Mississippi State University Marketing Program Report #2

Name of Outreach Coordinator: Amanda McAlpin

Phone number and email of Coordinator: 662-312-8672, amcalpin@cavs.msstate.edu

Dedicated Outreach Coordinator (Y/N): Y

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I. Marketing Plan

During this semester our marketing/outreach team has worked hard to build upon the solid marketing plan we submitted in October.

In the plan we emphasized the need for more research on the perceptions and purchasing habits of individuals in our region, in regards to hybrid vehicles. While this research continues, we have discovered that instead of targeting only the 40 to 60 age range, as we had planned, it could be beneficial to expand the range. Our investigation of the research literature has indicated that 35-44 year olds with children are the most likely to buy a vehicle in the near future. Also, due to our location at a university we feel that we could effectively target college-age students. Another factor that suggests benefits from focusing on a younger age-range is that this group is more receptive to "eco" messages. Findings from our ongoing research will determine the extent to which we should target these two new demographics. We have, however, added a few new events that we feel will further support our strategy. The events were opportunities that we discovered, or extra ideas that we had after the Winter Workshop, and are summarized in the report below. We have had a great semester so far, and are excited about continuing all our marketing and outreach activities until the final competition in May.

II. Marketing Activity Detail

A. Media Relations

Media Type	Media Outlet and Reporter's Name	Date	Location	Coverage Origin
Web	Motortrend.com Allyson Harwood	December 2007	http:www.motortrend.com	Coverage of California Ride and Drive at Peterson Auto Museum
Web	Energy Rush TV Blog	December 1, 2007	http://energyrush.tv/blog/2007/12/01/competitors-and-amazement/	Coverage of California Ride and Drive at Peterson Auto Museum
Web	MSstate.edu Robbie Ward	December 14, 2007	http://www.msstate.edu/web/media/detail.php?id=4089	Coverage of Winter Workshop California events
Web	Napsnet.com	February 12, 2008	http://www.napsnet.com/articles/57448.html	General coverage
Web	Carjunky.com	February 24, 2008	http://news.carjunky.com/alternative_fuel_vehicles/engineering-students-propel-green-vehicles-cdf476.shtml	General coverage
Radio	99.1 MHz	March 1, 2008	Mississippi regional	Coverage of exhibit at Chevrolet dealership

B. Outreach

Activity	Date	Location	Audience	Participants
Presentation to the Graduate Student Seminar	January 24, 2008	MSU Campus	41 students	Matthew Doude, Co-Team Leader
Presentation to American Welding Society	January 24, 2008	MSU Campus	24 members	Matthew Doude, Co-Team Leader
Presentation to Marketing Management class	January 24, 2008	MSU Campus	28 students	Amanda McAlpin, Outreach Coordinator
Presentation to Marketing Management class	January 24, 2008	MSU Campus	19 students	Amanda McAlpin, Outreach Coordinator
Visit from Marketing classes	February 9, 2008	MSU Campus	22 students	David Oglesby, Team Leader; Marshall Molen, Faculty Advisor; Amanda McAlpin, Outreach Coordinator
Presentation to Jones County Junior College students	February 20, 2008	MSU Campus	30 students	Amanda McAlpin, Outreach Coordinator; Bob Kirkland, Staff Advisor
Visit from Beijing Institute of Technology students	February 22, 2008	MSU Campus	37 students	Amanda McAlpin, Outreach Coordinator: Robert Kirkland, Staff Advisor
George/Greene County Alumni Celebration of MSU's 130th Birthday	February 29, 2008	Lucedale, MS	Approximately 150 people	Amanda McAlpin, Outreach Coordinator; Matt Young, Team Member; Liza Sisson, Team Member; Stephen Phillips, Team Member; Jenna Grantham, Team Member
Exhibit at Walt Massey Chevrolet Dealership	March 1, 2007	Lucedale, MS	Approximately 125 people	Amanda McAlpin, Outreach Coordinator; Matt Young, Team Member, Liza Sisson, Team Member; Stephen Phillips, Team Member; Jenna Grantham, Team Member

1. *Activity name:* Presentation to the Graduate Student Seminar
   Date/Time: January 24, 2008, 1:00 p.m.
   Location: MSU Campus
   Team participants: Matthew Doude, Co-Team Leader
   Audience: 41 students
   Activity description/details: Presentation to students attending the Graduate Student Seminar
   Key Messages Covered: Overview of the Challenge X competition and MSU's progress in the competition

2. *Activity name:* Presentation to American Welding Society
   Date/Time: January 24, 2008, 7:00 p.m.
   Location: Center for Advanced Vehicular Systems, MSU Campus
   Team participants: Matthew Doude, Co-Team Leader
   Audience: 24 members of the American Welding Society
   Activity description/details: Presentation and viewing of the Challenge X vehicle
   Key Messages Covered: Overview of the Challenge X competition and MSU's progress in the competition

3. *Activity name:* Presentation to Marketing Management class
   Date/Time: January 24, 2008, 12:30 p.m.
   Location: MSU Campus
   Team participants: Amanda McAlpin, Outreach Coordinator
   Audience: 28 students
   Activity description/details: Presentation on Challenge X and the outreach/marketing program
   Key Messages Covered: Overview of the Challenge X competition and MSU's progress in the competition, details of our outreach/marketing program

4. *Activity name:* Presentation to Marketing Management class
   Date/Time: January 24, 2008, 2:00 p.m.
   Location: MSU Campus
   Team participants: Amanda McAlpin, Outreach Coordinator
   Audience: 19 students
   Activity description/details: Presentation on Challenge X and the outreach/marketing program
   Key Messages Covered: Overview of the Challenge X competition and MSU's progress in the competition, details of our outreach/marketing program

5. *Activity name:* Visit from Marketing classes
   Date/Time: February 9, 2008, 5:00 p.m.
   Location: Center for Advanced Vehicular Systems, MSU Campus
   Team participants: Amanda McAlpin, Outreach Coordinator; Marshall Molen, Faculty Advisor; David Oglesby, Team Leader
   Audience: 19 students
   Activity description/details: Presentation on Challenge X, viewing of the vehicle
   Key Messages Covered: Overview of the Challenge X competition and MSU's progress in the competition

6. *Activity name:* Presentation to Jones County Junior College
   Date/Time: February 20, 2008, 2:00 p.m.
   Location: Center for Advanced Vehicular Systems, MSU Campus
   Team participants: Amanda McAlpin, Outreach Coordinator; Bob Kirkland, Staff Advisor

Audience: 30 students
Activity description/details: Presentation and viewing of the Challenge X vehicle.
Key Messages Covered: Overview of the Challenge X competition and MSU's progress in the competition

7. *Activity name:* Visit from Beijing Institute of Technology students
   Date/Time: February 22, 2008, 11:00 a.m.
   Location: Center for Advanced Vehicular Systems, MSU Campus
   Team participants: Amanda McAlpin, Outreach Coordinator
   Audience: 36 students and one program coordinator
   Activity description/details: Presentation and viewing of the Challenge X vehicle
   Key Messages Covered: Overview of the Challenge X competition and MSU's progress in the competition
   Photos: See Figures 1 and 2

Figure 1. Beijing Exchange students look at the MSU Challenge X vehicle as it is being tested on the dynamometer.

Figure 2. The group of students from Beijing were visiting to learn English and about American universities.

8. *Activity name:* Celebration of MSU's 130th Birthday by the George/Green County Alumni Chapter
   Date/Time: February 29, 2008, 5:00 p.m.
   Location: Lucedale, MS
   Team participants: Amanda McAlpin, Outreach Coordinator; Matt Young, Team Member; Liza Sisson, Team Member; Stephen Phillips, Team Member; Jenna Grantham, Team Member
   Audience: Approximately 150 people
   Activity description/details: Presentation and viewing of the Challenge X vehicle. This celebration was for the 130th birthday of Mississippi State University. The alumni chapter held a celebration with key members of the university, including our team and vehicle, the university's athletic director, and the university's president. The team gave a presentation, as well as displayed the vehicle outside along with a table inside for brochures and display materials. A press release was sent out before the event highlighting the team's visit (See Attachment 6.)
   Key Messages Covered: Overview of Challenge X and MSU's progress in the competition
   Photos: See Figures 3 and 4

Figure 3. Amanda talks about Challenge X at the MSU birthday celebration to an audience of over 150 attendees.

