

Montana Society of Engineers

A state society of the National Society of Professional Engineers



Founded 1887

President's Message:

Stephen T. Smith, PE, President

My term as President of MSE is coming to a close and, beginning next month, I welcome Michael Cech as our next President. I have enjoyed this experience. I now know much more about MSE, our members, and the roles and issues of engineers in Montana than before. Thank you to the recent previous presidents, Crystal Kuntz and Ken Phillips, upcoming ones Michael Cech, Georgia Brensdal, and Brian Schultz, and especially Connie Dempster, our Executive Secretary, who keeps us all motivated, on task, and on schedule.

I return to the theme of my first newsletter last September; ***"The world is run by those who show up."*** Approximately 5,000 engineers are registered Professional Engineers in Montana, of which approximately 1,800 live in Montana. MSE has somewhat less than 100 members; and the trend is not up. Maybe a dozen "show up" at our annual meetings or otherwise help to "run" MSE's interests. I fear for the future of our organization and what that says about our profession. Many organizations, like ours, see year after year declines in membership. Younger professionals seem to have other priorities.

Chris Stone, NSPE President, has promoted the acronym "LEADERS" (Licensure, Ethics, Advocacy, Diversity, Education, Recruitment, and Sustainability) "as the foundation of both our profession and our Society." (6/5/2012 email) I fully agree. While the tone of this letter may not show it, I am an optimist. It is vital to MSE's *sustainability* that we

recruit and somehow get the interest of a new generation of Professional Engineers. This fall, several of us met with, and invited participation of, graduating engineering seniors at Carroll College. We intend to make this an annual event and add the other engineering colleges. This last year, the Helena Engineers Club was reactivated and we have been seeing 20+ engineers join together for monthly lunch and programs. This is all good.

Engineers are well respected in our society. We have earned that through training, getting things built, and maintaining high ethical standards. MSE locally and NSPE nationally, promote these standards and our place in society as Professionals. Social involvement in helping to run the world is an integral part of being "professional." I ask that each of you reading this letter commit to step up to more involvement, some of that with MSE, and to promote professionalism among the younger engineers in your organizations.

This November, we will again have the Joint Engineers Conference with our MSE Annual Meeting one evening. This is a great opportunity to meet other engineers, learn about what is going on outside of our own worlds, brush up on ethics and other training, and earn continuing education credits. I encourage you to join us. Please, show up.

I hope to see you soon.

June, 2012

"I return to the theme of my first newsletter last September; "The world is run by those who show up.""

Inside This Issue

<i>Montana MATHCOUNTS Update! ...</i>	<i>2</i>
<i>Fort Peck Dam Historical</i>	
<i>Documentary</i>	<i>3</i>
<i>2012 JEC Update</i>	<i>3</i>
<i>Update on House Bill 525</i>	<i>4</i>
<i>From the MSE Office.....</i>	<i>5</i>
<i>2011-2012 State Officers.....</i>	<i>5</i>
<i>MSE Gold Medal Winner at MSU....</i>	<i>5</i>
<i>National MATHCOUNTS Results</i>	<i>6</i>

Montana MATHCOUNTS Update!

Dan Munson, PE, MathCounts State & Billings Chapter Coordinator

Four Montana middle schools students represented Montana at the National MATHCOUNTS Competition held in Orlando on May 11th. The Montana Team placed 37th in the nation, competing against 55 other state and commonwealth teams. Amy Chou, one of the team members, ranked 71st in the nation setting the fourth highest placement record for a National Montana “Mathlete”.

The top four Montana MATHCOUNTS students in the state along with the top state Middle School Math coach were all sent to Orlando to represent Montana at the competition. These

students were chosen from a total of 488 Montana students that participated in local, regional, and state

MATHCOUNTS competitions held throughout the year. The national team members were: Amy Chou, Bozeman Sacajawea Middle School; Caleb Noble, Helena CR Anderson Middle School; Kira Parker, Helena CR Anderson Middle School; Carolyn Graham, Missoula Washington Middle School; and Kari Boucher – Coach, Missoula Washington Middle School.

The 2012 Montana MATHCOUNTS Team showed great talent and potential. We really expected a fine showing at the national competition. They did not disappoint us! We are all very proud of these students and their coach. This has been an experience that they will remember forever.

