

Montana Society of Engineers

A state society of the National Society of Professional Engineers



Founded 1887

President's Message:

“State Only” Membership vs. National Policy

Jeff Ruffner, PE, President

As I write this I am sitting in another airport. That seems to be a common occurrence. I am also late getting this article to Connie. That also seems to be a common occurrence. However, that just further highlights to me the necessity of professional staff if we are to keep the society moving forward and also how lucky we are to have Connie. While all of us volunteers are committed to the success of the society (or we wouldn't be involved) we simply get overtaken by life and our day jobs.

Hopefully by now everyone is fully aware of the changes we have made in our dues structure and operation to meet the financial necessities of the time. I know that sometimes change is difficult, but the changes appear to be working and I hope everyone will continue to support the changes.

Since our last newsletter we had a very successful Joint Engineers Conference (JEC). From our society Doug Brekke and Crystal Kuntz deserve our thanks. They put in a tremendous effort and delivered a very good conference. Thank you Doug and Crystal!

We had a special visitor this year at the conference, Mr. Ken Rigsbee, President-Elect of NSPE. Ken spent the entire time with us. He went to various sessions and even presented at one session as well as the banquet. In between functions I had a lot of time to just chat with Ken. I was very impressed with his dedication to the Profession. He could be retired on the golf course but instead he is traveling the country and passionately advocating for the Profession and the positions of NSPE. Which brings up an interesting point. Listening to him talk at various times and advocate on behalf of the profession and hearing the interaction with others at the conference, the obvious point becomes clear, we all share a dedication to the profession and the improvement of our profession but many times we differ in our thoughts on how to get there.

Some of the current hot button issues is the society's support of Bachelors plus "30" at the national level. Also, at the national level is the issue of Visa numbers to allow foreign engineers into the country to work. At the state level we had a very passionate debate during the last election cycle concerning NSPE's support of

candidates with their PAC. In addition, there is the general issue of how do we continue to improve the society. Why do I bring these up? Again, we all share a dedication to the profession and the improvement of our profession but many times we differ in our thoughts on how to get there. I would encourage you to get involved, make your thoughts known, and help shape the future of our profession.

A while back I sent out an email asking for an on-line debate of the subject of "state only" membership. We had a few responses but not a whole lot. Many have pointed out that this has been an issue for a long time and in general the responses favored phasing out state only membership and complying with the National policy. The policy allows for and incorporates state only "affiliations". An affiliate can be anyone essentially who isn't a licensed professional engineer or who is able to be a licensed professional engineer. I was hoping to get a few more thoughts to ensure I got a sense of the general membership. You know us engineers we want statistical accuracy with our polling. Anyway, I would like to again ask, those who did not respond to take a minute or two and let me know your thoughts. This is an important issue. I have made it a priority to resolve it during my tenure. Many may ask why push it and decide. Why not just go with the don't ask/don't tell policy that has been in place and keep with the status quo. Well for two reasons: one is that one of the strengths of our profession is solving problems. We solve problems. We don't just let things go. That is what we are known for. Second is a change in circumstances. At the House of Delegates meeting in Denver the House of Delegates voted on the current policy and the message was clear what the majority wanted.

Again, if you can take a few minutes and e-mail your thoughts on this subject I would appreciate it. My e-mail is jeff.ruffner@msecta.com. I would like to get this information so we can address at the next board meeting.

I would also like to take this opportunity to thank you for your support and wish all of you a Merry Christmas and Happy New Year.

December, 2007

The policy allows for and incorporates state only "affiliations". An affiliate can be anyone essentially who isn't a licensed professional engineer or who is able to be a licensed professional engineer.

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MCA Predicts Further Cost Increases

“We’ve read the newly released Construction Inflation Alert from the Associated General Contractors of America (AGC),” notes Cary Hegreberg, executive director, MCA. “We want public agencies and private companies planning major construction projects in Montana to be aware that costs are probably moving higher. Looking back at last year’s construction costs could easily result in a faulty estimate.”

Highway builders will also be affected by the price hikes.