Figure 4. The birthday celebration lasted until late in the evening, with participants still interested in seeing the MSU Equinox.

9. *Activity name:* Exhibit at Walt Massey Chevrolet Dealership
   Date/Time: March 1, 2008, 9:00 a.m. until 1:00 p.m.
   Location: Walt Massey Chevrolet Dealership, Lucedale, MS
   Team participants: Amanda McAlpin, Outreach Coordinator; Matt Young, Team Member; Stephen Phillips, Team Member; Jenna Grantham, Team Member
   Audience: Approximately 125 people
   Activity description/details: Exhibition of the Challenge X vehicle. The team displayed the vehicle at the dealership. The team talked with people who came to the dealership to look at vehicles. There was also a radio station that came to broadcast next to the Challenge X display, and Matt Young gave an interview live on the radio.
   Key Messages Covered: Hybrid vehicle being built here in Mississippi that uses renewable fuel
   Any measurable results: Radio coverage and probable future newspaper coverage
   Photos: See Figures 5, 6 and 7

Figure 5. Matt discussed alternative energy sources on a live radio interview during the MSU Challenge X vehicle exhibit at the Walt Massey dealership.

Figure 6. The MSU Challenge X vehicle displayed with other Chevrolet vehicles.

Figure 7. The Challenge X team and the dealership employees.

C. Education Program

Activity	Date	Location	Audience	Participants
Presentation to Jackson Preparatory School	February 1, 2007	Jackson Preparatory School, Jackson, MS	39 students and 3 teachers	Amanda McAlpin, Outreach Coordinator; Matt Young, Team Member
Presentation to Jackson Preparatory School	February 1, 2007	Jackson Preparatory School, Jackson, MS	42 students and 2 teachers	Amanda McAlpin, Outreach Coordinator; Matt Young, Team Member
Presentation to Jackson Preparatory School	February 1, 2007	Jackson Preparatory School, Jackson, MS	55 students and 4 teachers	Amanda McAlpin, Outreach Coordinator; Matt Young, Team Member
Presentation to Jackson Preparatory School	February 1, 2007	Jackson Preparatory School, Jackson, MS	31 students and 2 teachers	Amanda McAlpin, Outreach Coordinator; Matt Young, Team Member
Presentation to Jackson Preparatory School	February 1, 2007	Jackson Preparatory School, Jackson, MS	38 students and 2 teachers	Amanda McAlpin, Outreach Coordinator; Matt Young, Team Member
Presentation to Jackson Preparatory School	February 1, 2007	Jackson Preparatory School, Jackson, MS	27 students and 3 teachers	Amanda McAlpin, Outreach Coordinator; Matt Young, Team Member
Mission: Eggcellence Competition 1st through 3rd grade	February 16, 2008	MSU Campus	Approximately 60 students, teachers, and parents	Amanda McAlpin, Outreach Coordinator; Stephen Phillips, Team Member; Mike Trcalek, Team Member
Mission: Eggcellence Competition 4th through 6th grade	February 16, 2008	MSU Campus	Approximately 80 students, teachers, and parents	Amanda McAlpin, Outreach Coordinator; Stephen Phillips, Team Member; Mike Trcalek, Team Member

Mission: Eggcellence Competition 7th through 9th grade	February 23, 2008	MSU Campus	Approximately 20 students, parents, and teachers	Amanda McAlpin, Outreach Coordinator; Gene Long, Team Member; Brady Cunningham, Team Member; Ryan William, Team Member; Phillip Cranford, Team Member; Julian McMillan, Team Member
Mission: Eggcellence Competition 10th through 12th grade	February 23, 2008	MSU Campus	Approximately 15 students, parents, and teachers	Amanda McAlpin, Outreach Coordinator; Gene Long, Team Member; Brady Cunningham, Team Member; Ryan William, Team Member; Phillip Cranford, Team Member; Julian McMillan, Team Member
Presentation to Future Farmers of America	February 29, 2008	Petal High School, Petal, MS	24 students and 4 teachers	Amanda McAlpin, Outreach Coordinator; Matt Young, Team Member; Liza Sisson, Team Member; Stephen Phillips, Team Member; Jenna Grantham, Team Member

1. *Education event name:* Presentation to Jackson Preparatory School
   Date/Time: February 1, 2008, 8:00 a.m.
   Location: Jackson Preparatory School, Jackson, MS
   Team participants: Amanda McAlpin, Outreach Coordinator; Matt Young, Team Member
   Audience: 39 students and 3 teachers
   Activity description/details: Presentation and viewing of the Challenge X vehicle. The day was very cold, but we took the students outside for a quick look at the vehicle.
   Key Messages Covered: Overview of Challenge X and MSU's progress in the competition, encouraging the students to study math and science in preparation for studying engineering. Our education program, called "New Generation, New Energy," has standard presentations and a brochure that introduces youth to alternative energy and vehicles.
   Any measurable results: The event was covered in the school newspaper.
   Photos: See Figure 8

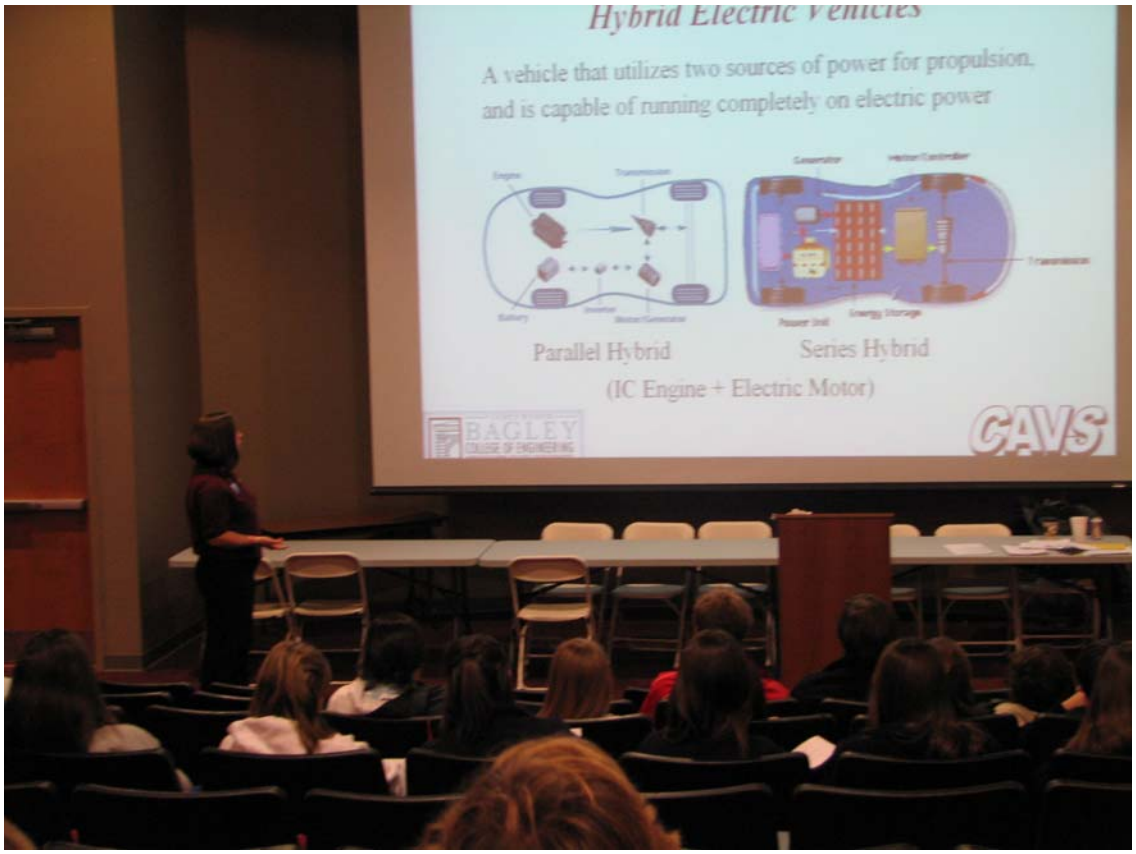


Figure 8. Amanda talks to the students about hybrid vehicle configurations at Jackson Preparatory School.

