



American Society of Civil Engineers

ASCE Student Chapter
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MEMORANDUM

TO: Potential Sponsors of "*Team UAH*"
FROM: Dr. John A. Gilbert, Co-Faculty Advisor, ASCE Student Chapter
RE: 2001 ASCE National Concrete Canoe Competition
DATE: April 21, 2001

My name is John Gilbert and I have been a faculty advisor for our Student Chapter of the American Society of Civil Engineers (ASCE) for the past sixteen years. We are currently raising funds to attend and compete at the ASCE/MBT National Concrete Canoe Competition and would like to make you aware of the benefits of financially supporting "*Team UAH*."

In the National Concrete Canoe Competition to be held June 14-16, 2001, in San Diego, California, engineering students from across North America and Canada will showcase their ingenuity and problem-solving skills as they race concrete canoes they designed and built. Organized by the American Society of Civil Engineers (ASCE) and sponsored by Master Builders, Inc., the 14th annual competition will be hosted by San Diego State University.

Our team qualified as the Southeast representative to the National Competition by winning at the ASCE Southeast Regional Student Conference held in Auburn, Alabama, March 15th through 17th, 2001. Our region covers Alabama, Tennessee, Georgia, Florida, and Puerto Rico. There are 27 ASCE chapters and/or clubs schools in the Southeast and nineteen of these competed in Auburn this year.

The win marks the twelfth time that UAH has proudly represented the region. Our four national titles and three second place finishes lay testament to our survival skills. So much so that this year, we plan to outsmart, outperform, and outpaddle our competitors with "*SURVIVOR*." See:

http://www.uah.edu/student_life/organizations/ASCE/Competition/2001.htm

Our new canoe is arguably the best all round human powered boat ever built. It relies on one of the most advanced concrete construction scenarios in the world.

We just finished raising the thousands of dollars that it took to compete at the Southeast Regional Conference, and estimate that we need an additional \$18,280 to compete at nationals. Our immediate needs that must be disbursed up front in cash are: Registration Fees (\$1,800); Supplies - for improvements/production of design report, display, presentation, product, races (\$3,500), and Competition T-Shirts (25 x \$18 = \$450). Defrayed costs that can be held/charged with credit cards include Airfare (\$6,000), Ground Transportation (\$2,500), Lodging (\$3,160), and Car Rental (\$870).

The Chapter and I would very much appreciate any financial assistance that you and your organization are in the position to provide. For your information, our registration fee is due by May 10th.

In return for your support, **we are willing to take a company banner with us to San Diego so that it can be displayed at the competition and used for a team photo. We will be traveling across the country and would be most willing to place a company logo on our trailer. If you are willing to donate other items such as caps, etc., I guarantee that they will be put to good use.** The only restrictions placed on us by Master Builders and ASCE are that we can not advertise any sponsors on the canoe, in our design report, while answering judges' questions on our display, or during our official visual presentation.

We will also install a link to you on the sponsors' section of our web site. The benefits of having this done are elaborated there. See:

http://www.uah.edu/student_life/organizations/ASCE/Sponsors/sponsors.htm

Following the competition, **you will also receive a token of our appreciation. Your contribution is tax deductible and will be acknowledged by our development office.**

We are always trying to do something different to keep ahead of the pack and this year's stint is nothing short of staggering. We developed a new method to characterize highly compliant cementitious composites and verified critical parameters as part of a very rigorous test program. Study of the microscopic and macroscopic properties of individual materials and combinations of different materials allowed us to better understand the strength, failure, and bonding characteristics of our composite section. We confirmed that concrete compressive strength is *not* a critical design parameter and combined web-based communications with a proven management scenario to produce a product that is priceless.

Dr. Toutanji is my fellow faculty advisor and we have already taken steps to transfer the technology associated with the effort to the industrial, academic, and governmental sectors via refereed publication. One of my students from NASA recently completed a dissertation that characterizes the highly compliant reinforced cementitious composites in question, and we are planning to present some of the results at technical conferences starting next month. Our conclusion is that these

materials offer more design flexibility than aerospace composites made from materials such as graphite/Kevlar and epoxy. AMCOM has expressed an interest in the work and one of their employees plans to work with me on an advanced degree to explore the structural dynamics associated with these new materials. A rocket, constructed using the same lay-up included in our "*SURVIVOR*," has already been launched.

For your information, our boat is 6.8 m (22.3 ft) long and has a mass of only 34 kg (equivalent to 76 lb). The students have a very dynamic five-minute long presentation that describes their effort from start to finish. If you think that it would help, they would be most willing to entertain you and your management with the latter and answer any questions that arise.

My telephone number, fax, and e-mail address are, phone: (256) 824-6029; fax: (256) 824-6758; and e-mail: jag@eb.uah.edu. I would very much appreciate it if you could confirm your support as soon as possible. The less time that we spend on fund raising, the more time that we can spend preparing for the competition.

If you do elect to support us, please consider making a check out to "**UAH ASCE Student Chapter.**" It can be sent directly to me through the CEE Department and I will process it through the system so that you get the credit that you deserve. The mailing address is:

Dr. John A. Gilbert
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Thanks a million! I look forward to hearing from you. The main entry to our web site is:

http://www.uah.edu/student_life/organizations/ASCE/