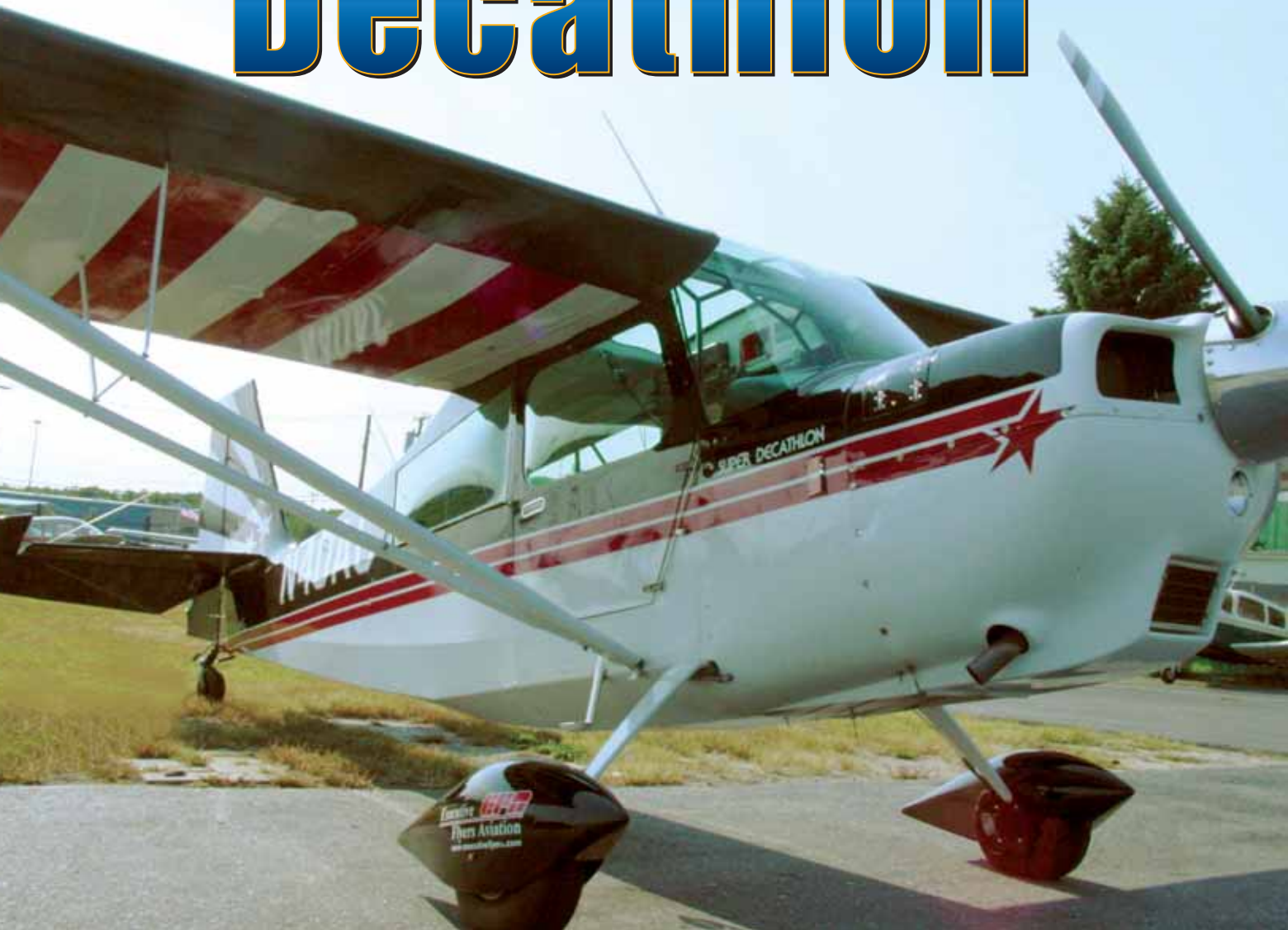


My Date With a Decathlon



by Michael Mikolay

Looking back through my log-book, I can find only one instance where I purposefully took to the skies to fly outside my normal comfort zone of the blue side up and the brown side down while moving from point A to point B. The flight that took me out of that zone was the requisite spin training prior to going for my CFI check ride a number of years ago.

While I enjoyed that flight and apparently mastered the recovery

well enough to satisfy both my instructor and subsequently the examiner, I have always found that I was the type of pilot who simply just doesn't crave the thrill of an aileron roll or find excuses to constantly practice spin recoveries.

Therefore, some of you can probably relate to my mixed emotions when I was the recipient of a certificate good for a one-hour flight in an aerobatic aircraft won by a co-worker after attending a

local charity event. Half of me was excited at the prospect of hanging from my seat belt while the other half was a bit apprehensive that we would be tumbling the internal gyro, so to speak.

It was that certificate and the ensuing discussion with my colleagues at Guardian Jet about upset training that led to this month's *Twin & Turbine* focus on the value of such training for both the new and veteran pilot alike. As

you read, one of my co-workers went to fly a TF-51 at Stallion 51, another attended FlightSafety in Florida, while another booked a date to attend Fighter Combat International in Arizona. Somewhat elated that I didn't have to hop on an airliner and travel to my selected destination, my taste of aerobatic flight began with a phone call to Executive Flyers Aviation at the Hanscom Airport (KBED) in Bedford, Mass., to redeem my certificate.

