New England Section Newsletter

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SPECIAL NOTE --- The Fall 2004 issue of the New England Section Newsletter contains political commentary that is, of course, the opinion of the Newsletter Editor. I want to make it quite clear, in particular, that the New England Section of the APS does not, in any way, endorse any political candidates. Laurence I. Gould, Chair New England Section of the APS

In addition, one section of the newsletter has been removed because it violated APS policy.

2004 Fall Meeting

A Terribly Sad Notice

My Country Versus Me

S's Cat's Personal Haiku

The Cat Puts Words in Other People's Mouths

Murphy's Corollaries With Examples **Continuing Announcement**

My Own Personal Visa

Letters I wish I had sent, received, and favorably acted upon in time

Wheel of Jeopardy

What I heard on public radio

My proposal for a Constitutional Amendment Speaking of the Sox

What I told my kids when they were in high school

The likely occurrence of an unlikely event

Have I covered everything?

Executive Committee

The very last bang

2004 Fall Meeting of the New England Section of the American Physical Society Pratt & Whitney Corporation, East Hartford, Connecticut, October 22 and 23, 2004

The Fall 2004 Meeting of the New England Section of the American Physical Society (NES/APS) will be held at Pratt & Whitney on Friday and Saturday, October 22 and 23, 2004. This convenient location is close to two major arteries that are perpendicular in Hartford, Interstates 84 and 91. P & W is well known for its innovative and commercially successful aerospace products. Thus, the theme *Climate and Flight* is appropriate. The banquet talk *Life After Liftoff - The Moon and Beyond*, by Donald Rethke, a well-known figure in NASA's manned spaceflight program, who developed life support technology and systems for every major program from Apollo to the space station, is also well chosen. Dr. Rethke retired as principal engineer in the Advanced Technology Group of Hamilton Sundstrand Space Systems International. Important warning: By luck (Murphy, have you been here?), October 23 is the only Saturday home football game all month for the UConn Huskies, who play at Rentschler Field, formerly of Pratt & Whitney, *in East Hartford*. It is against Temple, a Big East rival, and it is *Homecoming*. Kickoff time is at the convenience of TV sports schedules and is not yet announced. Thus, with further luck (Murphy, are you still here?), 100 scientists and 35,000 fans will converge.

Please note the timing for Friday afternoon. Registration begins 11 am and the opening speaker is scheduled for 12:30 pm. The reception at 5:30 and the banquet at 7 both take place at the Holiday Inn in East Hartford. This Holiday Inn at 363 Roberts Street, (860) 528-9611, is \$79 a night if you mention NES/APS by September 21. The Wellesley Inn at 333 Roberts Street and the Econo Lodge at 490 Main Street are \$59 a night for the group name University of Hartford.

The Plenary Speaker list for Friday afternoon includes John R. Christy, Director of Earth System Science Center and Professor of Atmospheric Science and Alabama State Climatologist, University of Alabama in Huntsville, on *Global Warming by the Numbers;* Richard S. Lindzen, Alfred P. Sloan Professor of Meteorology in the Department of Earth, Atmospheric and Planetary Sciences of MIT and a member of the National Academy of Sciences and its panel of climate change, on *Consensus Concerning Global Warming and Its Meaning;* Barrett N. Rock, Professor of Natural Resources, University of New Hampshire, on *Climate Change in the New England Region: Lessons Learned From the New England Regional Assessment;* Spencer W. Weart, Director of the Center for History of Physics of the AIP and noted author and editor, who has written two children's science books, on *The Discovery of Global Warming.* Saturday?: TBA.

Contributed talks and posters are welcomed, particularly from students. It is the practice of the Section to reimburse, up to \$100 each, student attendees who submit their expense records at the meeting. For deadlines and all other vital information about submission, pre-registration and meal choices and ordering, plus travel directions and more on lodging, see the website www.physics.ccsu.edu/aps-nes/ . A contact is Beverly Carrier with e-mail carrier@hartford.edu .

Spring 2004 Joint Meeting at Phillips Exeter Academy, March 26 and 27, 2004

The Spring 2004 New England Section Joint Meeting at Phillips Exeter in Exeter, New Hampshire, had the general theme *Space Physics* and covered a large part of the known Universe. The exciting program was given in the spring newsletter, but there were two modifications: *Neutrinos from the Sun* was presented by Cecilia Lunardini, Astrophysics Group of the Institute for Advanced Study, Princeton, because John Bahcall took ill. *Mars: A New Science Frontier Beckons* was presented by Bradley Thomson, Brown University, because James Garvin was testifying before Congress. The original speakers regretted being unable to attend, and the substitutes were absolutely superb and dynamic in filling in. Phillips Exeter is a wonderful school with excellent facilities. A good part of the success of this meeting was that Cynthia Beals, Science Department, dashed energetically to each room and each attendee needing help. She and the other committee members were royal. A fine feature of Exeter is that there are two beautiful inns across the street from the school. At the Executive Committee meeting Saturday afternoon, James Egan suggested that future meetings have online registration and credit card option for payment. I do not know their status.

