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**TO: Members of the Division of Nuclear Physics, APS**  
**FROM: Virginia R. Brown, LLNL - Secretary-Treasurer, DNP**

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**ACCOMPANYING THIS NEWSLETTER:**

- Spring APS Meeting Invited Speaker Nomination Form (See item 4).

**26-29 OCTOBER DNP MEETING,  
WILLIAMSBURG, VA**

- A pre-registration form which includes workshops and banquet.
- A housing form.
- A map.



**Future Deadlines**

- **2 Sept. 1994** - Nominations for 1995 Bonner Prize (see item 8).
- **16 Sept. 1994** - Last day for Williamsburg "Special" Preregistration rates and last day for lodging reservations at the Williamsburg Conference.
- **3 Nov. 1994** - Invited Speaker Nomination Form for 1995 APS Spring Meeting (see item 4).
- **1 April 1995** - Nominations for APS Fellowship (see item 6).

**1. DNP MEMBERSHIP INSUFFICIENT FOR TWO DIVISION COUNCILLORS**

As of 7 July, 1,514 former members had not renewed their 1994 DNP membership. We realize that this large number probably corresponds to the fact that many of you have not renewed as yet. May we remind you to please do so as this is an important time to keep the DNP membership as high as possible. Steven E. Koonin's term expires in December 1995, in order to replace him with another DNP Division Councillor, the DNP/APS membership ratio must exceed 6% by December 1994.

The size of the DNP membership is a significant factor in how well the DNP can represent the interests of the nuclear physics community. One example is the role of the DNP in organizing "town meetings" for input from the community into the "Long Range Plan" for nuclear physics, provided by NSAC and requested by the DOE and NSF. The interests of the nuclear physics community are also represented by the DNP in the APS. In order to maintain our representation for the future, it will be

necessary to increase the 1994 DNP membership.

Members are urged to invite their colleagues, postdocs, and students to join. Graduate students at Ph.D. granting institutions receive their first year APS and DNP dues free of charge. The special application forms can be obtained through their department heads. If such forms have not been received, please request them from the APS.

Lifetime APS members are not lifetime DNP members. If you are a lifetime member, please look for the bill you may have put aside somewhere, add the DNP subunit, enclose \$5 and send it to the APS to be counted in this fiscal year.

If you know someone who wants to join or reinstate their membership, and they are not sure how to go about it, tell them to write a letter to the APS Membership Department, One Physics Ellipse, College Park, MD 20740-3844, stating that they want to join the DNP. They should enclose a \$5 check, and to avoid mix-ups they could include their APS membership ID number. If they have not yet paid their 1994 APS bill, then they simply verify that the DNP is an elected subunit and include the additional \$5.

## **2. DNP FALL MEETING AT WILLIAMSBURG, VA, 26-29 OCTOBER 1994**

The Annual Fall Meeting of the Division of Nuclear Physics, including workshops, will be held 26-29 October 1994 at the Fort Magruder Inn & Conference Center in Williamsburg, Virginia. Historic Colonial Williamsburg is located a short walk from the Conference Center. The Williamsburg area includes numerous additional popular attractions such as colonial plantations, Jamestown and Yorktown Colonial National Historical Parks, Busch Gardens and a variety of

museums. Shopping ranges from the quaint shops to the 'famous' Williamsburg Pottery Factory. The Continuous Electron Beam Accelerator Facility (CEBAF) is 15 minutes travel from the meeting location.

### ***Meeting Program***

The meeting will consist of six sessions of invited papers, one of which is the plenary session, and 21 sessions of contributed papers. One invited session on "*Strangeness in Nucleons and Nuclei*" has been organized by the Local Committee. Two other invited sessions are on topics selected by the Program Committee at the recent Crystal City APS meeting. One session on "*Spin Physics with Polarized Gas Targets Internal to Storage Rings*" has been arranged by R. Milner (MIT). Another session on "*Primordial Nucleosynthesis and the Baryonic Content of the Universe*" has been arranged by K. Lesko (LBL) and S. Freedman (UCB). Two invited talks on "*Octupole Shapes*" suggested by P. Cottle and B. Barrett have been combined with three "voted" talks to make up a session on "*Nuclear Structure from Low to High Energy*". The other session, voted on by the Program Committee from talks proposed by the DNP membership on "*Frontiers of Nuclear Interactions*" has been arranged by B. D. Serot. Overhead projectors will be provided in each room; slide projectors will only be available for invited papers (if requested in advance). The invited sessions with speakers and titles and the Epitome are listed at the end of this newsletter.

The 239 contributed abstracts were arranged into 21 sessions by Janis Dairiki (LBL), Frank Dietrich (LLNL), Luisa Hansen (LLNL), I. Yang Lee (LBL), Kevin Lesko (LBL), Grant Mathews (LLNL), Grazyna Odyniec (LBL), Craig Sangster (LLNL), Karl van Bibber (LLNL) and Yin-Nian Wang (LBL). The chairs of the invited sessions were selected by the Program Committee.

The arrangers selected chairs for the contributed sessions using some suggestions from the Local Committee.

There will also be two workshops, a "town meeting", users' group meetings, reception tours of CEBAF on Wednesday and Thursday, 26 and 27 October, and a reception and banquet on Friday, 28 October.

### *Plenary Sessions*

In preparation for a future call for the next "Long Range Plan", we are planning a plenary session for the Williamsburg meeting that will open the meeting and focus on the theme "Future Opportunities in Nuclear Physics." The session will be in the form of a panel presentation and discussion. The speakers and topics will be S. Vigdor (Univ. of Indiana), "Hadronic Interactions", B. Zajc (Columbia Univ.), "Heavy-Ion Reactions", D. Beck (Univ. of Illinois), "Electromagnetic Interactions", S. Freedman (UCB), "Weak Interactions", S. Koonin (Cal Tech), "Nuclear Theory", W. Haxton (Univ. of Washington), "Nuclear Astrophysics", and J. Garret (ORNL), "Radioactive Beams". The plenary session subcommittee consists of J. D. Walecka (Chair), A. B. Balantekin and S. J. Wallace.

A "town meeting" will take place from 16:00-17:30 on Friday afternoon. The talks presented in the Thursday morning Plenary Session will be open for further discussion. A report on recent NSAC activities and updates from the funding agencies, DOE and NSF, will be presented. The intent of this session is to provide an opportunity for a large segment of the nuclear science community to be exposed to and to contribute to arguments regarding future challenges and priorities for the field. The floor will be open for general discussion on current issues of concern to our field. The "town meeting" and Plenary Session will be in Richmond Hall.

### *Workshops*

Two workshops to be held on 26 October prior to, but in conjunction with, the DNP meeting are being planned by the Local Committee. One workshop will be on "Spin Degrees of Freedom in Electromagnetic Nuclear Physics." The second workshop is on "Data Acquisition and Reduction Issues in Nuclear Physics." The workshop topics and speakers are listed at the end of this newsletter. The workshops will run in parallel. A \$25 registration fee covers both workshops. Registration will begin on 25 October at 18:00 - 20:00 hours and continue at 7:30 hours on 26 October. Registration for the DNP Meeting can also be accomplished at that time.

