President’s Message: More Than Stray Thoughts
Tom Abel, PE, President

This will most likely be the last “Stray Thoughts” article since my time in office expires next month when Ken Phillips takes over as president of the Montana Society of Engineers. I thank this year’s board, Ken Phillips, Crystal Kuntz, Steven Smith, and past president Jeff Rufner for all the help and advice this year. Thank you also Connie Dempster who pretty much runs the whole show, maintains continuity, and reminds us of things we have to get done. It has been a great 4 years with MSE. When I started I was not sure about committing that much time to being on the MSE board, but it has been worth the time invested. Personally it has made me a more well rounded engineer (not just my waistline), and I have met many other Montana engineers and other contacts due to my board activities. I still am not sure what NSPE does other than to reorganize. Whenever I receive an e-mail from a national board member and the words “task force, awareness, procedure manual” you can be sure there is someone at the other end with not enough to do. The stated functions of NSPE are:

- Reach out and build alliances as needed with related professional organizations (such as NCEES)
- Promote and protect the interests of PEs at the federal level
- Build a common professional brand, and implement related public relations and marketing activities
- Act as a clearinghouse for information on professional trends, issues, news, information and best practice
- Negotiate valuable discounts on needed member and state society services and support
- Support state societies in effectively carrying out their roles and responsibilities

One year, NSPE “Promoted the interests of PEs at the federal level” by donating funds to Conrad Burns. This prompted an outcry from our membership (the only time the board heard from members during my time on the board), and resulted in a couple of cancelled memberships. We sent a statement to NSPE demanding they not spend Montana money to support any candidate unless they are instructed to do so by MSE, which we do not do.

With my attitude about the national organization, I have not represented MSE very well on the national level. In fact, in response to a request to attend the next national meeting, I responded to President Brad Aldrich repeating comments from the board that the national meetings are expensive to attend and are generally a waste of time, and we could spend our resources better on our state activities.

The message we received from NSPE last November was a new initiative to promote the career of engineering among young students. We should portray engineering as fun, and interesting, and downplay the fact that you have to be good at math and physics. After hearing the part about downplaying the math and physics, I thought “So just when do you let them know about the math and science part? When they are seniors in high school, second year of college?” This sounds like a pretty lame way to promote engineering.

At the state MathCounts competition, I greeted a young boy and his dad introducing myself at the president of the Montana Society of Engineers, and making the comment that if the boy pursued an engineering career in Montana, this is the school he would attend. The dad did not even let the kid answer. He said, “No, my son will be going to Missoula. They have a better football team”. He Dad, do you realize there is no engineering program in Missoula??

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President’s Message—Continued

What is the kid going to do, become a lawyer or an English teacher? All you have to do is drive slowly down Higgins Avenue on a warm evening and they will hand a degree to you through the car window.

While the national objectives remain somewhat fuzzy, we can be proud of what we are doing on the state level.

I recently received an email from an NSPE engineer from Colorado requesting feedback for a proposed NSPE website. I was proud to respond the Montana Society of Engineers already had such a website on the state level and some parts of it have been successful and some parts have fallen flat. The website was just started when I first came on the board. Now it is well established, and the registration for the Joint Engineer’s Conference is done on-line through the website.

The Joint Engineer’s Conference just gets better every year. MSE is one of the heavy hitters in the organization of MSE. Our President Elect, Crystal Kuntz, has taken over ‘The Job’ from Doug Brekke who performed miracles for years putting on the JEC. Crystal has taken what Doug started and gone to the next level. If you have not attended one, you should. Check the MSE website www.mtengineers.org.

MathCounts is always rewarding and fun to see some possible future engineers in action. If you are not involved in MathCounts, you are missing out. Check with Dan Munson to see how you can help.

Our little Kalispell group has been very rewarding, and something I will continue to promote until someone else is dumb enough to take it over. We have no dues, no officers, and no bureaucracy. We meet when the need arises. Generally 15 to 17 engineers attend meetings. We have tackled such topics as questioning proposed county regulations, the snow load finder, the definition of public buildings in Montana. We also have had outside speakers. One day last summer, we had Steve Kilbreath from the Montana Department of Environmental Quality come to Kalispell to listen to us on how some of the septic system, non-degradation, and subdivision regulations should be changed. He had little sticky notes on his copy of the Administrative Rules of Montana. This rule is B.S., this one can be worded differently, and this one is B.S. (he may not have used that exact terminology). Here is a guy who is not merely reading the rules and enforcing them but trying to see if the rules make sense, and finding out what problems we have with the rules in the field.

