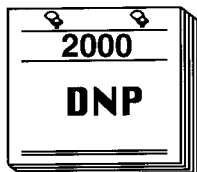




TO: Members of the Division of Nuclear Physics, APS
FROM: Benjamin F. Gibson, LANL – Secretary-Treasurer, DNP

**EXTRA, EXTRA
Long Range Planning
EXERCISE**



Town Meeting Dates

- 9-12 November 2000 — LBNL
- 1-4 December 2000 — JLAB
- 21-23 January 2001 — BNL

WWW Home Page for the DNP - <http://nucth.physics.wisc.edu/dnp>.

A WWW home page for the Division of Nuclear Physics is now available at "<http://nucth.physics.wisc.edu/dnp>". Information of interest to DNP members -- current research topics, deadlines for meetings, prize nominations, forms, and useful links are provided. Each DNP Newsletter is posted, in advance of the copy sent via post. Comments and suggestions are solicited. Please send them to Baha Balantekin at "dnp@nucth.physics.wisc.edu"

**1. NEW LONG-RANGE PLANNING CYCLE
FOR NUCLEAR PHYSICS, R.G.H.
Robertson**

The U.S. Nuclear Physics community is once again beginning the long-range planning activity that has served it well for more than 20 years in coordinating the funding actions of the DOE and the NSF with the physics goals. The last Plan, "Nuclear Science: A Long-range Plan," was issued in February of 1996.

The process begins with the issuance of a charge by DOE and NSF to their Nuclear Science Advisory Committee to make recommendations on the future of nuclear physics within certain constraints that are specified in the charge. That charge has been drafted

and presented at the NSAC meeting held 6-8 September in Rockville, MD.

The next step is the gathering of information from the community in a series of Town Meetings. The results of these Town Meetings are (usually) summarized in White Papers that distill the essence of community opinion for the "Resolution" meeting at which the Long Range Plan is drafted. The latter meeting is organized by NSAC and will be in the spring of 2001 at a location still to be determined.

The Town Meetings are organized not by NSAC but by the APS Division of Nuclear Physics, so that, to the extent possible, the community is fully represented.

There will be four Town Meetings,

- 1) Nuclear Structure and Astrophysics
LBNL Nov. 9-12 Kevin Lesko
- 2) Astrophysics, Neutrino Physics, and Symmetries
LBNL Nov. 9-12 Kevin Lesko
- 3) Electromagnetic and Hadronic Physics
JLAB Dec. 1-4 Dennis Skopik
- 4) Nuclear Matter and Hadrons at High Energies
BNL Jan 21-23 Tom Ludlam

The names at the end are the Chairs of the Local Organizing Committees. Information on how to register, lodging, etc. may be found in the items below as well as on the Web sites set up by the Local Committees.

The schedule for the Long-Range Plan desired by DOE and NSF calls for the White Papers to be written during January and February, with the Resolution meeting following shortly thereafter, and the complete Long-Range plan distributed by October 2001.

In preparation for the Town Meetings, several workshops have been organized by individuals interested in advancing various areas of research. Some of those are listed here:

MEETINGS RELATED TO THE LONG-RANGE PLAN

| | | | | |
|---------------|-------------------|--------------|-------------|---------------------------|
| FPPNB2000 | UCN's, SNS | Durham,NC | June 1-3 | G. Greene / M. Snow |
| Jlab PAC18 | 12 GeV Review | Jlab | July 14-15 | L. Cardman |
| Workshop | RIA | Durham, NC | July 24-26 | R. Casten / W. Nazarewicz |
| Mini Town Mtg | RHIC-AGS | BNL | Aug. 7-8 | J. Thomas |
| Conference | Nucl. Struc. 2000 | East Lans. | Aug. 15-19 | |
| Workshop | EPIC | MIT | Sept. 14-16 | J. Cameron / R. Milner |
| workshop | Neutrinos | Seattle | Sept. 21-23 | W. Haxton / H. Robertson |
| DNP00 | Fall Meeting | Williamsburg | Oct. 4-7 | J.M. Moss / R. Whitney |
| Quark Matter | conference | Stony Brook | Jan. 14-20 | |

2. TOWN MEETING ORGANIZING COMMITTEES

R.G.H. Robertson

The Town Meetings themselves will be organized by the four Organizing Committees as listed here. Your participation is warmly invited.

