All Midterm reports are to be submitted electronically to the new Energy Challenge Program Manager—MG Whitaker. Her contact information is:
Email: Energy.challenge@ipst.edu
Phone: 404-894-8277

Dear Energy Challenge 2004 Participants:
I am looking forward to working on this exciting project and getting to know all of you. Please direct questions and information requests to me at the above email address. Emmie Cochran’s personal email address emmie.cochnan@ipst.edu will be disabled effective January 14th. Please remove that email address and insert energy.challenge@ipst.edu in its place in your email address books. I hope everyone has a great holiday break!

MG Whitaker

January 13th- Midterm reports due !!!!!!!!!!!!!!!

Shipping News
T-nuts were shipped two weeks ago along with a memo regarding their usage.
The short of it...You can use the T-nuts that we shipped you, but you may use a substitute if you choose to. You may also choose to modify the bolts to adapt to your design. For additional information, please read the memo that came with the bolts.

Participants 2004
- Georgia Tech
- Hal Lamar University
- Miami University of Ohio
- Mississippi State University
- North Carolina State University
- Pasadena City College
- Savannah College of Art and Design
- Spartan School of Aeronautics
- SUNY—Syracuse
- Temple University
- University of Central Florida
- University of Colorado-Denver
- University of Maine
- Western Michigan University

Lights, Camera, Action !!!!!!
Make sure you have your cameras rolling and are working on your video. The video counts for 10% of your score so make it creative and interesting to keep those judges awake!
The length of the video should be 10 to 15 minutes. The preferred video format is Mini DV. VHS and DVD are acceptable. Least preferred is MPEG. To ensure best quality, submit the video in the format in which it was recorded. If time permits, all videos will be shown at the competition.
The due date for the video is Tuesday, March 9, 2004.
(See the rules and regulations for the mandatory information to be included on the video. The video will be submitted in its original format by mail. We will not accept electronic transfers since this greatly diminishes the quality.)
Questions and Answers

Q1: Our team was wondering how far beyond the primary proposal are the boards allowed to evolve? If it’s a matter of replacing a material or construction method, would it be allowed? Yes, your design may change over time. Designing and constructing the snowboard may very well be an evolutionary process. Just keep notes and document them in the mid term and final reports.

Q2: We wanted to know how reasonable it would be to buy manufactured products? Are off the shelf items allowed in the spirit of the competition? Or are we expected to fabricate our own source of materials? Off the shelf materials are definitely allowed. Please review the Rules and Regs, the Q&A’s from November, and the Proposal Comments, all of which can be found online regarding their use.

Q3: How critical is it that all of our team stays at the Winter Park resort? Will we miss events if we don’t stay at the Winter Park resort? IPST will sponsor 4 members from each team. We plan to provide 3 rooms for each team in Winter Park. You may opt to place more than 4 official participarts in the three rooms we provide at the Super8. But you can be quite confident that your team will not miss Energy Challenge activities if they are not located at the competition preferred hotels.

Q4: What modes of ground transportation will we be using (airport to hotel, hotel to hotel to resort, etc.)? We have 12 team members coming from our group. Can they catch the same rides and what will it cost? Regarding ground transportation. Our plan is to coordinate incoming and outgoing flights to allow us to bus competitors to and from Denver International Airport (Arrivals need to be set prior to 1:30 pm on Thursday, April 1 to catch the buses to the Marriott Denver West). We definitely intend to bus all competitors from Golden, Colorado to Winter Park. At Winter Park, shuttle service is available from the preferred hotels to the slopes and downtown. We also definitely intend to bus all competitors from Winter Park to Denver International Airport on Sunday at 8 am. We will provide a schedule to help you coordinate the transportation needs or to address special circumstances. All 12 of your team members will be able to ride the buses at no charge.

Q5: What differentiates a "free-ride" board from other types. This specification is given in the rules, but I don't think it is clarified? We selected the Freeride board for the competition since it is a good beginner board. Freeride boards are typically directional. The tip is different than tail, i.e., the tail is usually narrower and flatter than tip. But we stated in the Rules and Regs that the board could be either directional or twin tip (tip and tail exact copies). Twin tip boards are called Freestyle. Therefore, for this competition, the Freestyle type board is allowed. Freestyle boards are also good beginner boards, easy to turn, and their twin tip design makes it easy to ride forward or fakie. Go for it dude!

Most importantly, your snowboard must meet the following guidelines:

- **Length** -- 150-174 cm
- **Waist** -- 24-27 cm
- **Minimum snowboard width** -- 24 cm
- **Maximum snowboard width** -- 27-30 cm (but not more than 3 cm greater than the waist)
- **Thickness** -- unrestricted
- **Camber** -- unrestricted

Notes:
The waist is the midpoint of board at or near the point where the snowboarder stands. The board maximum width is typically at the tip and, if Freestyle, the tail.

Q6: Is there anything available on course specifications? Will the course be mainly straight or should we plan on having many turns to make? The competition will be held on a practice hill at Winter Park. It has modest slope and, although a slalom course, the gates are few and the turns gentle. We intend this to be a competition to test the board not the rider. However, we do want a degree of challenge and excitement. The run that will be used for the competition can be seen on the right of this page. Additional pictures have been uploaded to Energy Challenge web site.

