

# Engineerings

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October 2001 Volume 77 Number 2

## Thomas A. Aubee To Speak At Affiliate Dinner Meeting

by Roy L. Bouvier;  
Editor and Publisher of *Engineerings*

Thomas A. Aubee, a founder of Alternate Energy Corporation, is set to speak at the PES Affiliate Dinner Meeting to be held on Tuesday, October 16 at the Pawtucket Country Club. Mr. Aubee's presentation will be entitled "Microgeneration – Fuel Cell & Microturbine Technologies".

Mr. Aubee is a founder of Alternate Energy Corporation, Mr. Aubee's employment history includes various engineering and management positions in the electronics connector, semiconductor, consulting engineering, and DSM industries for such firms as Augat, AMP, NERCO, and RCS Energy Services. Mr. Aubee holds a Bachelor of Science Degree in Civil and Environmental Engineering from the University of Rhode Island. Mr. Aubee has been awarded US patents for a supplemental gaseous fuel conversion system for diesel engines and a technology that monitors and controls the daily consumption of natural gas for larger commercial and industrial purchasers (the "Passport FMS").

Founded in February of 1992, Alternate Energy Corporation (AEC) is a subsidiary of Southern Union Company, Inc., headquartered in Austin, TX (NYSE:SUG). A summary of our business activities follows:

AEC is a factory certified, authorized sales and service provider for the Capstone line of MicroTurbines.

AEC is an authorized technical and sales representative for IFC PC25 fuel cells.

AEC designs, builds and installs vehicular natural gas fueling facilities.

AEC is the New England Area Distributor for the complete line of Uninterruptible Power Supply Systems produced by Toshiba USA.

AEC holds patents for the conversion of diesel-powered stationary engines to operate on supplemental gaseous fuel and for a technology that monitors and controls the daily consumption of natural gas for larger commercial and industrial customers.

AEC maintains a highly trained service team available on a 7x24 basis.

In addition to the above-noted products, AEC provides engineering and technical services to our Customers in the energy and environmental industries, governmental bodies, and utility entities.

To make reservations for the Affiliate Dinner Meeting, contact Dorothy Sadowski at the PES Office, Tel (401) 434-2332 or via email at provengr@aol.com.

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**Make Your Reservations Today For The PES Affiliates Dinner Meeting To Be Held Tuesday, October 16, 2001 At The Pawtucket Country Club.  
Call 434-2332...**

# Calendar of Events

*For up-to-date event information, go to the PES Online Calendar, accessible through the PES Website at [www.provengsociety.com](http://www.provengsociety.com).*

**AFFILIATES, PLEASE NOTE:** Be sure to forward your event information to the PES Office at [proveng@netzero.net](mailto:proveng@netzero.net) for posting.

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*Affiliate members each receive a monthly copy of "Engineering" and are urged to submit events and/or articles for publication prior to the 10th of each month.*

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## Providence Engineering Society Announces 2002 College Scholarship Award Eligibility

The Executive Board of the Providence Engineering Society (P.E.S.) is once again pleased to announce the availability of at least one **College Scholarship Award** in the amount of **\$1,000** for the 2002-2003 academic school year.

Eligible scholarship award candidates must be (1) a member or a descendant of a living member of the P.E.S., or a member or a descendant of a living member of an affiliate organization of the P.E.S.; and (2) a student enrolled in an accredited Engineering or approved Technical and/or Engineering-related Program leading to a Bachelor of Science degree. All student applicants must have completed at least two full academic semesters at the time of application.

If you know of any individual who may be qualified for the scholarship award for the 2002-2003 academic year, please contact the P.E.S. office (401-434-2332) to request a scholarship application form.

The application must be accompanied by a complete academic transcript through Spring 2001. Applications without the required transcripts will not be accepted. The Fall 2001 grades shall be forwarded to the P.E.S. office for record purposes as soon as they become available to the student applicant. The filing deadline is December 31, 2001.

If you have any questions regarding the eligibility of a prospective student for this scholarship award, please contact Robert Anderson at (508) 543-1700 during the daytime hours.

