

We Did It!



With the budget packed up and ready to go, those who prepared it can sit back and catch their breath. From left to right are: (foreground) Grace Dryden, Budget Officer Hank Grahn, Helen Caisey, (center) Bob Von Hollen, Assistant Budget Officer Bob Baldwin, Ellie Murgatroyd, (rear) Donna Earley and Gerry Blackford.

Lab Budget Is Sent On Its Way

Preparing the Laboratory's budget this year was a task not to be reckoned with. Not only did it require many hours, but a never-ending supply of paper as well.

Unlike previous years, the Lab did not only have to submit one compact two-year budget to a single agency. Because of the reorganization which divided the AEC into the Energy Research and Development Administration (ERDA) and the Nuclear Regulatory Commission (NRC), the Lab had to send two separate budgets to two agencies.

Because the government fiscal year is being changed from July 1 - June 30, to October 1 - September 30, the Lab also was required to prepare another budget for what is called "the transition period." This period is the three months between June and October of 1976. A transition period budget had to be sent to both ERDA and the NRC. In essence, the Budget Office had to prepare several budgets in the same amount of time that they normally prepare one.

The Lab has requested a total of \$82,214,000 in operating funds for FY 1976 and \$102,332,000 for FY 1977.

The basic budget consists of 2825 pages, a 43 percent increase over last year. Due to the number of copies required the total number of pages printed amounted to 207,830, a 97 percent increase over last year!

Because of the broadened responsibilities of ERDA, the Lab this year submitted many new kinds of proposals, primarily for energy-related research, said Budget Officer Hank Grahn. Also, a number of new construction proposals were included in the budget request for FY 1977.

A proposal for the Intersecting Storage Accelerator (ISABELLE) was improved and re-submitted this year, as were new proposals for other major research facilities. Included were proposals for a variable energy cyclotron for the nuclear medicine program, upgrading of the power flux of the HFBR, a deuteron linac intense neutron generator for CTR materials irradiation programs, and a synchrotron radiation research facility which is a dedicated high intensity photon source extending from the ultra-violet into the hard x-ray region to serve a diverse group of users.

An environmental and health sciences building is being proposed, which would permit the centralization of interdisciplinary environmental sciences programs conducted in several departments.

Due to this year's hectic schedule, the Budget Office started putting in overtime hours during the second week of February. They worked nights and Saturdays to get the budget out.

"Henry Grahn and his staff in the Budget Office have performed a heroic job of getting all this material together in a very short time to make the strongest possible case to the sponsoring agencies for funding of our ideas. The whole Laboratory is indebted to this small group," said Laboratory Director George Vineyard.

The mood in the Budget Office during the preparation of the budget is captured in the following poem written by Helen Caisey, who has worked there as a secretary for 14 years and will be promoted to Budget Analyst in July.

This change, that change, what a day!
Fiddling with numbers, no time to play.
Sometimes I think I'm going to quit.
Why won't these doggone numbers hit!

Blue pencil, red pencil, take your choice.
Temperatures rising, but never the voice.
"Be cool, be calm," the boss so sayeth,
And once again we all obeyeth.

Calculators humming - there seems no end
To all the noise, but then again,
Sometimes it gets a bit too quiet.
We cannot work without a riot.

Telephones ringing the whole day through.
Not one smiling face, everyone's blue.
"We don't have 1,000-what else can we do,
OK, fella, and the same to you."

You miscalculated, the numbers are clear,
You're busting your budget head the end
of the year.

We can't bail you out, our hands are tied.
Don't be discouraged, at least we all tried.

Sometimes we're driven just short of drink.
On payday, it's all worthwhile, we think!
At times we're not sure of the
above two lines,
But we're used to working
with the dollar signs!

Cotzias Leaves After 22 Years

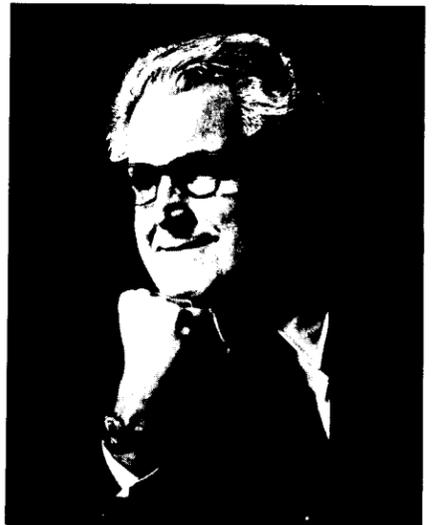
This summer, Dr. George Cotzias will end his 22 years of work at Brookhaven National Laboratory to begin a new series of ventures in New York City. He has been head of the Physiology Division of the Medical Research Center since 1955.

