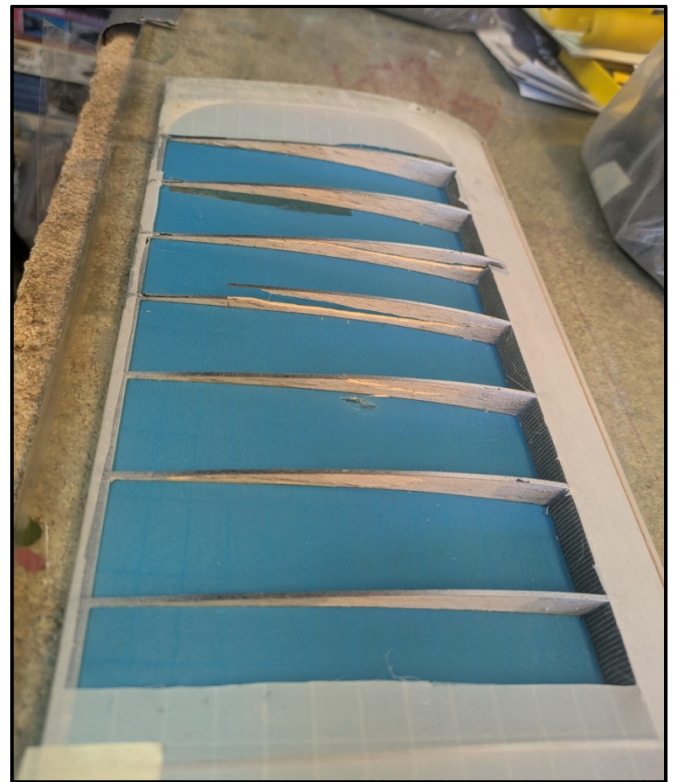
this also necessitated removing much of the wing covering.



Tape indicates a cracked rib

5. It's taken almost 3 months, but it's nearly finished! Hopefully, it'll be an even better airplane than it was before the crash. Good luck with it, Jace!

Great job, Pete! Massive job done well. Jace will be thrilled.

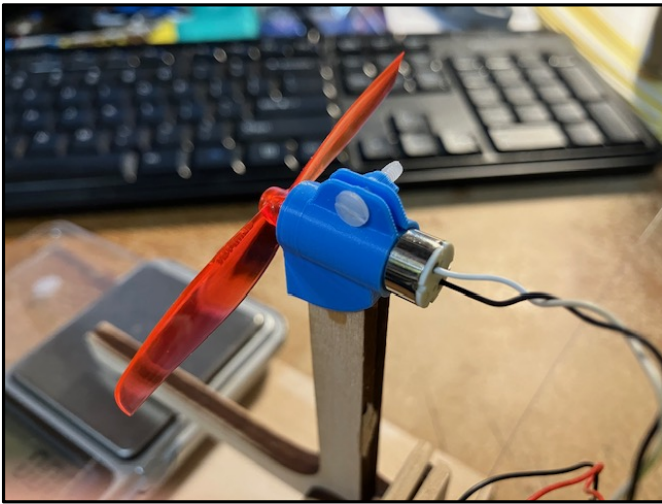


Cracked ribs



Cracked ribs

John's E-20 motor "classifier"



The dark side of E20 is that finding a good 8520 motor can be a crapshoot. About the only thing they all have in common is diameter (8.5mm) and length (20mm) Every so often I look through Temu or AliExpress to see what's out there. They don't often give actual Kv ratings, but will claim a max RPM of anywhere between 40,000 and 54,000 RPM. Because they're so cheap (as little as \$0.99) I'll often order good looking ones to try out, knowing that the cost of being wrong is negligible. Sometimes they're okay, but often—garbage.

I made this little test rig to help me classify motors into Keepers and Other. It's just a pivoting L-shaped thing with a motor mount and a place to glue a BMK timer board. It's definitely not lab-grade equipment, but with only about a 3-second run I can tell whether the motor's putting out some thrust -- somewhere around 35 or 40 grams of static thrust, pardon my units--or whether it's trashcan-bound (22-

26 grams). The motor in the photo I got through Amazon (\$12 for two). It claimed a 1.2 mm shaft—versus the typical 1.0 mm—and a 60,000 rpm speed! Sounded like a beast, but when I put it on the rig?—Only 24 grams using a fully-charged cell. Plus it had the common 1.0 mm shaft, not the preferred 1.2. Immediate Amazon return. Good news: Amazon refunded the money and said "You don't need to return it." That means I can put in the Other file myself 😊.

