#### Founded 1887

# MSE has Many Irons in the Fire

Dan Munson, PE, President

#### **MSE State Board Nominations**

Our annual MSE State Board elections will be held in May. There will be two vacancies opening on the board, and we are taking nominations to fill those vacancies. If you would like to nominate yourself or someone else to sit on the State Board for a 4-year period, please send an e-mail to mse@assoc-mgt.com, or drop a note to MSE, PO Box 20996, Billings, MT 59104-0996.

Your State Board is focused on the following goals, and if you feel that you can help us attain them, please consider nominating yourself:

- Grow the Montana Joint Engineer's Conference to 3 days of educational tracts, attracting over 350 engineers from the region.
- Establish a Montana Engineer's premiere website.
- Grow the Montana MATHCOUNTS program to involve 500 students.
- Dissolve society and professional boundaries by fostering collaboration with other engineering societies, the MPELS board, and other design professionals.
- Continue to grow the Engineering Outreach program to Montana schools.
- Monitor Montana legislative issues for opportunities to enhance the engineering welfare and image.

Nominations are due by April 30<sup>th</sup>, so that we can hold timely elections in May.

#### MATHCOUNTS News

Teams of  $6^h$ ,  $7^h$ , and  $8^h$  grade student Mathletes® from middle schools all across Montana competed in the State MATHCOUNTS contest on Monday, March  $7^h$  at MSU in Bozeman. A total of 28 middle schools across the state comprised of 96 students participated. The top four individual Mathletes®, and the coach of the winning team, won an all-expense paid trip to the MATHCOUNTS National Competition.

Alec Patterson from Missoula's Washington Middle School, Cole Jensen and Aidan

Shackleton from Missoula's Sussex School, as well Mauro Whiteman from Great Falls North Middle School won the top honors at the State Competition this year. These four students, along with Missoula's Washington Middle School Math teacher Teresa Toller, will represent Montana as our official state team at the National MATHCOUNTS Competition in Detroit on May 6<sup>th</sup>. Patterson is a returning champion who represented Montana at the national MATHCOUNTS competition last year.

The top teams this year were Missoula's Washington Middle, Missoula's Sussex Middle, Bozeman's Chief Joseph, Billings' Will James, and Billings' Lewis and Clark Schools.

Thanks to the engineering volunteers around the state, 500 middle school students around the state in 7 chapter competitions could experience MATHCOUNTS. Thanks for your help in making this program so successful in Montana!

#### **Legislative Issues**

With less than half of the 2005 Montana Legislative Session left, we would like to update you on a few of the Legislative items that affect design professional.

- HB 342 to reduce the protest requirement on the installation of sanitary sewer systems from 75% to 50%, died on the house floor by a 53-47 vote.
- SB 442, which would "Allow surveyors to inspect certain private roads in subdivisions" died on the house floor by a 52-48 vote.
- SB 237 to allow fee structures, a projected fee to be used in selecting certain services were tabled in Committee, and is probably dead.

Although MSE does not hire a lobbyist, we inform the membership of upcoming bills that may affect our profession. Each engineer can then choose if they want to follow up with their legislator. If you have not been receiving e-mails from us about legislative matters, it's probably because we do not have your current e-mail address. If you would like to be kept informed of upcoming MSE news and alerts, please update your e-mail address at mse@assoc-mgt.com. —Thanks.

# March, 2005

Thanks to the engineering volunteers around the state, 500 middle school students around the state in 7 chapter competitions could experience MATHCOUNTS. Thanks for your help in making this program so successful in Montana!

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Engineers are problem
solvers, and often their
solutions are spectacular,
both functionally and
visually.

# **Bits and Pieces**

Sandra S. Anderson, PE, Secretary/Treasurer Adapted from MSN Encarta's eLearning Quiz 3/10/05

#### **Extreme Engineering Quiz**

Engineers are problem solvers, and often their solutions are spectacular, both functionally and visually. This short quiz will test your knowledge of some of the most extreme engineering endeavors in history.

