

Particle Post December 2006

Perhaps the best Yuletide decoration is being wreathed in smiles.

~Author Unknown

To review previous issues

A Note From Our Chairman



The holiday season has begun and I would like to wish everyone and their families a joyous Christmas, Chanukah and Kwanzaa, and especially a Happy and Healthy New Year. Please don't forget that everyone is invited to the C-AD holiday brunch on December 20 in the 911 lobby.

I am delighted to congratulate the following four C-AD recipients of BNL employee awards:

Michael Blaskeiwicz - Science & Technology Award

Gary McIntyre - Engineering Award

Alexander Pendzick - Engineering Award

Stephanie LaMontagne - Brookhaven Award

These awards recognize the outstanding accomplishments of four of our colleagues to the mission of the Collider-Accelerator Department.

In regards to the new fiscal year, our do-nothing Congress has yet to pass the Energy and Water Bill. It looks like we will have to wait for the next congressional session in January. The DOE guidance for this interim period is somewhat confused and we are trying to see our way through to a startup of the cryogenic system as soon as possible.

I would also like to express the Department's condolences to the Pile family and Lisa Pile Larsen on the untimely death of their son-in-law and husband, Kevin.

Administration



The news is: there is no new news. The Nuclear Physics Program Office has provided budget guidance of \$113.5M for the current year. Although this is \$2.2M less than the Presidential Budget, the current plan to begin the cool down on January 2nd and operate for 26 weeks is financially feasible.

At the moment, we are operating under a Continuing Resolution which provides funding of \$19.9M through December 8th. Funds of \$4.3M carried over from FY 2006 bring our available funding to \$24.2M. It is anticipated that the Continuing Resolution will be extended for an, as yet, undermined period of time, and an additional installment of funds will be provided to sustain us through the interim period.

Our November expense data is complete and, as requested, RHIC Operations expense reflects significantly reduced levels of overtime and minimal expenditures for low value purchases, including stores issues and credit card procurements. Total RHIC operating expense through November 30th was \$14.6M; commitments total \$5.8M. Spending on E-Cooling R&D has been constrained as well, and EBIS Project personnel are looking forward to a final budget which will authorize the use of DOE construction funding.

As we await more definitive budget news, I remain cautiously optimistic.

