

Osprey Racing Report

Volume 1 \ Issue 1 \ July 2018

Official Newsletter of University of North Florida's Formula SAE Team

67th Overall at FSAE Michigan

*What we learned
and how we'll improve*

In the Shop: Reorganized & Ready

A fresh start for the new season

2019 Officers Are Here

*Meet the guys running
Osprey Racing for 2019*



Plus: New Sponsorship Packet Available; Sponsor Highlights; and more to come!



Edgar Derricho
President
Junior - Electrical Engineering



Parrish Williamson
Captain
Senior - Mechanical Engineering



Connor MacCollom
Vice President
Sophomore - Mechanical Engineering



Austin Daniels
Treasurer
Sophomore - Mechanical Engineering

New Officers for the 2019 Season!

Osprey Racing is proud to present the officers for the 2019 season! We are very excited for this year's car and look forward to building a stronger team. Leading the vehicle design will be Captain Parrish Williamson, a senior studying Mechanical Engineering. President Edgar Derricho, a junior Electrical Engineering student, along with Vice President Connor MacCollom, a sophomore Mechanical Engineering student, will oversee the day-to-day operations of the team. Sophomore Mechanical Engineer Austin Daniels will be taking over the treasurer position for D8, making sure the rest of the engineers don't get carried away with the McMaster catalogs. Sophomore Randy Haley will be the D8's Secretary, keeping notes on the meetings and keeping most of the paperwork in order. The Public Relations department will be run by Thomas Strickland, a senior in Mechanical Engineering.

Even though each officer is assigned only one title, we will all be pitching in to help each other out. One of our downfalls for several of the past cars has been lack of knowledge transfer from team to team; this year we will be documenting everything that goes into D8 whether it's how we chose a certain bolt or how we scheduled events with the university, everything will be recorded. Members will also be held to the same standards, regardless of seniority or position. We want to allow members who want to step up to the challenge of FSAE the chance to succeed and further the team. This is a growing year, so we, the officers, are not promising any performance goals or placements. We only promise to make Osprey Racing into a well-organized, tightly-run team that anyone would want to join. ■



Thomas Strickland
Public Relations
Senior - Mechanical Engineering



Randy Haley
Treasurer
Sophomore - Mechanical Engineering



67th at FSAE Michigan



Rain and mechanical issues result in mid-pack placement; what happened and how we plan to improve



Osprey Racing in the paddock at FSAE Michigan

Austin Daniels on aero, Parrish Williamson on chassis, Thomas Strickland on brakes, Albin Alex on ergonomics, Ty Youmans on drivetrain, Quinn Howington on powertrain, and Edgar Derricho on the electronic side of things. For most of the team this was the first FSAE event they had attended, making it a great learning experience for everyone continuing on with the 2019 car. The design judges were happy with the platform we brought to competition but wanted to see a deeper understanding and more cohesion among the various systems on the car, things we plan on improving significantly over the course of the next year.

The driving events were plagued by rain and cold temperatures on both days, preventing tires from getting up to temperature and making track conditions exceptionally slick. Ty Youmans and Thomas Strickland both drove acceleration Friday morning, placing 52nd out of 90 teams that attempted the event. Several teams spun their cars around on track due to the deteriorating conditions. Skid Pad was later in the day, with Ty Youmans taking 60th.

Autocross was driven by Quinn Howington and Albin Alex under damp conditions, allowing the use of slick tires to increase the car's speed. Despite our best efforts, we took 73rd after taking a few penalties for hit cones.



Quinn Howington pilots the D7 during the rain in the endurance event

This year's FSAE Michigan was highlighted by extreme weather and mechanical faults, resulting in 67th place overall.

The static events went well with the business team, led by Randy Haley and Benton Lamlien, taking 16th in the business presentation event. The two freshmen took on the presentation just after Christmas and, with the help of our title sponsor APR Energy, were able to put together a business plan that rivaled those of the top tier teams. Good job, guys!