2. *Education event name:* Presentation to Jackson Preparatory School
   Date/Time: February 1, 2008, 9:00 a.m.
   Location: Jackson Preparatory School, Jackson, MS
   Team participants: Amanda McAlpin, Outreach Coordinator; Matt Young, Team Member
   Audience: 42 students and 2 teachers
   Activity description/details: Presentation and viewing of the vehicle. This group had class members from 8th and 9th grade science classes. The students were very interested in the project, and asked a lot of questions.
   Key Messages Covered: Overview of Challenge X and MSU's progress in the competition. Encouraging the students to study math and science in preparation for studying engineering. Our education program, called "New Generation, New Energy," has standard presentations and a brochure that introduces youth to alternative energy and vehicles.
   Any measurable results: The event was covered in the school newspaper.
   Photos: See Figure 9

Figure 9. The students from Jackson Prep learned about the dynamic vehicle tests that our team participates in during the Challenge X competition.

3. *Education event name:* Presentation to Jackson Preparatory School
   Date/Time: February 1, 2008, 10:00 a.m.
   Location: Jackson Preparatory School, Jackson, MS
   Team participants: Amanda McAlpin, Outreach Coordinator; Matt Young, Team Member
   Audience: 55 students and 4 teachers
   Activity description/details: Presentation and viewing of the Challenge X vehicle. This class was an environmental science class, and had been recently learning about the effects of transportation on the atmosphere. Our presentation was a good way for them to see how what they had learned could tie in to the real world.
   Key Messages Covered: Overview of Challenge X and MSU's progress in the competition, encouraging the students to study math and science. Our education program, called "New Generation, New Energy," has standard presentations and a brochure that introduces youth to alternative energy and vehicles.
   Any measurable results: The event was covered in the school newspaper.
   Photos: See Figure 10

Figure 10. This class was an environmental science class, so the presentation was especially beneficial.

4. *Education event name:* Presentation to Jackson Preparatory School
   Date/Time: February 1, 2008, 11:00 a.m.
   Location: Jackson Preparatory School, Jackson, MS
   Team participants: Amanda McAlpin, Outreach Coordinator; Matt Young, Team Member
   Audience: 31 students and 2 teachers
   Activity description/details: Presentation and viewing of the Challenge X vehicle. This class was mostly juniors and seniors, so we emphasized how they could get involved in projects like Challenge X when they enter a university.
   Key Messages Covered: Overview of Challenge X and MSU's progress in the competition, encouraging the students to study math and science. Our education program, called "New Generation, New Energy," has standard presentations and a brochure that introduces youth to alternative energy and vehicles.
   Any measurable results: The event was covered in the school newspaper.
   Photos: See Figure 11

Figure 11. All science classes at Jackson Preparatory came to at least one presentation that day.

5. *Education event name:* Presentation to Jackson Preparatory School
   Date/Time: February 1, 2008, 1:00 p.m.
   Location: Jackson Preparatory School, Jackson, MS
   Team participants: Amanda McAlpin, Outreach Coordinator; Matt Young, Team Member
   Audience: 38 students and 2 teachers
   Activity description/details: Presentation and viewing of the Challenge X vehicle. The students at Jackson Prep were very educated on vehicle technology, and asked questions that were very in-depth.
   Key Messages Covered: Overview of Challenge X and MSU's progress in the competition, encouraging the students to study math and science. Our education program, called "New Generation, New Energy," has standard presentations and a brochure that introduces youth to alternative energy and vehicles.
   Any measurable results: The event was covered in the school newspaper.
   Photos: See Figure 12

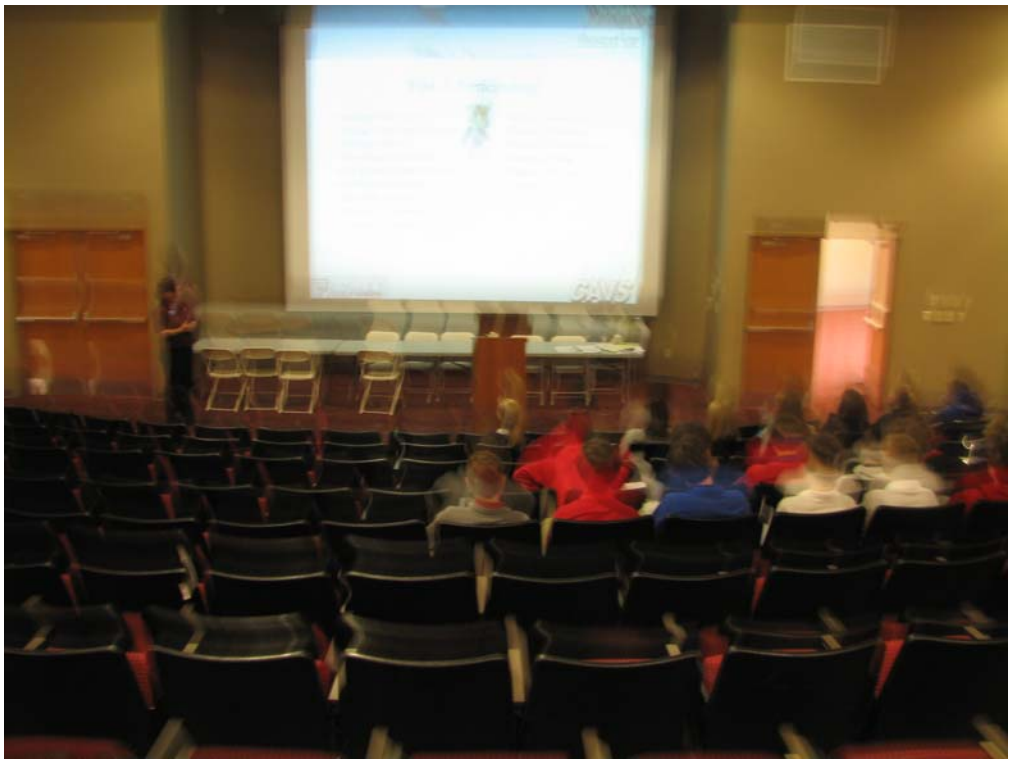


Figure 12. Amanda gives the presentation to the 8th grade science class.

6. *Education event name:* Presentation to Jackson Preparatory School
   Date/Time: February 1, 2008, 2:00 p.m.
   Location: Jackson Preparatory School, Jackson, MS
   Team participants: Amanda McAlpin, Outreach Coordinator; Matt Young, Team Member
   Audience: 27 students and 3 teachers
   Activity description/details: Presentation and viewing of the Challenge X vehicle. This group of students were in an earth science class.
   Key Messages Covered: Overview of Challenge X and MSU's progress in the competition, encouraging the students to study math and science. Our education program, called "New Generation, New Energy," has standard presentations and a brochure that introduces youth to alternative energy and vehicles.
   Any measurable results: The event was covered in the school newspaper.
   Photos: See Figure 13

Figure 13. The science teacher introduces Amanda to the students.

7. *Education event name:* Mission: Eggcellence Competition
   Date/Time: February 16, 2008, 8:00 a.m. until 11:00 a.m.
   Location: MSU Campus
   Team participants: Amanda McAlpin, Outreach Coordinator; Stephen Phillips, Team Member; Mike Trcalek, Team Member
   Audience: Approximately 60 students, parents, and teachers
   Activity description/details: Mission: Eggcellence is a competition is for K-12 students designed to teach the students about ways to build a safe vehicle. The Challenge X team helped with the competition by assisting students with their vehicles and the competition. We also gave a short presentation before each competition about our own vehicle project, Challenge X. We displayed the vehicle outside, and the entire group of students in the competition walked outside together to see it. It was displayed before and after the competition so that parents and teachers could also see it. The youngest competitors in the program built vehicles made from car kits, and made bumpers for cars out of different materials.
   Key Messages Covered: Overview of Challenge X and MSU's progress in the competition, emphasized biofuel being used in the vehicle
   Photos: See Figures 14, 15, 16, 17, 18, and 19

Figure 14. Stephen explains the rules of the Eggcellence competition.