On another occasion, the Flathead County Health department determined that dust was a significant health hazard so roads must be paved by the subdivision developer so many miles each side of a subdivision. Farmers and loggers were exempt from having to prevent dust. This looked to us like a way to curb subdivisions in the Flathead, and not really about health. We asked for the data or the scientific study that showed that dust was a significant health hazard in the county. There was no study or data, the county backed off.

The latest word is the plug-in hybrid Volt car may come out in late 2010. There is a Chinese company, BYD, who has beat GM in developing a hybrid plug-in electric car that will sell for about $1/2 the price of the GM Volt. U.S. billionaire, Warren Buffet, has invested in the Chinese company, while we are forced to invest our tax money into GM. The goal of the current administration is to have a million electric cars on the road by the year 2015, and tax incentives will be offered to help convince people to buy electric cars. What if there are 1 million electric cars on the road by 2015? Most of these will have the high tech lithium ion batteries or some other battery that is yet to be invented. If you look at the battery that comes with your electric toothbrush, it is one of those high tech batteries. You cannot actually look at it without destroying the toothbrush, but you will see a little warning “Dispose of Properly”. In other words, you are not supposed to simply throw the battery in the trash can to be taken to the county landfill. The batteries must be handled properly to prevent them from being an environmental hazard, heavy metals getting into the air and aquifers. What happens when 1 million cars that have 5 to 15 batteries need to be replaced every 5 years? Some types of batteries can be recycled, and some cannot. Those that cannot be recycled end up in landfills. What to do with large quantities of used batteries may be a future challenge for engineers.

An engineer in Bozeman, Montana has developed a 100% plug-in or solar powered electric car that does not use high tech batteries. It uses ordinary car batteries that are easily and readily recyclable. The battery pack can be recharged by the solar panel on the roof of the car, or by plugging the on-board battery charger into any 110 volt outlet. The car is not intended to replace a truck for carrying lumber to the jobsite. If that is what you need, buy a big truck. It is not intended to carry your family to Disneyland and back. If that is what you need, buy a 4 door sedan Buick. What the Bozeman electric car is good for is fun, and for all those little trips to the post office, the bank, the grocery store, the barbershop, the hardware store, etc. The car will run in the winter time, but is has no heater and the batteries are not very efficient in cold weather. Battery heaters must be installed to get the best performance from the batteries, but there goes some of the driving range just to heat the batteries. Basically this is a fair weather car that can be used for short trips around town.

We had the chance to test drive the car this spring at a high speed closed circuit test track north of Bozeman (it might have been a Continued to Pg 3—
President’s Message—Continued

new subdivision road, but not sure.) Three of us took turns driving the car flat out at speeds up to 37 miles per hour. The car legally cannot be operated at speeds more than 25 miles per hour, since it is called a neighborhood vehicle and has not been crash tested. Driving the test track with no concern for conserving the batteries, we logged on 11 miles before the batteries were at 50% charge. You never want to run a battery down past 50% or it will “fry” (the technical term used by electric car buffs for battery failure). After recharging the batteries, the next trial was done by the inventor who paid close attention to the amount of amperage drawn by the motor. He was able to coax 30 miles from the same car on the same test track.

The Bozeman engineer lives about 5 miles from his real job. He drives the car to work. The solar panel brings the batteries back to full charge. He goes home for lunch and returns to work. The solar panel recharges the batteries to full charge by quitting time. He drives home and plugs the car into his AC outlet in the garage. The next morning the batteries are fully charged and ready for another day. The estimated energy cost for commuting to work is $1 per week.

The car and the Bozeman engineer will be at the JEC next November. You may be able to drive it down the hallway of the Colonial. There is no noise, no gas, no oil, no water, and no fumes. What is it like driving an electric car? When in college I had a job with 3M Company at the St. Paul Terminal Warehouse hauling freight from the 3rd floor to the loading dock and bringing the empty pallets back up to the 3rd floor after the truck drivers loaded. Running the freight elevator was a great summer job, but it had its ups and downs. Carl, who was near retirement age, had an electric dolly for moving pallets. I had a mechanical hand pump dolly. Carl would sit on the front of the dolly and twist the handle. The electric dolly did not have a fancy controller like today’s electric cars. It had 2 positions, slow and fast. The sound of the Bozeman electric car was just like Carl’s freight dolly except there is infinite speed control instead of just 2 speeds. The car is slow in getting moving, but once at 10 mph or so, the power really kicks in. Twisting the twist grip at 30 mph gives one a pleasing acceleration forward.