The design event had many new members presenting. Connor MacCollom, another freshman on the team, took charge on suspension after the Christmas break alongside



Ty Youmans rockets down Pit Road during the acceleration event

Saturday continued Friday's rain. Forty was the run order number we were given, meaning we would go earlier in the day. As the rain and wind picked up, the slower teams began running the track on the back straight. Finally, our number was called for fuel and we proceeded to the track. Albin Alex and Quinn Howington would again take the wheel for the twenty-two-kilometer event, this time in cold, pouring rain.

As the rest of the team went to the stands to watch, Albin piloted D7 out on the track. Within the first few laps the throttle cable frayed apart, keeping the engine at approximately 30% power. While not ideal, the manner in which the

throttle cable failed allowed the car to keep going. By feathering the clutch, Albin was able to keep D7 going.

Then the thunder came in. Michigan International was subsequently evacuated and all of the teams proceeded to the tech and design garages. The endurance course was red flagged and all cars were brought into the driver change area. Not long after reaching the garages, the winds and rain intensified to the point of a typical Florida tropical storm. Lunch was served and strategy was discussed during the interim.

After the weather cleared, Quinn was put in the car to finish the event. Lap after excruciating lap went by, as the smell of burnt clutch and rain hung in the air. Then the checkered flag for Car 91 was waved. While it wasn't pretty, Osprey Racing managed to complete all events for the second year running.

After further inspections and debriefs, we have determined the causes of our shortcomings and are aiming to address these in the coming season. Lack of regular inspections prior to competition with an increased frequency of testing on the D7 caused the throttle cable to fail. Proper lubrication of the cable with regular checks of all systems should prevent future issues. Last-minute changes to other systems and troubleshooting of minor electrical issues took valuable time away from tuning the car and getting new drivers comfortable in the seat. This year's design team is currently working on determining deadlines that will freeze all modifications to the car prior to competition along with a more organized testing schedule.

To all of our sponsors who made the 2018 Swoop D7—we thank you! ■



D7 sits in the rain, waiting for the endurance event to be restarted after severe weather passed through



*More pictures available on our Flickr account @OspreyRacingFSAE
<https://flic.kr/s/aHsmkAXARx>*



Quinn Howington looks over D7 before the sound test

Sponsor Highlights: APR Energy, Safe Harbor Academy, & Textreme

APR Energy has been with us since Swoop D2 and has always been ecstatic to help us with various parts of the competition. APR Energy specializes in on-demand power, bringing the generators big enough to power several city blocks to disaster areas or job sites in remote locations. Without APR, the team would certainly not be what it is today. John Campion and his wife, Suzanne, have helped in more ways than can be enumerated and we are eternally grateful for their support.



Left: APR proudly displayed on D7; Right: John Campion talks cars with members of Osprey Racing

Safe Harbor Academy has graciously lent us their engine dyno for the upcoming season! We are currently in the process of manufacturing a wiring harness identical to the D7 car so we can have as close to race conditions as possible once we begin tuning the engine. President and Electrical Lead Edgar Derricho is heading up this project, gaining valuable experience before building the wire harness for D8. We can't wait to get the engine up and running; thanks, Safe Harbor!



Engine dyno provided by Safe Harbor Academy

Osprey Racing would like to welcome Textreme back! Textreme deals in composites and carbon fibers. With their help, we'll be able to do more material testing for body panels, aerodynamics, and ergonomic components. Thank you for your support, Textreme, and we look forward to working with you again this season! ■

Newly Updated Sponsor Packet

We have an updated sponsor packet now available. Visit us online at www.OspreyRacing.org/Sponsors to download the new and updated version! ■



Current Events

We are currently in the process of doing a deep clean of the shop. Over the past few years and as the team has grown, things have begun to pile up. In an effort to look more professional, old stockpiles of now-outdated parts are being sent to recycling centers, when able, to make room for updated parts, more organized storage, and a more efficient workspace. This newly reorganized shop will also allow for room to store an additional car, should the resources become available.

It's been a lengthy process, but we've already managed to clear the computer work area and reorganized the parts shelves so system leads can have the space necessary to keep improving the cars. Next up will be the area near the garage door, the parts drawers, the tool boxes, and a deep-soaking mop of the floors. We can't wait to get the shop spotless. ■



Thank you to all of our 2019 sponsors!



The John and Suzanne Campion Family Foundation



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