A Tale of Two First-Real-Life (RL)-Contest Winners

Last summer I received emails from two different pilots in the same week, relating almost identical stories. They had just gotten back from winning their first-ever real life contests (the 1-26 Championships in Midlothian Texas, and the Sports Class Regional at Air Sailing in Reno Nevada), and they both wanted to tell me how much they thought the Condor soaring simulator had contributed to their successes. Of course I was delighted to hear this, and asked them both if they would help me construct a Condor Corner article based on their experiences.   To paraphrase my Condor Corner co-author Scott Manley on the occasion of his latest SSA Convention presentation on the use of Condor for basic training, "if you are absolutely determined to hold onto your belief that simulation-based XC racing training is ineffective, you should stop reading right here ;-).

Daniel Sazhin (DS): Daniel and mentor Ron ("May the Schwartz be with you") Schwartz won the 1-26 Championships at Midlothian, Texas (co-located with the 13.5m Super Regional). The Schwartz/Sazhin team won all but two days outright, and finished with a cumulative score of 6521 for 7 flying days, almost 300 points ahead of 2nd place finisher Bob Hurni, in spite of an 8th place 538/1000 score from Ron on Day 1. Daniel's scores for the 3 days he flew were 983, 1000, 1000 – not too shabby for a first-time contest pilot! At the end of the contest, Daniel received the following 1-26 Championship awards (in addition to the first place overall trophy):

- President's Trophy for the fastest flight of the contest, for averaging 43 mph in a 1-26!
- David Johnson Trophy for the highest average for a first-time contestant
- John Greene Trophy for the highest average for a contestant under 30

Daniel is all of 18 years old. He got started flying at the Blairstown, NJ club where Ron Schwartz flies, got his private license at 16, and has been flying 'Sweet Red', the Blairstown club's 1-26. So, one day last summer, in August or September of 2011, Daniel was out at the airport polishing 'Sweet Red' when Ron Schwartz (one of the few pilots in the world to qualify for a 750km diploma in a 1-26) stopped by for a chat and offered to team fly with Daniel at the next year's 1-26 Championship to be held at Midlothian, Texas. Daniel was flattered and excited, but experienced a few anxious moments when it looked like it might conflict with a planned vacation to Norway in that same time frame. Once that issue was resolved, Daniel was determined to do his level best to hold up his end of the partnership.

Daniel's training strategy consisted of three parts; fly as many thermal tasks as possible in the club 1-26; educate himself as much as possible on XC racing theory, including John Cochrane's articles on Speed-to-Fly and "Just a Little Faster Please", etc, and use Condor to practice thermal XC racing. Daniel had been flying Condor for years already, but he preferred flying mostly realistic ridge tasks in the Appalachia and Mifflin sceneries, and 'Arcade' tasks in other areas (Arcade tasks are tasks that are fun and exhilarating to fly, but have very little relationship to real-world soaring tasks). Now Daniel started seriously flying Monday Night Soaring (MNS) races, and even (with fellow pilot JP Stewart out of New Castle, Va.) started his own "United States Nightly Soaring"(USNS) series, every evening at 9pm Eastern time in Condor. Over the late fall and winter months, Daniel probably flew about 400-500 hours in Condor, mostly thermal racing tasks. Daniel knew he would have to fly timed tasks like MATs and TATs, so he

made sure to include TATs in the USNS Condor lineup at least twice per week, in addition to the occasional TAT in the MNS races. TATs aren't supported natively in Condor, so Condor flight plans have to be manually tweaked to get the effect, and the in-sim PDA doesn't support TAT timing. This meant that Daniel had to figure out how to effectively plan and fly a TAT without the normal PDA support, and this ultimately helped him become very comfortable with flying a TAT with just a GPS and a stopwatch.

By the time the 2012 1-26 Championships rolled around, Daniel was just about as ready as he was going to get. He had accumulated about 70 hours of 1-26 time in the last 10 months, including a 150km triangle flight and even two landouts. As mentioned above, he had also accumulated 400-500 hours flying thermal racing tasks in Condor, going from just finishing the tasks, to winning some, and then to the point where a 950 score was 'just OK'. His goal for his first contest was pretty much the same as Tim's – try not to embarrass himself and/or his teammate too badly, and make it around the course each day. At the contest itself, Ron and Daniel agreed that they would alternate days, with Ron taking the first day. On Day 1, Ron managed to stub his toe, missing a turnpoint through a navigation error, giving team 428 their worst score of the contest, and leaving the team almost 500 points out of first place!

