NAS: Academy Votes NRC Changes, New Formula on Classified Research

At their annual meeting in Washington last week, members of the National Academy of Sciences (NAS) approved the outline of a major reorganization of the National Research Council (NRC), the operating arm of the NAS, and the National Academy of Engineering (NAE). As expected, the basis of the reorganization is replacement of the NRC's disciplinary divisions with broadly constituted commissions and boards geared to look at the societal as well as the technical aspects of science.

The academy last week also made an unprecedented concession to liberal elements within its ranks when it adopted a resolution that gives the membership at large a means of participating in academy decisions to accept or reject contracts for classified projects. This was the third consecutive year that the question of the propriety of the academy's participation in such projects has been brought up during the closed business meeting.

Two years ago, Chicago biologist Richard Lewontin called upon the academy to refuse all classified contracts. His proposal was defeated. Last year, he modified his demand, asking that classified studies be turned down unless all members could see final reports if they wished. Again, Lewontin lost, and he subsequently submitted his resignation to NAS president Philip Handler. That gesture of protest launched the academy on a year-long effort to handle two thorny questions: resignations and secret research.

Getting into the NAS—election to membership is considered one of the highest prizes an American scientist can win—is not easy. Getting out, it seems, is not either. Lewontin's resignation took some doing. According to academy laws, the president does not accept resignations; he transmits them to the membership. Handler did so in Lewontin's case several months ago at the fall meeting. The members deferred the resignation. Technically, Lewontin remained a member. Some correspondence followed between the protesting scientist, who said, in effect, that he resigned whether the members approved or not, and Handler, who said the matter would remain open until it could come up again in April. Meanwhile, Cornell geneticist Bruce Wallace had also resigned over the issue of classified studies.

Handler decided the research question should be reviewed by a committee of the academy and finally decided that Lewontin and Wallace's point of view could be evaluated most fairly by a group consisting of the youngest members of each of the academy's 18 disciplinary sections. Richard Doell, 49, of the U.S. Geological Survey, was spokesman for the 18 youngsters.

After reviewing the situation, the committee drafted the resolution that the academy adopted. A similar one prepared by Wallace and Thomas Eisner, also of Cornell, was withdrawn by Eisner on the floor of the meeting. Under the new system for handling classified material, a four-step mechanism goes into operation. First, the NAS will continue its year-old procedure of sending all members the title and an unclassified abstract of all classified projects being considered for contract. Members may request further details about the nature of the proposal if they ask. Then, if ten or more members from two or more sections and two or more institutions agree that the proposed contract should be rejected, they may come to Washington at academy expense to justify their position to the council before the contract is signed. If the council is not persuaded by their arguments and approves the contract anyway (as is its right), a complete account of the incident must automatically be submitted to the full membership "for such action as the members deem appropriate." Handler points out that the action could include a vote of censure and a call for the resignations of council members. "The council," he says, "would really lay itself open to attack if it went against the protesting members."

After the resolution was adopted, the members voted to accept Lewontin's resignation and defer Wallace's on grounds that, under the circumstances, he may wish to reconsider. Apparently they decided that, because Lewontin's resignation had been in hand for a full year, he had had plenty of time to change his mind. Neither resignee was present.

In two other actions dealing with resolutions, the members (i) approved a resolution from Alexander Rich of the Massachusetts Institute of Technology in which NAS will ask the President and Congress to "evolve foreign policies" that foster the health and welfare of human beings and de-emphasize reliance on military force and (ii) rejected by a vote of 44 to 24 the traditional proposal from William Shockley that the academy study the relation of genetics to race and intelligence as measured by IQ testing.

The other issue on which members voted this year was the reorganization of the NRC, the loosely structured "working arm" of the academy that comprises some 400 to 500 committees and 7500 scientists who render advice on matters both crucial and trivial (*Science*, 16 and 23 April 1971).

NRC Most Important

"The revision of the NRC is the most important thing we did at this meeting," Handler declared at the close of business. "It has to do with whether the NAS intends to be an important element in shaping national policy."

