

JANUARY

TOUR & MEETING

Wednesday, 19-Jan-2005

PROGRAM:

Vehicular Optics Technologies -plus- Electronic Systems on Heavy Duty Mobile Equipment

- ◆ Tour J.W. Speaker's manufacturing plant located in Germantown, Wisconsin
- ◆ Visit the Vehicle Optics Testing Lab
- ◆ The truck ahead of you kicks up a rock – will it cost you \$230 for a light assembly?
- ◆ Join us for a great dinner buffet
- ◆ Technical presentations:
 - > Heavy Duty Mobile Vehicle Electronics by Ed Heck (Hydro Electronic Devices, Inc.)
 - > Overview of J.W. Speaker & Vehicle Lighting by Jim Connell (J.W. Speaker)
- ◆ News on next month's Wright Flyer & Aviation School Tour, and the Clean Snowmobile Challenge 2005

Tour: J.W. Speaker Corporation
W185 N11315 Whitney Dr.
Germantown, WI 53022
(800) 558-7288

Dinner: American Legion - Post 1
N120 W15932 Freistadt Road
Germantown, WI 53051
(262) 251-5470

- - - EVENT AGENDA - - -

Tour [J.W. Speaker]:	5:00pm
Registration/Social:	6:00pm
Dinner:	6:45pm
Presentations:	7:30pm

- - - DINNER - - -

MENU:

NO Selection Required. Dinner Buffet – appetizers, beef / turkey / Polish sausage, beverages and dessert.

MEAL PRICE:

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

Registration:

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 the SAE Phone Line at **(414) 465-6420**. "No-shows" with reservations will be billed. 50-Year members entitled to 1 free dinner annually.

Registration deadline: 2:00pm – Friday, Jan 14th

Topic: Electronics on Heavy Duty - Past, Present & Future
Speaker: <> Ed Heck, Manager. Technology Development - HED, Inc.

The presentation will provide a road map of what has been, what is now, and a guess as to what the future holds for Electronics on Heavy Duty Mobile Equipment. For the last 17 years Ed Heck has worked with HED (Hydro Electronic Devices, Inc.), a company he co-founded. Previously serving as the Vice-President of Sales & Marketing, he currently supports HED as the Manager of Technical Development. Mr. Heck has accumulated a total of 31 years in industry, including other management positions he has held at firms such as HUSCO, DeLaval, Denison Hydraulics and Ventron Electronics.

Ed Heck received his education in electronics from Penn State, and physics from West Virginia University. When conversation turns to achievements, one can learn that Mr. Heck has been recognized professionally by ASAE (American Society of Agricultural Engineers), recognized seven times by SAE and has twice been given NFPA (National Fluid Power Association) Service Citations. He is the current Chairman of NAIITF (North American ISOBUS Implementation Task Force) and the current Chairman of the Electrical, Electronics, and Controls section of SAE for FICM (Farm Industrial Construction Machinery). Ed presently serves on Standards Committees for SAE, ASAE and NFPA.

HED designs and supplies customized electronic controls for mobile equipment applications. Their entire focus is on collaborating with customers to apply state-of-the-art electronic control solutions to machine-specific applications. With a product range that spans the most simple toggle on-off control to the highest level of intelligent and proportional machine control, their specialization and experience assures that products are designed and constructed to withstand the harsh and hostile environments associated with mobile equipment operation. As they put it, "It's what we know, it's what we do, and it's ALL we do".

Topic: Overview: JW Speaker & Off-Highway Vehicle Lighting Technologies
Speaker: <> Jim Connell, Director of Engineering - J.W. Speaker Corp.

Two years ago Mr. Jim Connell joined the J.W. Speaker team where he manages the technical group that designs and develops off-road vehicular lighting products. He brings with him a history of four years with Briggs & Stratton, six years with Mercury Marine, and eleven years with Waukesha Engine. Mr. Connell received his BSME from MSOE. His primary responsibilities have been in the areas of product design and development, project management, and management of the J.W. Speaker technical department.

For over 40 years, J.W. Speaker Corporation has produced quality custom lighting systems for vehicular markets. Founded in 1935 by John W. Speaker, the company established itself as an innovator in vehicle lighting markets. Today, John's grandsons, Tim and Jamie Speaker run the company. Through the use of state-of-the-art technologies like HID, LED and Halogen, J.W. Speaker focuses on creating innovative designs that add value - their number one goal.