The programs for these workshops will include a review of current areas of activity for a general nuclear physics audience, including students, and will not be solely for specialists. Registration for one workshop will allow one to attend the other workshops as well.

### *User Group Meetings*

18:30-19:30, Thursday, 27 October - The **88-Inch Cyclotron** User's Group will be held in Gen. Lee's Redoubt.

19:30-20:30, Thursday, 27 October - The **RHIC/AGS** User's Group will be held in Petersburg Hall. The **Gammasphere** User's Group will be held in Gen. Lee's Redoubt.

20:30-21:30, Thursday, 27 October - The **HRIBF** User's Group will be held in Gen. Lee's Redoubt.

17:30-18:30, Friday, 28 October - The **IUCF** User's Group will be held in Gen. Lee's Redoubt. The **NSCL** User's Group will be held in Gen. Jackson's Redoubt. The **ATLAS** User's Group will be held in Gen. Grant's Redoubt.

In order to schedule additional Users' Group meetings so as to prevent conflicts with other activities and to have them announced in the Pocket Epitome, please notify Roy Whitney of the Local Committee as soon as possible.

### ***Registration***

On-site registration for the meeting will take place at the Conference Center near Petersburg and Richmond Halls. It will begin on 25 October at 18:00 - 20:00 hours and continue on 26 October from 7:30 - 20:00 hours. On 27 October registration will take place from 8:00 - 18:00 hours, and on 28 October from 8:00 to 17:30 hours. The pre-registration fees are \$90 for DNP members, \$190 for non-DNP members, and \$10 for retired and unemployed members and students. The cost of the workshop is an additional fee of \$25. The cost of registration will increase after the preregistration date of **16 September 1994**. The Friday, 28 October banquet is \$25.

### ***Accommodations***

Reservation for all of the hotels will be coordinated by the Fort Magruder Inn and Conference Center (804) 220-2250 or (800) 582-1010 (US). Three additional hotels (as indicated on the housing form) will be used for the meeting. All three of these hotels are within a few minutes walk of the Fort Magruder Inn and Conference Center.

### ***Travel***

Three airports serve the Williamsburg area. Newport News-Williamsburg airport is about 15 minutes from the Fort Magruder Inn and Conference Center by car. Both Norfolk and Richmond airports are approximately one hour travel time. All of these airports have rental cars, taxis and limousine services. Maps and all of

the local phone numbers for these services will be sent to all preregistered attendees.

### ***Reception Tours of CEBAF***

On Wednesday and Thursday, 26 and 27 October there will be Reception Tours of CEBAF. The buses will depart between 4:00 and 4:30 p.m. from Williamsburg at the Fort Magruder Inn and Conference Center. Each Tour can accommodate 350 people. The Reception will be at CEBAF Center. The Tour will include the CEBAF Accelerator and Experimental Areas. The buses will return between 6:00 and 7:00 p.m.

### ***Companion's Program***

The Williamsburg area is very popular with tourists. Special tours of Colonial Williamsburg, trips to colonial plantations, shopping at the Williamsburg Pottery, and trips to Busch Gardens will be provided. Where entrance fees apply, discounted tickets for most of these activities will be available. Companion program information will be sent out to all preregistered attendees.

### ***Local Committee***

Members of the Local Committee are Keith Baker (HU), Warren Buck (HU), Larry Cardman (CEBAF), Roger Carlini (CEBAF), Carl Carlson (W&M), Dave Doughty (CNU), Dave Heddle (CNU), Nathan Isgur (CEBAF), Andi Klein (ODU), Bernhard Mecking (CEBAF), Sirish Nanda (CEBAF), Charles Perdrisat (W&M), Vina Punjabi (NSU), Wally Van Orden (ODU), and Roy Whitney, Chair (CEBAF).

For more information please contact: CEBAF User Liaison Office, Mail Stop 12B, 12000 Jefferson Avenue, Newport News, VA 23606, Ph: (804) 249-7586/4861, Fax: (804) 249-7398, E-mail: [dnp94@cebaf.gov](mailto:dnp94@cebaf.gov).

### 3. DNP TUTORIALS PRESENTED AT 1994 APS SPRING MEETING AT CRYSTAL CITY

The Division of Nuclear Physics organized a tutorial session, "Vistas in Nuclear Physics", presented on Sunday 17 April at 8:00 am, launching the 1994 Spring APS meeting held at Crystal City. This tutorial session was intended to acquaint scientists with recent key developments and frontier research areas in nuclear physics. The tutorial was attended by senior and young scientists alike, including some graduate students and was considered a success by all those involved. Many of those in attendance expressed regret that more people were not present for the excellent presentations. The DNP is currently organizing another tutorial for the 1995 Spring APS meeting in Washington, D. C. The following summaries outline the three topics covered in the 1994 "Vistas in Nuclear Physics" tutorials.

*Contemporary Nuclear Structure: Far, Fast, Hot and Heavy*, Kim Lister (ANL). We reviewed topics which are of greatest interest in nuclear structure physics, including addressing the questions WHY does low energy structure remain important, HOW are our theoretical models evolving and WHAT a new generation of detectors is allowing us to study. In theory we reviewed progress in modelling, including advances in monte-carlo shell models, various shell model truncations and progress with Hartree-Fock and Nilsson- Strutinsky type approaches. In particular, attention was paid to the question of what we may expect from nuclei far from stability and what "new physics" may be found. In experiment, we looked at all aspects of stability, including nuclei far from stability, very heavy nuclei, fast rotating nuclei and highly excited nuclei. The importance of new measuring devices

was shown to be critical for making future progress.

*Experimental Studies on Hot/Dense Nuclear Matter with Relativistic Heavy-Ion Collisions*, Shoji Nagamiya (Columbia University). An important and interesting question in particle and nuclear physics these days is to learn at which conditions the nucleon or, in general, the hadron loses its identity. Once the identity of the hadron is lost, the assembly of hadrons would melt into a "soup" of quarks and gluons and would form a completely new phase of matter called the quark-gluon plasma. The Standard Model predicts that such a new matter exists at either very high temperatures or at very high densities. It is believed that such conditions can be created in the laboratory using relativistic heavy-ion collisions. In this talk, I discussed recent data primarily at the AGS/BNL on light and heavy ion collisions at energies 10-15 AGeV. Also, new activities at RHIC, in particular, physics goals and approved detectors toward the search of the quark-gluon plasma were discussed.

