



2000 - 2001 BOARD OF DIRECTORS

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President's Message

I'm writing this message about a week before Christmas, so on behalf of your Wisconsin Section Board of Directors, I wish you and your family a belated Merry Christmas, and extend wishes for a great new year. I hope nobody has broken their back shoveling all the snow we've had so far this year! This message is written with mixed emotions. Let's focus on the "good" news first, then discuss the "not-so-good" news.

I'm pleased to announce that the Wisconsin Section has once again won the Zone III award for Outstanding Large Section, for our activities from October 1999 through September 2000. Congratulations to all who contributed to our Section's successes during the presidency of Peggy Hawley. This award will be presented to our Section at the Zone III Management Conference in Duluth on February 3, 2001, and will be received by Fred Groth as our Section's representative. This award will then be "officially" presented to Peggy Hawley by Jeff Russell, our District Director, at the Spring Technical Conference in March.

This year's Spring Technical Conference will be held on March 23 at the KI Convention Center in Green Bay.



Mark Ortmayer and his committee are planning an outstanding slate of technical topics, and Ned Paschke will give a featured presentation on his recent trip to China. New Life Members will also be honored. More information about the Spring Technical Conference is covered elsewhere in this Newsletter. Please mark March 23 on your calendar, and plan to attend the Conference.

National Engineers' Week will be celebrated during the third week of February. In Milwaukee, I will represent the Wisconsin Section at the annual Engineers' Week banquet sponsored by the Engineers & Scientists of Milwaukee at the Midwest Express Convention Center on February 13.

(continued from page 1)

In November, the Section applied for five State Public Affairs Grants (SPAG) and associated merit grants totaling over \$7,500. We will find out the results of those applications very soon, but the Section is guaranteed to receive at least \$1,585 from ASCE national. In December, the Section applied for a two-year Opportunity Fund grant in the amount of \$30,000 for the National Student Conference to be held in Madison in June 2002 in conjunction with the 150th anniversary of ASCE. The grant application was for the University of Wisconsin-Madison student chapter: \$10,000 for 2001 activities and \$20,000 for 2002 activities. The results of that grant application should be known by the end of January.

Now for the “not-so-good” news: This article is being written a few days after several steel girders of the Daniel Webster Hoan Bridge in Milwaukee cracked, causing the bridge to be closed. While such an event is very serious, we can be thankful that there was enough redundancy in the bridge to prevent a collapse and possibly loss of life. In the face of such adversity, it is a tribute to the civil engineering profession for how quickly some of the best talent in the country was mobilized to review the situation, and develop alternatives for removing and replacing the damaged steel. We are all confident that the bridge will be repaired in the most efficient and cost-effective manner. As unfortunate as this incident is, the engineering profession can learn much from the sequence of events which lead to the cracking of the steel. And we must not lose sight of the fact that we as civil engineers build the quality of life that we all enjoy! Civil engineering is a great profession, one in which we all can be extremely proud.

Have a great year 2001, and hope to see you at the Spring Technical Conference in March. As always, if you would like to talk with me, I can be reached at (414) 359-2300, or by e-mail at dberry@hntb.com. Your thoughts and comments are welcome.

Darrell

FREE National Student Membership!

National ASCE Student Membership is now available free of charge! ASCE's members also voted to open membership up to students who wish to join ASCE National, but do not have a chapter or club at their school (those who have chapters or clubs still must be a member of them before joining National). And, as of January 1, 2001, a new online Student Community will debut. At this time, all services and resources provided to students will be available exclusively on ASCE's web site. This is aimed at providing a greater number of students with the latest and most complete civil engineering information available.

Although this student-based web site will not be completed until January, ASCE has already made changes to its web site, making it possible for students to sign-up for National membership or renew their, existing membership online today!

Please spread the word about this opportunity to all civil engineering students. For further information about ASCE's new, free National Student Membership, please send an email to ccatlin@asce.org, or call Claudia Catlin, Coordinator of Student Member Services, Membership Division at 800-548-2723, ext. 6296.