February 17 Meeting tour: Aviation A&E School & Wright Flyer – Mitchell Field

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

April 21 Meeting (tentative) Student Meeting – one of the Milwaukee campus sites

May 18 Meeting tour: Daimler-Chrysler Dealership / the Hot New 2005 Vehicles – West Allis

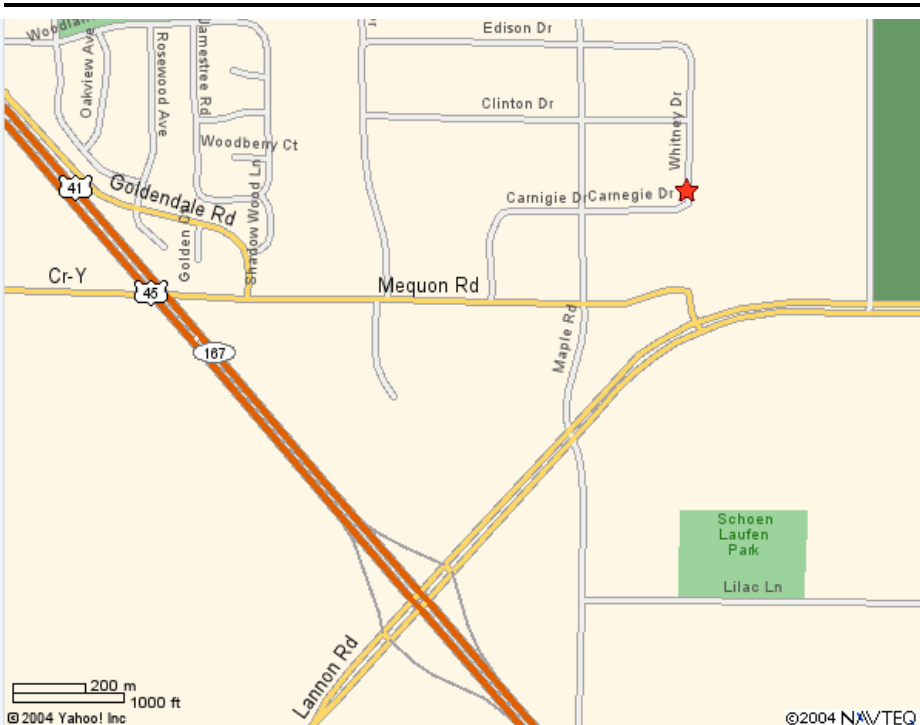
Upcoming Events

Milwaukee SAE Section Member Alex Bub Teaches DIRT BIKE SAFETY SCHOOL

The MSF (Motorcycle Safety Foundation) is a national, not-for-profit organization promoting the safety of motorcyclists. The MSFDBS (Motorcycle Safety Foundation Dirt Bike School) is taught by 5-time AMACCS Supertwins and Formula Twins Champion Alex Bub, who is an MSF certified dirt bike school instructor, SAE Milwaukee Section member since 1989, and one of the first 3 coaches in the nation certified to teach ATV classes by the ATV Safety Institute. He has been riding since 1965 - pro AMA Motocross racing in the 70's and club road racing in the 70's and 80's. His accomplishments include: WERA 410cc National Champion 1979, WERA Open Superbike Mexican Champion 1980, and Superbikers 2 Sport Motard Champion 2002/03.

The MSF Dirt Bike School offers basic training on how to ride off-road motorcycles in a hands-on, half-day course taught at a training location near Random Lake, WI. No motor vehicle experience is needed. Classes are offered covering topics on clutch techniques, braking, shifting, turning, using body language to control the motorcycle, climbing hills, off-camber terrain, proper trail etiquette, laws, and protecting the environment. The course is concentrated towards new inexperienced riders.

For more information see www.dirtbikeschool.com or call 877-288-7093.



Tour location [MAP](#) :

J.W. Speaker Corporation
W185 N11315 Whitney Dr.
Germantown, WI 53022
(800) 558-7288

Driving directions from Milwaukee

- Take I-45 North toward Menomonee Falls and West Bend.
- Continue through the Falls to Germantown.
- Exit at Lannon Road. At the end of the ramp turn right and continue ¼ mile to Maple Rd.
- Turn left on Maple and proceed across Mequon Road.
- Continue on Mequon to Carnegie Drive.
- Turn right to J.W. Speaker Corporation, at W185 N11315 Whitney Drive.

