

## 2009 SURF Summer Activities

It's difficult when you're in a new city and starting a new job. Many of the NIST Gaithersburg SURF students all find themselves in the same boat and thus forge bonds that may last a lifetime. A number of the students also come back for a couple years so they're more than willing to help the new students with the benefit of their experience. They work together AND play together. In fact, to make life easier NIST SURF Director Lisa Fronczek created a Facebook group just for the SURFers called "NIST SURF 2009 – Gaithersburg. In fact, two students found the site before she even finished creating it.

### SURF BBQ – NIST Picnic Grove



Burgermeister Cameron Miller at the grill (PL SURF Director)



Whether you call them perrito calientes or just plain old American hot dogs – Chris White in his chef's white (BFRL SURF Director) is grillin' them up

The SURF Directors' continued the tradition of welcoming the SURF students with a BBQ at the NIST Picnic Grove. The Directors' provide burgers/dogs, fruit, chips, and dessert. All the students needed to do -- show up and provide the entertainment with Frisbees, footballs, etc. This year the University of Maryland Materials Science Research and Engineering REU was touring NIST on the day of the BBQ and got to join the NIST SURFers for the goodies -- surely much better than that brown bag lunch they brought along. It also gave the two REUs a chance to compare notes. NIST is always a top tour spot for the UMD REU to tour during the summer.

### July 4<sup>th</sup> in the Nation's Capitol

Many of our 151 SURF students are out of the area and are given a chance to see the celebration that takes place in our Nation's Capitol. Take the "History Buffs" test of July 4<sup>th</sup> knowledge. 1) "Which of our Founding Fathers created the blueprint for our Fourth of July celebrations by suggesting that the day be celebrated with "bonfires and illuminations from one end of this continent to the other" by succeeding generations of Americans?" 2) On July 4, 1976, Americans all over the country celebrated our nation's 200th birthday. How many tons of fireworks were exploded in a magnificent display above the Washington Monument in Washington, DC — 5, 24 or 33? 1) John Adams ; 2) 33 tons!



## 2009 SURF T-Shirt Design



What better way to remember your summer at NIST than to design your very own souvenir T-shirt. Unlike the shirts you buy at an Orioles or Nationals games, these T-shirts are designed by a group of fellow SURFers. All the fashion conscious are seen sporting the latest design across the 578 acre NIST campus. It lets all those students at their home university know what they were doing during the summer!

## NIST Summer Institute for Middle School Science Teachers



The third NIST Summer Institute for Middle School Science Teachers was held from July 6 – 17, 2009. The workshop sponsored 16 middle school science teachers. The Summer Institute, a collaboration between NIST and local school districts, is an innovative combination of hands-on activities, lectures, tours, and visits with scientists in their laboratories. Designed to coordinate with the middle school curriculum, the teachers are provided with resources and instructional tools for teaching math and science, with an emphasis on measurement science used at NIST. Led entirely by NIST

scientists, the Summer Institute translates the cutting-edge research done in the laboratory to activities designed to be carried out in the classroom. Networking among the scientists and teachers provide long-term resources through the on-going relationships for the teachers and their students. Since the SURFers were working on interesting projects they were asked to help in the project. It's important for the SURFers to learn to explain what they are doing to others. This made them great examples for the teachers. It's a small world out there – maybe they got to connect with a science teacher from years ago – something I'm sure all the teachers would like to have happen in the future!



## Neighbor Helping Neighbor

The honor, spirit and resources of the American people comes forth with neighbors helping neighbors in need — during earthquakes, floods, fires, storms — and also for the deeply personal and often quiet disasters that require a gift of blood. Quietly, without fanfare, SURFers gave the gift of blood during the NIST blood drive.

## **Pentagon Tour**

The Pentagon is virtually a city in itself. Approximately 23,000 employees, both military and civilian, contribute to the planning and execution of the defense of our country.



The Pentagon tours program was established on May 17, 1976 to support the nation's Bicentennial Celebration. Initially, the program was to last through the 4th of July and then be disbanded; however, internal support and public demand were so great that the program has been continued ever since – with a few SURFers adding to those numbers.

## **Tour of University of Maryland College Park**

A few professors in the Physics Department of the University of Maryland College Park offered the students a tour through some of the labs (Condensed Matter, Atomic Molecular and Optical Physics), then invited them to a lunch to talk with some of the current grad students to ask questions about what grad school is really like.