Nuclear Structure and Astrophysics

| | |
|--------------------|-------------------------|
| Casten, Richard | Yale U. |
| Carlson, Joe | LANL |
| Champagne, Arthur | U. of North Carolina |
| Cizewski, Jolie | Rutgers University |
| Gould, Christopher | North Carolina State U. |
| Lee, I-Yang | LBNL |
| Lesko, Kevin | LBNL [Local Chair] |
| Natowitz, Joe | Texas A&M U. |
| Nazarewicz, Witek | U. Tennessee/ORNL |
| Pittel, Stuart | Bartol Institute |
| Rehm, Ernst* | ANL |
| Sherrill, Bradley | Michigan State U. |
| Wiescher, Michael | Notre Dame [Chair] |

Astrophysics, Neutrino Physics, and Symmetries

| | |
|------------------------|---------------------|
| Balantekin, Baha | U. Wisconsin |
| Bowles, Thomas | LANL |
| Doyle, John | Harvard U |
| Gould, Christopher | NC State U. |
| Holstein, Barry | U. Mass |
| Lesko, Kevin | LBNL [Local Chair] |
| Olinto, Angela* | U. Chicago |
| Ramsey-Musolf, Michael | U. Connecticut |
| Savard, Guy | ANL |
| Tribble, Robert | Texas A&M U [Chair] |
| Vogel, Petr | CalTech |
| Wilkerson, John | U. Washington |

Electromagnetic and Hadronic Physics

| | |
|---------------------|----------------------|
| Beise, Elizabeth | U. Maryland |
| Glashauser, Charles | Rutgers [Chair] |
| Hungerford, Edward | U. Houston |
| Isenhower, Donald | Abilene Christian U. |
| Isgur, Nathan* | JLAB |
| Jackson, Harold | ANL |
| Milner, Richard | MIT-Bates |
| Moss, Joel | LANL |
| Mueller, Al | Columbia U. |
| Myhrer, Fred* | U. South Carolina |
| Paul, Peter | BNL |
| Serot, Brian | IUCF |
| Skopik, Dennis | JLAB [Local Chair] |
| Tornow, Werner | Duke U. |

Nuclear Matter and Hadrons at High Energy

| | |
|------------------|-------------------|
| Garvey, Gerald | LANL |
| Greene, Victoria | Vanderbilt U. |
| Jacak, Barbara | SUNYSB |
| Ludlam, Thomas | BNL [Local Chair] |
| McLerran, Larry | BNL [Chair] |
| Mueller, Berndt | Duke U. |
| Seto, Richard | UC Riverside |
| Ullrich, Thomas | Yale |
| Vigdor, Steven | IUCF |
| Wang, Xin-Nian | ORNL |
| Young, Glenn | BNL |
| Zajc, William | Columbia U. |

*(subject to acceptance)

The committees have been charged to:

- decide what the purview of the meeting is (in the context of the last LRP and the likely purview of the other 3 meetings)
- encourage people to attend
- arrange a program that covers the physics areas germane to the topic
- allow, to the extent practical, the views of all members of the community to be heard. Parallel sessions are usually needed, unfortunately
- keep in mind theory -- there is no separate theory meeting
- keep in mind computing -- there is no separate computation meeting
- arrange some synthesis talks as well as talks on specific facilities or programs.
- arrange a set of working groups whose task it is to prepare 2-20 pages of information and recommendations on a subtopic.
- allow time for representatives of these working groups to summarize their findings in plenary session.
- prioritize in plenary session the recommendations of the working groups. If this proves impossible, it will be done later at the "Resolution" meeting, but without benefit of so well-informed a group.
- write a white paper summarizing the results.

**3. PARALLEL TOWN MEETINGS:
NUCLEAR STRUCTURE AND ASTROPHYSICS,
LBNL
ASTROPHYSICS NEUTRINO PHYSICS, AND
SYMMETRIES, LBNL**

The Town Meetings on "Nuclear Structure and Astrophysics" and "Astrophysics, Neutrino Physics, Symmetries" will be hosted by Lawrence Berkeley National Laboratory. The two meetings will be held in close conjunction with each other to optimize the participation in the overlapping themes of Astrophysics shared by these meetings.

