

Mississippi State University

Challenge X Outreach Team

Year 2

Update #3

December 2 through March 29, 2006

Posted March 29, 2005

Reported by:

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Bill Bain

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Year 2 Goals and Strategies

Update:

As year 2 progresses, we continue to strive to stay online with our goals and strategies. We have slowly been increasing our newsletter circulation. We are holding our Name-the-Vehicle contest, however the deadline has been extended to the end of April to allow us to open the name competition to more of our K-12 events this semester. After having two website designers leave our team, we are still working on updating and improving our website. We have a target of mid-April to finish the updates.

We are also working on our K-12 outreach, and recently appointed Ashley Priebe, a secondary education major as our K-12 chair. Ashley has been setting up school visits, and working on strategies for the coming months and next year.

In the coming months we have several more events that will showcase our vehicle and team, and we are also planning our own Ride-and-Drive later in April.

Community Outreach:

- **Presentation to Jones County Junior College**

Key Participants – Ron Lewis, Team Member; Amanda McAlpin, Outreach Coordinator; David Oglesby, Team Leader

Date – February 28, 2006

Location – Center for Advanced Vehicular Systems, MSU

Audience – Students and faculty of Jones County Junior College, approximately 35.

Description - General overview of Challenge X and MSU's progress in the competition, recruitment of members. Tour of vehicle.

- **General Motors Check Donation**

Key Participants – Bill Beggs, GM Team Mentor; David Oglesby, Team Leader; Amanda McAlpin, Outreach Coordinator; Bob Kirkland, Team Staff Advisor; Marshall Molen, Faculty Advisor

Date – March 5, 2006

Location – Center for Advanced Vehicular Systems, MSU

Description – In a press conference, General Motors representative and team mentor Bill Beggs donated a check to cover the team's travel to the competition in Mesa, AZ. The event was publicized by sending media alerts to the local newspapers and television stations, announcing on local and university calendars. The event was covered in the local newspaper.

See attachment 1, and figure 1.

Figure 1. General Motors check donation.



- **Exhibition and Presentation at CAVS Showcase**

Key Participants – David Oglesby, Team Leader; Bill Bain, General Business Manager; Christopher Whitt; Team Member; Amanda McAlpin, Outreach Coordinator; Jimmy Mathews, Team Member

Date – March 9, 2006

Location – Center for Advanced Vehicular Systems, MSU

Audience – Local and regional business and industry. Approximately 250 people.

Description – At the showcase, David and Bill gave a presentation to the audience; a general overview of Challenge X. The vehicle was also on display in the building, with brochures and posters about the competition. Students stood with the car for the day to answer any questions from visitors.

See figures 2 and 3.

Figure 2. Posters and brochures by Equinox.



Figure 3. Bill Bain speaking about Challenge X.



- **Summary of Challenge X in CATIA Operator's Exchange Conference Presentation**
Key Participants – Neil Littell, Team Member; Brandon Witbeck, Team Member
Date – March 21, 2006
Location – Atlanta, GA
Audience – Attendees of the COE conference. This conference for users of computer-aided design software had an attendance of approximately 1300. Attending the specific presentation were about 95.
Description – Neil and Brandon gave presentations on the use of CATIA at Mississippi State University. They used the Challenge X project as specific examples of how they used the software. This included explaining the competition and showing examples of the work they did on the project.
See figure 4.

Figure 4. COE Conference



- **Presentation to MSU College of Engineering Dean's Council**
Key Participants – David Oglesby, Team Leader
Time and Date – March 23, 2006
Location – MSU Campus, Starkville, MS
Audience – Approximately 25 members of the Dean's council. Alumni of the college who are voted onto the council to assist with decisions and fund-raising.
Description – General overview of Challenge X and MSU's progress in the competition.
- **Presentation to MSU Computer-Aided Design Class**
Key Participants – Bill Bain, General Business Manager; Neil Littell, Team Member
Date – March 27, 2006
Location – Center for Advanced Vehicular Systems, MSU
Audience – MSU Computer-Aided Design class. Approximately 25 students.
Description – General overview of Challenge X and MSU's progress in the competition, recruitment of members.

K-12 Outreach:

- **Exhibit at MSU Breakfast of Champions**
Key Participants – Bill Bain, General Business Manager
Date – February 18, 2006
Location – MSU campus

Audience – High school seniors who received high scores on the ACT college entrance exam.

Description – Exhibited with display board and brochures. Talked to students about Challenge X.

See figure 5.

Figure 5. Bill Bain talking to a student at Breakfast of Champions.



- **Presentation to High School Seniors**

Key Participants – Josh VanLandingham, Team Member

Date – February 23, 2006

Location – MSU campus

Audience – High school seniors on campus for recruitment events. Approximately 150 students.

Description - Challenge X overview and MSU's progress in the competition. Recruitment to join team next year.

- **Presentation and Meeting with Houston Vocational Center Solar Car Team**

Key Participants – David Ogelsby, Team Leader; Bill Bain, Team Member; Amanda McAlpin, Outreach Coordinator

Date – March 7, 2006

Location – Center for Advanced Vehicular Systems, MSU

Audience – Houston Vocational High School solar power car team and advisors. Approximately 24 members.