Ever since he assumed the presidency in July of 1969, Handler has made it clear that he wants the academy to consider the broad social, economic, and environmental aspects of new technologies and to stop giving *exclusively* technical advice to government agencies. Not only that, he also wants the academy to initiate studies in areas in which it thinks it can make a contribution better than anyone else. He would like NAS to come up with proposals that "may anticipate national needs before they become critical." The way to do this, he has consistently maintained, is to restructure the NRC by breaking down its strict, disciplinary barriers and building it up again in a multidisciplinary framework. In essence, the members voted approval of the planned reorganization and gave the council the OK to implement it. Some of the details remain to be decided, and Handler expects it will be 2 years before the new NRC is in full operation, although implementation of the

Academy Elects 75 New Members

On 25 April, the National Academy of Sciences (NAS) elected 75 new members to the academy "in recognition of their distinguished and continuing achievements in original research." Last year the academy voted to increase the maximum number of new members from 50 to 75 in 1972, with the intention of bringing total membership to 1200 over the next 5 years. The main purpose of the increase is to permit the election of more clinical and medical researchers, and behavioral and social scientists. Total membership is now 950. New members of the Academy are:

Bruce N. Ames, University of California, Berkeley
Henry H. Barschall, University of Wisconsin
Alexander G. Bearn, Cornell University Medical College
Baruj Benacerraf, Harvard Medical School
Kenneth M. Brinkhous, University of North Carolina
Roy J. Britten, Carnegie Institution of Washington
Roger W. Brown, Harvard University
Avram N. Chomsky, Massachusetts Institute of Technology
James S. Coleman, Johns Hopkins University
Sidney P. Colowick, Vanderbilt University
Rodney L. Cool, Rockefeller University
Albert V. Crewe, University of Chicago
Stanley J. Cristol, University of Colorado
Robert A. Dahl, Yale University
William J. Darby, Vanderbilt University School of Medicine
Vincent P. Dole, Rockefeller University
Richard J. Duffin, Carnegie-Mellon University
Frank D. Drake, Cornell University
Pol E. Duwez, California Institute of Technology
Ernest L. Eliel, University of Notre Dame
Hans P. Eugster, Johns Hopkins University
Harold J. Evans, Oregon State University
Don W. Fawcett, Harvard University
Leon Festinger, New School for Social Research
George B. Field, University of California, Berkeley
Maxwell Finland, Harvard Medical School
Joseph G. Gall, Yale University
John H. Gibbon, Jr., Jefferson Medical College
Peter C. Goldmark, CBS Laboratories (retired)
Peter M. Goldriech, California Institute of Technology
Ralph E. Gomory, T. J. Watson Research Center, IBM
Erwin L. Hahn, University of California, Berkeley
Jack R. Harlan, University of Illinois
Roy Hertz, Population Council, New York
James G. Hirsch, Rockefeller University
James L. Hoard, Cornell University
Roald Hoffmann, Cornell University
George C. Homans, Harvard University
George W. Housner, California Institute of Technology
Francis C. Howell, University of California, Berkeley
Henry S. Kaplan, Stanford University School of Medicine
Samuel Karlin, Stanford University
Donald Kennedy, Stanford University
George B. Koelle, University of Pennsylvania School of Medicine
Simon S. Kuznets, Harvard University
Henry S. Lawrence, New York University School of Medicine
Alexander Leaf, Harvard Medical School
Robert D. Luce, Institute for Advanced Study
Willem V. Malkus, Massachusetts Institute of Technology
Robert B. Merrifield, Rockefeller University
Kurt M. Mislow, Princeton University
Oliver E. Nelson, University of Wisconsin
Allen Newell, Carnegie-Mellon University
Charles E. Osgood, University of Illinois
Robert L. Pigford, University of California, Berkeley
Frederick C. Robbins, Case Western Reserve Medical School
Reed C. Rollins, Harvard University
Jerzy E. Rose, University of Wisconsin
Saul Roseman, Johns Hopkins University
Malvin A. Ruderman, Columbia University
Elizabeth S. Russell, Jackson Laboratory
Gertrude Scharff-Goldhaber, Brookhaven National Laboratory
Robert M. Solow, Massachusetts Institute of Technology
Alexander Spoehr, University of Pittsburgh
Charles Tanford, Duke University Medical School
Hans L. Teuber, Massachusetts Institute of Technology
Lewis Thomas, Yale University
James Tobin, Yale University
Sam B. Treiman, Princeton University
Pindaros R. Vagelos, Washington University School of Medicine
Steven Weinberg, Massachusetts Institute of Technology
John R. Whinnery, University of California, Berkeley
George W. Whitehead, Massachusetts Institute of Technology
William B. Wood III, California Institute of Technology
Robert W. Zwanzig, University of Maryland
Solomon A. Berson, Mt. Sinai School of Medicine (elected posthumously)