One last topic. We are not supposed to talk politics on this newsletter, but it is like the old saying. If there is an elephant sitting in your living room while company is there, it is difficult not to say anything. The elephant is here and it is the Obama Administration. He seems determined to dismantle American Capitalism and to create a new World Order, one in which America will become and 2nd or 3rd rate country. We are moving towards a world currency, and world government. If everyone in the world becomes one big happy family, it will be much easier. There is no issue with borders, no reason for wars, no reason for trade restrictions, and we share our hard earned money with everyone else in the world. In many ways corporations are already operating as though the entire world is a big city, just like we have to consider the State of Montana a big city with a lot of real estate when providing engineering services.

We have heard such ideas before. John Lennon in his 1971 song “Imagine” Imagine there is no Heaven, no Hell, no religion, no countries. “I hope someday you'll join us And the world will be as one.” Barrack Obama and company are taking us there fast, but he is not coming from the same place John Lennon was coming from. We are not sure where Obama is coming from or who his handlers are. Be careful!

The elephant is here and it is the Obama Administration.

Fans of JEC

Crystal Kuntz, Vice President & JEC Chair

Well, time is passing us by at warp-speed these days and summer is upon us which means that fall is not far behind bringing with it the 2009 JEC on November 4, 5 and 6. This year’s schedule of courses was completed in record time by the close of May. Thanks to the efforts of all on the JEC Planning Committee, we are offering a full host of six tracks with courses on Wednesday afternoon and all day on Thursday and Friday to provide up to 15 PDHs at the conference including a technical tour of the Judith Gap Wind Farm. The administrative members of the JEC will spend the next month or so finalizing arrangements for speakers, facility accommodations and vendor facilities before formally opening the web site to on-line registration.

As the JEC Planning Committee evolves and our methods become more streamlined, we find ourselves developing a good problem for upcoming years - - we have too many high-quality speakers and topics for the limited number of course spaces available. As planning for the 2010 conference begins, we will likely find ourselves in the unfamiliar territory of having to select the best session speakers from all of those proposed and unfortunately having to turn down some speakers. But fret-not...this is a good problem to have! It will allow our JEC Planning Committee the ability to mold and shape the conference into the premier engineering conference in Montana and the event of choice for speakers.

A hearty ‘thanks’ to everyone that has worked so diligently to identify interesting topics and locate good speakers – and in a timely fashion. The success of the conference is due to the interactive participation of each of you and this year’s attendance will attest to the success of your endeavors. Thanks again!

Please take a moment to visit our current course schedule at: https://www.jecregistration.com/r_showcourses.php

“The car and the Bozeman engineer will be at the JEC next November. You may be able to drive it down the hallway of the Colonial.”

2009 Joint Engineers Conference:
November 4, 5, & 6 in Helena, Montana
A special THANK YOU to all of this year’s Montana MathCounts Corporate Sponsors & Volunteer Engineers! You are what makes this program work.

Montana MathCounts Review

By Dan Munson, State MathCounts Coordinator

MSE would like to thank all of our corporate sponsors and dozens of volunteer engineers who have helped make the chapter and state competitions so successful. We get a number of letters each year from students who really believe that MATHCOUNTS has made a difference in their entire study habits and their attitude towards school. It is rewarding to think that a number of these students will be our next generation of successful engineers. Thanks for helping make a difference.

2008-09 Montana MathCounts Corporate Sponsors

American Public Works Association—Rocky Mountain Chapter
Ash Grove Cement Company
Blackfoot Telephone Cooperative
  CHS, Inc.
  ConocoPhillips
Dennis & Phyllis Washington Foundation
ECI Environmental Services
  ExxonMobil
Great West Engineering, Inc.
HDR SSR Engineering, Inc.
Montana Refining Company
Montana-Dakota Utilities
NorthWestern Energy
Robert Peccia and Associates
Stillwater Mining Company
Westmoreland Resources, Inc.
Yellowstone Electric Company
Alsco—American Linen Division

2008-09 Montana MathCounts Chapter Coordinators

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Fax: 406-994-6105
e-mail: jerrys@coe.montana.edu

North Central Chapter
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Billings Chapter & State Coordinator
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e-mail: hunter@dawson.edu

Missoula Chapter
Bev Young, Coordinator
Phone: 406-329-3273
Fax: 406-329-3198
e-mail: byoung01@fs.fed.us

2009 State MATHCOUNTS Winners: Coach Linda Horst, Benjamin Klempay, David Lindenbaum, Hannah Habberman, and Cameron Marler
For other engineering news:
Visit:  www.mtengineers.org
Election Ballots
Due June 29, 2009

Montana Society of Engineers are currently holding their annual Board election. We would like to thank Jeff Ruffner for his services to the Society over these past several years — as he moved thru the chairs. Tom Abel will be serving as the MSE Immediate Past President in 2009-10 term—providing continuity to the new Board. Kenneth Phillips will advance to President and serve as MSE representative to the NSPE House of Delegates with Crystal Kuntz moving up to the President-Elect Chair position. Steven Smith will be the Society’s Vice President.