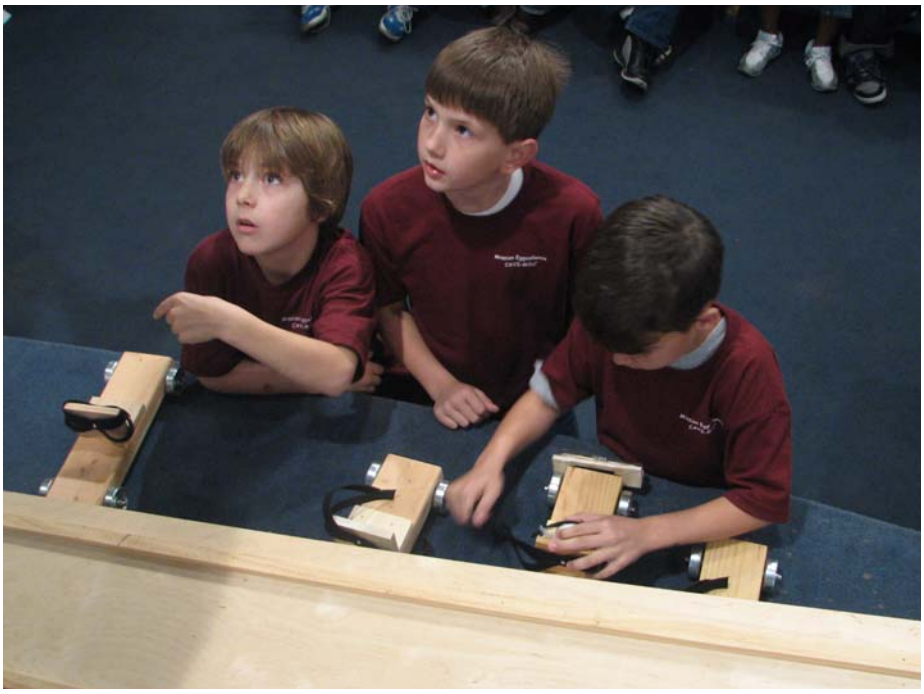


Figure 15. Some students and their vehicles, ready for the competition.

Figure 16. A student releases his vehicle on the ramp.

Figure 17. Stephen weighs parts of vehicles for two students.

Figure 18. Stephen helps make sure the car is at the right place on the ramp.

Figure 19. Amanda hands out awards.

8. *Education event name:* Mission: Eggcellence Competition
   Date/Time: February 16, 2008, 1:00 p.m. until 3:00 p.m.
   Location: MSU Campus
   Team participants: Amanda McAlpin, Outreach Coordinator; Stephen Phillips, Team Member; Mike Trcalek, Team Member; Julian McMillan, Team Member
   Audience: Approximately 60 students, parents, and teachers
   Activity description/details: Mission: Eggcellence is a competition is for K-12 students designed to teach the students about ways to build a safe vehicle. The Challenge X team helped with the competition by assisting students with their vehicles and the competition. We also gave a short presentation before each competition about our own vehicle project, Challenge X. We displayed the vehicle outside and the entire group of students in the competition walked outside together to see it. It was displayed before and after the competition so that parents and teachers could see it as well. This group of students made vehicle similar to the first group, but had stricter rules that applied to their vehicles.
   Key Messages Covered: Overview of Challenge X and MSU's progress in the competition, emphasized biofuel being used in the vehicle.
   Photos: See Figure 20

Figure 20. Students brought their vehicles to Steven before they were allowed to compete with them, so that he could measure the weight.

9. *Education event name:* Mission: Eggcellence Competition
   Date/Time: February 23, 2008, 8:00 a.m. until 11:00 a.m.
   Location: MSU Campus
   Team participants: Amanda McAlpin, Outreach Coordinator; Stephen Phillips, Team Member; Mike Trcalek, Team Member; Julian McMillan
   Audience: Approximately 60 students, parents, and teachers
   Activity description/details: Mission: Eggcellence is a competition is for K-12 students designed to teach the students about ways to build a safe vehicle. The Challenge X team helped with the competition by assisting students with their vehicles and the competition. We also gave a short presentation before each competition about our own vehicle project, Challenge X. We displayed the vehicle outside and the entire group of students in the competition walked outside together to see it. It was displayed before and after the competition so that parents and teachers could see it also. Parents as well as teachers accompanied the students to the competition.
   Key Messages Covered: Overview of Challenge X and MSU's progress in the competition, emphasized biofuel being used in the vehicle
   Photos: See Figure 21 and 22

Figure 21. Ryan shows the competitors the vehicle.

Figure 22. Gene holds the ramp steady for a young competitor.

10. *Education event name:* Mission: Eggcellence Competition
    Date/Time: February 23, 2008, 1:00 p.m. until 3:00 p.m.
    Location: MSU Campus
    Team participants: Amanda McAlpin, Outreach Coordinator; Stephen Phillips, Team Member; Mike Trcalek, Team Member
    Audience: Approximately 60 students, parents, and teachers
    Activity description/details: The Challenge X team helped with the competition by assisting students with their vehicles and the competition. We also gave a short presentation before the competition about our own vehicle project, Challenge X. We displayed the vehicle outside and the entire group of students in the competition walked outside together to see it. It was displayed before and after the competition so that parents and teachers could see it also. The last section of competitors were high school students, and many had great vehicles. The team members enjoyed seeing what the competitors had built.
    Key Messages Covered: Overview of Challenge X and MSU's progress in the competition, emphasized biofuel being used in the vehicle
    Photos: See Figures 23, 24 and 25

Figure 23. Phillip talks about the vehicle to the high school group of competitors.

Figure 24. Brady and Gene make sure the vehicles aren't over the maximum weight.

Figure 25. Julian shakes hands with an award winner.

11. *Education event name:* Presentation to the Petal, MS Chapter of Future Farmers of America
    Date/Time: February 29, 2008, 12:15 p.m.
    Location: Petal High School, Petal, MS
    Team participants: Amanda McAlpin, Outreach Coordinator; Matt Young, Team Member; Liza Sisson, Team Member; Stephen Phillips, Team Member; Jenna Grantham, Team Member
    Audience: 24 students and 4 teachers, members of the Future Farmers of America
    Activity description/details: The team visited the Petal, MS chapter of the Future Farmers of America to make a presentation and show our vehicle. Since our vehicle uses biodiesel, we related this to farmers producing crops to be used for fuel. Soybeans are a crop that is grown throughout Mississippi, so we emphasized to the students that the crops they may grow someday could be fuel for their vehicles.
    Key Messages Covered: Overview of Challenge X and MSU's progress in the competition, emphasis on use of biofuel for the vehicle.
    Photos: See Figures 26, 27 and 28

Figure 26. Amanda talks to students about how soybeans can be made into fuel.

Figure 27. Stephen and Matt answered a lot of questions from the interested students.

Figure 28. Matt talks about the engine that uses biodiesel.

D. Social Marketing

The Mississippi State University Challenge X website is a very effective tool for providing information that reinforces our marketing strategy.

Under the team section of our website, we have listed all team members with a link to their resume. We have also created an "Alumni" section (See Figure 29), where former members of the Challenge X team who have graduated write about what jobs they have taken, where they are now, and how Challenge X helped them get there. We think this is a great way to give recognition to the members who helped us early in the Challenge X competition, create a cohesive team unit, create excitement on our team, and demonstrate to viewers of the website that Challenge X has played an important role in the students' careers.

As mentioned in our marketing plan, the cost of a hybrid vehicle is a very important consideration to people in our area. Because of this we created a page on our website that lists incentives that hybrid buyers in our area can receive. Members of the team keep a constant watch for hybrid incentives available in our region to keep this section regularly updated.

