year in Congress when it sought \$1.5 million to establish a water research institute. Water is coming to be a promising field for an expanded federal effort, and the Survey, which has tended to mind its business and not mix in politics or public relations, found itself altogether outclassed when it presented its claim for a key role in a federal water resources program. Its competitors in this field include the Public Health Service, the Department of Agriculture, and the Army Engineers, none of which has been shy about pressing its claims before the public and Congress.

The first product of the Survey's campaign is a handsomely printed, 68page booklet published last week, 'Water Problems in the Springfield-Holyoke (Mass.) Area," available for 40 cents from the Government Printing Office, Washington 25, D.C. Written in laymen's terms and generously filled with photographs, maps, and easily understood graphs, the booklet discusses the water resources of the area. pointing out along the way that the Geological Survey plays a valuable role in assuring adequate supplies. Currently in the works for the lay public are individual reports on the water resources of five states, as well as publications on the hydrology of several national parks.

In the past the Survey has not been altogether oblivious of the general public. Its "Primer on Water" is something of a best seller among government publications, but such efforts have been quite infrequent. The bulk of its publications have been aimed at a professional audience. Their quality has established the Survey as one of the most competent research agencies in government, but it has become plain to Survey members that the approbation of a handful of specialists does very little to sway congressional sentiment.

The present intention, according to Survey officials, is to let the taxpayers know that the agency is doing an important job for them. Toward this goal, the Survey recently hired a fulltime public information officer, Frank Forrester, a meteorologist who regularly broadcasts weather over Washington area TV. This is a post which it had previously never considered very important, but Survey officials have now concluded that, in the quest for appropriations, obscurity is not a useful characteristic. This conclusion may be offensive to some people, but it reflects reality .--- D.S.G.

Loyalty Affidavit: Compromise on Repeal Quiets One Controversy

One quick result of the repeal in October of the non-Communist affidavit requirement for loans and fellowships under the National Defense Education Act has been the inclusion in the loan program of 17 colleges and universities which have been abstaining because of the affidavit. The accomplished unobtrusively repeal. during the busy closing days of the 87th Congress, has quieted one controversy in which issues of academic freedom and civil rights were raised, but the form of the provision substituted for the affidavit appears to create new problems or, at any rate, new precedents.

Congress eliminated the affidavit not only from NDEA but also from the National Science Foundation law. Public discussion had centered on the NDEA affidavit, probably because 32 colleges and universities stayed out of the loan program in protest against the affidavit and many others had objected to it publicly. The NSF affidavit never attracted much attention although it was in the NSF regulations for fellowships for more than 10 years and, in fact, provided a model for the NDEA loyalty formula.

An oath of allegiance, "to support and defend the constitution and laws of the United States \ldots ," about which there seems to have been little dispute, stays in both laws.

The abstaining institutions which filed "provisional applications" for the undergraduate loan program contingent on repeal of the affidavit and will participate in the NDEA programs this year are as follows: Amherst, Antioch, Brandeis, Brown, Colby, Harvard, Mills, Mt. Holyoke, Oberlin, Princeton, Sarah Lawrence, Smith, University of Chicago, Vassar, Wesleyan (Conn.), Wilmington (Ohio), and Yale.

Four institutions which filed provisional applications but probably will not participate this year are Reed, Swarthmore, Bennington, and Pacific Oaks College in California.

Still on the list of institutions which

declined to participate or which withdrew because of the affidavit and did not file provisional applications are Beloit, Bryn Mawr, Colby Junior College, Goucher, Grinnell, Haverford, International Theological Seminary in Georgia, New School for Social Research, Newton College of the Sacred Heart (Mass.), Radcliffe, and St. John's College (Md.)

For the institutions that stayed out of the NDEA programs and for many that went in because they decided they couldn't afford to forgo the loan funds for their students, the chief objection to the affidavit lay in the claim that it posed a threat to the freedom of the university to conduct its own affairs.

The institution was required to administer the oath of allegiance and to obtain from the borrower an affidavit to the effect that he did not believe in and was not a member of "any organization that believes in or teaches the overthrow of the United States Government by force or violence or by unconstitutional means."

Critics of the affidavit protested that it was unfair to single out college students for loyalty tests among the many groups—farmers, small business operators, the unemployed, for example—who get federal help.

The most serious criticism, however, was directed at the fact that the affidavit made a belief rather than an act a legal criterion of loyalty.

Efforts to repeal the affidavit were first made shortly after the passage of the NDEA in 1958. President Eisenhower indicated that he favored repeal, and the first serious attempt to remove the affidavit requirement was made in 1959 when a repealer introduced by Senators Kennedy and Clark reached the floor of the Senate but was returned to committee.

In the 1960 session it became obvious that if the affidavit were to be removed, a compromise would be necessary. A group of influential Senators had made it clear that they would oppose repeal unless it was combined with a substitute provision which would make it a crime for anyone who advocated overthrow of the government to accept federal funds.

