have been emerged from the sections under its jurisdiction. For the most part they just interdigitate the nominees from various sections, deciding whether the nominee with the most votes from the chemistry section should rank ahead of the leading physics nominee, and so forth. But they also impose their own judgment on the process and occasionally differ markedly from the sections in evaluating a particular individual. A vigorous partisan or opponent on the class membership committee can mean the difference between an individual's eventual election or defeat. The committees are assigned quotas that they may not exceed, and thus in effect eliminate many of the names from further consideration and forward the rest, in serial order of the committee's preference, to be voted on by the membership. In the most recent election, some 150 persons were nominated, of whom 90 (the quota limit) survived scrutiny by the class committees. Under bylaws previously adopted, only 60 of those 90 could be elected to membership.

The major ballot is then conducted by mail. Each member of the academy gets a packet of material that includes the rank list of each class membership committee, a summary of each candidate's accomplishments, and a record of the voting by the nominating groups that initiated the whole process. Each member is supposed to vote for from one-third to one-half of the names on each of the five class rank lists. Since many academicians know few of the candidates outside of their own discipline, they tend to follow the suggested rank lists or else, some say, they vote on the basis of institutional loyalty, assuming, for example, that the chemist from their own university must be better than the chemist from another school. One academician told *Science* he finds the process so complicated and the idea of just blindly following the committee rank lists so distasteful that he doesn't bother to vote.

The end product of the mail ballot is yet another ranking—the nominees are listed in order of votes received, with suitable adjustments made to ensure that each class receives its proper quota. The final ballot then takes place at the annual meeting, at which time there are various mechanisms whereby those members present can make a last-ditch try to boost or block a particular candidate. Six years ago, the council of the academy successfully blocked the election of Lamont C. Cole, a Cornell ecologist, causing a furor that reached public attention. Since then, the elections have been relatively quiet. This year the only questions raised from the floor concerned the qualifications of William R. Hewlett, president and chief executive officer of the Hewlett-Packard Company. But after it was explained that Hewlett was being nominated for his contributions to scientific instruments that have revolutionized some fields of science rather than for basic research contributions, the questioner seemed satisfied, and Hewlett won final election—along with the other top 59 on the list—with no difficulty.

There have occasionally been suggestions that the academy should cast its electoral net wider, either by encouraging nominations from outside the academy or even—to the horror of most academicians—allowing nonmembers to vote in some fashion. But the academy, jealous of its prerogatives and its reputation for excellence, remains unapologetically elitist.—PHILLIP M. BOFFEY

Academy to Campaign Publicly for Oppressed Scientists

"My experience is that publicity helps, or at least does not harm. Silence kills."

So said Columbia mathematics professor Lipman Bers, a member of the newly appointed Committee on Human Rights of the National Academy of Sciences, at an announcement last week of the committee's existence.

Formation of the committee marks a new departure in academy policy toward persecuted scientists. Having relied in the past on silent diplomacy, in the form of discreet representations by its president and foreign secretary, the academy has now decided to open up a public channel of protest as well.

The committee has already written in the academy's name to Soviet Ambassador Dobrynin, expressing concern over the arrest of high energy physicist Yuriy F. Orlov, a founding member of the Soviet Amnesty International Group. Sent on 19 April, the letter asks for information as to where Orlov is being held and the charges against him.

With judicious regard for diplomatic balance, the academy has also written to the U.S. Departments of State and Justice seeking elimination of a law that impedes visits by people having past or present association with Communist organizations.

The NAS committee on human rights plans to aid individuals "from the natural constituency of the NAS" who are being oppressed or harassed for political reasons.

As a start it has adopted the cases of eight scientists suffering political oppression for their beliefs, two in the Soviet Union, one in Uruguay, and five in Argentina. They are:

▶ Sergei A. Kovalev, a research biologist who played a leading role in the struggle for human rights in the Soviet Union until his arrest in 1974. Sentenced to 7 years hard labor and 3 years exile, Kovalev was until recently denied a needed operation (*Science*, 5 November 1976).

▶ Yuriy Orlov, arrested on 10 February this year. Orlov headed an unofficial group for monitoring Soviet compliance with the provisions of the Helsinki agreement.

▶ José Luís Massera, a well-known mathematician. Massera was a member of the Uruguayan Communist Party, which was outlawed by the government in 1973. He was also for a long time a member of the House of Representatives, which the government scrapped at the same time. He was arrested on 21 October 1975 and has been held incommunicado ever since. He is reported to have undergone severe and prolonged torture, and also to have suffered a fracture of the pelvis. Massera, aged 62, is now being tried secretly by correspondence, trials by jury having been abolished in Uruguay. The NAS committee will petition the Uruguayan government to allow Massera's family and others to visit him and for observers to be present at legal proceedings.