- 1. Which of these tunnels is longest?
  - a) Channel Tunnel, United Kingdom and France
  - b) Holland Tunnel, United States
  - c) St. Gotthard Tunnel, Switzerland
  - d) Seikan Tunnel, Japan
- 2. What has held this aqueduct together for approximately 2,000 years?
  - a) Cement
  - b) Bronze brackets
  - c) Wooden pegs
  - d) Gravity



- 3. Which dam is largest, in terms of volume of water contained?
  - a) Syncrude Tailings Dam, Canada
  - b) Aswan High Dam, Egypt
  - c) Hoover Dam, United States
  - d) Tarbela Dam, Pakistan
- 4. Which city's subway system covers the greatest distance?
  - a) Tokyo, Japan
  - b) London, England
  - c) New York City, United States
  - d) Moscow, Russia
- 5. How many gigantic stone blocks make up the pyramid of Khufu, the largest of Egypt's great pyramids?
  - a) 23,000
  - b) 230,000
  - c) 2,300,000
  - d) 23,000,000
- 6. Why does the Chesapeake Bay Bridge-Tunnel--considered one of the 'seven engineering wonders of the modern world'-combine bridges and tunnels?
  - a) The roadways pass through a large island in the middle of Chesapeake Bay.
  - b) Portions of Chesapeake Bay's floor are too soft to support a bridge.
  - The tunneled sections allow a high volume of ship traffic to pass over.
  - d) Builders ran out of piers, but had a surplus of concrete pipe.
- 1. The correct answer: D Seikan Tunnel, Japan. The Seikan Tunnel, stretching 54 km (34 miles) between the islands of Honshu and Hokkaido, is the longest tunnel in the world. Designers intended the tunnel to extend bullet-train service to Hokkaido, but the plan proved too costly. Today, the tunnel is used mainly by curious tourists.

- 2. The correct answer: D Gravity. Amazingly, this Roman aqueduct has stood since the 1st century AD without cement, brackets, or pegs. The builders created an arrangement of simple arches on a massive scale. The arches distribute gravitational pull to keep each stone in place. The aqueduct still delivers water to Segovia, Spain, today.
- 3. The correct answer: A Syncrude Tailings Dam, Canada. The Syncrude Tailings Dam, in Canada, is the largest dam in the world, holding approximately 540,000,000 cubic meters of water. Syncrude Tailings is a barrage dam, built only to impede water. The Aswan High Dam, Hoover Dam, and Tarbela dam hold less water back, but are more important economically as generators of electricity and sources of water for irrigation.
- 4. The correct answer: B London, England. London's Underground, covering a distance of 391 km (243 miles) when not counting parallel and non-commercial track, is the world's longest subway system. It is also the oldest: the Underground began operating in 1863 using steam locomotives, which were converted to electricity in the 1890s.
- 5. The correct answer: C 2,300,000. The pyramid of Khufu contains 2,300,000 gigantic blocks of stone, each weighing about 2.5 tons. Of the Seven Wonders of the World, the great pyramids are the only ones still standing today. Nobody knows for sure how the pyramids were built, but we do know that they required the work of hundreds of thousands of laborers.
- 6. The correct answer: C The tunneled sections allow a high volume of ship traffic to pass over. Chesapeake Bay is an important shipping center, and engineers placed two long sections of 28 km (18 mile) span in underwater tunnels under major shipping channels.

Interested in more engineering feats? Give these books a try: 1) Brockman, John: The Greatest Inventions of the Past 2,000 Years, Simon and Schuster, NY, 2000. 2) Cardwell, Donald: Wheels, Clocks, and Rockets, W. W. Norton, NY, 2001. 3) James, Peter and Thrope, Nick: Ancient Inventions, Ballantine Books, New York, 1995.

# Short Quips

You can tell you are an Engineer if:

- The salespeople at the local computer store can't answer any of your questions.
- At an air show, you know how fast the skydivers are falling.
- You sit backwards on Disney rides so you can see how they do the special effects.
- You see a good design, and have to change it.
- Your spouse hasn't the foggiest idea of what you do at work.

# How to Pass the P.E. Licensing Exams

Dennis Dahlquist, P.E.

It's licensing exam time again and time to review some strategies for passing the Professional Engineering examinations (Fundamentals of Engineering, FE and Professional Engineer, PE). This author teaches review courses for the Fundamentals of Engineering, FE (formerly known as the Engineering In Training examination, EIT) and the Electrical Engineering Professional Engineering Exam, EE PE. The following are some of the strategies that many people have found useful in taking the exams.

If you are interested in taking the Professional Engineering exams, contact the California Board of Engineers and Land Surveyors (or the State Board of the state in which you want to be licensed). Also, refer to National Council of Examiners for Engineering and Surveying (NCEES) web site, http://www. ncees.org. You may also consider taking a review course before the exam. Check around, there are many for the FE and some for the PE's (CE, ME, EE, etc.). Two of the best organizations for successful study for the exams are; Professional Engineering Institute for review courses and Professional Publications Inc. for review books.