Highway builders will also be affected by the price hikes. AGC Chief Economist Kenneth Simonson explains that nonresidential construction industry had a banner year in 2007. “We’ve seen spending on nearly every segment increase compared to 2006, despite the plunge in homebuilding,” the economist said. “The materials cost surges that plagued the industry in 2004-2006 have slowed dramatically, and labor remains available in most markets.”

However, Simonson warned that many observers expect that the end of the calm is coming soon. The worsening slide in homebuilding and turmoil in the credit markets

threaten some types of nonresidential construction. At the same time, some materials costs are beginning to turn up again, and labor costs have started to accelerate.

“Retail, suburban office and local government construction are especially affected by the drop in homebuilding, home sales, and property values, respectively. Tighter lending standards and financial-firm layoffs will trim construction of offices and other income-producing properties, such as hotels and warehouses,” cautions Simonson.

Simonson says to expect acceleration in wages as workers move from residential to nonresidential construction. “Wages have begun to rise more steeply for specialty trade contractors, suggesting that the number of workers suitable to switch from residential to nonresidential is close to exhaustion. In the next several months, the rate of wage increases is likely to reach 5-5.5 percent, up from a recent 4.5 percent gain,” Simonson concludes.

Fred Videon Inducted into Montana Professional Engineers Hall of Fame

Fred F. Videon, Ph.D., P.E. of Bozeman was inducted into the Montana Professional Engineers Hall of Fame at the 2007 Joint Engineers Conference. A plaque honoring Videon will be hosted at the Montana State University College of Engineering in Bozeman.

Dr. Videon developed Snow Loads for Structural Design in Montana in 1978 and 1988.

The Montana Professional Engineers Hall of Fame is sponsored by the Montana Society of Engineers to honor Montana engineers who made significant contributions to the development of Montana and the engineering profession. Previous inductees are John H. Morrison, Ben F. Hurlbut, W. Paul Schmechel, Leland J. Walker, Harold S. “Sonny” Hanson, Robert L. Sanks, Eldon R. Dodge and Joseph A. Maierle.

Dr. Videon was assistant professor, associate professor and professor at the Montana State University Department of Civil Engineering and Engineering Mechanics from

1965 to 1988. He was selected as the Department Professor of the Year seven times. Videon was awarded professor emeritus status in 1990.

Dr. Videon developed *Snow Loads for Structural Design in Montana* in 1978 and 1988. He served as editor of the 2005 edition, used by designers and building officials as the standard for structural design in Montana.

Dr. Videon was Senior Structural Engineer at HKM Associates from 1988 to 1995 and Bridger Engineers, Inc., from 1996 to 2006. His projects included structural design of the Montana Hall cupola and seismic mitigation for Montana Hall and Hamilton Hall at Montana State University. Dr. Videon was structural engineer for the Pollard Hotel renovation in Red Lodge and the Belmont Senior Center renovation in Butte. Dr. Videon was a respected mentor to the young engineers at HKM and BEI.

NSPE New Product Award

This year marks the 25th anniversary of the New Product Award. This award recognizes products, processes, machines, or materials developed in the U.S. that improve the public’s standard of living.

You do not need to be a member of NSPE to submit a product. You must submit your entry by February 15, 2008. For more information or an entry, please visit: www.nspe.org/npa

News from the Capitol City

Kenneth Phillips, PE, Vice President

The nice thing about the upcoming Presidential elections and all the early campaigning is that it does motivate you to turn off the TV and go do something constructive. Rebuilding your old chainsaw or going and doing tree thinning on your property are far more enjoyable than watching folks in suits attack each other like professional wrestlers. Plus the exercise helps reduce middle age spread. Being a civil servant I shouldn't be so negative but as I get older I get grumpier. Yes I have turned into my dad.

Here in Helena our Governor has issued a proclamation that all State Agencies shall reduce energy consumption 20% by 2012. I agree with his ideals but I know it's going to take a lot of work to do so. Energy is near and dear to my heart. I started assisting with energy retrofits 17 years ago while working as a Project Manager for the State Architecture & Engineering Division. In those days the State Building Energy Section was housed under the Department of Natural Resources & Conservation and they had seed money from Stripper Wells to help start up a bonded program. Don't ask me what stripper wells are but it had something to do with oil revenues. Today's technology of variable frequency drives and building automation systems was in its infancy so I remember mainly doing envelope upgrades.

