

**DESIGN-BUILD COMPETITION**  
South Central Region CSI Student Event  
Wichita Falls, TX --- July 30, 2005

**OVERVIEW**

1. Purpose: Creative problem solving with fun at the core, while providing a means to distribute scholarship awards and other student recognitions.
2. Location: On the Midwestern State University campus, Wichita Falls, TX.
3. Context: Manned floatation device in a two-segment relay race to be held in the campus lake on the south edge of MSU; must be able to contain/float one person and a cargo of one concrete block.
4. Materials: Participant choice based upon criteria listed below.
5. Duration: Construction activities permitted anytime prior to beginning of relay race, preferably prior to arrival in Wichita Falls; race begins at 11:45 a.m. and ends no later than 1:00 p.m. race is the operative word Saturday July 30 with conference luncheon to follow.
6. Theme: ***Whatever Floats Your Boat!!!***
7. Rules: As published herein, or amended, and appearing on [www.csi-s.org](http://www.csi-s.org)

**RATIONALE**

1. Purpose: Provide a challenging problem to solve that is significantly different than previous student competitions which primarily will be a "cooling off" after a very warm morning's construction hands-on activity.
2. Location: Selected at the campus lake recreation park that is immediately south across the street from the hands-on construction site.
3. Context: None other than to stir the imagination and spur-on competitive juices.
4. Materials: Functionally and financially as flexible as possible, within restrictions per competition rules.
5. Duration: Long enough to get cooled off, develop a sense of esprit de corps, and while admiring of the floatation devices and become amazed at their success hopefully.
6. Theme: Illustrate the breadth of CSI's potential to all members of our construction industry.
7. Rules: Major change from past student contests; read and study closely.

## **PARTICIPATION**

1. Purpose: To allow as many student teams as possible. Teams will consist of TWO participants. A faculty advisor and other non-participating students or CSI members may “coach” but cannot touch or physically assist the relay team participants or their flotation device in any manner whatsoever once the relay has begun through the completion of the relay race. Individuals without a teammate can join other such individuals by requesting a partner for the relay through the Student Events Committee; this should be done as soon as possible, but may be done as late as the start of the relay race. Flotation devices may be totally designed, developed, and brought to the relay site by one individual, but this is not considered the “best” method of preparation, but it shall be acceptable.
2. Location: Relay positioning shall be determined before the beginning of the relay and shall be at the judges’ discretion.
3. Context: Designs are wide open and totally flexible, except every design shall be subject to approval by the Student Events Committee based upon safety considerations. Teams may submit their design for pre-approval if they so desire, but that is NOT a requirement. Refer to #7 immediately below for submittal e-mail.
4. Materials: A bill of materials and receipts for each student-constructed element and/or purchased manufacturer’s element of the flotation device must be presented to the judges prior to the commencement of the relay race. Donated or non-cost items will be given a cost estimate to be included within the team’s overall cost for their flotation device. Judges will award “extra credit points” for cost increments in stages less than \$300 per flotation device. All monies for flotation devices may be utilized from any source which the team members can arrange/secure, e.g. from sponsorships to personal funds and everything in between. It is recommended that frugality be the watchword, matched only by creativeness. There is no need for this to be an expensive proposition, and such is not the desire of the Student Event Committee. . . and a “Scotsman’s Attitude” will be rewarded by the judges.
5. Duration: One person and cargo must ride within or upon, in the judges opinion, the flotation device during each leg of the relay race; a different person for each of the two relay legs.
6. Theme: Selected to promote creative problem solving and teamwork stay loose and free your imaginations but spend conservatively, documenting cost of materials!
7. Rules: Modifications within the rules may occur up until posting on the website as of Wednesday JUL 20. Any suggested modifications or interpretations for such consideration may be made in writing not later than Monday JUL 18 to the Student Event Committee at the following e-mail address: [geasterling@ci.tulsa.ok.us](mailto:geasterling@ci.tulsa.ok.us)

## **SPECIFICS**

1. Only the two members of each individual team may assist in the assembly of their respective flotation device.
2. Flotation devices can be of any size, configuration, and material, but cannot be powered by anything other than the single human participant that is riding on/in the flotation device during each portion of the relay, i.e. no motors of any type shall be permitted, however sail, sun, splashing and paddles are certainly acceptable. Other individuals, including the other team member, shall render no propulsion assistance, remote or otherwise, such as towropes.

3. Flotation devices and associated team required tools and equipment for its assembly must actually fit into not more than three (3) suitcases: each weighing not more than 70 lbs. and size (H+W+L) not to exceed 62 inches will be the criteria---typical standards acceptable to most passenger airlines for transportation to the relay site. Flotation devices shall remain in the suitcases until commencement of relay race.
4. Tools and equipment are the responsibility of each participating team individually; no, electricity will be available for or used by students during the relay at the site.
5. Life guards will be present during this aquatic event; participants shall wear personal flotation devices that must receive approval by the lifeguards before the relay race begins. Also, respectful swimming attire AS WELL AS fully enclosed shoes like tennis shoes will be absolutely required for each participant. The lake area is fairly shallow where the relay will take place; hopefully there will be water enough to float each entry, but the draft of your flotation device may be a critical issue to consider?
6. The relay race will begin when the contestants are told to take their positions followed by a general notification to commence the relay. At that time the teams will open their suitcase(s), assemble their flotation device, move to the water and commence the first leg of the relay with a single team member and their cargo. At the mid-way point, a new team member will change places with the first team member and will continue to the finish line with the team's cargo. Judging will take place from the command to begin to assemble the flotation devices until the relay race is completed for each team, as determined by the jury members.
7. Team recognitions and presentation of the various awards will be held at the South Central Region Conference Luncheon immediately following the relay race. Award categories/judging will be varied, like Best of Show, Ultra Frugal, Most Imaginative, Engineer's Dream, Sailor's Dingy, etc.; if no relay team finishes the race, judges will decide. . . "creatively." Checkout [www.csi-s.org](http://www.csi-s.org) as judging criteria remains flexibility to assure FUN is key.
8. Site availability of drinking water, relief stations, and clothes changing areas will be located immediately adjacent to the race area.
9. Team T-Shirts or sponsor shirts or other team/university related paraphernalia are encouraged to identify each team and decorate the flotation devices which will add to the festive atmosphere; the possibility of local news coverage is present and each team is encouraged to "make a show". .. let them know where you are from and demonstrate your pride. Wearing accessory items like hard hats, water goggles, nose-clips, swim fins, etc. are not required but might be helpful.
10. After June 26, 2005, direct questions to [geasterling@ci.tulsa.ok.us](mailto:geasterling@ci.tulsa.ok.us)

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