In an interview with the *Brookhaven Bulletin*, Dr. Cotzias said he plans to establish a Parkinson's program at Rockefeller University, a cancer clinic at Sloan-Kettering's Memorial Hospital and a research laboratory at the Cornell University Medical College at New York Hospital.

In December, 1972, Dr. Cotzias developed cancer and became terribly ill following the removal of part of his lung. A need to be close to his physicians at Memorial Hospital in New York City prompted his decision to move there.

During the last two decades, Dr. Cotzias' work has centered on the pathology and physiology of the catecholamines and of the trace metals, particularly manganese. The results of his work have led to treatments that improve the condition of patients with three previously intractable neurological conditions: Parkinson's disease, Huntington's chorea and manganese poisoning, suffered by workers in manganese mines.

An editorial in the *New England Journal of Medicine* once described Dr. Cotzias'



Dr. George Cotzias

work on Parkinson's disease as "the most important contribution to medical therapy of neurological disease in 50 years." In 1969 he was awarded the Albert Lasker Award for clinical medical research. Dr. Cotzias and his colleagues were cited for "the dramatic demonstration that large, daily doses of L-dopa can reverse most of the crippling effects of Parkinsonism."

With the impending departure of Dr. Cotzias from the Laboratory, the Parkinson's program has been discontinued. The Parkinson's patients in the Hospital and those who have been coming to the Lab for treatment over the years have been referred to other physicians.

"I think it is a loss to the area that the Parkinson's program does not exist anymore, but the hypertension program is definitely more important than ours, and there will also be other uses for the Hospital," said Dr. Cotzias.

Commenting on Dr. Cotzias' departure from the Laboratory, Medical Department Chairman Eugene Cronkite said, "The cessation of the Parkinson's disease program is a loss to Suffolk County. However, the Parkinson's treatment center in New York City will be available to a much larger number of patients. The Hospital of the Medical Research Center will continue its existing clinical programs in hypertension, osteoporosis, nuclear medicine and hematology. Hospital usage will expand in the coming months with development of a clinical program in pulmonary diseases in support of ERDA's commitment to development of basic and clinical research aimed at an understanding of the effect of atmospheric pollutants on the lungs of man."

Six other members of the Medical Department will be going with Dr. Cotzias into the City, but they will maintain the title of Research Collaborators at BNL. Dr. Paul Papavasiliou will be the director of the Parkinson's clinic at New York Hospital. Dr. James Ginos, Samuel Miller, Lily Tang and Marvin Rorick will establish, with Dr. Cotzias, a research Laboratory located at Cornell University Medical College. The laboratory will be housed in a building previously owned by the Muscular Dystrophy Institute.

With the help of a nurse-practitioner, Dr. Cotzias will run an outpatient clinic for cancer patients at Memorial Hospital in which Levodopa will be given. He also plans to start up a research program in Parkinsonism at the Rockefeller University in which patients will be studied while residing at the University.

According to Dr. Cotzias, programs in cancer and Parkinson's research are not too different. When L-dopa was given to animals with cancer they stopped developing cancer, and they lived much longer than animals not receiving L-dopa. "In Parkinsonism we are investigating cells of the brain talking to other cells of the brain, whereas in cancer patients we will be investigating cells of the brain talking to cancer cells. The "language" which we will be studying is the same, but it will be addressed to a different tissue. The technology and the drugs are the same," said Dr. Cotzias. "We simply apply a central set of ideas and techniques to more than one problem." He believes that he will be learn-

(Continued on page 2)

Chasing Neutrons

"Where Did the Neutrons Go?" is the title of the 129th Brookhaven Lecture to be presented by Walter Kane on Wednesday, June 18, at 8 p.m. in Berkner Hall.