I liked working for the A&E but sadly in the State getting a promotion is tough and the only way to get a raise especially in the early nineties was to get another position with a State Agency. I left A&E after 3 years and began to work with Fish, Wildlife & Parks as a Project Manager and then as the Construction Supervisor. During that 11-year period of time I again worked with the Energy Section and we did upgrades on mechanical systems at several of our headquarters buildings. But my favorite projects were the alternative energy projects we did at the Wildlife Management Areas. We did wind projects at Wall Creek and Freezeout Lakes that involved net metering. We made the administrative area at Robb Ledford Wildlife Management Area totally off grid with a combination of wind and solar. Those projects were funded through demand side management grants from Montana Power then Northwestern and some Department of Energy Grants plus FWP funding.

By 2005 the Energy Section had been moved to DEQ and the key folks had moved on with the exception of the section chief and I felt that my services would be better served working with the energy section thus I resigned from FWP and took a 12% paycut to go do good things with them. We did good things like converting the University of Montana Western to

a high efficiency wood fired boiler for heating and hot water. This project offsets enough natural gas to heat about 120 or so homes a year and burns chips from slash material that would be normally burnt in the woods. My heart still lies with the energy section but the pay cut was tough so after a year and a half I moved to DNRC State Water Projects for a substantial pay increase but at least working with water I still work for the public good.

Where's this going besides down a boring street? I recently volunteered to help DNRC as an advisor to reduce energy consumption, so that makes me feel better. But with staff shortages at the DEQ energy section and a State Government that still has to do things like fight fires, house an increasing number of prisoners, and needing hundreds of Buildings, the road to achieve the 20% reduction is going to be tough. One option is to use Energy Service Companies that come in and guarantee energy savings do upgrades and then implement energy conservation measures. But they typically like any business favor only profitable projects like the big campuses or the prison. Also most of those companies lie out of State and bring in outside teams to accomplish this work. So as the Montana Engineering Community (you), are the ones that can accomplish this mission. Ideas from the private engineering community will be valued. Two people working in DEQ are not going to be able to meet this challenge. It's going to take involvement from our entire engineering community. So if you have suggestions write the Governor or Richard Opper Director of DEQ. If you have questions call or email me kennethphillips@bresnan.net.

On another positive note, Chris Laity who is the Montana Section of ASCE President recently contacted me. He wants to start up an ASCE Young members group with several Helena Engineers. So we have briefly discussed getting together the Helena Engineers Club. We are going to try and have lunch within the next couple of weeks and set up a time and location. This event would be open to more than just MSE members but to all Engineers in the community. I am happy Chris is helping to do this, I had a hard time getting a venue and event lined up.

Have a Happy Holiday and get away from that desk.



Here in Helena our Governor has issued a proclamation that all State Agencies shall reduce energy consumption 20% by 2012. I agree with his ideals but I know it's going to take a lot of work to do so.

Stray Thoughts

By Tom Abel, PE, Vice President

One week and two days after the Joint Engineers Conference, I am in the dark on a 27' sailboat on Fidalgo Bay trying to get into Anacortes Harbor, in the rain, 50 knot winds, and 3'-4' waves crashing over our bow, the radio said winds would be increasing thru the night. We could see TV sets in the houses on shore, but they were not moving, which meant we were not moving. The wind and waves were too much for our reefed main and 4 hp Yamaha outboard desperately churning the water to keep our bow into the wind. We only had about 3/4 of a mile to go, but when you move ahead 2 boat lengths then lose 10 to the next big wave, 3/4 of a mile seems like 100 miles. Plan B would be to turn 180 degrees and sail with the wind, but the nearest marina was in Friday Harbor some 12 miles away. It was 6:00 pm and we only had 1/2 tank of gas (about 2-1/2 gallons), so plan B did not seem like a good one. We had to make headway to the marina in Anacortes Harbor.