Misgivings that the affidavit might not be really effective in preventing subversives from profiting from federal aid programs and growing doubts about the constitutionality of the affidavit contributed to a willingness to find a new formula on the part of legislators who were not particularly exercised over the implications of the affidavit for civil rights and academic freedom.

The compromise that finally eliminated the affidavit evidently resulted from a concordat quietly agreed on by some senior and influential members of both parties on both sides of the Capitol, with the acquiescence of one group in Congress which puts heavy emphasis on antisubversion legislation and another which displays equal concern for laws shoring up civil liberties. The management, in committee and on the floor, of the amendment itself provided a dazzling demonstration of the variations that may be played on the legislative process when the Congressional elders decide to do something without fanfare.

The protests of the academic community and the abstinence of a number of institutions of substantial reputation certainly contributed to the repeal of the affidavit, but the legislative history of the repeal suggests that direct impetus may have come from a quite different source—a furor over the award of an NSF fellowship to a young man named Edward Yellin 10 months after he had been convicted of contempt of Congress after refusing to answer questions at a House Un-American Activities Committee hearing.

Members of the HUAC were in Gary, Indiana, in 1958, investigating Communist "colonization" of the steel industry, when Yellin was cited for contempt for refusing to cooperate. He was convicted on the charge and sentenced to a year in prison in March 1960. His case was appealed, incidentally, and is now before the Supreme Court, where a rehearing was held early this month.

In March of 1961, Yellin was awarded a 2-year NSF fellowship worth \$3800 for graduate study in engineering at the University of Illinois. One effect, when the news reached Congress, was that hearings were called by the House Space and Astronautics Committee, NSF's parent committee. NSF officials pointed out at the hearings that their law required that fellowships be awarded "solely on the basis of ability" and did not provide for a disclosure of criminal record. This explanation did not satisfy the questioners, and heavy pressure was put on NSF to revoke the Yellin grant; at the same time a start was made in drafting legislation providing tighter restrictions. Yellin's fellowship was revoked by NSF on the announced grounds that his prison sentence might make it impossible for him to fulfill the terms of the fellowship.

Skillful Management

The change in the two laws was accomplished by a smooth combination play from the Senate to the House that left very little to chance. The vehicle for amendment was a bill bearing the name of the late chairman of the Science and Astronautics Committee, Overton Brooks. The original Brooks bill, passed in September of 1961, repealed the affidavit requirement only in the NSF law. The Senate Labor and Public Welfare Committee, which happens to have jurisdiction over both NDEA and NSF legislation, in September extended the repeal to the NDEA affidavit.

On the House side, final approval presented greater potential difficulties, not only because the affidavit was controversial but also because the two laws to be amended were under the jurisdictions of different committees, the NSF law under the space committee and the NDEA law under Education and Labor.

The delicate task of floor management for the amendment was assigned to Congressman Olin Teague, who is ranking majority member of the Space and Astronautics Committee and also happens to be chairman of the Veterans' Affairs Committee. The amendment repealing the affidavit was brought up by Teague shortly after the start of business on 2 October on the consent calendar which permits passage of legislation by unanimous consent without debate or roll-call vote. The repeal of the affidavit was added to several pieces of veterans business that Teague brought up; the repeal amendment was identified as a measure to require certain additional information from NSF applicants.

After the measure had been accepted, Teague noted that the chairman of the House Education and Labor Committee had, in effect, waived jurisdiction over the NDEA in favor of the Space Committee, whose chairman was out of Washington.

The unobtrusive way in which the bill had been passed caused comment on the floor the next day, but in reply, Teague pointed out that the matter had been discussed with leaders of both parties and with members of the responsible committees. He also cited approval of the amendment by the American Council on Education and an agreement to support the legislation by Francis Walter of Pennsylvania, chairman of the HUAC, whose word is taken as canon in the House on matters of loyalty. This categorical reply, coming from a respected member such as Teague, seems to have ended the muttering.

President Kennedy on 17 October signed the bill, which affects any scientist, teacher, or student who applies for an individual grant or loan under the National Defense Education or the National Science Foundation acts. It does not apply to those working on projects under grants made to institutions.

Joy over the repeal has not reigned unconfined among critics of the affidavit; reservations have been voiced about substitute provisions written into the two laws.

The substitute, besides keeping the loyalty oath, adds three main requirements. It is now a crime, punishable by a fine of up to \$10,000 or by imprisonment for up to 5 years, for any member of a Communist organization ordered to register under the Subversive Activities Control Act to apply for or use any scholarship, fellowship, or loan awarded under either act.

At present three organizations are on the list: the Communist Party of the United States, the California Emergency Defense Committee, and the Connecticut Volunteers for Civil Rights.

In commenting on this change, officials of the American Civil Liberties Union, which had actively opposed the affidavit, said, "students and scholars will no longer feel that their First Amendment rights are being infringed upon; will no longer feel menaced should they apply for a loan or fellowship, by having to swear that they are not members of any organization which, by unspecified standards, is 'subversive' of the government."

An applicant, also, is now required to make "a full statement regarding any crimes of which he has ever been convicted (other than crimes committed before attaining sixteen years of age and minor traffic violations for which a fine of \$25 or less was imposed) and regarding any criminal charges punishable by confinement of thirty days or more which may be pending against him at the time of his application for such fellowship or stipend."

