

PHYSICS AT SOUTHERN

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Published once in awhile
For students, alumni and friends of the Department



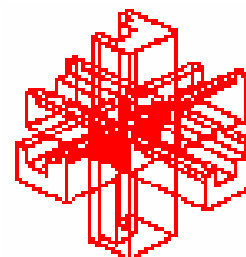
HSC FLOODS!

January 21, 2002

At 9:32 p.m. Saturday night, January 18 a caller reported a leak in Hickman Science Center Atrium, where the pendulum swings.

At 9:43 p.m. the Campus Safety officer on duty reported a "major leak". Physics, Chemistry, Biology, School of Computing, Plant Services, Service Department, and Energy Management accumulated rapidly and after investigation found a pipe that had frozen and broken open in the east wall of the Chemistry Stock Room (on the third floor).

Damage was done on all three floors, primarily on the southeast side of the building. The most damage was in the Physics offices and the classroom on the southeast corner of the building of first floor. Many ceiling tiles in that section of the bottom (Physics) and second (Biology) The floor of the Atrium area was flooded and the carpet there is very soggy. The carpet must be removed as it has a dense foam underlayment that is not likely to dry through the carpet. The area under the pendulum base was also flooded, so the base



floors were damaged. There were hundreds of gallons of water cascading down from the third floor to the ground floor, well mixed with masticated ceiling tile. Personnel from all five areas worked Saturday night until about 3 a.m. to clean up as much as possible. They covered files and shelves on which water was pouring and then, starting on the top floor, vacuumed water from the third, second, and first floors. Plant Services took a pickup truck load of soggy ceiling tile out of the building Saturday night. Then HVAC staff raised the temperatures in the building and added large dehumidifiers to assist in the drying process.

It appears that no computer equipment and no filed information was lost; the copier escaped injury; the major losses are stationary and copier paper.

will have to be removed and that carpet taken up and floor dried out. The decision was made to remove the carpet in this area because of possible damage to the pendulum base and the likelihood that the carpet and pad will mold in a very short time and

release offensive odor.

The Service Department is cleaning the carpet in an effort to remove the stains caused by the water. Staff from all five areas are worked for days to have the building ready for classes today.

A LOOK BACK

Taken from *Physics at Southern*, vol. 36 issue #6, December 8, 1995

"SCIENCE BUILDING RISES FROM THE GROUND!

Several months' work seemed to result only in landscaping, the construction of a poured- concrete retaining wall, and smoothing the gravel where the ground (Physics and Computer Science) floor is to be. Then suddenly, about a week ago, a 75' crane and truckloads of steel beams appeared. Now the skeleton of the new Science Building is clearly visible -- all three floors of it! It will be an impressive and 'solid' building."

PHYSICS DEPARTMENT NEWS

HICKMAN SCIENCE CENTER

Some reorganization of the Introduction to Physics Lab (HSC 107, for those who remember it that way) has taken place. Formerly, the front half of the room was used for some small classes outside of lab sessions. Now a movable partition divides

Delynne Lilly

the room in two parts: the front 2/3 of the room is being used intensively as a class-room (some physics/engineering classes and some computing classes) and the rear (south) part remains available at all times for setting up the Intro Lab experiments. The partition is folded back during lab sessions to allow use of the entire room to accommodate our growing lab enrollment. This system may not be permanent, but it does make more efficient use of our resources, and we're happy to be able to help out our friends in the (growing) School of Computing.

ART IN THE ATRIUM

Some decades ago, art professor Charles Zuill experimented with paintings made of exquisitely formulated shades of grey. One masterpiece has 256 0.5" x 0.5" blocks all in a row, going from pure white to pure black. Surrounded by neutral gray, this long ribbon of graded colors looks like a rocket in launch. When Zuill left, the painting found its way into Summerour Hall and stayed there in spite of strong objections from your editor. During a recent renovation of Summerour Hall, the painting was consigned to the landfill, but Dr. Kuhlman somehow learned of that fact and saved it. The masterpiece is now mounted in the foyer of HSC near the pendulum.