Hello S.A.E. Milwaukee Section members,

Allow me to take this opportunity to introduce SAE's newest collegiate design competition, the CSC (). More than 150 students are expected to participate in the 6th annual CSC. Seventeen collegiate teams will test their engineering designs against one another during this exciting week long event. Universities from Michigan, Wisconsin, Idaho, New York, Wyoming, Colorado, Ontario, Georgia, and Maine are scheduled to compete.

The 2005 Clean Snowmobile Challenge competition will again be hosted by Michigan Technological University in Houghton, Michigan, starting on Monday, March 14th, to Saturday, March 19th. This competition challenges student teams to utilize their engineering skills to improve upon a base production snowmobile in the critical areas of emissions, noise, fuel economy, acceleration, handling, and braking. They also provide technical reports and presentations to our judges.

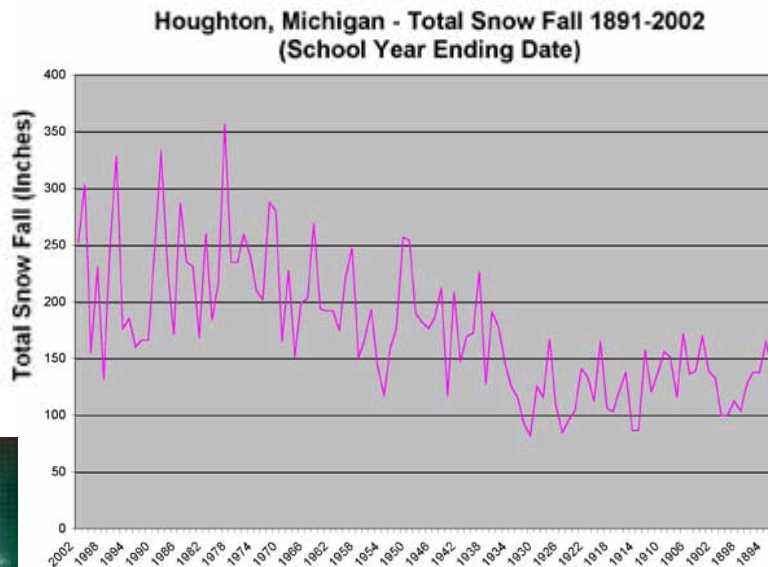
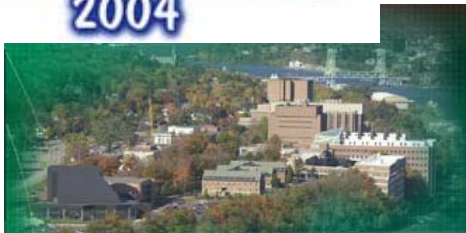
Our initial experience last year showed us how exciting and truly unique this competition is. It was extremely rewarding to see the students' excitement as they saw their year long engineering efforts and hard work in action.

Since Michigan's Upper Peninsula has come under the Milwaukee Section's leadership, I will coordinate the Milwaukee Section's support for CSC 2005. I'm asking anyone interested in becoming a part of this competition to feel free to contact me. I will compile a list of interested individuals, and I will keep them and the Milwaukee Section informed on how we can best provide support for this event.

Please consider coming along to witness the 2005 Clean Snowmobile Challenge in person, to volunteer your support, to meet various student teams, or just to see the excitement of young engineers enjoying the competition. Two things I can guarantee... this is a very exciting competition, and that there will be snow in Houghton!!

Hope to see you there.

Patrick Schoepel
Work Phone: (262) 636-1678
Email: p.j.schoepel@na.modine.com



For more on the UW-Madison 2004 CSC entry and the Clean Snowmobile Challenge see:
www.mtukrc.org and <http://homepages.cae.wisc.edu/~saecsc/> .

Milwaukee Section 2004-2005 Governing Board

CHAIRMAN:

Dale Wiza
Professional Engineering Placements, Inc.
email: dale@engineeringplacements.com
Work: (414) 427-8080

VICE CHAIR:

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

SECRETARY:

Bernard Krauska
Borg Indak Inc
email: krauska@execpc.com
Work: (262) 968-3313

TREASURER:

Wayne Richter
Management Recruiters of Germantown
email: wrichter@mrgermantown.com
Work: (262) 255-7155

VICE CHAIR MEMBERSHIP:

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

VICE CHAIR MATH/SCIENCE:

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

VICE CHAIR STUDENT ACTIVITIES:

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: tfouser@comtel.com
Work: (800) 860-2692 x354

HISTORIAN:

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

Alt SECTION DELEGATE:

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

- Chairman's Note -

We hope everyone had a safe and joyful holiday season, and are ready to continue our momentum with SAE100!