ASCE Spring Technical Conference

The Wisconsin Section ASCE Spring Technical Conference will be held on Friday, March 23, 2001 at the K.I. Convention Center in Green Bay. The preliminary program calls for technical sessions focusing on engineering projects in the Fox River Valley area, with a general session on the Lambeau Field renovation. A program covering the ASCE People-to-People Ambassador Program's China visit will be featured following the evening banquet.

Suggestions for the Spring Technical Conference may be forwarded to the Conference Chairperson, **Mark Ortmyer** at mark.ortmayer@wepco.com

South Pole Base

(article reprinted from the Milwaukee Journal-Sentinel)

Jerry Marty is building a new bottom for the world --- The Wisconsin civil engineer is in charge of constructing a new \$153 million base at the South Pole to replace a crowded geodesic dome that's become all but buried in the drifting snows that cover the Antarctic landscape.

"This summer," Marty said, referring to December in the Southern Hemisphere, "the symbol of the dome will fade away. The new building needs to be a food service center, a hotel, a vehicle maintenance center, an airport and a scientific lab." The old dome, built in 1975, will soon be buried too deep to use. It's already too small to accommodate the 200 or so researchers who descend on the pole now in the summer months.

The 60-foot-high new building - a skyscraper by Antarctic standards - will stand on stilts to avoid the whipping snows. Occupants will be able to raise and lower it. It should escape the snows for at least 20 years, Marty said to a Milwaukee Journal Sentinel photographer who traveled to Antarctica this month. The base also will feature underground fuel tanks and garages.

The true South Pole is a 12-foot rod pounded into the ice. But politicians, as well as scientists, are pushing for the new base. President Ronald Reagan in 1982 declared occupying the pole year-round was in the United States' best interest. The State Department said in 1996 there were strategic and scientific reasons to maintain the pole.

Every piece of equipment, tool and worker has to cover the 830 miles from the coast by C-130 cargo planes outfitted with skis. Some workers stay all year, huddling inside when the sun goes down for six months and temperatures drop to 100 below. But Marty's at home on frozen tundra. He grew up in Monroe, south of Madison, and graduated from the University of Wisconsin-Platteville. The most rabid Green Bay Packers fan south of the equator, he keeps his Packers license plate on top of his desk. He trudged out to the true pole and planted a Packers flag during Green Bay's run to consecutive Super Bowls in 1997 and 1998. The flag is now in the Packers Hall of Fame. His office is so jammed with Packer paraphernalia, his friends call it the Cheese Palace.

The new station should be completed by 2005 and will house 110 people. A wing will serve as home to 40 more.

When he's not unloading planes, Marty gives tours of the station on behalf of the National Science Foundation. Most of the people who take it are well-off adventurers looking to punctuate their life with the \$30,000 trip, he said. "It's important to represent our country," he said, "and most importantly, if they are Americans, they see their tax dollars at work, and they should see where their money is going."

2000 ASCE Section Awards Competition

It's never too early to begin thinking about the annual ASCE Wisconsin Section Awards Competition. There are several different awards under the ASCE umbrella, and they include:

- ◆ Individual Merit Awards
- ◆ Distinguished Service Awards
 - *Engineer in Education*
 - *Engineer in Consulting Practice*
 - *Engineer in Government Service*
 - *Engineer in Private Practice (Utility, Industry, etc.)*
- ◆ Excellence in Journalism Award
- ◆ Young Civil Engineer of the Year Award (*nominee must be less than 35 years of age during 2001*)
- ◆ Engineering Achievement Awards

Although the award nominations are not due to the section secretary, John Burgan until June 1, 2001, now is the best time to inform your co-workers, and/or business associates about the program and select your projects.

The Engineering Excellence Awards portion of the competition recognizes civil engineering achievements located in the Wisconsin Section's geographical area. The determining factor in categorizing entries is construction cost.