These examinations require review. They are not to be taken lightly. The Board has the latest data on the previous exams; however the pass rates (number of people passing) are in the range of  $20\% \sim 50\%$ . This varies from exam to exam and year to year. The Board can give you the pass rates for the last five years.

The exams are not easy and this is by design. The exams are compiled by engineers, psychologists, and professional exam writers. The key point here is that the exam is a multilevel test of one's engineering ability. To pass the exam you must engineer your way to the exam and through the exam. You engineer your way to the exam by studying and reviewing the necessary material, and engineer your way through the exam by using good engineering technique.

#### Exam Format

The Fundamentals of Engineering (FE) is a multiple-choice, closed-book test and is the first of the licensing series. It includes a morning of general engineering problems and is followed by the afternoon section where you have your choice of a general or discipline specific exam. The second test of the series, The Professional Engineer exam, is discipline specific. It is also a multiple choice, open-book exam with a combination of breath (morning) and depth (afternoon) of the discipline. You qualify to take this exam after passing the FE and completing some years as a practicing engineer.

#### Becoming a P.E. (short version)

Acquire a good education, a Bachelors (BS) or a Masters (MS) engineering degree from an ABET (Accreditation Board for Engineering and Technology) accredited school. This will save you some qualifying time for the exams. Take the FE while you are finishing school (if not, take a review course tailored for people who have been out of school for some time). Work in your discipline for the number of years required by the Board (this varies based upon education and discipline) and take the PE exam in your discipline. Upon passing the exam you are now a Consulting Engineer or also known as a Licensed Professional Engineer (and you can now legally put P.E. after your name).

OK, you signed up for the exam (or are about to). How do you engineer your way to the exam? Seek out review courses near you. Find others who are planning to take the exam and form a study group. Work problems, problems, problems. Obviously, you have other obligations. However, you want to make a commitment to yourself to pass this exam. Set up a schedule for studying. You are preparing yourself for a mental marathon. Just as you wouldn't try to run 26 miles without training for it, you can't expect to pass the exams without studying. The more problems you work, the better. However, you don't want to do just the problems you like. As a matter of fact, you want to do the opposite of that, do the problems you don't like. Engineers are usually called in when there are problems and it has not been done before, chaos. As soon as the engineer applies order to chaos, the job is done and it is time for the engineer to go. So, for the poor engineer who likes order, one keeps finding chaos. My, that was a long justification for working problems you don't like.

#### Materials You Will Need

When working practice problems in preparation for the exam; use the same materials that you will be using on the exam, calculator(s) and reference book(s). You want to be very familiar with your tools. **Reference books:** For the FE your reference book will be provided to you (so prior to the exam you want to be familiar with it). The PE is open book, so you can take what you want. But, you had best know the references you are planning to take into the exam, because there is no time during the exam to read books. Calculators: No computers are currently allowed during the exam. However, you can take in some programmable calculators. These days there is a blur between calculators and computers. As far as the examiners are concerned, anything that has a "typewriter type" of keyboard and/or communication capability will probably not be allowed on the exam. For the current rules on what is acceptable, refer to your state board.

#### **Exam Preparation and Performance**

While you are doing your practice problems, try to not use you calculator very much. "What do you mean? This is Engineering; you HAVE to use the calculator!"...you might

Continued on Page 4 —

These examinations require review. They are not to be taken lightly.

# How to Pass the P.E. Licensing Exams —Continued from page 3

say. However, remember that the exam is a test of your engineering ability, not how well you use a calculator. This is an engineering exam not a math test. Calculator time is "dead" time. Every time you use your calculator it is time you are not spending "thinking" about (engineering) the problem at hand. Yes, you will need use your calculator, just to use it wisely. How does one calculate with out using a calculator? Use you brain, it is much faster! For example, what is the common log of 1000? Before you reach for your calculator, think about it. What is the power of ten representation of 1000? 1000 is ten to the third power. What is the log of 1000, 3! See you can do it without a calculator. Fine you say, but what about the log of 2,354? Well, you can come up with a close approximation of 2,354. You know the log of 1,000 is 3 and the log of 10,000 is 4, so the log of 2,354 is between 3 and 4, and closer to 3. This may be enough information to isolate an answer in a multiple-choice question.

Try to check your answers as much as possible. I realize that you are under time restrictions; however, you want to at least estimate your answer. Under the, "stress of test" you can hit extra keys on the calculator (or maybe make a calculation error) and by mentally estimating or doing an alternate solution, you will be able to catch these errors.

