



November 1998

Milwaukee Section

Editor: Dan Ziemann

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## NOVEMBER SAE/ASME DINNER MEETING

 **Wednesday, November 11, 1998**

### TOPIC:

#### Collegiate Design Competitions

##### Milwaukee School of Engineering Formula SAE® & Aero Design® Challenge

The MSOE SAE student chapter will discuss both their Formula SAE race vehicle as well as their Aero Design aircraft. The annual Formula SAE competition involves open wheel "Indy"-like race vehicles powered by 600 cc motorcycle engines. Aero design involves a "weightlifting" competition for remote controlled aircraft utilizing a spec engine.

##### University of Wisconsin-Madison Baja Team

The UW-Madison SAE student chapter will be discussing their efforts in the SAE Mini-Baja event, a competition requiring collegiate teams to design and manufacture a four-wheel off-road vehicle utilizing a Briggs & Stratton 8 horsepower engine.

##### Marquette University's ASME Solar Splash Competition

Solar boat racing occurs in only two places in the world - Hamanako, Japan and Milwaukee, Wisconsin. Marquette University built the first U.S. solar powered racing boat in 1990, has been racing in Japan since 1992, and were the only Americans to race there until this year. The ASME Solar Splash started in Milwaukee in 1994 and is a collegiate competition involving about twenty universities. Marquette was awarded the Best Design trophy at Solar Splash 98 and the boat, Shadow, will be exhibited at the meeting.

### MEETING AGENDA

**SOCIAL HOUR:** 5:00 pm Radisson Hotel Mayfair  
2303 N. Mayfair Road,  
Wauwatosa 414-257-3400

**DINNER:** 6:00 pm

**PRESENTATION:** 7:00 pm

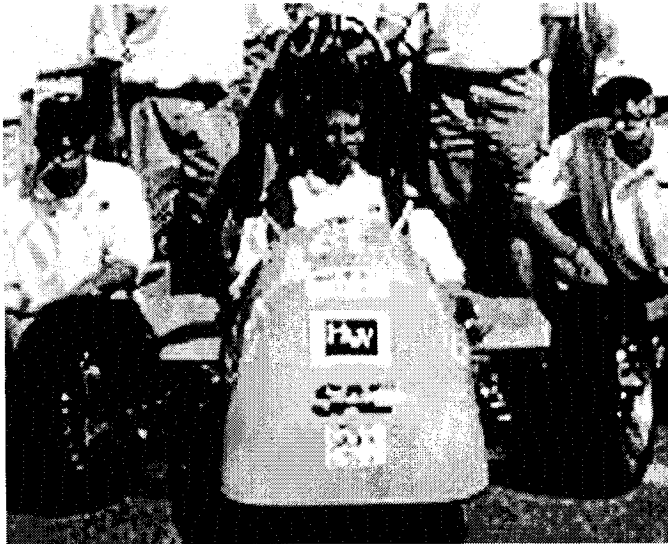
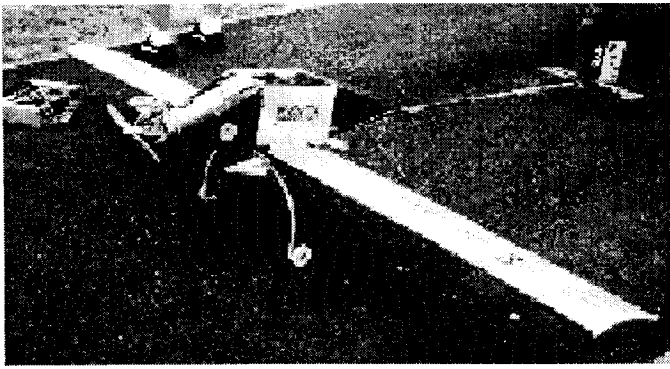
**MENU:** Lemon Baked Orange Roughy  
or Chicken Kiev

Both entrees include soup du jour, parsley buttered potatoes, California blend vegetables, rolls with butter, apple pie dessert, and coffee, tea or milk.

