

CIVIL ENGINEER



T H E N E W S L E T T E R

Tacoma ♦ Olympia Section of the
American Society of Civil Engineers



Volume 61

Founded 1930

DECEMBER 1998

**CIVIL ENGINEERS MAKE THE DIFFERENCE!
THEY PROVIDE THE QUALITY OF LIFE!**

The **Civil Engineer Newsletter** is published for the Tacoma/Olympia Section of the American Society of Civil Engineers monthly from September to June.

To submit ads or articles of interest, please contact the President of the Section or the Editor. Information must be submitted not later than the 15th of the month prior to publication.

For address changes and corrections, contact the Editor.

President

Jim Brigham..... (253) 383-4940
JBrigham@GeoEngineers.com

Pres.-Elect.

Kathy Hargrave . (253) 474-9449

Secretary

Chris Beckman... (253) 798-3557

Treasurer

Kristina Nelson.. (253) 591-5765
knelson@ci.tacoma.us

Director

Perry Shea..... (360) 493-6002
passca@mail.tss.net

Director

Michael Hale..... (253) 591-5789

Younger Members

Brian Matthews . (360) 491-3399
bmatthews@skillings.com

Past Pres.

Rebecca Vader.... (253) 272-3343
timv@halcyon.com

Editor

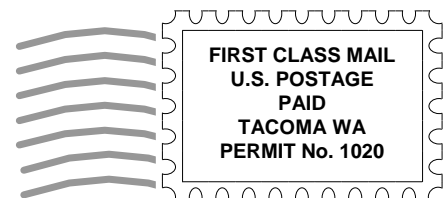
Nancy Searle..... (253) 564-5885
jessailor@aol.com

Section Home Page WEB address:
<http://www.asce.org/gsd/sections/tacoly/tacoly.htm>

WEBmaster: Richard Swanson
(360) 357-2788 Swanson@wsdot.wa.gov

CIVIL ENGINEER
The NEWSLETTER

c/o Searle J&N
502 Contra Costa
Fircrest WA 98466



DECEMBER MEETING

**Wednesday,
December 9, 1998
Fife Executive Inn
I-5 at Exit 137**

Social: 6:00 P.M.
Dinner: 6:30 P.M.
Program 7:30 P.M.

Port of Tacoma's Vision for the Next Century

**Andrea Riniker -
Executive Director
Port of Tacoma**



Last year the Port of Tacoma handled approximately 1.1 million standard container units which compares to the Port of Seattle's 1.6 million. With the addition of the Hyundai container terminal, first scheduled arrival of a Hyundai container ship in April 1999, the gap is closing. The Hyundai project includes cranes with the capacity of unloading the "Pana-max" vessels, which are the largest container ships in the world. These cranes are among the largest on the West Coast and the only cranes of their capacity north of Long Beach, California.

Beyond the exciting Port of Tacoma projects being completed today, there are several issues to be discussed about the future direction of the Port.

Among them are:

1. Transportation challenges to move goods out of the Port by rail and highway.
2. The most efficient use of Port space, including wetland mitigation off of prime Port property such that these properties can be developed fully.

3. The quantity and location of space available for expansion with the anticipated growth in the early years of the next century.

Reservations

Call Connie Linden at (253) 383-2422 or Mark Leingang, (360) 754-9339 by the close of business, Friday, December 4, 1998 or access the Tacoma-Olympia Section Home Page at: <http://www.asce.org/gsd/sections/tacoly/tacoly.htm> and click **Reservations**.

Educational Trade Show

The Southwest Chapter SEAW is holding its Third Annual Educational Trade Show and Seminars January 27, 1999, at the Best Western Executive Inn Tacoma/Fife. Twelve seminars will be held from 3:00 p.m. to 6:00 p.m. and the Trade Show will begin at 5:00 p.m.. The event is free to members of SEAW, ASCE, and SAME, however, reservations for a complimentary dinner are required.

For reservations, contact Sarah Porter at (253) 620-7459 or e-mail sarah.porter@apawood.org before January 15, 1999. This is the only Show of it's kind in the Puget Sound region for engineers. Make your reservations early!