What does this have to do with engineering? Yacht racing is very much the kind of sport that suits engineers well. There are many factors to winning a race, including but not limited to, boat trim, rig tuning, tides, wind patterns, sail trim, weight distribution, tactics, crew training to name a few. It is like golf, you can learn the game in a day or two, but you can continue learning a lifetime and never master everything about the sport.

I was invited to crew on Giant Slayer, a Santa Cruz 27 race boat. Dave Garman is the owner and also an engineer employed by Boeing. We had a software guy (Amazon.com), Dave's son, Dave's wife, and another gal all of whom were excellent experienced crew. The race was the annual Around the County Race, the county being San Juan County. We race around the San Juan Islands, starting at Lydia Shoal, ending at Roche Harbor the first day. The second day we raced from Roche back to Lydia.

Friday, we arrived at Anacortes and launched to boat at Skyline Marina just north of the City of Anacortes. Launching means hiring a crane to take the boat from the trailer and carefully lowering it into the water. We put the 30 foot mast up ourselves with Dave's homemade gin pole made from 2" galvanized pipe. It took a couple of hours to rig and load the boat, and then we had a quick dinner at the Marina fish house.

Early Saturday morning we left Skyline for the 2 hour motor-sail to the starting line at Lydia Shoal.



The gun went off at 9:00 and we were off on a downwind start meaning we had to put up the spinnaker immediately. The winds were brisk and we were keeping up with the bigger boats. The SC27 excels downwind because it rises out of the water and planes, where the bigger boats cannot plane.

The boats in this race range in size from 24' to 70'. We were definitely on the bottom of the pecking order. Boats have a maximum speed when the length of wetted hull surface determines not planning that. The formula for hull speed in knots is $S = 1.34 (LWL)^{1/2}$. A 70' boat has a hull speed of 11.3 knots,

while the SC27 has a hull speed of 6.8 knots. In the same wind, a 70-foot boat walks away from a 27 and there is not much the 27 can do about it. The playing field is leveled by a handicapping system that gives faster boats a time penalty that is tied to either distance traveled or time elapsed. The 70' might have to give the 27' 2 minutes per mile. On a 35-mile course, the 70' boat would have to finish 1.2 hours ahead of the 27' boat to be even. Being the last boat on a racecourse when you have one of the smallest boats does not mean you have lost. You could "correct" into a respectable place.



After turning the first corner Saturday morning we were the second boat on the course out of some 60 boats. Then the wind did some funny things. All the boats caught up and it was like someone put an underwater cable in the water keeping any boat from going any further. It was a wind shear line. One by one boats would break free of the line and they were "off to the races" as they say. We lost a lot of places in that wind shear, but we finally broke loose. The remainder of the day was just good sailing, a sunny day, steady moderate winds, and we paid close attention to boat trim and keeping our speed up and pointing high. Towards mid afternoon group of porpoises came along side our boat to play in the bow wave. On the helm, I could feel them touching the rudder. They would be on their backs and swim next to us looking at us from 6" below the water surface. When they over took the boat, they would drop back and do it again. Saturday we finished with 7 or 8 boats behind us. I think we were 7th out of 15 boats in our class.

Sunday the wind had piped up quite a bit, and the forecast was for increasing winds during the day. The gamble at the start of the race is what sails to put up. If you put up too small a sail for the wind, everyone else will walk away from you. If the sail is too big the boat will be overpowered, and you waste a lot of time and boat lengths



easing the main to let the boat come upright after the wind knocks you down. Dave chose the largest 150% genoa and a full main – largest setup on the boat. Within 1/2 hour of the start the sail proved to be too much. We changed sails, and while we can do this without stopping by putting up the smaller jib behind the large one on the double forestay track, you still drop behind because you are concentrating on the sail change and not on the race. We put up a 135. Another 1/2 hour went by and we were still on our ear more often than not. We had dropped to almost last place due to the sail changes and the frequent knockdowns. We did a third sail change to the blade (small jib). We did well with this arrangement, and had we started with this, we probably would not have been in last place at this point in the race. But then hindsight is always 20-20.

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What does this have to do with engineering? Yacht racing is very much the kind of sport that suits engineers well.