Slope 1 at Winter Park
Symptoms of AMS
A Headache that is accompanied by any of the following:

- Loss of appetite
- Nausea
- Fatigue/weakness
- Dizziness/lightheaded
- Difficulty sleeping
- Confusion
- Staggering gait

If you have these symptoms……..

Rule 1-Do not ascend any higher
Rule 2-Do not leave anyone with AMS alone
Rule 3-No alcohol, sleeping pills or narcotic pain medications
Rule 4-Treat it with lots of fluids, rest and acetaminophen or ibuprofen
Rule 5– If symptoms worsen or person can not walk a straight line– they need to descend to a lower altitude immediately.
**Current Schedule (Tentative)**

**Thursday April 1, 2004**
- Arrive at Denver International Airport (DIA) prior to 1:30 PM
- 1:30 PM Buses depart DIA for the Marriott Denver West in Golden
- 3:00 PM NREL Tour
- 5:30 PM EC 2004 Reception
- 7:30 PM Hotel

**Friday April 2, 2004**
- 8:00 AM Leave Golden by bus for Winter Park
- 10:30 AM Arrive Winter Park
- 1:00 PM Practice on race course
- 6:00 PM To be determined

**Saturday April 3, 2004**
- 9:00 AM Team Presentation
- 11:00 AM Snowboard Race
- 2:00 PM End of Competition
- 2:30 PM Awards

**Sunday April 4, 2004**
- 8:00 AM Buses leave from Winter Park to DIA

**Airline Tickets**

The Energy Challenge Office will arrange and pay for airline tickets for four members of the funded teams. Each faculty advisor should contact MG Whitaker (energy.challenge@ipst.edu) with the names and email addresses of the four team members that we will purchase tickets for by January 12th. Each of the four team members needs to call MG at 404-894-8277 to give her their social security number which is required by Georgia Tech’s Accounts Payable for purchasing the tickets by no later than January 16th. You will be supplied with an E ticket or a paper ticket by February 6th. (note: TICKETS ARE NOT TRANSFERABLE)

**Ground Transportation**

We will provide bus transformation for all team members and faculty advisors for the following:

1. DIA to Marriott Denver West leaving the airport at 1:30 PM
2. From the Marriott to NREL and Back
3. From Marriott Denver West to Winter Park on Friday, April 2 at 8 AM
4. From Winter Park to DIA on Sunday, April 4 at 8 AM

We will schedule **arrivals** into Denver as close to 1:30 PM on April 1st as possible.

We will schedule **departures** not before noon on April 4th, but as close as possible to noon. For ticketing of additional team members please follow above schedule.

**Critical Dates**

- January 12th— email of 4 team members EC04 will purchase tickets for
- January 16th—the 4 team members must call in SS#

**In Winter Park—** Competition Hotels provide shuttles to and from the slopes and into downtown.

The Energy Challenge will not be providing rental cars.

Note: Please keep MG Whitaker apprised of the number of team members coming from your school so that we can provide an adequate number of buses to accommodate everyone. Also contact her if there is anyone with special needs attending on your team.
Hotels

We are providing 3 rooms for each team at the Marriott Denver West for Thursday April 1 and 3 rooms at the Super 8 in Winter Park for Friday April 2, and Saturday April 3.

(note: These rooms will be pre-paid by MG Whitaker and you do not need to call the hotel for a reservation for them, but you must give MG a list of whom will be in each room)

ONLY contact the hotel if you need more than the 3 reserved rooms. Let the hotel know that you are making reservations for rooms that are in addition to those already reserved for the Energy Challenge. You will be required to pay for those additional rooms with a credit card.

Super 8 Motel
Winter Park, Colorado
1-800-979-0332
Rate: $84 for 2 queen beds
(mention Energy Challenge 04 group rate)
www.wplodging.com

Vintage Hotel and Conference Center
Winter Park, Colorado
Rate: $108 for a loft suite (murphy queen-size bed and double sleeper sofa)
$88 standard room (murphy queen-size bed)
1-800-472-7017
(mention Energy Challenge 04 group rate – We currently have a hold on four of the loft suites until January 31. If you want one of these you need to call and give them a credit card before they release them.)
www.vintagehotel.com

Iron Horse Resort
Winter Park, Colorado
Rate: $99 for a studio (murphy queen-size bed and double sleeper sofa)
1-303-573-1545
(mention Energy Challenge 04 group rate)

Marriott Denver West
Golden, Colorado
1-303-312-5448
Rate: $69 for 1-4 persons with 2 queen beds (must mention Energy Challenge 04 group rate)

Additional Travel Related Information

Lift tickets

We will provide one 2 day lift ticket for each team’s designated racer. We are trying to work out making additional discounted lift tickets available for purchase by Energy Challenge participants and supporters. We will have additional information in the January newsletter.

Meals

We will provide meals for the 4 official team representatives. We will have drinks and granola bars available on the buses, at the presentations and in the meetings for all participants.

Your racing snowboards may be shipped to the DOE in Golden so that you do not have to travel with them. Specific instructions will be in the February newsletter.

There is a music festival that weekend in Winter Park and hotel rooms may become difficult to get.
Sponsored by:

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Energy Challenge 2004

We’re on the web!
www.ipst.edu/energy_challenge

Snowboard design competition