



## FEBRUARY MEETING

Tuesday, 22-Feb-2005

**PROGRAM:**

*Wright Flyer s/n:2-Flying Replica  
-plus-  
TOUR of A&E School Avionics,  
Airplanes, and Electronic Systems*

- ◆ Tour the A&E (aircraft & engine) labs, a branch of MATC
- ◆ See the training aircraft used at the facility
- ◆ Join us for the dinner buffet
- ◆ Learn about the engineering and volunteer efforts that were required to build and fly a 1903 Wright Flyer!
- ◆ Tie in discussion of the Packer Group's advance composite research program, which is their collaboration with Boeing, Office of Naval Research, Northwestern Univ., Production Products, and NAVAIR.
- ◆ Technical presentation:  
Wright Flyer to Unmanned Aerial Vehicles
- ◆ News and TV clip on next month's Clean Snowmobile Challenge 2005

**Location:** Mitchell Intl. Airport  
Aircraft & Engine School  
422 E College Ave.  
Milwaukee, WI 53207

**--- EVENT AGENDA ---**

Registration:	5:00pm
Tour [A&E School]:	5:15pm
Dinner:	6:15pm
Presentation:	7:30pm

**--- DINNER ---**

**MENU:**

*NO Selection Required.* Mexican Buffet

**MEAL PRICE:**

SAE Members / Spouses:	\$20.00
Retirees:	\$15.00
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](mailto:milw-sae@wi.rr.com), or call the SAE Phone Line at **(414) 687-3032**. "No-shows" with reservations will be billed. 50-Year members entitled to 1 free dinner annually.

Registration deadline: 2:00pm – Friday, Feb 18th



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**Topic: From Wright Flyers to Unmanned Aerial Vehicles**

Our Speakers will discuss the challenges and successes encountered during the construction of the Wright Flyer. The airplane was flown, and now resides in the Chicago Museum of Science and Industry.

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**Speaker: <> Steven Meyers, Director of Aerospace, Packer Engineering  
President and Co-Founder, Packer Wings NFP**

Mr. Meyers started his career as an Intelligence Officer in the United States Air Force. He offers strong entrepreneurial leadership and a proven track record of evaluating risks, establishing networks, and managing stakeholder expectations. Combined with his educational background in engineering, business, sales, and his in-depth knowledge of aviation, he has successfully incubated opportunities into sustainable profit centers.

To date, he has been awarded 1.65 million dollars in high-risk research and development programs through the Small Business Innovation Research Grant Program. His expertise falls broadly into the following industries: defense, aerospace, advanced materials, manufacturing, university partnerships, and failure/risk analysis. In particular, his technical expertise has benefited Boeing, Lockheed-Martin's "Skunk Works", Northrop Grumman, Israeli Aircraft Industries, Pilatus Aircraft, Aero-Vodochy, Eurocopter, the Office of Naval Research, NAVAIR, and SOCOM.

Steve Meyers is actively involved in aviation with a mechanical engineering perspective. He is also a commercially rated Pilot and Flight Instructor (instrument, multi-engine, glider, and seaplane ratings), an FAA designated safety counselor for airman and mechanics, and an FAA certificated Airframe and Powerplant Mechanic with an Inspector's Authorization.

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**Speaker: <> Dr. John Fildes, Chief Scientist**

Dr. Fildes has over 24 years of successful experience in technology management and R&D, and a comprehensive knowledge of industry, government, and academia. He has extensive leadership in team building, technology transfer, commercialization, strategic planning, business development, organization of industrial consortia, establishment and operation of virtual/agile enterprises, contract R&D, and program management.

Dr. Fildes presently serves as the Chief Scientist of The Packer Group. He has served as the CEO of Packer Engineering and was instrumental in establishing Packer Technologies International. His ongoing research and development efforts include the development of advanced materials processing methods, design and fabrication of processing equipment and advanced model-based control systems that incorporate artificial intelligence technology, the development of transducers and measurement instrumentation, and the establishment of business tools for operating agile, virtual organizations.

He served as a postdoctoral research associate in the Department of Chemical Engineering at the Virginia Polytechnic Institute. He earned his Doctorate in Physical Chemistry from the Virginia Polytechnic Institute and his B.S. in Chemistry from Georgetown University. He has served as a reviewer in manufacturing technology for the National Science Foundation within their Engineering Research Centers Program. He has 31 published papers and reports, and 3 patents to his credit.