Stray Thoughts

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The rest of the afternoon we got into tacking duels with other boats picking them off one by one. By the time we turned the corner to the final leg of the race, we had picked off 4 or 5 boats. After turning the corner, we were going with the wind, which had now increased, to the 30 – 35 knot range and the tide was with us. We flew over this last leg of the course. I watched as Skyline Marina went by thinking we were 7th place yesterday, today we are the last boat, since the boats we had picked off went home. I offered the suggestion we sail into Skyline and not finish the race since we did not have much chance or winning anyway. This idea was not accepted well by the other crewmembers, but I had it in my mind how difficult it would be to get back dead into this wind for the 6 miles or so back to Skyline after the race. We were planning at 13.5 knots at times. Not bad for a boat with a 6.83 knot hull speed. We passed several boats on this downwind leg with only the jib and main up. Dave wanted to see how much more we could do so he called for the spinnaker. Putting up the spinnaker in any wind is tricky at best, in 35-knot winds; you can almost be sure something bad will happen. And happen it did. We got the chute up and sailed for about 1 minute, then a wave hit us sideways, the chute dipped to the lee, then to the windward, and the next thing were doing a classic gybe broach. That is where the boom comes over to the opposite side with a bang, luckily no ones head was in the way, and the spinnaker pulls the boat over sideways. The cockpit fills with water; you have to climb the now 45-degree angle deck to the high side to keep from going overboard. The man on the spin sheet released and the boat came upright again. Our speed was down to 0. (The cockpit is self-bailing thru two 1" scuppers.) We quickly took down the chute and continued along with the small jib, which we had not taken down yet. We lost a couple of boat positions, but it was a fun ride and we finished the race in style. All the time Dave saying, "If we would have done so and so the chute would have worked."

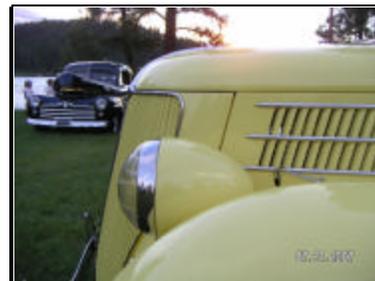
Then reality hit us. We did have to get back to Skyline against the very same wind and waves and tide that gave us the 13.5-knot joyride. We reefed the main, and started the outboard, but made very little progress. With the main only there was a lot of weather helm, which meant the boat would turn into the wind in big gusts and slow down. By sailing off the wind we made progress towards a large island where the water was somewhat sheltered. We made pretty good progress. The shoreline in this area was mostly undeveloped with large rocks. The SC 27 needs 3' of water to clear the 1500 lb lead keel below. There were not any places to go ashore if we had to. We had to continue into this wind. Behind the island in a little bay, were some small cabins with small docks. I made a mental note of those thinking if things got really bad, we could go to that small bay and tie up to one of the docks without doing too much damage to Dave's boat.

Once we left the shelter of the island, the wind was again too much for our little outboard and the reefed main. We started considering options. The GPS quit on us, we only had 3 gallons of gas, it was getting dark, and we were all cold and wet. Skyline seemed like hours away directly into the wind. Anacortes Harbor was to our left and we could sail off the wind and make good progress. We decided to make for Anacortes, and Dave would have to bring his trailer to the Anacortes Marina to take the boat out. We sailed for about an hour and soon the lights of Anacortes were next to us. A few other racers had made the same decision as we did, and we were all on the same course headed for Anacortes. We sailed around the lights of town, and into Fidalgo Bay where the wind was again

