Collegiate Design Series News

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2004 Aero Design East Flies into Deland

April 16-18, 2004 Deland, Florida

Aero Design East flew into the Deland Golden Hawks R/C Club on April 16th. The event brought 35 teams from the US, Brazil, and Canada. Eric Schwartz, UCF-SAE Chapter President, organized the successful event. The beautiful weather allowed for wonderful flying conditions with a slight breeze in the afternoons that gave teams a controllability challenge.

The Regular Class Competition

Auburn University, Flying Tigers, entered the Aero Design East Competition for the first time in the history of the event. Although a first time entry, the team impressed the judges and the crowd by winning 1st Place Overall Regular Class and the Elliott & Dorothy Green Award of Excellence by lifting 28.83 lbs. and scored a total of 208.2843 points. The Flying Tigers, with a 12 foot wingspan, estimated their plane could lift between 28 and 29 lbs successfully. Their plane was designed by senior James Davis at an estimated cost of $4000 to build the plane. The judges awarded Auburn the SAE North Florida Section Award for Most Professionalism, a well deserved award for the team that assisted many teams and showed team spirit throughout the competition.

Rounding out the top three positions and also being awarded the Elliott & Dorothy Green Award of Excellence for Regular Class are Federal University Minas Gerias and Ecole de technologie superieure. Federal University Minas Gerias team CEA-UAV finsished in 2nd place lifting 26.59 lbs. and scoring 208.2843 total points. Team CEA-UAV of Brazil finished less than one pound behind the Flying Tigers of Auburn University. Finishing a commendable third was the team from Montreal, Canada, Ecole de technologie superieure, lifting 27.43 lbs. and 202.5802 total points.

If you don't crash, it is a success

Adam McLarty

Auburn University Team Captain.

The Open Class Competition

All weekend the Open Class competition was running too close to call. At the end of the competition, Milwaukee School of Engineering took home the Gordon Millar Award of Excellence by placing first with 147.1968 total points and lifting 40.79 lbs. The two teams that were giving Milwaukee School of Engineering a run for their money was University of Federal do Rio Grande do Norte and the University of Missouri – Rolla. Less than a point separated these top three competitors.

Other Event Awards

The Most Weight Lifted was awarded to one team from each class. For Regular Class, Cedarville University came home with the top honor of lifting 33.26 lbs and the University of Missouri – Rolla lifted 44.10 lbs. for the Open Class award.

Milwaukee School of Engineering finished 1st in the Open Class.

The Best Design Report went to University of Kansas with a score of 62.93 for the Regular Class and Embry Riddle Aeronautical University with a score of 62.665 for the Open Class.

The Award for Engineering Design Excellence is given to the teams with the best oral presentation. The Awards for Engineering Design Excellence went to Rice University with 29.36 points for Regular Class and the University of Akron for the Open Class with 25.13 points. Sweeping the second place spots for both Regular and Open Class was University Federal do Rio Grande do Norte with a Regular Class score of 29.66 points and an Open Class score of 24.93 points.

Rochester Institute of Technology at Tech Inspection after their Design Presentation.

What comes up must come down, whether it is a successful flight or a crash. The SAE N. Florida awarded the Most Interesting Flight Path to the team from New Jersey Institute of Technology. NJIT had a horrific crash only to rebuild their plane and continue competing in the competition. They finished an outstanding 7th place at the end of competition on Sunday.

Special thanks to the Deland Golden Hawks R/C Club, UCF, Elliott & Dorothy Green, Gordon Millar, Byrons Original Fuel, SAE N. Florida Section and all of the volunteers for contributing to the successful event.

For more information and photos regarding the 2004 Aero Design East event, please visit http://www.sae.org/students/aeroeast.htm.

Also make sure to complete the 2004 Aero Design East survey at http://www.surveymonkey.com/s.asp?u=33773427973.

Oregon State Wins Mini Baja West

Oregon State's Mini Baja teams took first and third place overall at the Mini Baja West sandwiching Brigham Young's car #1 that finished in second place.