Daniel Sazhin:

Day 2: Nearly fell out off of tow. It was fairly windy on the ground - about 12 mph. Climbed out from 800ft AGL while drifting like crazy and took 1 hour 15 minutes to get to a reasonable altitude of 3200ft AGL. At that point, it was 3pm and I figured that I had to start the task. I hit the first cylinder where I wanted to and had a good second (downwind) leg. In the second sector I tried to find a thermal so I could climb on the downwind leg and turn high. I kept going deeper but didn't find much; managed to climb up... barely. Had a 40 mile upwind slog to get back home with a rapidly drying out airmass - two large areas of blue with a small line of wisps in the middle. I Followed the wisps and made it to a good cloud-field on the other side. I wound up well over final glide too high since I couldn't make the final glide computer work, but the near-VNE finish was fun, at 100 feet over minimum altitude. I was bumming out because I got home an hour over time, until I found that I was one of only 3 who made it around! Placed 2nd for the day with a 983, moving our team into 2nd place overall and cutting the deficit in half to 243 points.

Day 4 (Dan's 2nd day): On Day 3, Ron was back in top form with team 428's first (of 4) day wins, narrowing the deficit a bit more to 175 points. This was an easier day – not as windy and thermals were easier to work. I was first to launch, but had no problem finding lift off tow and getting to altitude. Once on course there were lots of clouds, and I was able to work in a band from about 2500 to 3500' agl. I felt pretty comfortable working in that band, and I felt I was doing well. At one point on the task, I couldn't figure out what was causing a weird whistling noise, until I saw I was right over a 200-car freight train going in the same direction! After a while, I saw that I was actually beating the train – pretty cool in a 1-26! On the last leg I met up with Tony Condon (YYY, a Cherokee flying in the co-located 13.5m contest) under a cloud street; this was the only glider I had seen all day. Finished 1st for the day with 1000 points and the fastest speed for the entire contest (42.7mph), and was fast enough so that 2nd place was only 845. This moved us into 1st place overall by 5 points – I was stoked!

Day 6 (Dan's 3rd day): Ron won Day 5, so team 428 was on a roll. All I needed to do today was just make it around the task, though I felt a bit anxious with the three-hour minimum time call. I had a great start since I climbed right up to cloudbase at 5500 under a cloud that was 300ft higher than everything else around. Then I bumped along the clouds and then would consistently get down to 2500ft AGL and spiral right into a four or five knot thermal. I ended up with an L/D of 30-1 going upwind! Going to the second sector, I basically backtracked the inbound route to the edge of the circle then cut across, following the clouds. I started at 3900ft in the first sector, got down to around 3200ft and then skyrocketed in a 600fpm thermal to 5500ft and then rode the clouds all the way through the back-end of the next sector and accomplished an L/D of 69-1 in a 1-26! At this point I got into some serious trouble, as I kept going deeper into the sector looking for a downwind climb, but I never found it. I ended up turning around fairly low and now had to face an upwind leg with an overdeveloping cloud-street. I worked every thermal as high as I could and kept pushing forward. Got low twice under virga and showers, but managed to scratch out both times. Finally back at cloudbase, I could see that it was drying out in the third sector and on my route back to TSA. I didn't want to cut across into the blue, so I followed the cloud-street to near edge of the third sector and aimed at two wisps along the course back home. Finally got a weak climb up to final glide altitude about 12 miles out (finally got the final glide computer working on my GPS) and coasted in from there. Wound up first for the day, even though I felt my third leg was very slow.

In conversations and emails with Daniel in preparation for writing this column, Daniel told me that he felt the biggest contributions from flying in Condor were in task planning, situational awareness, the basic idea of flying energy lines (connecting the dots), basic XC racing skills, and the confidence to fly alone and still go fast. As the primary task setter for the USNS nightly racing series, Daniel made it a point to include at least two TAT tasks per week so he could become practiced at planning TAT routes and properly managing the time.   As noted above, Condor's in-sim PDA doesn't support TAT flying, so Daniel had to come up with another way of doing this, and adopted a simple timed-leg approach; rather than trying to decide how much distance to fly, Daniel would plan how many minutes he would fly on each leg, and then stick as closely as possible to that plan.   This worked very well in Condor, and gave him the confidence to use the same technique at Midlothian (Before the contest, Dan had never flown a TAT in RL – only in Condor) . Flying 400-500 hours of primarily thermal racing tasks pretty much took care of the basic thermal racing skills problem. If you assume Daniel spent around 25% (a very good number) of his XC racing time in thermals, that meant he probably spent more time thermalling over the winter of 2011/12 than most pilots accumulate over the entire year! Lastly, like a lot of TAT flying, it is unusual to see many gliders out on task, and Daniel gained a lot of confidence that he could fly efficiently, straight, and fast, without anyone to show him the way. Having this sort of confidence is a huge leg up for a beginning racing pilot.