*Low-Energy Nuclear Tests of Symmetries*, Wick C. Haxton (University of Washington). A summary was presented of the use of nuclei and atoms to test the standard model and to search for new sources of symmetry violation predicted by extensions of this model. Many-body systems have proven useful in this work for a number of reasons. Chance degeneracies in nuclei and atomic can greatly enhance the size of symmetry violation, with parity nonconservation being an important example. Nuclei can also serve as filters for important interactions. For instance, many nuclei can only decay by double beta decay, allowing us to study an exotic second-order weak interaction. Finally, the extraordinary precision of nuclear techniques and our experience with low-level counting has allowed us to probe

rare events such as solar neutrino interactions.

Specific examples were presented of the impact of such work. These included hadronic parity violation (where puzzling strong-interaction effects on neutral current contributions have been found); nuclear/atomic electric dipole moments (which provide many of our best constraints on CP violation); double beta decay (our most stringent test of Majorana neutrino masses); and solar neutrinos (which permit us to test neutrino masses and mixings at levels expected in some grand unified models).

#### **4. SPRING APS MEETING, 18-21 APRIL 1995**

The 1995 APS Spring Meeting will be held in Washington, D.C., 18-21 April at the Ramada Renaissance Techworld Hotel. The Division of Nuclear Physics will organize five sessions of invited papers for the Spring meeting. The 1994 Program Committee will arrange two or three sessions of invited papers on topics selected at their 26 October Williamsburg meeting. Suggestions for topics are welcome and should be sent with reasons for their choice to the 1994 Program Committee Chair, J. Dirk Walecka. Additional information such as proposed talks with names of possible speakers for your proposed "topical" sessions would also be useful. The remaining sessions are selected by vote of the Program Committee from suggestions for individual speakers from the DNP membership. The composition of the "voted" sessions relies on the nominations from the entire DNP community; you are urged to participate in this process. The nomination form for individual speakers, which is included with this newsletter, should be mailed to J. Dirk Walecka as early as possible before the 21 October deadline.

In addition to its usual five sessions at the Spring Meeting, the DNP will organize six joint sessions with other APS subunits. The six APS subunits and one DNP organizer (in parenthesis) are the Division of Particles and Fields (F. T. Avignone), the Division of Beam Physics (B. M. Sherrill), the Division of Astrophysics (K. Lesko and S. Freedman), the Few Body Topical Group (R. Milner), the Precision Measurement and Fundamental Constants Topical Group (W. C. Haxton), and the Division of Atomic and Molecular Physics (S. G. Steadman). If you have suggestions for these joint sessions, please contact members of the sub-committees or J. Dirk Walecka.

#### **5. FUTURE DNP FALL MEETINGS**

The present schedule for fall meetings is as follows:

1994	October 26-29 Williamsburg, VA
1995	October 25-28 Bloomington, IN
1996	October 2-5 Cambridge, MA

The dates include the Wednesday "workshops", which are held in conjunction with the DNP fall meetings. Holding "workshops" at the DNP fall meetings is a tradition that began with the 1986 Vancouver meeting. All meeting attendees are welcome and encouraged to come. It has been the intention of the DNP Executive Committees that these "workshops" should have broad appeal, with introductory pedagogical talks for the benefit of those who have come primarily for the DNP meeting but want to take the opportunity to learn about a field of specialty of the local community.

#### **6. NOMINATIONS FOR APS FELLOWSHIP**

The procedure for the election of a Member to Fellowship is outlined in the

Membership Directory of the APS under "Constitution and Bylaws." A nomination form, which cites the principal contributions of the candidates to physics, should be prepared and signed by two members of the society. The total number of members who could be elected to Fellowship in a given year is one half of one percent of the total APS membership.

The DNP deadline is normally *1 April*. Nomination forms are available from Peggys Mendoza, The American Physical Society, One Physics Ellipse, College Park, MD 20740-3843. Completed forms should be returned to Dr. J. Franz at the same address.

The 1995 DNP Fellowship Committee is comprised of Noemie Benczer-Koller (Chair), J. Matthews, S. J. Freedman and J. Ginocchio. The Fellowship Committee reviews the nominations for APS fellowship referred to the DNP and recommends a slate of candidates which is forwarded to the DNP Executive Committee and then to APS Council for approval.

It is particularly important for nominators to ensure that the cases which they prepare for the Fellowship Committee are well documented. In addition to that requested on the nomination form, information such as lists of invited talks, awards, professional activities, committee services, and participation in organization of conferences is very helpful. Inclusion of a complete publication list is highly recommended.

The DNP has adopted the following Fellowship Criteria Guidelines. To be chosen as a Fellow, an APS member should have a record of excellence in research that has been sustained over several years, and have done at least one major, original work

that has influenced his/her specialty in a significant way.

The list of APS Fellows (by APS subunit) elected in a given year is published in the March issue of APS News. The names of newly elected DNP Fellows are published in the February newsletter and the awards are presented at the DNP Business meeting of the Spring APS meeting.

## 7. 1996 DISSERTATION AWARD IN NUCLEAR PHYSICS

This biennial prize, which recognizes a recent Ph.D. in nuclear physics, was established in 1985 by members and friends of the Division of Nuclear Physics of the APS. Previous winners are: B. Sherrill and W. J. Burger, Thomas E. Cowan, Michael J. Musolf, James Edward Koster, and Zhiping Zhao.

**Nature:** The Award consists of \$1,000 and an allowance for travel to the annual Spring meeting of the Division of Nuclear Physics of the American Physical Society at which the award will be presented.

**Rules and Eligibility:** Nominations are open to any person who has received a Ph.D. degree in experimental or theoretical nuclear physics from a North American university within the two-year period preceding the deadline.

Send before *1 September 1995* the name of the proposed candidate, a summary of up to four pages of the thesis research, and a statement of his/her contribution to it as well as that of others. A letter of support from the physicists who are familiar with the candidate and the research. To expedite the process, copies of the thesis should be made available for the five Committee members. This information is required and should be sent

to Dr. J. Dirk Walecka, CEBAF, 12000 Jefferson Avenue, Room C210, Newport News, VA 23606.

## **8. NOMINATIONS FOR 1995 TOM W. BONNER PRIZE IN NUCLEAR PHYSICS**

This annual prize was established in 1964 as a memorial to Tom W. Bonner by his friends, students and associates. Previous winners are: H. H. Barschall, R.J. Van de Graaff, C. C. Lauritsen, R. G. Herb, G. Breit, W. A. Fowler, M. Goldhaber, J. D. Anderson and D. Robson, H. Feshbach, D. H. Wilkinson, C. S. Wu, J. P. Schiffer, S. T. Butler and G. R. Satchler, S. Polikanov and V. M. Strutinsky, Roy Middelton and W. Haeberli, R. M. Diamond and F. S. Stephens, B. L. Cohen, G. E. Brown, C. D. Goodman, H. A. Enge, E. G. Adelberger, L. M. Bollinger, B. Frois and I Sick, R. H. Davis, E. M. Henley, V. W. Hughes, P. Twin, H. G. Blosser and R. E. Pollock, A. Arima and F. Iachello, and E. K. Warburton.