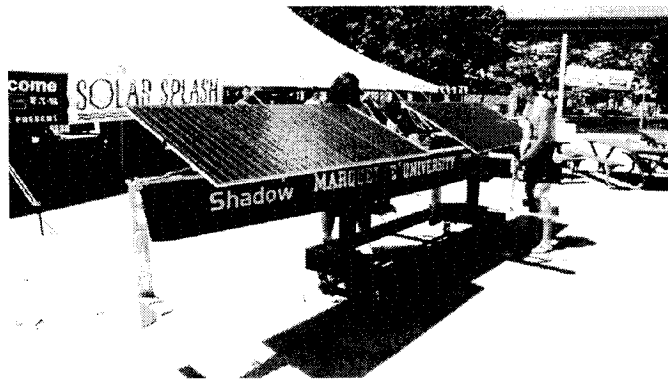
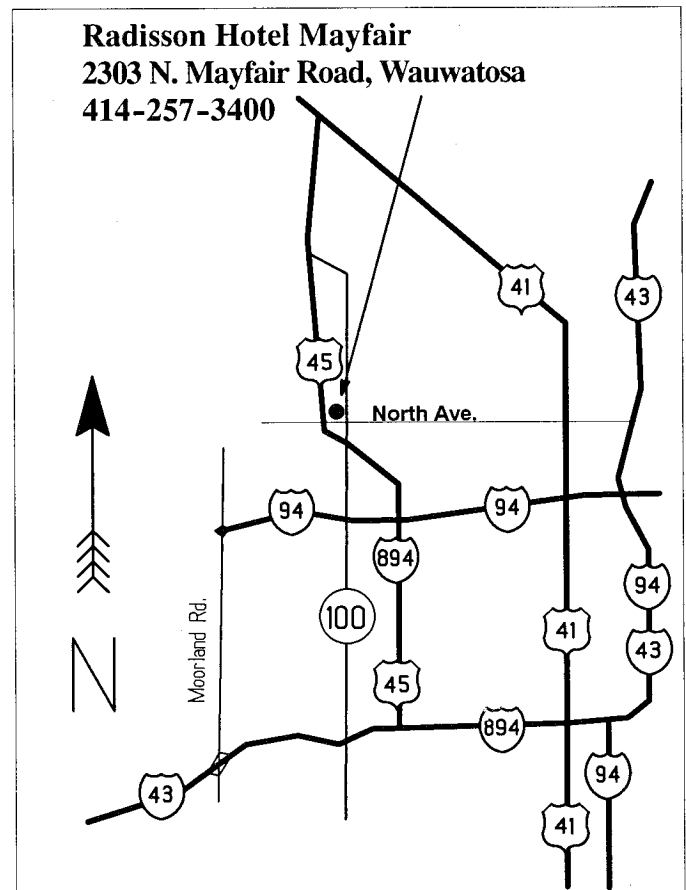
Vegetarian or special diet meals available upon request

|                      |                    |         |
|----------------------|--------------------|---------|
| <b>Dinner Costs:</b> | Members & Spouses: | \$20.00 |
|                      | Guests:            | \$20.00 |
|                      | Students:          | \$10.00 |

Due to catering requirements, dinner reservations must be made prior to 4:00 PM on November 9th. No additions or cancellations can be accepted after this time. For reservations contact Christine Jeffords at (414) 549-3325. "No-shows" with reservations will be billed. Walk-in reservation arrangements not available for this meeting. Attendance during presentations only are welcome at no charge. Fifty year members are entitled to one free meal per year.



## Meeting Location Map



Once again, the Milwaukee Section put its best foot forward in hosting the 1998 SAE Midwest Mini-Baja<sup>®</sup>. With registrations exceeding 100 and the on-site competitors numbering 80, section members rolled up their sleeves and organized another outstanding competition for the SAE Collegiate Design Series and the teams from the U.S., Puerto Rico, Canada, and Brazil.