▶ Federico Alvarez Rojas, Gabriela Carabelli, Juan Carlos Gallardo, Antonio Misetich, and Eduardo Pasquini, five Argentinian physicists who disappeared at various times in 1976. Alvarez was abducted with his wife, Hilda; neither has

been charged with any offense. Carabelli was detained with her young daughter and has been accused of "participation with guerillas." Gallardo is charged with the same offense. There has been no information about Pasquini since he disappeared with his wife, a psychoanalyst, in June last year. Misetich has been held since April 1976 without charge; the Argentinian government first confirmed that he had been arrested, then said there was no information about him, and has sought to explain the contradiction by stating that its first position was incorrect. The NAS committee is petitioning the Argentine government to allow the scientists to be visited so as to ascertain their state of health, and to either bring formal charges against the scientists or else release them.

The committee on human rights seems to enjoy a surprising degree of support from the academy's members. By the end of April more than a quarter of the academy's 1100 members had responded to a letter sent on 1 April. The letter asked them to become correspondents of the committee by helping to identify victims of repression and taking action on their behalf.

The committee's charter calls for it to submit its public statements on the cases of scientists it has adopted to a review panel of the NAS council, chaired by Foreign Secretary George S. Hammond. Having acquired the review panel's approval, the committee will then be speaking on behalf of the academy.

With countries such as the Soviet Union the academy possesses a certain amount of leverage through its scientific exchange programs. Asked if it would be academy policy to establish a linkage between the exchanges and Soviet responsiveness on the human rights issue, Hammond said that "a mild kind of linkage" had been established in the past: "We have told our colleagues in the Soviet Academy that if we are to expand our actitivies and get the collaboration of American scientists we have to do it at a time when there is an atmosphere of amity."

Why has the academy now decided to go public on human rights? Committee chairman Robert W. Kates of Clark University has referred to the committee's "belief that the [NAS] membership has demonstrated a desire for a more active and visible posture." One factor in energizing the academy's membership on the issue of human rights may have been the various petitions organized by the Federation of American Scientists. About an eighth of the academy's membership responded affirmatively to an FAS appeal of December 1975 asking members for their future support in defending scientists' professional and human rights. Some 60 physicist members of the academy signed FAS appeals on behalf of Soviet physicist Andrei Tverdokhlebov, and 80 biologists supported FAS actions on behalf of Kovalev.

Besides borrowing the academy's members for its appeals, the FAS also campaigned for the academy itself to take a more public role on behalf of dissident scientists. The academy replied that it was already doing what it could through private channels, which would be rendered ineffective if it went public, and that the best course was for both FAS and NAS to do their own thing in their own ways. To which the FAS suggested that private representations by the NAS would be more effective if combined with public protests.

The classic dilemma of how to deal with tyrants—or with "these Oriental

Briefing

Will Science Adviser Suffer in Shuffle?

The status and probable influence of presidential science adviser Frank Press would be diminished by a reorganization plan under consideration within the Carter Administration. Press currently wears two major hats—he is science and technology adviser to the President and director of the White House Office of Science and Technology Policy (OSTP). In theory, at least, he has direct access to the President whenever he thinks he needs it. (Press hasn't been on the job long enough to determine his ease of access in practice.) But a Carter Administration task force that is masterminding a reorganization of the Executive Office of the President has produced one scheme that would fold OSTP into a new office of planning and analysis. That would appear to make Press subordinate to the head of the new office and to push him one step further away from the President—requiring him, in effect, to report through the head of the new office rather than directly to the President. At this writing, the plans are still fluid, and other reorganization schemes are also under consideration, including one that would appear to enhance the responsibilities of OSTP by letting it absorb the White House Office of Telecommunications Policy. What the final result will be is anyone's guess. But advocates of OSTP—already alarmed that the OSTP professional staff will be held to numbers far below those envisioned by Congress—are pushing hard to retain the science adviser's direct access to President Carter. Without such access, they fear, the science adviser may be taken lightly by Washington power wielders and his ability to influence major decisions may be severely impaired.—P.M.B.

Congress Rescues Military Med School

The on-again, off-again military medical school appears to be on again. Even Jimmy Carter and Secretary of Defense Harold Brown apparently could not kill it. The school—known as the Uniformed Services University of the Health Sciences—was launched originally over substantial opposition. It has been holding its first classes in temporary quarters while awaiting completion of its permanent buildings on the campus of the National Naval Medical Center in Bethesda, Maryland. Earlier this year the Carter Administration sought to terminate the school by deleting further funds from the budget. The Administration's rationale was that it would be cheaper for the Defense Department to use scholarships to send prospective military doctors through civilian medical schools than it would be to operate a completely new military medical school. But Congress, after hearing testimony that the school would indeed be cost-effective and would produce doctors particularly attuned to the needs of the military, disagreed. Both houses have approved a supplemental appropriation to keep the school going. The action is intended as a signal to the Administration that Congress is determined to preserve the school. At this writing, the supplemental appropriations bill is awaiting the President's signature. The only way he could veto the medical school funds would be by vetoing the entire bill, which provides substantial funding for a variety of other programs.—P.M.B.

governments," as NAS president Philip Handler referred to the Soviet body politic in a recent interview with *BioScience*—has no obvious resolution, but in any event the academy has responded to the desire of its members to test the efficacy of a public role.