The purpose of this prize, which currently consists of \$5,000 and a certificate citing the recipient's contributions, is "*To recognize and encourage outstanding experimental research in nuclear physics, including the development of a method, technique, or device that significantly contributes in a general way to nuclear physics research*".

Nominations are open to physicists whose work in nuclear physics is primarily experimental, but a particularly outstanding piece of theoretical work will take precedence over experimental work. There are no time limitations on when the work was performed. The prize shall ordinarily be awarded to one person but a prize may be shared among recipients when all the recipients have contributed to the same accomplishment(s).

Nominations remain active for three years. It is extremely helpful for the

committee to receive additional letters of support that detail the contributions of the nominee and the impact these contributions have had on the field. It is also appropriate to submit material such as significant articles that might help us evaluate the nominee's contribution. While general statements concerning the value of the nominee's work are important, we must have specific information that allows us to determine what the nominee has contributed and how this contribution has impacted the field.

Send name of proposed candidate and supporting material before **1 September 1994** to: Prof. F. P. Calaprice, Department of Physics, Jadwin Hall, Princeton University, P. O. Box 708, Princeton, NJ 08544.

## **9. BUDGET UPDATE FROM THE NUCLEAR SCIENCE RESOURCES COMMITTEE, L.L. RIEDINGER (CHAIR)**

Progress on the funding bills for nuclear science in the Department of Energy and the National Science Foundation has been rapid, as the relevant DOE bill has passed both the House and the Senate, and the NSF bill has been approved by the House.

The Energy and Water Appropriations bills for the Department of Energy have been approved by both the House and the Senate, the former on June 14 and the latter on June 30. Funding for the Nuclear Physics program is the same in both bills, i.e. \$334.7M. This represents a \$33.9M increase over the Administration request, and this increment is specified for three parts of our program.

a. An \$8.9M increase for CEBAF to allow the beginning of operations. The request had included \$49.8M for "research and operations" of CEBAF, but this amount would only take this new facility through commissioning and not allow the initiation of the research program.

b. \$24M for LAMPF, to permit continuing operations for another year. DOE had requested no operating funds for FY95.

c. An additional \$1M to increase the utilization of the Bates Linear Accelerator Center. DOE requested \$8.9M for Bates operations, down from \$10.4M in FY94.

For the second consecutive year, congressional action has helped to decrease the harmful effects of a very low Administration request for nuclear physics within DOE. This year the \$300.8M request was 14% down from FY94 (\$348.6M after a general adjustment to the appropriated figure of last fall). Once again, the message of harm to our field was delivered to the Congress by four representatives of the nuclear physics community (Hermann Grunder, Director of CEBAF; Ernest Moniz, Chairman of the Nuclear Science Advisory Committee; Siegfried Hecker, Director of Los Alamos National Laboratory; and Nicholas Samios, Director of the Brookhaven National Laboratory). Their statement requested an increase of \$52M, which included not only the items listed above but also a \$10M increase for RHIC construction (to restore the requested cut), an additional \$2M for operation of low energy accelerators, and a \$3.5M increase for university research groups. While the \$33.9M relief from the Congress does not fully meet the above special request or bring the budget up to the FY94 level, it does generally avert a real disaster. Still, the decrease in construction funds for RHIC is a substantial concern.

Also part of the DOE Energy and Water bill is the budget for High Energy Physics. The Administration had requested \$180M for SSC termination, but both the House and Senate bills allocated zero, saying that the \$640M allocation last year combined with unobligated balances provide sufficient

funds for this purpose. The request for High Energy Physics was \$621.9M, up by \$4.4M over FY94. The House bill provides an additional \$25M for restoration of the base program and increase of operating at existing facilities. In the Senate, the HEP number is \$631.5M, giving an extra \$14M for facility operations, and a reduced number (\$40M vs. 44) for construction of the B Factory at SLAC.

The House has passed the appropriations bill on VA, HUD and Independent Agencies. This includes \$3106M for the National Science Foundation, 3% over the FY94 enacted level (a 6% increase had been requested). Research and Related Activities receives \$2217M, a 2.5% increase over the FY94 level (8% request). The Education and Human Resources program total is the requested \$586M; Academic Research Infrastructure receives \$100M, whereas \$55M had been requested. Major Research Equipment is allocated \$105M (70M was the request). The small increase for NSF resulted from a committee allocation that was \$413M less than needed to fund the Administration request in these areas. The House decision to fully fund the Space Station (\$2.1B) led to pressure to make cuts elsewhere. Within the NSF budget, Research and Related Activities took the biggest hit compared to the request. In the \$131M reduction compared to the request, about half came in a general reduction and half in the "strategic research" areas that have been so much emphasized in recent years. While it is too early to predict the budget breakdown to the program level, it is clear that the lower overall increase for the NSF (3% vs. 6% request) will result in a Nuclear Physics increase considerably smaller than the requested 6%.

The Senate Appropriations Committee is working to report their version of the VA, HUD, and Independent Agencies bill in

middle July. The task there is even more severe, as the allocation for this subcommittee bill is over \$700M less than the Administration's request. Space Station support could be solid in the Senate, which would put real pressure on the competing budgets, including NSF.

#### **10. NSAC REPORT, N. BENCZER-KOLLER**

NSAC was charged in February 1994 by Martha Krebs at the DoE and William Harris at the NSF to "prepare a report providing guidance to help plan future scientific programs. The present program status should be assessed against the scientific priorities contained within existing recommendations". Ernie Moniz, the NSAC chair, appointed a subcommittee chaired by Walter Henning. The subcommittee worked all spring and issued, at the end of June, a 38 page report entitled "Nuclear Science in DoE: Assessment and Promise".

The report outlines the highlights of nuclear physics accomplishments and the current scientific trends since the last reports were issued, reviews the role played by nuclear physics in education, human resources, societal issues and technology.

The report stresses the fact that the DoE nuclear physics FY95 budget request, \$301 million, down 14% from the FY94 budget, "places at risk both the orderly and cost-effective progression of science and the nation's leadership position in nuclear physics". The report recommends a budget of \$353 and \$348 millions respectively for FY95 and FY96. The report comments on the "severe" consequences of the proposed budget on the field.

Several recommendations are presented. The report "places the highest priority on carrying out research programs using new and existing DoE facilities". The

report considers the "timely realization of new opportunities through on-going facility construction and new equipment development" a high priority.

The present funding scenario precludes any other new initiatives even those contained in the 1992 Implementation Plan. "Major new initiatives will have to be taken up in the next NSAC Long Range Plan activity with input from the broader nuclear physics community and the agencies".

An NSAC meeting was held on May 14, 1994 at O'Hare Airport at which time the final report was approved.