FWIW—I tested a couple of Josh Finn's E-20 motors and they seem quite strong. J&H Aero.

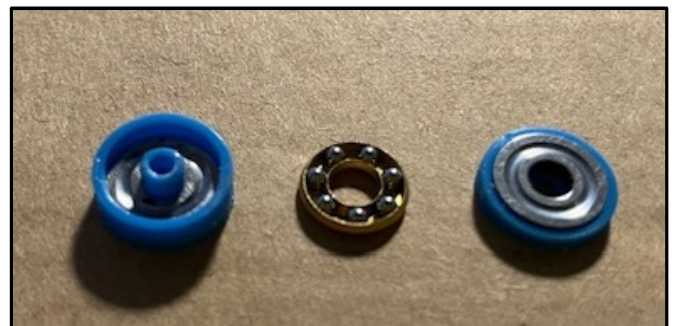
John's Bearing Project

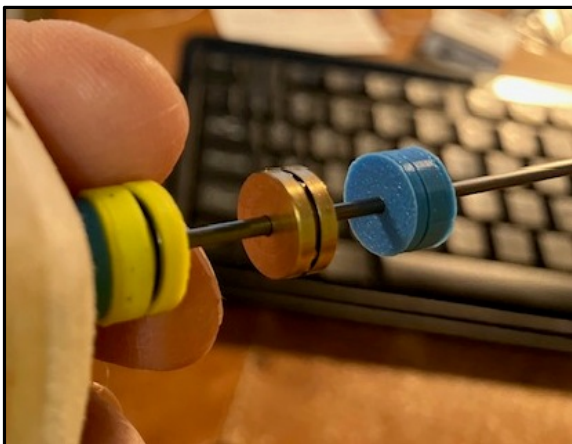


1/16" KP Aero and FAI thrust bearings

Those nice brass thrust bearings that you used to be able to get at FAI are no longer available. I've made good use of the KP Aero bearings for 3/64" and 1/16" shafts (white and blue, respectively), but they're a little bulky. Also, having Delrin bearings, they're not quite as smooth as I'd like. For my Gollywock, I want metal on metal, so I acquired a variety of small thrust bearings from Bearings Direct to try.

Each bearing has two races plus a set of caged bearings. Two problems: One, the parts aren't a "unit"—they're loose, and Two, the inner diameter is around 3 mm for the one that has the ball bearing size I like. To center the parts on a 1/16" shaft and to provide some protection from the dust, I made end caps for the races. Works well. Still not as nice as the old brass ones, but not a bad replacement.





The yellow one has a larger diameter and one more ball in the cage. I think the smaller blue one will work fine though. Bonus: In our rubber models, “thrust bearings” are a bit of a misnomer. Thrust is delivered to the airframe through the peg at the back!



Another shot of Bill Ledden from the October Scramble

Live Sightings (Cool planes seen in the flesh)



UH-60M? A Blackhawk in any case. Flying around at the October Scramble. Bernie O. photo

Kritter Korner

Chasers and Chasees



Our Hunt Club friends



This coyote trotted past the flight line maybe 100 yards out, then found something tasty over by the glider circle.

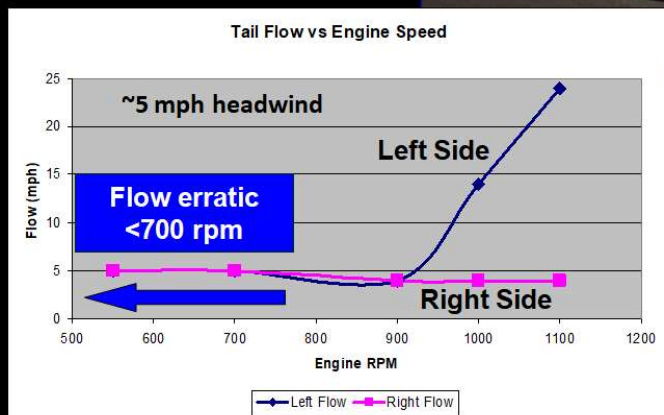


Spiral Flow

By Bernie Olson

Flow Around Tail on Ground

Effect of Spiral Slipstream Around Fuselage



Bottom Line:
Stick Forward Facing
Downwind <1100 RPM

I built a sport biplane then flew it for thirteen years. (Yeah surprise, I love building airplanes; both big and small) I often wondered about the flow over the tail while taxiing downwind. In that orientation the prop blows air aft while the wind is countering it. Is there a better rule of thumb for when to move the stick from aft to forward while facing downwind? Figured it was time for a quick experiment.