The competition was changed this year, due to the large number of entries. To make the endurance racing at Aztalan Motocross Park better, the teams race in two qualifying heats, with the top 50 teams battling in 2 hour feature race. Winning this year's competition was an international team - the Universidade Federal do Rio Grande do Norte team from Brazil, who edged out Virginia Tech by less than 4 points (out of a possible 700!)

The Mini-Baja organizers and the Governing Board would like to thank all section members who helped with this year's competition. We are already planning the 2000 competition, so contact Richard Sievert if you are interested in helping.

## Milwaukee Section 1998-1999 Governing Board

**CHAIRMAN:** Bill Schultz  
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### **VICE CHAIR - MATH & SCIENCE/AWIM**

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### **HISTORIAN:** Norm Mollinger

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## From Your Chairman:

I hope that those of you who were able to attend October's dinner meeting by Eric Gorr of Max Power Cylinders Inc. found it informative and entertaining. The meeting was well attended and ended with spirited questions and discussion around exhibits. Thanks again to Max Power and to Jon Jeffords for an excellent program.

I think that you will find this month's program equally as interesting with its focus on student design competition. The November issue of SAE Update featured a pullout section on 1998 Collegiate Design Competition. Of note was the first place award received by the Milwaukee School of Engineering in the Aero Design open class competition, the tenth place award to Michigan Tech for Formula SAE and the first place Dynajet award received by the University of Wisconsin. The Milwaukee Section and Vice Chair Rick Sievert were recognized for their efforts in organizing the highly successful Midwest Mini Baja competition. These competitive events have grown over the years and provide students with the opportunity to implement and experiment with the Engineering tools and concepts that they are being taught in their respective institutions. The variety and level of competition are a credit to the participating students and the colleges they represent. Many prospective employers are placing a high value on participation in this type of competition.

As noted in the program summary, three of the event participants, Marquette, UW Madison and MSOE will be featured in this month's program. I encourage all of you to attend this month's program to not only hear about the competition and look at some of the equipment on display, but to recognize the efforts and successes that these students have achieved. It would also be interesting to those of you who may have participated in previous events to see the improvements in equipment and technology that today's students are developing.

Bill Schultz,  
1998 / 1999 Chairman  
Milwaukee Section SAE

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**Additional Display: Nikolas Bohne, Nicolet High School**  
Senior Division winner of the Marquette University Southeastern Wisconsin Science and Engineering Fair.  
"Is It Possible To Fly Airplanes With Light?" The Wright brothers controlled their early aircraft with mechanical cables. Next, control was with hydraulics, then "fly-by-wire". Will the next evolution in aircraft control be "fly-by-light" using signals sent along fiber optic cables?



**SAE Milwaukee Section**

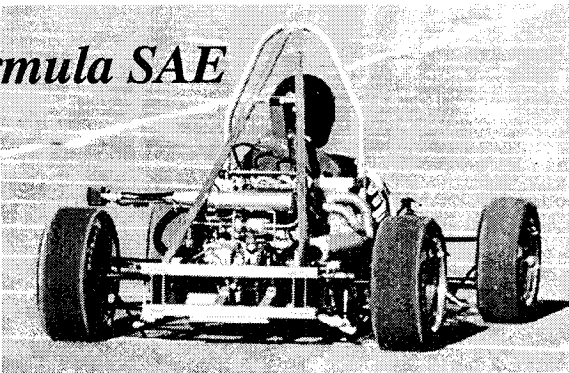


*Special Day!*

👉 **Wednesday, November 11** 👈

Joint **SAE/ASME** Dinner Meeting  
**Collegiate Design Competitions**

*Formula SAE*



*ASME SolarSplash*



**Display Vehicles:**

SAE Mini-Baja<sup>®</sup> buggy, SolarSplash water craft, Formula SAE<sup>®</sup> car, Aero Design<sup>®</sup> aircraft

**Meeting Sponsorship**

We would like to thank the following organizations for their continued support of the Milwaukee Section:

Waukesha Engine, Harley-Davidson

For more information on becoming a sponsor, please contact: Bill Schultz (414) 616-1286