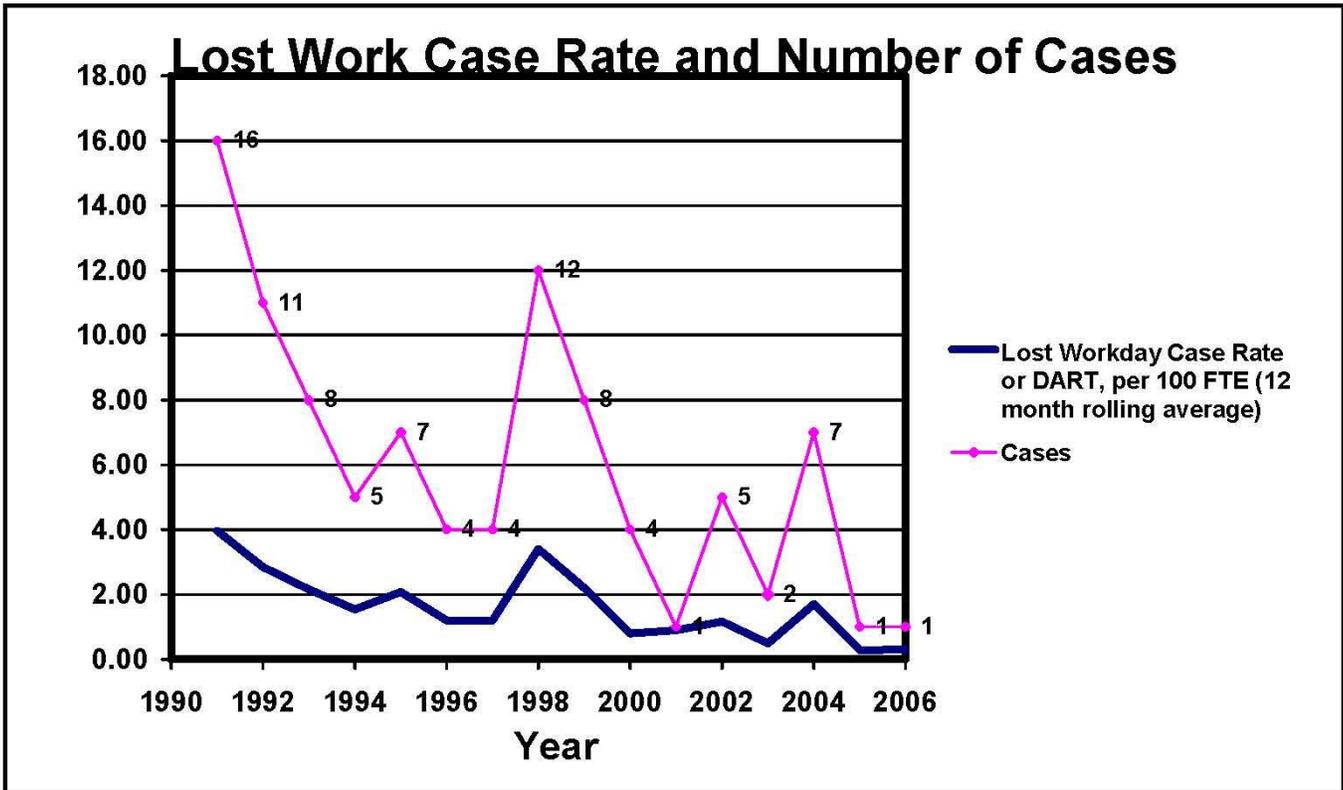
Machine Update



With the present uncertainty about the beginning of the RHIC run, the present challenge for machine operations being ready to go as soon as budget circumstances allow it, yet at the same time using the time for possible system work and improvements.

The work planned for the summer shutdown have been largely completed and an analysis of work practices and results will be performed this month. Preparation for the RHIC and injectors run is in progress. A software and applications dry run has been successfully completed in November. Another one will be likely necessary if the date for startup of RHIC cool-down extends beyond the presently planned January 2nd. Organized studies to improve polarization and the model capabilities of both RHIC and the injectors are in progress too, as well as preparation for APEX. The extra time available has opened the possibility of scheduling individual system improvements, as well as implementation of improved operational procedures.

Safety Stats



C-AD Occupational Injury Statistics

For Year* 2005 For Year* 2006

First Aid Cases	1	0
Recordable Cases	4	5
Lost Work Cases	1	1

* Calendar Year

REMINDER: TLD exchange is done the FIRST FRIDAY of the Month.

NEXT EXCHANGE: Friday, JANUARY 5, 2007

Pete Cirnigliaro



Departure

Ahmed Sidi Yekhlef, Cryogenic Systems Group will be terminating effective December 6.



Get To Know Your CoWorker

Alexei Fedotov has worked at the Laboratory for over 7 years now. He started with the SNS Project (Spallation Neutron Source) then moved over to the Electron Cooling Group working on RHIC-II upgrade and other Accelerator Physics projects related to RHIC. Alexei started to work in Accelerator Physics 16 years ago in BINP (Novosibirsk, Russia). He earned his Ph.D. in Accelerators Physics from the University of Maryland. Alexei and his wife Yulia have been married for 14 years and have 2 children; Katya 4.5 years old and Anya who is 4 months. Katya speaks Russian, English, and is learning Spanish. Anya is yet to make up her mind which language to speak. Yulia is working for Harman International. Alexei and his family like to travel and spend time outdoors.