Kane is a member of the Neutron Nuclear Physics Group in the Physics Department. The activities of the group center around the capture of slow neutrons by nuclei as a means of studying nuclear properties. During the lecture Kane will describe the neutron capture reaction, its similarities and differences with charged particle reactions, and the extent and limitations of this technique as a tool for studying nuclear structure. A number of examples of investigations of nuclear structure will be presented.

Kane started working at the Laboratory as a Research Associate in 1958. In 1966 he



Walter Kane

became a Physicist. Until two years ago he collaborated with Gertrude Goldhaber in the field of nuclear structure. In 1973 he joined the Neutron Nuclear Physics Group. Most of his work is done using the HFBR.

Kane received his B.S. in physics from Stanford University, his M.S. from the University of Washington and his Ph.D. from Harvard University.

Prior to coming to Brookhaven he was a physicist at the National Bureau of Standards, a staff member at Los Alamos Scientific Laboratory and a physicist at the Avco Manufacturing Corporation. Kane is a member of the American Physical Society.

He resides in Bellport with his wife Margaret and daughter Katherine.

A buffet supper will be served at the Brookhaven Center before the lecture beginning at 6 p.m. Reservations should be made in advance by calling Ext. 3541 before 5 p.m. Refreshments will be available in the lobby of Berkner Hall immediately after the lecture.

Help Stop Accidents



Captain Ernest Eichler indicates that the traffic sign at the intersection of Rochester Street and Bell Avenue has been changed from a "YIELD" sign to a "STOP" sign. The sign requires drivers travelling on Rochester street to come to a full stop before venturing across Bell Avenue. This intersection has become the most hazardous on site. In the last 18 months there have been three major motor vehicle accidents here, caused by drivers not yielding to cars travelling on Bell Avenue. The latest accident occurred two weeks ago, during which Annamaria Vasquez, Medical, suffered a broken rib and various other injuries. Within a week following this accident the sign change was made. Drivers who do not obey the stop sign will receive summonses from the Laboratory Police. The Laboratory Police are the law enforcement agency on site and should be treated with the same respect as any other law enforcer. This is particularly true when a laboratory police car has its flashing red light on. This usually indicates an emergency and drivers should pull over and allow the vehicle to pass.

Expanded Bus Service

The Tide Transportation Corporation, in conjunction with the Suffolk County Department of Transportation, has expanded its schedule which will improve the public transportation available to and from the Laboratory.

Tide will service the communities of Shirley, Medford, the Mastics, Yaphank, Ridge, Middle Island and Rocky Point. The route begins at Main St. in Rocky Point and ends at the Smith Point Bridge at Fire Island. Buses will go to the following locations: Smithaven Mall, Fire Island National Seashore (nine times daily), Brookhaven Lab, Yaphank Lake, Industrial centers, shopping centers, banks, movie theatres, connections with other major bus routes and the William Floyd Parkway (north-south runs on a per hour basis).

Free transportation will be offered to residents of the communities serviced by the bus line on Friday and Saturday, June 20 and 21.

Buses will leave the Lab going southbound, toward Route 25, at 10:07 a.m., 10:42 a.m., 11:47 a.m., 1:02 p.m., 2:57 p.m. and 4:47 p.m. Northbound buses, headed towards Route 25A, will leave the Lab at 9:25 a.m., 11:30 a.m., 12:34 p.m. and 2:29 p.m. Additional stops and routes will be added if there is enough passenger demand. Riders should be aware that the bus runs on Monday through Saturday only.

Schedules are available in the Transportation Office. Complete information regarding schedules and connections with other bus lines is available from Tide Transportation, 281-6660 or 269-4939.

Selected Reading

- Amer. Sci. 63, May-June 1975
The polarizing effect of group discussion. D.G. Myers and H. Lamm. 297-303
- Bull. At. Sci. 31, June 1975
Verifying the theory of relativity. S. Chandrasekhar. 17-22
- The hidden cost of saying no. F.J. Dyson. 23-7
- The paradox of technology transfer. D. Goulet. 39-46
- Newsline 6, May 1975
Rev. of the Lawrence Livermore Lab., 1975. 1
- Rev. Oak Ridge Nat. Lab. 8, No. 2, 1975
Poster sessions information meetings: The hot medium. B. Lyon. 9-13

Arrivals & Departures

Arrivals

- Konrad P. Kotrady.....Medical
- Stephen F. Lenski.....App. Math.

