



OCTOBER MEETING

Thursday, 21-Oct-2004

PROGRAM:

***Mercury:* VERADO**

- ◆ **Inline 6-Cylinder Outboard Motor**
- ◆ **2.6L Displacement**
- ◆ **82mm x 82mm Bore and Stroke**
- ◆ **Supercharged / Intercooled**
- ◆ **DOHC 4-valve design**
- ◆ **Max Torque 280 ft-lb (380Nm)**
- ◆ **Max Power 275hp (205kW)**
- ◆ **Max Rated Engine Speed 6400 rpm**
- ◆ **FACTORY TOUR - casting facility, VERADO manufacturing/assm. line**
- ◆ **Motorcoach {Lamers} from Milwaukee (sponsored by your local Section)**

Location: Holiday Inn [Hwy 151 & I-41]
(dinner) 625 Rolling Meadows Drive
Fond du Lac, WI 54937
Phone: (920) 923-1440

Tour: Mercury Marine Plant
(& talk) Fond du Lac, WI

--- EVENT AGENDA ---

Bus departs State Fair: 4:00pm
[Park-n-Ride at I-94 & 76th St, S.W. corner]
Bus departs Meno Falls: 4:25pm
[parking lot at S.E. corner of Pilgrim Rd &
Main St, east of Schlotzsky's restaurant]
Mtg. Registration: 5:30pm
[at Holiday Inn]
Dinner (approx): 5:45pm
Tour (approx): 7:00pm
Program: [to follow]

--- DINNER ---

MENU:

NO Selection Required.

Dinner Buffet - Pepper Steak, Turkey with dressing – plus Au Gratin potatoes, vegetable, salad, Chocolate Mousse and beverage selections.

COST:

SAE Members / spouses:	\$20.00
Retirees:	\$12.00
Guests / Non-members:	\$25.00
Students w/ID	\$5.00

Registration:

Bus & dinner reservations must be received the week before the event. Only charge card pre-payments can be collected online, via <http://milwaukee.sae.org>. Register to **pay-at-the-door** via email at: milw-sae@wi.rr.com, or call **(414) 465-6420**.

"No-shows" with reservations will be billed.

50-Year members entitled to 1 free dinner annually.

Registration deadline: 2:00pm – Friday, Oct 15th

Topic: Development of the VERADO family of Outboards**Speaker: <> Eric Mueller, Manager of Engine Thermodynamics**

On February 12, 2004, Mercury Marine officially introduced VERADO at the Miami International Boat Show. A new family of four-stroke outboard engines, VERADO offers acceleration, speed and durability never before seen in a four-stroke engine, yet it boasts an extremely quiet engine – nearly silent! With a displacement of 2.6 liters (158 cubic in) the inline six-cylinder power plant is used on the 200, 225, 250 and 275 horsepower outboards. VERADO is also the world's first production outboard with a supercharger. The engine's valve train features four valves per cylinder with a DOHC design. A computer controlled sequential, multi-port fuel injection system supplies fuel to the engine. The driving experience is further enhanced through an exclusive electro-hydraulic power steering system.

Mr. Eric Mueller did his undergraduate studies at Michigan Technological University where he received a Bachelors Degree in Mechanical Engineering in 1988. From there he spent a brief time at General Motors Research Laboratories before starting his graduate studies at the University of Wisconsin - Engine Research Center where he studied under Dr. Gary Borman. His thesis work focused on diesel engine particulate emissions, and he received his Masters Degree in Mechanical Engineering in 1990.

After school, Eric joined the Ford Motor Company in Dearborn, Michigan, where he was a Development Engineer working on engine thermodynamics for new Ford spark ignition engines.

Eric also worked for a time as an independent consultant before joining Mercury Marine in 2002, where he is currently the Manager of Engine Thermodynamics.

Tour: Pressurized Lost Foam Foundry ; VERADO Manufacturing Line

When we arrive at the plant, a tour of the casting facility will be offered, where Mercury casts aluminum with pressure. Engine blocks, cylinder heads, and crankcases are cast at Mercury's Pressurized Lost Foam Foundry. This is the only USA facility of its type, having the capability of both high pressure and low pressure lost-foam die casting. We will also tour the VERADO manufacturing and assembly lines, commissioned in 2004. A technical presentation will round out the evening before we board the buses for our return trip to Milwaukee. On our return, we should arrive at State Fair Park between 10:00 & 10:30pm.