Nancy Boyle, Administration, has been working for BNL for 7 months now. Nancy prepares budgets and monthly financial status reports for superconducting R&D, LARP and miscellaneous AM projects. Nancy and Brian (who now works for NSLS) have been married for 18 years and have 3 children. Kristin (14) works at McDonalds and wants to be a math teacher; Diana (12) is on the JHS volleyball team and Brian (9) is playing PAL basketball. Nancy enjoys reading, crafts, and cooking. The family loves to go on vacation in Myrtle Beach, SC and they spend a lot of time going to their children's various sporting events.

Did You Know?



Mike Sivertz, NSRL, a Canadian became a US citizen on Tuesday, November 21st.

Congratulations Mike!!

From: Parrish, Sabrina L

Sent: Tuesday, November 14, 2006 1:25 PM

To: CAD Personnel List

Subject: Re: Larry Leipuner

This message is being forwarded on behalf of Bill Morse

Larry Leipuner, a long time member of the Physics Department, passed away last Saturday from complications from a triple bypass operation. We will have a memorial symposium in his honor in the Physics Department early next year. His family will be sitting Shiva Tuesday through Thursday afternoons and evenings at his daughter Betsy's house at 7 Upper Cross Way, Shoreham, NY.

Checked out with snopes and found to be true -

<http://www.snopes.com/inboxer/nothing/free411.asp>

No charge for directory assistance

Phone companies are charging us \$1.00 or more for 411 / information calls when they don't have to.

When you need to use the 411 / information option! ,
simply dial 1-800-FREE-411 or 1 800 373 3411
without incurring a charge.

Works on home phones and cellphones.



Todd Satogata, Accelerator Division, became a grandfather on November 24. Alexis Marie Cappel was born at 6:00 pm weighing in at 8 lbs 11 oz and her parents are all healthy and happy. Todd is bursting at the seams!
grin **Congratulations Todd!!**

ALL:

Dr. Garman Harbottle, BNL, will give a talk (December 13, 2006) on the subject topic at the next Long Island American Nuclear Society (LIANS) dinner meeting. Please reserve by calling Arnie Aronson at 344-2606 and leave a Voice Mail message.

TIME: 6:00 Complimentary hors d'oeuvres/cash bar
 7:00 Dinner with salad, desert, and beverages
 8:00 Speaker

PLACE: Brick House Brewery and Restaurant
 67 W. Main St.
 Patchogue, N. Y.
 (631) 447-2337

COST: \$22.00/person

NOTES ON THE TOPIC

“The Vinland Map: Could It Be Real After All?”

The story of the Vinland Map, housed in the Beinecke Library of Rare Books and Manuscripts at Yale University, was recently dramatized on “NOVA” (“The Viking Deception” WGBH 2005). The map was the magnificent gift of Paul Mellon to Yale University in 1965, and motivated a masterful academic study of its meaning and authenticity by Skelton, Marston and Painter. This study concluded that the map was authentic, dated to the Council of Basle in the 1430’s and was of supreme cartographic importance.

The Vinland Map achieved instant notoriety and world-wide attention for it contained a representation of what was apparently the Northeast coast of North America, a new account of the Viking voyages of discovery, and much new cartographic information drawn from early European expeditions to the Far East and Mongolia. And it presumably dated 50 years before Columbus!

Controversy concerning the authenticity of the map erupted at a meeting in 1966 convened by the Smithsonian Institution to discuss the historical, literary, linguistic, paleographic, and codicological evidence related to its provenance and origin. The meeting reached a consensus that the map ought to be subjected to scientific scrutiny in order to have unbiased information on its authenticity. On February 10, 1972 the Yale University Library retained Walter C. McCrone Associates of Chicago to “make a chemical analytical study of the map.”

Between 1972 and 1974 McCrone Associates examined a total of 29 microparticles, including 16 of ink from the Vinland Map, and in 1974 reported to Yale that the ink contained a commercial pigment, anatase, only available after 1920. In 1974 Yale announced that the map was “probably a modern forgery.”

This lecture critically examines the archaeometric research leading to, and testing, this conclusion.