## **Volunteers Wanted – Survey of Information Habits and Preferences of Millennial Scientists**

A previous SURF student who was hired in the Information Services Division at NIST extended a call to participate in a survey on their research habits. A total of 91 SURFers participated in the survey.

## **SURFers and Netflix**

An inexpensive way to spend a summer night with a bunch of friends – Netflix the latest comedy by Jim Carrey and you're on your way.

## **Baltimore National Aquarium**

The SURFers headed over to Baltimore to check out the Baltimore National Aquarium.

When the National Aquarium began taking shape on Pier 3 in the 1970s, Baltimore had never seen anything like it, and once it opened, the city's historic harbor would never be the same. In the same way, the extensive renovation of the National Aquarium in Washington, DC, opens up new opportunities for visitors to connect with nature in our nation's capital.



Together, the two National Aquarium locations have offered millions of visitors transforming experiences that inspire them to enjoy, respect, and protect the aquatic world. Action follows experiences that change our thinking. For some, seeing the Chesapeake Bay for the first time through a school field experience is a catalyst to do something. For others, getting face-to-face

with the Aquarium's amazing animals or attending a thought-provoking lecture will challenge ideas and change perspectives.

### Washington, DC Museums



How could you come to the Nation's Capital and not check out all the wonderful museums. They range from The Aircraft Museum, The Museum of Modern Art, International Spy Museum, Smithsonian National Air and Space Museum, National Museum-America History, National Museum-Natural History (I always like to check out the Hope Diamond), and the National Museum of Crime of Punishment (one that you might want to visit but never have your name associated with).



### *Annual Summer Horizons Program*



Tawny McManus, PROMISE Coordinator, UMBC, issued the annual invitation to the SURF students to attend the Summer Horizons program at the University of Maryland, Baltimore County (UMBC). Participants in Summer Horizons had an opportunity to: 1) learn about "Graduate School 101: The Road to Graduate School", the graduate school application process, e.g., GRE, funding, applications; 2) meet with UMBC faculty, tour laboratories and talk with current graduate students about their experiences, motivations, and succeeding in graduate school, and 3) hear a thought provoking address from UMBC's President, Dr. Freeman Hrabowski. He is well-known for his speaking ability. (As an aside, one of the SURFers last year said she chose UMBC over several other big-name schools because she heard Dr. Hrabowski speak.) Breakfast refreshments and lunch was served, along with a dessert reception that accompanied the keynote address by President Hrabowski.

### **Trips – New York**



New York, New York, is everything they say  
And no other place that I'd rather be  
Where else can you do a half a million things  
All at a quarter to three (AM??)

Sounds like a trip tailor-made for a group of energetic SURFers.

## Trips – Cape Cod



“Let yourself go” -- sounds like something a group of SURFers might feel like doing after putting in a grueling week of research.

## GRE® – Graduate Record Examinations®

One of the SURF students organized a physics GRE study group to prepare for the test. The **Graduate Record Examinations® (GRE®) General Test** measures verbal reasoning, quantitative reasoning, and critical thinking and analytical writing skills. The **GRE® Subject Tests** gauge undergraduate achievement in 8 specific fields of study.

## Soccer and Volleyball



They may not have been wearing DC United soccer jerseys and had the trappings of 11 domestic and international champions dominating the NIST lobby, but the competition between the teams (Grumpy Gumbo, Ferocious Fondue, and Jam’n Jambalaya) was just as fierce, well maybe fierce isn’t the correct word – more like fun! In fact, some of the teams had matching shirts that they made that were pretty cool! They also played volleyball (probably not on the same scale as Misty May-Treanor and Kerri Walsh, who dominated both the AVP and FIVB beach volleyball tours and the 2008 Beijing Olympics) but I’m sure they had fun just the same.



## SURF Farewell Pizza Party

Every year the SURF Directors treat the students to a farewell pizza party. This year the SURF T-shirt committee made a few dollars profit selling NIST’s hottest fashion item – the SURF 2009 T-shirt. Luckily for their fellow SURFers, the T-shirt committee decided to treat everyone to Rita’s Ice in three yummy flavors – cherry, cotton candy, and a mystery flavor – pizza (54 of them!) and dessert, what’s not to love.



**See ya!**