Figure 1: Team 428 - Ron Schwartz and Daniel Sazhin

Tim Gardner (AR): Tim is a lot closer to the 'standard profile' soaring pilot than Daniel. A 48-year old software engineer, Tim got his power license in 1981 and his glider certification in 1983, and has accumulated about 1200 hours in power, and about 400 hours in glider time. Most of the glider time has been accumulated in the last 5 years or so when he started flying more consistently at Minden. Just recently, Tim acquired a CFI in power and CFIG in gliders, and now tows and instructs most weekends at Minden. Tim didn't fly much XC, as he didn't have his own plane and wasn't very comfortable getting out of glide distance from the airport. He did the usual things – picking the brains of local XC pilots, and trying to slowly extend his range. In 2010 he attended a XC camp organized by Soaring NV at Minden and led by Gavin Wills, owner of Glide Omarama in New Zealand. This got Tim more 'over the hump' with XC and he started flying longer XC flights with a bit more speed, although still with rental gliders. About 18 months ago, Tim finally got his own bird – a DG-300. This allowed him to put in a lot more time, starting in the summer of 2011, and started him thinking that maybe he would like to try his hand at contest flying the next year (2012). There was a huge intimidation factor associated with contest flying (unfamiliar site, the contest grid, the idea of getting off tow at 2000' agl, all the rules stuff, etc), but Tim thought he might like to try it just the same

As the soaring season wound down for 2011, Tim decided to try flying in Condor. He had read in a Condor Corner article that RL pilots used Condor to maintain/improve their skills in the off-season, so he thought it was worth a try. Initially the thought was just to do some fun flying, and maybe to use it for area familiarization, but Tim was quickly hooked by the online racing opportunities, especially the MNS (Monday Night Soaring) and USNS (US Nightly Soaring) races. He was impressed with the helpfulness of the other pilots, and the ease of communication offered by the popular 'Team Speak' software used for real-time voice chat.

During the winter of 2011/12, Tim flew a **LOT** in Condor, primarily in the MNS and USNS races. At first, Tim couldn't figure out how everyone else was going so much faster – they were just rocketing past him on the tasks. So, Tim started downloading race flights (MNS was nice because the top three pilots are required to post their IGC files) to try and figure out how they were doing it. He would analyze the flights in SeeYou, looking at routes, task speeds, thermalling percentages, etc. Occasionally Tim would re-fly a task with one of the fast guys' flights installed as a 'ghost' so he could follow him around the course. The 'ghost' technique was especially helpful on ridge tasks, as Tim could watch where the fast guy flew on the ridge, where and when he did transitions, etc. Ghost flying takes a lot of time, so most of the 'how did they do that?' analysis was done in SeeYou. By the end of the winter, Tim was scoring better in Condor races, and starting to branch out into the different races venues available in Condor-land (there is an entire world out there, complete with many different challenge series tasks, exotic performance challenges like flying a task inverted, etc).

Sometime during the winter, Tim figured out that he could use Condor to familiarize himself with his XC navigation computer, in this case XCSoar on a smartphone. Tim says he used his nav system for about 80-100 hours in Condor, figuring out how the software worked, what preferences worked for him, how to recover from stupid pilot tricks, etc. By the time the contest rolled around, he was completely comfortable with using XCSoar for all types of tasks.

So, now it's the summer of 2012, and it's time for the rubber to meet the road in a RL contest setting. The Air Sailing Sports Class Contest was a natural pick, as it was close to the home airport and some of the terrain was the same. Before arriving at the Air Sailing contest, Tim had never been in a contest environment other than as a tow pilot for the Open Class Nationals at Minden in June 2012. Tim's initial goals for the contest were like every other first-time competition pilot – don't embarrass myself too badly, don't land out (or at least don't land out too far away), and learn as much as I can. Tim thought he would be ecstatic if he could finish in the top half of the scoresheet. Here is Tim's description of the contest:

Tim Gardner:

Practice day was a big help for me, as I was able to figure out gridding and contest tows (and the management wasn't too sticky about that 2000' agl thing on the practice day).