Thanks

Ed Sierra

President, LIANS

344-4080

From: Maraviglia, John
Sent: Tuesday, December 05, 2006 3:21 PM
To: CAD Personnel List
Subject: Tips for Snow Shoveling

(This applies at home, and to workers who may be expected to shovel snow in the workplace for their own safety.)

Tips for Snow Shoveling*:

Avoid caffeine or nicotine before beginning. These are stimulants, which may increase your heart rate and cause your blood vessels to constrict. This places extra stress on the heart.

Drink plenty of water. Dehydration is just as big an issue in cold winter months as it is in the summer.

Dress in several layers so you can remove a layer as needed.

Warm up your muscles before shoveling by walking for a few minutes or marching in place. Stretch the muscles in your arms and legs, because warm muscles will work more efficiently and be less likely to be injured.

Pick the right shovel for you. A smaller blade will require you to lift less snow, putting less strain on your body.

When snow is deep, shovel small amounts at a time.

Lift with your legs not your back. Bend your knees and keep your back as straight as possible so that the lifting comes from your leg muscles, not your back. Never bend at the waist. Step in the direction that you are throwing snow. This will help prevent the lower back from twisting and will help alleviate any back soreness that you might typically experience the day after a hard shoveling job.

Try to push snow rather than lifting it.

Create some distance between the hands. This will give you more leverage and make it easier to lift snow.

Listen to your body. Stop if you feel pain or observe heart attack warning signs. These may include chest pain as well as shoulder, neck or arm pain; dizziness, fainting, sweating or nausea; or shortness of breath. If you think you're having a heart attack, seek medical help immediately.

Take frequent breaks.

Be aware that cold air makes it harder to work and breath, which adds some extra strain on the body.

Do not shovel after eating or while smoking.

If you are inactive and have a history of heart trouble, talk to your doctor before you take on the task of shoveling snow.

*** References**

**Excerpts from:
National Safety Council
Surgeon General**



*We wish all of you born in **DECEMBER**
a happy and healthy year ahead.
Birthday people ONLY click on cake*



Happy Birthday Rama!!



C-AD Service Awards November

35 years

Joseph Skelly

30 years

John Barry

25 years

Philip Pile

Congratulations to ALL!



Fun Time

Test your wit on holiday trivia by clicking [HERE](#).

From: Carter, Christine B
Sent: Tuesday, December 05, 2006 8:47 AM
Subject: BERA Trips & information~please pass on to those without email.

**BERA HOLIDAY PARTY \$35 12/15/06 at
Brookhaven Center**

This will be a GREAT party!



Toy Drive for Brookhaven Town Interface!

Please drop off new/unwrapped toys at the BERA Store!



See attachments for great trips & events!



Holiday Auction to benefit United Way at Berkner this Wednesday & Thursday

Christine B. Carter

Quality of Life/BERA/Recreation Supervisor

email ccarter@bnl.gov

www.bnl.gov/bera



United Way Holiday Auction Yard Sale



Berkner Lobby

**December 6th and 7th
11:00am – 2:00pm**

Drawing will be held on
December 7th at 2:00pm
(Winners will be contacted,
you DO NOT need to be present)

100% of proceeds to be donated to the United Way



BERA Presents The

2006 Annual BERA Holiday Party



~Get Your Dancing Shoes On~



**Friday December 15, 2006
5:30-10:30pm at The Brookhaven Center
North & South Rooms**

\$35 per person

**Includes Hors D'oeuvres, Dinner Buffet,
Coffee And Dessert,
3 Hours open bar with
Beer, Wine & Soft Drinks**

~DJ Dancing~

Door Prizes & More!

Tickets are available at the BERA Store
Monday -Friday 9am-3pm
Tickets must be purchased by Monday 12/11/06

United Nations Luncheon & Tour
Monday, January 15, 2007 (Martin Luther King Lab Holiday)
\$45pp includes luncheon in the Delegates Dining Room & a guided tour. Bus will leave Brookhaven Center at 9am and leave NYC at 5pm. Age 15 & over ONLY. Photo ID required. Dress code: men must wear jackets, no jeans, sneakers or shorts.