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**March 17-20, 2005 Event** (trip) Clean Snowmobile Challenge – Houghton, MI

**April 21 Meeting** Thomas Magnete – UWM Milwaukee campus (tentative)

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

## *Upcoming Events*



Tour location [MAP](#) :

Mitchell International Airport  
A&E School  
422 E College Ave.  
Milwaukee, WI 53207

### Driving directions from Milwaukee

- Take I-94 South toward Chicago.
- Exit at College Avenue; turn left and travel over the freeway.
- Continue approximately 1.25 miles on College to the school (just past Howell).
- Turn left into parking lot, at 422 E College Avenue.

Hello fellow SAE - Milwaukee section members,

Here is news for those interested in participating in our Section's support of the 2005 SAE Clean Snowmobile Challenge (CSC) scheduled from March 14th - 19th at the Keweenaw Research Center in Houghton, MI. Thirteen teams from universities across the northern part of North America will attend the CSC this year. Additional details on the 2005 CSC can be found at: <http://students.sae.org/competitions/snow/>. And I did guarantee snow! As of Monday there was 39" on the ground in Keweenaw Co., with 169" of total snowfall so far this winter.

Based on the number of individuals interested in participating so far, we plan to travel to Houghton in private vehicles, with a few individuals also towing sleds. Most of the group will drive to Houghton on Thursday, March 17th. The departure times are open for discussion. It's about a 6 hour ride from Milwaukee.

On Friday, we will coordinate VIP snowmobile rides for a little fun in the snow. We hope to ride to Copper Harbor and back, like last year.

On Saturday March, 19th, we will volunteer the group to assist with the acceleration and handling event. This is the last event prior to the Awards Banquet Saturday evening, which is part of this Section event, attending with northern businesses, students, and sponsors.

We will return to Milwaukee on Sunday, March, 20th.

I have compiled a list of individuals that expressed interest in participating. Please contact me soon to let me know if you plan to travel up with the group. If so, I need to verify your personal contact information.

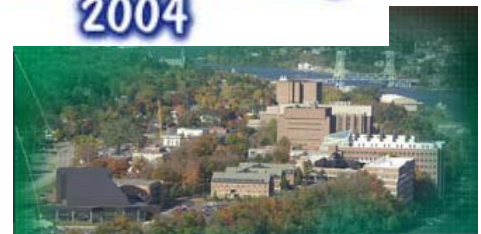
Please send me any comments or suggestions on the tentative agenda, and let me know of any other people that you can recruit to come along. I will keep everyone on my list informed of the group plans as we get closer to the event.

Thank you for your support of this SAE event. It will be a fun and exciting experience.

Patrick Schoepel

Work Phone: (262) 636-1678

Email: [p.j.schoepel@na.modine.com](mailto:p.j.schoepel@na.modine.com)



# Clean Snowmobile Challenge Coming in March

*For more information on this story contact:*

*Email:* [Marcia Goodrich](mailto:Marcia.Goodrich@mtu.edu)

*Phone:* 906/487-2343

(from the UP)

Jan. 17, 2005----A dozen teams from universities across the northern part of North America will roar--quietly--into Houghton in March for the annual [SAE Clean Snowmobile Challenge](#).

The sleds will compete March 14-19 at MTU's Keweenaw Research Center, known for its vehicle test grounds and the Midwest's finest winter driving track. This will be Michigan Tech's third year hosting the event, which is being organized by the Keweenaw Research Center and MTU's Department of Mechanical Engineering-Engineering Mechanics.

The Clean Snowmobile Challenge is the Society of Automotive Engineers' newest collegiate design competition. Teams of engineering students from participating schools take a stock snowmobile and then reengineer it to reduce emissions and noise while maintaining or improving performance.

Michigan Tech placed second last year, with the University of Wisconsin-Madison's innovative hybrid gas-electric sled taking the gold.

"I think Wisconsin will be the one to beat," predicts Jay [Meldrum](#), director of the Keweenaw Research Center. "They told me they are making improvements and refining their design. Michigan Tech is doing the same with their machine, and McGill is coming back with their electric sled, so we'll have a very interesting challenge this year."

Teams will put their sleds through a series of performance and emissions tests, including an endurance run north to Copper Harbor. New this year are ergonomic tests that measure rider comfort. The driver sits on an accelerometer--"like a whoopie cushion," Meldrum explains--that can record vibration. The less vibration, the greater the score.