A final word: *Dark Ambition* is a suspense novel by Allan Topol. Considering the excess of sex and violence, it could have been a lot more fun to read, but it was my companion at several airports while I waited to be frisked and to board late planes. To emphasize the brilliance of a Chinese diplomat, Topol gives him a bridge championship and an undergrad degree in physics. The impressive credentials of a US official include Fulbright Scholarship and graduation from Yale and from Phillips Exeter. (These advantages do not make the characters good people.)

Advance Notice of the Spring 2005 Meeting The Section has received word from Bill Donnelly at MIT. The NES/APS meeting will be held at MIT on Friday and Saturday, April 8 and 9, 2005. The theme of the meeting is *Einstein*, honoring the one hundredth anniversary of his groundbreaking 1905 articles. The year 2005 has been designated *The Year of Physics* by the United Nations and the International Union of Pure and Applied Physics.

A Terribly Sad Notice

University of Connecticut Professor Kurt Haller passed away this spring at the age of 75, after a long battle with cancer. He was in the UConn physics department for almost 40 years. He was one of a few people who foresaw early on that this university could build a very strong physics department, and he worked constantly to achieve it. He assembled what has become a fine high energy theory group. Kurt has had many friends and colleagues among readers of the newsletter, and some may not have heard the sad news of his passing.

I admired Kurt for his achievements, and I loved him for his great wit. One of the things I recall from almost four decades ago is his clever Absolute Value Theory of Economic Success. Mind you, a number of his offbeat ideas outside of physics (inside physics he was on the beat or set the beat) had a deceptive truth about them.

The Absolute Value Theory announced that the success of a company or an entrepreneur in attracting investments, funding, and the like is given by the magnitude of assets or income, independently of sign. Thus, liabilities or losses are as good as their opposites, as long as they are large enough. Since then, we have seen the rescue of Chrysler, the ambiguous triumph of Donald Trump (said to owe billions), and the dotcom bubble before bursting.

Here is the beginning of a story appearing on the Reuters News Service in early August 2004:

"Four more workers at the Los Alamos National Laboratory have been placed on leave because of security breaches, said the laboratory's director Wednesday, adding that the leading U.S. nuclear weapons facility would not be fully up and running for two months. Peter Nanos, director of Los Alamos, did not identify the suspended workers. The four employees placed on investigatory leave bring to 19 the number suspended because two computer disks with classified information went missing early last month. Officials believe they are still at the lab."

My Country Versus Me

This is the title of a very important book. It is the story of Wen Ho Lee, written by him and Helen Zia, describing his activities over years as a valued nuclear engineer with Q clearance at Los Alamos, followed by the loss of his clearance, then the loss of his job, then the loss of his reputation, then the loss of his freedom. It gives the case against him built by the United States government for his alleged spying, lying, disloyalty and treason. Racism runs rampant.

The book also presents the apology to Lee given by Presiding Federal Judge Parker, who had been grossly misled by the prosecution into placing Lee in solitary confinement for being an immediate danger to the United States, as the judge declared Lee a free man. Among Lee's offenses were the same breaches that have gone on for decades up to the week I am writing this. Further charges against Lee were based on trips he took to China, professional and personal, and a number of Chinese and Chinese-American people he met there and back here.

To get the full flavor of what happened to Lee, you should prepare by rereading *The Trial* by Kafka. Entrapment, vague but serious charges, dire warnings and vast forebodings are the lot of Joseph K and Wen Ho Lee. The entire apparatus of government at the highest levels is arrayed against both of these defendants. We may all have to get used to this state of affairs if bigger and better Patriot Acts are enacted and enforced. But an enormous and disheartening difference exists in Lee's case: It was the Clinton Administration that unleashed the hounds. The FBI and other agencies trampled Lee's rights, but a huge swell of support for him came

from pro bono and other attorneys, scientific and engineering societies (APS among them), civil rights groups, and his courageous family. His inner strength stayed with him. In America often justice is at last reached. See, by contrast, *APS Members Urged to Help Jailed Russian Researcher* on page 3 of APS NEWS Aug/Sept 2004, in a case of uncanny similarity but for Russian "justice."