With the help of a couple of friends, airflow over the tails was measured and recorded while I sat in

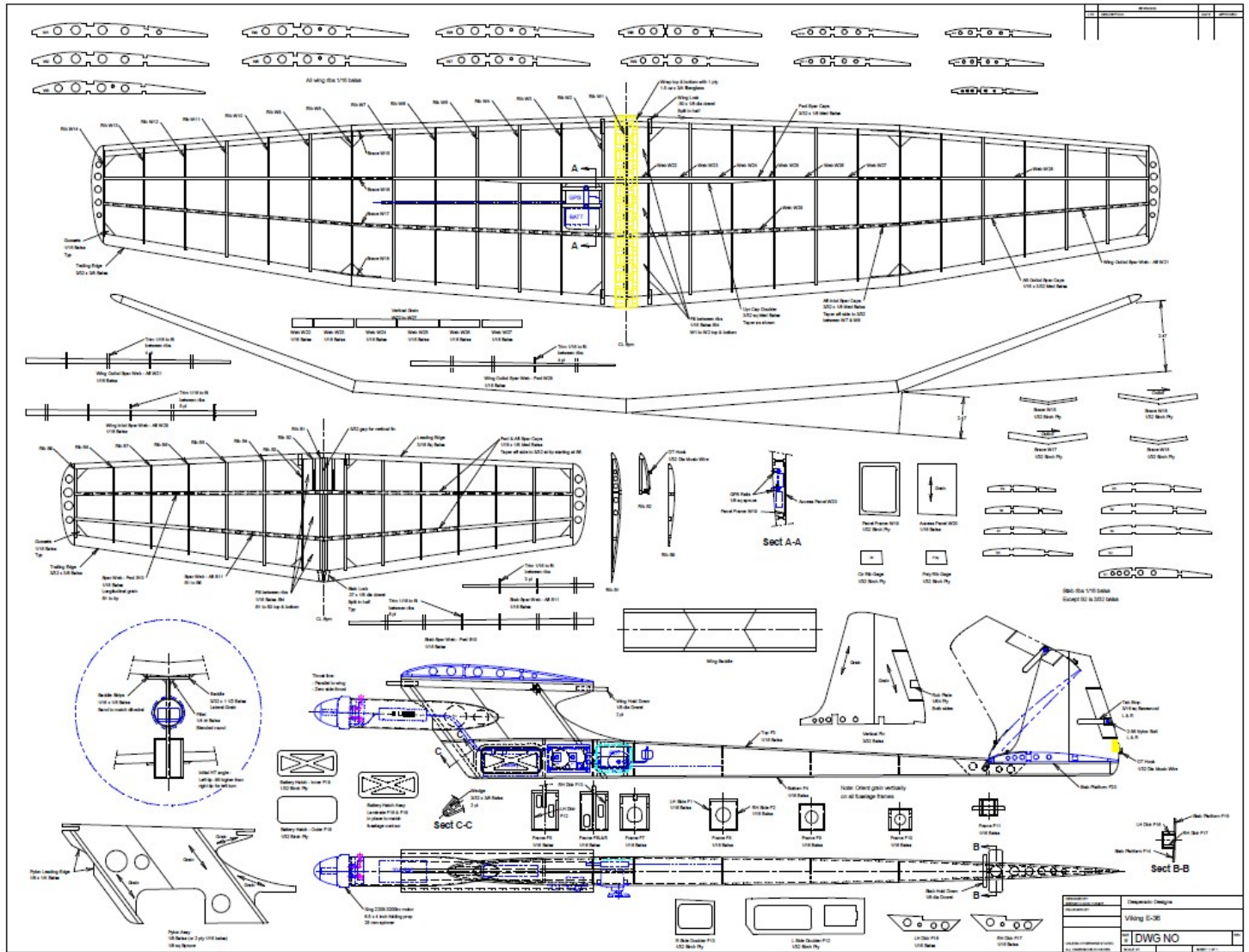
Dipping a toe into free flight recently has reminded me of the importance of tapping into the corkscrewing airflow from the propeller. Pylons on many free flight models take advantage of this effect as well as high/low motor placement and fins located above or below the fuselage.