Thank you to Ken Szallai and the many helpers from the Lake Express. Hosting for 175 attendees there took major effort, and they served us well! Our tour of the vessel was impressive, I could say especially the high-tech wheelhouse, and the four 3000 hp engines, but I must include the attractive and spacious passenger cabins as well. Ken shared some of the first year success, and challenges, and the positive vision for the Lake Express, which we can contribute to by experiencing the boat trip first hand.

We must also thank the UW Clean Snowmobile team for bringing the "Bucky 800 Hybrid Drive" sled out, and Eric Schroeder for his informative presentation on what the team is involved with for the Clean Snowmobile Challenge competition, <http://students.sae.org/competitions/snow/>.

Besides recruiting for attendees and helpers for the CSC, companies interested in sponsoring a portion of the event can contact Jay Meldrum (906) 487-3178, or <mailto:jmeldrum@mtu.edu>. Many related components could benefit from CSC's shared technologies, and exposure. Our Milwaukee Section will again sponsor.

* Congratulations to Dr. John Lumkes, named SAE's Student Advisor of the year! John was formerly with MSOE and served them well, grew their Championship Aero. Program, and was very involved in Mini Baja, and their other student activities. John is now at Purdue. Share a personal note, <mailto:lumkes@purdue.edu>.

* Our partnered organization Engineers & Scientists of Milwaukee (ESM) is also 100 years, and we are again looking forward to the Banquet in Feb., with John Gurda, our local Milwaukee historian as guest speaker. Call Carla Meyer at 414-297-7239 or meyerc@matc.edu, or our Dennis Webb 414-371-5835 dwebb@badgermeter.com for additional information.

* Students and members, our fine organization depends upon your sustained involvement with SAE. Let us know how or where we can best serve you, and where you can offer to assist us too. We will then continue to grow together, not just by quantity but also quality of members, through serving!

Sincere thanks, and looking forward to a great New Year,
Dale Wiza
SAE Milw. Section Chair

**A Hardcopy S.A.E. Newsletter is being distributed to the
Milwaukee Section each JANUARY and SEPTEMBER.**

Meeting Sponsorship

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



J.W. Speaker Corporation



Harley-Davidson Motor Company



Briggs & Stratton Corporation

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 <http://www.sae.org>

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



SAE - Milwaukee Section Support for 2005 C.S.C.

Location: Keewenaw Research Center
1400 Townsend Drive
Houghton, MI 49931-1295

University Host: Michigan Technological University
Houghton, MI

Event Organizer: Jay Meldrum
Director
Keewenaw Research Center
906-487-3178
Jmeldrum@mtu.edu

Section Chair: Patrick Schoepel
Work Phone: 262-636-1678
Work E-mail: p.j.schoepel@na.modine.com

Event Dates: 03/14/2005 – 03/19/2005

03/14 Mon. Team Arrival
03/15 Tue. Endurance run
03/16 Wed. Design Presentations
03/17 Thur. Cold start, Noise, Emissions, Handling
03/18 Fri. Emissions continued
03/19 Sat. Acceleration, Handling, Awards Banquet

Section Plan for Support

Call for member participation

- Letter placed on section website 12/16/04 completed
- Letter placed in January meeting newsletter 01/15/05 target
- Final list of members no later than Feb. meeting 02/17/05 target

Provide sponsorship for event – (\$1,000 level recommended)

- Silver \$5,000 Decal on every competing snowmobile
(1) 3'x5' banners on site
(2) Tickets to awards banquet
One page ad in event program
Listed on sponsor banner
Listing on SAE website
- Bronze \$1,000 (2) Tickets to awards banquet
One page ad in event program
Listed on sponsor banner
Listing on SAE website

Plans for Support

- 03/17 - Thursday
9:00am - Travel to event (Individual vehicles or bus if enough members)
4:00pm - Arrival in Houghton
- 03/18 - Friday
6:00pm - Section meeting and dinner
To include UW-Madison & Michigan Tech students
- 03/19 - Saturday
11:00am - Group to volunteer for objective handling event, open to the public.
Set-up / tear down course
Run start/stop of snowmobiles.
Record times of team runs. 2 per team.
Keep crowd from course boundaries

6:00pm - Awards Banquet
Milwaukee Section to present an award
- 03/20 - Sunday
8:00am - Return travel to Milwaukee
3:00pm - Arrival