The Goulian Connection

Executive Flyers Aviation (EFA) is the oldest, continuously operated flight school in New England since being founded by Mr. Myron Goulian in 1964. The Goulian name should be familiar to those who have visited air shows or aerobatic championships and have witnessed the skill and precision of Michael Goulian. He is the current EFA president and a national aerobatic champion.

In an ironic twist in my preparation to attend EFA, the day before my flight I was in the midst of my morning routine, which includes

watching a national morning news show and happened to catch none other than Mike Goulian teaching one of the news anchors to fly aerobatics. The segment lasted a few minutes, but Mike and his new student made it look so easy and fun. Regardless, I can tell you it was the perfect dose of motivation and only served to increase my excitement at trying out aerobatics for the first time the next day.

EFA makes their home inside the main terminal at Hanscom Airfield and upon my arrival I was impressed with not only their facilities, but with the number of aircraft that they have for instruction and rental. After checking in and taking a peek around, I was introduced to my instructor, Matt Crane. Matt spent the early part of his aviation career racing gliders across the skies of southern England. Later teaching in the gliders and then building experience towing gliders, Matt now spends a good deal of his time teaching in EFA's Super Decathlon, which was to be our chariot for the day.

Matt and I settled in for an extended pre-flight briefing where we discussed the various ways in which EFA utilizes its Decathlon for advanced instruction. As you can imagine, EFA has great ties to the aerobatic community and offers a Basic Aerobatic Course that includes 10 hours of dual flight training, five hours of ground instruction and the ability to receive your tail wheel endorsement. This course is also a first step for those that want to start to fly aerobatics competitively. Matt also explained that the course can and will be tailored to each student's desires and current abilities.

EFA's Approach

As I explained my intentions and my desire to learn about how EFA would tackle a student desiring to learn about upset training, we moved our discussion toward EFA's Unusual Attitude/Upset Recovery Course. A review of the syllabus told the story of a course that is both comprehensive and thorough. Broken into five units over a timespan of two to three

EFA Instructor Matt Crane with the Decathlon





The EFA Family: Karin, Michael, Matt and Rita Goulian.

days, EFA takes somewhat of a building block approach toward upset training that combines ground instruction, simulator instruction and of course, flight instruction in the Super Decathlon.

Unit one starts with ground instruction that contains an aerodynamics refresher, stability, energy management, drag, adverse yaw and turning tendencies. The first flight portion is intended to get you accustomed to the aircraft through a review of turning tendencies, rudder coordination, steep turns, slow flight, basic stalls and basic unusual attitude recoveries.

Unit two covers spins and is discussed on the ground prior to flight. It reviews rudder coordination, stalls and then delves into the spins themselves.

Unit three is where the fun really begins with a ground review on aileron rolls and inverted flight. The simulator is then employed to cover basic unusual attitude recoveries and to introduce the rolls and inverted flight that will be covered during the flight portion.

Unit four again kicks it up another notch with a ground discussion to review the previous lessons and then to talk through the causes and recoveries of advanced unusual attitudes.

The last unit, unit five, ties it all together with a ground discussion to review all the lessons and adds “step on the sky,” runaway trim, wake turbulence and a 2G demo into the mix. Once again, the simulator is used to demonstrate and review some of the items before exploring them in the actual aircraft.

All in all, their course encompasses roughly three hours of ground school, a half-hour in a simulator and five hours in the Super Decathlon with one of EFA’s aerobatic instructors. EFA’s goal is to enhance their student’s skill, confidence level and enhance the overall level of safety within the cockpit. The course seems to be well received by those that have attended, and Matt conveyed that they have a local corporate flight department that is sending over their three pilots in the near future.

So that I could see for myself just how the Super Decathlon flew, it was time for Matt and I to talk through the basic aerobatic maneuvers that we would try in my upcoming introductory flight. Since I don’t make a habit out of flying upside down or an aircraft with a center control stick, Matt and I agreed that I could spend our flight getting a basic feel for flying the aircraft, perform a few aileron

rolls, a loop or two and a review of some stalls. Matt did an excellent job of not only making me feel comfortable with what to expect, but he also took the time to walk through each task by either using a plastic airplane model or diagramming them on paper.

The Flight

Fully briefed and ready to go, it was finally time to meet the Super Decathlon in the hangar. EFA’s Super Decathlon was fueled and ready to go upon our arrival. Within the comfort of the hangar, Matt and I talked through the pre-flight and once again I was impressed with the way in which Matt guided me through the walk-around, discussed the various switches and systems, and reviewed the items we would need to accomplish in case of any emergencies.

The last item of business prior to our departure was to ensure that I emptied all my pockets so that I didn’t contribute any floating FOD when we flipped around and went upside-down later in the flight.