The team was able to travel expense free to Orlando due to generous corporate and individual contributions towards the program. As well as participating in the national competition, the team attended a special hosted event at the Raytheon exhibit in the Innovations Center at EPCOT, and also got a chance to spend a day relaxing at Disney World.

We also recognized Jon Graham, a professor in the Department of Mathematical Sciences at the University of Montana as the Montana MATHCOUNTS Champion of the year. Jon has volunteered countless hours teaching middle school students in the Missoula area in math skills and problem solving techniques. He is using MATHCOUNTS resources to instruct his University students new concepts in reaching students they will someday teach. Jon also attended the National Competition this year.

The MATHCOUNTS program is sponsored by the National Society of Professional Engineers on a national level, and is organized by the Montana Society of Engineers at the state level. Local volunteer effort is provided by numerous engineers throughout the state, as well as help from the university system. Our thanks go out to everybody who has contributed, volunteered, and mentored our Montana students in this worthwhile program.

Additional information on MATHCOUNTS is available at www.mathcounts.org.

Just how hard is this math? Try the Problem of the Week on the MATHCOUNTS Web site, www.MATHCOUNTS.org, and click on the site’s “Go Figure!” math challenge to really push your skills.

2011-2012 Montana MathCounts Corporate Sponsors

- Ash Grove Cement Company
- Blackfoot Telephone Cooperative
- CHS, Inc.
- ConocoPhillips
- Dennis & Phyllis Washington Foundation
- ECI Environmental Services
- ExxonMobil
- Falls Construction
- Great West Engineering, Inc.
- HDR Engineering, Inc.
- Luzenac Rion Tinto
- Montana Refining Company
- Montana-Dakota Utilities
- NorthWestern Energy
- PPL Montana, LLC
- REC Silicon
- Robert Peccia and Associates
- Stillwater Mining Company
- Western Energy Company
- Yellowstone Electric Company
- Also—American Linen Division

Thank you!!

“Our thanks go out to everybody who has contributed, volunteered, and mentored our Montana students in this worthwhile program.”



2012 Montana MATHCOUNTS Team—Relaxing at Disney World

Fort Peck Dam Historical Documentary

Montana PBS has produced an historical documentary on the construction of the Fort Peck Dam. The program includes great engineering stories and high quality photographs shot by the historians documenting the project. In addition to broadcasts on Montana PBS, there will be public showings in Billings, Miles City, and Fort Peck. Here are the details:

Fort Peck Dam Screenings information & broadcast information:

MontanaPBS broadcast: Airs Sunday 6/24 at 7pm

OR take in a public showing:

Billings & surrounding areas

What: Fort Peck Dam screening event. Open and free to the public.

When: Thursday, June 14th, 7pm

Where: Babcock Theater, 2nd Avenue North & Broadway, Billings MT

Miles City & surrounding areas

What: Fort Peck Dam screening event. Open and free to the public.

When: Friday, June 15th, 7pm

Where: Custer County Art & Heritage Center, 85 Waterplant Rd, Miles City, MT 59301

Fort Peck & surrounding areas

What: Fort Peck Dam screening event. Open and free to the public.

When: Saturday, June 23rd, 2pm

Where: Fort Peck

Theater, 201 Missouri Avenue, Fort Peck MT

For more information, contact:

Doug Brekke, P.E.

Black Box Design

204 West Third

Avenue

PO Box 1295

Big Timber, Montana

59011

406-932-5400

Fax 406-932-4135

OR

Thaddeus J. Lesnik, P.E.

Project Transportation Engineer

Sanderson Stewart

1300 North Transtech Way

Billings, MT 59102

Phone 406-656-5255

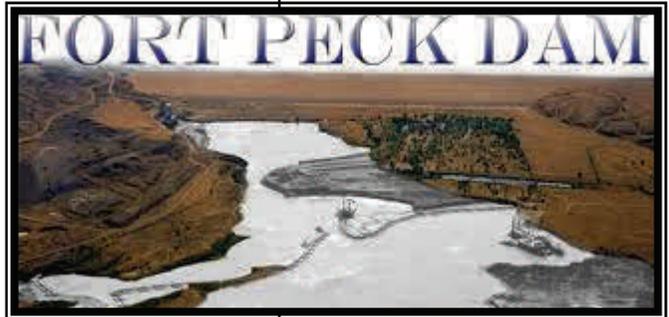
Direct 406-869-3351

Fax 406-656-0967

tlesnik@sandersonstewart.com

www.sandersonstewart.com

One side note: The construction worker Joe Morin - interviewed in this documentary - is my grandfather!! - Connie Dempster



“The program includes great engineering stories and high quality photographs shot by the historians documenting the project.”