Day 1: Felt comfortable, and was able to draw on Condor experience for task planning and start management. One of the things I learned by flying Condor was the need to be well prepared for each day's task. For the MNS or USNS races in Condor, the task would be posted on a website 1 hour before

the race, and I would use this time to get the flight plan downloaded and programmed into my XCSoar setup, and for thinking about how to fly the task if it was a MAT or TAT. Also, in Condor I would often go out on course a ways to check out conditions before the start, and I was surprised to find that not many RL competitors did this. The task for the day was a 3.0hr MAT with one mandatory turnpoint, and I was able to figure out how to use up the time profitably. I wound up coming back slightly under time, but with a decent speed. Looking at the scores the next morning, I was blown away when I realized I had placed 2nd for the day with an 892 score. This got me to thinking maybe I had set my sights too low for the contest.

Day 2: Day 2 was a TAT – the first time I had ever flown a TAT in RL (Real Life). However, since I had flown TATs many times already in Condor, I was completely comfortable with the task format and how to manage time and navigation. I was able to drive well into the first (south) turn, and then manage my time by turning at the appropriate time in the north circle. Navigation was easy due to all the Condor time, so I was able to concentrate on flying the cloud streets and exploiting the energy lines. The next morning I see that I had done well again (3rd for the day, 954), but this time I was less surprised, and I was starting to think my goal should be finishing with a spot on the podium.

Day 3: Day 3 was interesting. The call was a MAT with two mandatory turns. After getting the two turns I decided to continue south, even though it was off the end of a cloud street. After turning the additional turnpoint I saw the cloud street had dissipated, along with much of the lift, so I wound up enduring a 9000'-long sled ride and had to dig out from a fairly low altitude. Wound up flying about 25 miles at near pattern altitude, working the zero sink on the upwind side of a long low ridge. This was a real confidence builder, and the ridge took me right to the airport. Finished 4th for the day with a 922.

Day 4: Another TAT, with T-storms in the forecast. I left early after having already marked a first thermal out on course. I thought I flew really well, and was probably going to win the day, so I was a bit shocked to see I was 2nd for day, with a 932. Seems that my expectations for the contest had changed radically from the practice day! At this point I was in 2nd place overall (only 73 points out of first) with one day to go.

Day 5 (last day): Another TAT, with three turn areas rather than the two that I'm used to, and with a shorter min time (2.5hrs) than before. Because of the shorter time and the more complicated geometry, I decided to use leg times rather than turnpoints for task management (something I had learned from Daniel Sazhin while flying Condor races). Also, I realized right away that I couldn't go very deep in any of the cylinders without running the risk of coming home way over time. It was a very strong day, and I just concentrated hard on going fast. I passed up anything that didn't peg the meter, something I would never have done without all the hours of Condor racing experience. Wound up winning the day with 975 (slightly devalued due to landouts). The big news was that JJ Sinclair (JJ) had come back and restarted an hour after the gate opened, figuring he had to get a better start to defend his 1st overall position. Unfortunately he ran out of day before he ran out of time, and landed out. This left me in 1st place overall by 75 points!

So, Tim came into his first contest thinking he would be doing OK if he didn't land out and finished in the top half of the scoresheet. At the end of the week, he had accomplished both goals in spades, not landing out, and not only finishing in the top half, but at the top itself. Tim's scores for the 5 days were 892 on Day 1, 954 on Day 2, 922 on Day 3, 932 on Day 4, and 975 on Day 5 – a remarkably consistent and high-level performance from a first-time competitor

Summary: Daniel Sazhin and Tim Gardner are clearly talented pilots with a lot of dedication to the art and craft of XC racing, and more than likely they would both have succeeded with or without Condor. However, it is also pretty clear, at least to me, that they could not have succeeded to the extent they did in their first-ever contests without taking advantage of the opportunity to practice XC racing in the Condor Soaring Simulator. Whether you just want to have fun racing over the winter, or you have a new PDA and/or soaring program with which you want to become familiar, or you too are aiming at your first RL contest next season, Condor offers a lot of advantages and a great way to get a leg up on the competition (or to keep from falling behind the competition!).