Since another problem in our area is the lack of familiarization with hybrid vehicles, we have begun posting a wide variety of articles on our website that pertain to hybrid vehicles. We particularly try to post articles that will be persuasive with, and attract attention from, our target audience, such as "Are Hybrids for Men?", which is an article that discusses truck and SUV hybrid models that are currently available. Since many people in our area typically drive trucks and SUVs, this article is especially applicable to our audience. We also post interesting articles and video, such as one of late night show host Jay Leno talking about biodiesel. We think that by posting articles and videos with entities that people are familiar with (such as Jay Leno), we are able to draw more interest to our site and more effectively demonstrate what we are doing.

Due to our emphasis on the use of biodiesel, we have an entire page that is dedicated to this fuel. This page provides a link that shows the locations of biodiesel stations in our area, a video about the benefits of biodiesel, and a link to Willie Nelson's biodiesel site. Our goal is to emphasize the local availability and production of biodiesel.

We believe that our region is still in the early stages of its acceptance of hybrid vehicles. One way to encourage people to accept a new technology, and to dispel misconceptions about it, is to point out how other people in their area are already adopting it. We have created a page on our website that features hybrid vehicle owners in our region. Under the picture of the hybrid owner and their vehicle, the owner writes a testimony as to why they like their hybrid vehicle. We also created a document that is posted on the website that lists common myths about hybrid vehicles and gives facts to dispel them.

The youth section of our website features our program called "New Generation, New Energy," and answers questions about the Challenge X vehicle, and hybrid technologies in general, in a way that kids can understand (See Figure 30.) To create the question section, we used many of the same questions that we have been asked by students during our K-12 education events. The youth page also links to the GMability site.

As stated in our marketing plan, we have added a traffic counter to our website and plan to use this in our evaluation of our program at the end of the year.

In other media, the team still maintains Facebook and MySpace pages, which are two popular networking sites for young people who fit into one of our target audience age brackets. In addition, we continue to have videos posted to YouTube, a popular video site, and plan to post more this semester. We also have news articles available through iTunes, and continue to work with staff in our College of Engineering department to post more stories on the site.

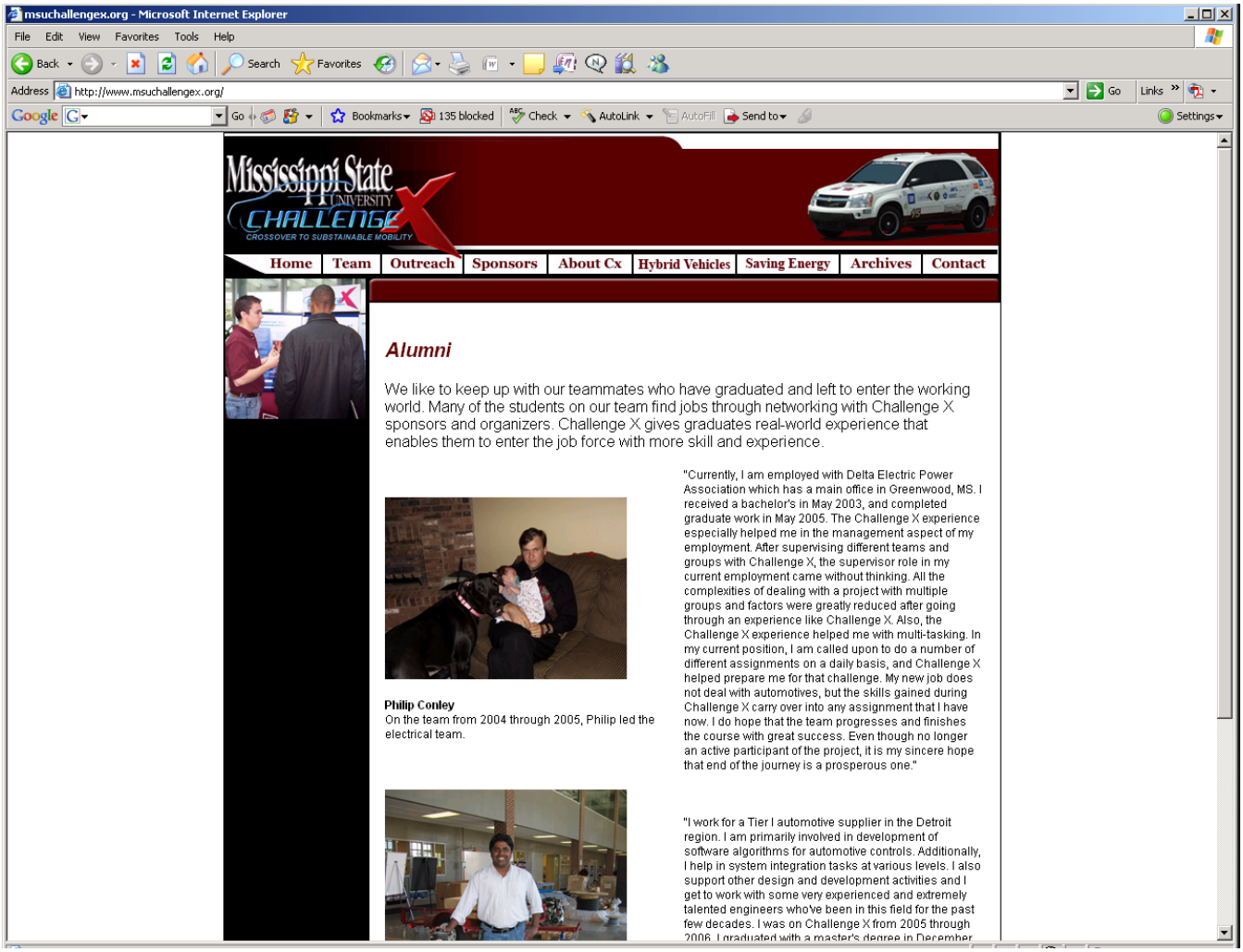


Figure 29. A screen capture of the Alumni section of our website.