right in our face, but now had increased to about 50 knots. We sailed for what seemed like an hour and were still looking at the same house on shore. We tried taking the main down and going with the motor alone, but it was even worse. Finally we sailed off the wind barely making any progress, but luckily our destination was in a direction that allowed us to sail off the wind after several tacks. Chris (Amazon.com) had a hand-held GPS that worked and was able to find the locations of the channel markers we needed to get into the marina. We spotted a red marker. You are supposed to keep the red marker to the right of the boat when coming into a marina. There is also supposed to be a green marker opposite the red and you are supposed to go between the two. I steered to the red marker light, but we could see a solid rock wall behind it with waves crashing against it. We had to make a quick decision. Chris found the next set of lights, and we decided to turn quickly and not head for the rocks. We turned and almost ran into the piling where the burned out green light was mounted. We missed the entrance. (We found out later, you go between the lights, then turn left and follow the rock break-water into the harbor. In the dark it looked like a big rock barrier to us and we didn't want to get any where near it in a 50 knot wind.) Soon we saw a set of red and green lights and a break in the wall of rocks. It was the entrance to the marina. We only had one shot at the entrance, but steering was positive. We were doing close to hull speed so things happened quickly. We entered the marina. The next task was to stop the boat and tie up to something. We saw guys on the dock with flashlights and other racers already tied up to the docks. The way you stop a sailboat is to turn it into the wind. When coming into a dock you turn so you have just enough momentum to get you to the dock. On this night the momentum we had was no match for the 3-foot waves and the windage on the mast and rig. The first attempt to sail into the dock illustrated this to us very well. After blowing the attempt to sail into the dock, we were directed by the flashlight guys into a slip. By the time we understood what they wanted us to do the slip had gone by. I usually like to come into a slip at 1 – 1.2 knots then gently ease the boat to a stop by someone jumping out and pushing back on the boat. We were doing 6+ knots. The flashlights directed us to the next available slip. We turned into it but turned too early. The guys on the dock could not catch the bowline we threw before the wind pushed the bow out of the slip and we were in the channel again going 6 knots. There was one slip left then we ran out of marina. I turned later this time, and Dave gunned the motor and steered with it at the same time. The guys caught our rope and were soon tied to the dock. This is one of the times when you want to jump out of the boat and kiss the dock. We might have, but we were all too cold and the wind might have blown you into the water.

Monday morning we had continental breakfast at our motel. There were 6 other couples representing 4 other race boats. They all had the same problems we did getting back. One boat was a forty-footer with a 20 hp Yanmar inboard engine, and he too could not make any headway against the waves. He put up a storm sail and got in with it.

We finished 4th place in our class, 35th out of 60 boats. Was it worth finishing the race rather than dropping out? Maybe. Would I do this again? Yes definitely.



Then reality hit us. We did have to get back to Skyline against the very same wind and waves and tide that gave us the 13.5-knot joyride.



2007-2008 Montana MATHCOUNTS Update!

By Dan Munson, State MathCounts Coordinator

We are less than 2 months away from our first 2008 MATHCOUNTS chapter competitions. Check out the schedule below to find out when in February your local chapter competition will be held. Then call or e-mail the chapter coordinator and volunteer some time to help out with the competition. We only need a few hours of your time during that day, but it's time well spent. You will see young brainpower in action, and get to see the next generation of engineers at work. You won't regret it! We look forward to hearing from you!

MATHCOUNTS Support

If you haven't already contributed to the Montana MATHCOUNTS program with a financial donation, please consider it. Montana MATHCOUNTS is a nonprofit organization primarily supported by local engineers and engineering based companies. To keep the quality of the program high, and the middle school registration fees low, we are totally dependent on the generosity of our state sponsors. We trust that you will see the benefit in helping us out. Donations should be sent directly to:

Montana MATHCOUNTS Foundation
P.O. Box 20996
Billings, MT 59104-0996

Thanks for your help and kindness.