BERA events for 2007

Momma Mia
Saturday, March 24, 2007
Tickets are \$74pp orchestra, 2pm show at the Winter Garden Theatre, 1634 Broadway. The bus will leave Brookhaven Center at 9am and leave NYC after the show, approximately 4:15pm.

Motorcycle Show at the Javitz Center, NYC
Sunday, January 21, 2007
Bus will leave Brookhaven Center at 8:00am and leave Javitz Center at 4:00pm - \$20pp
The NY International Motorcycle Show exhibits the latest motorcycle models and accessories including apparel, ATV accessories, fairing and parts, goggles and eyewear, helmets, leather, novelties, off road products, parts and performance products.



Philadelphia Flower Show
Saturday, March 10, 2007
Bus will leave Brookhaven Center at 6am and leave PA at 5pm. Cost is \$25pp.



*YOU ARE CORDIALLY INVITED TO
ATTEND THE
COLLIDER-ACCELERATOR DEPARTMENT'S
HOLIDAY OPEN HOUSE*



WEDNESDAY, DECEMBER 20, 2006

**BUILDING 911 LOBBY
9:00 - 11:00 a.m.**

Breakfast foods will be served.



**Season's Greetings to all,
It's getting to be that time again.....If you
know of anyone who would like to attend
but does not have email, please share this
information with them.**

**JOIN US FOR THE ANNUAL
HOLIDAY BAGEL Etc. PARTY!**

**It will be held on
Friday
DECEMBER 22, 2006
in the
2nd FLOOR DESIGN RM
(of Bldg 911)**

**9am to 10:30am
RSVP and \$5.00 due to
Kathy Brown - X4756/Rm 241D
Cindy Longo - x4758/Rm A212
by Friday December 15th**

**I'll be on vacation from Dec 6th to 11th, so
you can RSVP and pay Cindy Longo during
that time.
Hope to see you all there!!**



**ALUMNI NEWS: AGS/RHIC/C-AD RETIRED CROWD - We'd enjoy hearing from you and
what you have been up to. Please send your notes to pmanning@bnl.gov**

number: 06-119

For release: November 13, 2006

**contact: Diane Greenberg, 631 344-2347, greenb@bnl.gov, or
Mona S. Rowe, 631 344-5056, mrowe@bnl.gov**

Brookhaven Lab's Eric Forsyth Honored by the Institute of Electrical and Electronics Engineers, Inc.

UPTON, NY -The Institute of Electrical and Electronics Engineers, Inc., (IEEE) has chosen Eric Forsyth, a

retired electrical engineer and former chair of the Accelerator Development Department at the U.S. Department of Energy's Brookhaven National Laboratory, to receive the 2007 Herman Halperin Electric Transmission and Distribution Award.

The \$5,000 award is funded by Herman and Edna Halperin and administered by the IEEE Foundation, Inc. Herman Halperin, an award-winning IEEE member who had a 40-year career with Commonwealth Edison Company, was noted for his pioneering contributions to the design and operation of electric plant facilities and power cable systems.

"I am pleased to be recognized for this award," Forsyth said. "More than 20 years ago, my team and I at Brookhaven designed and built the most advanced, high-powered superconducting power transmission cables that have ever been developed to this day. I am glad to see the technology developed at BNL has found commercial application."

From 1972 to 1986, Eric Forsyth was in charge of Brookhaven Lab's Power Transmission Project, a program to develop a viable and cost-effective means of transmitting large amounts of electrical power underground. Brookhaven researchers fabricated a thousand feet of underground superconducting power transmission cable. Brookhaven's cables are made primarily of niobium-tin, a superconducting compound that has almost no electrical resistance when cooled to almost absolute zero - minus 459 degrees F. Cooling of the cable was accomplished with a helium refrigerator. Brookhaven's superconducting cable was able to carry about five times more current than conventional cable.