- Category A: Construction cost under \$2,000,000
- Category B: Construction cost over \$2,000,000 and under \$10,000,000
- Category C: Construction cost over \$10,000,000 and under \$20,000,000
- Category D: Construction cost over \$20,000,000

Awards are made by the Board of Directors, based on the recommendation of a selected Jury of Judges. A particular project, regardless of category or size, may then be designated the Wisconsin Section ASCE Outstanding Civil Engineering Achievement of the Year. In addition, all award winners will be asked to provide a poster for display at the Annual Meeting held each September, and will be given the opportunity to provide a presentation for use at the noon luncheon awards ceremony.

Unlike many other awards competitions, there is no fee for entering the ASCE awards program. We are simply looking for people and projects that demonstrate excellence in engineering skills, and represents a significant contribution to engineering progress and society. Start now and take this opportunity to recognize your projects and co-workers!

For more information, log on to www.asce.org/gsd/sections/wisconsin.

A Visit to the Yangtze River and the Three Gorges Dam... Reflections from a People to People Ambassador Trip to China

By Ned Paschke

I recently participated as a delegate in a two-week People to People Ambassador program in China. Our delegation was made up of twenty-six Americans representing various fields of water resources, wastewater, and environmental engineering. Our travels took us to Hong Kong, Wuhan, the Yangtze River, Chongqing and Beijing. Meeting with water resource agencies, municipal officials, and university professors, we exchanged ideas with our Chinese counterparts and learned a great deal from one another.

Much of our trip focused on the middle reaches of the Yangtze River. By any measure, the Yangtze ranks among the world's greatest rivers. In total flow rate, only the Amazon and the Congo exceed the Yangtze. At 6300 km, it is the longest river in Asia, and the third longest in the world. The Yangtze is also at the center of one of the world's oldest civilizations.

One of the highlights of our trip was traveling by boat for three days up the Yangtze from the Three Gorges to the city of Chongqing. The river in these reaches is very swift, very turbulent, very deep (in places), and very brown (with sediment). It is a gateway into China's interior, and is heavily laden with barge and boat traffic carrying everything imaginable. It is also quite polluted. Hundreds of millions of people live in the Yangtze River basin, and wastewater treatment for the most part is just beginning in this area.

The Yangtze River is also the scene of the Three Gorges Dam, the largest water resources project in the world. The scale of the construction here is awe-inspiring. The skyline is dominated by huge cranes, and twenty-seven thousand people are employed at the site. The main dam is a concrete gravity structure with a maximum height of 181 meters and an overall length of 2.3 km. The spillway, with a discharge capacity over 100,000 cubic meters per second, is being constructed in the middle of the original river channel. Two powerhouses, one on each side of the spillway, will house twenty-six 700 MW turbines. With a combined generating capacity of 18,200 MW (the size of 18 nuclear plants), this will be the largest power plant in the world, exceeding even Brazil's Itaipu and Venezuela's Guri.

The permanent shiplocks are being constructed through the hills just north of the river. These shiplocks, the world's largest, will carry ships of up to 10,000 tons through 5 locks up to the new reservoir, 113 meters above the downstream water surface. Smaller ships, up to 3,000 tons, will be able to take the ship-lift for a quicker trip to the top. The shiplift is basically a large elevator that will hoist ships up or down in a gigantic water-filled "bathtub" container, 18 meters wide by 120 meters long.

Construction of the project started in 1993. Since 1997, the Yangtze flow has been carried around the damsite by a diversion channel that was excavated on the river's south bank. This diversion channel will be closed with a cofferdam in 2003, and construction of the remaining section of the dam and south powerhouse will then be started. During this stage, the reservoir will be filled to an interim elevation of 135m. When the dam is completed in 2009, the reservoir will be filled to its final operating elevation of 175m.