## Larry's Corner

by L. Robert Smith F.ASCE  
Past President, Providence Engineering Society



### Take Out An Insurance Policy To Protect Against The Insurance Agents!

Float. Definition number 30 in the Random House College Dictionary: *Banking. Uncollected checks and commercial paper in process of transfer from bank to bank.*

Float is a wonderful thing. Many brokerage houses used to demand payment within three days of a purchase, but would pay within five days of a sale. They held your money an extra two days. To increase their investment return, they would make the checks payable on some obscure bank in Wagon Wheel, Somewhere. By the time you deposited the check and it went through the system, they got an additional few days out of it. Multiply this by an untold number of transactions and they were doing all right. Because of electronic transfer of funds and changes in the Federal regulations, this practice has become a thing of the past. Credit card companies and traveler's check companies make big money on "float". Did you ever wonder why you can buy traveler's checks, with no fee charged, in February? Because they use your money, interest free, for half a year. An additional bonus are the checks that never get cashed. That's all profit for them. One of the major traveler's check companies has approximately **one billion** dollars floating at any given time. You paid your money and they are waiting for the checks to eventually clear. In the meantime they are making money on having the money invested.

On a lesser scale, we have insurance agents. They can make money on float. You pay your policy, two weeks early. There is usually a thirty day grace period, after the due date. They have six weeks with which to play with your money. However, the amount of money with which they can play, is relatively small potatoes. But if you are an insurance agent and get behind on your bills, you can always use the current premium money to pay them. You can then rely on the next month's premiums to pay for the previous months policies. This is akin to borrowing from Peter to pay Paul. An agent can keep the balls in the air, as long as cash flow is steady and they take care to pay for the past policies before the grace period runs out. I once had an agent (note the past tense) who was forever using the float period. However, some months collections were slow and they couldn't always cover the premium during the grace period. Net effect was a cancellation notice. The agent would give a lame excuse and get it re-instated, simply by cutting the check. After a steady diet of this, we contacted the various insurance companies directly and provided copies of our checks and the backs which indicated when they were cashed. We asked to be billed direct. They all agreed. A short while thereafter, the agent came storming over to my office, demanding to know what I was pulling. I told him I was insuring that my policies stayed in effect and that I didn't have to go through the embarrassment of having the policies canceled. He was

Turn to "INSURANCE POLICY" on Page 4

***"INSURANCE POLICY" continued from page 3***

still going to get his commission, so other than not being able to play with my money, I didn't see that he had a complaint. Well I had embarrassed him. What about my embarrassment.

Anyhow, this system worked fine, for me at least. The following December, just before Christmas, I get this huge insurance bill. In reading it, it appeared that I was paying additional premium to extend all my policies to expire on 31 December of the following year. The way it stood, all my policies came due at various times throughout the year. It was nice that way. I would have to deal with them one at a time, sprinkled across the calendar. Now I was getting hit for an extension fee and would have to pay to renew them all at the same time, in the future. I called the insurance agent and asked him what kind of a scam he was now running. No scam. He thought that it would be a great benefit to me. I could write one check instead of many and save postage. Plus I could pay a large bill with end of year profits and not have to pay taxes on the money. I was amazed at how considerate he was being to me. However, I mentioned that it would be nice if he had indeed checked with me, before making so drastic a change. I also thanked him for his confidence that our firm would always have to worry about paying taxes on profits at the end of each year. I told him to leave it the way it was. I was getting a lot of resistance. He had spent a lot of time and effort arranging to have these premium payments all coincide. It was going to be a lot of work to undo it. I mentioned that the State Insurance Commissioner might be of assistance, to him, in undoing the change. I expressed my opinion that he was doing this to grab an additional commission and that he never had my best interest in mind.

Once he got the changes reversed, I dumped him.

This is a trivial matter compared to another incident, of which we became aware. Many years ago, a firm, for which I worked, let several sewer contracts. One contractor was the successful low bidder on two contracts. One was for one million dollars and the other was for double that amount. We received copies of a bond for both jobs. We were supposed to receive originals. The bond amount, on each certificate was for two million dollars. Extremely odd. I figured the contractor had taken out only one bond and was pulling a quick one on us. This particular contractor had a strange habit of buying pairs of identical trucks. He would register only one and then split the license plates on the two trucks. He only insured one and only paid taxes on one. The big trick was making sure that the twin trucks never ended on the same job. I would expect this individual to bond only one job and use it for two projects. I called the insurance agency involved, and questioned why the amounts were the same and why we had only received copies. By the time I hung up the phone, I had the impression that the contractor was playing this straight and that the insurance agent was the one playing games. We mailed the copies back and asked for originals. We received one original, for the two million. We sent an authorization to proceed on only that job. We also sent a second request for the original for the other job. In a short while we received a second original. This was for one million dollars and had a more recent date on it. We issued the notice to proceed, for the other job. The insurance agent called me and gave me a piece of his mind. He thought we had created a tempest in a teapot, over nothing. The contractor was obviously going to finish the job and even if he didn't the bonding company would have done it all under the two million dollar bond. I now knew, for sure, who was scamming the money.