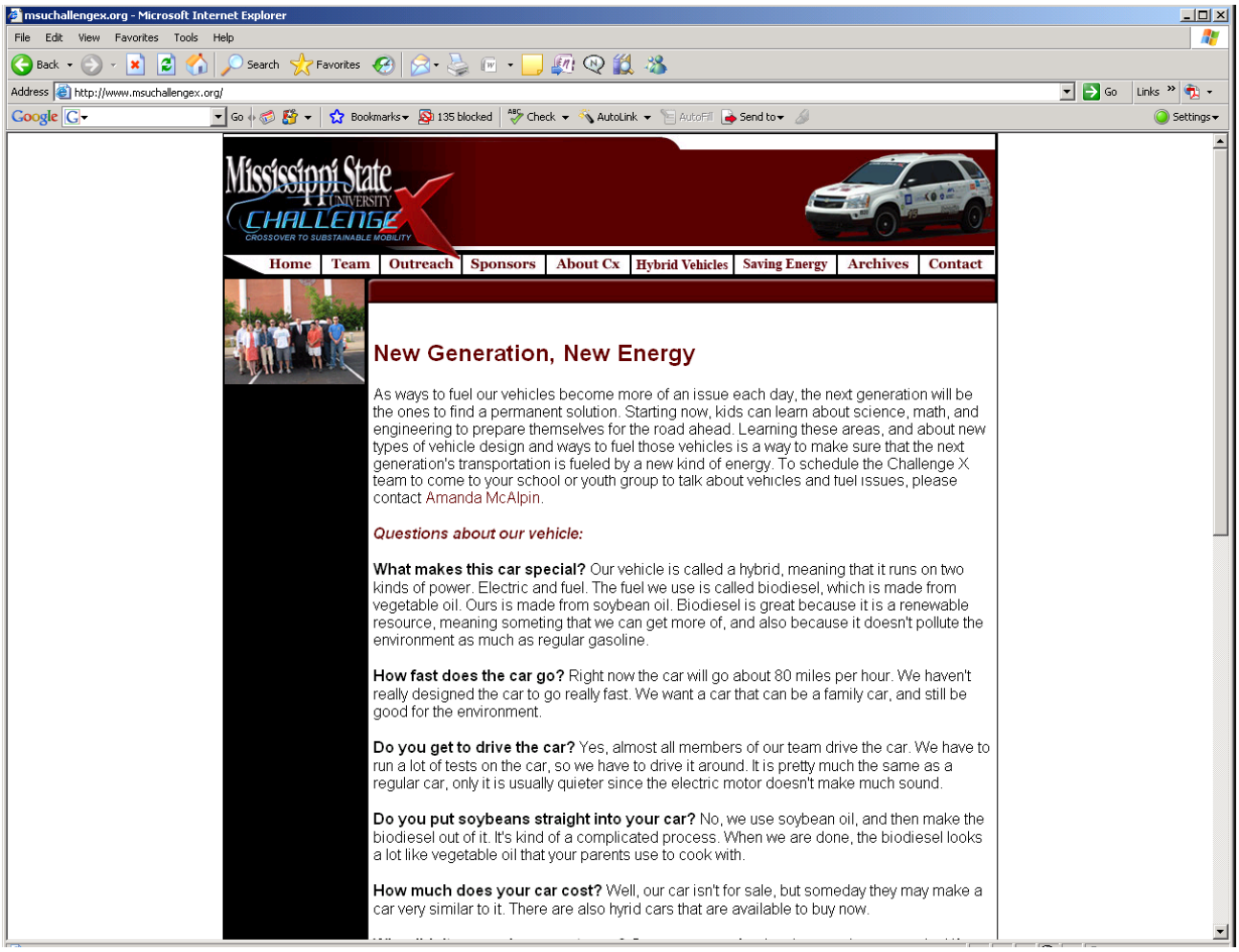


Figure 30. A screen capture of the "Kids" page on our website.

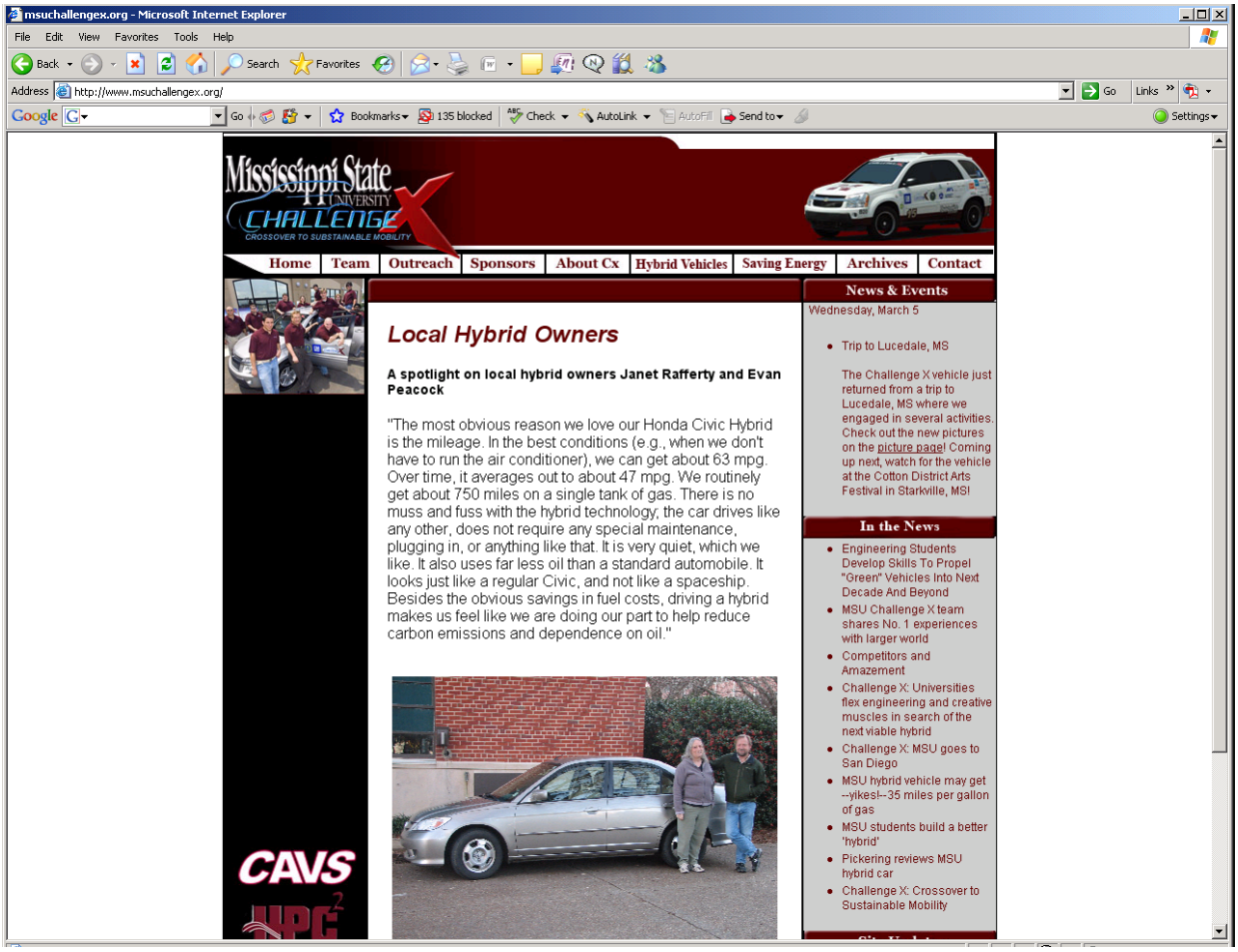


Figure 31. A screen capture of the Mississippi State University Challenge X website homepage.

E. Wrap-up

Thus far, we have accomplished the outreach objectives set forth in our marketing plan. We have gained media attention, and engaged in several community outreach events and youth education activities. We will continue to engage our community through unique and creative outreach initiatives through the end of the year.

In our marketing plan, we outlined several goals for this year. These include:

a. To educate the public about the benefits of hybrid vehicles – Our outreach program has been an invaluable tool in accomplishing this goal. Speaking directly with people and showing them our vehicle is one of the best ways to convince them of the value of hybrid vehicles. We are also constantly pursuing media hits to reach more people in our region, and we have been successful since the last outreach report in gaining media attention. This has also been accomplished by posting articles to our website that highlight the benefits of hybrid vehicles.

b. To change public attitudes toward hybrid vehicles in our region; position them as a vehicle "for everyone" - Our strategy is to align the features of our vehicle, and all hybrid vehicles, with the values of our target region. By displaying the vehicle at various community events, we dispel misconceptions that many people in our area have about hybrids, such as lower speed, unattractive appearance, and complicated driving procedures. For instance, taking people for rides in our vehicle shows them that hybrid vehicles are easy to drive, can have just as much power as a stock vehicle, etc.

c. To promote current availability of hybrid vehicles – Our website has served as one of the most valuable tools for promoting availability of current hybrids. We link to articles on hybrid SUVs and trucks that we have identified as some of the highest selling vehicles in our area. We have pictures of hybrid SUVs and trucks in all of our presentations, including our high school presentation. We have also held an event at a Chevrolet dealership, to increase awareness of Chevrolet hybrid vehicles.

d. To educate the public on Challenge X's role as an explorer of solutions for sustainable mobility – The Challenge X name, logo, and artwork are always first and foremost in all our publications, presentations, and signage. We have had media training classes for all of our students so that they are cognizant of what messages they should emphasize (including the Challenge X competition) during media interviews. Student tours of our facilities and presentations of our vehicle, as well as our website and publications, have served as effective ways for familiarizing people with Challenge X.

e. To educate youth on alternative vehicle technology - We are continuing our visits to K-12 groups to display our vehicle and teach them about hybrid technology. We have also visited a Future Farmers of America high school group, who strongly represent our desired target audience. We have designed a brochure on hybrid vehicles specifically for youth, and have maintained a “Kids” section on our website. During our visits with youth we provide hand outs from the GMability website, and stickers that we designed. We also work with the teachers to ensure that our message is in congruence with what the students are learning in class at that time. We also have separate presentations for elementary students, middle school students, and high school level students to ensure that each group is being presented with the appropriate message.

f. To make the public aware of our hybrid architecture that utilizes soybean- based biodiesel - Our hybrid architecture is detailed in the brochure for our team. We pass out

the brochures during each outreach activity, and they are also available in many places in our state. We also emphasize the use of soybean biodiesel in all of our presentations, vehicle exhibitions, brochures (See Attachment 1), media interviews, and our website.