Study hard and study well. You want to practice exam conditions when solving the practice problems. This means you probably will not have a TV (or computer) during the exam, so don't study with the TV. On the other hand, you probably will not have a completely quiet and isolated room either, so study accordingly.

Just before the exam, get two good nights of sleep. This is not to imply that you sleep for 16 hours before the exam that will create another set of problems. It seems that today's society is run by a lot of people under sleep deprivation and you want a useful rested brain on the exam.

Don't cram before the exam. This may have worked in college, but it doesn't work well for the Professional Engineering exam. Being rested for the exams is very important. You will know a lot of information for the exam if you have studied along the way. However, it will be of no use to you if your brain is asleep on the exam day.

#### **Strategies During the Exam**

You want to develop a plan for the exam. One I recommend is to read the exam. Read through all the questions and classify them into; "easy", "will require some work", and "I don't know". This should take 10 - 20 minutes, depending on the exam and you. Implement your plan. The easy ones you might answer during the first pass through as you read them; however, watch the time. Don't spend all of your time on the problem(s) you like. Get them done as soon as possible. You are going to have to spend your

time on the others, i.e., the ones you don't like as much. If the whole exam is easy for you, great, do it and go home. For most people, there aren't enough of the "easy" problems for them to pass the exam (otherwise the pass rates would be higher).

On the "will require some work" problems, don't spend your time completely calculating the problems. A natural human reaction is to start at the beginning and serially move to the end. You don't have time for that. Check as you are calculating, to see if you have enough information to isolate the answer. For multiple-choice questions, if two answers are correct and there is a selection for "all", select it and go on. Don't take the time to prove to yourself all the answers are correct. Use the answers from multiple choice to back calculate, this can save you time. You need to be efficient with your time.

By reading the "I don't know" problems again, you may discover that they can be moved into the category of "may require some work". If not, do some intelligent guessing. If you find yourself in a problem and it just looks too hard, remind yourself that you are not "looking" at it correctly. This helps in two main ways. One way is that this will cause you to relook at the problem and there may be something you missed. The second way is more of a psychological help. If you think it is too hard for you, you may convince yourself and give up. Don't give up; just look at it differently. That is the main point of being an engineer. Don't give up; try another way. That's what being an engineer is all about...trying until you find a solution. The people who give up are not engineers (and they can't pass the exam). The people who do are the engineers.

#### **Summary Check List:**

Before the exam:

- Check with the Board for an Application and current requirements for the exams.
- Develop a plan for the exam. How are you going to engineer your way to and through the exam? One specialty area is not enough to pass the exam.
- Study for the exam, take a review course, and/ or form a study group.
- Familiarize yourself with your calculator and reference materials.
- Plan on being fully rested for the exam.

On the exam:

- Read all the problems and sort by difficulty.
- Estimate as much as possible.
- Make efficient use of the calculator and your time.
- Keep in mind, if it looks too hard you are not looking at it correctly.
- Check the answers; make sure your answer is the answer to the question asked.

Good Luck, on your path to becoming a professional engineer.

This is an engineering
exam not a math test.
Calculator time is ''dead''
time.

# Corrosion Issues

Dan Hogan, PE, President-Elect

As wood species with natural resistance to decay have become harder to acquire and more expensive, the use of treated wood has become more prevalent. The chemical treatments used to protect wood have recently changed based on environmental concerns and regulations. As the treatment industry responds to changing regulations and market conditions, new products will to enter the market.

New, less toxic, compounds now available such as ACQ-C, ACQ-D, CBA-A and CA-B do have a downside. They have been shown to be approximately twice as corrosive to steel connectors as those previously used, such as CCA-C. This is a concern for engineers specifying the steel to be used with such woods.

Light gauge metal connectors, steel plates, bolts and other fasteners that are in contact with treated wood require special attention. The metal connector industry has actively tried to put good information in the hands of designers. They are also responding to the needs of the design and building industry by

developing new products with galvanized finishes or producing connectors made from stainless steel. Whenever specifying connectors, it is a good idea to consult the information available from Simpson, USP or other manufacturers.

When specifying other fasteners, the same attention must be focused on addressing corrosion. For instance, sill plates are traditionally fastened using anchor bolts. These bolts should be stainless or galvanized. Another application that may slip through the cracks is the use of nails and screws. These fasteners must also be corrosion resistant. Stainless may be a good choice due to the tendency of coatings to be damaged during installation.