For those of you that have reviewed your ballot, we have two candidates running for the Secretary/Treasurer position: Mr. Michael Cech—from Bozeman and Mr. William Boger from Kalispell. A short bio on each of these candidates was sent out with the ballot.

If you have not received your ballot, please contract the MSE Office — I will get one out to TODAY! For those that you that have voted — THANKS! For you that have set it a side — remember ballots must be returned to the MSE Office by close of business on June 29, 2009.

Summer Job– Search Strategies

Submitted by Deborah Walker, Career Coach

It's easy to lose career focus during the summer months. Kids home from school, warm sunny weather and household projects tend to distract job seekers. Additionally, the interview process often gets disrupted while employers accommodate multiple vacation schedules. These interruptions become an easy excuse to put a job search on hold till September. Don't give in to the temptation to take the summer off. Your summer sabbatical will add months to your job search. Remember, even though the hiring process seems slower during summer companies still interview and make offers June through August.

1. Stay on track. Keep a schedule of weekly job-search activities that include networking for leads. Summer is a great time for increased social activities, which can quite naturally lead to discussions about your search. Additionally, tap into your on line social network to find people who know people within your targeted companies who may be able to introduce you to hiring managers. Don't overlook the potential help of others in uncovering job leads.

2. Don't get impatient. It's easy to let job-search activities slide when interviews get delayed, rescheduled or canceled. It's best to accept that hiring stalls are a natural summer phenomenon. Use your extra time to research targeted companies in greater depth. The insider information you pick up may give you the extra "leg up" in the interview to win out your competition. Remember, the interview process seems slower during summer companies still interview and make offers June through August.

3. Keep your interview skills sharp. The normal tendency in summer is to neglect critical interviewing skills. The idea is “once interviews start back up I’ll pull out that book and get ready.” Bad idea. Don't get caught off guard. Start perfecting your interview skills BEFORE your next interview is scheduled. Minimal you should be able to:
   * State your strengths and weaknesses
   * Give reasons for short job durations
   * Sell your transferable skills
   * Give examples of your accomplishments

Remember, these are just the minimum issues you should be able to handle in an interview. Every job seeker has their own list of questions they hope they don't get asked. You must identify the questions that make you squirm and be ready with great answers.

Following these tips will help you maintain your job search momentum during the busy Summer months. Remember, work on your job search, then work on your tan. Build your interview skills then build the deck. You'll be way ahead of the September crowd and months ahead in landing your next job.

Summers are a great time for increased social activities, but don't allow your projects to stall. Use your extra time to research targeted companies in greater depth. The insider information you pick up may give you the extra “leg up” in the interview to win out your competition. Remember, the interview process seems slower during summer companies still interview and make offers June through August.

Please contract the MSE Office — I will get one out to TODAY! For those that you that have voted — THANKS! For you that have set it a side — remember ballots must be returned to the MSE Office by close of business on June 29, 2009.

2008-2009 MSE Board

Tom Abel, President
tom@abelengineeringinc.com

Kenneth Phillips, President-Elect
kennethphillips@bresnan.net

Crystal Kuntz, Vice President
crystal.kuntz@eciblgs.com

Steven T. Smith, Secretary/Treasurer
stephentsmith@earthlink.net

Jeff Ruffner, Immediate Past President
jeff.ruffner@mse-ta.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, 2009
Submit articles and advertising to mse@assoc-mgt.com

“Keep your job-search momentum throughout the summer to avoid frustration in the fall.”
2009 JEC Vendor Information

About Joint Engineers Conference

The Joint Engineers Conference (JEC) is the premier engineering event in Montana hosting over 300 engineers, designers and contractors as well as city, county and agency personnel. Session and continuing education units reflect the Conference’s diversity and participants from both the public and private sectors will be in attendance. The 2009 JEC will be held Wednesday, Thursday and Friday, November 4-6, 2009 at the Red Lion Colonial Hotel in Helena.