Departures

None

Math Class Substitution

Operations Research II, MSA 538, will not be taught in the '75 Fall Term of the Stony Brook/BNL extension program, as was announced earlier in the year.

Complex Analysis, MSA 503, will be substituted in its place. It is scheduled to meet on Wednesdays from 5:30 to 8 p.m. Those interested in the class should call Mrs. Esther Weitzman, Department of Applied Mathematics, SUNY Stony Brook, at 246-5967 to register.

Dr. Cotzias (Continued)

ing from one, more about the other much in the same way that chronic manganese poisoning was studied in parallel with Parkinsonism.

Dr. Cotzias plans to spend each morning visiting Parkinson's patients at Rockefeller University Hospital. One day a week he will be at the Parkinson's clinic at New York Hospital and another day a week he will be running the cancer clinic at Memorial Hospital. He will devote the rest of his time to research at the new laboratory.

Dr. Cotzias will maintain his home in Bellport, where he and his wife will be spending weekends. In this way he can continue his 30-year collaboration with Dr. Lewis Dahl at Brookhaven. "This is the first time since the War that Lew and I will be in different towns," said Dr. Cotzias.

In moving to New York, Dr. Cotzias will inherit a long list of titles. He will be Professor of Neurology at Cornell University Medical College, Attending Physician at both New York Hospital and Memorial Hospital, Special Assistant to the President of Sloan-Kettering Institute, Visiting Physician at Rockefeller University Hospital and Adjunct Professor of Neuroscience at Rockefeller University.

Model-T Reaches Greater Heights

A superconducting dipole magnet, affectionately called the "Model-T," was successfully tested to a magnetic field of 60 kilogauss (kG) last week. This is the highest field ever achieved by an accelerator-type superconducting magnet.

The Model-T is the second generation offspring of the extremely successful 8° superconducting bending magnet which has been operating in the north beam area of the AGS since October, 1973. It is the first of its kind to be used in a primary proton beam.

The new feature of the Model-T is that it is a pulsable magnet. It can be pulsed from a magnetic field of zero to 60 kG in a matter of seconds without significant effect on the refrigeration system. The normal pulsing rate is 12 seconds. The Model-T is versatile enough that it can be used in a pulsed accelerator, like the AGS, or as a dc magnet in a beam transport system, such as the 8° magnet.

The Model-T is the brain child of the Magnet Study and Cryogenic Facility Group of the Accelerator Department. Members of the group are: Gordon Danby, Joe Allinger, Al Prodell, John Jackson, Jack Weisenbloom, Mike Iwantchuk, George Stenby, Erno Ostheimer, John Markott, Bill Adams, David Hsieh and Herb Hildebrand.

Work on the one-meter long Model-T began last fall. Bits and pieces from other magnets were used to build it. The coils were wound with remnants of a niobium-titanium composite wire left over from the construction of the 8° magnet. Because they were remnants, the wires had to be spliced together eight times. The magnet iron around the coils was a core from another magnet, modified by two T-shaped iron inserts, from which the magnet derives its name.

During the initial testing there was some concern whether the magnet iron would be able to withstand the 3000 pounds per square inch of pressure exerted on it at 60 kG. When the magnet reached 45 kG, all testing was stopped and a small piece of magnet iron was mechanically stressed at very high pressures. When it survived the stress tests, the testing of the Model-T resumed.

The 60 kG Model-T was instrumented to measure the quality of the magnetic field at different field levels. The shape and quality of the field remains the same, within one part in 10,000, when the magnet is pulsed to different field levels.

The group plans to make further tests and evaluations of the magnet's performance at even higher fields, as part of a broader program to study the properties of superconducting materials and magnets.

French Chamber Music

The first concert of the summer season will be presented Wednesday, June 25, in Berkner Hall. The program, presented jointly by the BERA Concert Committee and the French Group of BNL, will consist of chamber works by Ravel, Debussy and Fauré. This year marks the centenary of the birth of Ravel, and this program of music by Ravel and his contemporaries is arranged to honor the occasion.

Performers in this program will be Catherine Speh, piano; Edith Perrow, violin; Donald Caldwell, viola and Olga Zilboorg, cello. Each of these artists has performed extensively throughout Long Island and elsewhere.

