



BAM *Racing Update*

CLUB 40 Pylon Racing | Special Issue

August 5, 2010

Volume 1, Issue 3

ERCA Special

Club 40 Racing Continues to Grow in Oregon: Eugene R/C Aeronauts Hold First Contest Race

Another important milestone has been achieved in advancing Club 40 racing in Oregon. On Saturday, July 17th, the Eugene R/C Aeronauts (ERCA) held their very first contest race.

Like BAM, ERCA too has finally tasted the fruits of its hard labor and checked off a critical step in introducing pylon racing as a new club activity.

A friend of ours, Eric Suing, from the McMinnville Aircraft Modelers (MAM) joined the event as well and met up with us at ERCA's flying field. As was the case for several ERCA members, Eric was also new to Club 40 racing. Tony and I mentioned to him the upcoming ERCA event, which prompted him to buy and assemble a pylon racer just in time to join us. Eric decided to go with the Sky Raider Mach II and equipped it with a SuperTigre GS-40 engine.



Left to right: Alan Wellentin, Marc Winz, Craig Canaday, Marty Wittman, Wayne Wahrmund, Waldemar Frank, Tony Bass, Eric Suing, Jim Corbett, Kenton Melville.

And for BAM it was only natural to endorse ERCA's efforts and return the favor by attending the first contest race. Tony Bass and I carpooled with our families and drove to Eugene in the early morning hours of July 17th. Our wives decided to go shopping while Tony and I attended the racing event.

The drive to Eugene was scenic and took about three hours. The weather was very pleasant and perfect for pylon racing. By the time we arrived at ERCA's flying field, the majority of pilots had already registered. It was great to see familiar faces such as Marty Wittman, Craig Canaday, Wayne Wahrmund, and—to my surprise—Marc Winz.



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All of these men have attended one or more of BAM's practice and contest races. Marc made it all the way from Washington again not only to participate, but also to assist ERCA with the coordination and the operational challenges of pylon racing. Marc's dad (Roger Winz) is a member of ERCA, which makes it easier for him to justify coming to Oregon on a regular basis.



Registered pilots prepare their airplanes.

Furthermore, not only is Marc an outstanding pilot, but he also passionately races in other racing classes. His racing event experience was a valuable asset for helping ERCA prepare and conduct its first contest race.



Marc at the racing control station.

I was especially intrigued by Mark's "toys" that he had built himself from instructions he found on the Internet, I believe. Marc brought a laptop to run NMPRA's heat matrix software.¹

A converted game pad and other hardware served as electronic lap and cut counters. The cut judges utilized a small electronic clicker device that included four buttons (one button per airplane) to register and transmit cuts via several hundred feet of CAT5e cable attached to the converted game pad device (everything was inside a small control box).

The lap counters used a simple, converted ½-inch-PCV-pipe section with a button attached to one end and the wires coming out the other end. Four lap counter clickers were hooked up to the control box, which was connected to Marc's laptop.

All in all, a very straightforward but effective arrangement that should simplify racing operations while improving result accuracy. I was very curious to see it in action and couldn't wait for the first heat to start (note to self: I should have taken pictures of the setup for illustration purposes—next time).

¹ National Miniature Pylon Racing Association (NMPRA): www.nmpra.org



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There were a total of 9 registered pilots. Two more pilots brought their planes (Marc's dad Roger Winz and Kenton Melville), but both decided to sit out and rather watch the racing spectacle. After registration was closed, Marty Wittman conducted a brief pilot's meeting to discuss the general approach and any safety concerns. Marc added to the orientation by clarifying the racing details, including the racing sequence.



Marty conducts the race and safety orientation.

ERCA decided to go with 3-pilot heats. The heat matrix was calculated per the NMPRA's heat matrix software. Each registered pilot received a printed racing slip that clearly indicated the lane position, number of each assigned heat, heat start sequence, and any other relevant information needed to stay on top of the racing routine.

Moreover, each airplane was marked with colored paper (red and green) to indicate the four pilot groups (red high/low and green high/low). Two sheets of the colored paper were taped together and then wrapped around the top and bottom of the respective outer wing section.

Two additional strips of adhesive tape were applied to connect each loose end to the top and bottom of the wing just ahead of the ailerons.

The grass runway was in superb condition and ERCA's flying field was surrounded by farm land with stands of trees spread here and there in the distance—"Emergency landings should be easier here compared to our rough terrain at Horse Ridge," I noted. We had several spectators who joined the event—some of whom are probably still debating whether they should join the racing events in the future and others attending just for the drama.

I could sense some excitement and nerves prior to the race as pilots joked with each other. And of course, every pilot had his own theory about what ingredients would make him successful.

For some, it was the fuel and for others the prop, and engine—or a combination of all. ERCA's field (about 330 ft.) is at a much lower elevation than BAM's field (roughly 3,620 ft.), which makes a difference for both the prop selection and engine/fuel setup.



Psychological race warfare: Marty sends intimidating glares to his contenders.



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Speaking for myself, my engine still doesn't get into the high RPM range (over 15,000 rpm) that I was hoping for. I am pretty happy with my prop (Master Airscrew Scimitar S-2 Series 10x6) and the fuel (PowerMaster 15%). However, I know that taking shortcuts when breaking in my engine probably affected my engine's performance.

Marc's racer achieves an RPM of roughly 17,000!!!, which is an amazing range for this engine (ThunderTiger PRO-40). And it shows during racing—he clearly has the fastest airplane that I have raced against.

Although my current airplane (LA 40 Racer) is not the fastest compared to other planes, I have been able to compete by improving my lap times through cleaner laps and tighter turns. My second racer (currently under construction) is a Sky Raider Mach II and will also use the ThunderTiger PRO-40. I will make sure to break in the engine properly this time. And there are some other things that pilots can do to tune their engine performance, which folks can read up on in the many racing blogs.