HONORABLE VISITORS FROM 1^{rst} NOVEMBER TO PUBLICATION DATE

Mat Bell
Richard Boskind
Penny Duerksen-Hughes
Bryan James
Leo Kweik
Ron Fox

Ken Gano
Shandelle Henson
Pat Jacobson
Andrew Mashchak
Stefan Rusek
Jason Wohlers

**LETTERS FROM AND NEWS ABOUT
YOU, OUR READERS.**

These items were almost all received since the publication of the last *Physics at Southern*, Vol 44 #2, on 9/16/2002. It is not feasible to include all your news, so the message have been somewhat trimmed to include largely the professional aspects of your lives.

Portions of letters from Don Hall and Steve Sowder will be included in the next issue of *Physics at Southern*.

Mat Bell 11/3/2002

Mat has been working for an architecture & engineering firm in Nashville, Gresham, Smith and Partners, this whole time. Although his degree (completed at UTC) is mechanical engineering, he performs as a Civil Engineer doing mostly hospital site design. His projects have ranged from Gulfport, MS, to Athens, GA, to Washington D.C., and even West Bend, WI! The O.R. expansion at East Ridge Hospital and the major Expansion & Renovation at Parkridge Medical Center are both his projects. Mostly he just tells people that he "designs parking lots for hospitals." As of last summer (July 2001), he became licensed as a registered Professional Engineer (P.E.) in the State of Tennessee. As of May of Petya has finished and successfully

this year the Bells have purchased a house in Madison, TN. They are now about ten minutes from church and school and my commute is a bit shorter.

Richard Boskind 11/3/2002

He is still in the business of salvaging scrap metal to save landfills, and also has a good contract for Vision Block (light-sensitive) goggles. He is within sight of retirement!

Gary Bradley 11/5/2002

Last year I was talked into the vice principal position. My teaching load was reduced by 1/5 but the headaches increased by 5X. (Is there an inverse law at work here?) I believe my renewed love for teaching will keep me from accepting any more administrative responsibilities. I have 7 students in my physics class this year. About three students have a real interest in physics.

Gary Burdick 11/10/2002

His research is going well. He has four (!) publications currently in press, including two for a special 40th anniversary issue on the Judd-Ofelt theory that will be published in *Molecular Physics* in December. And he has yet another article that he is writing up with Mike Reid that will include Aurora (Gary's wife) as a coauthor, as she did all the mathematical calculations when she was with Gary in New Zealand last Fall (2001).

Rick Cavanaugh 1/6/2003

defended her Thesis!! She is teaching

as an adjunct professor here at the University of Florida this semester.

Petya and Rick spent our Christmas in Bulgaria on the Black Sea Coast. Rick traveled so much during the month of December (Gainesville, Geneva, Brussels, Los Angeles, Sofia) that his average speed from 1 December to 31 December was nearly 60 km/hour !

Kevin Christman 10/3/2002

He is having a "great time" over in Egypt, teaching Math/Science at Nile Union Academy.

Berry Cobb (Thomas B. Cobb)
12/24/2002

I am officially retired but still working part time. Until this year, I was still teaching the course in environmental physics that I introduced, and may do so again. I still serve as radiation safety officer for campus, a job I have done since 1997. I really don't enjoy it, but it brings in a few dollars to help pay for the housing addition. Also am doing some science education work with the college of education faculty here and still consult for the College Board in the AP/Environmental Science Program. I contribute and review test questions, give training workshops for them occasionally, and for the past five years have read exam papers in the summer. Just completed seven years on their environmental science development committee, the last three as chair.

We developed the AP/Environmental Science course from scratch five years ago, which has now been implemented nature around us. The dark, star filled

nationwide. Over 25,000 students took the national exam in this discipline last year, and more are anticipated for the coming spring. It has been a rewarding experience overall.

Earl Cornell 11/23/2002

In retrospect the human genome project went fast but when the DOE was in the middle of it seemed to be quite slow. Ironically I am now working on the next stage in the process, proteins, the things genomes make. We are auto-mating handling of protein crystals at LN temperatures to gear up for the large number of proteins that will need to be characterized in order to understand the complexities of organisms. The human genome seems fairly simple in contrast to the next step in the process.