I have to confess that I have been fooled repeatedly by my government. Four years ago I read about the encyclopedic spying case against Lee, as last year I read about the weapons of mass destruction in Iraq. Respected officials, hiding their own agendas, assured the world of the massive evidence. Come to think of it, in both cases the New York Times settled the issues outside of a courtroom. The Times apologized and rolled some heads for playing stooge for the Bushites, but I don't recall whether they made amends for declaring Lee guilty in advance. Well, if a federal judge and the Times swallowed government snakeoil, why shouldn't I? If the FBI shows an interest in you, say these five words: I want a lawyer present. Then shut up. Actually I was visited by the FBI twice years ago, but for questions about young postdocs. The two independently had applied for jobs requiring clearance. So there were the usual queries about loyalty, sobriety and prudence, which went well. Then topics of personal life of the bachelors, as they were at that time, came up. Did they date? Did they like women? If they didn't like women, whom did they like? So whom did they date? Ohhh. I finally got it. I may be dense but not forever. Glad our country is in good hands.

S's Cat's Personal Haiku

You know I can't be In two places at one time. Wait, wait. Yes, I can.

The Cat Puts Words in Other People's Mouths

Now I'll simplicate it for you. I can't be everywhere. I can't defend the borders, the skies, the tall buildings. That's because I'm busy defending your classrooms, your clinics, your bedrooms. I'm on top of things that really matter, your flags, your pledges, your marriages. We'll dig for oil in your backyard, and that will lead to jobs. (Refrain: four more years, four more years.)

An open letter to Martha:

Listen, Mart, so you thought you'd get away with it, didn't you? Taking advantage of your exalted position. Cheating folks who trusted you. Lying to officials and to your public. Egregious behavior and fitting punishment. Stop your whining and take it like a (man?) ...

Former President Clinton Present President Bush Might-Have-Still-Been-Governor Rowland The Super-Patriots of Halliburton Call-It-the-Way-You-Want-It Arthur Andersen The Unindicted Officers of Corporations Mimicking Drano The Companies Firing Employees and Relocating Overseas The Undiscovered Holy Pedophiles and Their Even Holier Protecters O J Simpson

Murphy's Corralaries With Examples

1. The way whatever can go wrong does is maximally frustrating.

Ex: The website for the 2004 spring meeting was given to me with an error in time to appear in the previous newsletter. The correct website was given to me too late to appear.

2. It is useless to apologize to readers as the same thing will happen again.

Ex: That was again.

3. If whatever can go wrong doesn't, it is because it is more wrong for others.

Ex: A half dozen years ago my wife and I traveled from Connecticut to Australia. It was August in a splendid northern summer. Our brief stop in Chicago was extended by several hours' wait on a runway. Our connecting flight in Los Angeles was to depart while we were still in the air. But that flight was delayed several hours, inconveniencing others.

4. Alternatively, if whatever can go wrong doesn't, it is because it doesn't matter.

Ex: Having learned an important lesson, in January of a treacherous northern winter my wife and I traveled from Connecticut to New Zealand. We booked a hotel room in LA for a night to leave us 24 hours to outlast a storm in Chicago or other delay. In ideal weather our plane was on the minute from east coast to west coast. But don't cry for me, Argentina. There are two magnificent Getty museums in LA, where the January temperature is sixty degrees warmer than it is in New England.

My Own Personal Visa

Visa loves me, this I know. Monthly statements tell me so. PDQ

Continuing Announcement

As I stated in the three previous newsletters, this is my final one. I know, I know, it's sad, but I will be happy to assist the next editor. Just tell me who you are. It's a snap, as the national APS office takes care of printing and mailing. There is not much for you to do but to beg for news and then fill the empty pages with your own news and views. I am pleased to assure you that there is still freedom of speech in the New England Section.

The Executive Committee, officers and members-at-large, have been outstanding in their dedication to physics and to you. I want to thank all of them who are serving and who have served in prior years. Similarly, we have been blessed with generous and capable people in the Special Publications Office of APS, who are the link between the editor and the publication that is mailed to thousands in New England and to others around the country. The latest helpful woman in this capacity is Stephanie Jankowsky. (It is always a woman, but I can't think why.) If the editor mails a disk containing the newsletter to Webmaster at APS, then that person puts the newsletter on our APS website. I have done that for a long time and have gotten feedback from distant places. (Peter LeMaire maintains a Section website at CCSU, independently of APS.)