Manufacturers and the building industry will continue to respond to the issues related to protecting wood from decay. As new products and treatments hit the market, designers will need to keep themselves abreast of the measures necessary to ensure proper specification of connectors and fasteners.

They have been shown to be approximately twice as corrosive to steel connectors as those previously used, such as CCA-C.

# The Montana P.E. Hall of Fame

Doug Brekke, PE, Immediate Past-President

The goal of the Montana Professional Engineers Hall of Fame is to recognize significant contributions by professional engineers to the development and prosperity of the State of Montana. The Montana Society of Engineers sponsors the Hall of Fame and selects the inductees. Plaques honoring the inductees will be displayed in Roberts Hall at the Montana State University College of Engineering in Rozeman

Members of the Montana Society of Engineers are encouraged to nominate worthy

candidates for the Hall of Fame. The MSE executive board selects the Hall of Fame inductees.

Members of the Montana Professional Engineers Hall of Fame have played major roles in Montana's most successful and experienced engineering organizations. John Morrison founded Morrison-Maierle; Ben Hurlbut founded HKM; Lee Walker founded Northern Testing Labs; Paul Schmechel was President of Montana Power Company; and Sonny Hanson founded Con'eer.

Nomination information for the 2005 Hall of Fame inductees is included with this newsletter.

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5



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# The Blake Morstad Memorial Endowment was established to provide scholarships to outstanding engineering students that, to some degree, resemble Blake's honorable character and who are also skilled in snow mechanics and the dynamics that trigger avalanches.

These financial
supporters of Montana
MATHCOUNTS Program
made the 2004—2005
Season a complete
success — THANK YOU!

# Blake Morstad Memorial Endowment

Linda Wyckoff

Montana State University's College of Engineering has established a scholarship fund in honor of alumnus Blake Morstad. On January 1, 2005, Blake was killed by an avalanche while backcountry skiing on Mount Nemesis approximately 100 miles southwest of Bozeman. All five members of the group he was with were trained in avalanche phenomena, had the proper rescue gear, and two of them were emergency medical technicians. Their skilled rescue efforts could not save Blake, who died on impact.

Blake was raised Calgary, Alberta, and Plentywood, MT. He was an avid mountain biker, climber, skier, and camper who quickly became involved in local outdoor activities when he came to MSU. Blake shared his outdoor expertise as a section editor of the Bozeman-based online magazine, *Backpacking Light*.

In 2002, Blake graduated from MSU with a bachelor's degree in mechanical engineering and was awarded the Montana Society of Engineers Gold Medal Award. He continued to study mechanical engineering until he earned his master's degree October 2004. In his graduate research, Blake had a talent for analyzing the technical indicators used in avalanche prediction. For his masters thesis, he modeled the volatile thermal layers of snowpack which can easily set a mountain of snow in

motion. He had just begun to work as an engineering scientist for Los Alamos National Laboratory in New Mexico when the accident claimed his life.

Blake will be remembered for his exemplary character and integrity, academic excellence, strong work ethic, positive attitude, and a level of maturity well beyond his 24 years. Blake is survived by his wife, Adele, who is pregnant with a child due in February. A memorial account for the baby has been set up in Blake's name at First Interstate Bank, c/o Amy Carter, P.O. Box 30918, Billings, MT 59116.

The Blake Morstad Memorial Endowment was established to provide scholarships to outstanding engineering students that, to some degree, resemble Blake's honorable character and who are also skilled in snow mechanics and the dynamics that trigger avalanches. You may contribute to the endowment online at backpackinglight.com, or through the Montana State University Foundation. P.O. Box 172750, Bozeman, MT 59717-2750. For more information about making a tax deductible contribution in honor of Blake Morstad, please contact Linda Wyckoff at 994-2223.

# Special Thanks to the 2004-05 Corporate MATHCOUNTS Sponsors!

Advance Silicon Materials, Inc.

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Through the financial support of these corporate companies, Montana MATHCOUNTS has been able to continue to grow and reach more students in Montana. These students are introduced to the wonderful world of mathematics and are able to take advantage of these skills at an earlier level making their future and ours brighter. THANK YOU!

# Fire Protection Shop Drawings

Dan McCauley, PE

On February 18, 2004, a letter was sent out to a selected list of licensees believed to practice in the area of Fire Protection. The purpose of the letter was to clarify the Board's position on the practice of a licensee versus that of a technician, which was adopted as Administrative Rule of Montana (ARM) 24.183.1501 Fire Protection Shop Drawings. Excerpts from the letter are as follows.

