

# Summer Transportation Institute Newsletter



August 2007



## 2007 Summer Transportation Institute

by Assistant Mentors

The Summer Transportation Institute, more commonly known as STI, is an engineering program created to enrich the minds of middle and high school students, and mentors alike, by exposing them to opportunities and issues involving transportation. Each year the opportunities have deepened the knowledge and given more exposure to both students and mentors. Not only do they acquire knowledge and awareness in some of the fields of transportation, but also get hands-on experience, which enables them to better understand the present issues of transportation. The program allows students to meet representatives of the different departments of transportation, including the state Secretary of Transportation Bernard Cohen.



At the UMass Boston Docks

The program embraces four main areas of transportation: water, land, air and intermodal. The program is four weeks long with one week dedicated to each subject. During these weeks, the students will experience talks, field trips and hands on learning. At the end of the week the students show what they have learned through a Power Point presentation to their fellow students and STI staff. This achieves two things; one it

deepens the level of understanding of the material, as well as builds teamwork and presentation skills. The students receive valuable feedback from staff which helps strengthen their skills as a presenter as well as a student.



Students presenting on land transportation

## Activities

Field trips provide a fun and interactive way of learning for the students. These field trips encompass all forms of transportation and show the students what jobs are available. For the program of 2007, the students visited the Volpe Center, which is a federal building which possesses a flight and train simulator.



Student working with the flight simulator

The students were given a chance to experience both simulators while enjoying a tour of what a real world job looks like. The students were also exposed to several speakers, which told them about opportunities in the field of transportation.

One of the other popular field trips was to UMass Amherst's driving simulator. Here, the students learned the importance of safe driving as well as showing the difficulties that weather and distractions bring to the wheel. Another college the students visited was Daniel Webster, where the students were able to go out onto a real runway and sit in the cockpit of a training plane. This also enhanced knowledge of aviation to the students. During the college visits, the students are able to see what they will be facing when they arrive at the higher education levels. The mentors are also college students which allow the students to ask questions to understand fully what will be in college.



Visiting UMass Amherst campus

Other field trips included a tour of the Boston Harbor, an exclusive tour of the HOV lane zipper truck, a visit to the Massachusetts Turnpike Authority, a visit to the State House and many more are included as the program matures. The tour of the Boston Harbor is narrated to detail the islands as well as how water transportation relates to freight transport. The students also were able to see an operating freight dock as well as a freight container ship.

The program is not limited to work alone; recreation is incorporated into the itinerary as well. Weekly sessions of sailing and aikido are some of the favorites in addition to the students' own preferences. One of the highlights from the summer 2007 program was a water balloon version of Capture the Flag, which forced students to work together in teams to defeat the other team as well as to provide relief from a hot

summer day. Other recreation activities include arts and crafts, touch football and for the very hot days, a visit to the game room.



Sailing lesson 2007

## Enrichment Opportunities

Furthermore, at STI the students acquire valuable skills which they can use in their everyday world. These skills include, but are not limited to; teambuilding, problem solving, networking, computer skills as well as interpersonal skills. These skills are taught through teambuilding exercises, as well as workshops on the computer. One of the untaught skills is obtaining information through peers. Each student comes in with a very different background as well as a different knowledge. Throughout the course of the program, the students interact and share information. From this, the students are exposed to others who share the same passion and hobby.

Every year we strive to achieve more and improve the program as much as possible. This year, we were fortunate enough to have had the ability to also work jointly, through video conferencing with the STI members at the UMASS Amherst Campus. This allowed the students to interact with other students who lived in a different area and had a different perspective on transportation. Another privilege the students of this year had was to attend a talk by Massachusetts governor Deval Patrick. At the end the students were allowed to ask questions and one of our students shook the governor's hand!

## August News

Signed Diplomas will be sent out next week

## Transportation News

The Minnesota bridge collapse was one of the worse collapses in 25 years according to Bloomberg news. A reported five people died while over 79 are injured. How did this happen with yearly inspections? Inspectors found cracks in the 1990's and construction was still halted. The National Transportation Safety board immediately ordered many inspections on bridges similar to the one that collapsed. This collapse demonstrates the urgency that must be taken to repair bridges when flaws and cracks are found.



## Past Participant News/Achievement

If any of our past students have any news they would like to see in our newsletter, such as admission to college, special awards, projects, new school, sports competition, or anything you would like to share with other STI participants, please email the director at [tomas.materdey@umb.edu](mailto:tomas.materdey@umb.edu) or call us at the Institute's phone 617.287.6431. We will post it in this section.

## Director's corner

I hope your Summer is going well after the Institute. We are looking for contributions to future editions of the Newsletter in sections such as reflections on current transportation events, problems, solutions, information of interest to STI participants such as scholarships, awards, competitions, or any interesting anecdotes. If some of you would be interested in participating as editors just let me know. We are raising funds

for prizes for the statewide competition to be organized in January or February 2008, watch for the September Newsletter for more details. To participate teams of four students including at least a former STI participant need to register by September.

## Address change

Please notify Dr. Materdey by email of any change of address, we need an updated address file to send out the monthly Newsletters.

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\* News taken from

<http://www.bloomberg.com/apps/news?pid=20601103&sid=az4iyTyuD4W4&refer=us>