



American Society of Civil Engineers

Our web site: <http://sections.asce.org/columbia/index.html>

# Columbia Section

Since October 10, 1950

## Newsletter

September, 2004

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### **Columbia Section Facts**

We are 310 strong, with 48 life members, average age is 49, 8% are women. Young members total 70 (35 and under).

### **Columbia Section September 22, 2004 Meeting**

**Date:** Wednesday, September 22, 2004 at 11:30 am – 1:00 PM

**Place:** Shilo Inn, George Washington Way, Richland

**Meal:** Buffet (Chef's choice) \$10 per person.  
Please pay cash or check to treasurer at the meeting.

**Topic:** **Presentation from PumpTech, Inc.**

**Speakers:** **Ed Smith, Steve Manual, and Mike Shoemaker**

A technical presentation on when it is appropriate to consider variable frequency drive (VFD) or Magna-Drives. Speakers have a presentation that will share some of their successes and failures and talk about the limitations and benefits of both systems.

Lunch will start at 11:30, and the presentations will start at Noon.

RSVP to: Byron Perry, [bperry@hdrinc.com](mailto:bperry@hdrinc.com) or (509) 546-2040 by Sept 21, 2004.

### **President's Message**

Welcome back from your summer vacations and short break from ASCE! Your new section officers and myself have been planning a number of interesting presentations and topics over the last few months that cover the spectrum of local interest to technical education. Our first luncheon of the season will begin in September with a presentation on variable frequency drives or Magna-Drives by Ed Smith, Steve Manual, and Mike Shoemaker from Pumptech. The presentation will focus on technology and their successes and failures in application.

I would also like to highlight last month's structural technical group presentation on the mobile structural vault being constructed over Chernobyl. Eric Schmeiman provided a fascinating presentation that covered an overview of the structural design, design selection process, and project updates as they head towards construction. My hat's off to Indra Ghosh for putting together another well attended, successful Structural Group dinner. I would encourage all of you to make time to attend for future meetings.

Heading into this new season, I challenge section members to become more active and involved with ASCE. There are many opportunities for professional growth, net working, and education offered by ASCE that are not taken advantage of by all of the members. Set a personal goal to volunteer for at least one event or function for this upcoming year. I think you'll find that the small amount of time invested will return large benefits.

If you have any questions about the different opportunities available, do not hesitate to ask the current or past section officers and board members. I look forward to exciting season for the Columbia Section.

Sincerely,

Aaron

## 2004 Younger Member Leadership Symposium

### A letter from Chris Garlick, Chairperson, ASCE Committee on Younger Members

Dear Younger Member:

Please make your plans to attend the fourteenth annual national Younger Member Leadership Symposium (YMLS). The YMLS will be held on Friday and Saturday, October 22 and 23 at the ASCE Annual Conference and Exposition in Baltimore, MD. This will be a unique opportunity to exchange ideas and develop new skills relevant to Younger Members with colleagues from Sections and Branches across the country.

The preliminary YMLS agenda is attached. Several ASCE National Officers and all Committee on Younger Members' representatives will participate so you can learn about current ASCE programs and activities. Time is also set aside for Younger Members to present their Group successes and challenges. You can garner many new ideas for your group from this exchange. Please bring a brief, informal written report about your group & its activities. These will be collected and distributed to all attendees after the YMLS.

In addition to the YMLS, the Younger Member program will once again feature a Younger Member/Student Workshop, to be held on Thursday, October 21. All Younger Members are encouraged to attend this fun and entertaining event, designed to facilitate the transition of Student Members into the mainstream of ASCE.

Registration for the YMLS is free but completion of the attached form is required. The form is used as a basis for the amount of materials needed for distribution. All costs for the YMLS, including transportation and lodging, are the responsibility of the registrant, however, it is strongly suggested that you work with your Section/Branch board for potential funding. And don't forget that there is a discount registration rate for younger members attending the entire conference. Information may be accessed on the ASCE Conference website at <http://www.asce.org/conferences/annual04/>

I look forward to seeing you in Baltimore. Please return your registration form no later than ~~September 1~~ September 20 and if you need any additional information, contact Nancy Berson at [nberson@asce.org](mailto:nberson@asce.org) or at 800-548-2723, ext. 6010.

Sincerely,

Chris Garlick

**Newsletter Editor's Note:** Dear Young Member, If you are interested in attending the **2004 Younger Member Leadership Symposium** on October 22 and 23, please contact Aaron Meilleur, (509)-540-2040 (B), [aaron.meilleur@hdrinc.com](mailto:aaron.meilleur@hdrinc.com). Also see enclosed program and registration form.