Both meetings will be held from 9 - 12 November 2000. Kevin Lesko is the chair of the local organizing committees. The Town Meetings will be held in the Oakland Convention Center/ Oakland Marriott City Center near the Berkeley Lab and campus. The Oakland Marriott City Center will serve as the primary hotel for the Town Meetings with additional blocks of rooms reserved at a number of nearby hotels. Participants are encouraged to use the Oakland Marriott City Center and are responsible for their own hotel reservations. To guarantee the special room rates at the Marriott, participants must register before October 26. Similar deadlines exist at the other hotels in the area. Please see the Town Meeting web page for additional details.

There will be no registration fee for the Town Meetings. However to assure that appropriate meeting space, AV equipment, and other services we strongly encourage that participants complete the information page on our web site.

The agendas for the meetings are being arranged by the organizing committees chaired by Michael Wiescher and Robert Tribble. The general form for the two meetings is indicated on our web site and the detailed agenda and additional information concerning the meetings will be updated on the web page as this information becomes available.

The web site for these town meetings can be found at <http://snohp1.lbl.gov/~lrp2000>.

**4. TOWN MEETING ON ELECTROMAGNETIC AND
HADRONIC PHYSICS, JLAB**

The Town Meeting on Electromagnetic & Hadronic Physics will be hosted by Jefferson Lab, Newport News, Virginia, USA, from 1-4 December 2000. Dennis Skopik is the chair of the local organizing committee. A special conference rate has been negotiated with the Omni Newport News Hotel which is near the laboratory. In addition, there are some rooms available at the JLAB Residence Facility. A welcome reception will be held at the Omni on the evening of 30 November. There is no registration fee for the workshop, but it would be greatly appreciated if you would take a moment to register to help make sure the meeting gets off to a successful start and there is enough coffee at the breaks.

The meeting will provide a forum for the presentation and discussion of recent progress and opportunities in electromagnetic and hadronic physics as input to the NSAC Long Range Plan. It is the intent of the DNP that this meeting include both electromagnetic and intermediate energy hadronic probes of nuclear and nucleon structure. Among the operating US facilities whose programs and plans fall in this area are LEGS, MIT-Bates, Jefferson Lab, SLAC, the AGS, and FNAL. Related activities at international facilities such as HERMES, SPRING-8, and COMPAS will also be discussed. New opportunities to be considered include: the Compton Backscattered FEL under construction at TUNL, the 12 GeV upgrade of CEBAF, and a future e-A collider (EPIC). Physics issues to be addressed include topics covered in the previous NSAC long range plan under the headings of "To the Quark Structure of Matter," and "Nuclear Structure and Dynamics."

The agenda for the meeting is being arranged by the organizing committee, chaired by G. Glashauser, and will be posted on the web site (http://www.jlab.org/dnp_tm/) as soon as it becomes available.

**5. TOWN MEETING ON NUCLEAR MATTER AND
HADRONS AT HIGH ENERGIES, BNL**

The goal of the Town Meeting is to provide a forum for presentation and discussion of physics opportunities utilizing very high energy collisions of heavy ions and hadrons, as input for the Long Range Planning process for Nuclear Science. In addition to the core issues related to very high energy collisions of heavy ions and QCD, participants in this Town Meeting will also be discussing the RHIC Spin Program of high energy polarized proton collisions, and the eRHIC initiative to collide high energy electrons with one of the ion beams in RHIC.

The Town Meeting will take place at BNL, and is scheduled to follow immediately after the Quark Matter 2001 meeting (at Stony Brook University). Lodging will be available on site at Brookhaven or, if preferred, at nearby hotels. Tom Ludlam is the chair of the local organizing committee. For information on lodging, registration, and updates on the Town Meeting agenda, please visit the web site at <http://www.bnl.gov/rhic/townmeeting>.

6. CHARGE TO NSAC FROM DOE/NSF

Unavailable at press time.