MAP :

Holiday Inn [Hwy 151 & I-41]
625 Rolling Meadows Drive
Fond du Lac, WI 54937
Phone: (920) 923-1440

From Milwaukee:

Take 41/45 North, follow signs to Fond du Lac. Exit 151 South. At stop sign, turn right onto Military Road (also known as 151 South). At stoplight (Rolling Meadows Drive), turn left. Holiday Inn is on the left.

From Madison:

Hwy 151 North. As you enter Fond du Lac, take a right at 1st stoplight (Rolling Meadows Drive). Holiday Inn is on the left.

From Green Bay/ Appleton/ Fox Cities (Oshkosh):

Take 41 South. Exit 151 South. At stoplight (Rolling Meadows Drive), turn left. Holiday Inn is on the left

Additional maps (for the motorcoach departure/return sites) are shown on Page 5.

Do you have a classic MOPAR? Want to bring it to our HUB event!

Hello Milwaukee Section! Mark DeBattista, Section Program Chair here!

In November, the SAE Milwaukee Section meeting will focus on Chrysler cars. If you own a Chrysler/Dodge automobile - a classic, special interest, race, or show car - how about displaying it at the SAE meeting? Contact Mark DeBattista during October to register your space, bring your vehicle to the SAE meeting in November, and let us thank you by purchasing your dinner ticket.

You can respond to me directly at mark.d@email.sae.org (preferred) or leave a message on the registration line at: (414) 465-6420.

November 17 Meeting tour: HUB Chrysler-Jeep / Hot new 2005s & Chrysler Corporate tech. presentation – West Allis

January 19 Meeting tour: Automotive Electronics, Lighting, Security, Sensors – Germantown

February 17 Meeting (tentative) Lake Ferry & S. S. Badger car ferry transports

March 17-19, 2005 Event (trip) Clean Snowmobile Challenge – Houghton, MI

April 21 Meeting tour: Aviation A&E School & Midwest Service Facility – Mitchell Field

May 18 Meeting (tentative) Hummer, the “new” family ride

*Upcoming
Events*

Milwaukee Section 2003-2004 Governing Board

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Dale Wiza
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email: dale@engineeringplacements.com
Work: (414) 427-8080

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Modine Manufacturing Company
email: j.g.sagat@n.a.modine.com
Work: (262) 636-1362

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email: krauska@execpc.com
Work: (262) 968-3313

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Wayne Richter
email: richterway@sbcglobal.net
Voice: (262) 255-7155

VICE CHAIR MEMBERSHIP:

Tim Fauser
Comtel Midwest Co.
email: tfauser@comtel.com
Work: (800) 860-2692 x354

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Liz Sutton
Discovery World.
email: liz@discoveryworld.org
Work: (414) 647-3303 x246

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Chris Damm
Milwaukee School of Engineering
email: damm@msoe.edu
Work: (414) 277-7543

VICE CHAIR PROGRAMS:

Mark DeBattista
Harley-Davidson Motor Co
email: mark.d@email.sae.org

COMPANY REPRESENTATIVE:

Tim Fauser
Comtel Midwest Co.
email: tfauser@comtel.com
Work: (800) 860-2692 x354

HISTORIAN:

Terry Fruehling
Harley-Davidson Motor Co
email: terry.fruehling@harley-davidson.com

VICE-CHAIR RECEPTION:

Bill Riebe
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Voice: (262) 246-3386
fax: (262) 246-7290

Alt SECTION DELEGATE:

Glenn Bower
UW-Madison
Work: (608) 263-7252

- Chairman's Note -

We're off to a great start, thanks to Briggs & Stratton hosting the September event! Briggs allowed us to show a Briggs-powered Mini Baja car and a Formula car, both from MSOE, and SAE papers were contributed from Briggs engineers. If you weren't among the 194 attendees, I'll repeat that Briggs donates many hours and over 300 engines towards Mini Baja and Supermileage Student Competitions each year! We toured their impressive museum, which displays over 100 engines and applications of both past and current innovations. Thanks Mark Warnke of Briggs, for seeing it through.

After a nice affirming and inspiring speech from our SAE Pres. Duane Tiede, Mark honored the "Chicagoan" with a Packers jersey! Rick Geisheker was next with talk on their durable V-twin. Many of us know Nick Hirsch, but not of his versatile depth as an engine expert. Nick offered some unique history, and had a confirming outlook for the need for IC engines in the future. He was also entertaining with some "aero" and drag racing analogies! We ended with service plaques to our speakers, and Mini Baja/ Briggs & Stratton T-shirts in exchange for a completed survey. We'll apply your feedback where we can.

Before the meeting, Wayne Richter and I shared current advice on job searching, which was well received. We hope to add more of this in the future, like SAE is with Career Center. If you are interested in career enhancement, but could not attend our session, please give Wayne or me a call for some "free" advice and/or coaching.