#### Dear Licensee:

In November 2002, the Board of Professional Engineers & Land Surveyors adopted ARM 24.183.1501 for fire protection shop drawings. This rule was adopted after considerable discussion and negotiation among interested parties. The process included concurrent and subsequent public information and formal notice. The intent of he rule is to clarify the roles of the licensed engineer and the design technician. The following provides a brief synopsis on how the Board envisions the rule to be followed.

The design concept shall be developed by a professional engineer (the licensee) who is practicing under his area of expertise. The licensee is typically the owner's representative and/or the project engineer of record. The licensee, in most cases, is already in place having been hired by the project architect or the owner.

Upon completion of the design concept by the licensee fire sprinkler shop drawings are prepared by others per ARM 24.183.1501, Section 3. Upon completion of the fire sprinkler shop drawings by others, the licensee reviews the shop drawings to determine if the design concept has been met. Finally, the licensee prepares a letter of review stating that the design concept has been complied with. The rule lists specific requirements of what the licensee shall provide for fire protection design. At a minimum, the licensee is required to provide the following design concepts:

- the density and water flow pressure requirements for the sprinkler system design;
- the classification of commodities to be protected;
- and confirmation of an adequate water supply.

It has been brought to the Board's attention that these minimum design concepts are not always being provided by professional engineers as required. The Board wishes to remind professional engineers involved in fire sprinkler designs that they are required to provide such design concepts. Simply stating "sprinkle as required" is not acceptable. If the qualified technicians are not provided the required information and yet requested or required to provide fire protection shop drawings, then the licensee is aiding and abetting the unlicensed practice of engineering. This statutory violation is considered unprofessional conduct and the professional engineer is subject to disciplinary action by the Board.

It has once again been brought to the attention of the Board that apparently not all licensees are practicing within the intent of the above referenced ARM. At the November 3 and 4, 2004 Board meeting, it was decided that a tougher stance must be taken to ensure that this rule is adhered to. Licensees practicing in the area of fire protection should be warned that the Board is monitoring this situation closely and that complaints will be brought against those practicing or perceived to be practicing out of compliance with ARM 24.183.1501.

The Board wishes to remind professional engineers involved in fire sprinkler designs that they are required to provide such design concepts.

# EWB-USA Rebuilding Tsunami Stricken Region

Troy Monroe, PE

Engineers Without Borders - USA (EWB-USA) is responding to communities affected by the tsunami disaster in Southeast Asia. EWB-USA is accepting applications for professional engineers to volunteer to coordinate and implement long-term, sustainable infrastructure rebuilding efforts in the affected areas.

The Western Montana Professional Chapter (EWB-WMT) will be assembling a volunteer team to work on a tsunami-rebuilding project in Southeast Asia. Several EWB-USA Engineers have already been conducting site visits of communities in the disaster area. EWB-USA would like professional teams of at least 3-5 professionals to handle the immediate projects in the Tsunami stricken region. See http://www. ewb-usa.org/Tsunami.html for more information.

The EWB-WMT will hold an informational meeting on Tuesday, March 29th at 7:00 PM at the Missoula City Fire Station #4 (3011 Latimer - one block south off of W. Broadway). We welcome anyone who is interested in volunteering. We need at least 5 dedicated professionals willing to put in a couple hours a month in order to implement a project this year.

To find out more about EWB-USA visit http://www.ewb-usa.org For questions about EWB-WMT or to volunteer contact troy@djanda.com.

The EWB-WMT will hold an informational meeting on Tuesday, March 29th at 7:00 PM at the Missoula City Fire Station #4.

#### The 2005

### Joint Engineers Conference

Mark your calendar: The 2005 Joint Engineers Conference will be November 3, 4, and 5 at the Red Lion Colonial Hotel in Helena, Montana. More information to come!

In conjunction with the JEC, Montana Society of Engineers will be hosting the 2005 Western Regional Conference. MSE will make use of the JEC format for the first 3 day but would like to add some real points of interest on the final days. Idaho set the bar rather high last year. Contact the MSE office or any of the Board members if you know of something that would be fun, informative and different to do in the Helena area.

Reminder: Effective January 1, 2005, the MSE office e-mail address is mse@assoc-mgt.com. Please take a moment to update your email address with the office.

NSPE will be facing vast new changes in 2005. If you have input or would like to share your thoughts on the direction you would like to NSPE go, please do not hesitate share these with the MSE Office or one of the Board members.

# 04-05 MSE Board

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In conjunction with the JEC, Montana Society of Engineers will be hosting the 2005 Western Regional Conference.