7. DOE/NSF NUCLEAR SCIENCE ADVISORY COMMITTEE MEMBERSHIP

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July 21, 2000

Dr. T. James Symons

Chairman

DOE/NSF Nuclear Science Advisory Committee
Lawrence Berkeley National Laboratory
Berkeley, CA 94720

Dear Dr. Symons:

This letter requests that the DOE/NSF Nuclear Science Advisory Committee (NSAC) conduct a new study of the opportunities and priorities for U.S. nuclear physics research and recommend a long range plan that will provide a framework for coordinated advancement of the nation's nuclear research programs over the next decade. Previous NSAC Long Range Plans (LRP), in particular the 1996 LRP, are appropriate and important reference documents. Please submit an interim report containing the essential components of NSAC's recommendations to the Department of Energy (DOE) and the National Science Foundation (NSF) by April 15, 2001, and the final report by October 1, 2001.

Since the submission of the NSAC 1996 LRP, major investments at TJNAF/CEBAF, BNL/RHIC and MSU/NSCL, as well as at our other user facilities, have significantly expanded our national capabilities for nuclear physics research. Major detectors have been or are in the process of being implemented at both accelerator and non-accelerator facilities to exploit many promising opportunities. University research programs and facilities, including the Institute of Nuclear Theory, continue to play important and critical roles in the nation's nuclear physics program. These capabilities and the priorities in the national program today are a consequence of the nuclear science community's responsible and visionary strategic planning embodied in the previous NSAC LRP.

The new NSAC plan should identify the most compelling scientific opportunities to be addressed in the next decade and the resources that will be needed to address them. It is important that the priorities of the identified scientific opportunities be well articulated. The required resources should include both people (the investigator community) and tools (capitalizing on recent investments and investing for the future). To be most helpful, the plan should indicate what funding levels would be required (including construction of new facilities) to maintain a world-leadership position in nuclear physics research, and what the impacts and priorities should be if the funding available provides constant level of effort (FY 2001 President's Budget Request) into the outyears (FY 2002-2012).

As RHIC construction is now complete, it is timely that the community consider new major facilities to address emerging scientific opportunities. In the 1996 LRP, NSAC recommended construction of a "next generation ISOL-type facility" to be "constructed when RHIC construction is substantially complete." The plan should evaluate the scientific potential of the proposed Rare Isotope Accelerator and any other new proposed facilities in the broad context of the most compelling scientific questions, as well as the availability of existing and planned facilities, and establish priorities for new construction.

Your effort should lead to a coordinated long range plan for the synergistic DOE and NSF programs in nuclear physics, recognizing the different roles of the two agencies in building and operating forefront national facilities for users, in supporting university-based research, and in science education.

To maintain the U.S. position of leadership, the facilities available in other nations should be taken into consideration, and the new NSAC plan should point out the opportunities for increased cooperation with other countries on projects of mutual interest. An important dimension of your plan should be the role of nuclear physics in advancing the broad interests of society, and how mutually beneficial interactions with neighboring basic research disciplines, such as astrophysics, and with applied disciplines can be strengthened. The possible opportunities for nuclear physics research from the anticipated advancements in computing capabilities in the next decade should be addressed.

Education of young scientists is central to the mission of both agencies and is integral to any vision of the future of the field. We ask NSAC to articulate the importance of education in nuclear science to academia, to medicine, to defense, to industry, and to government. We ask further that NSAC analyze the effectiveness and appropriateness of current graduate programs in nuclear science in preparing future generations of scientists, to articulate the role that the nuclear science research community presently plays in addressing broad educational needs of national concern, including diversity issues, along with strategies for strengthening these roles in a way that makes optimal use of the resources of the community.

In the 1989 and 1996 LRP, the Division of Nuclear Physics of the American Physical Society (DNP/APS) was instrumental in obtaining broad community input by organizing town meetings of different nuclear physics sub-disciplines. The Division of Nuclear Chemistry and Technology of the American Chemical Society (DNC&T/ACS) was also involved. We encourage NSAC to exploit this method of obtaining widespread input again, and to further engage both the DNP/APS and DNC&T/ACS in laying out the broader issues of contributions of nuclear science research to society.

The agencies very much appreciate NSAC's willingness to undertake this task. As you recognize, NSAC's previous long range plans have played a critical role in shaping the nation's nuclear science research effort. Based on NSAC's laudable efforts in the past, we look forward to a new plan that can be used to chart a vital and forefront scientific program into the next decade.

Sincerely,

James F. Decker
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Office of Science
Department of Energy

Robert A. Eisenstein
Assistant Director
Mathematical and Physical Sciences
National Science Foundation