Chris Laity, PE, JEC Chairman

The Joint Engineers Conference will be held November 7-9, 2012 at the Red Lion Colonial Inn. Speakers have signed up in record numbers and scheduling for the speakers in the six tracks is in the process of being finalized. Once the schedule has been set, emails will be sent to all the speakers letting them know the outcome of their submissions.

Registration to attend the 2012 JEC will open on September 1. You will have access to all speaker and schedule information at that time. Pricing will remain the same as it has been for the past several years. A single postcard notification will be sent to all PE registered and residing in Montana! This postcard is scheduled to arrive at the address listed with the PE

2012 JEC Update!

Licensing Board on the Tuesday after Labor Day. REMEMBER: Early registration pricing is available from September 1 through September 30. Mark your calendar to get your best price option!

Those wishing to exhibit, sponsor and/or advertise at the 2012 JEC can do so by visiting www.mtengineers.org and using the link provided on the Joint Engineers Conference page. About half of the 25 booths have been spoken for as of this publication. In addition to the booths, there are also opportunities to sponsor different JEC events and to purchase advertising in the 2012 JEC Program.

JEC Registration Opens September 1, 2012
Early Pricing Ends September 30, 2012
JEC is November 7-9, 2012

“Registration to attend the 2012 JEC will open on September 1.”

Update on House Bill 525

Georgia Brensdaal, PE, Vice President

On April 20, the Economic Affairs Interim Committee met to review the public purpose of the Board of Professional Engineers and Professionals Land Surveyors, required by HB 525. The legislative staff presented information from the survey. Board representatives including Hal Jacobsen, public member and former legislator, and Dan Elias, presiding officer, attended public comment session. Dan presented a letter which responded to the standard questions put to each of the licensing boards. Steven Smith, President of Montana Society of Engineers, provided a hand out to the committee members and made himself available for any questions from the committee.

There were a few questions to the land surveyors about the amount of work in eastern Montana, but no questions or discussion regarding the engineering industry. The Committee voted to recommend continuing the Board. This recommendation will be presented to the legislature in the regular session.

This is exactly the low-key endorsement we wanted to see at this time. The positive recommendation will be important to getting the review completed through the legislature with little controversy. Vigilance is still necessary once the session begins in January to make sure this stays on track. Thanks to everyone who completed the survey and /or made sure the committee had some feed back from the practitioners.

You can review information on the committee actions at <http://leg.mt.gov/css/committees/interim/2011-2012/Economic-Affairs/default.asp> . I did not see the letter from MMPEPLS at this site. Department of Labor said it might still be posted. If not I will get it to the next newsletter. The letter does mention the role of MSE and our organization's interaction with the Board.

Following is the handout information presented on behalf of MSE.

To: Economic Affairs Interim Subcommittee
From: Stephen Smith, President, Montana Society of Engineers
RE: HB525 Review of the Board for Professional Engineers and Land Surveyors
Date: April 20, 2012

The Montana Society of Engineers is the state chapter of the National Society of Professional Engineers. The mission of the state and national organization is to support and advance the engineering profession for the betterment of society. Through activities such as education, ethics training, and legislative networking, this organization strives to make the profession of engineering accountable to the public and to peer review. I am here today representing the MSE to

provide you these comments to consider on your review of this Board.

Public Health and Safety: MSE believes that the Board is necessary for the citizens of Montana because engineers provide essential services to Montana to assure their health and safety. The different fields of engineering work with projects that effect every day life of all citizens. These include highways and bridges, commercial buildings, water/waste water plants, electrical and steam plants. New technologies and fields of engineering are constantly being introduced – nanotechnology, environmental engineering, and complex computerized control systems. Engineers in these developing fields will also affect everyday lives of people in Montana. The public assumes, and has a right to expect, that the facilities they regularly use are designed and built with their safety in mind. The Board is necessary to maintain the standards of the engineers currently practicing in the profession, and develop new ones for developing technologies.