#### **11. ENRICHED ISOTOPE REPORT, L. L. RIEDINGER, NSRC, CHAIR**

As reported in the November 1993 newsletter, the issue of the supply of enriched isotopes to the biomedical community has been under study by a committee formed by the Institute of Medicine (IOM), which is affiliated with the National Academy of Sciences. The Office of Health and Environmental Research within the Department of Energy has requested and funded this study. Four members of the nuclear science community (Jerry Nolan - ANL, Lee Riedinger - Univ. of Tenn., Lee Schroeder - LBL, and Steve Yates - Univ. of Ky.) are among the eleven-person committee. The dependence on two parasitic operations (LAMPF and the Brookhaven Linear Isotope Producer) for the supply of accelerator-produced radioisotopes primarily for biomedical research has led to the strong desire in the biomedical community to have a dedicated facility, proposed as the National Biomedical Tracer Facility (NBTF). Part of the charge of the IOM committee is to make a recommendation about the NBTF.

The committee has met four times since last September, and parts of the committee

have made site visits to a number of crucial facilities, including those at Los Alamos, Brookhaven, and Vancouver. Throughout the process, the committee has taken testimony and data from a variety of sources about the current and future status of the supply of isotopes (stable and radioactive), technologies for the production of enriched isotopes, details of the financially troubled DOE isotope program, educational and research needs for the biomedical community relative to enriched isotopes, and models of partnerships that could serve for the eventual NBTF. For example, the unique partnership between TRIUMF, a Canadian national laboratory, and Nordion, a commercial supplier of radioisotopes, became clear to the committee through a visit to Vancouver. The committee is in the final stages of writing its detailed report, which will soon go out for Academy review before fall release.

The Department of Energy has made the first step on the way to the construction of the NBTF by awarding contracts for NBTF project definition studies to five university-led teams: Alabama - Birmingham, California - Davis, North Texas, Purdue, and Southern California. The results of these studies will be used to help write the request for proposals for the NBTF, which could involve a 80 - 100 MeV linear accelerator and associated facilities for chemical separations.

There have been many problems connected with the supply of isotopes in the past five years. It is the availability of enriched stable isotopes that most worries the nuclear physics community. At least some of the difficulties arise from the passage of Public Law 101-101 in 1989, requiring that DOE operate its isotope program on a full cost recovery basis. That obviously has not worked, for a variety of reasons highlighted in a number of national studies and excerpted in previous issues of

this newsletter. The ills of the stable isotope program are certainly on the collective mind of the IOM committee, and perhaps this extra point of pressure can lead to a commitment for action in the legislative and executive branches of government to remedy this problem. Having the biomedical community deeply involved in this debate can only help pressure for a re-examination of government policy on this topic, as the health care field does depend on a reliable supply of both radioactive and stable enriched isotopes.

On another isotope matter, a Californium-252 Users' Workshop is being planned for April 17-20, 1995, at Oak Ridge National Laboratory to inform the user community of the most recent developments in the production and distribution of  $^{252}\text{Cf}$  and the encapsulation, sales, loan, and uses of these neutron sources. Scheduling of the Users' Workshop is in conjunction with the Californium-252 Neutron Therapy Workshop to be held April 21-23, 1995, at Wayne State University. For further information, contact Mr. C.W. Alexander at ORNL, phone 615-574-7071, fax 615-574-6008, or e mail alexandercw@ornl.gov.

## **12. DNP BROCHURE, G. CRAWLEY**

I am pleased to report that the new version of the DNP Brochure, consisting of 16 total pages, is in rather final form. There are more pictures, more white space and the science is now up front. The introduction is a single column, followed by six pages of science, two pages of education and seven pages of applications. This version was circulated recently to about ten members of the Division for comments, and the overall opinions so far are quite positive. The plan now is to send a final version to the printer by the end of July at the latest so that copies can be available at the Fall DNP meeting in Williamsburg.

### 13. NUCLEAR STRUCTURE REFERENCES ON THE IBM/PC, E. BROWNE

NUCLEAR STRUCTURE REFERENCES (NSR) is a bibliographic database with references for low- and medium-energy nuclear physics, produced and maintained by the National Nuclear Data Center, Brookhaven National Laboratory. A PC version of NSR, PAPHYRUS (sup. TM) NSR, is the result of a collaboration between Lund University, Sweden, and the Isotopes Project, Lawrence Berkeley Laboratory. This new product, which contains the entire NSR file (as of December 1993) with over 130,000 fully-searchable references, is available now on CD-ROM. For an efficient performance of the database we recommend the use of an IBM/PC or compatible with a 386 (or higher) processor running DOS 6.2 and Windows 3.1 (or later), and a CD-ROM drive. The Isotopes Project has a limited number of CD-ROMs for distribution free of charge.

To order a complimentary copy of PAPHYRUS (sup. TM) NSR write to: Edgardo Browne, Isotopes Project, Bldg. 50A, Room 6102, Berkeley, California 94720.

### 14. ANNUAL REVIEWS OF NUCLEAR AND PARTICLE SCIENCE

The Division has continued the agreement with Annual Reviews, Inc., which will enable DNP members to obtain copies of the "*Annual Review of Nuclear and Particle Science*" at a 30% discount when purchased through the DNP Secretary-Treasurer, Virginia R. Brown, Lawrence Livermore National Laboratory, P. O. Box 808, L-288, Livermore, CA 94550.

**1994 Prices:** The dual prices (separated by a slash) listed below correspond to USA/other countries including Canada.

Volumes 12-41 are \$55/\$60 retail and \$39/\$42 for DNP members. Volumes 42 and 43 (Dec. 1993) are \$59/\$64 retail and \$42/\$45 for DNP members. Volume 44 is \$62/\$67 retail and \$44/\$47 for DNP members.

Other Annual Reviews are also available. Payment (payable to the Division of Nuclear Physics-APS) must accompany your order and must be in U.S. funds. California orders must add applicable sales tax. *Since 1 January 1991, all orders shipped to Canada require the addition of a 7% General Sales Tax.*

### 15. FUTURE CONFERENCES

Organizers of future conferences should contact the DNP Secretary-Treasurer if they wish their conferences listed in DNP newsletters.

*"Conference on Physics from Large Gamma-ray Detector Arrays"* to be held 2-6 August 1994, at Clark Kerr Campus, Berkeley, California. [For further information contact: Marie-Agnes Deleplanque, Nuclear Science Division, 70A-3307, Lawrence Berkeley Laboratory, Berkeley, CA 94720, phone: (510) 486-5384, fax: (510) 486-6707].

*"Physics Computing '94 (6th Joint EPS/APS International Conference on Physics Computing (PC '94))"* to be held 22-26 August 1994, in Manno, TI, Switzerland. [For further information contact: R. Gruber, CSCS, via Cantonale, CH-6928 Manno, Switzerland].

*"International Conference on Physics with GeV Particle Beams"* to be held 22-25 August 1994, in Julich, Germany. [For further information contact: K. Kilian or J. Speth, Forschungszentrum Julich GmbH, Institut fur Kernphysik, D-52425 Julich, Germany, phone: +49-2461-61-3833, fax: +49-2461-61-4666].