The Three Gorges Project has been the focus of much attention (pro and con) from around the world. Many aspects of this project have an unprecedented scale, and a project of this size carries huge advantages and disadvantages. In a nutshell, the driving forces and major benefits of the project are:

- Flood Control - Yangtze flooding has been notoriously deadly through the ages, and the dam's reservoir will provide a buffer.
- Energy Supply - China is sorely in need of power, and the project will lessen China's dependence on coal burning plants that have contributed extensively to China's heavy air pollution problems.
- Improved navigation and commerce - the dam will allow larger ships to reach further into central China, benefiting China's economy and improving opportunities in upstream cities such as Chongqing.

The disadvantages and concerns are equally substantial, including:

- Relocation - Roughly 1.1 million people living along the banks of the Yangtze must relocate before their towns and cities are submerged by the new reservoir.
- Water Quality and Sedimentation - The river is already heavily loaded with sediment and pollutants, and the new reservoir will decrease the river's ability to assimilate wastes. The minimal velocity within the reservoir will also lead to significant settling of solids.
- Cost - The project cost is huge, with an estimated budget of \$25 billion.
- Loss of archaeological sites, scenery, and natural habitat for aquatic species
- Possible impacts on local climate

Obviously, the details of these issues are very complex, and various positions are subject to much debate. China appears to be well aware of these issues, and is taking numerous steps to help lessen the concerns. Overall, however, it appears unavoidable that the project will offer major pros and cons, and it may be a long time before an accurate assessment of the project can be made.

Continuing upriver, one of the unexpected pleasures of our trip was a three-day stay in the city of Chongqing. Chongqing (formerly known as "Chungking") is the last large city on the Yangtze River and is about 600 km upstream of the dam. This city of 4 to 5 million, is a three-dimensional mountainside maze of small shops, 10-story concrete apartment buildings, new towers, busy streets, small alleys, and people absolutely everywhere. I found the people of Chongqing to be gracious and friendly. Upon seeing us, a group of westerners, they would first seem a bit shocked. Then their expressions would turn into smiles, followed by laughter and waving and shouts of "Halloooo". Many were eager to visit and to practice some English.

Chongqing, like many of China's large cities, is being transformed by new construction. Central China has historically lagged behind eastern cities such as Shanghai and Beijing. But this is changing for Chongqing in anticipation of the Three Gorges project. Located at the upstream end of the future reservoir, increased navigation and commerce is expected to significantly benefit Chongqing.

After Chongqing, our delegation spent three days in Beijing. Located on the dry northern plains of China, this city of 12 to 14 million people and 9 million bicycles is very different from Chongqing. With broad avenues, monuments, and impressive government buildings, central Beijing has that "world capital" look. Although unmistakably Chinese, Beijing seems more cosmopolitan and worldly than Chongqing. Encircling the city are urban expressways that look a bit like Chicago's, and clusters of modern high-rise towers are seen throughout the city. At the very center of Beijing, is the Imperial Palace (the "Forbidden City"), home to China's emperors. Immediately adjacent is Tian'anmen Square, the largest public square in the world, flanked by the Great Hall of the People and the tomb of Mao Zedong.

The trip was a wonderful learning experience. There are great engineering, economic and environmental challenges in China, but life appears to be improving for the average person. The trip made me recognize even more, the importance of our civil and environmental engineering profession and our role in serving large numbers of people.

Editor's Note: If you are interested in seeing some slides and hearing more about China, Ned will be making a presentation for the evening banquet at the ASCE Spring Technical conference in Green Bay on March 23.

150th National Student Convention - 2002

The University of Wisconsin - Madison, in cooperation with the ASCE Southwest Branch, UW-Platteville, Marquette University, UW-Milwaukee and the Milwaukee School of Engineering is proud to announce the acceptance by ASCE National of the ASCE 150th Anniversary Student Celebration Proposal submitted this past Spring.

The events taking place during the conference include the concrete canoe and steel bridge competitions along with a leadership conference, job fair, history of ASCE and field trips. Over 1,200 students, professors and professionals are expected to take part in the conference.