Other scientific societies have also begun to take a more active interest in the fate of their oppressed colleagues abroad. The Panel on Public Affairs of the American Physical Society voted last year that the APS president should go to Moscow to express concern to Soviet scientist-officials for the situation of the human rights activists and to give a talk at the physics seminar organized by refusenik Mark Azbel. But APS president William A. Fowler didn't want to go. "One could not accomplish both of these purposes in one trip if everything was to be done in an above-board manner," Fowler comments in the April issue of *Physics Today*. Instead, he forwarded a letter from the panel to the president of the Soviet Academy of Sciences. The APS is awaiting a reply.

A more direct approach has been followed by APS member Brian Schwartz of the MIT magnet lab. After addressing the APS meeting in Washington, D.C., last week, Schwartz led a group of seven physicists to the Argentine embassy to protest the abduction of his friend and colleague Antonio Misetich.

—NICHOLAS WADE

ERDA Laboratories: Los Alamos Atracts Some Special Attention

The University of California (UC) has run the Los Alamos nuclear weapons laboratory for the government since 1943. When the contract came up for another 5-year extension—it was due to expire in September—the UC link with Los Alamos came under attack from two directions. Organized opposition to UC operation of weapons research facilities, a carry-over from the antiwar movement of the 1960's, has waxed in the past year (see box). And the increase in nonmilitary work at Los Alamos, particularly the buildup of energy R & D by the Energy Research and Development Administration which owns Los Alamos, has prompted objections of a different sort.

The main source of these objections to the UC–Los Alamos link was a new consortium of universities in the Rocky Mountains and High Plains states—known as Western Regional Scientific Laboratory, Inc.*—which submitted a proposal to ERDA in February to replace UC as contractor for Los Alamos. The view in these universities was that Los Alamos Scientific Laboratory (LASL) was assuming the role of a regional energy laboratory without adequately involving state officials and university researchers in research and policy decisions. Consortium members say that the initiative was summarily rejected at the behest of ERDA assistant administrator for national security, General Alfred D. Starbird. In early April ERDA and UC signed a 5-year extension of the contract for Los Alamos and also one for the Lawrence Livermore Laboratory, a second major weapons lab 40 miles from Berkeley. (UC also operates the Lawrence Berkeley Laboratory and three small specialized biomedical and environmental labs for ERDA.)

The issue was subsequently raised with the Colorado delegation in Congress and a memorandum outlining the consortium position from Colorado State vice-president for research George C. Olson, was forwarded to the White House by Senator Floyd K. Haskell, who endorsed the request in the memo for an independent review of the contract procurement procedures for the management of the weapons labs.

Haskell received a reply from White House congressional liaison chief Frank Moore indicating that the matter had been referred to President Carter's energy adviser James R. Schlesinger, who in turn forwarded it to ERDA.

The consortium's proposal to take over the management of LASL was grounded on the argument that a region with vast energy resources and a fragile ecology, where exploitation of resources was inevitable, badly needs a regional energy laboratory working in close collaboration with other technically competent groups in the region. LASL was a logical candidate for the role, and the consortium offered to take over the functions performed by UC and, in addition, offer "a scientific advisory function, peer review and a broader based management support."

The response to the proposal was described in the following terms by the Olson memo:

> When the office of General A. D. Starbird, Assistant ERDA Administrator for National Security, learned of our activity "all hell broke loose". A vindictive and personal campaign was waged against Dr. Paul Silverman, Vice President for Research at the University of New Mexico, who carried the primary responsibility for this activity. Finally, at a meeting in Los Alamos last January 31st, General B. Giller [Starbird's deputy] told the assembled university representatives that the Assistant Administrator for National Security had no intention of changing the arrangement they had with the University of California and had, in fact, begun negotiations with them last fall for a new five-year contract to begin in *September 1977*.

There was a delay in getting the memo into the hands of ERDA officials and so they have not yet commented on it, but they have pointed out that Starbird, in a letter sent to Silverman in late March in which Starbird explained why he was returning the consortium proposal, suggested that the universities continue discussions with Eric Willis, ERDA assistant administrator for institutional relations, "on the broader questions of regional research and development and the role your institution can play." These officials made it plain, however, that weapons work is still the primary mission of LASL as far as ERDA is concerned.

After the rebuff, the members of the consortium concluded that Starbird's response was definitive. The consortium has now approached ERDA with a proposal that the Western Regional Scientific Laboratory explore the potential for interuniversity energy R & D projects for ERDA and also look into the matter of expanding collaboration with LASL.

While the consortium has dropped its bid for the LASL operating contract, the questions raised about the ERDA-UC relationship seem to be still reverberating in Congress, and to have given further added momentum to an already

*Initial members of the consortium where the University of New Mexico, New Mexico State University, Colorado State, University of Denver, University of Colorado, Brigham Young University, University of Wyoming, Utah State University, and University of Nebraska, Lincoln.