Our activities involve students from several fields and include the integration of Challenge X content extensively into their coursework. Finally, our team is pursuing outreach activities in all areas of the outreach/marketing program, as well as engaging in activities that are unique and specially suited for our target audience.

Budget

Our budget is listed according to what has been spent so far, and projected expenditures.

So far:

- Printing for brochures……$412.00
- Printing stickers, brochures, and other youth materials…….$321.56
- Travel to local schools, organizations, and events……...$1098.36
- Supplies such as markers, poster board, etc……156.35

  Total 1988.27
-

Planned expenses

- Youth handout items……..…….. $500.00
- Printing for misc. materials such as posters for events..……....$100.00
- Supplies and advertising for Basic Car Care class…….$500.00
- Supplies for making commercial……$200.00
- Printed logo cups……..……..$850.00
- Publicity event with campus club…….…… $250.00
- Posters used to take to youth and community events explaining architecture of our vehicle, etc.……..……$200.00
- Travel to outreach events, schools, and youth groups…….…$450.00

  Total 3050.00

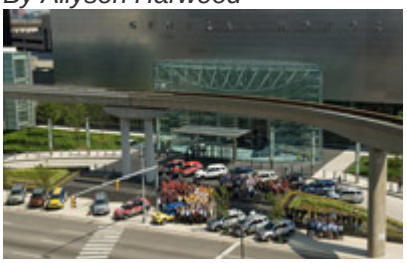
Reported by: Amanda McAlpin Date: 3/7/08
Dr. Jason Lueg
David Oglesby

Appendix A: Copies of Media Clips

Attachment 1

Challenge X: Universities flex engineering and creative muscles in search of the next viable hybrid

By Allyson Harwood



VIEW LARGER IMAGE

It's one thing to hear about the automotive advances being made on university campuses; it's quite another to drive them. Challenge X is an event sponsored by the U.S. Department of Energy and GM where schools get to flex their engineering and creative muscles. GM provides the vehicles -- in this case, each school received a Chevrolet Equinox -- and the schools' goal is to reengineer them with reduced emissions. The universities began computer simulations a year before the keys were handed over, then received the vehicle and spent the next two years doing the physical work, much of which involved integrating components and systems not specifically designed for these vehicles. An SUV may be an ideal platform for an event like this, because adding weight of new components isn't as critical (the suspension and structure are designed from the factory to carry added gear and people) and there are more places to add batteries and other equipment. For this Challenge X event, there were 17 universities involved, and all the vehicles were hybrids.

VIEW LARGER IMAGE

We started the day behind the wheel of the University of Waterloo's series fuel-cell hybrid. This school's entry is powered by hydrogen, stored in a tank that takes up the cargo area. The fuel cells are stored under the seats, and the battery pack is under the hood, as is a motor inverter. To reduce vehicle weight, this team replaced as many OE steel components as possible with aluminum and used carbon fiber wherever it was realistic.

As it operates, it makes some noises you wouldn't necessarily expect -- some hums and groans that are louder than in, say, a Prius -- but they're certainly minor. This Equinox does not have the same power output as a stock model, but has a 120-mile range and zero emissions -- its exhaust only drips warm water. Once a hydrogen infrastructure is in place, which some estimates put at 15-20 years from now, this could be a viable future power source for cars and SUVs.

VIEW LARGER IMAGE

Next was Mississippi State's entry, which was announced as the winner of the third-annual Challenge X in June. We can see why: Part of the competition is to design a reduced-emissions vehicle with consumer appeal, and this one uses an engine and transmission from GM's European models (a 1.9-liter turbodiesel inline-four and six-speed manual), which are already established, backed with reliable hybrid technology. The diesel engine runs on B20 soybean-based biodiesel and, though physically smaller than the stock V-6, is in the same location. The team redesigned the rear suspension cradle to accommodate the 67kW electric motor. The engine and battery pack put out a total of 240 horsepower and approximately 230 pound-feet of torque, and 0-to-60 is estimated at 7.5 seconds-more than 1.0 second faster than a stock Equinox. And, if that's not enough, this biodiesel Equinox gets about 35 mpg combined city/highway fuel economy.

VIEW LARGER IMAGE

In this through-the-road parallel hybrid, the Equinox runs on electric power at low speed. At higher speed, though, it's used as a gradual power boost, with an incredibly smooth transition from electric to diesel power. Anyone who enjoys shifting gears would love driving this AWD Equinox -- it's just like driving anything else with three pedals. The team members must've loved driving it, too -- they put as many miles on their vehicle (over 15,000) as the next four teams put on theirs combined. The most noticeable difference between this and a typical small SUV is that the brakes, likely because of the regen system, are somewhat grabby.

VIEW LARGER IMAGE

Our third and final drive for the day was Ohio State's biodiesel hybrid, also with a GM-sourced 1.9-liter turbodiesel running on B20, but this one backed by an Aisin six-speed automatic. This is the most like a stock Equinox -- put it in Drive and go. Transitions aren't as smooth, but driving it is close to what an SUV driver would experience in a stock vehicle.

Other entries used ethanol, ethanol/hydrogen, and reformulated gasoline. UC Davis's plug-in hybrid, the only such entry, can operate like a regular hybrid as well as a plug-in. It uses large enough batteries that during a power failure, it could potentially power a single-family home for two days.

These universities are doing the R&D that could lead to the next generation of hybrid vehicles, and it's smart for OEs to sponsor competitions like this and reap the benefits. But it helps the universities as well. One school that participated had a volunteer -- only automotive program three years ago; now there's a full automotive program on campus, and the students work for credit. And the enthusiasm, the passion, and the innovation that is coming from our schools is absolutely inspiring.

The next phase of the third Challenge X involves a road rally from New York to Washington, D.C., this coming May 2008, where the goal is to have politicians get behind the wheel of these Equinoxes. After that is the next competition, known as EcoCAR. For more information, visit www.challengex.org.

Attachment 2

Energy Rush TV Blog

The Future of Renewable Energy is Here Today on Energy Rush TV

SEARCH

- Home
- About

« Tomorrow!
Gadget Wows a Gidget »

Competitors and Amazement

WOW. So, two days ago, we covered the X Challenge cars leaving the Petersen Automotive Museum. I actually got to drive Mississippi State's car — I COULDN'T BELIEVE IT! It was so friendly and smooth. One of their coolest features was an (I assume LCD) screen on the dash with all the car's stats, clearly visible. Mississippi's car performed SO well at higher speeds, and they also employed a regenerative breaking system (that's when energy is recycled within the car, because at stops, the engine switches off — of course, I had no idea that technology was called "regenerative breaking". And the car I drove was just one of many impressive alternative power vehicles that were competing and the challenge. A GM spokeswomen we interviewed said that some of the technology she was seeing with these student-built cars could very easily end up on the market in the future — that's how smart and slick these student competitors were! And, a highlight for me: I finally got to meet Dr. Frank. Poor guy…I was totally star-struck and stuttering, but he was very gracious, and let me conduct a stumbling and googly-eyed interview anyway. Looks like I'll be seeing him in the future again! Now, I just have to get rid of the butterflies and convince myself that I'm looking at a real human when I'm talking to him and not a genius from on high (even though that's sort of what he is).

–Refined gOil

This entry was posted on Saturday, December 1st, 2007 at 8:25 am and is filed under News. You can follow any responses to this entry through the RSS 2.0 feed. You can leave a response, or trackback from your own site.