Bernard Devasher 12/23/2002

Thanks for the greetings. I work all the time....it seems. My wife and I have started hiking the Appalachian Trail. We have finished 600 miles of the 2,000 plus trail. It gets us away from the maddening crowd and back to nature. The only problem is we don't have the time to do it we wish we could.

Bryan dosSantos (who goes as R.B. dosSantos, thus forever confusing this editor with his brother Roy dosSantos)
June of 2002

My wife Melissa and I sold our house and moved out into the country to our wonderfully wild 16.5 acre "farm-to-be" which is about 20 miles Southwest of Wilmington, NC. We are living very simply and enjoying the beauty of skies, free from light pollution, the sound

of a rooster learning to crow, the peace of silent Sabbath afternoons without the noise of neighbors' leaf blowers and lawn mowers, looking for raccoon and deer tracks--these are the things that give us pleasure day after day.

I sit at a computer writing code to control various steps of the optical fiber manufacturing process. I've been doing this for six and one-half years and have enjoyed it very much. Corning has gone through three very large layoffs in the last year, and there is still one more to come. The Lord has preserved my job thus far. We believe He is able to do so again, but we are also prepared to go wherever He leads us.

Jerry Evans 12/23/2002

I just turned 60 and became eligible to retire, but plan to work two or three more years. In retirement, I might teach a class or two at the local SDA high school, Sandia View Academy.

The Department of Energy, especially the defense programs organizations, have been in a lot of turmoil in recent years, partly over the very poorly handled Win Ho Lee affair. As a result of reorganizations, my duties have evolved. I am less involved with nuclear facility safety than in the past. I am still involved with people at Los Alamos and with nuclear materials, but more in the planning arena than before. I have been and continue to be involved in matters related to beryllium. Beryllium has limited, but critical uses and is very The new year finds me with more projects than ever. One of my resolutions is to read at least one book

hazardous. US industrial capability is at risk. I am working with a group to try to reach a national solution to the supply problem. My new organization will be doing some special studies and analysis of long range issues. I recently led a team of six individuals from around the country to conduct an independent study of the need for a new \$250M facility planned to be constructed at Oak Ridge at the Y-12 plant, and briefed the results in Washington.

Julie Gilkeson 11/7/2002

She is in a surgery clerkship at Loma Linda School of Medicine.

Ron Fox 12/./2002

Ron and Sharon devoted a couple of weeks to hiking in Big Bend National Park on their way from their Texas home to a visit with "the kids" in Albuquerque.

Brent Goodge 1/9/2003

We are back in Loma Linda after going home to TN/GA to see my brother get married this Christmas. I should complete my anesthesia residency in July 2004, after which we hope to move back to the good land (the Southeast ;-)

Bradley Hyde 11/19/2002

He is determinedly continuing work on his doctorate at UTK.

Cliff Keller 1/6/2003

(not related to computers) every week. This week it was the book on Todd Beamer, the man who famously said

"Let's roll" before leading a rebellion aboard Flight 93 on September 11, 2001.

One of my major projects is to synchronize my email list among 6 computers. If you get multiple emails please forgive me as I have your correct email address on several computers.

Blake Laing 8/11/2002

I am studying for my last qualifying exam (Classical Mechanics, Statistical Mechanics and Thermodynamics). When I pass that I will assemble a committee who will assign me a topic for my oral specialist exam. It is exciting to finally see the end in sight for my education career, but I am especially excited to see the completion of Teresa's education. We will marry a few weeks after her graduation and bring to an end a 3 year separation.

Blake Laing (again) 10/2/2002

Teresa and I had a fantastic visit to Yosemite. We hiked on the John Muir trail from the valley to Tuolumne Meadows and back. The scenery was beautiful.

Here is a piece of long-overdue news. I passed my last qualifying exam, and I'm now preparing for my special topic exam. One possible subject will be the meaning of entropy in a Bose-Einstein condensate system.

The Department of Defense contract that the small company I work for holds is for the development and support of a "travel expense calculator." The company has held this contract in

John Nash and Lizzie Harper Nash
8/20/2002

As you know, we were in Montemorelos University for four years. I was director of their Information Systems department and Lizzie worked in the Fund Raising department and later worked as a freelance translator for the Inter American Division, translating books, Sabbath School Lesson Quarterlies and Review and Herald articles.