reorganization scheme will begin immediately.

The need for a restructured NRC, Handler says, is made urgent by the fact that congressional requests for advice are coming in more frequently, as politicians are confronted by more and more technical questions that have broad societal components. The NAS, for example, has been asked to conduct a 2-year evaluation of the economic and social impact of proposed water-quality amendments, which, if they pass, will set standards to take effect in 1981. (The academy has not decided whether to accept this study.)

The new NRC will be comprised of "assemblies," which will, in turn, be responsible for handling commissions and boards created to tackle a wide range of social and scientific questions. Members of the assemblies will be appointed to limited terms by the academy president and will be drawn from scientific and professional societies, the U.S. government, and the ranks of young investigators whose names are suggested by academy sections. NAS members may volunteer for duty in an assembly. Membership will be contingent upon a willingness to actually work. (Membership in the Institute of Medicine similarly requires a commitment to participate.) At the same time, membership in an assembly will carry with it an honorific quality that is certainly not attached to service on a present NRC committee. Many NAS members feel that this provides an enticement that should lure quality people into service. Persons serving on commissions or boards will be drawn from names gathered by assembly members—certifiers of sorts—and will work until a given project is complete. As it does now, the new NRC will depend on volunteer labor.

An important new element in the NRC, however, will be postdoctoral fellows, who will be recruited to come to the academy as in-house resident scholars. They will pursue some aspect of their own research and serve as staff men for the commissions. An application is pending before the Sloan Foundation for support of this program, which Handler sees as a way of involving young scientists in academy activities and of ensuring quality output from the commissions and boards because of the kind of staff assistance they will receive. Obviously nobody can say how this will work out, but many NAS members, who as a group are not known for their active participation in

academy business, think that this attempt to get away from the prevailing custom of deciding issues by committees that meet for a weekend or two is worth making.

One important matter that was not resolved at this year's annual meeting is the relationship between the NAS and the NAE, a youthful outfit that is unhappy about playing a subservient role to the NAS and which is thinking, as it has for several years, of leaving the fold. Among the questions that apparently cannot be negotiated is the use and governance of the NRC. According to Handler, the NAE supports the scheme for reorganization. The question of ultimate authority, however, has not been resolved. As it stands, the NAS council is at the top of the pyramid with the decision-making power that would count in any dispute. NAE officials want a piece of that power, but whether they will get it remains to be seen. All anyone can say about the possibility of the two academies resolving their differences is that "discussions are continuing."