Book Review:

Longitude: The True Story of a Lone Genius Who Solved the Greatest Scientific Problem of His Time



By Dava Sobel (1996)
ISBN: 0140258795

During the great age of exploration, the "longitude problem" was the gravest of scientific challenges. Without the ability to determine longitude, sailors and their ships were lost at sea as soon as they lost sight of land. In 1714, desperate for a solution, England's Parliament offered 20,000 pounds (the equivalent of millions of dollars today) to anyone who could solve the problem. With all the skill and storytelling ability of a great novelist, Dava Sobel captures the dramatic story at the heart of this epic scientific quest

>From Publisher's Weekly: While sailors can readily gauge latitude by the height of the sun or guiding stars above the horizon, the measurement of longitude bedeviled navigators for centuries, resulting in untold shipwrecks. Galileo, Isaac Newton and Edmund Halley entreated the moon and stars for help, but their astronomical methods failed. In 1714, England's Parliament offered 20,000 (equivalent to millions of dollars today) to anyone who could solve the problem. Self-educated English clockmaker John Harrison (1693-1776) found the answer by inventing a chronometer—a friction-free timepiece, impervious to pitch and roll, temperature and humidity—that could carry the true time from the home port to any destination. But Britain's Board of Longitude, a panel of scientists, naval officers and government officials, favored the astronomers over humble "mechanics" like Harrison, who received only a portion of the prize after decades of struggle. Yet his approach ultimately triumphed, enabling Britannia to rule the waves. In an enthralling gem of a book, former New York Times science reporter Sobel spins an amazing tale of political intrigue, foul play, scientific discovery and personal ambition *profession in my opinion*.



Seasons greetings! I suppose it's o.k. to say that now that December is upon us.

Christmas came early for me this week when our information systems department installed a new computer in my office. So far I have noted that it's bigger, faster, and presumably, better. But it started me wondering about the old one I was so impressed with several years ago. It can still accomplish the same tasks with the same lightening speed it had then. So why is it now on it's way to the technological junk yard when it still holds the same promise and potential it always had - with a few coffee stains added for character?

Fortunately people have more opportunities to adapt and change than computers. The learning curve stretches out before us like a rainbow to infinity.

Here's a joke that arrived today. Personally, I think we're getting a bad rap, engineers are not this geeky, only scientists are. If we were doing this there would have to be some shop drawings referenced, some QC samples taken, something about preserve and protect completed work, and so on. Plus, we would make the contractor decide what equipment to use.

Why Engineers Don't Write Cook Books

Chocolate Chip Cookies:

Ingredients:

532.35 cm³ gluten

4.9 cm³ NaHCO₃

4.9 cm³ refined halite

236.6 cm³ partially hydrogenated tallow triglyceride

177.45 cm³ crystalline C₁₂H₂₂O₁₁

177.45 cm³ unrefined C₁₂H₂₂O₁₁

4.9 cm³ methyl ether of protocatechuic aldehyde

Two calcium carbonate-encapsulated avian albumen-coated protein

473.2 cm³ theobroma cacao

236.6 cm³ de-encapsulated legume meats (sieve size #10)

To a 2-L jacketed round reactor vessel (reactor #1) with an overall heat transfer coefficient of about 100 Btu/F-ft²-hr, add ingredients one, two and three with constant agitation. In a second 2-L reactor vessel with a radial flow impeller operating at 100 rpm, add ingredients four, five, six, and seven until the mixture is homogenous.

To reactor #2, add ingredient eight, followed by three equal volumes of the homogenous mixture in reactor #1. Additionally, add ingredient nine and

ten slowly, with constant agitation. Care must be taken at this point in the reaction to control any temperature rise that may be the result of an exothermic reaction.

Using a screw extrude attached to a #4 nodulizer, place the mixture piece-meal on a 316SS sheet (300 x 600 mm). Heat in a 460K oven for a period of time that is in agreement with Frank & Johnston's first order rate expression (see JACOS, 21, 55), or until golden brown.

Once the reaction is complete, place the sheet on a 25C heat-transfer table, allowing the product to come to equilibrium.