* At our Board meeting this week we welcomed our Company Reps, who are now more informed on how SAE and their respective firms can benefit each other. If you are interested in becoming a Co. Rep. please contact Tim Fauser for all the details.

* Our sympathies are with the Leo Lechtenberg family. Leo passed away recently, at age 90. He grew to be V.P. of Engine Engineering at Briggs & Stratton. He held many Board positions, including Section Chair (1959-1960) as his son Andy did in 2001-2002.

* One way the companies in our Section can assist our young engineers is to (like Briggs & Stratton, and others) sponsor Student Competition vehicles, or provide funding for components on the project vehicles. By providing much needed contributions to the schools, you will identify yourself and your company, and help the student teams to be competitive. Maybe a local team will bring back the Mini Baja Championship from Brazil!

* We hope to see many of you at the first SAE Commercial Vehicle Engineering Congress and Exhibition. Make use of this valuable networking time by carpooling!

This month, please join us at Mercury Marine. Our bus trip can provide valuable networking time, so consider bringing a guest, client, boss, etc. The consumer demand for VERADO engines is motivating Mercury to double the output of their manufacturing line, and we're going to see it!

Looking forward,

Dale Wiza
SAE Milwaukee Section Chair

Additional MAPS



MAP :

State Fair **Park-n-Ride**
Departure time: 4:00 p.m.

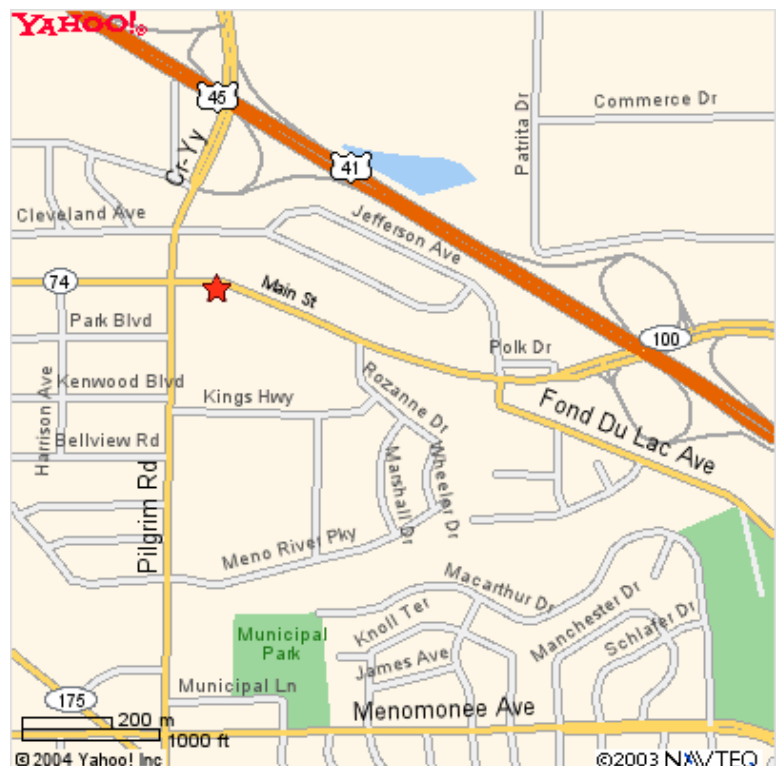
Location is the southwest corner of W. Kearney Street & 76th Street., just south of I-94. From the west, exit the freeway at 84th Street. Go straight at 84th St. (the stop & go light), and continue east to the entrances on the right.

MAP :

Menomonee Falls parking lot
Departure time: 4:25 p.m.

A gas station is on the southeast corner of Pilgrim Rd and Main Street. Schlotzsky's is east of the gas station. The motorcoach will stop in the open part of the lot, to the east of Schlotzsky's.

Easy access off of the freeway is southbound, at Pilgrim Road, or westbound on the Main St (Hwy 74) off ramp.





CLASSIC 15hp



VERADO OUTBOARD



"VERADO" engine

Meeting Sponsorship

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



Mercury Marine Corporation [Fond du Lac]



Harley-Davidson Motor Co [Milwaukee]



Briggs & Stratton Corporation [Wauwatosa]

For more information on becoming a sponsor, please contact any Section Board member.

Keep current with us on these SAE web sites:

<http://milwaukee.sae.org> for the Milwaukee Section or
the national site at milw-sae@wi.rr.com

For more information on **A World In Motion** call: 724-772-8514, and ask for Darlene Geweth
email: awim@sae.org internet: www.sae.org/foundation/awim