In eight test runs, the prototype superconducting cable proved to be extremely rugged and durable. Each 100-meter-long cable was capable of carrying over 600 megavolt amperes: the power output of a medium-sized nuclear reactor. No other project employing superconductors for power transmission has ever operated at the high power levels or for the length of time achieved in the Brookhaven project.

The Laboratory's pioneering project demonstrated that superconducting cable is a viable technology. Several comprehensive studies in cooperation with electric utility companies refined the technical design to optimize costs. A landmark study conducted by the Philadelphia Electric Company concluded that the Brookhaven design was the most cost-effective among sixteen options.

With funding from the U.S. Department of Energy, the Long Island Power Authority (LIPA), AMSC - American Superconductor Corporation, and two European companies - Nexans and Air Liquide - have developed superconducting cable using a type of high-temperature superconductor discovered after the Brookhaven project was terminated, permitting the use of nitrogen as a refrigerant. Using this new technology, one of the world's first high-temperature superconductor power cables is now under construction in part of the LIPA transmission grid located in Holbrook, Long Island. The underground cable will be capable of powering 300,000 homes, and its commissioning is expected in 2007.

Eric Forsyth received bachelor's and master's degrees in electrical engineering from Manchester University, England, and the University of Toronto, Canada, respectively. He joined Brookhaven Lab in 1960 as an assistant engineer, was promoted to electrical engineer in 1969, and was appointed manager of the Power Transmission Project in 1972. In 1986, he became chair of the newly formed Accelerator Development Department, which was responsible for various accelerator projects, including the pre-construction design and planning of the Laboratory's largest accelerator, the Relativistic Heavy Ion Collider (RHIC).

Forsyth took a leave of absence from Brookhaven in 1990 and returned on a part-time basis in 1992, working on RHIC design. After retiring in 1995, he has sailed extensively, including two circumnavigations around the world and cruises to the Arctic, Antarctic, and the Baltic. At present, he is in the middle of another cruise to Antarctica, which he plans to reach in January 2007.

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http://www.bnl.gov

You can catch up on all of **Eric Forsyth's** travels by clicking on his sailing yacht below



December 2006

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					1	2
					Physics Colloquium "PASER: Particle Acceleration by Simulated Emission of Radiation", Levi Schachter,	

					Technion, 3:30pm, Large Seminar Room, Bldg. 510	
3	4	5	6	7	8	9
			C-AD Accelerator Physics Seminar "The International Neutrino Factory Design Study", Dr. Ken Long, Imperial College, 3pm, Snyder Seminar Room, Bldg. 911A			
10	11	12	13	14	15	16
				Blood Drive 9:30am- 3pm Brookhaven Center	2006 BERA Holiday Party	Happy Hanukkah
17	18	19	20	21	22	23
		C-AD Accelerator Physics Seminar "Crab Cavities for LHC IR Upgrade", Dr. Rama Calaga, LARP/BNL, 3pm, Large Conference Room, Bldg. 911B	420 th Brookhaven Lecture "Physics and Neuroscience: Common Ground Between Disparate Fields" Paul Vaska, Medical Dept., 4pm, Berkner		1/2 Day Holiday	

24	25	26	27	28	29	30
31	Season's Greetings	Happy Kwanzaa				



January 2007

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	1 Holiday	2	3	5	5	6
7	8	9	10	11	12	13
14	15 Holiday 	16	17 Brookhaven Accelerator Forum "Neutrino Factory and Muon Collider R&D: Status and Plans" Mike Zisman, LBL, 2pm, Berkner, Rm. B 421 st Brookhaven Lecture "Practice of Color at RHIC" Zhangbu Xu, Physics Dept., 4pm, Berkner	18	19	20
21	22	23	24	25	26	27

28	29	30	31			
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Remembering
Sept. 11, 2001

Editor: Pamela Manning x4072