Planning is already underway to reserve facilities, raise funds and organize activities. We hope professionals and students can work together in planning and executing this project for a successful conference. The tentative dates for the conference are June 21-25, 2002.

If you are interested in helping out with any aspect of this project, please contact Cora Nichols at ccnichol@students.wisc.edu

Volunteers are needed for:

- Fundraising
- Publicity
- Communications
- Facilities
- Housing and Meals
- Field Trips
- Transportation
- Liaisons
- Job Fairs
- Concrete Canoe
- Steel Bridge
- Leadership Conference
- History of ASCE
- Recreational Activities
- Open Competition
- On-Site Help

At this time, help is especially needed for fundraising, job fairs, concrete canoe, steel bridge, and the leadership conference.

Students Choose Engineering, But Fewer Opt for Civil

College enrollment in the engineering field is holding steady, although the number of students choosing civil engineering dropped 11 percent between 1998 and 1999, according to a study published by the Engineering Workforce Commission. This group, part of the American Association of Engineering Societies, based in Washington, D.C., monitors trends in industry and academia.

The study, "Engineering and Technology Enrollments, Fall 1999," presents enrollment data for engineering and technology programs at all accredited colleges in the United States. Enrollment in chemical, electrical, and industrial engineering decreased, while the numbers for computer and aerospace engineering increased. Enrollment in mechanical engineering remained the same.

The report can be ordered on the American Association of Engineering Societies' Web site (www.aes.org/ewc/publications).

Younger Member Awards Call For Nominations

The Committee on Younger Members (CYM) is actively soliciting nominations for the five younger member awards. The deadline for all award nominations is **February 1, 2001**. Candidates must be members of ASCE who are 35 years of age or less as of February 1, 2001.

The **DANIEL W. MEAD PRIZES** are awarded on the basis of a paper written on professional ethics. This year's topic is: "How Do You Build a Diversity Program for Civil Engineers in the Global Market of the 21st Century?"

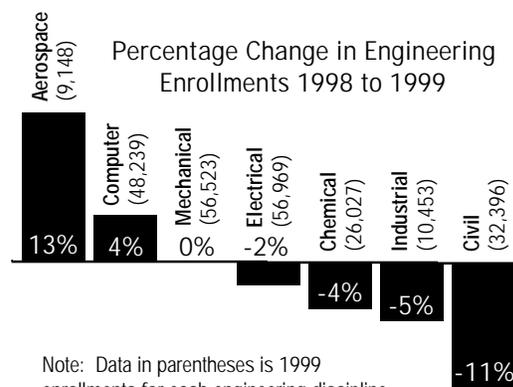
The **EDMUND FRIEDMAN YOUNG ENGINEER AWARD** recognizes the professional contributions of Younger Members of the Society for service, technical competence, high character, integrity, and leadership.

The **YOUNG GOVERNMENT CIVIL ENGINEER AWARD** recognizes distinguished civil engineers employed in public service for demonstrated leadership potential in Public Service Engineering.

The **YOUNGER MEMBER GROUP AWARD** recognizes the most outstanding large and small Younger Member Groups in the Society.

The **COLLINGWOOD PRIZE** is awarded to the author(s) of a paper (1) describing an engineering work with which the author(s) have been directly connected, or (2) recording the investigations contributing to engineering knowledge to which the author(s) have contributed some essential part, and (3) containing a rational digest of results.

If you are interested obtaining additional detailed information and award nomination forms for any of these awards, please see our web page at www.asce.org/gsd/committees/cym, or contact Curtis Nunley at 1-800-548-ASCE.