**"Tours Symposium on Nuclear Physics II"** to be held 31 August - 2 September 1994, in Tours, France. [For further information contact: H. Utsunomiya, Scientific Secretary, Department of Physics, Konan University, Okamoto 8-9-1, Higashinada, Kobe 658, Japan, phone: +81, (78)-431-4341, ext. 626, fax: +81, (78)-413-2672, e-mail: "f51493@jpnkudpc"].

**"Euroschooll in Exotic Beam"** to be held 4-9 September 1994, in Leuven, Belgium. [For further information contact: M. Huyse, Instituut voor Kern- en Stralingsfysika, K. U. Leuven, B-3001 Leuven, Belgium, phone: +32-16-201015, fax: +32-16-291959, e-mail: "mark=huyse%ksf%fys@cc3.kuleuven.ac.be"].

**"CLUSTER 94: Clusters in Nuclear Structure and Dynamics"** to be held 6-9 September 1994, in Strasbourg, France. [For further information contact: F. Haas, Centre de Recherches Nucleaires, 67037 Strasbourg Cedex 2, France, phone: 33-88-106843, fax: 33-88-106202].

**"CORINNE II (International Workshop on Multi-Particle Correlations and Nuclear Reactions)"** to be held 12-16 September 1994, in Nantes, France. [For further information contact: Janick Le Hetet, Evelyne Gerbaud, Laboratoire de Physique Nucleaire, Faculte des Sciences et des Techniques, 2, rue de la Houssiniere, 44072 Nantes Cedex 03, France, phone: +33-40-374955 or 33-40-373066, fax: +33-40-373176, e-mail: "corinne@frcpn11.bitnet"].

**"LEAP '94 (Third Biennial Conference on Low-Energy Antiproton Physics)"** to be held 12-17 September 1994, in Bled, Slovenia. [For further information contact: Majda Kelbelj, Jozef Stefan Institute, Jamova 39, SI-61111 Ljubljana, Slovenia, phone: +386-61-1259199 (ask for Darko Korbar or Vladimir

Cindro), fax: +386-61-1257074, e-mail: "leap94@ijs.si"].

**"International Symposia on High Energy Spin Physics and Polarization Phenomena in Nuclear Physics"**, to be held 15-22 September 1994, in Bloomington, Indiana. The conferences will discuss the effects of spin and polarization in various areas of high energy and nuclear physics research, as well as the technical aspects of polarized beams and targets. [For further information contact: Ms. Janet Meadows, Conference Secretary, Indiana University Cyclotron Facility, 2401 Milo B. Sampson Lane, Bloomington, IN 47408, phone: (812) 855-9365, fax: (812) 855-66645, internet: "spin94@venus.iucf.indiana.edu", bitnet: "spin94@iucf"].

**"5th Annual October Astrophysics Conference in Maryland – Dark Matter"**, to be held 10-12 October 1994, in College Park, Maryland. [For further information contact: October Conference, Astronomy Department, University of Maryland, College Park, MD 20742, phone: (301) 405-1512, e-mail: "october@astro.umd.edu"].

**"Thirteenth International Conference on the Application of Accelerators in Research and Industry"**, November 7-10, 1994, to be held at the University of North Texas, Denton, TX USA. [For further information contact: J. L. Duggan, Univ. of North Texas, Dept. of Physics, P.O. Box 5368, Denton, TX 76203, phone: (817) 565-3252 or 3250, fax: (817) 565-2227, e-mail: "fc66@untvax.bitnet"].

**"Quark Matter '95, The Eleventh International Conference on Ultra-Relativistic Nucleus-Nucleus Collisions"**, to be held 9-13 January 1995, in Monterey, CA, USA. [For further information contact: Art Poskanzer, Building 50-D, Lawrence Berkeley Laboratory, Berkeley, CA 94720, phone:

(510) 486-5618, fax: (510) 486-4818, internet: "QM95@LBL.gov"].

**"Californium-252 Users' Workshop"**, to be held 17-20 April 1995, at Oak Ridge National Laboratory, Oak Ridge, TN. [For further information contact: Mr. C. W. Alexander, Oak Ridge National Laboratory, Oak Ridge, TN 37831, phone: (615) 574-7071, fax: (615) 574-6008, e-mail: "alexandercw@ornl.gov".

**"1995 Gordon Research Conference on Nuclear Chemistry"**, to be held 18-23 June 1995, Colby-Sawyer College, New London, New Hampshire. The focus of the conference will be on nuclear structure studies. [For further information contact: W. Nazarewicz, Joint Institute for Heavy Ion Research, Oak Ridge National Laboratory, Bldg. 6998, MS6374, P. O. Box 2008, Oak Ridge, TN 37831, phone: (615) 574-4580, fax: (615) 576-5780, e-mail: "witek@utkvtx.utk.edu"].

**"Sixth International Symposium on Meson-Nucleon Physics and the Structure of the Nucleon"** to be held 10-14 July 1995, in Blaubeuren, Germany. [For further information contact: Gerhard J. Wagner (Chairman), Ralph Bilger (Contact), Physikalisches Institut, Universitaet Tuebingen, D-72076 Tuebingen, phone: +49-7071-296304/296297, fax: +49-7071-296296, e-mail: "me\_nu95@pit.physik.uni-tuebingen.de"].

**"International Nuclear Physics Conference (INPC '95)"** to be held 21-26 August 1995, in Beijing, China. [For further information contact: Prof. Xu Jincheng (Secretary), China Institute of Atomic Energy, P. O. Box 275 (80), Beijing 102413, People's Republic of China, phone: 86-1-9357787, fax: 86-1-9357008, e-mail: "ciaednp@oxihep.ihep.cern.ch"].

**"7th International Conference on the Structure of Baryons"**, 3-7 October 1995, to be held in Santa Fe, New Mexico. [For further information contact: Lenora Alsbrook, Baryons '95 Conference Coordinator, Los Alamos National Laboratory, Protocol Office, MS P366, Los Alamos, NM 87545, phone: (505) 667-8449, fax: (505) 667-7530, e-mail: "baryons@lampf.lanl.gov"].

**"9th International Symposium on Capture Gamma-Ray Spectroscopy and Related Topics"**, 8-12 October 1996, to be held in Budapest, Hungary. [For further information contact: G. Molnar, Nuclear Physics Department, Institute of Isotopes, POB77, H-1525 Budapest, Hungary, phone: 36-1-275-4347, fax: 36-1-275-4349, e-mail: "molnar@iserv.iki.kfki.hu"].

**INVITED SPEAKERS OF THE DNP FALL  
MEETING  
WILLIAMSBURG, VA  
26-29 OCTOBER 1994**

The meeting includes six invited sessions, one of which is a plenary session. The plenary session is in Richmond Hall. All other invited sessions are in New Market Hall.