This full-disclosure requirement is obviously intended to prevent a repetition of the Yellin incident, which embarrassed NSF and enraged many Congressmen.

The final new feature is a provision empowering the director of NSF, in the case of NSF fellowships, and the Commissioner of Education, who administers NDEA programs, to refuse or revoke a loan or fellowship if he is "of the opinion that such award is not in the best interest of the United States."

It is this potentially broad discretionary power that has caused some alarm among the sentinels of academic freedom and civil rights. For example, the council of the American Association of University Professors in October adopted a policy statement expressing gratification at the repeal of the affidavit but specifying reservations about the substitute and noting that "the concern of the council is directed particularly to the further provisions [of the substitute] providing for the denial or revocation of graduate fellowships or stipends under the National Defense Education and the National Science Foundation Acts on a test as indefinite as 'the best interest of the United States.'

"Such a provision, especially because of its grant of unlimited administrative discretion and its failure to provide for notice, hearing, and other minimal procedural safeguards, threatens basic constitutional principles of substantive and procedural due process of law. This provision, in the considered judgment of the council, places a heavy responsibility on Federal agencies charged with its administration for its sound and fair application, and upon the entire academic community for careful and unremitting scrutiny of such administration."

Some critics complain that the students who receive federal funds still do so under discriminatory tests not applied to other beneficiaries of government programs and that there are still objectionable areas of vagueness

28 DECEMBER 1962

in the requirements, but the view of these critics appears to be that the substitute, on balance, is an improvement over the affidavit.

When Congress acts on a matter touching academic freedom, such as the affidavit, satisfaction within the academic community tends to be less than complete. It must be remembered that a substantial number of legislators feel that college students are gullible; that subversives work hard and adroitly to lead them politically astray; and that colleges and universities tend to be careless or ineffective about saving the less prudent vouths from themselves. When government funds are involved, these Congressmen are likely to be particularly concerned that the funds not be used to subsidize advocates of the violent overthrow of government. This feeling is likely to persist in Congress, but the repeal of the affidavit demonstrates how compromise is possible. -JOHN WALSH

Announcements

The Academy of Sciences of the U.S.S.R. has invited the National Academy of Sciences to send 15 Americans to a joint **mathematics symposium** next August at Novosibirsk, a Siberian research and academic center that, with only a few exceptions, has been closed to Western visitors.

The symposium, on partial differential equations, will take place under an inter-academy exchange agreement. In May 1960, under similar arrangements between the two academies, six Soviet scientists attended a joint meeting on radio astronomy at Green Bank, West Virginia.

The National Academy will invite American participants on the basis of recommendations of an advisory committee consisting of Richard Courant, professor emeritus at the Courant Institute of Mathematical Sciences, New York University; Charles B. Morrey, Jr., mathematics professor, University of California, Berkeley; and H. Marston Morse, professor emeritus, School of Mathematics, Institute of Advanced Studies, Princeton University, New Jersey.

The American Society for Testing and Materials has organized a new committee (D-28) on **activated carbon**, to develop definitions of terms and nomenclature, testing methods for activated (active) carbon, and promotion of research. Chairman is Earl T. Ellis, of E. I. duPont de Nemours and Co. Persons interested in working on the committee are invited to contact the secretary, G. H. Scheffler, Atlas Chemical Industries, Inc., Wilmington 99, Del.

Grants, Fellowships, and Awards

The American Society for the Study of Sterility is offering a \$500 grant-inaid for research in **fertility and sterility** or related subjects. Applications should be accompanied by two copies of an outline of the proposed research. Deadline: *1 March*. (Michael Newton, University of Mississippi Medical Center, 2500 N. State St., Jackson 6)

The U.S. Public Health Service has available **air pollution training grants** for professional and graduate schools. Grants will be used primarily to support faculty salaries, graduate student stipends, travel, cost of supplies, equipment, and supporting services for additional curriculum in a program of research and other activities related to prevention and abatement of air pollution. Grants are for the fiscal year starting 1 July. Deadline: 1 February. (Maurice Bender, Bureau of State Services, U.S.P.H.S., Washington 25, D.C.)

The 3rd rare-earth conference—devoted to the physics, chemistry, and metallurgy of rare earths and related metals, and their compounds and alloys—will be held from 21 to 24 April on Grand Bahama Island. Attendance is restricted to persons actively engaged in these areas of research. Deadline for receipt of manuscripts: *1 February*. (Karl S. Vorres, Department of Chemistry, Purdue University, Lafayette, Indiana)

Scholarships, fellowships, and assistantships in various fields of **forestry** are available to students in master's or doctoral programs for the 1963–64 academic year. Scholarships cover tuition, fellowships carry stipends up to \$2000, and assistantships provide from \$850 to \$2700 during the school year, with additional stipend for summer work. Deadline: *1 February*. (Registrar, Yale School of Forestry, 205 Prospect St., New Haven 11, Conn.)