2000 - 2001 STANDING COMMITTEE CHAIRPERSONS

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History & Heritage	Tom Walther	(715) 839-2952
Jury of Judges	Peggy Hawley	(920) 735-6900
Membership	Randy Videkovich	(414) 225-5100
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Public Affairs	Fred Groth	(608) 242-1550
Engineering Education/ Professional Development	Rolf Killingstad	(608) 845-5121
Past President Council	John Goetter	(414) 259-1500
Annual Meeting	Mark Meyers	
Spring Technical Conference	Mark Ortmyer	(920) 755-6326
Younger Member Forum	Todd Paider	

2000 - 2001 TECHNICAL COMMITTEE CHAIRPERSONS

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Urban Planning & Transportation	Julie Verish	(414) 781-1782
Water Resources & Hydraulics	Dr. Hector R. Bravo	(414) 229-6756
Construction	Awad Hanna	(608) 263-8903
Management	Harry Farchmin	(414) 291-5100

Visit the Website

Visit us at www.asce.org/gsd/sections/wisconsin to find general information, current events, background data, and ASCE related links. Under current events, you can read the Board or Directors' minutes and find this newsletter online.

Our continued thanks to Marty Hanson for volunteering his time and talents, making our site current and informative.

hansonM@AyresAssociates.com, (715) 834-3161

Editor's Note:

Comments, suggestions, and articles regarding the newsletter can be sent to:

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Please submit all articles for March Newsletter by **February 23, 2001**

Meeting Schedule 2000 - 2001

(Updated January 3, 2001)

	Fox River Valley Branch	Southeast Branch	Southwest Branch	Northwest Branch
SEPTEMBER '00				21 Marshfield (8)
OCTOBER '00	25 Appleton	19 Milwaukee (D)	5 Madison (12) 26 Madison - 3:00 (#) 26 Madison - Eve. (10)	25 Abbotsford
NOVEMBER '00	17 Green Bay (3)	16 Milwaukee (D 2)	9 Madison 30 Dodgeville (11)	
DECEMBER '00	6 Green Bay (3 13)	21 Milwaukee (N 5)	12 Madison (N)	7 Menomonie (T)
JANUARY '01	30 Manitowoc (6)	25 Milwaukee (D 9 T)	19 Madison (N 3)	20 Menomonie (T)
FEBRUARY '01	22 Sheboygan (2)	No February Mtg	22 Madison (3)	15 Eau Claire (T)
MARCH '01	23 Green Bay (4)	23 Green Bay (4)	23 Green Bay (4)	23 Green Bay (4) 27 Marshfield (T)
APRIL '01	25 Appleton	19 Milwaukee (N 5)	17 Madison (N)	19 Eau Claire (#)
MAY '01	22 Green Bay	17 Milwaukee (N)	10 Madison (3)	17 Wausau (T)
JUNE '01		21 Milwaukee (D 6)		
JULY '01		19 (7 T)		
AUGUST '01				
SEPTEMBER '01	27 Madison (1)	27 Madison (1)	27 Madison (1)	27 Madison (1)

Scheduled Section Board Meetings

- 10/26/00 Madison - SW Branch Mtg.
- 11/16/00 Milwaukee
- 12/7/00 Fox River Valley
- 1/18/01 Madison
- No February Mtg
- 3/23/01 Fox River Valley - Spring Technical Confer.
- 4/19/01 Eau Claire
- 5/24/01 Milwaukee
- 6/21/01 Madison
- No July Mtg
- 8/23/01 Fox River Valley
- 9/27/01 Madison - Annual Mtg.

Notes:

- # Joint Section Board and Branch Meeting
- N Noon Luncheon Meeting
- D Dinner Meeting
- T Tentative Date
- 1 Wisconsin Section Annual Meeting (hosted by SW Branch)
- 2 Joint Meeting with American Concrete Institute (ACI)
- 3 Joint Meeting with WSPE
- 4 Wisconsin Section Spring Technical Conference (hosted by Fox Valley Branch)
- 5 Joint Meeting with ESM (Engineers and Scientists of Milw.)
- 6 Past Presidents Night
- 7 Field Trip
- 8 Golf Outing
- 9 Joint Meeting with Student Chapter - MSOE
- 10 Joint Meeting with Student Chapter - UW-Madison
- 11 Joint Meeting with Student Chapter - UW-Platteville
- 12 UW-Platteville Mentor Night
- 13 Spouses Night



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