**27 October  
9:00 Thursday Morning**

**PA Future Opportunities in Nuclear Physics, J. Dirk Walecka, presiding.**

- D. Geesaman (ANL), "Hadronic Interactions".  
B. Zajc (Columbia Univ.), "Heavy-Ion Reactions".  
D. Beck (Univ. of Illinois), "Electromagnetic Interactions".  
S. Freedman (UCB), "Weak Interactions".  
S. Koonin (Cal Tech), "Nuclear Theory".  
W. Haxton (Univ. of Washington), "Nuclear Astrophysics".  
J. Garret (ORNL), "Radioactive Beams".

**13:30 Thursday Afternoon**

**AA Primordial Nucleosynthesis and the Baryonic Content of the Universe, E. B. Norman, presiding.**

- B. D. Fields (Univ. of Chicago), "Primordial Nucleosynthesis: Nuclear Physics in the Early Universe".  
C. J. Hogan (Univ. of Washington), "Big Bang Deuterium".  
R. T. Rood (Univ. of Virginia), "The Quest for the Cosmic Abundance of  $^3\text{He}$ ".

- K. A. Olive (Univ. of Minnesota), "On the Origin of the LiBeB Elements".

**28 October  
9:00 Friday Morning**

**BA Strangeness in Nucleons and Nuclei, S. R. Cotanch, presiding.**

- M. Musolf (CEBAF), "Strange Enough to See?".  
E. J. Beise (Univ. of Maryland), "Parity Violating Electron Scattering Experiments at Bates and CEBAF".  
C. Bennhold (The George Washington University), "Photo- and Electroproduction of Strange Particles".  
R. Schumacher (Carnegie Mellon Univ.), "Trends in Hypernuclear Physics".  
J. Stachel (SUNY at Stony Brook), "Information on Nuclear Fireballs from Particle Spectra of Strange and Nonstrange Hadrons".

**13:30 Friday Afternoon**

**CA Frontiers of Nuclear Interactions, B. D. Serot, presiding.**

- J. Engel (Univ. of North Carolina), "Nuclear Structure Effects in Detectors of Weakly Interacting Dark Matter".  
W. Lin (MIT), "The Very-Low-Energy Solar Flux of Electron and Heavy-Flavor Neutrinos and Antineutrinos".  
J. G. Morfin (Fermilab), "Nuclear Phenomena in the Deep-Inelastic Scattering of Muons".  
T. J. Schlagel (SUNY at Stony Brook), "Modeling Relativistic Heavy Ion Collisions: From the AGS to the SPS".

**29 October  
9:00 Saturday Morning**

**DA Nuclear Structure from Low to High Energies, P. D. Cottle, presiding.**

- P. Fallon (LBL), "New Phenomena in Superdeformed Nuclei".  
A. Zilges (Universitat zu Koln), "Investigation of Electric Dipole Excitations in Photon Scattering Experiments".  
J. L. Egido (Universidad Autonoma de Madrid), "Nuclear Shapes and Density Dependent Forces".  
M. Thoennessen (MSU), "Dynamical Effects in Fission of Hot Nuclei".  
S. Gardner (IUCF), "A  $SU(2)_c$  Quark Exchange Model of Nuclear Matter".

**13:30 Saturday Afternoon**

**EA Spin Physics with Polarized Gas Targets Internal to Storage Rings, R. Milner, presiding.**

- T. Roser (BNL), "Polarized Beams in Accelerators and Storage Rings".  
R. J. Holt (ANL), "Laser-Driven Polarized H, D, and  $^3\text{He}$  Internal Targets".  
B. v. Przewoski (IUCF), "Nuclear Physics with Polarized, Internal Targets at the IUCF Cooler".  
J. F. J. van den Brand (NIKHEF), "Electro-Nuclear Physics with Polarized Internal Targets".

**EPITOME OF THE DNP FALL MEETING  
WILLIAMSBURG, VA  
26-29 OCTOBER 1994**

Chairpersons are in parentheses. Names without initials indicate invited speakers. All rooms are at the Fort Magruder Inn & Conference Center. The plenary session and town meeting are in Richmond Hall. The invited sessions are in New Market Hall, and the contributed sessions are in Gen. Longstreet's Redoubt, Gen. Hooker's Redoubt, Gen. Early's Redoubt, Jefferson Davis' Amphitheatre, and Gen. Emory's Redoubt.

**Registration**

On-site registration for the meeting will take place in the Conference Center near the Petersburg and Richmond Halls. Registration times are as follows:

Tuesday, 25 October  
18:00 - 20:00  
Wednesday, 26 October  
07:30 - 20:00  
Thursday, 27 October  
08:00 - 18:00  
Friday, 28 October  
08:00 - 17:30

**8:15 Wednesday Morning**

**Workshop A: Spin Degrees of Freedom in Electromagnetic Nuclear Physics.** Burkert, Crabb, Sinclair, Lichtenstadt, Rondon-Aramayo, Manohar, Ji, Finn, Perdrisat, Norum (V. Burkert) Gen. Emory's & McClellan's Redoubts.

**8:30 Wednesday Morning**

**Workshop B: Data Acquisition and Reduction Issues in Nuclear Physics.**

Doughty, Carey, Watson, Heyes, Prosper, Quarrie, Gibbard (L. Dennis) Gen. Hill's Redoubt.

**Wednesday Evening**

**16:00-16:30 Buses Leaving for Reception Tours of CEBAF**

**18:00-19:00 Buses Returning from Reception Tours of CEBAF**

**27 October  
9:00 Thursday Morning**

**PA Future Opportunities in Nuclear Physics.** Vigdor, Zajc, Beck, Freedman, Koonin, Haxton, Garret (J. D. Walecka) Richmond Hall.

**13:30 Thursday Afternoon**

**AA Primordial Nucleosynthesis and the Baryonic Content of the Universe.** Fields, Hogan, Rood, Olive (E. B. Norman) New Market Hall.