This year's competition was held April 22 - 24 and hosted by SAE's Oregon Section. Pete Strauss of Western Star Trucks was the Chief Organizer. He and all of the volunteers deserve all of your thanks for producing a great event.

The first day's static events and technical inspection activities were held at the Portland Expo Center. For the dynamic events of Friday and Saturday, the competition moved up the Columbia River to the Washougal MX Park on top of a hill overlooking the river valley. Washougal was both a beautiful and very challenging site. When Pete Strauss pointed out that the course was a lot hillier than it appeared from the photos on the website, he wasn't kidding. The endurance course used part of the main MX track then went off road and wound up a hill before descending through a series of fast stretches, tight turns, rock piles and railroad ties.

During the banquet, the first U.S. Army TARDEC (Tank and Automotive Research and Development Engineering Center) Off Road Mobility Award was presented to Purdue-West Lafayette. This new award will be presented at all three competitions based on the design judging for originality, powertrain, suspension, brakes and steering.

The Briggs and Stratton awards for overall performance went to Oregon State car #2 in 1st place, Brigham Young University car #1 in 2nd place, and Oregon State car #12 in 3rd place.

The Honda awards for best design were given to Oregon State car #12 in 1st Place, Cal Poly Car #9 in 2nd place and Oregon State #2 in 3rd place.

Polaris presented its award for best innovation to Portland State car #76.

All final score results can be found online at http://www.sae.org/students/mbwreslt.htm under 2004 Results.

Next year's Mini Baja West will be transformed into the Mini Baja 100 to commemorate SAE's 100th Anniversary. The key event will be a 100 mile endurance race through the desert at Caterpillar's Tinaga Hills Training Center about 30 miles south of Tucson, Arizona. See you next June!

International News

SAE Mini Baja Mexico

On October 30 & 31, 2004, the SAE Mini Baja Mexico will take place at a town 50 km north of Mexico City. This event will help celebrate the 40 year anniversary of the SAE Mexico Section, which was founded in 1964. Many teams from Mexico have participated in the US Mini Baja competitions. At the Mini Baja West competition in Portland, Oregon, the team from Universidad Lasalle placed 11th overall and three other teams placed in the top twenty-five. Teams from the United States and from around the world are encouraged to participate in this international event.

Please visit http://www.saemex.com/Paginas/MiniBajaE.htm for more information regarding Mini Baja Mexico. The above website will have the 2004 SAE Mexico rules and information from the 2003 Mini Baja Mexico. Also visit www.saemexico.com for more information as it comes available. Any questions regarding SAE Mini Baja Mexico can be submitted to informacion@saemexico.com or rcalixtom@engineer.com.

A Dell MP3 Player for Transferring Membership?

Student members that are graduating now have another reason to transfer their membership.

Those students that transfer by June 30, 2004 will be in the running for a Dell Digital Jukebox MP3 Player with the FM Transmitter Auto Kit. The Dell Digital Jukebox MP3 Player can store over 7000 songs, has 15 GB of storage and has a 2 inch LCD with a blue backlight. The kit allows you to take along your MP3 Player and play music in your car. Perfectly fits in a cup holder!

The benefits of transferring include FREE membership in the local SAE section, FREE attendance to SAE World Congress, FREE subscription to Automotive Engineering International or Aerospace Engineering and much more! Not to mention access to a network of 85,000 professionals throughout the world.

So, what are you waiting for? Visit http://www.sae.org/students/membership/ to transfer or look for a SAE staff member at one of the competitions for an application. Transfer your membership today and you'll enjoy all the benefits of SAE and maybe even a Dell MP3 Player!

Renew Your Membership

Students may renew or pay their membership dues online at http://www.sae.org/students/index.htm or call SAE Customer Service at 1-877-606-7323.