MATHCOUNTS Contacts & Competitions

Billings Chapter

Friday—February 15, 2008
Dan Munson, Coordinator
Phone: 406-655-2540

Dan.Munson@northwestern.com

Bozeman Chapter

Tuesday—February 5, 2008
Jerry Stephens, Coordinator
Phone: 406-994-6113

e-mail: jerrys@coe.montana.edu

Butte Chapter

Tuesday—February 5, 2008
Sandra Anderson, Coordinator
Phone: 406-533-0671

e-mail: sandraa@ncat.org

Eastern Montana Chapter

Wednesday—February 20, 2008
Mike Hunter, Coordinator
Phone: 406-377-9433

e-mail: hunter@dawson.edu

Kalispell Chapter

Friday—February 1, 2008
Vicki Neill, Coordinator
Phone: 406-751-2215

e-mail: Vicki.Neill@northwestern.com

Missoula Chapter

Tuesday—February 12, 2008
Guy Sharp, Coordinator
Phone: 406-273-2461

e-mail: sharpguy@amerion.com

North Central Chapter

Wednesday—February 20, 2008
Bill Burkland, Coordinator
Phone: 406-447-5054

e-mail: bill@rpa-hln.com

STATE MATHCOUNTS

Tuesday—March 18, 2008
Dan Munson, Coordinator
Phone: 406-655-2540

Dan.Munson@northwestern.com

MATHCOUNTS Christmas Problem

Problem: Your chimney is rectangular, with the short side being half the length of the long side. If Santa's belly is 58 inches in circumference, and he just fits through the chimney, what are the smallest possible dimensions of your chimney? Assume Santa's belly is perfectly round. Express your answer to the nearest tenth.

Answer: First, figure out the diameter of Santa's belly so we know how long the shortest side of the chimney has to be: $C = 2\pi r$, so $58 = 2\pi r$, or $r = 9.2$

If his radius is 9.2, Santa's diameter is 18.4 inches. The shortest side of the chimney must be at least 18.4 inches; therefore the long side must be at least 36.8 inches. The smallest possible dimensions of your chimney are 18.4 inches by 36.8 inches.

Merry Christmas friends!

*You will see young
brainpower in action, and
get to see the next
generation of engineers at
work. You won't regret it!*



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Take the course now and earn your PDHs from the comfort of your home or office at your convenience.

Founded by NSPE, the coalition is dedicated to sustaining and growing a dynamic engineering profession by ensuring a diverse and well-educated future engineering workforce, increasing understanding of and interest in engineering and technology careers among young students, and promoting pre-college literacy in math and science.

2007-2008 MSE Board

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jeff.ruffner@mse-ta.com

Tom Abel, President Elect

tom@abelengineeringinc.com

Kenneth Phillips, Vice President

kennethphillips@bresnan.net

Crystal Kuntz, Secretary/Treasurer

Crystal.kuntz@eciblgs.com

Sandra Anderson, Immediate Past President

sandraa@ncat.org

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
March 10, 2008

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Engineering Council Advances Diversity Agenda

In an unprecedented commitment to bring more women and underrepresented minorities into engineering, a coalition of businesses, professional societies, and academic and advocacy organizations met in Washington on October 17 to establish the Engineers Week Diversity Council.

All of the council's founding partners, along with many engineering firms and societies, have ongoing outreach policies and programs aimed at increased diversity, but the Diversity Council is the profession's first attempt to reach consensus to work together and unite those various efforts under a single umbrella to provide for a comprehensive national agenda.

Today, fewer than 12 percent of baccalaureate engineering graduates are underrepresented minorities. Most underrepresented minority students do not even have the option to consider such a career by the time they have left middle school. Approximately 650,000 minority students graduate from high school each year, but only about 26,000 have taken the necessary math and science courses to be fully qualified for admission to engineering study and fewer than 15,000 actually enroll.

The Founding Partners of the Engineers Week Coalition Diversity Council include: Chinese Institute of Engineers-USA (2008 Chair); American Association for the Advancement of Science; American Association of People with Disabilities; American Indian Science and Engineering Society; MentorNet; National Action Council for Minorities in Engineering; National Association of Multicultural Engineering Program Advocates; National Organization of Gay and Lesbian Scientists and Technical Professionals; National Society of Black Engineers; Society of Women Engineers; The National GEM Consortium; & Women in Engineering ProActive Network.

The Engineers Week coalition comprises more than 75 engineering, professional, and technical societies and more than 50 corporations and government agencies. Founded by NSPE, the coalition is dedicated to sustaining and growing a dynamic engineering profession by ensuring a diverse and well-educated future engineering workforce, increasing understanding of and interest in engineering and technology careers among young students, and promoting pre-college literacy in math and science. Engineers Week 2008 is scheduled for February 17-23.

Engineers Week 2008: February 17 - 23