Attachment 3

MSU Challenge X team shares No. 1 experiences with larger world

University Relations News Bureau (662) 325-3442 Contact: **Robbie Ward** December 14, 2007

Publication Quality Photo: Right click on the photo below, then select **Save Target As** or **Save Link As**. Selecting **Save Picture As** or **Save Image As** will save the low resolution image.

Comedian Jay Leno (l) and MSU student Stephen Phillips discuss the winning Challenge X vehicle. Phillips is an electrical engineering graduate student from French Camp.

STARKVILLE, Miss.--Members of Mississippi State's Challenge X team are back at the university after completing a road trip to California to help promote fuel-efficient vehicles with reduced environmental impacts.

After winning earlier this year the national Challenge X competition organized by General Motors and the U.S. Department of Energy and organized by Argonne National Laboratory, the five-member student team joined with counterparts from 16 other universities to promote more environmentally protective vehicles.

In addition to taking first in the overall competition and tops in 10 individual categories, MSU's entry boasts a fuel efficiency of about 32 miles per gallon, and close to sports car level acceleration.

Technically speaking, the "through-the-road parallel hybrid electric" vehicle features a 1.9 GM direct injection turbo diesel engine fueled by B20 biodiesel. It beat all the others because the students succeeded in increasing its fuel economy by 48 percent, compared to the original design.

While in the Golden State, Matt Young of Meridian and other team members shared with numerous car enthusiasts various details of the 2005 Chevrolet Equinox crossover sports utility vehicle they re-engineered to win the three-year competition.

Young, a graduate student in electrical engineering, said the MSU group spent time with late-night television show host Jay Leno, a well-known motorcycle and car collector.

"He asked us what we did different compared to others," Young said. "We also discussed how to make this more mainstream."

In addition to vehicle enthusiasts, the competition provided the MSU students with numerous opportunities to network with top automotive executives and other potential employers. Among those opportunities was the Society of Automotive Engineer's Electric Vehicle Symposium attended by experts in the field from around the world.

Young plans to work in the auto industry after graduation, either in research or design. He said the many learning experiences provided by Mississippi State's Bagley College of Engineering and the university's Center for Advanced Vehicular Systems will be of considerable benefits in his job search.

"I can say I helped work on the No. 1 hybrid vehicle developed at Mississippi State University," he said.

Several other MSU students who learned about hybrid technologies through the Challenge X competition already have jobs in the field. Lauderdale native Christopher Whitt and Columbus native Kyle Crawford, recent graduates of the university's Bagley College of Engineering and the Challenge X team, now work for GM.

For winning top honors, the team received $31,500 in prize money. The amount included $15,000 awarded by the National Science Foundation to electrical and computer engineering professor Marshall Molen for being named the outstanding faculty adviser.

Other Challenge X teams represented the universities of California at Davis, Michigan, Tennessee, Texas at Austin, Tulsa, Waterloo, and Wisconsin-Madison, as well as Michigan Technological, Ohio State, Pennsylvania State, San Diego State, Texas Tech, Akron, Virginia Tech, and West Virginia universities, and Rose-Hulman Institute of Technology.

For more information, contact Amanda McAlpin at 662-312-8672 or **www.msuchallengex.org**.

Attachment 4

CAR OF THE FUTURE

Engineering Students Develop Skills To Propel "Green" Vehicles Into Next Decade And Beyond

(NAPSI) - Challenge X, a multi--year collegiate vehicle competition sponsored by General Motors and the U.S. Department of Energy, is helping students gain valuable training and is providing the industry with experienced engineers who are ready to develop the "green" vehicle technologies needed today -- and tomorrow.

As the automotive industry is focusing more and more on the development of alternative vehicle technologies such as hybrids and fuel cells, new engineers will be needed to develop these innovative engine technologies.

Challenge X provides 17 university teams from across North America with real-world vehicle engineering experience. The teams follow the GM global vehicle development process to create technologies that increase energy efficiency and reduce environmental impact. Each team has re-engineered a Chevy Equinox with a range of hybrid, plug-in or fuel cell propulsion systems, powered by alternative fuels such as biodiesel, ethanol and hydrogen.

Since the competition began in 2004, GM has hired more than 50 students from the program. "Challenge X has prepared me for an exciting automotive career," said David Oglesby, student team leader of Mississippi State University, which won the Year Three competition in 2007. "It's a unique program that provided me with hands-on training that will give me an advantage in the job market."

Cindy Svestka, GM powertrain engineering manager and Challenge X graduate, also has praise for the program. "When we hire a Challenge X student, we know that we are getting a top-notch engineer with great experience and strong knowledge of our vehicle development process," she said. "It's a win-win for both the student and the automaker."

Ed Wall, the U.S. Department of Energy's manager of the Vehicle Technologies Program, Office of Energy Efficiency and Renewable Energy, hopes the competition will create greater awareness of alternative fuels. "This competition focuses on advanced technology that promotes energy security and economic growth," he said. "Challenge X demonstrates how government, industry and academia are working together to develop creative approaches and solutions to decreasing energy consumption and greenhouse gas emissions in some of America's most popular vehicles."

Additional information is available on the Web at www. challengex.org.

Mississippi State University's Challenge X vehicle, which won the program's Year Three competition in 2007, cruises on a test track.

Attachment 5

From CarJunky.com

Alternative Fuel Vehicles

Engineering Students Develop Skills To Propel "Green" Vehicles Into Next Decade And Beyond

By

Sat, 23 Feb 2008, 18:04

(NAPSI) - Challenge X, a multi--year collegiate vehicle competition sponsored by General Motors and the U.S. Department of Energy, is helping students gain valuable training and is providing the industry with experienced engineers who are ready to develop the "green" vehicle technologies needed today -- and tomorrow.

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Additional information is available on the Web at www. challengex.org.

Appendix B: Attachments

Attachment 6

Happy Birthday, Mississippi State University!

Mississippi State University will commemorate its 130th birthday in February, and the George-Greene chapter of the MSU Alumni Association is gearing up to celebrate.

The chapter will host a birthday celebration reception Friday, Feb. 29, from 5 to 7 p.m. at [MGCCC Multipurpose]. The event is free and open to the public and will include birthday refreshments. MSU alumni and friends from the area will be on-hand, along with several university representatives.

Greg Byrne, Athletic Director
Michael Richardson, Coordinator in the Alumni Association
George Dunn, Admissions Counselor
Dr. Hart Bailey, College of Veterinary Medicine
Challenge X Team and Car, Automotive Engineering National Champions.
They will also appear and display the car at Walt Massey Chevrolet in Lucedale on Saturday morning 03-01-2008.
Local Extension Personnel and Other University Representatives

Prospective students and their parents are encouraged to attend, as representatives from the university's Office of Admissions and Scholarships will be available to provide information and answer questions. In addition, those in attendance will be eligible to win a $500 scholarship provided by the George-Greene alumni chapter.

"It's so important to celebrate our university's historic founding," said Jimmy Abraham, executive director of the MSU Alumni Association. "We can think of no better way to commemorate this special occasion than by gathering members of the Bulldog family together for a friendly birthday party."

Mississippi State University, whose main campus is located in Starkville, was founded in 1878 as the state's agricultural and mechanical college. Since then, it has grown to be the state's largest institution of higher learning, enrolling over 17,000 students.

For more information about the 130th birthday reception, and to RSVP by Wednesday February 27, 2008.
Doug McLeod, 601-947-3125
Brenda Smith, 601-394-2847
Mike Steede, 601-947-4223

Attachment 7

www.msstate.edu

Mississippi State University

www.msuchallengex.com

CHALLENGE X

CROSSOVER TO SUSTAINABLE MOBILITY

New Generation, New Energy!

Hybrid
Automobile
Vehicle
Electricity
Fuel
Biodiesel
Gasoline
Soybeans
Corn
Grass
Energy
Conservation
Mathematics
Science
Engineering

Flip over for a fun hybrid car word search!

At Mississippi State University, students are making their own hybrid car!

Using bio-diesel, their car can get up to 38mpg (miles per gallon).

This means that for every gallon of diesel they put into the car, it can drive for 38 miles!