***The Providence  
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**Engineer Wanted**

Salary: \$59,013 - \$68,449

Supervises the City of East Providence Engineering Division. Designs, surveys and prepares plans for streets, sanitary and storm sewers, water mains, curbing, recreational facilities and other public improvements. Advises other city departments on engineering problems. Minimum requirements: Five or more years experience in a responsible supervisory capacity in Civil Engineering. Certified as a Professional Engineer in the State of Rhode Island or able to obtain reciprocity within six (6) months; Bachelor of Science degree in Civil Engineering from a college or university with an ABET accredited civil engineering curriculum; able to utilize word processing and other engineering software. Submit resume to: Human Resources Department, City Hall, 145 Taunton Avenue, East Providence, RI 02914, (401) 435-7766. Application deadline, 4:00 p.m., Friday, October 19, 2001. Affirmative Action/Equal Opportunity Employer

## ASCE Holds Annual Dinner Meeting

Submitted by  
Douglas Allam, ASCE Past-President

The Rhode Island Section of ASCE recently held their annual dinner meeting on May 24, 2001 at the Twenty Water Street Restaurant in East Greenwich, Rhode Island. The meeting is always a special evening because the section is able to recognize their past presidents and welcome the newly elected officers.



*ASCE Past Presidents in attendance at Annual Dinner Meeting*

The new officers were sworn in by the Zone 1, District 2 Director Mario Ricoszi. The new slate of officers for the 2001 – 2002 term are as follows:

President – Leon Thiem

President Elect – Phil Fusco

Vice President – Chris Jakubiak

Secretary – Kevin Johnson

Treasurer – George Tsiatas

Section Advisor – L. Robert Smith

All the past presidents who were in attendance were recognized for their leadership and dedication to the Society. The fourteen (14) past presidents in attendance ranged from the oldest living past president of 1960 up to the present. They were the following:

Kendall Moulthrop, Domenic Mainelli, Allen Schwartz, Philip Mancini, Paul Aldinger, Michael Powers, William Drexel, L. Robert Smith, David Webster, Robert Anderson, Al Prata, Doris Aschman, Paul Carlson and Douglas Allam. The Section also displayed for the first time a permanent plaque that lists all the past presidents of RI Section. The plaque will be on display in the Providence Engineering Society Office at Nine Newman Avenue in East Providence.



*New ASCE Officers for 2001-2002*

The evening's guest speaker was Mr. Dennis Hilliard who is Director of the Rhode Island State Crime Lab at the University of Rhode Island. Mr. Hilliard provided an interesting and informative presentation on forensics, including the baseball study.

## ASCE Establishes Forensic Teams to Investigate NY and DC Disasters

ASCE, using its Disaster Response Procedure, has authorized the formation of two forensic teams to investigate the collapse of the World Trade Center in New York and the damage to the Pentagon in suburban Washington, DC. Each team is composed of ASCE members who are experts in the area of forensics. Team members use their contacts in their area of expertise and work with local officials in the disaster area to gain access to the site. The teams authorized to investigate the World Trade Center and Pentagon disasters are composed of structural engineers. When the teams complete their assignment their work will be documented in the form of a report that is made available to the ASCE membership and other interested parties. ASCE's Disaster Response Procedure has been in place for approximately 10 years. This is the fifth time in 2001 the procedure has been used to create investigative teams. Earlier teams, whose members are experts in earthquakes and lifeline engineering, were dispatched to investigate and document the devastation from the earthquakes in El Salvador, India, the Seattle area, and Peru. Funding for the teams is made available through the ASCE Voluntary Fund.

## RISPE Calls for Engineer of the Year Nominations

The Rhode Island Society of Professional Engineers (RISPE) is accepting nominations for their Engineer of the Year.

Nominations must be addressed to RISPE and received at the office of the Providence Engineering Society, P.O. Box 16610, 9 Newman Avenue, East Providence, RI 02916, no later than December 15, 2001.

All engineers registered in the State of Rhode Island are eligible, except for current RISPE Board members.

For more information, please contact Thomas P. Grala, P.E. at (401) 222-6680 Ext. 366.

## URI Student Chapter Wins Sixth in a Row!

Submitted by,  
Douglas Allam, Past President

This year's regional concrete canoe competition was held at UMASS Dartmouth on April 28<sup>th</sup> and 29<sup>th</sup>. The University of Rhode Island student chapter of ASCE won for an unprecedented sixth consecutive year. The seventeen (17) person team soundly beat teams from other respected engineering schools such as MIT, Tufts, Wentworth, Northeastern, UMASS Dartmouth, and University of Connecticut.