### Columbia Section Board Meeting (August 13, 12:00 noon, Shilo Inn, Richland) Highlights:

1. Attendee were Aaron Meilleur, Paul Harmsen, Darral Moore, Ben Volk, Don Kurkjian
2. **Purpose of Meeting** - Planning for the upcoming year
3. First Meeting of the year: September 22, See page 1 of this newsletter.
4. Future monthly meetings Potential speakers:
  - District Corps of Engineers new commander – Ben Volk
  - Boring and Seismic Testing ongoing at Hanford – Don Kurkjian
  - Interpretive Center – Aaron Meilleur
  - Meeting with group soliciting for ideas on the future of Hanford – Eric Schmieman
5. **Gifts for speakers:** Gifts will be ASCE travel mugs.
6. **Council of Presidents and Leadership Breakfast National:** Is being held in Baltimore. Don may be in the area and may attend on October 22<sup>nd</sup>. This is part of the annual conference.
7. **Section Annual Report** – Due Nov 30<sup>th</sup>. Aaron and Paul will handle putting the section annual report together. Suggest that we get the report in front of Del Ballard prior to submitting to fix errors from last year's report.
8. PNC Fall Conference Redmond, Oregon Sept 23-25: The board authorized a \$360 expenditure for the Fall Conference for Ben and Aaron to attend.
9. **ASCE's participation in the development committee for the City of Richland:** Aaron and Darral have been participating in the committee for the last eight months. A recent recommendation letter was presented to the City from the committee and will be presented to the City Council. When the letter is formalized, a copy of the materials will be given to the ASCE section for their information.
10. **Younger Member Forum for Oregon:** Solicited from the Oregon section. Aaron will forward message to Don for inclusion on the website.
11. **Newsletter Editor Replacement:** The effort to provide Indra has seemed to stall over the summer and with new officers on board for the section. Indra desires to finish his duties on the newsletter, which has been on his shoulders for a number of years and requires a significant time commitment. None of the attendees of the board meeting had immediate suggestions for replacements. Aaron will solicit for a replacement at the September meeting. If we do not have a solution by the October meeting, the board will need to discuss the future of the newsletter.
12. **Other issues discussed:**
  - Scholarship notices need to get out. Paul will look at the information that Jocelyne left for the previous year's notices.
  - Need to write and include Walla Walla in the invites for the monthly meeting and see if we can get a local Walla Walla meeting scheduled by their branch.
  - Ben Volk suggested that we think about options for potential workshops. In the past the section has sponsored day-long workshops on transportation issues in the local area.

## Notes on Columbia Section Structural Group Meeting, August 25

Dr. Eric Schmieman, Chief Engineer, PNNL, and past-president of our Section, has been working on the design of the Chernobyl project for more than two years. He presented the structural design aspects of the project. Eric went into the details of many aspects of the design. He also showed a short video of the conceptual design of the project. The attendees asked him many questions, and Eric answered them to everyone's satisfaction.

ASCE Board members and Structural Group Members thank Eric for his eloquent presentation.

The presentation was held at Shilo Inn, Richland on August 25, 6:00 PM. Some 35 engineers and their spouses and friends attended it.

Next Structural Group Meeting: not scheduled yet.

### ASCE Seminars and Courses

ASCE has been committed to providing top quality continuing education for civil engineers and related professionals for more than 31 years. The Society holds more than 275 seminars and computer workshops every year on a wide variety of technical, management, and regulatory topics. These seminars are held in more than 45 cities across the U.S. In addition, ASCE offers customized on-site training and many distance learning programs, including live interpretive web/teleconference seminars, online courses, and courses on CD, videotape, and audiotape. For seminar and course information, visit <http://www.asce.org/conted/>

### ASCE Annual Conference October 20-23, 2004

ASCE 2004 Civil Engineering Conference and Exposition will be held October 20 – 23 in Baltimore Convention Center, Baltimore. For details, please visit: <http://www.asce.org/conferences/annual04/>

## Engineering Trivia

1. **Who is the first to employ the title “Civil Engineer?”** – British engineer *John Smeaton* (1724 – 1792). Smeaton is generally regarded as the founder of the civil engineering profession in the British Isles. His most famous work was the Eddystone Lighthouse (14 miles south of Plymouth), which remains a symbol of the profession.
2. **Who is the first civil engineer in space?** – *James van Hoften*. BS degree in Civil Engineering, University of California, Berkeley, 1966; MS in Hydraulic Engineering and a doctor of philosophy in Hydraulic Engineering from Colorado State University in 1968 and 1976, respectively. In September 1976, he accepted an assistant professorship of Civil Engineering at the University of Houston, and until his selection as an astronaut candidate, taught fluid mechanics and conducted research on biomedical fluid flows concerning flows in artificial internal organs and valves. Dr. van Hoften has published a number of papers on turbulence, waves, and cardiovascular flows. *Space Flight*: April 6 - 13, 1984, Mission STS-41-C, Spacecraft: Challenger.
3. **What are the tallest structures in the world?** – 1. *Petronas Towers 1 & 2*, Kuala Lumpur, Malaysia, (1998), each **1,483 ft.** 2. *Sears Tower*, Chicago, (1974), **1,450 ft.** 3. *Jin Mao Building*, Shanghai, China, (1999), **1,380 ft.** 4. *Citic Plaza*, Guangzhou, China, (1997), **1,283 ft.** 5. *Shun Hing Square*, Shenzhen, China (1996), **1,260 ft.** 6. **Empire State Building**, New York (1931), **1,250 ft** to 102<sup>nd</sup> floor. 7. *Central Plaza*, Hong Kong, (1992), **1,227 ft.** 8. *Bank of China Tower*, Hong Kong, (1989), **1,209 ft.** 9. *T&C Tower*, Kaoshiung, Taiwan, (1997), **1,140 ft.** 10. *The Center*, Hong Kong, (1998), **1,135 ft.**
4. **What are the longest steel arches?** – 1. *New River Gorge*, Fayetteville, W. VA, (1977), **1,700 ft.** 2. *Bayonne, Kill Van Kull at Bayonne, N.J.*, ((1931), **1,675 ft.** 3. *Sidney Harbor, Sidney, Australia*, (1932), **1,670 ft.** 4. *Fremont, Portland, OR*, (1973), **1,255 ft.** 5. *Zdakov, Vltava River, Czech Republic*, (1967), **1,244 ft.**
5. **What was the cost to build the Eiffel Tower?** – **\$1.5 m.** Completed in 1889. Height: 986 ft. Material – Wrought Iron, less than 7,000 tons. Engineer : *Gustave Eiffel*. It was designed for 30 in. sway. Maximum sway noticed was about 6” in 1971. [Compare: The CN Tower opened in 1976 as the world's tallest free standing structure at 1,815 ft.]