We returned in March of 2001. After looking for about 2 months I eventually found a job as a software engineer with a small privately owned company that does Department of Defense contract work.

During the year Lizzie looked for a job that would allow her some flexibility so we wouldn't need to put the kids in day-care, but those kinds of jobs are difficult to find! Even regular environmental chemist jobs such as the one she had in Colorado was impossible (probably due to the fact that she had been out of the business for 4 years now). At the same time she began to feel that she should home school the kids.

Jon Nash and Lizzie Harper Nash
(more) 8/25/2002

Little by little I am learning enough graphics to allow me to integrate animated representations. The process is relatively slow since I have little time to devote to it - but I try to stay focused. Various forms for approximately the last 15 years. Our software is used in every U.S. military base around the world. It calculates reimbursement amounts for a myriad of travel options from simple

business trips to international moves from one station to another. We are even deployed aboard ships. The software in its self is not very interesting - but it is a great job with a great boss. The owner of the company lives here in Florida and I work with him. The remainder of the people are spread out over the Eastern U.S. from New Jersey to Indianapolis, Indiana to Kentucky. All in all there are just about 12 people in all that work in one capacity or another for the company. There are only 4 employees that work as programmers (including myself), and 3 consultants.

James Nelson 11/./2002

Still in Silicon Valley, working at Juniper Corp.

Scott Puckett 11/23/2002

He is working in North Carolina as an engineer.

Gary Raines 12/./2002

Gary and Marina visited China this year ... had to see the River before it began flooding the Gorge.

Bob Shipman 6/1/2001

He has over twenty five years' experience in Nuclear Counter-Terrorism operations and exercises as well as many years of more benign in-situ environmental radiological measurements and system development. His experience includes progressively more responsible technical and management positions involving domestic and international, classified operational, I'm currently taking classes again and

technical and training support to the United States Government. Areas of particular technical expertise include: Optical, Nuclear and Electromagnetic Remote Sensing, Nuclear Emergency Response, Underwater Nuclear Detection, Gamma-ray Spectroscopy, Health Physics, Radiation Safety, and Intrinsic Radiation from Nuclear Weapons.

Bob has been with Veridian-Pacific Sierra Research as a Senior Scientist since 1995. From 1999 to the present, Bob has been Director of Field Operations for RASA (Radionuclide Aerosol Sampler/Analyzer), responsible for overseeing the fabrication and assembly of automated airborne particulate monitoring systems designed for monitoring compliance with the Comprehensive Test Ban Treaty. He is responsible for all aspects of installation and certification related to setting up and testing these systems in often remote and difficult environments.

Stefan Rusek 12/./2002

Stefan is a Student Missionary this year (not yet an alumnus) in Poland.

David Wheeler 12/21/2002

My Century City [law] practice is going very well. I am involved in some interesting high profile litigation. I also continue my insurance law practice, but as a sole practitioner tend to handle cases against insurance companies.

Jason Wohlers 8/29/2002

helping out on the computers at

Campus Shop, as they have switched to a completely new system. Soon I should be substitute teaching, and in the spring I will be student teaching if all goes well. This will allow me to have my license by summer if the Physics PRAXIS II doesn't give me any problems.

Jason Wohlers again 1/21/2003

Student teaching is going well.

CORRECTION

Esther Kim is at the Medical College of Georgia (Augusta) not at Loma Linda School of Medicine as reported in the last issue.

WHAT'S IN A NAME?

What's in a name ... How about "et al"?
Such a name would provide an amazing publication list even at birth!

CULTURAL NOTE

In Japan, they have replaced the impersonal and unhelpful Microsoft error messages with Haiku poetry messages. Haiku poetry has strict construction rules - each poem has only 17 syllables; 5 syllables in the first, 7 in the second, 5 in the third. They are used to communicate a pithy, timeless message, often achieving a wistful, yearning and powerful insight through extreme brevity. An example:

“Your file was so big.
It might be very useful.
But now it is gone.”

QUOTE FOR THE DAY

"Astronomers say the universe is finite, which is a comforting thought for those who can't remember where they leave things."

--author unknown