Catherine Speh, a graduate of Yale Music School, has performed as soloist with the Suffolk Symphony and on WNYC-FM and at such places as the Phillips Gallery in Washington, D.C.

Edith Perrow began her music studies in New York City and has performed with several small chamber groups there, in Carnegie Recital Hall, Town Hall and on station WNYC. She now teaches violin and has performed with such local groups as the Palmer Chamber Ensemble and the Stony Brook String Quartet.

Donald Caldwell has played with several symphony orchestras throughout the United States and in chamber ensembles on TV programs in Boston and Pittsburgh.

Olga Zilboorg began her musical studies in Mexico where she was born and gave her first public performance there at the age of thirteen. She has performed as soloist with several symphony orchestras, including the St. Louis Symphony Orchestra which she was a member of for three years. She has also toured Europe as a soloist.

Admission for this concert will be \$2.00. It will begin at 8:30 p.m.

—E. Popenoe

**4 Minute Mile —
300 Pins — Now 560**

BNL archery reached a plateau that until recently no one dared to dream about. After twelve years of diligent work and dedication, Joe Bauernfeind reached the ultimate score of 560 in a regional archery tournament. This lofty score was reached for the first time in a national tournament by a professional in 1972.

Joe will soon lead a BNL contingent of five archers to a mid-Atlantic states tournament (about 400 participants) and a repeat of his recent performance may take it all for Joe once again.

This month the mid-Atlantic, next month the nationals. Impossible, you say — so was a perfect round of 560.

—C. Cantara

BROOKHAVEN BULLETIN

*Published Weekly for the Employees of
Brookhaven National Laboratory*

CARL R. THIEN, *Editor*
JEAN BURKE, *Assistant Editor*
CAROL GOLDSTEIN, *Copy Preparation*

40 Brookhaven Ave. Upton, N.Y. 11973
Telephone 516 345-2345

**Letters
To The Editor**

Dear Sir:

I would like to thank all those who helped me the day of my recent accident.

The new and long overdue stop sign at the intersection of Bell Ave. and Rochester St. will I hope put an end to any future accidents there.

Sincerely,
Annamaria Vasquez

June Service Awards

Twenty Year Awards

- James Costanzo Reactor
- Donald J. David Accelerator
- Ralph J. Giallorenzo Mech. Engrg.
- Gertrude N. Neuhoff Applied Science
- Mildred Pavelec Medical

Ten Year Awards

- John W. Baum Health Phys. & Safety
- Theodore Klosowicz Physics
- Arthur B. Scott Applied Math.
- Richard E. Watson Physics

Bowling Board Elections

An election for president and vice-president of the BERA Bowling Board for the 75-76 season, in which all BERA bowling members were eligible to vote, has been completed and all the votes tabulated.

Frank Short is the new President and Irving Montanez the new Vice-President.

Official & Special Events

- Tuesday, June 17
High Energy Discussion Group Meeting
- Wednesday, June 18
Low Level Radiation Effects Meeting
BNL Lecture - Walter Kane
- Thursday, June 19
Technical Utilization Conference
(June 19-20)
- Saturday, June 21
AUI Distinguished Lecture - Honorable
Maynard Jackson -
8 p.m. - Berkner Hall

**REMEMBER
BNL BLOOD DRIVE
JUNE 26 - 27
HAVE YOU PLEDGED?**

Softball

Dick Ruffing

Brookhaven League

The Blue Jays (3-0) remain the only undefeated team in the Brookhaven League by defeating the Old Timers (2-1) 8 to 4. Herm Haller, Harold Marshall and Sam Miller all were 3 for 4 at the plate.

Metallurgy (1-2) won their first game of the season by a score of 15-11 over the winless Ravens who are now 0-3.

National League

Scoring eight runs in the top of the last inning the Dirty Sox (4-0) kept their winning streak alive by defeating the Circuits (2-2) 14 to 9.

The Hawks (3-1), after losing to the Six Pax the week before, scored 5 runs in the second inning and held on to beat the Bubble Boys (0-4) 5 to 4. Steve Iseman had a home run for the Bubble Boys.