With everything checked, the parachutes rigged and both of us strapped in using the five-point harnesses, it was time to go flying. The Super Decathlon checklist is pretty straightforward and within a few minutes we had the engine started and the few systems such as the transponder and single Nav/Comm all up and ready. The sight picture out the front window was obviously a bit different than what I am used to, but the discussion Matt and I had back in our pre-brief helped me know what to expect as we taxied toward the active runway.

We ran through some taxi practice and I quickly found that the advice he gave about working the rudder pedals firmly, quickly and often really held true. Holding short of the runway we performed the run-up and reviewed the take-off one last time. As we applied full power, I was impressed with how quickly we lifted off. Maintaining best climb speed, it almost

felt like we were in an elevator since the sensation of climbing seemed to overcome that of forward speed.

As we made our way up in altitude and out to the practice area, I got a feel for flying the stick, which I quickly found easy and a tad more relaxing and natural than flying with a control yoke. Matt started to talk me through some basic turning maneuvers to demonstrate keeping the aircraft coordinated. As I found with taxiing, fancy footwork on the rudders was required. For those who fly aircraft that don't need such a constant attention to the rudder, I think you are going to find that this type of flying is a good reminder that keeping the ball centered isn't something that happens automatically.

Once at a safe altitude to perform our airwork, Matt had me perform clearing turns to the left and right and then we launched into some steep turns. From there it was into slow flight and power-off stalls. I was impressed with the Decathlon's handling during slow flight and just how docile the stalls were.

Next, we moved into power-on or departure stalls. The Super Decathlon has a powerful engine and I quickly found that the pitch angle for this stall series was pretty impressive. The stalls were again a non-event and with our little warm-up complete, I felt pretty comfortable with the aircraft. Now it was time to tackle the basic aerobatics that we briefed on the ground.

After clearing the area again and ensuring we were at a safe altitude, Matt demonstrated a basic aileron roll. It was a thrill to see the world turn upside down and the sensation of hanging from my safety straps was nothing that I've ever felt in an aircraft before. I took over and tried a few and found them to be easier to perform than I had imagined. Pitch down to gain some speed, pitch back up and then bury the stick to the left and around we went. Wait until the



Matt Crane and two students at the Montreal Acro Challenge, in Canada last August. The students, Lee Delaney and Michael Lester, both competed.

wings were again level with the horizon and a gentle pull back on the stick to a level pitch completed the maneuver.

Next it was time to work on the basic loop. Matt once again demonstrated the proper way to perform the maneuver and up and over we went. I had fun looking through the big window built into the top of the Decathlon, which allowed me to look up and see the world upside down as we rounded the top half of the loop. I tried a few but I can tell you that mine certainly looked a lot more like oblong eggs rather than the nice big circle that Matt demonstrated. Nonetheless, it was a thrill to take the aircraft into a new realm that was outside the normal operating window I usually perform in.

Running low on time, Matt and I headed for home so that I could give landing a tailwheel aircraft a try. The pattern was nearly empty as we approached and Matt demonstrated a short approach. The Decathlon does not have any flaps so setting up for a proper approach is imperative. Matt performed a great three-point landing and then we were off again for my turn. I chose to lengthen the pattern just a bit so that I had a bit more time on final. We had a nice long runway ahead so I concentrated on capturing the airspeed to set up a good approach rather than

worry about landing on a particular spot on the runway. As we approached the touchdown, I eased back the remaining power and managed to set us down on all three gear without any bounce back into the air. We let the aircraft roll out to the end and then it was back to the hangar for our debrief.

I was truly impressed with the entire experience I had flying the Super Decathlon. The aircraft was a joy to fly. It was forgiving enough that I didn't feel overwhelmed and the control stick was quite natural within minutes of taking off. While not as fast as the aircraft you or I may routinely fly, I think that the Decathlon makes an excellent training device to take on the rigors of an upset training or unusual attitude course.

Personally, I found great value in even the short, one-hour flight where we performed just a few maneuvers. Not only that, but I overcame that little bit of apprehension I had when someone mentioned the words aerobatic flight. In addition, I came away with a better understanding of flying in a dimension that is not inside my normal personal flight envelope. I truly see the value that a focused unusual attitude/upset recovery course could provide. EFA's ties to

aerobatic flight and their commitment to developing a stand-alone unusual attitude and upset training course truly lends credit to using this type of training as an additional means of learning to master flying an aircraft.

Training is Easily Attainable

After further reflecting on my day spent with EFA, I quickly realized that their type of approach toward upset training or basic aerobatic flight is perhaps the most easily attainable for the average pilot looking to expand their skill set. Seeking out a local flight school that has both the instructor and the aircraft to perform basic aerobatics and upset recovery techniques may be a great first step toward becoming a safer, more

proficient pilot and hopefully is something that is easily found in your area. If it is, I certainly endorse making the effort of finding a facility such as EFA to help expand your skill set and build confidence in flying an aircraft outside your normal comfort level.

Regardless of how you obtain this new tool for what should be your ever-expanding aviation toolbox of skills, the point is to prepare yourself for those unsuspecting situations where you need to recover from an upset or an unusual attitude.

If you encountered an upset or an unusual attitude on your next flight, would your skill and confidence be honed for the task at hand?



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