On full-scale aircraft, pilots are taught to actively position the ailerons and elevator properly depending on wind direction relative to the airplane while on the ground. It's especially critical on taildraggers that the tailwheel remains pinned to the ground to keep the plane from breaking loose and weathervaning into the wind. Taxiing or stopped downwind the stick is held full forward to keep the wind flowing over the top of the horizontal tail to load the tailwheel. Facing upwind the stick is held full aft for the same reason. Crosswind the ailerons are moved into or away from the wind as the taxiing plane moves from upwind to downwind to keep the plane from rolling over.

the cockpit and ran the engine at various speeds. The plane was parked, brakes locked, facing into a light 5 mph breeze. The canopy was closed so it wouldn't affect results. The findings surprised me but over a beer made more sense. From 550 rpm (idle) to 900 rpm flow over both sides of the tail remained about 5 mph; the prevailing wind speed. Above that, airspeed over the left side of the tail increased quickly to 24 mph at 1100 rpm but the right side of the tail remained at the 5 mph wind speed. The difference was the result of air spiraling down the fuselage just like we see with our models. The vertical tail was blocking the spiraling flow over the right side of the tail. Not wanting to blow my friends off their feet engine speed was limited to 1100 rpm.

Of course, if the brakes were released letting the airplane accelerate, this effect would have balanced out with increasing speed. Bottom line to answer the original question; I adjusted my practice to maintain stick forward below 1100 rpm while taxiing downwind. Stick aft above that tach speed.

Bernie's Latest: An E-36 Viking!



From Bernie: “At the November scramble Frank suggested that a Viking might make a good E36. I really liked the idea. The Viking is a really nice looking model so I have to try one. This version is scaled from NFFS 1/2A Viking plans which calls for the thrust line to be set parallel to the wing. It does look a bit unusual but Carl Goldberg obviously knew what he was doing. The nacelle will be molded glass but everything else, including the pylon is wood. All the electronics install internally in the fuselage and nacelle so the result should be pretty clean. National Balsa is currently laser cutting the first set of parts. Fingers crossed...”

From Chuck: “Ref. the 1/2 A Viking thrust line being parallel to the wing, the FAI version advertised "up-thrust." I assume that was in reference to the fuselage centerline but might have been the wing. But since the FAI size had a high thrust line and the 1/2 A version had a mid thrust line, the 1/2 A would presumably be somewhere between the high and center line thrust models. So that begs the question whether it would be more stable climbing to the left or right?”

CD Scoring Quiz!

1. Determine Calculated Maxes for each Contestant
2. Who gets the sticker?

		Max for This Flight / Motor Run:					
MOE	FIG	Fit Score (sec):	118	120	100		
		Max for This Flight / Motor Run:	120	120	120		
CURLY	P-30	Flight Score (Sec)	120	120	120	98	
		Max for This Flight / Motor Run:	120	120	120	150	
LARRY	E-36	Fit Score (sec):	120	120	120	35	
		Max for This Flight / Motor Run:	120	120	120	120	
		Flight Score (Sec)					
		Max for This Flight					

Solutions on Page 18



The Outdoor Scramble as of the end of October. Total Points is the sum of one's best five contests.

Entrant	Total Points	Overall Place	April	May	June	July	August	September	October
John McGrath	465	1	100	100	23	61	65	100	100
Frank Menanno	428	2		73	100	69	100	85	70
Don DeLoach	414	3		71	80	100	75	88	
Bernie Olson	187	4	31				70	51	35
Bill Groman	144	5		31			47	33	33
Sean McEntee	125	6		57	12	35	21		
Kate Vasquez	68	7					68		
Karren Groman	65	8						25	40
Rick Pangell	48	9		13				35	
Skilly DeLoach	46	10						46	
Neil Myers	45	11			19			26	
Todd Reynolds	34	12					34		
Butch Berlemann	22	13	5			17			
Darold Jones	3	14			3				

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Note: [MMM also accepts PAYPAL for Dues, Contest Entry Fees, Etc \(mmmffclub@gmail.com\)](mailto:mmmffclub@gmail.com)

Paypal does charge a fee, so maybe add an extra buck to help us out.

Solutions to CD Scoring Quiz

$$\text{Moe: } (118/120) + (120/120) + (100/120) = 2.82$$

$$\text{Curly: } (120/120) + (120/120) + (120/120) + (98/150) = 3.65$$

$$\text{Larry: } (120/120) + (120/120) + (120/120) + (35/120) = 3.29$$

Curly Wins!

Hints from Math Teacher John

1. Don't get fancy and look for shortcuts. Just add up all the fractions one by one.
2. Never add up all the numerators and divide by a common denominator. That's dangerous, because our denominators change! Our max times rise for many classes once you're in fly-off territory.
3. Most calculators will honor regular Order of Operations correctly. In other words, if you just key in, "118 ÷ 120 + 120 ÷ 120 + 100 ÷ 120" you'll get Moe's 2.82 like you're supposed to. Even the simple calculator on an iPhone works this way.

If you don't trust it to do that, use parentheses. That's the safety dance.