—BARBARA J. CULLITON

APPOINTMENTS

Louis B. Gaffney, academic vice president and acting president, Seattle University, appointed president. . . . **Roger E. Batzel**, associate director for chemistry and director, biomedical program, E. O. Lawrence Livermore Laboratory, to director of the laboratory. . . . **Larry T. McGehee**, academic vice president, University of Alabama, to chancellor, University of Tennessee, Martin. . . . **Joseph T. Durham**, associate dean, College of Education, Illinois State University, to dean, School of Education, Howard University. . . . **Joseph P. Van Der Meulen**, associate professor of neurology and biomedical engineering, Case Western Reserve University, to chairman, neurology department, University of Southern California. . . . **Alon P. Winnie**, associate director, anesthesiology division, Cook County Hospital, to head, anesthesiology department, The Abraham Lincoln School of Medicine, University of Illinois. . . . **Jeremiah Stamler**, executive director, Chicago Health Research Foundation, to chairman, community health and preventive medicine department, Northwestern University Medical School. . . . **Alan A. Johnson**, head, physical and engineering metallurgy department, Polytechnic Institute of Brooklyn, to chairman, materials science and engineering department, College of Engineering, Washington State University. . . . **John D. Schultz**, associate professor of forest science, Utah State University, to chairman, forest science department, University of Alberta, Canada. . . . **Suresh Chandra**, assistant professor of mechanical engineering, University of Miami, to chairman, mechanical engineering department, A&T State University. . . . **John H. Wallace**, professor of microbiology and cellular biology, Ohio State University, to chairman, microbiology department, University of Louisville. . . . **Robert C. Clark**, staff orthopedist, St. Albans Naval Hospital, to chairman, orthopedic surgery department, West Virginia University. . . . **Hiram C. Polk**, associate professor of surgery, University of Miami, to chairman, surgery department, University of Louisville. . . . **William L. Bultmann**, chairman, history department, Western Washington State College, to dean, College of Arts and Sciences at the college. . . . **Carl C. Clark**, staff consultant, National Bureau of Standards, to chairman, life sciences division, Worcester Polytechnic Institute . . **Arthur R. Kruckeberg**, professor of botany, University of Washington, to chairman, botany department at the university. . . . **Paul R. Gross**, professor of biology, Massachusetts Institute of Technology, to chairman, biology department, University of Rochester. . . . **Morton M. Kligerman**, chairman, radiology department, Yale University School of Medicine, to head Cancer Research and Treatment Center University of New Mexico. . . . **Glenn H. Keitel**, professor of electrical engineering, Drexel University, to dean, College of Engineering, Bucknell University. . . . **Robert L. Humphrey**, associate professor of anthropology, George Washington University, to chairman, anthropology department at the university. . . . **N. Herbert Spector**, visiting professor of physiology, Faculty of Medicine, Claude Bernard University, Lyons, France, to chief, neurophysiology department, Walter Reed Army Institute of Research. . . . **William C. Roberts**, medical officer, cardiology branch, National Heart Institute, to chairman, pathology department, Baylor College of Medicine. . . . **J. Upadhyay**, head, microbiology department, Virginia State College, to chairman, microbiology department, New York College of Podiatric Medicine.

RECENT DEATHS

G. Stuart Demarest, 65; former dean, University College, Rutgers University; 3 March.

Barnett F. Dodge, former dean, School of Engineering, Yale University; 16 March.

Richard C. Foley, 65; professor of animal science, University of Massachusetts; 23 February.

Donald R. Hamilton, 57; physicist and former dean, Graduate School, Princeton University; 4 January.

Rajagopalan Jayanthan, 39; research associate, McMath-Hulbert Observatory, University of Michigan; 13 January.

Paul H. Kratz, 61; mathematician and senior scientific administrator, National Bureau of Standards, U.S. Department of Commerce; 31 December.

John R. Markham, 76; professor emeritus of aeronautical engineering, Massachusetts Institute of Technology; 12 December.

Sergius Morgulis, 86; professor emeritus of biochemistry, University of Nebraska; 20 December.

Marie Morrow, 76; associate professor of microbiology, University of Texas; 24 December.

George E. Nicholson, Jr., 53; chairman, statistics department, University of North Carolina; 3 December.

Hans Oppenheimer, 56; head, physical chemistry department, Institute for Muscle Disease; 2 January.

Delmar T. Oviatt, 60; former vice president of academic affairs, San Fernando Valley State College; 24 December.

Thomas S. Patterson, 88; professor emeritus of engineering mechanics, Pennsylvania State University; 21 December.

Vikram A. Sarabhai, 52; chairman, Atomic Energy Commission and Space Research Organization, India; 30 December.

Howard F. Shattuck, 84; former clinical professor of medicine, College of Physicians and Surgeons, Columbia University; 6 January.

William C. Starrett, 59; aquatic biologist, Illinois Natural History Survey; 29 December.

Correction. A news story in the issue of 7 January stated incorrectly that the AAAS council had asked the board of directors to convey to the federal government its concern about intensified air action in Indochina. The amended motion was defeated on final vote 67 to 59.