Also new is a subjective handling test, in which professional snowmobile drivers rate the sleds on their maneuverability and driving characteristics. "In other words, they'll tell us if this is a snowmobile someone would enjoy renting," Meldrum said.

Teams registered for the event are Clarkson University in New York, Kettering University in Flint, McGill University in Montreal, Michigan Tech, Minnesota State University at Mankato, Montana Tech, the State University of New York at Buffalo, the University of Alberta, the University of Idaho, the University of Maine, the University of Wisconsin-Madison and the University of Wisconsin-Platteville.

The public will be invited to view the handling and acceleration events, held at the Keweenaw Research Center on Saturday, March 19.

For more information, contact Meldrum at 906-487-3178, [jmeldrum@mtu.edu](mailto:jmeldrum@mtu.edu).

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

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There was an enthusiastic crowd for the automotive electronics event last month. We had an impressive tour of the 100,000-sq. ft. J.W. Speaker facility, where we observed a fine example of lean manufacturing. After dinner, Jim Connell described J.W. Speaker's: designs, tests, applications, and processes of their high intensity LED's, drivers, etc. As a courtesy for the attendees, we were each given a 12 V, high-intensity, multi-purpose lamp. Thank you to Jim and his well-prepared, supportive staff.

Bernard Krauska, of Borg Indak shared some of their LED lighting solutions, as part of their contract design and manufacturing they provide for the vehicle lighting industry.

Ed Heck, with HED gave a presentation of their vehicle products: the impressive J1939 applications, remote controllers for government vehicles, controls for ladders of fire engines, CAN (controller area network) systems, etc. There aren't many vehicles that HED isn't contributing to! Thank you Ed, you serve SAE well!

\* Our February meeting will also celebrate the SAE 100<sup>th</sup> Anniversary with a focus on the Wright Brothers' Flyer, along with other local historical contributions to mobility. Did you know, in 1910 The Wright Expedition Team had flown at the Milwaukee Mile (which is the oldest racetrack in America)? Here Arch Hoxley had crashed, but had just minor injuries. But just a few months later, he crashed again, and died. Many had given their life to promote this new industry.

\* EAA began in 1953, in the current Chairman of the Board, Paul Poberezny's basement. Then in 1964 it moved into a new building in Franklin, just 2 miles from where I grew up! I remember the additions being added through the years. Finally outgrowing itself, EAA broke ground in Oshkosh during 1982, where its present and most impressive home is today.

\* We're excited to venture north to the Clean Snowmobile Challenge. Pat & I would like to meet briefly with those of you who are interested in coming up to attend CSC. At the conclusion of the February Aviation meeting at MATC look for us so we can share more about carpooling, accommodations, snowmobile rentals, and how we can assist at the event. We look forward to meeting you!

In Houghton, on Saturday March 19<sup>th</sup> we'll attend the CSC Awards Banquet, (with about 130 students, and as many more from industry) where you'll hear from snowmobile industry experts and contributors like the International Snowmobile Manufacturers Assn. (ISMA), Gage Products, MI Snowmobile Association, Lotus Engineering, and more. We encourage our UP and upper WI Members and guests to join us there, and support our Section's Michigan Tech., and UW teams. Even though not in our Section, we'll cheer on Platteville's alumni too!

\* Evert's Rentals in Hancock was a great place to work with last year with the rentals of our Ski Doo MXZ's. They offer Arctic Cat touring sleds of various sizes, too, and are kindly discounting rates for our SAE members! Call Nicole at 1-800-858-2862, or go to <http://www.upsnowmobilerentals.com>. Be sure to mention you're with SAE in Milwaukee to get the best in sleds and services.

\* We would like to share respects after the recent passing of two long term SAE members. Robert Cox was a member for 42 years. He was 89 when he passed on. Ivan Baxter died at age 82, also a long term member. He was active with many other technical societies. Ivan was a Sr. Program Mgr. at Waukesha Engine, specializing in the cooperative fuel research engine (CFR) development for the American Society for Testing Materials, manufactured exclusively for "Waukesha Motors". He also helped found the Sussex Antique Power Assoc.

Thanks for your continued support,  
Dale Wiza, SAE Milwaukee Section



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## Meeting Sponsorship

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



**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@sae.org](mailto:awim@sae.org) internet: [www.sae.org/foundation/awim](http://www.sae.org/foundation/awim)