The student chapter then traveled to San Diego, California in June to participate in the national competition. The competition, which was hosted by San Diego State University, was URI's sixth appearance in a row. The team finished 18<sup>th</sup> out of a total of twenty four (24) teams that participated, which was an improvement from the previous year.

This year's canoe, The Islander, was shipped out to California. Upon arrival, team members were dismayed to find the box that enclosed the boat was severely destroyed; though there was no damage to the actual boat. Also, one of the team's paddlers suffered a wrist injury just before the competition and was not able to participate. Regardless of these difficulties, the students were able to pull together as a team and overcome these obstacles. The students had one of the most spirited teams at the competition with their cheers being heard everywhere from the hotel, to the races, to the S.D.S.U. quad.

Team members learned a great deal about building a concrete canoe and project management. This event was a chance for them to put the engineering principles they learn in the classroom to work in the field. Always looking for ways to improve, the students were able to experience how other teams at the national level of competition built their boat. Currently the students are considering the feasibility of using an injection mold to help improve the quality of the boat construction. The students also noted they were the only team that shipped their boat to the event.

For more information on the URI Concrete Canoe please contact Jim Primeau, URI ASCE President at [mast2beam@aol.com](mailto:mast2beam@aol.com).

## AISC Task Force to Investigate World Trade Center Collapse

Chicago, IL – September 12, 2001 – The American Institute of Steel Construction, Inc. (AISC) has contacted FEMA and the leading structural engineering associations and is forming a special task force to investigate the structural collapses of the World Trade Center buildings resulting from the terrorist attacks on September 11, 2001.

AISC is the technical institute responsible for developing and maintaining the standards for design and construction of steel buildings in the United States. Information developed by this task force will enable AISC to determine if modifications are needed in existing standards.

"AISC strives to create a steel building specification that makes use of the latest available design data and construction technology," said Nestor R. Iwankiw, AISC's Vice President of Engineering and Research. "The special task force of nationally recognized experts will investigate and determine the various factors that contributed to the collapses and make recommendations to AISC's Specification, Blast and Fire Committees."

Much speculation is currently underway about the cause of the collapses. Most engineers currently believe the collapses occurred as a result of a combination of extraordinary events, including the initial aircraft impacts and explosions, which destroyed part of the structure, and the subsequent extreme fire, which progressively weakened the remaining structure. The ensuing collapses may have occurred when the weight of the buildings above the points of impact exceeded the reduced load carrying capacity of the remaining structure. It is believed that the collapse of the 47-story building adjacent to the twin towers was caused by a combination of its foundations and structure being weakened by the collapsing twin towers and fire.

"We're saddened about this terrible disaster and the loss of life," said AISC President H. Louis Gurthet, P.E. "Our hearts and prayers go out to the victims and their families."

## (Your City/Town/County) Residents Take Part In National Effort To Connect America Through Volunteering

(Providence, RI) (9/17/01) – In the aftermath of the attack on America, the Volunteer Center of Rhode Island, in coordination with volunteer centers around the country, is engaging men, women and children of Rhode Island in volunteer projects to assist survivors across the country and unite the local community.

"Even though we can't be in NYC, Washington or PA, volunteers can make an important contribution." Says Kelly Nevins, Executive Director. "In addition to giving blood and making donations, mentors are needed to help children who are scared about what might happen to them. Volunteers are also needed to support agencies that are helping in the relief effort."

Some of the current listings for volunteer needs in RI include the need for helpline volunteers at the RI Council on Alcoholism and Other Drug Dependence, and for the Samaritans. Big Sisters and Big Brothers of RI, as well as CityYear, are looking for mentors.

"By sharing our time and talents to help others, we can help restore a sense of hope in our hearts, homes, communities and ultimately the nation," said Robert K. Goodwin, president and CEO of the Points of Light Foundation & Volunteer National Network. "We salute the Volunteer Center of Rhode Island for responding quickly and creatively to this national crisis."

Residents can call (401) 421-6547 or visit [www.vcri.org](http://www.vcri.org) to find out how to get involved.

The Volunteer Center of Rhode Island is an integral part of the Volunteer Center National Network, a group of nearly 500 volunteer centers that creates and coordinates volunteer activities for businesses, families, and individuals to help meet the needs of local nonprofits.

The Volunteer Center of Rhode Island connects people and opportunities for effective volunteer community service by promoting volunteerism statewide, connecting people to community needs and training volunteers to be more effective.

The Points of Light Foundation and Volunteer Center National Network supports and organizes the vital work of the millions of volunteers in thousands of communities, who are helping to solve our nation's most serious social problems. For volunteer opportunities near your call 1-800-VOLUNTEER OR visit [1800VOLUNTEER.org](http://1800VOLUNTEER.org).

# Professional Directory

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