Graduates, transfer your Student Membership to Professional Membership. Transfer online today at http://www.sae.org/students/membership/transfer.htm

FSAE and Mini Baja Logo

Recently several teams have asked whether students can reproduce an event logo on a shirt for team purposes. The answer is Yes. If your team is participating at an event this year, you can create a shirt design using the event logo however you must obey the following:

1) TRADEMARK – When reproducing either the Formula SAE or SAE Mini Baja Logos the logo must be accompanied by the registration symbol ®.

2) SCHOOL NAME – The event logo must be accompanied by either, or both, your school name or your team name.

3) NON-PROFIT PURPOSE – You may sell the items carrying the event logo and your university/team name ONLY for the purposes of funding your team project. All the income you receive must go to the team.

If you have any questions or concerns about using the logos, please contact SAE staff at collegiatecompetitions@sae.org

Renew Your Membership

Students may renew or pay their membership dues online at
http://www.sae.org/students/index.htm
or call SAE Customer Service at
1-877-606-7323.

Graduates, transfer your Student Membership to Professional Membership. Transfer online today at http://www.sae.org/students/membership/transfer.htm

Student Newsletter Survey

Share your thoughts regarding the Collegiate Design Series!
The Student Newsletter Survey is now available at:
http://www.surveymonkey.com/
s.asp?u=93481347338

FREE REGISTRATION

Do you have information, stories, or pictures that you want to share regarding your team?

Email them to CollegiateCompetitions@sae.org
and qualify for a drawing for Free Registration to a 2005 event of your choice!

Mini Baja Technical and Safety Checklist

The Mini Baja Technical and Safety Checklist and the Drivetrain Certification Form are now available online at http://www.sae.org/students/minibajadocs.htm. The form must be completed, signed and dated prior to technical inspection. Please follow the below instructions pertaining to the **Mini Baja Technical and Safety Checklist:**

1) Each vehicle must be pre-inspected by its team prior to presentation for technical inspection.
2) Teams must certify that, to the best of the team's knowledge, their vehicle passes all parts of the inspection process as shown on this Technical Inspection Form.
3) All boxes in the "Team Checked" column must be checked.
4) The faculty advisor and team captain must sign and date, above, that the team has completed its inspection.
5) A completed and signed Technical Inspection Form must be presented to the technical inspectors along with the car.
6) Teams entering more than one Mini Baja Competition must present a completed Technical Inspection Form at each event.

The **Drivetrain Certification Form** is on the last page of the Mini Baja Technical and Safety Checklist. Please follow the below instructions for this form:

1) Please fill out the form with all of the requested information.
2) The National Technical Board will keep the form. The form will be used to certify at anytime that a vehicle has the original components that it was using during technical inspection.
3) A completed and signed Drivetrain Certification Form must be presented to the technical inspectors along with the car.
4) Teams entering more than one Mini Baja Competition must present a completed Drivetrain Certification Form at each event.

Mini Baja Brake Requirements – A Reminder

This is just to remind everyone that starting this year, Mini Baja vehicles are required to have two independent brake systems and that the vehicles will be dynamically tested as part of technical inspection. Specifically every vehicle will be asked to accelerate to a reasonable speed then apply the brakes to demonstrate that it stops in a reasonably straight line with all the wheels locked.

On the Road to Win

Last year the University of Pittsburgh FSAE team was knocked out of endurance because of a 75 cent c-clip that broke. The team is sure that this year will be different.

"We made great efforts this year to have a running car well ahead of last year's date of April 14th. We actually started working the motor before Thanksgiving", stated 2004 team captain Derek Knight.

By sticking to their deadlines, the team's gotten in more testing and fine tuning. "Our goal is to of course win the event this year", noted Knight. "To reach this goal, we've developed a testing plan, schedule and track that should give our drivers adequate training in the type of course we'd see in May. The best thing is to be prepared."

With many teams striving for the same goals, Pitt is bringing their game face to the competition and plan to give the other teams a run for their money.