Important Role to Licensed Engineers: The Board holds key duties related to the engineering profession. The Board sets the qualifications of applicants and the standards of examination for licensing; the Board sits in judgment in hearings for the suspension, revocation, or denial of a license; and the Board requires, verifies and audits continuing education as precondition for renewing licensing. The Board and the Department of Labor provides services to engineers and the general public such as administering licensing processes, maintaining lists and license information for the public, and runs the Board's hearing processes. These are essential duties to maintain the quality of engineering services.

Importance of Licensing Engineers: MSE and NSPE encourage the licensing of engineers. Licensing insures the public and the practitioner doing business in the Montana that minimum qualifications for the duties of an engineer are met, that the capabilities are maintained through continuing education, and that commitment to ethical practice putting the public health and safety are the first priority. The government regulation of these duties insures the public that this is being done in a fair and accountable manner.

Unique capabilities of the Board: The Board, with representations of the public and practicing engineers, under the administration of the Montana Department of Labor and Industry, is the unique body to administer these essential functions. This Board is the only real avenue in which professional issues and complaints against practitioners may be fairly resolved.

Speaking for the members of MSE, and most practicing professional engineers in the state, we support the continued structure and function of the Board. The MSE concludes that the Board of Professional Engineers and Land Surveyors meets the criteria of the HB525 legislative review because it "meets a public purpose."

“The Committee voted to recommend continuing the Board. This recommendation will be presented to the legislature in the regular session. . . . Vigilance is still necessary once the session begins in January to make sure this stays on track.”

**Link to NSPE for Salary
Survey Information**
[http://www.nspe.org/
CareerCenter/
SalaryInformation/
index.html](http://www.nspe.org/CareerCenter/SalaryInformation/index.html)

From the MSE Office

NSPE's Engineering Income and Salary Survey has been conducted since 1952 and provides a comprehensive look at what engineers across the country are being paid. NSPE members who take part in the survey get free, unlimited access to complete survey data.

The survey is continuously updated and provides income information based on a wide range of factors: education level, years of experience, geographic location, gender, and practice specialty, among others.

- NSPE Member/Survey Participant: FREE unlimited report access for 12 months
- Member/Nonparticipant: \$155 unlimited report access for 12 months
- Nonmember/Survey Participant: \$400 unlimited report access for 12 months
- Nonmember/Nonparticipant: \$620 unlimited report access for 12 months

This is a member benefit—free to those that participate in providing salary information. Are you taking advantage of the benefit?

2011-2012 MSE Board

Stephen T. Smith, President

stephentsmith@earthlink.net

Michael J. Cech, President Elect

mike.cech@northwestern.com

Georgia Brensdal, Vice President

mtmoosemom@aol.com

Brian Schultz, Secretary/Treasurer

brian.schultz@northwestern.com

Crystal Kuntz, Immediate Past-President

crystal.kuntz@eciblgs.com

Connie Dempster, *Executive Secretary*

MSE Office

PO Box 20996

Billings, MT 59014-0996

406-259-7300

mse@assoc-mgt.com

Deadline for the Next
Issue of this Newsletter is
September 10, 2012

Submit articles and advertising to
mse@assoc-mgt.com

MSE Gold Medal Winner at MSU

Stephen T. Smith, PE, MSE President

Each year for nearly 100 years, the MSE has worked with the Montana State University (MSU) College of Engineering to provide the Gold Medal Award to an outstanding graduating engineering senior. Each spring the College of Engineering requests that departments submit one nomination from each engineering discipline. The criteria used to select outstanding seniors are:

- Distinguished academic record,
- Involvement in extracurricular activities,
- Leadership in extracurricular activities,
- Commitment to the practical use of the sciences in the execution of engineering work,
- Promise of service to their profession with integrity, devotion to high standards, and a sense of obligation to humanity.

A college selection committee, comprised of faculty, staff, and students, reviews all of the nominations submitted and selects three finalists. Members of the Montana Society of Engineers then interview the finalists to select the winner. The winner was announced by Dean Robert Marley at the College of Engineering Celebration on May 4, a day prior to the Main Commencement Ceremony.