Date & Location

The 2009 JEC is scheduled for:

Wednesday, Thursday & Friday
November 4, 5 & 6, 2009

Red Lion Colonial Hotel
2301Colonial Drive
Helena, MT  59601
Phone:  (406) 443-2100
Fax: (406) 449-8815
E-mail:  colonialsales@redlion.com

Vendor Fees

Vendor fees include complimentary participant registration, 10’ x 6’ or 10’ x 4’ display area with pipe and drape, skirted table, two chairs and power.

All breaks and meals will be hosted in the vendor area. An evening social on Thursday, November 5, 2009 will also be held in the vendor area.

Before September 1st, 2009 $500
After September 1st, 2009 $600

Only 5 Booths left — reserve yours today!

Other Conference Sponsorships

CONFERENCIE SESSION: Vendors are invited to sponsor a Conference Session. Session sponsors present an educational session based on their product or service to a captive audience of 20 to 80 engineers, designers, and contractors as well as city, county and agency personnel. All vendor sessions must be educational in nature and qualify for continuing education credit according to MSE. Sessions are available in 1 and 1-1/2 hour increments for one or up to four sessions. Vendors wishing to sponsor a conference session must complete a presenter form, available from MSE, to have their course approved prior to March 1, 2009.

OTHER SPONSORSHIPS:

Lunch (2 Available) $5,000 each
Breaks (4 Available) $1,500 each
Breakfast (2 Available) $2,500 each
Vendor Social (1 Only) $3,000
Power Point Projector* $500 or $700

*These projectors will be purchased by JEC with your sponsorship money (1st five will be $500—last 2 will be $700). These projectors will be predominately labeled with your company’s name and logo for use by the JEC and the Societies to use over the next several years—multiply years of advertising for your company! (2 of the first 5 have been sponsored.)

Room Rates

A block of rooms has been reserved at the Red Lion Colonial for the Joint Engineers Conference at a reduced conference rate. Vendors are responsible for their own arrangements but are encouraged to take advantage of the conference rate—the room block ID is JEC. For reservations contact:

Red Lion Colonial Hotel
2301Colonial Drive
Helena, MT  59601
Phone:  (406) 443-2100

Questions?

The Montana Society of Engineers (MSE) is preparing all vendor arrangements. All registration forms, as well as questions regarding vendor space, session sponsorship, registration and monies should be directed to MSE.

Connie Dempster
MSE Executive Secretary
Montana Society of Engineers
PO Box 20996
Billings, MT  59104
Phone:  (406) 259-7300

Vendor Setup

Vendors are asked to set up between 9 pm and 11 pm on Wednesday, November 4th, 2009 and should remain set up through 7:00 p.m. Thursday, November 5th, 2009. 

Note: This is a 1-day show starting at 7:00 am with a vendor breakfast thru to the end of the Vendor Social at 7:00 pm. - all on Thursday—November 5th.
Vendor spaces are available on a first-come, first-serve basis. To receive the early bird registration fee and sponsor a conference session, interested companies and organizations must complete this form & return to MSE with full payment.

### Vendor Registration

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**Web Address (this will be linked to the JEC web page)**

### Vendor Fees

**Registration Fee:**

- $500 Early (Before September 1, 2009)
- $600 Late (After September 1, 2009)

**Booth Location Preference:**

1st Choice __________ 2nd Choice _______ 3rd Choice _______

**Other Conference **Sponsorships:**

- Lunch (2 Available) $5,000 each $______
- Break (4 Available) $1,500 each $______
- Breakfast (2 Available) $2,500 each $______
- Vendor Social (1 Only) $3,000 $______
- Power Point Projector $500 $______

**Please contact Connie for additional details.**

**TOTAL:** $______

### Completed Forms

Return all completed forms with check or money order payment to:

- **Montana Society of Engineers**
- **Joint Engineers Conference Vendor Registration**
- **PO Box 20996**
- **Billings, MT 59104**

### Additional Vendor Attendees

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### Vendor Information

To facilitate the planned mixer at our vendor reception scheduled for Thursday evening (November 5), please provide a list of five items you would like the conference attendees to learn about your product or service (attach additional sheets if necessary):

**Example: Acme concrete additive can increase the strength of traditional concrete by 1000 psi.**

1) __________________________________________
2) __________________________________________
3) __________________________________________
4) __________________________________________
5) __________________________________________
Vendor spaces are available on a first-come, first serve basis. The layout below shows the available booth locations and the setup of the vendor area. Please indicate your location preferences, 1st, 2nd and 3rd choices, on your Vendor Registration Form.