In the third game of the night the Six Pax (3-1) defeated the boys from Medical (0-4) 11 to 3. L. Schiro 3 for 3, E. Meier 3 for 4 and A. Dick 3 for 4 supplied the hitting for the Pax.

Laboratory League

In the game between the Charlie Browns and the Streakers, it was just too much of Tom Jesitis for the Streakers. It seems Tom had two home runs, one of them a grand slam to account for 6 RBI's in one inning and a total of ten for the game, as the Charlie Browns defeated the Streakers 29 to 11.

In the second game Thursday evening the Phoubars defeated the Dags 8 to 3.

University League

In the Mixed League Our Gang was defeated by the Diamonds behind some real good defensive work by the whole team.

The Oh Kays defeated the RBI's 12 to 7.

If you wish to have the scores and highlights of your games written up in the Bulletin, try to get them to me as soon as possible after the game is played.

They Made It!



Photos by Rosen



The runners in the 3000-mile race have something to be proud of - they made it. Last Friday, a group of the runners in an all out effort, finished the race. Pictured above, as they approach the finish line are (left to right): Ron Wieder, Bill Thomlinson, Ed Gill, Jack Brennan, Frances Caruso,



Gus Prince and Bob Tucker. On the lower left, Bob Powell clocks the final times as Audrey Bangel holds the finish line sign up and Don Mackenzie's bagpipes sound the end of the race with style. On the lower right, Frances Caruso and Gus Prince celebrate "with the real thing."

English Classes

English classes will resume at 10 a.m. on Monday, June 16, in the Recreation Building. Sara Kay Pittenger will be present to meet old and new members of the class.

Bowling Awards Party

A party honoring the champions of the various BNL bowling league was held on Tuesday, May 13. Those honored are listed below by league.

BNL Champions - The Old Timers

Walter Reams	James Roesler
Richard Adams	Haskell Frei
Ralph Nelson	Jack Fontana

Red League

First Place - Old Timers

Walter Reams	James Roesler
Richard Adams	Haskell Frei
Ralph Nelson	Jack Fontana
High Average	Joseph Scesny
High Scratch Series	Connie Buzzeo
High Scratch Series	Elbert Carter
High Gross Series	Kenneth Asselta
High Scratch Game	Leonard Newman
High Gross Game	

Green League

First Place - Sandbaggers

Robert Meier	Robert Jones
Edward Meier	Arthur Dick
Charles Bohnenblusch	Kenneth Riker
High Average	William Kollmer
High Scratch Series	Edward Meier
High Scratch Series	Arthur Dick
High Gross Series	Robert Jones
High Scratch Game	
High Gross Game	Marshall Bull

Pink League

First Place - Pinsplitters

Marge Stoeckel	Irene Rosati
Grace Fales	Beverly Nine
Rosalie Piccione	
High Average	Helen Caisey
	Marge Stoeckel
High Scratch Series	Marie Brenner
High Scratch Game	
High Gross Series	
High Gross Game	Charlotte Schuette

Black 'n Blue League

First Place - Athol Regulars

Ralph Taylor	Budd Pollock
Peg Taylor	Irma Montanez
Dot Pollock	Irv Montanez

Female

High Average	Ellie Murgatroyd
High Scratch Series	Kit D'Ambrosio
High Gross Series	
High Scratch Game	
High Gross Game	
High Gross Series	Pat Lebitski
High Scratch Game	Debbie Antonio
High Gross Game	Peg Taylor

Male

High Average	Richard Murgatroyd
High Scratch Series	Lewis Jacobson
High Gross Series	Frank Bugala
High Scratch Game	
High Gross Game	
High Gross Game	John Eriksen

Let's Get That Blood In!



Gerry Blackford, the first employee to pledge for the 1975 BNL Blood Drive, hands his card to Sharon Rosenhagen, assistant chairman of the drive. As of noon on Wednesday, only 322 people had turned in their pledges which is far below the number needed, so turn in those cards and be ready to roll up your sleeve.

Pledge Deadline Extended To June 20

Dept.
Address..... Phone ext.

BLOOD DONOR PLEDGE

I hereby pledge to donate blood on (check one) Thursday, June 26,, Friday, June 27,, at the Brookhaven Center.

I would prefer either a.m. or p.m.

Name.....
(please print)

Signature.....

Life No.

Please return this completed pledge to G.C. Kinne, Building 460