**AB Instrumentation I.** (J. M. Nitschke) Gen. Longstreet's Redoubt.

**AC Charge Exchange and Pion Physics.** (V. A. Madsen) Gen. Hooker's Redoubt.

**AD Nuclear Structure I:  $A < 120$ .** (D. Brenner) Gen. Early's Redoubt.

**AE Theory I: Heavy Ions.** (T. Schlagel) Jefferson Davis' Amphitheatre.

**Thursday Evening**

**16:00-16:30 Buses Leaving for Reception Tours of CEBAF**

**18:00-19:00 Buses Returning from Reception Tours of CEBAF**

**18:30-19:30 88-Inch Cyclotron Users' Group,** Gen. Lee's Redoubt

**19:30-20:30 RHIC/AGS Users' Group,** Petersburg Hall

**19:30-20:30 Gammasphere Users' Group,** Gen. Lee's Redoubt

**20:30-21:30 HRIBF Users' Group,** Gen. Lee's Redoubt

**28 October  
9:00 Friday Morning**

**BA Strangeness in Nucleons and Nuclei.** Musolf, Beise, Bennhold, Schumacher, Stachel (S. R. Cotanch) New Market Hall.

**BB Nuclear Astrophysics.** (B. Fields) Gen. Longstreet's Redoubt.

**BC Heavy-Ion Reactions I: Fragmentation.** (G. Westfall) Gen. Hooker's Redoubt.

**BD Nuclear Structure II:  $120 < A < 150$ .** (J. Wood) Gen. Early's Redoubt.

**BE Polarization.** (H. E. Conzett) Jefferson Davis' Amphitheatre.

**13:30 Friday Afternoon**

**CA Frontiers of Nuclear Interactions.** Engel, Lin, Morfin, Schlagel (B. D. Serot) New Market Hall

**CB Instrumentation II.** (D. Heddle) Gen. Longstreet's Redoubt.

**CC Neutron and Few Nucleon Physics.** (F. P. Brady) Gen. Hooker's Redoubt.

**CD Nuclear Structure III:  $150 < A < 180$ .** (B. Singh) Gen. Early's Redoubt.

**CE Theory II: Nuclear Structure and Electron Scattering.** (L. Zamick) Jefferson Davis' Amphitheatre.

**16:00-17:30 Friday Afternoon**

**PB Town Meeting,** Richmond Hall

**28 October  
Friday Evening**

**17:30-18:30 IUCF User's Group,** Gen. Lee's Redoubt

**17:30-18:30 NSCL User's Group,** Gen. Jackson's Redoubt

**17:30-18:30 ATLAS User's Group,** Gen. Grant's Redoubt

**18:30-19:30 Reception,** Courtyard

**19:30-21:30 Banquet,** Richmond Hall

**29 October  
9:00 Saturday Morning**

**DA Nuclear Structure from Low to High Energies.** Fallon, Zilges, Egidio, Thoennesen, Gardner (P. D. Cottle) New Market Hall.

**DB Electron- and Photon-Scattering and Reactions.** (L. Cardman) Gen. Longstreet's Redoubt.

**DC Heavy-Ion Reactions II: Relativistic.** (I. Sakrejda) Gen. Hooker's Redoubt.

**DD Nuclear Structure IV:  $180 < A < 190$ .** (A. O. Macchiavelli) Gen. Early's Redoubt.

**DE Theory III: QCD and Miscellaneous.** (F. Gross) Jefferson Davis' Amphitheatre.

**DF Neutrinos and Topics in Weak Interactions.** (R. Carlini) Gen. Emory's Redoubt.

**13:30 Saturday Afternoon**

**EA Spin Physics with Polarized Gas Targets Internal to Storage Rings.** Roser, Holt, Przewoski, van den Brand (R. Milner) New Market Hall.

**EB Theory IV: Few Nucleon; Nucleon-Nucleus.** (J. Wambach) Gen. Longstreet's Redoubt.

**EC Heavy-Ion Reactions III: Correlations and Collective Phenomena.** (T. C. Sangster) Gen. Hooker's Redoubt.

**ED Nuclear Structure V:  $A > 190$ .** (P. Fallon) Gen. Early's Redoubt.

**EE Nuclear Reactions.** (C. Perdrisat) Jefferson Davis' Amphitheatre.

**TOPICS AND SPEAKERS FOR THE  
WORKSHOPS  
TO BE HELD 26 OCTOBER 1994  
IN CONJUNCTION WITH THE DNP  
FALL MEETING**

**WORKSHOP A**

**SPIN DEGREES OF FREEDOM IN  
ELECTROMAGNETIC NUCLEAR  
PHYSICS**

**26 October 1994**

**Gen. Emory's & McClellan's Redoubts**

**Organizer: V. Burkert and Local Committee**

This workshop will cover the technical aspects from the accelerator injectors through to the targets and detectors, and the physics aspects of the possible experimental measurements.

**8:15 - WA1 Spin Polarization in  
Electromagnetic Physics at Intermediate  
Energies, V. Burkert (CEBAF)**

**8:50 - WA2 Solid Polarized Targets,  
D. Crabb (Univ. of Virginia)**

**9:25 - WA3 Polarized Electron Sources, C.  
Sinclair (CEBAF)**

**10:00 - Break**

**10:20 - WA4 Measurement of the Proton  $g_1$   
Spin Structure Function, J. Lichtenstadt (Tel  
Aviv Univ.)**

**10:55 - WA5 Spin Structure Measurements  
on the Proton and Neutron at SLAC, O.  
Rondon-Aramayo (Univ. of Virginia)**

**11:30 - WA6 Spin Dependent Scattering  
and the Quark Content of Nucleons, A.  
Manohar (UC San Diego)**

**12:00 - Lunch**

**13:05 - WA7 The Nucleon's Spin Structure  
Function  $G_1(Q^2, \nu)$  at Low Momentum  
Transfers, X. Ji (MIT)**

**13:35 - WA8 Electromagnetic Spin Structure  
Response of Nucleons in Nuclei, J. Finn  
(The College of William and Mary)**

**14:10 - Break**

**14:40 - WA9 Polarimetry in the Few GeV  
Region, C. Perdrisat (The College of William  
and Mary)**

**15:15 - WA10 Polarized Photons for Nuclear  
and Particle Physics, B. Norum (Univ. of  
Virginia)**

**15:50 - End of Workshop**

**WORKSHOP B**

**DATA ACQUISITION AND REDUCTION  
ISSUES IN NUCLEAR PHYSICS**

**26 October 1994**

**Gen. Hill's Redoubt**

**Organizer: L. Dennis and Local Committee**

This workshop will cover issues associated with data acquisition and reduction for CEBAF and RHIC experiments where data rates up to tens of megabytes per second and media storage rates up to terabytes per day are anticipated.

**8:30 - Welcome and Introduction, L. Dennis  
(Florida State Univ.)**

**8:45 - WB1 Data Acquisition at CEBAF:  
The Test is Yet to Come, D. Doughty  
(Christopher Newport Univ.)**

**9:30 - WB2 Data Acquisition at RHIC:  
Plans for Life on the Edge of the Fireball, T.  
Carey (LANL)**

**10:15 - Break**

**10:45 - WB3 EPICS as a Control System for  
Physics Detectors, W. Watson (CEBAF)**

**11:30 - WB4 CEBAF On-line Data  
Acquisition (CODA) Demonstration, G.  
Heyes (CEBAF)**

**12:15 - Lunch**

**13:15 - WB5 Computing in the Search of the  
Top, H. Prosper (Florida State Univ).**

**14:00 - WB6 The PASS Project - A  
Distributed Approach to Large Scale Data  
Access, D. Quarrie (LBL)**

**14:45 - Break**

**15:15 - WB7 A Strategic Approach to  
Computing at RHIC, B. Gibbard (BNL)**