This news letter is a little like my old computer - it still has all the promise and potential of the unwritten page, but there may be better ways to accomplish this. From my point of view the newsletter accomplishes the following:

- A. It announces the topic and logistics for the next meeting
- B. It contains various relevant and irrelevant announcements
- C. It provides a forum for members to speak out
- D. It provides a space for the Presidents column
- E. It can be crammed with book reports, jokes, or whatever else the
- F. President and Editor can think of to fill up space.

Before I volunteered for this job I only paid attention to Item A. The rest of the newsletter was useful for covering the coffee stains on my old computer (information systems hates to see those).

So - The board and I would like to try an experiment: Since the newsletter represents about ? of our section budget, and since we now have a really cool web site to convey relevant and irrelevant information, **WE WILL NOT PUBLISH A NEWSLETTER NEXT MONTH. INSTEAD WE WILL MAIL A POSTCARD CONTAINING THE MEETING ANNOUNCEMENT AND LOGISTICS.**

Our web site address is <http://www.asce.org/gsd/sections/tacoly/tacoly.htm>

Hopefully this will be faster, easier, and presumably better than the current system. But since it's an experiment, your questions, comments, statements, and opinions are solicited and welcomed.

HAVE A GREAT HOLIDAY!

Jim Brigham, President
Tacoma Olympia Section
JBrigham@GeoEngineers.com

ASCE Annual Calendar

Our section holds open meetings once a month from September through June.

Meetings are typically scheduled for the second Tuesday of the month, but do vary for special speakers or joint meetings. Locations alternate between Tacoma and Lacey and times vary between lunch and dinner meetings.

Our preliminary schedule is shown below. Please check our web page or contact a house chair for firm information one week prior to each listed meeting. Or, for a monthly meeting announcement and newsletter mailed to your address, please join the Tacoma-Olympia Section (in addition to the national organization).

We have also included the Seattle Section meeting for your information -

Contact HLA @ 425-990-4164 for further details.

December 9 (Wed) - Tacoma, Joint Dinner with Seattle Section, Executive Inn, Fife. Andrea Riniker, Executive Director, Port of Tacoma, Vision of the Next Century

January 12 - Tacoma Lunch - Fife City Bar & Grill, Jeff Carpenter, WSDOT, 11th Street Bridge

February - Lacey Saint Martin's Engineering Banquet Dinner

March 9- Tacoma, Joint Lunch with S.A.M.E.

April 13 - Lacey

May 11 - Tacoma

June 8 - Lacey

In addition, the local Board conducts open meetings, generally the first Wednesday of the month at 5:30 PM. Locations vary, so please contact the President for the location if you would like to attend a Board meeting.

PELP Programs

For additional information about these or other PELP courses, or to have your name added to the course announcement bulletin mailing list contact Ron Bucknam, PELP Program Director, PELP Program Director, at 206/543-1178; fax: 206/685-3836; or E-mail: rbucknam@u.washington.edu.

All courses will be held on or near the University of Washington campus, unless noted otherwise. To register for a course, please call Engineering Professional Programs at 206/543-5539. Early registration fees are applicable until two weeks before commencement of the scheduled course.

Hydrologic Modeling and Design of Retention/Detention Facilities

November 18-20,

Groundwater Monitoring Wells: Management and Use for Drinking Water Purveyors December 2 and 3,

Wetlands Ecology, Protection and Restoration December 15 - 17, (field trip on 12/17)

Go Global with ASCE

Engineering Tomorrow's Leaders – That is the theme for the '98 – '99 membership drive. You can participate in the campaign by:

- A** asking a friend to join ASCE
- S** supporting their participation
- C** challenging them to achieve their goals
- E** embracing the benefits of ASCE

Recruiting builds the foundation for future success! In addition to strengthening the Society, Sections and Branches in each Division within each Zone achieving the highest growth percentage of membership will receive a \$250 honorarium. So, sponsor a colleague during the membership drive and increase your resources in ASCE's global network. Increased membership means more influence. Through the Society, you can achieve an even stronger impact on the legislative and regulatory issues affecting civil engineers. A larger membership means greater opportunities for networking and exchanging ideas. Don't forget to encourage young civil engineers to join. Civil engineers 35 years or younger can join the Younger Member Group. **For a membership packet, call 1-800-548-2723 or e-mail your request to: member@asce.org or visit the ASCE Web Site at: www.asce.org**