FSAE INFORMATION

1) PADDOCK PARKING – All of your equipment must fit within a 17 ft x 34.5 ft paddock space. If your trailer exceeds this size, you will not be able to park it in your paddock. We suggest that teams using a trailer leave just the trailer in the paddock and park the tow vehicle in car parking lots.

2) Banquet Tickets – Tickets can now be purchased online. If you have not already ordered your tickets, it is suggested that you do so soon. Last year the banquet sold out before all team participants could get tickets. Please order before May 10th. The link is located at www.sae.org/students/fsaeeventinfo.htm

3) SITE MAPS – In addition to the maps posted on the FSAE forum, we will have copies available at the Silverdome. If you experience problems while accessing the maps, please email collegiatecompetitions@sae.org and explain in detail what type of error you are receiving so that our IT department can troubleshoot some resolutions.

EVENT DEADLINES & REMINDERS

ALL EVENTS

- All students must bring to the competition a drivers license for identification purposes. DRIVERS MUST bring to the competition drivers license and medical insurance cards. If you do not have this information, you will not be able to participate!

AERO DESIGN WEST

- Design Reports, Plans and Payload Prediction Graph due May 7, 2004

MINI BAJA MIDWEST

- Roll cage Specification sheet, Design Reports, & Cost Reports due May 15, 2004.

FOR DETAILED INFORMATION IN REGARDS TO DEADLINES, PLEASE REFERENCE EITHER MARCH 2004 NEWSLETTER OR EVENT RULE BOOK.

Sponsor Spotlight

Sports Car Club of America, Inc. is the world's leader when it comes to grassroots motorsports. Boasting over 60,000 members in its organization, SCCA offers a wide range of opportunities in its programs, whether as a worker or competitor, and encourages all of its members to actively participate.

Since the club's humble inception in 1944, beginning as a small contingent of sports car enthusiasts, SCCA has steadily grown into the leading role it embraces today by giving its members opportunities to be involved unlike anywhere else.

Today, SCCA, Inc. is a flourishing motorsports organization incorporating all facets of autocross, rally, and both club and professional motorsports events. It annually sanctions nearly 2,000 events through its 110 regions and professional subsidiary, SCCA Pro Racing Ltd. Landmark events for the Club include the SCCA ProRally® Championship Presented by Hot Wheels®, the SCCA Club Racing National Championship Runoffs Presented by Kohler at the Mid-Ohio Sports Car Course and The Tire Rack® SCCA Solo National Championships and ProSolo® NationalSeries at Forbes Field in Topeka, Kansas.

SCCA's sponsorship of the Society of Automotive Engineers and its events is made possible through a joint partnership of SCCA, Inc. and the SCCA Foundation, both of which are fueled by a desire to sustain the current golden age of cars by providing automotive engineering students a chance to participate first hand in motorsports and understand the age's relevance to future automotive design.

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Goodyear Tire and Rubber Company—Goodyear Best Performance Award—FSAE
Visteon Climate Control—Powertrain Cooling System Award— FSAE
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Polaris—Polaris Innovative Suspension Award—Mini Baja
TARDEC—Off Road Mobility Award—Mini Baja
Mike Schmidt Memorial Mini Baja Iron Team Award – Mini Baja
Honda R&D Americas, Inc.—Endurance Award—Mini Baja
Briggs & Stratton—Overall Performance Award—Mini Baja
Dayton Cup—Best Mini Baja team of the year judged by the Dayton Section—Mini Baja
Robert Bosch Corporation—Engine Management System Award—FSAE
Continental Teves—Best in Class Brake System Award—FSAE
Society of Plastics Engineers'—Composites Division Award—FSAE
Henkel Technologies—Structural Foam Award—FSAE
Hoosier Tire—Autocross Award—FSAE
ArvinMeritor—Suspension System Award—FSAE
Bruel & Kjaer—Bruel and Kjaer Quiet Car Cup—FSAE
EDS—EDS Outstanding Sportsmanship Award—FSAE
Lincoln Electric Co.—Lincoln Electric Welding Award—FSAE
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