Description – Challenge X overview and MSU’s progress in the competition. Working meeting to discuss solar car improvements.

See figures 6 and 7.

Figure 6. Solar Car team and members of MSU Challenge X team.



Figure 7. Team and solar car faculty look at the solar car.



- **Presentation to Armstrong Middle School**

Key Participants – Amanda McAlpin, Outreach Coordinator; Bill Bain, General Business Manager; Ashley Preibe, K-12 Outreach Chair

Date – March 24, 2006

Location – Starkville, MS

Audience – Armstrong Middle School gifted/advanced students. Approximately 75 students.

Description – Challenge X overview and MSU's progress in the competition.

- **Mentoring of Junior-High Student for Science Fair Project**

Key Participants – Justin Crapps, Team Member; David Oglesby, Team Leader

Date – First half of spring semester

Location – Starkville, MS

Description – Members of the Challenge X project met a student at a K-12 outreach event. The student, an 8th grader, was interested in the Challenge X project. He later contacted us and asked if someone would mentor him on his own science fair project. He chose regenerative braking as his topic and the Challenge X team members helped him develop the idea and polish his project. The day before the project, the student presented his project to the entire Challenge X team who asked him practice questions. The student won first place in his regional division and has now moved on to the state science fair.

See figure 8.

Figure 8. The team poses with Jordan Keasler and his science fair project.



Website:

There have been no changes to our current website, however we are currently working on a new website which we hope to have running within the month. The new website is not functional yet, but we have included a screenshot to show our work in progress.

See figures 9 and 10.

Figure 9. Current website.

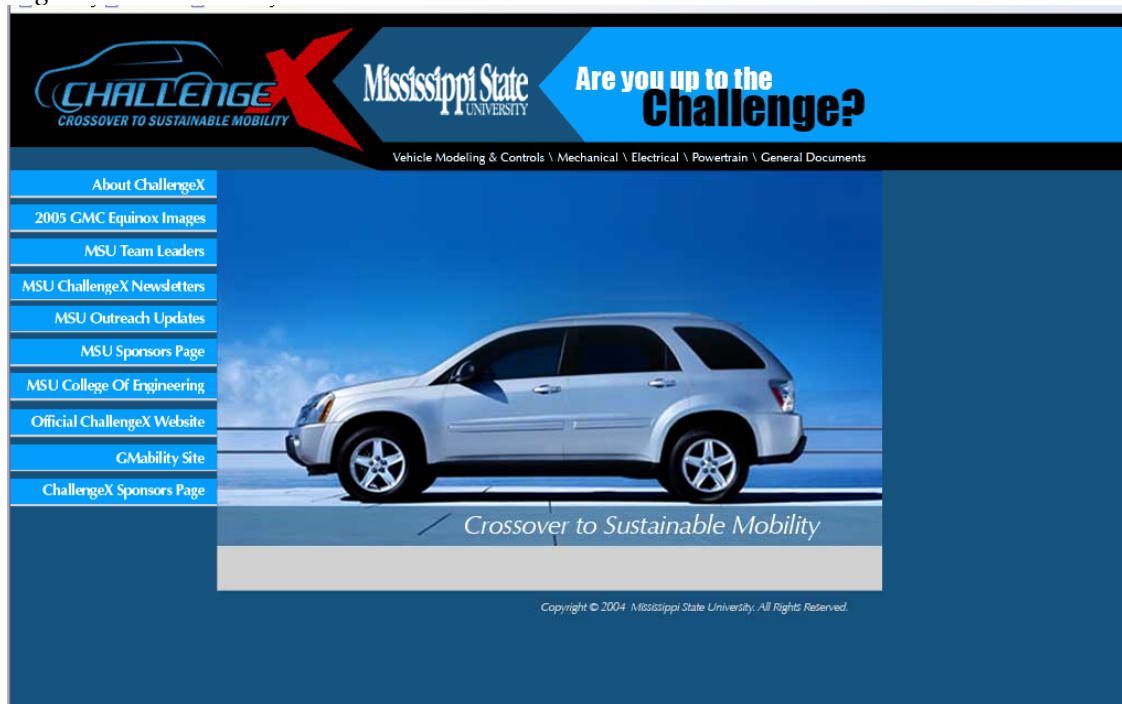


Figure 10. New website.



Attachment 1.



General Motors donates to MSU team

On March 2, a representative for General Motors donated a check to the MSU Challenge X team, which will enable them to travel to competition in May to compete with other teams from across North

American and Canada.

Mississippi State University was selected as one of seventeen university recipients within the United States and Canada to participate in the Challenge X Competition (www.challengex.org).

Challenge X is a student-led engineering competition that will challenge the selected universities to create vehicle designs that will minimize energy consumption and reduce emissions. Students will follow General Motor's development process and integrate their advanced technology solutions into a 2005 Chevrolet Equinox. MSU's design is a hybrid electric architecture which incorporates an electric motor and a diesel engine.

During the check donation ceremony, Bill Beggs, an engineer from General Motors, will be donating the \$7,000 check to the student team, which will cover the traveling expenses for 10 of the team's members and one faculty sponsor to compete in the competition in Mesa, Ariz., May 31-June 8.

For more information, contact Amanda McAlpin at 325-5562 or 312-8672, or by email amcalpin@cavs.msstate.edu.