Fueling up the airplane in preparation for my first heat.

When the heats finally started, anxiety was high. But the adrenalin quickly evaporated and everybody settled in once pilots got their first heat under their belt.



Pilots get ready for a heat.

I was fascinated by the electronic race setup, which allowed for real-time announcements of times and cuts. I did not expect live announcements to add so much to the excitement of racing. It is certainly something that I really enjoyed about ERCA's first contest race.

We had a couple of technology glitches at one point, which required some of us to repeat the heats. Those moments showed some of the limitations that electronic tools impose and the setbacks it can have for pilots. Nevertheless, I still felt that it is worthwhile using technology to improve racing operations and to add to the racing excitement.

During one of those repeat heats, my plane nosed over at the start, which eliminated me from that heat. I should have used some up-elevator to keep the tail down until I had sufficient speed.



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The grass landing strip showed its challenges—airplanes have to overcome the higher ground drag that grass inflicts on the landing gear. With the LA 40 Racer's longer landing gear wires (compared to the Sky Raider Mach II), it tends to nose over even easier. This is a problem that we typically don't have at our paved runway at Horse Ridge.



Tony's damaged airplane.



Marty Wittman's primary racing plane.

The initial heat setup was for everybody to complete six heats. At a minimum, each pilot was to complete four heats with the event option to run the last two rounds as B-main and A-main instead of regular heats.

The first few heats had the normal ups and downs with pilots running into engine start problems and close encounters with other planes. Eric Suing's new SuperTigre engine still wasn't running smooth and it showed in his first two starts. He was significantly slower and also had a dead stick shortly after takeoff.

Tony Bass was battling engine issues as well, but eventually tuned it to run smoothly at the lower altitude. He had a rough landing after his 3rd heat, I believe, which snapped his fuselage just behind the canopy and put him out of commission.

Pilots improved during the first few heats and some had cuts, including myself. Several pilots could have scored higher, but that's the nature of racing. After four heats, the scoring was as follows:

Pos.	Pilot	Heat Low Time [min.]	Score
1.	Marc Winz	1:36.50	12
2.	Marty Wittman	1:45.50	11
3.	Craig Canaday	1:53.50	11
4.	Alan Wellentin	1:42.50	10
5.	Jim Corbett	2:09.50	6
6.	Wayne Wahrmond	2:50.50	6
7.	Waldemar Frank	1:53.50	5
8.	Eric Suing	2:08.50	5
9.	Tony Bass	2:16.50	4

We decided to take a break at that point and then continue with A/B-mains to determine who would own the top spot for the day. At that point of the contest, Marc was in the lead with one point ahead of Marty and Craig. However, Marc decided to sit out the A/B-mains and let the "slower" pilots fight out the "bragging rights."



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The B-main included Jim Corbett, Eric Suing, and myself. Unfortunately there was not much of a competition since my airplane was the only one that got off the ground. Jim and Eric both had engine issues. As a result, I finished that heat without a challenge.

Throughout the heat Marty's plane was faster than mine, but I was able to carry through with a consistent performance and beat him by just one second. He was a good sport and it was a lot of fun. He will get his revenge at our next opportunity to race against each other.



Marty's backup plane, which was flown by Alan Wellentin.



Wayne Wahrmond's racer.



Marc Winz's primary airplane, equipped with a deadly tuned engine.



Jim Corbett's "No. 4" LA 40 Racer.

The A-main was a different story. It included Marty Wittman, Alan Wellentin, Craig Canaday, and myself. It was a very close race and turned into a tight battle between Marty and me. Marty was ahead at first, but I was able to close in and eventually pass him because of tighter turns and cleaner laps in the second half of the heat. Marty certainly didn't make it easy and he was right on my tail.

I was certainly lucky to finish the way I did. The final results of the A-main were as follows:

Pos.	Pilot	Heat Low Time [min.]	Club
1.	Waldemar Frank	1:46	BAM
2.	Marty Wittman	1:47	ERCA
3.	Craig Canaday	1:54	ERCA
4.	Alan Wellentin	2:02	ERCA



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Lessons Learned and Next Steps

Overall, I was extremely impressed with the organization of the race. It was a lot of fun and I really enjoyed the “live” race experience. Marc’s tools worked very well and kept the ground personnel’s roles simple. The clickers for the lap counters were easy to use as were the cut counters. Pilots had a blast and the cut judges as well as other volunteers did a fantastic job making the first contest race a true success and measure for future ERCA contests. I apologize for not getting everybody’s name, but want you to know that your support was appreciated.



Craig Canaday's LA 40 Racer.

One of the improvements that folks mentioned after the race was to use a darker green for the paper markings of the airplanes. Another improvement that I thought could help is to add LED counters to the lap counter switches and the cut counter device. It would provide a visual reference that each “click” was registered. There were a few instances where people clicked too many times without noticing.

Although we didn’t spend too much time after the racing discussing the promotion of Club 40 racing, Marty, Wayne, and I briefly talked about the next season and the desire to work more closely to promote Club 40 racing in Oregon.



Eric Suing's "Red Baron" Sky Raider Mach II.

In addition, we decided to look into forming an Oregon Club 40 racing league for next season that would allow different clubs to promote the racing events and pilots to collect points at their direction from different events. There are no specific details that have been decided or discussed yet, but we thought that it could make this racing activity even more interesting and accessible to a broader audience. More is to come in the next racing updates.

I would like to conclude this update by congratulating ERCA for conducting their first contest race and thank them for a great time. They were wonderful hosts and I look forward to participating in their next race.

BAM’s next contest race is coming up on August 21st, followed by ERCA’s 2nd contest race on August 28th.

I hope to see you there if you can make it!

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