This April 12th, Georgia Brensda and Stephen Smith had the privilege of interviewing

three outstanding candidates: LoriBeth Evertz for Mechanical (Biomedical) Engineering, Ethan Keeler for Electrical & Computer Engineering, and Paul "PJ" Kolnik for Civil Engineering. As in prior years, we were humbled by the intelligence and accomplishments of these graduating engineers. We know that each will contribute importantly to our profession and to society throughout their careers. We had to select only one for the award.

We agreed that Ethan Keeler most exemplified the selection criteria. Ethan is clearly an outstanding student with a 4.0 GPA. His enthusiasm for engineering is infectious, which helps explain how, with his leadership, the MSU Tau Beta Pi Engineering Honor Society tripled its membership. He is already pushing the technology of manufacture of optical nanostructures through his laboratory research efforts. He is dedicated to improving the human condition globally through research and development of tools, for example, to easily detect skin cancer and locally through efforts to eliminate smoking on campus. He is looking forward to advancing his skills at graduate school before assuming his career as a Professional Engineer. Georgia and I are pleased to select Ethan Keeler as the 2012 recipient of the MSE Gold Award for MSU.

We predict a very bright future for Ethan, as well as for the other candidates.

2012 Raytheon MATHCOUNTS National Competition
 Friday May 11, 2012 - Orlando, Florida

Rank	Student	State	Grade	Rank	Student	State	Grade
1	Chad Qian	IN	8	29	Stephen Price	TX	8
2	Ashwin Sah	OR	7	30	Jeffrey Huang	TX	7
S	Kevin Sun	IL	8	31	William Jiao	NJ	8
S	Allen Liu	NY	8	32	Shenghao Liu	NC	7
Q	Sean Shi	CA	8	33	Elvin Gu	LA	8
Q	Alec Sun	MA	7	34	Tony Ding	TN	8
Q	Christopher Xu	WI	7	35	Spencer Chen	MO	8
Q	James Lin	MA	7	36	Eric Lu	MD	8
P	Justin Xu	MI	8	37	Jeremy Dy	MD	7
P	Celine Liang	CA	8	38	Sahaj Garg	NJ	8
P	Robin Park	VA	8	39	Abhinand Sivaprasad	WA	8
P	Dylan Hendrickson	NM	8	40	Sloan Kanaski	AZ	8
13	Lazar, Ilic	TX	8	41	Alexander Li	MD	8
14	Niket Gowravaram	MA	8	42	Rachel Zhang	MO	8
15	Andrew Bai	OR	8	43	Mihir Singhal	CA	6
16	Patrick Wang	WA	7	44	Kathleen Yang	KY	8
17	Michael Ma	TX	6	45	Calvin Lee	NY	8
18	Alexander Wei	NY	8	46	Angela Deng	NC	7
19	Caleb Ji	WA	8	47	Elizabeth Han	IA	8
20	Clive Chan	OH	8	48	Matthew Zheng	NC	8
21	Sarvasva Raghuvanshi	IL	8	49	Kevin Lin	VA	8
22	Albert Xu	WA	8	50	Junghyun Hwang	IL	8
23	Matthew Lipman	MA	7	51	Peter Mizes	NY	8
24	Brice Wang	IL	8	52	Thatcher Chonka	OK	8
25	Michael Kural	CT	8	53	Yogeshwar Velingker	PA	7
26	Roy Navid	PA	8	54	Matthew Hambacher	NV	7
27	Dhruv Medarametla	MI	8	55	Anthony Cheng	UT	8
28	Yue Zhang	KY	8	56	Aradhya Kasera	FL	8

Rank	Team	Rank	Team
1	Massachusetts	13	Wisconsin
2	Illinois	14	Oregon
3	Washington	15	Connecticut
4	New York	16	Missouri
5	Virginia	17	Arizona
6	Maryland	18	Indiana
7	Texas	19	New Mexico
8	California	20	Nevada
9	Michigan	21	Ohio
10	New Jersey	22	Florida
11	North Carolina	23	Louisiana
12	Pennsylvania		

Written Competition Champion - Sean Shi, California
Written Competition Runner-Up - Alec Sun, Massachusetts