Letters I wish had been sent, received, and favorably acted upon in time

Mein Dear Young Adolph,

As Direktor of the prestigious Munich School of Design, I have reviewed your portfolio of such promising art. Naturlich, your talent needs honing, but that is what we are here for! Do not think of pursuing any other career...

Dear Mr Oswald,

It has come to my attention that your influential organization Fair Play For Cuba (si!) is playing in neighborhoods in the US (no!). Our great leader Castro The Unconvertible invites you to relocate here in Habano. Here is your one-way airfare. Please arrive no later than October...

Wheel of Jeopardy

This is a game where I give you the vowels, only the vowels, and all of the vowels, along with a clue that incorporates a neat twist. One that I posed many issues ago nobody has answered. Really, if you know the answer, send it along.

The greatest woman in French history. Who was _ o _ i _ _ ?

Here are two new ones.

A redundancy. What is $a _ e _ i _ i \circ u _ a _ a _ i _ ?$

The KFC bucket for reactionary Republicans. What are $_i _ __i _ __i \& a _ __o _ e _?$

If you think the way I do, admittedly a far fetch, you'll have no trouble doping these things out.

What I heard on public radio

This was really scary. They actually used the expression "Bush the father, Bush the son,..." So I waited for the third shoe to drop and it did when they spoke with Karl Rove.

My proposal for a Constitutional Amendment

I'm serious about this. The past scares me. The future scares me. The present is this instant that seems ok because I'm happily listening to Mozart and tap-tap-tapping. I propose that no three US presidents can have the same last name in a fifty year span. If there are two already, the third one can't run.

Speaking of the Sox

This airheaded study surfaces from time to time. Since it is filled with (stale) air, it floats. The claim is that cancer patients who were prayed for did better than cancer patients who were not prayed for. The test was multiply blind; no patient knew who prayed or for whom, and so on. Now listen up because I'll say this only once. Nobody prays more than the legions of intense Redsox fans, and nobody prays less, not needing to, than the smug contented Yankee fans.

What I told my kids when they were in high school

It's fair that you know what kind of unfair and unbalanced editor you've had for a dozen years. I'm a welter of prejudices that I should have told you sooner. I told my kids, do what you want except for three things: No cults, no body art, and for the girls one standard puncture per earlobe for a tasteful earring and no other wounds, and for the boy not even that. I said I don't want to have the illustrated woman coming home from college after I shelled out more than \$100,000. Miracle of miracles, they obeyed me all these years. It left a lot of room.

The likely occurence of an unlikely event

One thing non-mathematical people can't fathom is the prevalence of what they call a freak accident. Most accidents are freak, unintended and not even appearing to be a dangerous situation in the making. The fact is the number of unlikely outcomes is much greater than the number of likely ones. The phase space of unlikeliness is vast. Each of 10,000,000 purchasers of lottery tickets is unlikely to win big, but almost always someone does. If you know him, wow! Back to the Sox. Everyone knows what a .250 hitter in baseball is likely to do his next at-bat. You should also know what will happen when the hitter is a Yankee, the pitcher is a Soxer, and the game is on the line. Back to the meeting. 25% chance of a football game and we chose it.

Have I covered everything?

Have I?

NEW ENGLAND SECTION EXECUTIVE COMMITTEE MEMBERSHIP 2004

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The Very Last Bang

I hoped to have some happy news from a member or two, but no one has contacted me. So I will print a picture of a phenomenon you can view in its original. This will not be on disk since I don't know how.

Our recent trips have been sensational, and I recommend them. I have no financial interest in promoting them; all I want is for others to share in

the adventures.

We went to Blachford Lake Lodge in the Northwest Territory, Canada, last summer. Below is their view of a winter aurora. Needless to say, (short) summer and (long) winter are vastly different there, both with their attractions and with their challenges getting there. Also last summer we rafted across the Arctic Circle in Nunavut Territory, Canada, guided by Nahanni River Adventures. (NRA has a different meaning there.) The wildlife and wild water are dazzling.

A month of winter we spent in New Zealand, a country as spectacularly beautiful as it appears in *Lord of the Rings*. It was their summer and mostly fine weather. If you go, as we will do again in a few months, do cave rafting in an inner tube, and tramp the Routeburn Track from lodge to lodge. Most activities were arranged by Black Sheep Touring. We did not do the bungy jump.

This summer we spent a month in Montana and Alberta, including a week in the Pine Butte Guest Ranch of the Nature Conservancy, on the Rocky Mountain Front where prairie meets mountains. At the 49th parallel, which runs through Glacier/Waterton International Park, the early July night does not fall until 10:30 pm. Go there while there are still glaciers.

New England Section Home Page

Units Home Page

APS Home Page